

**Instituto Juan March**

Centro de Estudios Avanzados en Ciencias Sociales (CEACS)

**Juan March Institute**

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## The Political economy of fiscal adjustments in the European Union

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**Abstract:** Desde un enfoque de economía política esta tesis da respuesta a las tres siguientes preguntas: 1) ¿Qué factores económicos y políticos explican que los ajustes fiscales ocurran en un determinado momento; 2) ¿Qué factores explican las diferencias observadas en diferentes países europeos relativas a la duración y la composición de sus estrategias de consolidación presupuestaria?; 3) ¿Qué consecuencias económicas y políticas tiene la aplicación de unas u otras estrategias de ajuste fiscal? La metodología aplicada para la resolución de estas cuestiones combina en un modelo teórico de economía política presupuestaria las interacciones entre variables económicas (deuda, ciclo, condiciones monetarias, nivel de precios y empleo) y variables políticas (fragmentación de los gobiernos, ideología económica y cercanía de las elecciones). Las hipótesis del modelo son comprobadas empíricamente con técnicas cuantitativas y cualitativas con datos de panel y estudios de caso, para la muestra de quince países miembros de la Unión Europea entre 1960–2000. Las principales conclusiones de la tesis son las siguientes: la acumulación de deuda pública y el ciclo económico afectan a la probabilidad de lanzar un ajuste fiscal, mientras que la fragmentación del gobierno y el calendario electoral son variables que afectan de manera más importante a la duración de esos ajustes. Finalmente, la composición de los mismos se ve fuertemente influenciada por la ideología del partido en el gobierno respecto del papel que el sector público debe jugar en la economía. Por otro lado, los ajustes basados en una reducción de gastos o en un aumento de ingresos no tienen los mismos efectos económicos y políticos. Los ajustes basados en recortes de gastos, como transferencias y salarios públicos, suelen tener costes electorales para los gobiernos que los promueven, aumentan la desigualdad, pero tienen efectos no-keynesianos y positivos sobre el crecimiento económico. Por el contrario, los ajustes basados en aumentos de los ingresos son menos costosos electoralmente, no aumentan tanto la desigualdad, pero producen peores resultados relativos en términos de crecimiento económico a medio plazo.

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**Instituto Juan March de Estudios e Investigaciones**

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**CARLOS MULAS GRANADOS**

**THE POLITICAL ECONOMY OF FISCAL  
ADJUSTMENTS IN THE EUROPEAN UNION**

MADRID  
2003

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**Centro de Estudios Avanzados en Ciencias Sociales**

Esta obra se presentó como tesis doctoral en el Departamento de Economía Aplicada III-Política Económica de la Universidad Complutense de Madrid, el 31 de enero de 2003. El Tribunal, compuesto por los profesores doctores D. José María Maravall (Presidente), D. Ángel Luis López-Roa, D. Jesús Ruíz-Huerta, D. Wolfgang Merkel y D. Francisco Villota, le otorgó la calificación de Sobresaliente “cum laude”.

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## **ABBREVIATIONS**

EC	European Commission
EMU	European Monetary Union
EU	European Union
EU-11	Group of eleven EU member states adopting the euro at Stage 3 of EMU in 1999
EU-15	Group of fifteen EU member states
IMF	International Monetary Fund
PCABB	Primary Cyclically Adjusted Budget Balance
OECD	Organization for Economic Cooperation and Development
SGP	Stability and Growth Pact

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# CHAPTER 1

## INTRODUCTION

*«Provided that the Maastricht criteria are kept to, there remains very little leeway for single nations to "go it alone" in their fiscal policy.» (Rees, 2000: 167)*

Since the early nineties, it has become usual to affirm that economic policy across Western capitalist democracies is so constrained by external factors that domestic economic and political forces do no play a role anymore in the process of economic policy formulation.

In a globalizing world, where capitals move freely in international markets looking for the best rate of return, and where trade liberalization is guaranteed by different regional and international agreements, sound monetary and fiscal policies to increase competitiveness and attract investors are a “must”, and this makes “go it alone” approaches to economic policy-making at least difficult.

These constraints are even more important for those advanced economies that joined the European Monetary Union (EMU) where monetary policy is already in the hands of the European Central Bank, and fiscal policy is strictly constrained by the clear boundaries set by the Maastricht convergence criteria and the Stability and Growth Pact.

Nevertheless, this study argues that even in this very restrictive context, national governments have still found ways to



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formulate differentiated fiscal policies in the nineties. In spite of this very constrained framework, the formulation of crucial economic policies such as fiscal policy is still heavily affected by domestic economic, institutional and political factors. It is undeniable that the recent dramatic and fast reduction of budget deficits has affected every European nation, and has been embraced by the European public opinion and by all types of governments across Europe. As a result there has been a generalized convergence of the budget balances across Europe. The fiscal consolidation<sup>1</sup> effort to pass the “Maastricht exam” was such, that the average budget deficit for the whole European Union was reduced five percentage points (from 6% to 1% of European GDP) between 1993 and 1999, while the debt to GDP ratio was reduced from a maximum level of 72% in 1996 to 64% in 2000. Some countries really made a tremendous improvement to qualify for the third phase of EMU. For example, in only four years between 1993 and 1997, Sweden reduced its public deficit by 11.4 percentage points of GDP, Finland by 7.1%, Italy by 6.8%, and United Kingdom by 6%. The Greek effort, with a reduction of 9.2 percentage points, was not enough to qualify with the rest of candidates in 1999, and Greece had to wait until 2001 to join EMU<sup>2</sup>. Finally, the initial objective in all EU Member States was to achieve close to balanced budgets between 2002 and 2003<sup>3</sup>.

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<sup>1</sup> From this point forward the expressions “fiscal adjustment” and “fiscal consolidation” will be used to refer to the same process of reducing the public budget deficit or increasing the public budget surplus.

<sup>2</sup> The public deficit reduction in the rest of EU Member States was as follows: Belgium 5%, Spain 4.7%, Portugal 3.6%, France 2.8%, The Netherlands 2.6%, Austria 2.7%, and Germany 0.7%. Among the countries that already fulfilled the deficit criteria in 1993, because they consolidated their budgets in the eighties, Denmark improved its budget balance by 3.5%, and Ireland by 3.6%. Luxembourg maintained its superavit during the whole period. (EC, 1998: 93)

<sup>3</sup> This objective was postponed by the European Commission to 2006 for those countries such as Germany, France and Portugal that in 2002 were subject of the warnings associated to the *excessive deficit procedure* mechanisms envisaged in the Stability and Growth Pact (SGP) for those countries with budget deficits above the 3%GDP limit.

But convergence in fiscal outcomes does not mean convergence in fiscal policies. Not every country chose the same means to achieve the common objective. In fact, this generalized trend towards balanced budgets suddenly turns into remarkable divergence if one looks at the timing and the ways in which every country decided to reach the 3% limit. Whereas some countries like Spain, Austria and France waited until 1995 to reduce their deficits rapidly, others like Greece, Sweden and the Netherlands maintained their consolidations during the whole decade of the nineties. These different choices in the strength, the timing, and the duration of fiscal adjustments diverge even more when one looks at the composition of these adjustments. Portugal increased its expenditures and, in order to consolidate its budget, it increased its revenues even more. Greece, Belgium, France and the United Kingdom also increased their revenues, but they reduced their primary expenditures by a relatively smaller amount. Italy, Finland, and Sweden followed a similar strategy, but gave more weight to cuts in primary expenditures. And finally, Denmark, Germany, Spain, Ireland, and the Netherlands decided to reduce both their public revenues and their public expenditures<sup>4</sup>.

Because this “fiscal divergence” is very paradoxical in the process of European economic convergence, this dissertation was conceived to answer the following three questions:

- 1) Why are fiscal adjustments launched in the first place?
- 2) What explains that different countries chose different strategies of fiscal adjustment in terms of duration and composition, when apparently they all faced similar constraints, and aimed at fulfilling the same objectives, in the run-up to EMU?
- 3) And finally, what are the economic and political consequences of choosing one or another type of fiscal adjustment strategy?

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<sup>4</sup> See EC (1998: 108).

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There exists an abundant literature on fiscal policy from which partial responses and interesting hypothesis can be drawn to answer these questions.

The school of public choice identified in the sixties a deficit bias in the fiscal policy decision-making process (Buchanan, 1960), caused by the tendency that policy-makers exhibit in trying to benefit their own constituencies with the allocation of additional resources<sup>5</sup>. Two decades later, a growing number of scholars highlighted the correlation between electoral cycles and economic cycles. The political business cycle approach holds that politicians use fiscal policy to stimulate the economy before the election, because reduced unemployment and increased economic output increases substantially the probabilities of being re-elected<sup>6</sup>. 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<sup>7</sup> and the importance of ideology to influence some components of the budget<sup>8</sup>.

These political economy approaches came to help traditional economics in explaining such paradoxical facts as the permanent accumulation of debt since the mid seventies in Western economies<sup>9</sup>, and the marked bias toward running pro-cyclical fiscal policies (instead of using deficits to smooth the cycle in times of recession). Besides the mentioned lines of research, until now the specialised literature on fiscal adjustments has mainly

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<sup>5</sup> “The Public Choice theory abandons the assumption of benevolent exercise of economic policy-making (as formulated by Wicksell), and substitutes it by the principle of individual utility maximisation by politicians and bureaucrats” (Casares Ripol, 2002: 88).

<sup>6</sup> See Frey and Schneider (1978); and Nordhaus (1989).

<sup>7</sup> See Grilli, Masciandaro and Tabellini (1991); Halleberg and Von Hagen (1997); and Milesi-Ferretti, Perotti and Rostagno (2001).

<sup>8</sup> See Boix (1996, 1997); Garrett (1998); and Perotti and Kontopoulos (1998).

<sup>9</sup> See the classical work by 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). See also the very interesting work by Franzese (2002) on the political management of public debt in advanced economies.

focused on the non-Keynesian effects of certain types of fiscal consolidations<sup>10</sup>, and on the importance of certain type of adjustments for the likelihood of their success<sup>11</sup>.

But none of these works has answered yet why during episodes of fiscal consolidation, similar countries, aiming at achieving a balanced budget, would choose different strategies of fiscal adjustment. Quite surprisingly, among all this booming literature on the political economy of fiscal policies, nobody has yet studied the political and economic determinants of fiscal adjustments. That is, either scholars have studied the politico-institutional determinants of deficits and debt accumulation, or they have studied the effects of correcting these deviations via fiscal consolidations. But there is no study that explains the step in between. An step about the characteristics of fiscal adjustments: their timing, their duration, their composition and their political and economic consequences.

What this study does is precisely to combine a comprehensive theoretical framework and a exhaustive empirical analysis with recent data for the European Union, to explain what are the economic and political factors that influence the policy-makers' decisions regarding any strategy of fiscal adjustment, and what are the consequences of those crucial decisions.

The rest of this chapter will summarize the most important concepts and arguments of this dissertation. First it will provide the reader with the definition of fiscal adjustment used in this thesis, and secondly it will elaborate on the different economic and political factors that affect the design and implementation of any fiscal adjustment strategy, regarding its timing, its duration, and its composition. Then, the chapter will turn to introduce the main concepts relative to the possible economic and political consequences that different adjustment strategies may bring about. And finally, this introduction will finish with a summary of the

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<sup>10</sup> See McDemott and Wescott (1996); Alesina and Perotti (1996b)

<sup>11</sup> See Alesina, Perotti and Tavares (1998).

dissertation's argument and a detailed description of the dissertation's structure.

### **1.1. Strategies of Fiscal Adjustment**

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, that every year renders some interest payments that the government has to repay in the following year.

If the process of debt accumulation does not stop and the fiscal policy stance shows a persistent structural deficit, the probability of launching a fiscal adjustment increases dramatically. The probability that a fiscal consolidation will start is even higher in those years when the international economy has been doing bad and the domestic economy is starting to improve (Von Hagen, Hallett and Strauch, 2001).

Once the decision to launch a fiscal adjustment has been taken, any group of measures aimed at reducing the public deficit, constitutes a fiscal adjustment strategy. Strategies of fiscal adjustment can vary in their duration and their composition. These are the three dimensions that the first part of this study will explore more in depth, because every government willing to consolidate its budget has to decide: (1) when to launch the adjustment; (2) how long is the adjustment episode going to last; and (3) what are the items of the budget that will be affected by this adjustment effort.

The duration of fiscal consolidations is important because if they are too short and very strong, they can start a recession in situations in which the private sector does not compensate fast enough the decrease in public demand originated by the fiscal contraction, while if they are slow and sustained, they can have very negative political consequences for the government implementing these measures. In addition, the duration of fiscal consolidations is extremely related to their composition, because

according to some economists, those adjustments that rely mostly on cuts in the government wage bill and in public transfers are likely to last longer (and thus to be successful), than those which rely in increased revenues and reduced public investment. (Alesina and Perotti, 1996b)

Any government willing to reduce the public deficit has five possibilities: (1) to increase revenues more than what it increases expenditures; (2) to increase revenues and freeze expenditures; (3) to increase revenues and reduce expenditures; (4) to freeze revenues and reduce expenditures; or (5) to reduce revenues less than what it reduces expenditures. Basically, consolidations that rely on the first two strategies of adjustment can be called revenue-based adjustments, and those based in the last two strategies, can be called expenditure-based adjustments. The third possibility is somewhat in between, and this is why it can be called a mixed strategy. For example, the European Commission considered that Austria, Belgium, Denmark, the Netherlands, and Spain, all implemented mixed strategies to qualify for EMU, because they first relied on revenue-based compositions, and finally turned to expenditure-based approaches, when it became clear that the initial strategy would not be enough to meet the criteria. (EC, 2000b: 11)

## **1.2. Economic and Political Factors Influencing the Adoption of Different Adjustment Strategies**

Because in all European nations it is the cabinet the governmental body that takes the lead in the design and implementation of every aspect related to the timing, the duration and the composition of fiscal adjustments, the first part of this dissertation focuses on the economic and political factors that influence the cabinet in the moment of taking these decisions.

On the one hand, there are important economic factors that affect fiscal policy choices, and that therefore constrain the cabinet's decisions. In particular, the economic cycle, the

unemployment rate, and the accumulated level of debt exert extremely important pressures on fiscal policies.

But on the other hand, there are also important political factors that affect fiscal policy decisions. 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 have a lot to do with politics. When episodes of fiscal adjustment are analysed by political economists, normally the effect of interest payments and the cycle are discounted, and the resulting cyclically adjusted primary budget balance becomes the object of study. If this balance improves from one year to another, then this year can be considered as a year in which a discretionary fiscal adjustment has started. These types of episodes require a strong commitment from the government and are the result of a planned decision and not an unintended outcome. And this is why political factors are so important to understand what makes the cabinet finally choose one among the bunch of available adjustment strategies.

### *1.2.1. Economic Factors*

#### *a) Economic Cycle And Unemployment Rate*

The economic cycle affects the public budget 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 more difficult to launch a fiscal adjustment based on spending cuts. Given these effects, it is very likely that governments take into account the economic cycle when deciding about the timing of the consolidation. For example, balanced budgets are easier to achieve when the economy is growing, because this automatically means more revenues and less

expenditures. 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 have been one of remarkable economic growth in Europe.

The surrounding economic environment is also important for the likelihood of starting a fiscal consolidation. As demonstrated by Von Hagen, Hallett and Strauch (2001: 12): “a persistently weak international environment strengthens the pressure on governments to enter a consolidation experiment.” The combination of the effects of the domestic economic cycle and the surrounding economic conditions indicates that fiscal consolidations are more likely to start when the domestic economy is doing well relative to its economic neighbours.

*b) Prices And Monetary Conditions*

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 increase. 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.

*c) Debt Accumulation*

The third economic 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, 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. In these situations the probability of entering episodes of fiscal consolidation increases significantly.

### *1.2.2. Political Factors*

#### *a) Fragmentation Of Decision-Making*

The first among the political factors influencing fiscal policy formulation, and the one more studied in the literature of fiscal adjustments, is the fragmentation of decision-making. The idea is that fragmentation in decision-making is negative for expenditure control, because each group in the majority will push for an expenditure, but it will only internalize a part of the costs and distortions of the associated increase in revenues needed to equilibrate the budget (Weingast, Shepsle and Johnson, 1981). Therefore, the larger the number of actors with a voice in the fiscal decision-making process, the stronger the pressure for more expenditures, and thus the larger the deviation from the optimal fiscal policy. For example, coalition governments or big cabinets (with many spending ministries) would be less likely to undertake a fiscal adjustment, and if forced to do so, it is likely that it will be short and revenue-based, in order to maintain their shares in public expenditures. Spending limits, and institutional configurations that guarantee “strong” finance ministers with veto powers, can in theory help to counteract the cabinet’s fragmentation problems

that large coalitions and many spending ministers could generate.<sup>12</sup>

*b) Proximity Of Elections*

The second element that is very important for any cabinet is the electoral calendar, especially the distance between the moment in which they take important decisions and the date in which next elections will be celebrated. Because politicians want overall to be re-elected, politicians will possibly try to implement different fiscal policies that may affect the voters' decision, such as reducing taxes and increasing transfers before elections. They can also affect this decision boosting economic activity through a fiscal expansion during the election year, or in cases where they are sure that they will be defeated at the polls, they could even try to constrain the available fiscal choices to the new incoming cabinet, in order to increase the probabilities of returning very soon to the office.<sup>13</sup>

*c) Ideology Of The Party In Government*

Finally, cabinets are made of politicians that belong to political parties. And political parties do not only formulate policies to win the government<sup>14</sup>, but win the government to formulate policies that are beneficial to their constituencies, and that overall, are usually consistent with their understanding of how economics work, and what is the best way to achieve their preferred objectives.

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<sup>12</sup> See Halleberg and Von Hagen (1997) for these types of institutional constraints. Although they argued that spending limits have a remarkable effect in fiscal output, Perotti and Kontopoulos (1998) demonstrated that these limits may affect aggregate figures, but not the specific composition of the budget.

<sup>13</sup> See Franzese (2002) for an extensive review of theories related to public debt management and the strategic use of public debt.

<sup>14</sup> Downs (1957).

In the realm of economic policy-making, social democratic governments, driven by their stronger preference for equality<sup>15</sup>, have been traditionally associated with stronger intervention of the public sector in the economy, not only to provide public goods, but also attempting to reallocate resources, redistribute income, and compensate socially inequitable market outcomes.<sup>16</sup> On the other hand, conservative governments are convinced that in order to improve the general well-being of the whole society, it is more important to increase the overall economic output, than to argue about how this output is distributed. This conviction makes them worry relatively more about economic efficiency than about equality, and thus conservative governments have been traditionally associated with lower intervention of the State in the economy.

If these two idealized poles are applied to the framework of the cabinet's decision on the composition of the budget, and the strategy of fiscal adjustment, one would expect left-wing governments to be associated with higher public expenditures on public consumption, social transfers, public investment, and the government wage bill to pay for an extensive public administration. To finance all these expenditures, and also driven by this preference for redistribution, one would also expect left-wing governments to tax more and more progressively. Higher public expenditures financed by higher public revenues do not mean that left-wing governments should run deficits more often than right-wing ones. Stronger presence of the State in the

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<sup>15</sup> For some, left and right only defend different mechanisms to achieve common goals of economic growth and social welfare. However, left and right have been traditionally differentiated by their attitude towards equality. This is the case of Bobbio who defines the "egalitarian politician" as the one whose "attitudes are born in the conviction that most inequalities that he cannot stand, are social inequalities, and as such, they can be suppressed. (While the non-egalitarian) is convinced that these inequalities are natural, and as such, they cannot be suppressed." (Bobbio, 1995: 144)

<sup>16</sup> See Hibbs (1977, 1987); Hall (1986); Alesina and Summers (1993); Boix (1996, 1997, 2000); Maravall (1997); Garrett (1998); and Notermans (2000).

economy does not initially have to be associated with unbalanced budgets.

In a positivist understanding of science it should be possible to decide in an empirical manner if all these economic and political factors did in fact have any effect on the choice of fiscal policies and adjustment strategies in Europe. Although theories cannot be refuted by means of empirical testing, the explanatory power of competing hypotheses can be discerned<sup>17</sup>.

This thesis does it, combining statistical analysis of the determinants of the timing, the duration and the composition of fiscal policies and adjustment strategies, and historical analysis of the decisions that economic and political actors took during episodes of fiscal consolidation. The thesis not only analyses the factors affecting the decision to launch a fiscal consolidation and the duration and composition of these episodes. In its final chapters, it also looks thoroughly at the economic and political consequences attached to these fiscal adjustment decisions, since the strategic choice in terms of duration and composition of the consolidation episode has remarkable effects on economic growth and income distribution.

According to many economists expenditure-based adjustments can have non-Keynesian effects, and in fact increase output via positive expectations for future lower tax-burden in the private sector (Giavazzi, Pagano, and Jappelli, 1999). But most importantly, the choice of adjustment strategy has remarkable distributional impacts, and thus important political consequences that can be measured by the influence that fiscal policies have on election outcomes.

The combined analysis of the causes and the consequences of fiscal adjustment strategies gives this thesis a circular structure, aiming at providing the reader with a full explanation of the fiscal policy-making process in all its dimensions: from its design, based on expected outcomes and collateral interests and pressures, to its implementation and its actual consequences.

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<sup>17</sup> See Quine (1963) and Harding (1976).

### **1.3. Economic and Political Consequences of Adopting Different Adjustment Strategies**

The macroeconomic consequences of fiscal adjustments are intimately related to the demand-side effects and the supply-side effects of fiscal policy.

#### *1.3.1. Demand-Side Effects On Growth*

The natural place to start with demand-side effects of fiscal policy is the Keynesian model that assumes price rigidity and slack in productive capacity so that output is determined by aggregate demand. In this model, fiscal adjustments based on tax increases or spending cuts reduce the aggregate demand, and thus originate a recession. This straight conclusion was subsequently contested when extensions of the simple model allowed for price flexibility, and for crowding-out through induced changes in interest rates and exchange rates.

Non-keynesian demand-side effects of fiscal policy emerge from new-classical models that address one of the main shortcomings of the Keynesian approach, namely its lack of microeconomic foundations. In these new models fiscal adjustments can have expansionary effects on economic activities, mainly through the crowding-in of private consumption and investment when these rational agents perceive that fiscal adjustments will be permanent. In this respect, there is very recent empirical evidence pointing toward the fact that in situations of fiscal stress, if the first measures of fiscal adjustment are very strong, private agents interpret them as a signal of a credible commitment toward a permanent reduction of the budget deficit. Under such circumstances, risk premia diminish, and fiscal multipliers could turn negative, resulting in expansionary fiscal adjustments (Giavazzi and Pagano, 1990).

Another way of getting to expansionary fiscal consolidations is to cut decisively the most rigid items of the budget (such as

transfers and the wage bill), because this will be interpreted also by private agents as a signal that a credible commitment to balance the budget exists on the part of the government (Alesina and Perotti, 1997).

### *1.3.2. Supply-Side Effects On Growth*

Supply-side effects of fiscal policy are generally classified as the long-term effects that fiscal policies can have to ameliorate the productive capacity of the economy and improve its productivity. In this respect, it is reasonable to expect that fiscal adjustments that rely on tax increases on labour will affect the supply of labour, and those relying on capital taxes will affect saving and investment decisions.

The sign of the impact that taxes may have on the supply of labour and capital, and thus on growth, is an empirical issue about which clear-cut conclusions are yet to be provided (Blundell and MacCurdy, 1999).

For example, Alesina and Perotti (1997) affirm that increases in labour income taxes can have a significant negative supply-side effect in unionised, imperfectly competitive labour markets where before-tax wages, and hence labour costs increase to reflect higher taxes.

On the spending side, public investment in public goods and other goods with positive externalities can lead to positive long-term supply-side effects and growth. In this respect, the positive effect on growth of models where the government invests in both physical and human capital is well known (Murphy, Schleifer, and Vishny, 1989; Lucas, 1988). These models have been enthusiastically embraced by social democratic governments since the failure of the Keynesian approach to economic policy management in the seventies.

### *1.3.3. Income Distribution*

Most budget deficits in Europe have been originated by excessive public outlays provided by generous welfare States aimed at redistributing income and developing a safety net that keeps citizens away from contingencies such as sickness or unemployment. Given that the source of budgetary imbalances is very much related to welfare policies, it is reasonable to expect that one of the most important economic consequences of fiscal consolidations is increases in income inequality. Surprisingly, despite its importance, only Ford (1998) and Smeeding (2000) have referred directly to this consequence, but their studies lack a systematic analysis of the empirical evidence for EU countries. Part of the problem comes from the lack of good data sources on income distribution. But through the simple incorporation to the empirical study of economic consequences of the well-know Gini coefficient (available for most EU countries) , the thesis provide very interesting new conclusions in this area.

### *1.3.4. Electoral Costs*

But as important as the economic consequences that fiscal adjustments can have is the question of the political consequences that these policies can bring about for those governments implementing them.

There are many political consequences that can derive from every policy. The range goes from gains/losses in public support, to confrontation with other parties in the governing coalition, or internal confrontation between cabinets and their supporting parties or unions. But whatever the political costs or benefits of fiscal adjustments, the most important test for any policy maker comes when elections arrive.

If politicians tend to avoid fiscal adjustments during election years is because they assume that voters dislike the tax increases or the spending cuts associated to consolidations. However, the

only study that has addressed empirically until now the question of the political consequences of fiscal adjustments affirms that “governments do not seem to be punished at the ballot box for engaging in fiscal adjustments” (Alesina, Perotti and Tavares, 1998). However, if this conclusion was correct, why would then politicians make fiscal adjustments decisions depend on the proximity of elections? Are they misinterpreting voters’ preferences? The last chapter of this thesis will approach empirically the same issue through a redefinition of the dependent variable, and will demonstrate that the probability of re-election decreases when expenditure-based fiscal adjustments occur.

The political cost of launching a fiscal consolidation can only be avoided if the results in terms of economic growth and employment creation arrive on time before the election takes place, or if the government convinces the electorate that these positive effects will come in the medium-term. This argument of assuming today a hard sacrifice in order to collect abundant economic benefits tomorrow was widely used in Europe in the nineties to encourage the public opinion of different countries to accept and support the economic efforts required by the Maastricht criteria. As a result of this policy, the fiscal adjustments stopped being associated with bad electoral results during the last decade.

#### **1.4. A Summary of the Dissertation’s Argument**

In the current European context of full capital mobility and single currency (completely fixed exchange rates), fiscal policies are the only macroeconomic tool that national governments can still use to affect the aggregate demand of the economy in the short and medium-run, and to expand the aggregate supply in the long-run.

Given this crucial role of fiscal policies in the European Union, governments are forced to concentrate their different approaches to economic policy-making in the fiscal arena.



1) Contrary to the common understanding and the apparent convergence of fiscal policies, this study argues that differentiated fiscal policies are still possible, because convergence in budgetary balances still allows for divergence in budget sizes and composition. Despite the Maastricht criteria, the limits set by the Stability and Growth Pact, and the attentive monitoring of the European Commission, national governments still have the possibility to pursue different strategies of fiscal adjustment, both in terms of their duration and their composition.

2) What this dissertation argues is that domestic economic and political factors affecting the cabinet are crucial to understand those different choices, regarding the timing, the duration, and the composition of these strategies of fiscal adjustment pursued by EU Member States in the last four decades.

a) The accumulated level of debt, the cyclical stance, the degree of fragmentation in decision-making, and the proximity of elections are more important to explain why some consolidation episodes started sooner than later, and why some lasted longer than others.

b) The ideology of the party in government is central to determine whether a country chose a revenue-based strategy of adjustment, or an expenditure-based one. Even during the nineties, when the “Maastricht exam” forced strong consolidations across Europe, leftist governments prioritized their preferences, and increased direct taxes to finance increases in public consumption and public investments, demonstrating very clearly the current social democratic commitment to supply-side policies of physical and human capital formation<sup>18</sup>. The comparison between the

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<sup>18</sup> According to Przeworski (1986) Keynesianism was once embraced by social democracy as the economic doctrine that solved the contradiction between growth and redistribution to which classical economics had relegated State intervention. By depicting unemployment and slow growth as a problem of shortness of demand, Keynesianism gave public spending (traditionally thought to be as distortionary if used to redistribute income) the main role in boosting aggregate demand and generating economic growth. Boix (1996, 1997) argues that, once Keynesian policies of demand management were abandoned, social

Spanish expenditure-based adjustment in 1996-2000 and the Portuguese revenue-based consolidation in 1995-1999 offers a very interesting illustration of the effect that partisanship has on the choice of adjustment strategy. Similar case studies for the UK, Italy, France and Germany, provide the reader with recent historical evidence of the influence of decision-making fragmentation and elections on fiscal policy decisions.

3) Finally, the dissertation argues that as important as the determinants of fiscal policy strategies are the economic and political consequences that these adjustments bring about.

a) Results show that while expenditure-based adjustments that rely on cuts in transfers and public wages tend to last longer and have been expansionary during the nineties, they also tend to generate more income inequality. On the contrary, revenue-based adjustments have been less successful in terms of economic growth, but have performed considerably better in terms of income inequality.

b) In addition to these economic consequences, results also show that the probability of reelection decreases during episodes of fiscal adjustment, but increases with economic growth and lower income inequality. This tendency has only been reversed during the nineties, when the public campaigns of the European Commission and national governments highlighting the future economic benefits of the single currency, seem to have transformed the traditional aversion of European citizens toward expenditure-based adjustments.

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democratic parties in Western Europe embraced supply-side policies of human and physical capital formation, as the mean to affect the economy in the long-run, and make compatible their growth and redistributive concerns. Even the most centrist “new labor” theorists recognize today that the Left of the next century has to promote “equality as inclusion”, and transform the State into a “social investor”, that plays a leading role in the provision of human capital, research and technologies, and infrastructures. (Giddens, 1999).

### **1.5. The Structure of the Study**

The structure of this dissertation is as follows:

Chapter 2 provides the theoretical framework of this dissertation. It dedicates its first section to develop a very simple explanation of what is exactly fiscal policy, and how it has a crucial role in affecting the aggregate demand of the economy in the short and medium-run, and the aggregate supply in the long-run. Readers with some economic background can skip this section and concentrate on the second section, dedicated to review the record of fiscal policy outcomes in the European Union during the last thirty years. This section is very important because it presents abundant evidence of variation in fiscal policies and strategies of fiscal adjustment. In order to discuss what could be the economic and political determinants of that observed variation, the last two sections of the chapter review extensively different theoretical and empirical works that have directly or indirectly addressed what factors could explain different fiscal policies and fiscal adjustments. Because traditional economic explanations are insufficient to answer why different countries decide to pursue different strategies of adjustment, three political factors affecting the cabinet that has to take the final decision on the adjustment strategy are presented. The chapter ends up discussing the theoretical reasons why economic variables such as the economic cycle, monetary conditions, and the accumulated level of debt should be complemented by some others, such as fragmentation of decision-making, proximity of elections, and ideology of the party in government, in order to explore the determinants of fiscal adjustment strategies.

Once the nature of fiscal policy has been clarified and possible explanatory factors of its variation have been presented, chapter 3 starts defining what could be considered a fiscal adjustment episode, and how strategies to consolidate the budget can vary in terms of timing, duration and composition. Then the chapter splits into the timing and the duration analysis of fiscal adjustments.

The timing analysis consists on estimating the probability of starting a fiscal consolidation any given year, dependent on a set of economic and political factors. Results from this analysis show that the probability of starting fiscal adjustments increases when the economy is doing well relative to other European economies, when the debt-to-GDP ratio is high, when monetary policy has been eased in previous years, when government coalitions and cabinets are small, and when elections have just passed.

The rest of the chapter is dedicated to perform a detailed duration analysis of fiscal consolidation experiences in the fifteen EU Member States, between 1960 and 2000. Results from the non-parametric and the parametric analysis show that accumulated duration, cabinet's fragmentation and the accumulated level of debt are very important economic and political factors to understand why some consolidations lasted longer than others. But the most important results from this analysis are those presented in the last section, where a sensitivity test is performed, that shows how duration of stronger consolidations is explained much better by politico-institutional factors than by economic ones. This suggests that if strong fiscal adjustments are to last longer, they require not only the proper initial and accompanying conditions but also a very firm political commitment, which is more easily achieved if the cabinet is not fragmented, if it is ideologically homogeneous and if elections are not too close. Otherwise, the probability of ending soon strong consolidation episodes increases dramatically

Finally, the first part of this dissertation ends in chapter 4 with an extensive analysis of the determinants of the third dimension of fiscal adjustment strategies (besides timing and duration): i.e, the composition of the budget.

After explaining what is the importance of the budget's composition in terms of its consequences for economic growth and income distribution, this chapter deals with two related questions. First, it tries to find what are the economic and political factors that affect the composition of the budget in general, during both years of fiscal expansion and fiscal adjustment. And second, it

addresses the question of whether this group of factors also affect the composition of the budget, but only during episodes of fiscal adjustment. Because in the second section of this chapter ideology of the party in government proves to be a crucial variable in explaining the budget's composition in general (and especially during the second half of the nineties), the third section is focused in trying to answer if ideology is also influential to explain the choice of adjustment composition.

The empirical evidence presented in that section shows that leftist governments try to affect the supply-side of the economy consuming and investing relatively more than rightist governments. This preference is so strong that was maintained even during episodes of fiscal adjustment, when typically public investment and public consumption are either frozen or reduced, and they have maintained this strategy during the nineties even at the expense of cuts in transfers and subsidies.

Not only this thesis maintains that domestic economic and political variables affect decisively strategies of fiscal adjustment in terms of their timing, their duration, and their composition, but results from the first four chapters present very convincing evidence that, even under the strongest pressures for further convergence of fiscal outcomes at the European level, governments have found the way to implement their different approaches to fiscal policies at sub-aggregate levels.

If the first part of the dissertation was characterized by the constant presentation of stylised arguments and facts (e.g. economic variables are better predictors of the timing and duration of fiscal adjustments, but political variables are better predictors of their composition), the second part starts by answering some of the most difficult questions that arise from the previous conclusions.

The first type of questions that could be raised in view of the results of the first part of the thesis, would mainly take the following form: if domestic political factors influence decisively the formulation of fiscal adjustment strategies, why did European countries tight their hands in the first place by establishing the Maastricht convergence criteria? An extension of this question

would be: why did social democratic parties, traditionally associated to economic management within national boundaries, embraced monetary union so enthusiastically?

The answer to these questions in terms of foreign policy interests takes the first part of chapter 5 and opens the ground for another set of questions that basically try to test if the conclusions that arise from the statistical analysis of chapters 3 and 4, still hold in the face of concrete case studies. These case studies take the second part of chapter 5. In that section, the experiences in the nineties of Portugal, Spain, the UK, Italy, France and Germany are analysed and compared from different perspectives. Portugal and Spain are chosen as paradigmatic examples of the opposite effects that the ideology of the party in government has on the formulation of fiscal adjustment strategies. On the other hand, the UK and Italy exemplify the capacity that fragmentation of decision making has to distort the traditional effect of cabinet's ideology. And finally, France and Germany are compared as two different cases where the proximity of elections conditioned radically their approaches to fiscal adjustments during the whole convergence process.

The analysis of the political economy of different fiscal adjustment strategies, in terms of their timing, their duration, and their composition, can be complemented with illustrative case studies, but the analysis lacks definitive consistency if the consequences that these different economic policy choices bring about are not analysed as well.

This is what the last two chapters of this dissertation do. Chapter 6 analyses the economic consequences of different adjustment strategies, and chapter 7 deals with the political consequences.

Chapter 6 on the economic consequences starts by reviewing thoroughly the theoretical effects of fiscal adjustments in terms of growth (both demand and supply-side effects) and equality, and concludes providing empirical evidence that expenditure-based adjustments can have non-Keynesian expansionary effects, if they are accompanied by a previous currency devaluation and if the

initial fiscal position of the country was in stress. However, these type of adjustment strategies have strong cost in terms of increased income inequality.

Finally, the chapter devoted to the analysis of political consequences confirms that the electorate tends to punish governments that implement expenditure-based adjustments, but reward them if they perform well in terms of economic growth and reduced income inequality. This aversion to expenditure-based adjustments was weakened during the nineties, mostly as a consequence of the multiplicity of official campaigns in favour of the single currency. Results from chapter 7 confirm that politicians are rational when they plan the timing, the duration and the composition of their adjustment strategies, assuming that the electorate will punish them if the adjustment has been made through spending cuts, unless these cuts have generated visible economic growth before elections arrive, in order to compensate for the initial disappointment of voters. In this respect, the choice of adjustment strategy is a matter of preferences of the parties in government. Some governments will be willing to implement expenditure-based adjustments if they believe that this would trigger a “crowding in” of the private sector in the economy that would expand the economy on time to win the re-election. By contrast, other governments will be willing to implement revenue-based adjustment strategies (even if this could imply more modest achievements in terms of economic growth) because they will obtain in exchange better results in terms of income distribution.

## CHAPTER 2

# ECONOMICS, POLITICS AND FISCAL POLICY

*«A crude distinction between economics and politics would be that economics is concerned with expanding the pie while politics is about distributing it.» (Alesina and Rodrik, 1994: 465)*

The analysis of the use that governments make of fiscal policies would be totally unfocused if it is not understood in the broader context of economic policy-making. One cannot start talking about the variation of fiscal policy and fiscal adjustment strategies along time and among different European countries, without outlining first the main characteristics of this macroeconomic tool. The purpose of this chapter is to provide the reader with the general framework in which fiscal policies in general, and fiscal adjustments in particular, have to be understood. In the first section, fiscal policy will be placed in the broader context of macroeconomic policy as one of the most important policy instruments available to governments that want to intervene in the economy. In the second section, once the nature of fiscal policies has been understood, I will present empirical evidence on the strong variation of fiscal outcomes during the last forty years in the European Union. Once the macroeconomics of fiscal policy have been understood, and after a first look to the history of fiscal policies has been presented, I will then elaborate on different hypothesis that could explain the observed variability



in fiscal policy outcomes, and strategies of fiscal adjustment. Section three of this chapter will present economic determinants of fiscal policies, and section four will discuss the political factors. Finally, section 5 will summarize the main arguments of the chapter.

## **2.1. Governments and Economic Policy**

Traditionally, governments have worried about how to predict and how to smooth economic fluctuations, how to increase employment and how to reduce inflation, as the main economic problems that affect citizens in the short-run. They have also worried about how to increase the production capacity of the whole economy, as the only source of economic prosperity in the long-run.

### *2.1.1. Aggregate Supply and Demand. Monetary and Fiscal Policies*

To summarize very simply how the economy works, let me start with the *aggregate supply* of goods and services in the economy, that is, the total production in the economy.

Once firm managers have invested their money in their enterprises, and have hired their workers at given wages, if prices for the products they sell go up in the market, they will be willing to produce more. At the economy-wide level, the aggregate supply is simply the sum of quantities supplied by each of the firms in the economy at a given price level. At low levels of output, there is excess capacity in the economy, with under-utilised workers and machines. A slight increase in the price level, would then elicit a very large increase in output. As production increases, and the economy reaches higher levels of output, machines and workers are working at close to their capacities, and it is hard to produce much more output. The marginal cost of producing an extra unit

may be very large, and it takes an enormous increase in the price level to elicit even a small increase in output. If the economy eventually reaches full capacity, all workers and machines would be occupied in full production, and to increase output even further would require the addition of more labour and more machines. At this point the short-run problem of output production, would have become a long-run problem of making new investments in buildings, machines, human capital and research. Only investing again, it will be possible to move one step further the *production possibilities frontier* of the economy in question.

On the other hand, if all those products are to be sold in the market, there has to be other households (C), other firms (I), and governments (G), at home or abroad (XM), willing to buy them. The *aggregate demand* can then be defined as the sum of all individual demands of these groups of consumers for the available output in the economy. If the wages of consumers are constant, the higher the level of prices of the goods and services supplied, the less the quantities of that output that consumers will be willing to buy.

Economic theory states that the product market is in equilibrium at the intersection of the aggregate supply and the aggregate demand; or in other words, the market is in equilibrium when the willingness to produce and sell a given amount at a given price, coincide with the willingness to buy and consume the same amount at the same price. Equilibrium requires then that total output (Y) equals aggregate demand, which in turn consists of consumption (C), investment (I), government spending (G), and the difference between what is exported to other economies and what is imported from those economies.

$$Y = C + I + G + (X - M) \quad (1)$$

In this framework, employment is a function of total output. Governments willing to increase employment will attempt to increase total output. And they can only do so by increasing aggregate supply or aggregate demand.

As can be seen in the pictures in figure 2.1., expanding the aggregate demand or the aggregate supply does not have the same effects. The former increases output at the cost of increasing prices, while the latter increases output but decreases prices.

The problem for governments is that they can directly affect aggregate demand (increasing government spending for example), but they can only induce increases in aggregate supply. The only way in which governments could induce increases in the aggregate supply, would be for example, by easing the conditions met by investors and entrepreneurs (reducing the taxes they pay, educating the labor force they use to make it more productive, etc.)<sup>1</sup>. But the ultimate decision to increase the aggregate supply is an investors' decision, and lays out of governments' hands.

Thus, because changing the economic conditions faced by entrepreneurs to stimulate aggregate supply takes time, and its effects are uncertain because they are mediated by firms' decisions, governments willing to increase output to reduce unemployment have traditionally tended to manage aggregate demand.

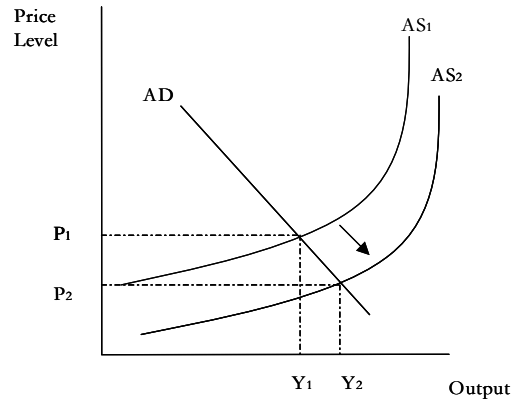
A government firmly committed to smooth the economic cycle and to intervene in the economy by managing the aggregate demand, has two economic policy tools: On the one hand, the government can increase the supply of money in the economy by reducing interest rates (monetary policy). This will make less worthy for savers to have their money in the bank, and it will induce them to use it in alternative ways (buying houses, cars or televisions). This increase in demand will increase prices due to temporary shortage of product. But these higher prices, will stimulate production by firms that will need to hire more workers.

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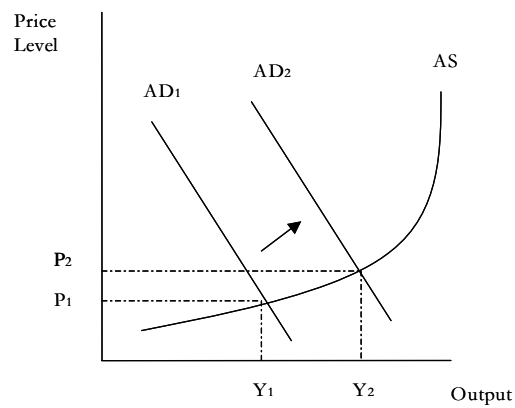
<sup>1</sup> For a review of the literature on the effect of fiscal policy on growth, via supply-side effects, see Gerson (1998) and Tanzi and Zee (1997). According to Gerson (1998: 3): "the empirical evidence suggests that tax policy may have its main impact on growth through the location of investment and labour costs across sectors, rather than through the aggregate supply of labour a capital".

Figure 2.1. Effects of Shifting Aggregate Supply or Aggregate Demand

Aggregate Supply Expansion: higher Output and lower Price Level



Aggregate Demand Expansion: higher Output and higher Price Level



At the end, this policy will increase total output and prices, and it will also increase employment.

On the other hand, governments willing to expand the aggregate demand, can increase public spending in different goods and services produced by the private sector. This will increase demand and will have the previously described effect of increases in output and employment. In addition, governments can decide to lower income taxes, which will increase the disposable income held by consumers and will induce them to demand new products; or they can also decide to lower corporate taxes, increasing the share of profits kept by producers, that in part will be consumed by producers, and in part will be invested in new production.

In this very simple Keynesian framework, monetary expansion and both types of budgetary policies (government spending and tax cuts) will increase aggregate demand, and this will have an even further positive effect on total output and total employment<sup>2</sup>.

The management of public expenditures and public revenues to influence aggregate demand and then the total economy, in the way described in the previous paragraph, constitutes what is known as fiscal policy.

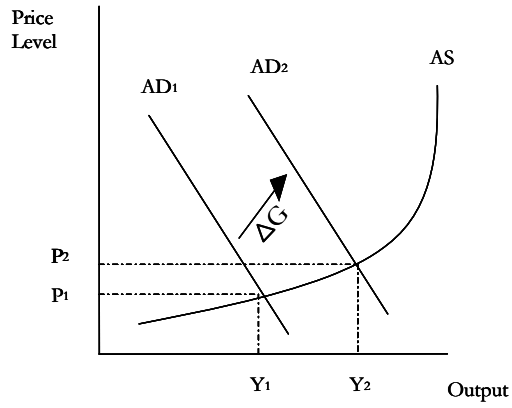
If the government decides to cut taxes and/or to increase expenditures, we say that this government is undertaking a fiscal expansion. If it increases taxes and/or reduces public expenditures, we say that it is undertaking a fiscal adjustment. Fiscal policy in general and the motivations and characteristics behind fiscal adjustments, in particular, are the subject of this dissertation.

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<sup>2</sup> The very simple formulation of Keynesian macroeconomics assumes that nominal wages, and thus prices, are fixed in the short-run. The keystone of Keynesian theory is that autonomous growth in demand has an income effect, which will be a multiple of the initial impulse (the multiplier). The degree of openness of the economy reduces the expansionary effects of an increase in demand because it spreads them to other countries. For example, in a small open economy where imports amount to about 50% and where the marginal consumption rate is 60%, the multiplier will be around 1.1. This means that an increase in government spending of 2 million euros, would increase the total output by 2.2 million euros.

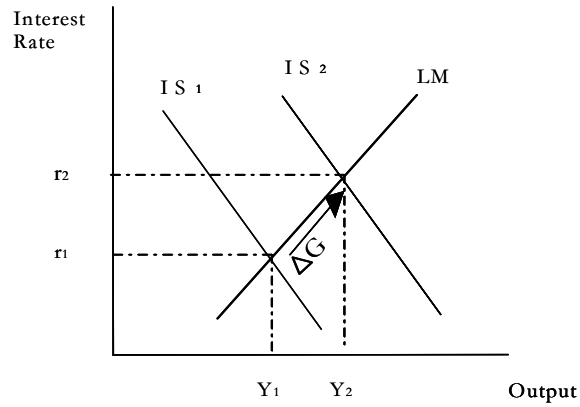
Figure 2.2. Effects of Fiscal Policy on Aggregate Demand

Aggregate Demand Expansion: higher Output and higher Price Level



Comment: Public spending raises, a **fiscal expansion** takes place, and as a result of the new equilibrium between IS-LM, there is an **expansion of Aggregate Demand**, that raises the level of Output and the level of Prices

Fiscal Expansion: higher Output and higher Interest rate



Comment: Public spending raises, and the new equilibrium between the goods and services' market (IS) and the money market (LM), takes place at a higher level of Output and Interest rate

In fact, almost everything that the government does is related to the budget. For example, if the government wants to change the structure of the labor market, it can basically do so by fostering employment of youngsters and women (for example), through tax cuts to firms that employ these groups. Or if the government wants to increase the growth potential of the economy, it has to invest in infrastructure, new technologies, formation of workers and younger generations. These policies, which are typically catalogued as labor-market policies, imply an increase in public expenditures (financed by tax/debt increases), and constitute at last a fiscal policy also affecting in the short-run the demand side of the economy.

### *2.1.2. Interventionists and Non-Interventionists*

Whether or not governments should intervene in the economy using the monetary and fiscal policies available to them has been the central topic of strong debates among economists and politicians during the last century (Casares Ripol, 2002).

The debate is extensive and very rich, but to put it very simple, it can be said that there are economists that reject governmental intervention in the economy (non-interventionists), and those who support this intervention (interventionists). Basically, these two positions rest on different views about how beneficial or pernicious can be the government's intervention, based on different interpretations of the sources of economic fluctuations<sup>3</sup>, and the capability of the government to solve them.

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<sup>3</sup> "The traditional business-cycle theory argues that there are built-in forces within the economy that give rise to fluctuations. The real business-cycle theory argues that the fluctuations are nothing more than the result of random and unpredictable shocks. Monetarists and new classical economists see the fluctuations as largely the consequence of misguided monetary policy. And new Keynesians see the fluctuations as originating from a variety of sources both inside and outside the economy, but believe that built-in characteristics of modern economies amplify some of the disturbances and make their effects persist" (Stiglitz and Boadway, 1994: 1988).

Those who think that economic fluctuations arise from exogenous shocks in the economy, mainly on the supply side through changes in technology, and those who think that shocks in aggregate demand are caused by misguided monetary policies, are opposed to government intervention in the economy. Monetarists and neo-classical economists sustain that the market will provide the best possible solution to any change in the economic environment, thus impairing the effectiveness of policy instruments. Based on rational expectations, they believe that private actions will offset in the medium-run any governmental intervention in the economy. By assuming that the Phillips curve (the curve that relates inflation and unemployment) is vertical, they affirm that any attempt by the government to stimulate the economy, will only increase the price level, getting nothing in return. According to their view, if impediments for full market functioning are eliminated, actual output will tend to potential output, and the economy will progressively reach its natural rate of employment. At that point, the most the government might be able to do is to reduce the unemployment rate below the natural rate for a short period of time. But the cost in terms of increased inflation will be so big that the best choice is not to intervene in the economy.

On the other hand, there are economists who sustain that economic fluctuations are inherent to the capitalist system and reflect the normal process of investment-production cycle<sup>4</sup>. These economists, together with Keynesian economists, which see economic slowdowns as originated by insufficient aggregate demand, think that government policies can positively influence economic growth. They do not believe that the market economy is always able to absorb and respond to shocks, so that full employment is maintained. For them, even with rational expectations, some government policies can have large effects, because wages and prices are not as flexible as new-classical

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<sup>4</sup> “The way of relating business cycles to the internal working of the economy is called the multiplier-accelerator model, first developed by the Nobel Paul Samuelson” (Stiglitz and Boadway, 1994: 1090).



economists affirm. These rigidities cause market failures that governmental intervention can solve. But, according to this view, even if the functioning of markets was perfectly efficient, the government would still have a role to play in providing public goods<sup>5</sup>, in affecting the decisions of consumers and firms through tax policies, investment credits, and welfare spending. Governments may be willing to affect market mechanisms to correct for some imbalances among productive sectors of the economy, or most importantly to affect the distribution of income.

According to Notermans (2000), the general prevalence of one or the other type of approach to economic policy, allows to identify three economic regimes. Until the 1920s, the liberal regime of the gold standard with a pure floating exchange rate system was purely non-interventionist. This gave rise to a progressively regulated economy from the thirties on, and especially from the fifties until the mid seventies. These two first decades of the postwar period witnessed the golden age of Keynesian interventionist economics. However, after the oil shock of the mid seventies and the subsequent stagflation period, economic policy formulation turned again to be under full neo-classical non-interventionist dominance, and it remains so today.

The current situation in the European Union is one of mixed Keynesian and neoclassical intervention. The complete liberalization of capital markets in 1992, and the completion of the Internal Market with full free mobility of goods, services, people and capitals, is a triumph of neo-classical postulates in line with their non-interventionist preferences. The process of making

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<sup>5</sup> "Public goods are those goods that it costs nothing extra for an individual to enjoy (their consumption is nonrivalrous), and that it costs a great deal to exclude any individual from enjoy them (they are nonexcludable). The standard example of a public good is defence." (Stiglitz and Boadway, 1994: 181). Because of their characteristics, the private sector would not supply most of those public goods, and it is the public sector who has to provide them, and finance their provision through public taxation. The theory of public goods, in fact provided a new justification for government intervention in the production process of capitalist systems, because those goods were needed by the society but not provided by the market.

Central Banks independent since the mid eighties, giving them full capacity to set annual objectives for the rate of growth of the money supply, and to intervene in the exchange rate markets to maintain the parity of national currencies with respect to the central ECU parity in the European Monetary System, was nothing but a the victory of the “rules vs. discretion” postulates of monetarists, and constitutes another important example of that triumph.

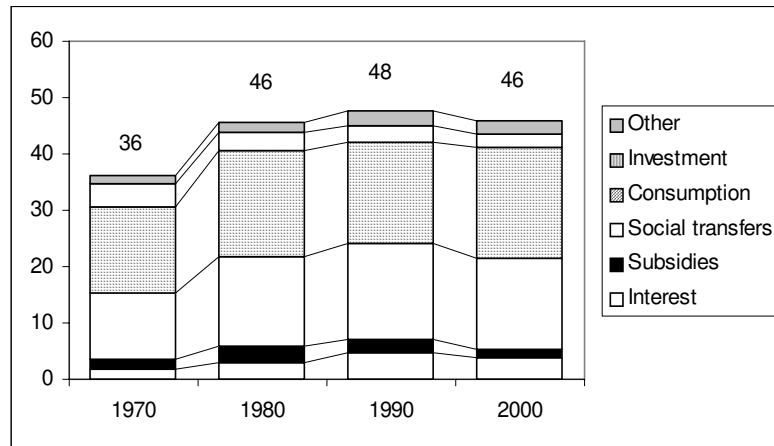
With the completion of the European Monetary Union and the Single Currency in 1999, monetary policies have become supranational and managed by the European Central Bank, while fiscal policies remain still in hands of national governments. As the well known Mundell-Fleming model describes, in contexts such as the current one in Europe, where exchange rates are totally fixed, and where there exists full capital mobility, fiscal policy is totally effective (Mundell, 1962). This is why, although the debate between interventionists and non-interventionists is far from concluded, under the current situation, this debate is totally focused on fiscal policy.

In the current situation, European governments willing to affect the economy only have fiscal policies to intervene. But although the number of tools available for intervention has been dramatically reduced (supranationalized monetary policy and Stability Pact restricting budget deficits), it does not mean that fewer or less important things can still be done. Fiscal policy alone can still guarantee that governments will keep playing their three main economic roles: reallocation of resources, stabilization of the economy, and redistribution of income. In addition, fiscal policy is still fully responsible for increasing or decreasing the size of the public sector in the economy, for smoothing or accentuating the effects of economic recessions, and for implementing long-run policies oriented towards increasing the growth potential of the economy.

## 2.2. Fiscal Policies in the European Union, 1970-2000

The truth is that the previously described disparity of opinions about the role that the public sector has to play in the economy, and the degree of intervention that the government must have in the economy, seem to have run parallel to a wide disparity in the fiscal policies undertaken by different EU countries in the last thirty years. Nevertheless, when one looks at the general record of fiscal outcomes in the last decades, it is possible to draw a general picture of fiscal policy developments for the whole European Union.

*Figure 2.3. The Structure of Public Spending in the EU, 1970-2000 (%GDP)*



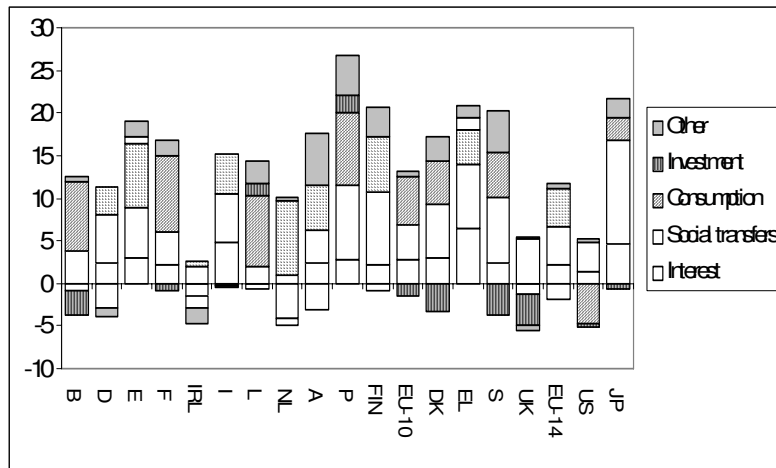
*Source:* Commission services. EC(2000b)

As can be observed in figure 2.3, fiscal policy during the past thirty years has been characterized by a tremendous increase in public expenditures. Public expenditures of general government in the European Union rose from 35% of European GDP in 1970 to a peak of 53% in 1993, basically due to expansion of public

consumption and social transfers, associated to the Welfare State. In 2000 they have 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.

This general picture in the composition of public expenditures in the European Union, gets more complicated when variation in the composition of public expenditures is disaggregated by Member States.

Figure 2.4. Changes in the Components of Government Spending, 1970-2000 (%GDP)



Source: Commission services. EC (2000b)

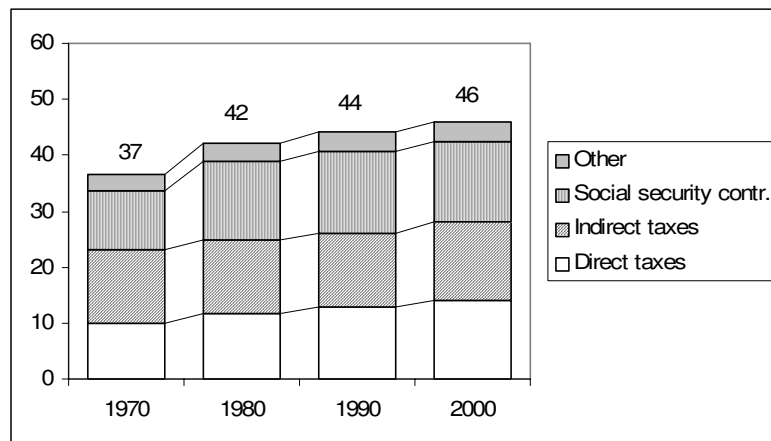
In the last thirty years, some countries like the Netherlands, Portugal, Belgium and France have increased their public consumption expenditures in around ten percentage points of GDP, while other countries like Germany, Ireland or the UK have increased them only between one and three percentage points.

Variation in transfers expenditures is also very significant, with countries such as Greece, Portugal, Sweden and Finland that have increased their transfers around eight percentage points, while others like Luxembourg, Ireland or France have only increased these expenditures three percentage points of GDP.

Finally, as most European economies have reached very high levels of development, the share of GDP dedicated to public investment has been generally reduced in the last three decades. Only, Spain, Greece, Portugal, UK and Luxembourg have increased their share of GDP dedicated to public investment between 1970 and 2000.

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 on. The increase was based on higher taxes on labor. Both direct taxes and social contributions increased by 3% of GDP. By contrast, indirect taxes fell by 6 percentage points during this period.

*Figure 2.5. The Structure of Government Resources in the EU, 1970-2000 (%GDP)*

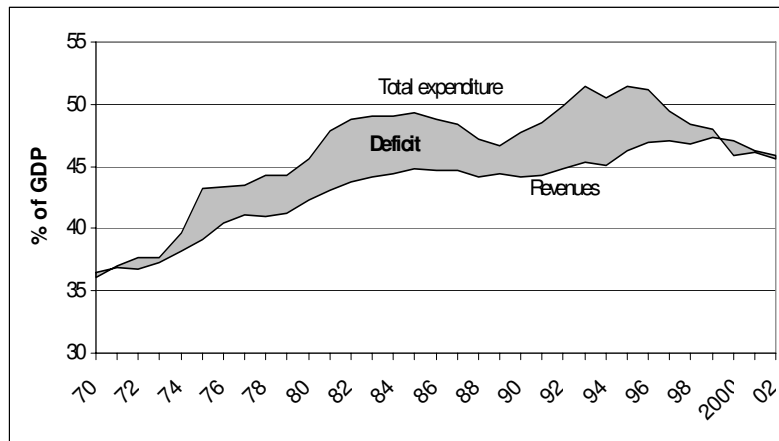


Source: Commission services. EC(2000 b)

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.

This general behaviour 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, which achieved a deficit reduction of 5 percentage points between 1993 and 1999.

*Figure 2.6. General Government Expenditures, Revenues, and Borrowing in the EU, 1970-2002*



Source: Commission services. EC (2000b)

Despite the previous general picture, fiscal policies in the EU 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.

The variation in fiscal developments among different European countries that table 2.1. shows has been also translated into remarkable variation in the timing, length 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.

*Table 2.1. Average Public Revenues, Expenditures, Deficit and Debt, 1970-2000 (%GDP)*

	Public Revenues	Public Expenditures	Public Deficit/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

The policy consisting in a decided attempt to correct those imbalances and approximate public revenues and public expenditures, constitutes a fiscal adjustment. But fiscal adjustments can vary in their timing, their duration, and their composition, as Chapter 3 will explain in detail.

For example, during fiscal adjustment episodes occurred in Europe in the mid-nineties, some countries chose 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).

The comparison between Greece and Germany is very illustrative of this variation. While Greece has been involved in short but recurring fiscal adjustment strategies during 16 years of the last 30 years, Germany has only been involved in consolidation episodes during 4 years.

Those episodes of fiscal adjustment not only varied in the strength and duration of the consolidation strategy, but they also greatly varied in the composition of the adjustment. Table 2.2 is also very illustrative in this respect. For example, between 1970 and 2000, countries such as Ireland have shown a clear preference for expenditure-based fiscal adjustments, while others such as Austria have only undergone revenue-based consolidations.

More recently, in the run-up to EMU, this variation in the composition of fiscal adjustment strategies was not only maintained, but even increased.

As shown in table 2.3, while some member states decided to follow revenue-based strategies (France, Greece, or Italy), some other decided to follow expenditure-based consolidation strategies (Denmark, Sweden, or Finland). Expenditure-based strategies of adjustment also varied in the degree of current and capital expenditures that were cut. Finally, a group of countries (Austria, Belgium, or the Netherlands) switched their strategies in the middle of the fiscal consolidation episode, in view of the relatively low success of their initial strategy.



Table 2.2. Frequency, Duration and Composition of Fiscal Adjustments in the EU, 1970-2000

	Episodes of Fiscal Adjustment in the EU, 1970-2000	Episodes	Total Years
Austria	1992-93; 1995-98	2	5
Belgium	1977-78; 1982-85; 1987-88; 1993-98	4	13
Denmark	1983-87; 1992-93; 1996-97; 1999-00	4	10
Finland	1971-72; 1975-77; 1981-82; 1984-85; 1988-89; 1995-96; 1998-99	7	15
France	1976-77; 1980-81; 1996-98	3	7
Germany	1982-83; 1989-90	2	4
Greece	1974-75; 1982-83, 1986-88; 1991-92; 1994-00	4	16
Ireland	1976-77; 1983-85; 1991-95; 1996-99	4	13
Italy	1976-78; 1983-84; 1991-94; 1997-00	4	13
Luxembourg	1977-78; 1982-86; 1996-97	3	9
Netherlands	1972-73; 1977-78; 1985-86; 1988-89; 1991-94; 1996-97; 1999-00	7	16
Portugal	1969-70; 1982-84; 1986-87; 1992-93; 1995-98	5	12
Spain	1992-93; 1996-00	2	7
Sweden	1976-77; 1983-84; 1986-90; 1996-99	4	12
UK	1969-70; 1976-78; 1980-82; 1988-89; 1996-00	5	15

Source: Own elaboration

Note 1: Expenditure-based episodes of fiscal adjustment in bold.

Note 2: For the purpose of this table, fiscal adjustment years are those in which the cyclically adjusted budget balance increased by more than 1% of adjusted GDP from the previous year. In chapter 3, a discussion on the definition of periods of fiscal adjustments will be presented.

Table 2.3. Composition of Fiscal Adjustments in the EU, 1990-2000

<i>Composition of budgetary consolidations in the EU during the nineties</i>								
<i>(Percentage points of GDP)</i>								
period	Change in structural balance	Change in structural revenue	Total	Change in structural primary spending		Change in interest payments		
				Change in capital spending	Change in current primary spending			
<i>Revenue-based retrenchment</i>								
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	
<i>Expenditure-based retrenchment</i>								
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	
<i>'Switching strategy'</i>								
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
EU11	-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)

This change in the consolidation strategy typically meant the introduction of additional spending cuts once the sole reliance on revenue increases had proved insufficient to achieve the overall fiscal target.

It must be pointed out too that in all cases classified by the European Commission in table 2.3 as “mixed strategy cases”, the change in the consolidation strategy occurred right after a general election had taken place (either to re-elect the government or to appoint a new cabinet).

### **2.3. The Economics of Fiscal Policies and Fiscal Adjustments**

The above variation in fiscal policies in general, and in the size, the timing, the duration and the composition of fiscal adjustment episodes in particular, can be explained from many different perspectives.

Before considering any political determinant influencing fiscal policy, one has to consider first all economic aspects that affect fiscal policy outcomes.

The three most important sets of economic factors affecting the public budget are; the economic cycle and the unemployment rate, prices and monetary conditions, and the accumulated level of debt.

#### *2.3.1. Economic Cycle and Unemployment Rate*

The economic cycle affects the budget on the revenue side and on the expenditure side. If the economy is booming, firms will be increasing their profits, and public revenues will increase via growing tax revenues. In that situation, more employment will be created and the State will see its unemployment subsidies charges reduced. The effect of an economic downturn will be exactly the

opposite, and that is why fiscal adjustments tend to take when the economy is doing well, and rarely take place during recessions.

But the output gap (the distance between the actual output and the potential output) not only is important for the timing of fiscal adjustments. It can also have a crucial effect in determining the duration and the composition of adjustment episodes. According to Von Hagen, Hallett and Strauch, (2001) a large output gap increases the likelihood of fiscal adjustments being started, but reduces the likelihood of the consolidation being long-lasting. In addition, if bad economic initial conditions coincide with high debt-to-GDP ratios, the likelihood of the adjustment being expenditure-based increases.

Nevertheless, it is important to note here that this effect of the economic cycle on the budget deficit through automatic stabilizers is very important in European countries because they have very developed welfare systems and tax revenues coming from direct taxation constitute their biggest source of public revenues. But this is not the case everywhere. For example, in less developed countries the effect of the economic cycle at home is not an important factor affecting public revenues, because these countries obtain most of their public resources from customs revenues, indirect taxation, and grants from multilateral organizations. Under such circumstances, the budgetary impact of the economic cycle is not even taken into account among the group of important explanatory variables of fiscal policies in those countries (Gupta, Clements, Baldacci, and Mulas-Granados, 2002).

### *2.3.2. Prices and Monetary Conditions*

Fiscal policy and monetary policy are interrelated, and the policy-mix between both influences decisively the level of output, prices and interest rates in the economy. Imagine a situation in which the economy has been hit by an external shock in the prices of primary inputs that affects the final prices of most products in the economy. In such an inflationary scenario, the Central Bank

would tend to tighten monetary policy, by increasing interest rates or by appreciating the domestic currency<sup>6</sup>, in order to prevent prices spiraling out of control. Under such circumstances, there is empirical evidence (Mélitz, 1997) showing that fiscal policy tends to relax when monetary policy tightens. This can obey to various reasons: to compensate the contraction effect on output by implementing a fiscal expansion, or just because high interest rates make new public debt titles more attractive for private investors and, thus, obtaining private financing of public works becomes easier for the government. Due to this “compensation mechanism” between fiscal policy and monetary policy, there are some authors that sustain that monetary easing can induce governments to reduce budget deficits (Mélitz, 1997; Wyplosz, 1999). In fact, recent empirical evidence provided by Von Hagen, Hallett and Strauch (2001) support the mentioned hypothesis, according to which easing monetary policy in year  $t$  increases the likelihood of starting a fiscal consolidation in year  $t+1$ .

But these authors have also provided evidence that points toward a weakening during the nineties of the impact that these variables have traditionally had on fiscal policy. “Instead, fiscal policy became [in the last decade] less responsive to economic and monetary policy circumstances, and thus may have been driven more strongly by efforts to achieve fiscal surpluses for other reasons, namely to fulfill the Maastricht criteria.” (p. 59)

### 2.3.3. *Debt Accumulation*

Finally, the effect of accumulated debt on fiscal adjustment strategies is also very important. Even more so, if during periods of economic expansion, budgetary surpluses are not used to reduce the accumulated level of debt. In these cases, the debt burden will increase up to a point in which interest payments associated to the

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<sup>6</sup> Go back to figure 2.2, if necessary for this very simple reasoning in the framework of the basic Keynesian model.

repayment of that growing debt will consume most of the share dedicated to public expenditures, in such a way that may finally end up rendering useless any governmental attempt to influence the economy through fiscal policy<sup>7</sup>.

The effect of economic shocks on the budget and the subsequent generation of debt, was first modelled by Robert Barro in 1979. Barro's tax-smoothing theory of the government's budget can be summarized as follows. Imagine that a government has a certain expenditure plan that is to be financed by distortionary taxes<sup>8</sup>. But the government wants to minimize the distortionary effect of those taxes, so it confronts a decision in which it has to choose the optimal tax policy that enables it to finance the government's spending plans, at the same time that minimizes the loss associated to its distortionary effect. The famous result of Barro's theory is that the optimal fiscal policy that minimizes tax distortions is a constant tax rate over time. This tax rate is then a function of the permanent level of spending, and the public debt can be explained as a "distortion smoother" and a "shock absorber" (Grilli, Masciandaro and Tabellini, 1991: 342)<sup>9</sup>. Establishing this constant path, deficits generated during periods of decreasing revenues and growing expenditures (typical of adverse economic shocks), should be financed issuing debt. This

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<sup>7</sup> In fact, the current anti-globalization movement postulates, among other things, the forgiveness of the developing countries' foreign debt, because the size of their debts prevents them from launching any domestic public initiative to generate growth and alleviate poverty.

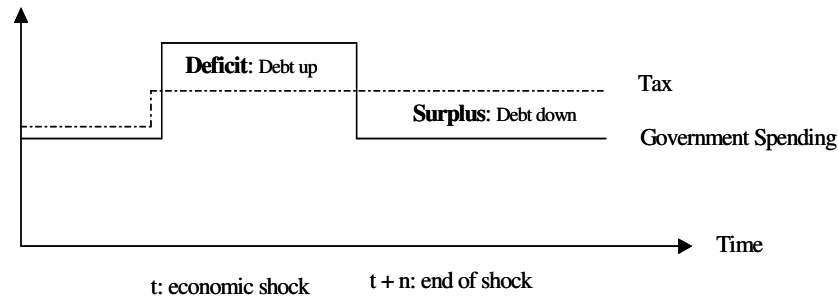
<sup>8</sup> Taxes can be lump-sum taxes or proportional taxes. In fact most taxes in real life are proportional taxes. These taxes are distortionary from the efficiency point of view, because they affect the efficient consumption decision and generate a loss of consumer's utility, but they are preferred to lump-sum taxes because they are superior from an equity perspective. Barro's starting point for his research was his observation that "proponents of the Ricardian view that the choice between debt and taxes (to finance the budget deficit) does not matter are left with an embarrassing absence of a theory of public debt creation" (Barro, 1979: 940). In fact the Ricardian equivalence between taxes and debt was based on the assumption that governments raise lump-sum taxes.

<sup>9</sup> In De Wolff (1998: 14)

debt will be cancelled during times of better economic conditions, when budgetary surpluses, will be generated<sup>10</sup>.

According to the theory's postulates, tax rates must not be changed when temporary shocks occur, but only when permanent conditions in the economy change.

Figure 2.7. Tax-Smoothing Model



This economic theory presents very clearly the sources of public deficits and surpluses, as well as it associates public debt generation to cyclical smoothing. It is important to note at this point that the Barro's tax-smoothing theory borrows some important elements from alternative theories about optimal fiscal policies, such as the pro-cyclical and the counter-cyclical theories of fiscal policy.

The main difference between Barro's theory and the other two is the following: the pro-cyclical fiscal policy theory says that the optimal fiscal policy is the policy that maintains a balanced budget by adjusting public spending to the fluctuation of public revenues and the economic cycle; The counter-cyclical fiscal policy theory proposed by Keynes advocates in favor of increasing public spending during times of recession in order to spend out of the recession and go back to a situation of economic growth when

<sup>10</sup> For a detailed formal presentation of the tax smoothing theory, see Roubini and Sachs (1989a)

public revenues will be higher than public expenditures and new surpluses will be generated to repay the debt generated by the deficits created during the recession. In this respect, the new contribution made by Barro was to advocate in favor of a constant tax over time in a Keynesian framework of counter-cyclical fiscal policies.

This theory seems to provide a very convincing explanation for at least part of the observed variation in fiscal policies in Europe between 1960 and 2000. The tax-smoothing theory is very useful to understand, for example, why after the oil-shock of 1973 debt-to-GDP ratios increased in all Western economies. At that moment, the shock was interpreted as a temporary one, and deficits generated by the shock were financed issuing new debt. In addition, if periods of deficit, in figure 2.7., are considered as episodes of fiscal expansion, and periods of surpluses are considered as episodes of fiscal adjustment, then the theory provides also an explanation for the economic determinants of fiscal adjustments.

But what this economic theory cannot explain is why after the eighties, when it was already assumed by most economists that the shock had permanently affected the structure of the economy, debt continued to accumulate<sup>11</sup>. The theory cannot explain either why do we observe in the last three decades extremely different levels of debt (in a range that goes from an average of 25% of GDP in Finland, to over 100% in Belgium<sup>12</sup>), in cases where those economies are extremely interrelated to each other, and had been impacted by economic cycles of very similar strength and timing.

This economic theory cannot explain why different countries present different composition of their revenues and expenditures, and why during episodes of fiscal adjustment some countries decide to increase taxes, while others decide to reduce expenditures.

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<sup>11</sup> The tax-smoothing hypothesis has been empirically rejected several times, at least for the period after 1973. For a review of these empirical tests see Roubini and Sachs (1989a).

<sup>12</sup> See table 2.1. in previous section.



Finally, it cannot account either for the persistent tendency to run pro-cyclical fiscal policies in the last 30 years such as. Instead of reducing government deficits during periods of economic growth, governments have been launching expansionary fiscal policies. This has impeded counter-cyclical smoothing, because in these circumstances governments have been forced to reduce deficits during economic recessions to prevent deficits and debt spiralling out of control. “Fiscal policies have thereby amplified the effects of cyclical swings in a pro-cyclical way rather than having the desired stabilizing effect” (EC, 2001: 7). This, pro-cyclical behaviour is especially illustrative of the rigidities of the budget, and it is an example of how political leaders find it easier to justify a fiscal adjustment during bad times.

But most importantly, the previous comments on the shortcomings of economic theory to explain the observed variation in fiscal policies, opens the door to explore what could be the political determinants of fiscal policies and different strategies of fiscal adjustment.

#### **2.4. The Politics of Fiscal Policies and Fiscal Adjustments**

The introduction of political factors into the analysis of budgetary processes aims at arriving to a deeper understanding of how these processes work by integrating domestic economic conditions and politico-institutional factors into the same framework.

The literature on the political economy of fiscal policy dates back to the nineteenth century with the Italian and Swedish schools of public finance (see Casares Ripol, 2002). In this century, the work of Buchanan (1960) and Buchanan and Wagner (1976) connecting the inability of voters to understand the caveats of fiscal policy with the government’s tendency to deviate from the optimal path revived the interest on the political determinants of fiscal policy

Since the end of the eighties a substantial number of scholars started to study different institutional and political aspects influencing the fiscal decisions made by governments. Initially, all these new politico-economic models of fiscal decision departed from the tax-smoothing framework described in the previous section, and tried to explain observed deviations in the smoothing behaviour as the result of institutional factors mediated by electoral constraints<sup>13</sup>. These new models varied substantially in the type of electoral system<sup>14</sup>, the degree of fiscal centralization<sup>15</sup>, and the budgetary laws<sup>16</sup> under which fiscal policy decisions were taken. But in general, their most important contribution was to develop a new theoretical framework under which the effect of political factors on fiscal economic decisions could be empirically tested<sup>17</sup>.

This first wave of theoretical and empirical literature on the political determinants of “deviated” fiscal policies, served as the basis for a second wave of studies, during the second half of the nineties, that aimed at answering what could be the economic and political effects of correcting those “deviated” fiscal policies through strong fiscal adjustments. In terms of economic effects, the most relevant articles were those that presented the non-

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<sup>13</sup> See the classical work by Roubini and Sachs (1989a, 1989b) that related instability of the government associated to its relative fragmentation, and the proclivity of some types of electoral systems to generate coalition governments. For a literature review on the political economy of budget deficits, see Alesina and Perotti (1995); and Persson and Tabellini (1999). See also Franzese (2002).

<sup>14</sup> For the effects of electoral systems on fiscal policy, see Grilli, Masciandaro and Tabellini (1991); Halleberg and Von Hagen (1997); and Milesi-Ferretti, Perotti and Rostagno (1999).

<sup>15</sup> For models on intergenerational distribution see the very first work of Musgrave (1959), and the more recent by Cukierman and Meltzer (1989). And for models on intragenerational geographical distribution see Weingast, Shepsle and Johnson (1981).

<sup>16</sup> For the effects of different budgetary rules related to spending limits see Halleberg and Von Hagen (1997), and Perotti (1998).

<sup>17</sup> For a detailed analysis of the theoretical contributions of these different new political economy models, see De Wolff (1998).

Keynesian effects of a certain type of fiscal consolidations<sup>18</sup>, and those that discussed the importance of the timing<sup>19</sup> and composition<sup>20</sup> of fiscal adjustments for the likelihood of their success. And regarding the possible political effects of undertaking a fiscal adjustment, the most important studies were those that surprisingly demonstrated that large consolidations do not have to be necessarily associated with electoral defeats<sup>21</sup>.

In trying to find what are the political and economic determinants that explain the variation observed in the timing, the duration, and the composition of fiscal adjustments in the EU, I will of course borrow the main hypotheses from the literature on the political and economic determinants that explain different fiscal policies (deviated or not). But, in this case, because this thesis is not only about fiscal policies in general, but mainly about fiscal adjustments, I will pay special attention to those factors directly affecting the cabinet when confronted to the politically difficult decision of launching a fiscal consolidation. Under this premise, only three factors really affect any cabinet when it has to decide how to reduce the public deficit: (1) how many politicians have voice in the decision; (2) when is the next election that may or may not punish these politicians for this decision, and (3) what is the ideological position of the politicians who take that decision.

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<sup>18</sup> See McDermott and Wescott (1996); Giavazzi and Pagano (1990); and Alesina and Perotti (1996).

<sup>19</sup> Von Hagen, Hallett and Strauch (2001) find evidence that “governments are more likely to undertake consolidation efforts when the domestic economy is doing well (...) and [these adjustments] are more likely to be successful if started from high debt-GDP ratios” (pp.12-14). Also, accompanying tax reforms and a labor market reforms will increase the chances of success of the fiscal adjustment. In general, gradual implementation of reforms can enhance their political support, even when these reforms are complementary (see Lindbeck, 1994).

<sup>20</sup> See Alesina and Ardagna (1998).

<sup>21</sup> Alesina, Perotti and Tavares (1998) show that large consolidations, and those mostly based on public wages and transfers, are not conducive to electoral defeat or a change in the government more frequently than average.

#### *2.4.1. Fragmentation of Decision-Making*

Most studies dealing with the problem of public deficit creation and public deficit reduction have mainly focused on the idea that fragmentation in decision-making is negative for expenditure control. The reasoning behind this idea is the following: if a majority has to be formed to pass any legislation on the budget, and there are a lot of parties that need to be satisfied to count on their vote, then a balanced budget will be very difficult to achieve because each group in the majority will push for a particular spending programs, but it will only internalise a part of the costs and distortions of the associated increase in revenues needed to equilibrate the budget (Weingast, Shepsle and Johnson, 1981).

Therefore, the larger the number of actors with a voice in the fiscal decision-making process, the stronger the pressure for more expenditures, and thus the larger the deviation from the optimal fiscal policy. For example, coalition governments or big cabinets (with many spending ministries) would be less likely to undertake a fiscal adjustment.

Alesina and Drazen (1991) show in a war of attrition model how the distributional struggle among different interest groups delays the adoption of the efficient policy of balancing the budget<sup>22</sup>. They also show that the more polarized the groups are in a country, the group that concedes first bears a relatively higher burden, and then each group tries to hold longer and stabilization is delayed. The predictions of this theoretical work have been confirmed by many empirical studies. Both Roubini and Sachs (1989a, 1989b) and Grilli, Masciandaro and Tabellini (1991), found that fragmented governments, defined in a scale called “type of government” ranging from majority governments to minority coalitions, tended to be associated with larger public deficits.

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<sup>22</sup> A war of attrition model consists of a group of players locked in a battle, in which all make and accumulate losses as long as the battle lasts. The one who stays longest wins the prize. This model was first formalized by Riley (1980).

Taking into account all these previous considerations about the effects of fragmentation on fiscal policy, when I proceed in chapters 3 and 4 with the analysis of the determinants of different fiscal adjustment strategies in the European Union, I will basically examine the effect of coalition size and cabinet size on fiscal adjustment strategies. This is so because, as I said, I am mostly worried about political determinants that affect fiscal decisions at the cabinet's level. Thus, to consider the effect of electoral systems or polarization of the electorate, will be nothing but analysing proxies instead of actual factors. If more proportional systems are more likely to generate coalition governments, then what is appropriate is to study the number of parties in the coalition and not an artificial classification of the type of electoral system or the type of government.

Therefore, in the context of fiscal adjustment episodes, one would expect large coalitions and big cabinets to be negatively correlated to the likelihood of starting a fiscal consolidation. And if forced to do so (in the context of the Maastricht process, for example), these fragmented governments would probably prefer to do the fastest adjustment possible, and through a revenue-based strategy of adjustment that leaves the level of expenditures unchanged. Note that coalition governments do not necessarily have to be associated with a lot of spending ministers. Sometimes that is the case, but in other situations, as usually occurs in Italy, different parties agree to form a government as long as all parties' elites get a position in the cabinet, even if those are merely representative ministries and do not have spending powers.

This is so, because coalition governments are made of different parties representing different groups of the electorate that they want to satisfy. Satisfaction of those groups does not necessarily mean direct transfers of money (even though sometimes it is the case), but it will certainly imply the implementation of at least part of the policies contained in their electoral programs. The higher the number of different policies to be implemented the higher the expenditures generated, and the higher the level of revenues that must be levied to finance those

expenditures. In countries like Belgium, where the electorate is very fragmented (divided by ideological, religious and nationalistic cleavages at the same time), and the proportionality of its electoral system tries to provide representation to all these groups, governments have been traditionally formed by more than three parties. The skyrocketing levels of their public debt reflects precisely, the historical tendency of these fragmented governments to spend more than what they collected, and to finance the difference issuing debt.

#### *2.4.2. Proximity of Elections*

Elections can influence the government's decision on the budget in various ways.

First of all, if the government thinks that it will be re-elected when the economy is growing and the unemployment rate is low, then it will be willing to initiate a fiscal expansion just before the election to increase the probability of being re-elected. This behaviour on the part of government will generate political business cycles<sup>23</sup>. But if this behaviour is never punished by the electorate, it will also generate progressively accumulating debt associated to each fiscal expansion previous to every election. This type of electoral influence on fiscal policy only holds under two assumptions: (1) there exists fiscal illusion among voters, according to which they overestimate the benefits of current expenditures and underestimate the future tax burden that will be needed to finance current expenditure<sup>24</sup>; and/or (2) voters are totally misinformed, and this is why it is difficult for them to fully understand the details of public budget's composition and its long-term impact. Thus politicians that give validity to these previous assumptions will be willing to cut taxes and increase public consumption and transfers before elections.

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<sup>23</sup> See Nordhaus (1975); McRae (1977); and Alesina, Cohen and Roubini (1992).

<sup>24</sup> See Buchanan and Wagner (1976) for fiscal illusion.

The second type of electoral effect on fiscal policies is related to the previous one, and has to do with the strategic use of debt by the incumbent government. 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.<sup>25</sup>

Taking the previous literature into consideration, one would expect proximity of elections to decrease the probability that any type of government starts a fiscal consolidation. Or if it is inside a fiscal adjustment episode, I would expect proximity of elections to increase the probability that the adjustment effort ends, because it is very unpopular and reduces the probability of being re-elected. With respect to the composition of the fiscal adjustment, proximity of elections should be associated with a stronger preference among governments for not reducing the most popular items of the budget (like transfers and family allowances), and cutting instead other items if this is necessary for the fiscal adjustment to succeed.

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<sup>25</sup> See Persson and Svenson (1989) for this concrete example. And for a more general overview of the models that analyse the strategic use of debt, see De Wolff (1998) and Franzese (2002).

### *2.4.3. Ideology of the Party in Government*

Finally, the third political element that I assume might have an effect in the formulation of fiscal policies and fiscal adjustment strategies is the ideology of the party in government.

By assuming that there is a role to play by ideology of cabinet members that have to decide on a fiscal adjustment strategy, I am assuming that ideology of the party in government matters for economic policy-making. In taking this position, I totally depart from Down's assertion that policy-makers are only office-seekers, and from Lindblom's assertion that economic policies tend to converge as the role of businesses in the economy gains importance.

With respect to Down's statement that political parties "formulate policies in order to win elections, rather than win elections in order to formulate policies" (Downs, 1957: 28), I base my rejection to that understanding of politics on two arguments. First, I embrace the theoretical reasons spelled out by Przeworski and Sprague (1986), Alesina (1989) and Alesina and Rosenthal (1994) according to which the prospect of new parties entering to fill any ideological gap left unoccupied, the threat of abstention by voters with strong ideological preferences, and the crucial role played by party activists to control the degree of ideologization of their candidate, are three factors<sup>26</sup> that contribute decisively to generate centrifugal pressures in two-party systems. And second, if the left benefits electorally from pursuing interventionist economic policies that alleviate the situation of the workers and the poor, and the right benefits from being more supportive of

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<sup>26</sup> More concretely, the three factors that speak against the policy convergence hypothesis are: "(1) In order to be elected as the party's candidate a politician has to take the party's median position. For credibility and reputation reasons he cannot change his position later; (2) If parties can choose their ideology, new parties may form to suit a group that is currently not represented and political fragmentation will ensue; (3) Unhappy voters can abstain from voting." (De Wolff, 1998: 29).



market forces<sup>27</sup>, one could expect that those parties keep pursuing differentiated economic policies, because this behaviour will satisfy at the same time their policy preferences and their goal of re-election.

Together with the previous argument that centripetal competition to win the median voter means the end of partisan politics, most advocates of the “unique economic policy” thesis have argued that increasing globalization offers a new exit possibility to investors threatened by taxing leftist governments. The argument is based on the old argument made by Charles Lindblom (1977) according to which, because government’s depend on good macroeconomic performance to be re-elected, and this good performance depends in turn on the investment made by capitalists, the best option for every government is not to tax capitalists and prevent from intervening in the economy. This argument has been lately reinforced by the fact that under the current globalization process, unhappy capitalists not willing to pay the taxes imposed by interventionist governments, not only can decide not to invest and consume their profits instead as they could do before, but now they can also decide to “fly away” somewhere else with their capitals, where “cheaper” conditions for investment exist.

I have three reasons to reject the previous assertion that investors are the policy-makers of today.

First, the Welfare State consensus of the postwar years that channelled the fight of the working class through capitalist democracy, in exchange for welfare systems and worker’s participation on the distribution of the growing output generated by capitalist production (Przeworski, 1986), still holds today. Capitalists trying to break that consensus will face again fierce opposition by workers, mobilized at the domestic level by old trade unions, or at the international level by new anti-globalization movements.

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<sup>27</sup> For this argument, see Lipset (1961); and Klingemann, Hofferbert and Budge (1994).

Second, market integration and globalization increases the population vulnerable by increasing market dislocations and risk exposure, and thus increases citizen's demands for political intervention in the economy to compensate wealth losses and provide new safety nets (Garrett, 1998).

And third, it has been proved that those economies in which encompassing trade unions have made possible growth without inflation, are economies that provide better conditions for investment<sup>28</sup>. This is so because more equality in the distribution of income, in countries with comprehensive public health and education systems, generate economies with very productive workers and very stable societies, that grow more<sup>29</sup> and thus are very attractive to investors.

But the assumption that ideology has a role to play in economic policy making in general, and in fiscal policies and fiscal adjustment strategies in particular, is not only based on all those previous theoretical arguments. On the contrary, it is also based on the convincing empirical evidence found by prominent political economists that supported the thesis that politics and ideology matters for economic policy-making and economic policy outcomes.

The first literature on the subject provided empirical evidence that supported the thesis that left-wing governments fought

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<sup>28</sup> The literature on the impact of labour market institutions on the economy is vast. For a brief overview, see the original theoretical work by Olson (1982), and the later empirical studies by Calmfors and Driffill (1988), and Golden (1993). See also Boix (1996, 1997, 2000), and Garrett (1998). Notermans (2000) has lately expanded the analysis of the impact of labour market institutions to study their effect not only on the success of interventionist economic policies, but also in the success of social democratic or liberal policy regimes. He affirms that while social democratic policy regimes need labour market institutions that contain wages to prevent inflation, liberal regimes need labour market institutions that maintain nominal wages, to prevent the price level from falling. These regimes end when their required institutions change.

<sup>29</sup> For example, Alesina and Rodrik (1994) present empirical results that show that "inequality in land and income ownership is negatively associated with subsequent economic growth" (pp. 465).

unemployment while right-wing governments were especially worried about inflation (Hibbs 1977, 1987).

This clearly meant that the former used Keynesian policies of demand management to achieve full employment, while the latter maintained small and balanced budgets to let the market achieve its full employment equilibrium, regardless of its equality consequences. Nevertheless, many studies came immediately to demonstrate that after the oil shocks of the seventies, governmental policies on the demand-side only had temporary effects because of rational economic agents<sup>30</sup>, were inflationary except under certain underlying conditions of the labour market<sup>31</sup> and depended of the State<sup>32</sup> and on the evolution of the international economy<sup>33</sup>.

Thus, political parties were only left with the possibility to affect economic policies on the supply side. Here again, partisan differences of economic policies were found. 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. Capitals will not fly out of the country to avoid higher taxation if public investment is expected to increase overall productivity in the economy.

On the other hand, right-wing cabinets consider public provision of capital inefficient and distortionary. They “expect capital to invest in a way that will maximize its individual rate of return and hence, in the absence of externalities, the social rate of return” (Boix, 1997: 818).

Updated empirical evidence for the fifteen EU Member States shown in table 2.4, seems to corroborate again these different

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<sup>30</sup> Alesina (1989); Alesina and Roubini (1992).

<sup>31</sup> Cameron (1984); Álvarez, Garrett and Lange (1991); Scharpf (1987).

<sup>32</sup> Alesina and Summers (1993); Hall (1986).

<sup>33</sup> Alt (1985); Garrett (1993, 1998); Frieden and Rogowski (1994). This review of the literature on partisan economic policy management is based on the review made by Boix (1997: 817).

approaches to public investment, even during the years of strongest fiscal consolidation in the EU previous to the Maastricht exam. In countries with left-wing governments, the average share of public investment to GDP between 1993-1997 was almost half a point higher than the average public investment in countries with right-wing governments.

*Table 2.4. Average Public Investment by Cabinet's Ideology in the EU, 1970-2000*

Average public investment (%GDP) by government (EU-15):	1970-1989	1990-2000	1993-97 (Maastricht Adjustment)
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

Therefore, after taking into account all these previous considerations, the “partisanship hypothesis” regarding the composition of the budget and the strategies of fiscal adjustment, has to be based on the two general assumptions under “which scholars have modeled the impact of government partisanship on economic policies. In the first place, all political parties prefer policies that maximize growth (...) [and] in the second place, parties adopt distinctive economic strategies depending on their redistributive consequences” (Boix, 1997: 816).

It is plausible to assume that socialist parties have their electoral constituency among workers and the middle and low-income part of the population (at least below the average income of the median voter). These sectors are the most vulnerable to cyclical downturns and suffer from different barriers to equal access to opportunities and services, as a consequence of their purchasing power and their education. Thus, socialist parties, representing these sectors, while giving importance to economic

growth, are also especially worried about how the economic growth is distributed and about equality in general.

Ideally, socialist parties will use the public sector to smooth the impact that economic downturns have on the mentioned classes (through unemployment benefits and social transfers) and will try to redistribute income and promote equality<sup>34</sup>. Then, 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, one should expect left-wing governments to be associated with higher public expenditures on public consumption, social transfers, public investment and the wage government bill to pay for an extensive public administration.

To finance all these expenditures, left-wing governments are expected to tax more and more progressively. Higher public expenditures financed by higher public revenues do 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, to intervene on the supply side of the economy through public investment socialist governments should prefer surplus or close to balance budgets.

By contrast, right-wing parties mostly obtain their votes from the economically accommodated part of the population (or at least with average income above the median voter's income). These people have more private resources to smooth their personal consumption in periods of economic downturn, they care especially about inflation, and as potential private investors, they

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<sup>34</sup> According to Glyn (1998: 2), the common aspirations of social democracy in Western Europe "can be divided into three broad categories: full employment, the welfare state and redistribution, and, finally, supply-side interventions aimed at guiding and controlling capital."

suffer most from the crowding-out effect of public intervention in the economy.

Thus, right-wing governments will prefer to run balanced and small budgets, because this means lower presence of the State in the economy. As a result, right-wing governments tax less and spend less than socialist governments. Lower levels of expenditures to GDP will require lower levels of public revenues, and ideally less distortionary taxes of market mechanisms and private incentives.

A first look at bilateral correlations between the ideology of the cabinet and the most important components of the budget, shows that the expected positive relationship between left-dominated cabinet and higher public revenues to pay for higher public expenditures is statistically significant for the group of fifteen EU Member States in the period 1970-2000.

*Table 2.5. Bilateral Correlations. Cabinet Ideology and the Budget, EU-15, 1970-2000*

Bilateral (Pearson) Correlations	Left-dominated Cabinet	Right-dominated Cabinet
Public Revenues	0.21***	-0.17***
Direct Taxes	0.18***	-0.06
Indirect Taxes	0.14***	0.22***
Public Expenditures	0.13***	-0.13**
Social Transfers in kind	0.15**	0.04
Public Consumption	0.21***	0.03
Public Wages	0.20***	-0.01
Public Investment	0.15***	-0.12***

*Source:* Own elaboration

*Note:* Bilateral Correlations: \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

This relationship has to be investigated in more detail with the appropriated statistical techniques<sup>35</sup>. But most importantly it remains to be studied what is the effect of political variables in the composition of the budget during fiscal adjustments. One can initially hypothesize that both socialist and conservative governments can be expected to start a fiscal consolidation with the same probability. Nevertheless, given their preferences, they are expected to follow opposite adjustment strategies, not in their timing and duration, but yes in their composition. Left-wing governments should prefer revenue-based strategies, and if forced to freeze or reduce expenditures they should try to maintain the government wage bill, transfers payments and public investment, in order to maintain their capacity to intervene in the economy in the future. While right-wing governments should prefer expenditure-based strategies, that allow them to subsequently reduce the most distortionary taxes and expenditures of the budget.

## **2.5. Conclusion**

This chapter has developed the theoretical framework of this thesis. It has emphasized the direct role that fiscal policies play in the management of the aggregate demand, and their indirect impact on the aggregate supply of the economy. This role is nowadays even more important than before in the European context of single currency and full capital mobility.

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<sup>35</sup> To date the only study that has directly addressed the question of how political factors like the ideology of the party in government affect the composition of the budget is the one by Perotti and Kontopoulos (1998). On a panel of OCDE countries from 1960-1995 they find that both ideology of the cabinet, and its fragmentation (measured as number of spending ministers and number of parties in the coalition) matter. The problem is that this article does not cover entirely the most recent period of strong fiscal adjustments in the European Union (1993-1999), and it studies fiscal decisions in general, not those directly designed to achieve a fiscal adjustment.

One could have expected that most European economies showed similar fiscal outcomes in the last three decades, given their strong interrelation. In general, there has been a common tendency in the past thirty years to spend more than what was collected, and thus to run deficits and accumulate debt. Nevertheless, despite this general picture, this chapter has presented abundant empirical evidence that shows wide variation in the level of public revenues, public expenditures, public deficits and public debt. Even more important is the evidence that shows that when EU Member States decided to correct those imbalances, some decided to undertake successive but short fiscal consolidations, while others pursued strong and one-off adjustments. Not only strategies of fiscal consolidation varied in timing, length and strength, but they also varied in their composition. Some countries decided to follow revenue-based fiscal adjustments, while others followed expenditure-based consolidations.

Economic theory is not sufficient to explain this variation in fiscal policies and fiscal adjustment strategies, and this is why political explanations have been brought into scene. This chapter has discussed in depth the theoretical reasons why the economic cycle and the unemployment rate, prices and monetary conditions, the accumulated level of debt, the degree of cabinet fragmentation, the proximity of elections, and the ideology of the party in government should be expected to affect the formulation of fiscal policies and the adoption of different strategies of fiscal adjustment. The next two chapters will study their actual effects.







## CHAPTER 3

### TIMING AND DURATION OF FISCAL ADJUSTMENTS<sup>1</sup>

*«Consolidation efforts that operate to a large extent on the spending side of the budget have a higher chance to survive than consolidations that rely mostly on increased revenues.» (Von Hagen, Hallett, and Strauch, 2001: 11)*

The first two questions that this dissertation tries to answer are the following: Why are fiscal adjustments launched in the first place? and what explains that different countries chose different strategies of fiscal adjustment in terms of duration and composition, when apparently they all faced similar constraints, and aimed at fulfilling the same objectives, in the run-up to EMU?

This chapter answers the first of these questions about the timing of fiscal consolidations, and half of the second question, in the part that refers to the duration dimension of fiscal adjustments. The chapter also constitutes the first step in the empirical effort of this dissertation to validate or refute with actual evidence the theoretical hypotheses presented in chapter 2.

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<sup>1</sup> Some parts of this chapter have been extracted from two different works (FEDEA Working Paper, 2001/19 and EEG Working Paper 18/2002), both co-authored with Reyes Maroto, to whom I thank for her co-operation and for authorising me to reproduce these parts here. The first work was later awarded the II Jean Monnet-UCM-Uni2 Research Award in European Economy 2002.

In the first two sections of the chapter, I will define what can be considered as a fiscal adjustment, and I will discuss how many options governments face in the event of having to reduce their budget deficits. When confronted to the need of reducing the public deficit, governments have to design a strategy that decides on the timing, the duration, and the composition of the fiscal consolidation episode. While section 3 of this chapter will deal with the timing decision, sections 4 and 5 will study the duration dimension of fiscal adjustments. And the analysis of the composition dimension will be left as the subject of chapter 4.

The duration analysis will be divided into two parts.

First I will present the results of a non-parametric analysis of the duration of fiscal adjustments, where I will show how dependent is the probability of ending a fiscal consolidation episode on its accumulated duration.

Second, because time-dependency only explains part of the duration of fiscal adjustment episodes, I will then present the results of a parametric analysis, in which different economic and political variables are included in order to fully understand what explains that some fiscal adjustments lasted longer than others. The final section of this chapter will test whether the results presented in the previous sections are sensitive to changes in the definition of fiscal adjustment. It is very interesting to see how political factors gain importance in explaining the duration of fiscal consolidations, as the definition of what constitutes an adjustment is made more demanding. These results allow me to conclude at the end of the chapter that for stronger fiscal efforts, economic determinants of duration lose explanatory power, while all political factors affecting the cabinet become crucial to make the consolidation last.

### **3.1. What is a Fiscal Adjustment?**

The budgetary dimension of all economic activity developed by the public sector, which was already presented in chapter 2, can be summarized as follows. The government buys goods and services and pays public employees ( $G$ ). And it also makes transfers to households, in the form of unemployment benefits, pensions, or family allowances ( $TR$ ). This constitutes the core of public expenditures that must be financed raising taxes from corporations and individuals ( $TX$ ). A public deficit exists when total public revenues ( $TX$ ) are insufficient to pay for total public expenditures ( $G+TR$ ). This difference is covered annually by borrowing money, and this constitutes the public debt ( $DB$ ), that every year renders some interest payments ( $rDB_{t-1}$ ) that the government has to repay in the following year:

$$\text{Public Budget Balance} = \text{Public Revenues} - \text{Public Expenditures}$$

$$\text{Surplus or Deficit} = (TX_t) - [(G_t + TR_t) + (rDB_{t-1})]$$

Therefore, public deficits can be increased or reduced every year by the government. A fiscal adjustment takes place when in any given year the public deficit is reduced. Nevertheless, as I explained in the previous chapter, there are two economic factors that every year can be influencing the budget balance and which are out of government's immediate control. These are the economic cycle and the accumulated level of debt.

Because it is my purpose to focus on fiscal adjustments politically driven, those in which the government takes a tight discretionary decision to reduce the budget deficit, I consider that a fiscal adjustment takes place when the variation of cyclically adjusted primary deficit is positive from one year to the next one. This means that after discounting the effect of the cycle on the

budget<sup>2</sup>, and subtracting the amount paid as interest on debt ( $rDB_{t-1}$ ), it is possible to look at the fiscal stance of a certain country in a certain year<sup>3</sup>, and decide if a that year has been one of fiscal expansion or fiscal consolidation.

For example, if in a certain year the cyclically adjusted primary balance has increased by 1% of GDP with respect to the previous year, then this year can be considered as a fiscal consolidation year, but if it has decreased by 1% of GDP, then it has to be classified as fiscal expansion year.

### **3.2. Strategies of Fiscal Adjustment: Timing, Duration and Composition**

In order to talk about fiscal adjustments, they have to occur first. As a response to the wave of fiscal expansions and the subsequent structural budget deficits accumulated during the sixties and the seventies in the European Union, fiscal adjustments have become more and more frequent in the last two decades.

Once the government has decided about the timing of a fiscal adjustment, and it is totally committed to budget deficit reduction, it has to think about what is its preferred strategy to achieve the goal of re-equilibrating the budget.

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<sup>2</sup> Because for the whole dissertation I use data from AMECO, the Macroeconomic Database of the European Commission, I follow the Commission's method to estimate the cyclically adjusted budget balances. This method involves three 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. For further details on this issue, see Appendix 1.

<sup>3</sup> The *Fiscal Stance* is a measure of the discretionary fiscal policy component, usually defined as the change in the *primary structural budget balance* relative to the preceding period. When the change is positive (negative) the fiscal stance is said to be expansionary (contractionary).

Table 3.1. Number of Years Under a Fiscal Adjustment. By Decade

1960-69	1970-74	1975-79	1980-84	1985-89	1990-94	1995-2000
1	6	20	29	28	24	53

Source: Own elaboration based on table 2.2

In this respect, a strategy of fiscal adjustment can be defined as the group of measures needed to balance the cyclically adjusted primary budget balance, and approximate cyclically adjusted primary expenditures and cyclically adjusted revenues in a given year. The cabinet's decision over these measures is mainly a decision over two crucial dimensions of the fiscal adjustment strategy: (1) how long will it last (duration), and (2) what items of the budget will be affected by the consolidation effort (composition).

With respect to duration, fiscal adjustments can be drastic or progressive. And with respect to composition, the public deficit can be reduced by increasing public revenues 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 concretely, the range of possible combinations that are available to any government willing to start a fiscal consolidation is:

-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.  $\nabla R; \nabla \nabla E$

But inside these strategies more specificities arise. Apart from the speed with which they are implemented, the decision over the composition of the adjustment has to be even more specific. For example, the government has to decide if an increase in public revenues is going to be achieved through an increase in direct taxes, indirect taxes, or social contributions. But also, direct taxes can be on labour or capital, and so on. The same happens with public expenditures. Variation in expenditures can be achieved through different combinations of change in current or capital expenditures. Which in more detail depend on the amount of subsidies, social transfers, public consumption, public wages (which is a function of the number of public employees), public investment, etc.

For example, strategies of adjustment in the seventies followed a general pattern of expansion of the public sector. An increase in public expenditures was financed and surpassed by an even bigger increase in revenues. In the eighties and the nineties the strategies of adjustment became, however, increasingly different. During the eighties, a majority of adjustments followed the previous pattern or the one characterized by increases in revenues and freezing of expenditures. During the nineties, finally, countries decided to reduce public expenditures, but the differences in the type of expenditures frozen or reduced increased.

In the process of deficit reduction to fulfil 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 countries. Public wages were reduced in Belgium, Finland, Sweden and United Kingdom, while frozen in the rest of the EU, especially in Austria and Spain. In general, France and Greece reduced their public deficits during the nineties by increasing their revenues and freezing their expenditures. Germany, Italy and Sweden and United Kingdom increased public revenues and reduced public expenditures. And Belgium, Denmark and Spain followed the strategy of maintaining



revenues and reducing expenditures, while Austria, Finland, Ireland and the Netherlands reduced both revenues and expenditures.<sup>4</sup>

### **3.3. The Timing of Fiscal Adjustments: When Do They Occur?**

In order to test what are the economic and political conditions that have to be present before fiscal adjustment takes place, I will estimate a very simple probit model with a dependent variable that will take value 1 when a fiscal consolidation started, and value 0 otherwise. Note that I will consider that a fiscal adjustment has started when the change in the cyclically adjusted budget balance in one year exceeds 1% of the cyclically adjusted GDP<sup>5</sup>, as reported by the AMECO database of the European Commission for the fifteen Member States. In the period 1960-2000, there were 115 “starts of fiscal consolidations”.

To analyse the importance of initial and accompanying economic conditions to start a fiscal adjustment episode, I include as independent variables different measures of the three main economic factors influencing the budget: the economic cycle, monetary conditions, and debt accumulation. These three aspects will be captured using the following variables<sup>6</sup>:

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<sup>4</sup> See “Convergence Report 1998” (EC, 1998). And see also table 2.3 in chapter 2.

<sup>5</sup> In the literature on fiscal adjustments the threshold that authors use to classify a certain year as a fiscal adjustment year varies, but it ranges between an annual change in the cyclically adjusted budget balance of 1%-1.25% (Von Hagen, Hallett and Strauch, 2001), to an annual change of 1.5%-2.0% in the cyclically adjusted primary balance (excluding interest payments) (Alesina and Perotti, 1997). Since the section on duration will offer a discussion on the sensitivity of results to different definitions of fiscal adjustment, I prefer to start here with the lowest threshold used in the literature.

<sup>6</sup> For descriptive statistics of all dependent and independent variables used in this dissertation, see Statistical annex 1.

1) Cyclical position of the domestic economy in the year before and during the start of the consolidation episode. Here I use the output gap, which is computed as the difference between the actual output and an estimated output trend, applying the Hodrick-Prescott (HP) filter, as explained at the end of the first section of this chapter. I expect that better economic conditions lead to higher probabilities of starting a consolidation, since more revenues and less expenditures are naturally associated to periods of economic growth.

2) Cyclical position of the European economy. To describe this situation I use the EU-15 output gap and the EU-15 average structural budget balance.

3) Monetary policy stance. Here I follow Von Hagen, Hallett and Strauch (2001: 11) and construct a *monetary conditions index* for each country. The index is the sum of the short-term real interest rate and the real exchange rate, each weighted by its sample standard deviation. An increase in the monetary conditions index thus indicates either an increase in the short-term real interest rate or a real appreciation of the currency. Both can be interpreted as a tightening of monetary policy. Because monetary policy and fiscal policy are usually inversely related, I expect a tightening of monetary policy to reduce the probability of starting a fiscal adjustment.

4) Debt accumulation. This can be easily captured by the debt-to-GDP ratio, and describes the fiscal position of any country before or during the consolidation episode. This is a continuous variable that measures the public debt with respect to Gross Domestic Product for each country. Given that the dependent variable has been built based on cyclically adjusted budget balances that include interest payments generated by the pending debt, I expect that higher debt-to-GDP ratios will be associated with higher probabilities of starting fiscal consolidations.

In addition to these economic variables, political variables are also included in the analysis to capture the politico-institutional

environment preceding or accompanying fiscal adjustments. These variables are the following<sup>7</sup>:

5) Coalition size: this variable measures the number of political parties in the government for each country and each year of the sample.<sup>8</sup>

6) Cabinet size: this variable measures the number of spending ministers in the cabinet<sup>9</sup> for each year and each country. The inclusion of both variables is related to the idea that fragmentation

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<sup>7</sup> Note that no politico-institutional variable accounting for the budget process or the relative majority in Parliament are included in any of the empirical analysis of chapter 3 and 4. A detailed explanation of the reasons for this exclusion is given in the second section of chapter 4.

<sup>8</sup> In the literature of fiscal adjustments there are many articles that prefer to use as a proxy for degree of decision-making fragmentation an explanatory variable called "type of government" that was used for the first time by Roubini and Sachs (1989a, 1989b). I prefer however to use the simplest measure of all and the least subjective one, which is the number of parties in the government. I follow here Perotti and Kontopoulos (1998). Data on the number of parties in government until 1995 has been borrowed from Prof. Roberto Perotti, and I thank him especially for his generosity. His source is Woldendorp, Keman and Budge (1993) and I have completed the series using data from *The Europa World Yearbook* for Greece, Portugal and Spain (the whole period), and all countries from 1995-2000.

<sup>9</sup> I have considered spending ministers to be the following: 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) Labor; 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. As with the previous variable, I have borrowed this variable from Prof. Perotti until 1995, and I have reproduced the rest of data until 2000 following the same criteria. The sources were again: Woldendorp, Keman and Budge (1993), and *The Europa World Yearbook* for Greece, Portugal and Spain (the whole period), and all countries from 1995-2000.

in decision-making is negative for expenditure control, that was fully presented in the previous chapter. Therefore, the larger the number of actors with a voice in the fiscal decision-making process, the stronger the pressure for more expenditures, and thus the larger the deviation from the optimal fiscal policy. This is why I expect that larger coalition governments and larger cabinets will be associated to lower probabilities of starting fiscal consolidations.

7) Election year: this variable takes value one when parliamentary and/or presidential elections that affect the designation of the prime minister and the cabinet take place. It takes value zero otherwise<sup>10</sup>. Because fiscal adjustments are unpopular, I expect that election years reduce the probability of starting fiscal consolidations.

8) Ideology of the party in government: this is captured by the degree of Socialist control of the cabinet (Government-Left). This variable runs continuously from 0 to 100, according to the number of cabinet posts held by social-democratic and other left parties, in percentage of total cabinet posts and weighted by days. As I extensively discussed in chapter 2, I do not expect social democratic governments to run higher budget deficits than conservative governments, because long-lasting and effective intervention in the economy needs balanced budgets. I expect that both social democrats and conservatives will be more driven by economic and electoral considerations than by ideological ones, when deciding about the timing and duration of consolidation episodes.

The following table 3.2 reports the results of a set of probit regressions of the dependent variable on the indicators of initial and accompanying politico-economic conditions defined above. The probit model estimates the likelihood of a fiscal consolidation to be started depending on the realizations of the explanatory variables in a given period.

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<sup>10</sup> Data on election dates has been extracted from Armingeon, Beyeler, and Menegale (2000).

Table 3.2. Probability of Starting Fiscal Consolidations in the EU, 1960-2000

Probability of Starting a Fiscal Adjustment	Current Level		Lagged Level		First Difference	
	Univariate	Multivariate	Univariate	Multivariate	Univariate	Multivariate
Output Gap	0.061 (1.26)	0.144*** (2.95)	-0.021 (1.06)	0.126** (2.70)	0.151 (1.67)	0.078 (0.99)
EU-15 Output Gap	-0.055 (1.09)	-0.301*** (3.44)	-0.190*** (3.57)	-0.221*** (3.82)	0.182*** (3.21)	-0.165 (0.99)
EU-15 Structural Bal.	0.023 (0.87)	0.169 (1.43)	-0.254*** (4.11)	-0.001 (1.21)	0.525*** (3.61)	0.614*** (3.89)
Real Monetary Condit	0.097 (0.85)	-0.000 (0.04)	-0.048 (0.56)	-0.133** (1.99)	0.127** (2.23)	0.141** (2.17)
Debt-GDP ratio	0.010*** (3.67)	0.126*** (3.86)	0.009*** (4.01)	0.011 (1.05)	-0.001 (0.65)	0.029 (1.22)
Government Left	-0.002 (0.61)	-0.012 (0.86)	0.067 (1.02)	0.007 (0.90)	-0.014 (0.99)	0.038 (1.25)
Coalition Size	-0.024* (1.85)	-0.012* (1.88)	-0.034 (1.17)	-0.042* (1.78)	-0.002 (0.88)	-0.010* (1.86)
Cabinet Size	-0.055* (1.89)	-0.067** (2.12)	-0.044* (1.74)	-0.112** (2.19)	-0.001 (0.78)	-0.009 (0.87)
Election Year	-0.009 (0.86)	-0.057** (2.34)	0.003 (0.96)	0.056* (1.75)	-0.010 (0.99)	-0.014 (1.02)
Constant	-0.667* (1.84)	-0.432* (1.81)	-0.233 (1.02)	-0.788 (1.22)	-0.878* (1.89)	-0.453** (1.99)
Observations	501	501	498	498	477	477
Log-likelihood	60.79	59.67	56.44	55.58	49.99	48.58
Pseudo R-squared	0.18	0.25	0.26	0.21	0.19	0.16
Prob>Chi2	0.000	0.000	0.000	0.000	0.000	0.000

Note: Absolute value of z-statistics in parentheses \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

Results presented in table 3.2. are very similar to those obtained by Von Hagen, Hallett and Strauch (2001:12) using data for the OECD, although they did not include in their analysis any political factor.

The positive sign in the output gap shows that the probability of starting fiscal consolidations increases when the economy is growing. But, in contrast the EU-15 output gap enters with a negative sign in the current and the lagged levels. The combination of both signs can be interpreted as evidence showing that fiscal adjustments tend to be launched when the domestic economy is doing well relative to the EU-15 economy.

The stance of fiscal policy in the European countries affects decisively the probability of starting fiscal consolidations. While high European surpluses at the current level increase the probability of starting fiscal adjustments, the effect is the opposite when the lagged level is considered. Therefore, these two results point toward the existence of fiscal policy waves: a country is more likely to start a fiscal adjustment, if fiscal policy in other countries changes in that direction. The example of fiscal adjustments in Europe from the mid-eighties is very illustrative in this respect.

The effect of monetary policy on the probability of starting fiscal adjustments is only significant in the lagged levels and in first differences. In the first case the effect is negative, meaning that a tightening of monetary policy this year reduces the likelihood of starting a fiscal consolidation the next year (as predicted by some studies (Mélitz, 1997)). But this result is at odds with the negative effect of the same variable in first differences, which implies that a change of monetary policy this year in the direction of tightening reduces the probability of starting a fiscal adjustment during the same year.

Finally, the debt-to-GDP ratio has a very significant positive effect on the probability of starting a consolidation. The higher the current and the lagged level of public debt, the higher the probability of starting a consolidation the current year.

The effect of politico-institutional variables on the probability of starting fiscal consolidations is weaker than the effect of the economic cycle or the accumulated level of debt. For example, the ideology of the party in government does not affect the probability of starting fiscal consolidations. But the case of cabinet and coalition size, and election year, is different. Bigger coalitions and cabinets in the current and the lagged levels decrease the probability of starting fiscal consolidations. While current elections reduce the probability of launching an adjustment during the same year. Nevertheless, the result in the multivariate specification of the lagged level is relevant because it shows that the probability of starting a fiscal adjustment increases during the year after the election took place.

Both results confirm the hypothesized risk aversion that politicians have to arrive at the polls in the midst of a fiscal adjustment episode. They prefer to avoid fiscal adjustments during election years, and launch them immediately after elections have taken place and a new government arrives. One of the best examples of this behaviour occurred when Jacques Chirac called for early elections in 1997 in order to gain re-election before undertaking the necessary adjustment to fulfil the Maastricht criteria. This episode will be discussed in detail in chapter 5.

### **3.4. The Duration of Fiscal Adjustments in the European Union**

Given that fiscal adjustments can vary also in their duration and their composition, let me start analysing first the duration dimension. The duration concept is very simple to understand, because it is only related to the number of years that the consolidation episode lasts. Nevertheless, the issue of duration is very important because it has both remarkable economic and political consequences. Very short and strong consolidation episodes can have very damaging deflationary consequences for domestic demand, because they do not give time to the private

sector to compensate the decreasing role of the state, and thus the country can enter a recession. But on the other hand, if consolidations are managed more progressively and last many years, they can be very difficult to handle politically, because the affected groups will fight harder against permanent reductions of the funding available for their programs, than if these cuts were temporary.

Nevertheless, despite its relevance and despite the fact that in the literature on fiscal adjustments the success of fiscal consolidations has been defined in terms of duration<sup>11</sup>, direct and systematic studies that analyse the determinants of duration of fiscal consolidations are almost inexistent. Only Alesina & Perotti (1995), Alesina and Ardagna (1998), Strauch (1999), and Von Hagen, Hallett and Strauch (2001) have studied the duration of consolidations, but all of them in an indirect way.

In the first two cases, the approach consisted in a two-step analysis: first, a pre-selection of consolidation episodes according to a pre-defined threshold; and second, a detailed account of the number of years contained in each period and a description of the main characteristics attributable to them. This approach allowed them to attribute certain characteristics as correlated with longer or shorter durations, and more or less successful experiences.

In the last two works, Strauch (1999), and Von Hagen, Hallett and Strauch (2001) present a more detailed study of duration of fiscal consolidations in the EU, and they are the first, and the only ones until now, to have used a duration model for this purpose. Nevertheless, their study only covers until 1998, and probably because they focus on many more aspects of consolidations besides the determinants of duration of fiscal adjustments, the

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<sup>11</sup> “A consolidation is deemed successful, if, two years after the initial adjustment, the government budget balance is at least 75 percent of the balance in the first year of the consolidation episode. A consolidation is called unsuccessful, if this condition is not met” (Von Hagen, Hallett and Strauch, 2001: 6). This is the standard definition in the literature, started by Alesina and Perotti (1995, 1996b). In those two articles they discuss the robustness of their results with regard to this arbitrary definition.



short section they dedicate to this analysis lacks a serious discussion of the most adequate duration model for this type of analysis. But the most important gap in their study is that, although they find that some fiscal adjustments in countries like “Belgium, Finland, France, Germany, Ireland, Portugal, Spain and the UK, occurred at times when the economic circumstances did not lead one to expect a consolidation to start” (p. 38), they did not look for any political factors that may have been intervening in those economically unexpected behaviours, regarding the timing and the duration of fiscal consolidations in Europe.

Thus, it remains to be investigated why some consolidation experiences last longer than others. And it also has to be answered what are the main economic and political variables that affect the probability of ending a fiscal consolidation sooner or later. The resolution of these two questions is the core of this chapter and in order to do this I will use a duration model. These models have been mainly used in Labour Economics<sup>12</sup> to study the duration of periods of employment and unemployment and the determinants of entry and exit rates, and I will use them here to study the duration of episodes of fiscal adjustment versus those of fiscal expansion. (See Kiefer (1988) for a literature review, and Appendix 2 for a technical description of these models)<sup>13</sup>.

To apply duration analysis to fiscal consolidations implies analysing the time that passes between two consecutive years of fiscal expansion, or in other words, the time spells between the beginning and the end of a fiscal consolidation. Using annual data on cyclically adjusted budget balances<sup>14</sup> between 1960-2000 for

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<sup>12</sup> Duration models have been also used in the field of Industrial Organization, to analyse for example the life duration of multinational subsidiaries in the UK manufacturing industry (McCloughan and Stone, 1998), or to analyze investment decisions (Licandro, Goicolea and Maroto, 1999).

<sup>13</sup> See also Sosvilla-Rivero and Maroto (2001) for a detailed study of the duration of exchange rates regimes in the European Monetary System (EMS).

<sup>14</sup> Note that in this case I do not subtract interest payments, in order to show during the parametric analysis how important is the level of accumulated debt in the duration of fiscal adjustment episodes. I will subtract interest payments during the composition analysis in chapter 4, in order to follow the traditional

the fifteen EU Members States, I generate a dummy variable called “*Failure*”, which takes value zero when the annual variation of the cyclically adjusted budget balance is bigger than zero<sup>15</sup> (years of fiscal consolidation), and changes to value one, when it is zero or lower than zero (years of fiscal expansion).

Using the dates in which a failure event occurs, I build a new variable called “*Duration*”, that represents the time that passes between two consecutive failures, that is, the time that the fiscal consolidation lasts. In this sample, the minimum number of years that a consolidation lasts is one year, and the maximum is ten years. I have censored my sample at five years, because there were very few observations (18) that lasted longer, but I kept having the information of 96.36% of the observed data.

In table 3.3., I present the structure of the data on *Failure* and *Duration*. As can be seen, the total number of observations is 495. The average duration of fiscal consolidations is 2.06 years. The number of registered failures is 237, and the average probability of ending a fiscal consolidation is 48%. The sample can be divided into two groups:

1) The group of *Highly-indebted* countries is integrated by those countries with an average Debt/GDP ratio above the EU-15 average ratio. These countries are: United Kingdom, Greece, Netherlands, Ireland, Italy and Belgium. Their average duration is 2.19 years and its probability of ending the consolidation is 46%.

2) The group of *Lowly-indebted* countries is made of those countries with an average Debt/GDP ratio below the EU-15 average ratio. These countries are: Luxembourg, Finland, France, Spain Germany, Austria, Denmark, Portugal and Sweden. In this group the average duration of fiscal consolidations is 1.96 years, and its probability of failure is 49%.

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method used in the literature on fiscal adjustments, and to make my results comparable to previous works on the subject.

<sup>15</sup> Note also that I start the section on duration analysis using the lowest threshold possible to identify years of fiscal adjustment. This is so because it will allow me at the end of the chapter to test the sensitivity of results to stronger definitions of adjustment that imply higher thresholds.

Table 3.3. Descriptive Statistics: Failure and Duration

	Failure			Duration		
	All countries	Unstable	Stable	All countries	Unstable	Stable
Mean	0.479	0.493	0.458	2.055	1.959	2.194
Std. Dev.	0.500	0.501	0.499	1.478	1.314	1.684
Variance	0.250	0.251	0.249	2.185	1.725	2.837
Skewness	0.085	0.027	0.170	1.844	1.533	1.921
Kurtosis	1.007	1.001	1.029	6.952	4.950	7.077
Obs.	237	145	92			

In addition, seven periods can be identified in the sample, all with different average durations and probabilities of failure.

Table 3.4. Descriptive Statistics: Failure and Duration by Periods

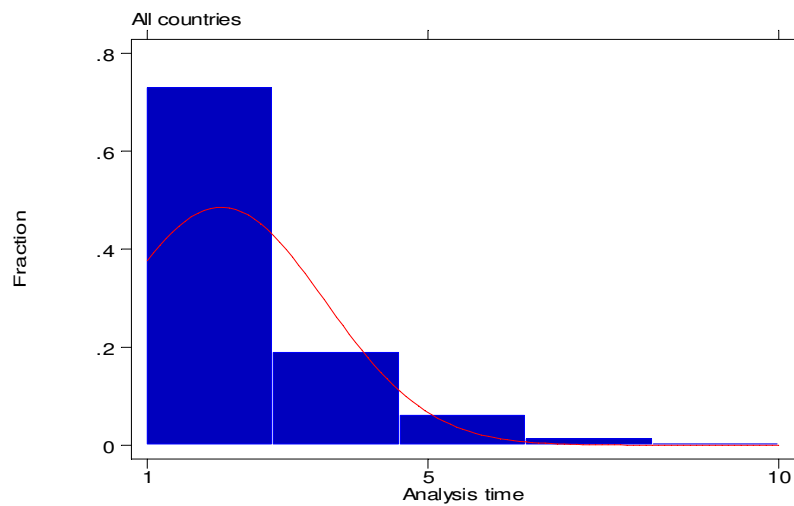
Periods	Failure		Duration		Freq.
	Mean	Std. Dev.	Mean	Std. Dev.	
62/72	0.532	0.502	1.734	1.022	79
73/77	0.547	0.501	1.560	0.889	75
78/81	0.717	0.454	1.633	1.057	60
82/87	0.400	0.493	2.056	1.319	90
88/91	0.661	0.478	1.804	1.212	56
92/95	0.433	0.500	1.883	1.075	60
96/00	0.160	0.369	3.547	2.207	75
All	0.479	0.500	2.048	1.450	495

It is very interesting to observe that from 1962 to 1981, the average duration of fiscal consolidations was around 1.6 years, and the average probability of ending the consolidation was well

above 50%. Between 1982 and 1991, the average duration increased until it reached 1.9 years and the probability of failure decreased to remain in the 50%. Finally, during the nineties, and especially from 1996 to 2000, the average duration of fiscal consolidations reached 2 years with a probability of ending the consolidation of only 16%.

This last result derives from the fact that at the end of 2000, which is the last year in the sample, twelve out of fifteen EU Member States were still under ongoing consolidation episodes<sup>16</sup>. Most of those episodes were initially launched by the Maastricht convergence criteria, and are currently reinforced by the Stability and Growth Pact. Because these consolidations were still ongoing in 2000, the probability of ending the consolidation for 1996-2000 is very low.

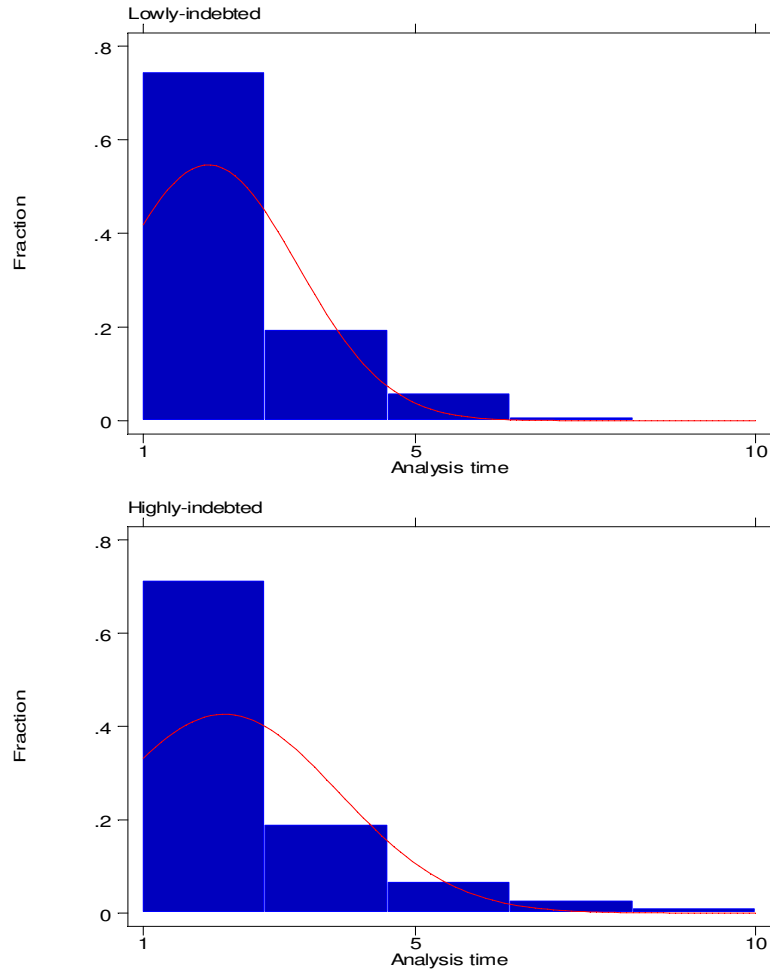
Figure 3.1. *Duration of Fiscal Consolidations in the UE, 1960-2000*



<sup>16</sup> The three countries that ended their consolidation episodes in 2000 are Denmark, Germany and the Netherlands.

Figure 3.1 shows the duration of fiscal consolidations in the period 1960-2000. In that figure, it can be observed that 46% of the fiscal consolidation episodes in the sample lasted one year, 21% two years, 13% three years, and 20% lasted four or five years.

Figure 3.2. Duration of Fiscal Consolidations in the UE, 1960-2000. By group of Countries



As could be expected, the group of *Highly-indebted* countries shows a flatter distribution than the *Lowly-indebted* one, because less number of its fiscal consolidations finished in the first four years, and many more of them lasted five or six years.

### 3.4.1. *Non-Parametric Estimation*

Typically, duration analysis has two steps, first a non-parametric analysis in which the dependence of duration of fiscal adjustments on time is analysed. And second, a parametric analysis in which other factors, apart from time dependency, are included as possible factors that can account for the observed variation in duration of adjustment episodes.

Starting with the non-parametric analysis, what this analysis tries to disentangle is the positive or negative dependence of fiscal consolidations on their accumulated duration. This is typically done estimating the two following functions:

(a) The survivor function, which is defined as:

$$S(t) = \Pr(T \geq t) = 1 - F(t) \quad (1)$$

and gives the probability that the duration of the fiscal consolidation ( $T$ )<sup>17</sup> is greater than or equal to  $t$ .

(b) The hazard function, which is defined as:

$$h(t) = \Pr(T = t/T \geq t) \quad (2)$$

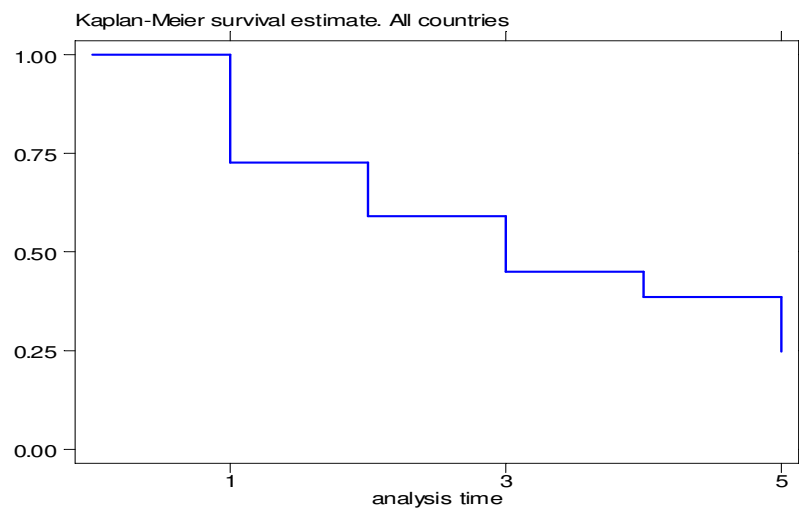
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<sup>17</sup>  $T$  is the discrete random variable that measures the time that passes between the beginning of a fiscal consolidation until its transition to a non-consolidation period. For further details on these functions and the related estimation techniques, see Appendix 2.

and gives, for each duration, the probability of ending a consolidation episode, conditioned to the duration of the consolidation through that moment.

Figure 3.3 and Figure 3.4., show the estimated survivor functions for the fifteen EU Member States, and by group of countries respectively.

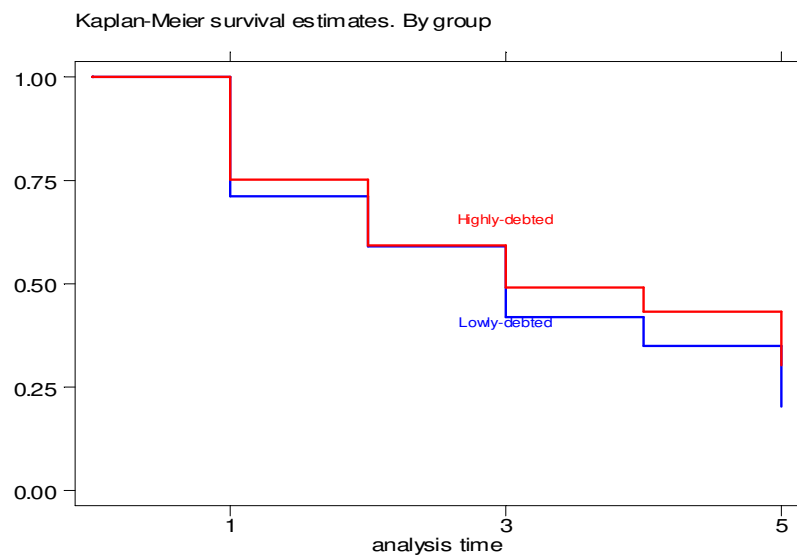
Figure 3.3. Kaplan-Meier Survivor Function. All Countries



The probabilities of continuing the fiscal consolidation after the first year and the second year drop dramatically in both groups of countries. As can be observed, the divergence between the groups increases after the second year. These results are influenced in the group of *Lowly-indebted* countries by such countries as Luxembourg and Finland, which combine very few periods of fiscal consolidation with very short durations when these few consolidations occur (average durations of 1.71 and 1.95 years, respectively). On the opposite side, in the group of *Highly-*

*indebted* countries, Italy and Belgium combine a considerable amount of periods of fiscal consolidation with an average duration of 2.37 and 2.26 years, respectively. Italy shows the largest average duration of fiscal consolidations, but this result is a combination of little number of consolidation episodes of medium length, and a single and very long consolidation effort of ten years in the nineties.

Figure 3.4. *Kaplan-Meier Survivor Function by Group*

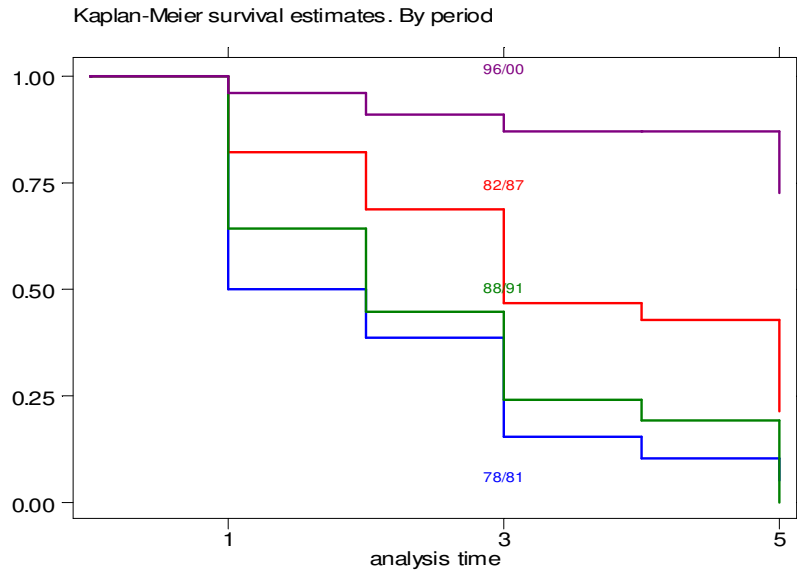


It is very interesting to observe that in the period of strongest fiscal consolidation (1996-2000), when 11 countries entered in the third stage of EMU, the probability of maintaining the consolidation remained close to 85% almost independently of whether the consolidation started one, two, three or four years before.



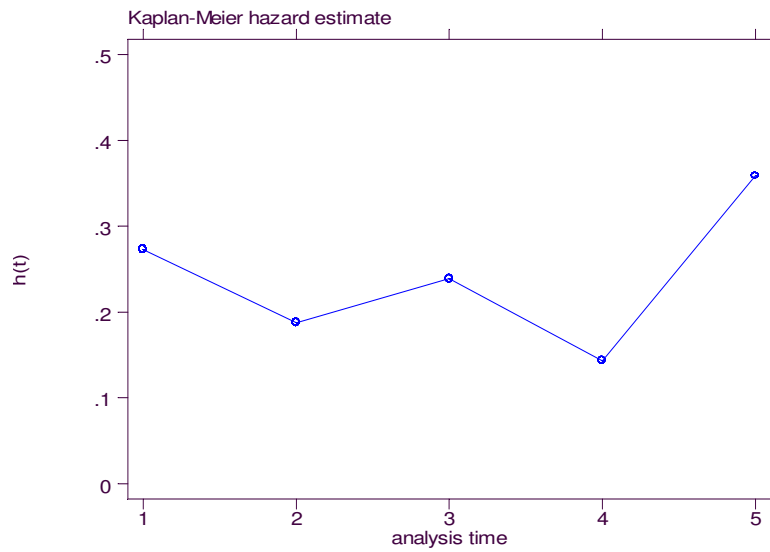
Figure 3.5 presents the estimated survivor function by periods.

Figure 3.5. Kaplan-Meier Survivor Function by Periods



The estimated hazard function, in Figure 3.6., gives further evidence of the positive dependence of fiscal consolidations on their accumulated duration. The convexity of that function implies that the probability of ending a fiscal consolidation is an increasing function in  $t$ , conditional on duration. This means that the longer the period of fiscal consolidation accumulated until  $t$ , the higher the probability that the consolidation will end in moment  $t$ . That hazard rate is higher after one year of consolidation, after three years of consolidation, and much higher after five or more years of uninterrupted consolidation.

Figure 3.6. *Kaplan-Meier Hazard Function. All countries*



### 3.4.2. *Parametric Estimation. The Determinants of Duration*

The non-parametric analysis that was presented in the previous section is well suited for describing the actual duration of fiscal adjustment episodes and analysing the dependence of those consolidations on their accumulated duration. Nevertheless, it is very limited to analyse the rest of factors that explain the probability of ending fiscal consolidations. To address this issue, this section will perform a parametric analysis of duration. This will be done estimating a *Model of Proportional Hazard (PH)*, which is the duration model that has usually been used to characterize the hazard function, and it assumes that the hazard function can be split as follows:

$$h(t, X) = h_0(t) * g(X) \tag{3}$$

where  $h_0(t)$  is the baseline hazard function that captures the dependency of data to duration, and  $g(x)$  is a function of individual variables. This function of explanatory variables is a negative function usually defined as  $g(x) = \exp(X'\beta)$ . Note that in this proportional specification, regressors intervene re-escalating the conditional probability of abandoning the period of fiscal consolidation, not its own duration.

This model can be estimated firstly without imposing any specific functional form to the baseline hazard function, following the *Cox Model* (1972)<sup>18</sup>:

$$h(t, X) = h_0(t) * \exp(X'\beta) \quad (4)$$

Or an alternative estimation can be done by imposing one specific parametric form to the function  $h_0(t)$ . In this case, the models most commonly used are the *Weibull Model* and the *Exponential Model*. In the first one,  $h_0(t) = pt^{p-1}$ , where  $p$  is a parameter that has to be estimated. When  $p=1$ , the *Weibull Model* is equal to the *Exponential Model*, where there exists no dependency on duration. On the other hand, when the parameter  $p>1$ , there exists a positive dependency on duration, and a negative dependency when  $p<1$ . Therefore, by estimating  $p$ , it is possible to test the hypothesis of duration dependency of fiscal consolidations.

As possible explanatory variables, I have included all those variables that can be directly related to the duration of fiscal adjustments, and whose theoretical justification was widely discussed in chapter 2. On the one hand, I included a set of economic variables that are expected to be related to different lengths of fiscal consolidation, and on the other, I included a set of

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<sup>18</sup> Mathematically, the baseline hazard function,  $h_0(t)$ , is defined for all time  $t$  in which a change has taken place, and it is not defined for other moments of time. But the survivor function  $S_0(t)$  is defined for all values of  $t$ .

political variables that I think are important to explain the non-economic determinants of these consolidations.

These variables are the following<sup>19</sup>:

1) Number of failures: this variable simply measures the accumulated number of failures (ends of fiscal consolidations) that have taken place in each country before the current consolidation. I expect that the higher the accumulated number of failures, the less stable is the country in maintaining a tight fiscal policy, and the more likely is that the consolidation will end sooner than later.

2) Debt-to-GDP ratio: this variable is the same variable that was used in the timing analysis of section 3. I expect that higher debt-to-GDP ratios will be associated with longer periods of fiscal consolidation, and thus associated with lower probabilities of ending the consolidation.

3) Strength of consolidation: this continuous variable is the result in absolute terms of subtracting the annual variation of the cyclically adjusted budget balance to the chosen threshold that determines when a fiscal consolidation takes place. Remember that in this analysis the threshold is zero. This means that I consider any given year as a year of fiscal consolidation if the variation of the cyclically adjusted budget balance with respect to the previous year has been positive in any amount bigger than zero. In section 5 of this chapter I will analyse the sensitivity of my results to a change in the threshold from 0% to 1%. As can be imagined, one can expect more drastic consolidations to last shorter, because the goal of balancing the budget can be easily reached in the first or second year of the consolidation episode.

4) Quality of the adjustment: this variable measures the contribution of primary expenditures (current public expenditures minus interest payments) to the total deficit reduction achieved in each consolidation year. Let the variable called

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<sup>19</sup> Again, for descriptive statistics of all dependent and independent variables used in this dissertation, see Statistical annex 1.

$Contribution = (X_t - X_0)/(S_t - S_0)$  be the contribution of primary expenditures  $X$  to the adjustment in the surplus  $S$ , achieved between the first year of the consolidation episode  $0$ , and the year under consideration  $t^{20}$ . Following all the literature on fiscal adjustments mentioned in chapter 2 and at the beginning of this chapter, I expect that the higher the contribution of primary expenditures to the overall amelioration of the budget, the lower the probability that the consolidation will end, because I expect expenditure-based consolidations to last longer than revenue-based adjustments.

5) Coalition size: this variable is the same that was used in section 3 of this chapter, and measures the number of political parties in government for each country and each year of the sample.

6) Cabinet size: again this variable measures the number of spending ministers in the cabinet for each year and each country. More parties and more ministers in the government are expected to increase the probability of ending the consolidation, therefore reducing its duration.

If fragmentation of decision-making has a role to play in fiscal policy decisions, as I suppose, both Cabinet and Coalition size must have an important impact on the duration of fiscal adjustments in Europe, because most EU countries use varying systems of proportional representation that usually generate many coalition governments as a result of very heterogeneous parliaments. For example, in 1992, when the Maastricht Treaty was signed, “there were eight parties represented in the Danish Folketing, nine parties in the Dutch Second Chamber, thirteen in the Spanish Congress of Deputies, and thirteen in the Belgian Parliament (although that also reflects the division of the main

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<sup>20</sup> In this concrete definition of the variable I follow Von Hagen, Hallett and Strauch (2001: 10).

parties into separate French-speaking and Dutch-speaking wings)” (Dale, 1993: 2)<sup>21</sup>

7) Months to next election: This variable is slightly different than the one used in the analysis of the probability of starting fiscal consolidations in section 3. There I used a dummy variable with value 1 for election years and 0 otherwise. Since now I want to capture the dynamic influence that coming elections have on the probability of ending a consolidation that is already taking place, I use a new variable that takes values 0, 12, 24, 36 and 48 to measure the distance in months between each year under consideration and the year in which the next general election will be celebrated. When governments design their strategies of fiscal adjustment, they usually implement every unpopular measure at the beginning of their mandate, and they normally try to have all the process ended by the time the next election arrives. Together with the possibility of ending the consolidation just before the election, European prime ministers willing to undertake a consolidation without the pressures of the electorate, face also the alternative of calling an early election when they judge it most politically advantageous. As has been already mentioned, the most illustrative example again is that of Jaques Chirac who called an early election in 1997, expecting that a renewed right-wing majority would give the Juppe’s cabinet enough strength “to push through further painful spending cuts or tax increases”<sup>22</sup> during the last year before the “Maastricht exam”. His miscalculation

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<sup>21</sup> “In the most extreme form of proportional representation, in the Netherlands, the country is treated as one single constituency, so that anyone who can amass 1/150<sup>th</sup> of the national vote gets a seat in the 15-member Second Chamber, the principal legislative body (...) (But) some (other) countries try to limit the number of parties represented in parliament. Germany, for example, insists that a party must get at least five percent of the vote to qualify (a provision that has effectively created a three-party system), and Spain has a three percent threshold. Ireland has a complicated system of transferable votes, allowing voters to list candidates in order of preference, which many experts believe most accurately reflects the electorate’s wishes.” (Dale, 1993: 2).

<sup>22</sup> *The Economist*. London: June 7, 1997.

gave the government to the left, and to Lionel Jospin the leadership of the French executive.

But because this type of electoral calendar management usually undermines democratic stability, early calls normally take place in the last year of the mandate, and thus in many occasions consolidation efforts and elections have coincided (especially during the run-up to EMU). Very illustrative of this point is an article that appeared in *The New York Times* in March, 1997, that affirmed: “Europe is really very unlucky. There is a collision of calendars, including the French and German election calendars and the Maastricht single-currency decision calendar in 1998”<sup>23</sup>.

Therefore, assuming that fiscal adjustments are unpopular, and politicians tend to spend more just before the election discounting fiscal illusion and misinformed voters<sup>24</sup>, I expect election years to increase the probability of ending the consolidation.

8) Socialist Control of the Cabinet (Government-Left). This is the same variable that was used in section 3 for the timing analysis. As was the case then, I do not expect the ideology of the cabinet to play any significant role in the duration of fiscal adjustments, except for the fact that stronger and more cohesive governments (those in which a higher percentage of cabinet posts are held by members of the same party –either left or right–), may be associated with longer duration, because their cohesion can

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<sup>23</sup> *The New York Times*. New York: March 25, 1997. This article described the strikes against plant closings and job losses in Belgium, France and Spain; a march by German coal miners afraid of subsidies cuts; protests by French medical interns “angered by budget cutbacks”; and a demonstration by 300,000 Italian workers demanding more jobs. The article also links all this social discontent to the pressures that politicians felt at the time to combine the fulfilment of the Maastricht criteria, and the partial satisfaction of these protestors by means of targeted public outlays, in a crucial electoral year.

<sup>24</sup> See Buchanan and Wagner (1977) on fiscal illusion, and see Alesina, Cohen and Roubini (1992) on electoral business cycles, and all the discussion presented in chapter 2. More recently, Philippopoulos and Tzavalis (2001), with data on Greece between 1960-97, have found evidence of pre-election cycles, but no partisan differences in fiscal laxity.

make it easier for them to stick to the decided path, in front of lobbyists' pressures and the electorate's discontent.

In order to decide if I have to include country or time dummies, I perform the usual cox-regression based test for equality of survival curves. If the test does not allow me to reject the null hypothesis that equality of survival curves exists, then I can consider that my sample is homogeneous. In this case I will not include dummies. Otherwise, dummy variables to control for possible time or spatial heterogeneity must be included.

*Table 3.5. Cox Regression-Based Test*

	Events		Relative
	Observed	Expected	Hazard
All Countries			
Austria	19	16.68	1.171
Belgium	17	20.66	0.834
Denmark	13	14.63	0.905
Finland	20	15.97	1.293
France	16	13.86	1.177
Germany	18	19.88	0.923
Greece	21	15.91	1.361
Ireland	14	13.04	1.098
Italy	12	16.69	0.727
Luxembourg	11	12.03	0.934
Netherlands	15	13.6	1.132
Portugal	18	18.81	0.978
Spain	15	12.19	1.267
Sweden	15	12.71	1.208
UK	13	20.33	0.651
Total	237	237	1
LR chi2(14)		10.18	
Pr>chi2		0.75	

Results from table 3.5 show that the null hypothesis that equality of countries exist cannot be rejected, and therefore the



sample can be considered as an homogeneous sample, for which no country dummies are needed. Nevertheless, when I do the same test differentiating the sample by periods and groups of countries, I obtain somewhat different results. Tables 3.6 and 3.7 contain the results of the Cox regression-based test for equality of survival curves by group and by period, respectively.

*Table 3.6. Cox Regression-Based Test for Equality of Survival Curves. By Country-group*

Group	Events Observed	Expected	Relative Hazard
Lowly-indebted	145	136.77	1.063
Highly-indebted	92	100.23	0.929
All	237	237	1
LR chi2(1)		1.19	
Pr>chi2		0.27	

*Table 3.7: Cox Regression-Based Test for Equality of Survival Curves. By Period*

Periods	Events Observed	Expected	Relative Hazard
62/72	42	33.11	1.67
73/77	41	28.94	1.90
78/81	43	24.03	2.35
82/87	36	43.58	1.04
88/91	37	24.49	1.93
92/95	26	27.05	1.24
96/00	12	55.8	0.24
All	237	237	1
LR chi2(6)		83.3	
Pr>chi2		0.00	

As the *p-values* show, the null hypothesis of equality of groups cannot be rejected. Instead, it is possible to reject the hypothesis that equality of periods exists. Thus, the sample of study shows temporal heterogeneity, but no spatial heterogeneity. Therefore,

time dummies must be included in the parametric analysis, to control for time heterogeneity, such as the one caused by periods with important accumulation of consolidation episodes.

After taking into account all these factors, I have estimated the three functional forms presented at the beginning of this section by maximum likelihood, using 412 observations and 195 failures.

Table 3.8 presents the parameter estimates for these alternative hazard function models. Recall that a positive parameter indicates an increase in the hazard rate, that is, an increase in the probability that the consolidation will end in period  $t+1$ , given that it lasted through period  $t$ . As can be observed, the three alternative specifications give almost identical results. All explanatory variables show the expected signs, but the only explanatory variables that are statistically significant are the number of failures, the debt-to-GDP ratio, the strength of the adjustment (only in the Weibull estimation), the quality of the adjustment, and the cabinet's size.

The higher the debt-to-GDP ratio and the higher the contribution of primary expenditures to deficit reduction, the less probable it is that the consolidation ends. The higher the number of accumulated failures, the stronger the adjustment, and the larger the number of spending ministers in the cabinet, the higher the probability that the fiscal consolidation ends, and a fiscal expansion starts. The  $p$  parameter in the Weibull estimation is statistically significant, positive and bigger than one, which means that the hazard function grows with time, and this is consistent with the empirical hazard function previously commented in the non-parametric analysis (see Figure 3.6), that predicted positive duration dependence of consolidation episodes.

These results confirm that all economic variables pointed out by other authors are significant explanatory factors to account for different durations of fiscal consolidations in Europe. Out of the four political variables, only cabinet size (the number of spending ministers) is statistically significant and shows that more fragmented cabinets find it problematic to maintain long consolidation efforts. The role of elections, although not

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*Table 3.8. Parametric Estimation of Proportional Hazard Model*

Probability of ending the fiscal adjustment if it lasted until $t$	Cox	Exponential	Weibull
N.Failures	0.015*** (8.67)	0.012*** (9.53)	0.031*** (13.25)
Debt-to-GDP	-0.011*** (-5.29)	-0.010*** (-5.04)	-0.014*** (-5.70)
Strength of Adjustment	0.081 (1.62)	0.069 (1.45)	0.108* (1.81)
Quality of Adjustment	-0.043*** (-4.63)	-0.042*** (-4.94)	-0.048*** (-4.17)
Coalition Size	0.016 (0.38)	0.009 (0.22)	0.036 (0.71)
Cabinet Size	0.110*** (3.91)	0.101*** (3.83)	0.145*** (3.90)
Months to Election	-0.005 (1.15)	-0.005 (1.17)	-0.007 (1.40)
Government-Left	-0.003 (1.61)	-0.002 (1.41)	-0.003 (1.41)
1962-72	1.927*** (5.01)	2.122*** (5.15)	2.253*** (5.22)
1973-77	1.579*** (4.25)	1.878*** (4.02)	1.977*** (4.7)
1978-81	1.893*** (5.27)	1.987*** (5.32)	2.247*** (5.61)
1982-87	1.267*** (3.75)	1.323*** (3.87)	1.474*** (4.07)
1988-91	1.745*** (5.21)	1.845*** (5.12)	1.947*** (5.18)
1992-95	1.424*** (4.19)	1.555*** (4.98)	1.697*** (5.03)
Constant			-6.292*** (-11.32)
P			2.844*** (20.46)
Observations	412	412	412
No. of failures	195	195	195
Wald Chi2(8)	154.43	174.67	257.41
Prob>Chi	0.0000	0.0000	0.0000
Log-likelihood	-1027.06	-351.41	-251.56
AIC	2072.12	722.82	525.12

*Note:* Robust z-statistics in parentheses \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

significant, behaves as expected, because its negative sign indicates an association between lower number of months to next election, and a higher probability of ending the consolidation effort.

Finally, given the fact that the application of duration models to the study of fiscal consolidations is almost inexistent, and because none of these attempts has offered a discussion of what would be the most appropriate functional form to be used in these cases, I want to compare very briefly the three models that I have estimated. Out of the three functional forms included in table 3.8, the one that best fits the data according to all the possible tests<sup>25</sup>, is the Weibull specification. The superiority of this model becomes even clearer by looking at the Cox-Snell residuals plots, in Figure 3.7.

If the model fits the data, then the plot of the cumulative hazard function versus the Cox-Snell residuals should be a straight line with slope equal to unity and beginning at the origin. Comparing the plots below, it becomes clear that the *Weibull plot* satisfies the exponential requirement for most of the time, except in the part of larger residuals where the slope appears to exceed the unity. This confirms that the Weibull model should be the preferred model for the parametric analysis of duration of fiscal adjustment episodes.

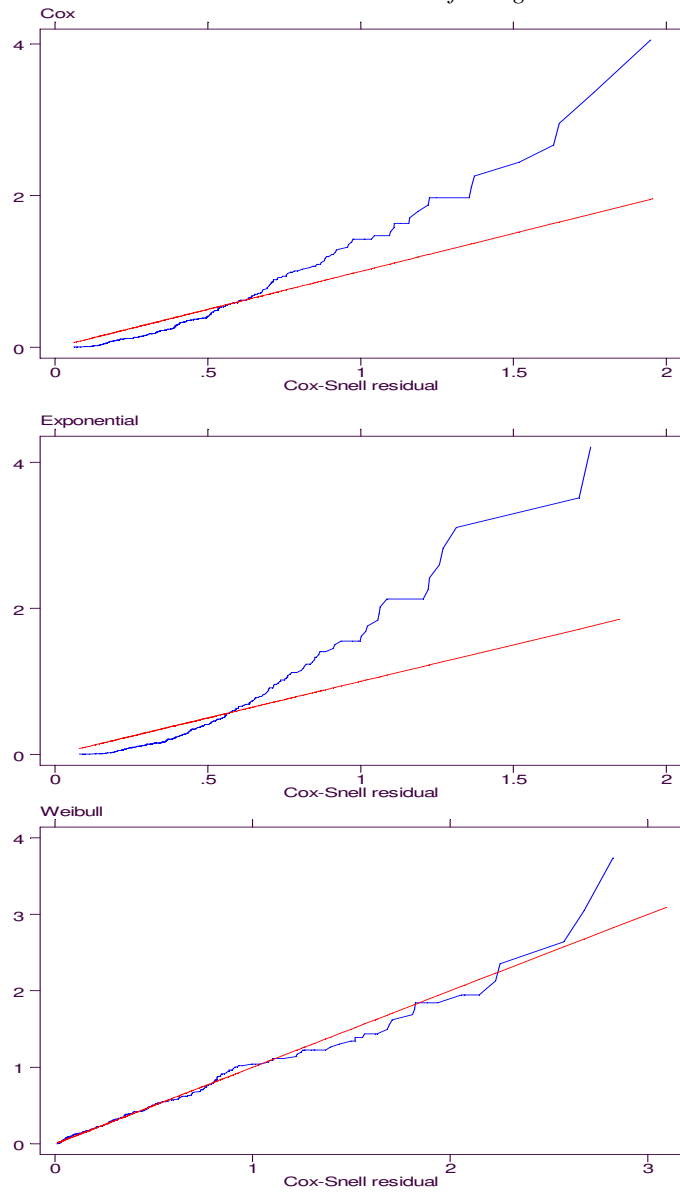
### **3.5. Economic and Political Factors During Stronger Consolidations**

Any study of fiscal adjustments is incomplete if it does not deal with the problem of arbitrariness of different definitions of fiscal consolidations. Until now I have been working with the loosest possible definition. Nevertheless, under this arbitrariness problem no results from the duration analysis can be taken as definitive until they are not tested for a different definition of

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<sup>25</sup> See Appendix 2 for further details on these tests.

Figure 3.7. Cox-Snell Residuals to Evaluate Fit of 3 Regression Models



fiscal adjustment. Thus, in this last section I will replicate the parametric analysis of section 4.2 of this chapter, but changing the definition of fiscal consolidation.

Now I will consider that a fiscal consolidation takes place in a given year if the cyclically adjusted budget balance with respect to GDP in that year increased by 1% or more from the previous year. By changing the threshold from 0% to 1%, I will be able to test the sensitivity of the previous results to different definitions of fiscal adjustment. It can be considered that the 0% threshold is the minimum threshold that one can impose to differentiate fiscal consolidation years from fiscal expansion ones. While the 1% threshold is the most common in the literature on fiscal adjustments, because it discriminates in favour of strong consolidation experiences, where the political commitment to reduce the public deficit is strong and cannot be attributed to unintended outcomes.

That literature follows in general the trend started by Alesina and Perotti (1995, 1996a, 1996b), and defines 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 primary balance (excluding interest payments) exceeded 1.5% of GDP in one year and was less than 1.25% of GDP in the following or the precedent year. Note that because I have used in this chapter cyclically adjusted budget balances (including interest payments) in order to assess the dynamic impact of debt accumulation on duration of adjustment episodes, the new threshold that I will use for the sensitivity test can be considered as “identical” to the one used in the literature.

Under the new definition, all the duration analysis changes. As can be seen in table 3.9, the number of failures under the *Stronger* definition (the 1% threshold) is bigger than under the *Weaker* definition (390 versus 237).

Furthermore, under the *Stronger* definition, the average probability of ending the fiscal consolidation is much higher than under the previous definition (77.8% versus 47.6%), and the

average duration is much lower (1.29 years versus 2.05). The maximum duration under this new threshold is four years.

Table 3.9. Descriptive Statistics: Failure and Duration by Threshold

	Failure		Duration	
	Weaker	Stronger	Weaker	Stronger
Mean	0.476	0.778	2.048	1.295
Std. Dev.	0.500	0.416	1.450	0.623
Variance	0.250	0.173	2.103	0.389
Skewness	0.095	-1.341	1.690	2.322
Kurtosis	1.009	2.798	5.787	8.343
No of failures	237	390	237	390
Observations	495	501	495	501

Below, I present the Kaplan-Meier survivor and hazard estimates for both definitions of fiscal adjustments.

As can be observed, the probability of maintaining the consolidation after the first year decreases even more under the new definition (0.6 versus 0.4) than what it did under the initial definition. These differences are maintained for longer durations, because the probability of maintaining the consolidation after the second year decreases 0.2 under the new definition, when it only decreased about 0.1 under the initial definition. This behaviour is translated into a smoother estimated hazard function, that clearly shows higher positive dependency on accumulated duration under the *Stronger* definition than under the *Weaker* one.

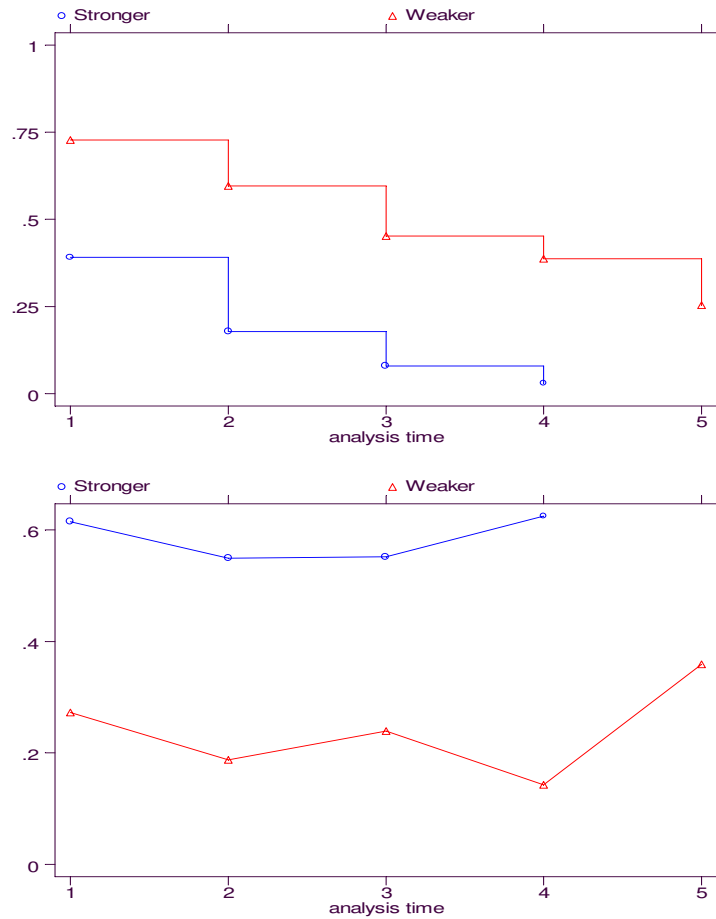
But the most important results arise when I estimate the same parametric model that I estimated with the initial threshold, but now under the new definition of fiscal consolidation.

In principle, I expected all the independent variables to maintain their signs, and only expected some possible changes in their statistical significance.

As can be observed by looking at the results reported in table 3.10, the most important difference between the results under the two thresholds, is that political factors become much more

important in explaining the duration of fiscal adjustments, when the definition of consolidation is made stricter. In fact, all political factors gain statistical significance, while some important economic variables lose explanatory power.

Figure 3.8. *Kaplan-Meier Survivor and Hazard Functions by Threshold*





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*Table 3.10. Parametric Weibull Estimation by Threshold*

Duration	Weaker Definition	Stronger Definition
N.Failures	0.031*** (13.25)	0.010*** (15.49)
Debt-to-GDP	-0.014*** (-5.70)	-0.013*** (5.31)
Strength of Adjustment	0.108* (1.81)	-0.024 (0.47)
Quality of Adjustment	-0.048*** (-4.17)	-0.026 (1.64)
Coalition Size	0.036 (0.71)	0.093* (1.91)
Cabinet Size	0.145*** (3.90)	0.073*** (2.96)
Months to Election	-0.007 (1.40)	-0.006** (2.08)
Government-Left	-0.003 (1.41)	-0.004** (2.18)
1962-72	2.253*** (5.22)	2.853*** (5.52)
1973-77	1.977*** (4.7)	1.897*** (4.74)
1978-81	2.247*** (5.61)	2.457*** (5.41)
1982-87	1.474*** (4.07)	1.436*** (4.11)
1988-91	1.947*** (5.18)	1.958*** (5.23)
1992-95	1.697*** (5.03)	1.598*** (4.78)
Constant	-6.292*** (-11.32)	-2.865*** (7.00)
P	2.844*** (20.46)	-3.543*** (30.55)
Observations	412	404
No. of failures	195	307
Wald Chi2(8)	257.41	337.96
Prob>Chi	0.0000	0.0000
Log-likelihood	-251.56	-159.70
AIC	525.12	341.48

*Note:* Robust z-statistics in parentheses: significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

Again, the larger the level of debt, the less likely is that the consolidation ends; and the larger the cabinet and the number of accumulated failures, the more probable is that the consolidation finishes.

Nevertheless, under the stronger definition, the two remaining economic variables, such as the strength of the adjustment and its quality, stop being statistically significant. Together with this loss of predictive power among economic variables, the other three political variables, such as coalition size, months to next election, and Socialist control of the cabinet suddenly gain statistical significance.

Therefore, under the stricter new definition, larger coalitions, larger cabinets, and closer elections increase the probability of ending a fiscal consolidation<sup>26</sup>. In addition, the negative and significant coefficient of leftist cabinets should be interpreted as both the prove that social democrats are not necessarily more reluctant to balance the budget, and most importantly, as the confirmation that ideological homogeneity in the cabinet allows governments to stick to longer adjustment efforts.

These results indicate that stronger fiscal adjustments are the result of strong and very committed governments, not threatened by the fear of unpopularity or adverse election results, willing to pursue the necessary policies to balance the budget.

If these conditions of cabinet cohesion and medium-run electoral stability are not met, one is very likely to confront situations such as the one described by Hannon (2001), in an article about the critics that the European Commission made to Germany, France, Italy and Portugal for missing opportunities to improve their budget deficits. Hannon's diagnosis was straightforward: "A number of EU governments are likely to end the year with larger budget deficits than they had targeted

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<sup>26</sup> These results for Europe are similar to those found by Poterba (1994) for the US, where he found that: "When a single party controls the state house and the governorship, deficit adjustment is much faster than when party control is divided. In gubernatorial election years, tax increases and spending cuts are both significantly smaller than at other times" (p. 799).

(changing the previous trend) (...) But Germany and France face elections next year, and are unlikely to cut spending or raise taxes despite their agreement under the EU's Stability and Growth Pact to aim for broadly balanced budgets by 2003."<sup>27</sup>

### **3.6. Conclusion**

Let me summarize at this point what I have done so far in this chapter. After presenting the definition of fiscal adjustment on which this dissertation will be based, this chapter has examined the economic and political determinants of timing and duration of fiscal consolidations in the European Union.

To analyse the initial conditions that influence the probability of starting fiscal consolidations, I have used probit analysis. Results from that estimation showed that the domestic economic cycle, the relative growth rate, and the accumulated level of debt are very important factors influencing the probability of starting fiscal consolidations. The effect of politico-institutional variables in this context is weak, except for the proximity of elections.

Once the analysis on timing was completed, I have applied the methodology of duration models to annual data on cyclically adjusted budget balances for the fifteen EU Member States between 1960 and 2000.

First, I have done a non-parametric analysis where I have only taken into account time, in order to assess the impact of accumulated duration on the probability of ending a fiscal consolidation. Results have shown that the probability of ending a

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<sup>27</sup> *Dow Jones Euronomics*. London: June 27, 2001. A similar situation was also recently described by *Business Europe*, in an article about the political situation in Greece, and the social tensions created by the still pending economic reforms that were needed to secure the entry ticket for EMU in 2001, when the author of that article affirmed that: "These pressures make PASOK victory in the next general election which must be held by October 2000, seem less assured". *Business Europe*. New York: May 19, 1999.

fiscal adjustment episode increases with the accumulated number of years of the tightening effort.

Second, I have performed a parametric analysis, in order to include more variables that could influence the probability of ending the fiscal consolidations. I have found that the accumulated level of debt and the fragmentation of the cabinet are the most important determinants of the duration of fiscal efforts. In fact, under a stronger definition of fiscal consolidation, political variables such as the number of parties in the coalition, and the closeness of elections, gain importance as predictors of duration of fiscal consolidations, while those economic variables such as quality of the adjustment, that have been traditionally pointed by the literature as the key variable for the success of fiscal adjustments, lose predictive power.

This chapter has demonstrated that the statement:

«Consolidation efforts that operate to a large extent on the spending side of the budget have a higher chance to survive than consolidations that relay mostly on increased revenues.» (Von Hagen, Hallett, and Strauch, 2001: 11),

is not anymore sufficient to characterize the determinants of duration of fiscal adjustments, if a group of alternative economic and political factors is not taken into account as well. But what this chapter has not answered yet is why during long and short episodes of fiscal adjustment, some countries decide to operate on the spending side, while others relay mostly on increased revenues.

The composition dimension of fiscal consolidations is the subject of the next chapter.

## CHAPTER 4

# THE COMPOSITION OF FISCAL ADJUSTMENTS

*« In a capitalist democracy, politics is nothing but the matter of who gets what, when, and how.» (Laswell, 1936 :19)*

The choice of the budget component's that will be increased or decreased during a fiscal adjustment episode in order to achieve a balanced budget, is the crucial dimension of any strategy of fiscal consolidation.

Once I have explored in the previous chapter the importance that different economic and political factors have in determining the timing and duration of fiscal adjustment experiences, this chapter will present a detailed account of how those factors affect any government confronted with the decision of choosing among different budgetary compositions for their fiscal adjustment strategy.

For this purpose, the chapter will be divided into three main blocks: The first section will be entirely focused in explaining why is the composition of the budget important for the level of growth and equality of any economy: Then, the second section will be devoted to explore empirically what are the economic and political factors that determine the composition of the budget in general. And finally, the third section will be focused on the effect that the

same factors have on the composition of fiscal policies, but only during episodes of fiscal adjustment

Because in the second section I will present strong empirical evidence confirming that ideology of the party in government is a crucial factor to explain the composition of the budget, during both years of fiscal expansion and years of fiscal adjustment, the third section of the chapter will pay special attention to test if this role of ideology is maintained when I narrow the study and I focus only on episodes of fiscal consolidation.

While in the previous chapter economic variables, such as the economic cycle and the level of debt, demonstrated to be very powerful predictors of the timing and the duration of fiscal adjustment episodes, this chapter will conclude that political factors are more important to understand their composition.

#### **4.1. Why is Composition of the Budget Important?**

The composition of the budget is important because of two reasons: (1) according to most economists, the composition of the budget has macroeconomic effects; and (2) it implies a political decision over who pays and who receives what in a country.

With respect to the economic consequences of fiscal adjustments, chapter 6 of this dissertation offers a deep analysis. However, it is very useful to borrow the basic theoretical concepts from its first section and bring them here to put the analysis of budget composition in context.

Most of the recent work has focused on the theoretical and empirical discussion surrounding the idea that different composition of fiscal adjustments can have very different effects on economic growth. As I explained in chapter 2, conventional macroeconomics holds that fiscal retrenchment can only be achieved at the cost of reduced output and employment, because tight fiscal policy reduces aggregate demand for goods and services, and with rigid prices, this decline in nominal demand results in a fall in real output.

This “Keynesian-conventional” view was first challenged in the eighties by Hellwig and Newmann (1987). The idea was that when the private sector realizes that a fiscal consolidation will imply a lower tax-burden in the future, and assuming that consumption depends on permanent income and investors are forward-looking, both consumption and investment will raise even above the levels previous to the fiscal consolidation. This “rational expectations” interpretation gained popularity after the work of Giavazzi and Pagano (1990), which demonstrated that fiscal adjustments in Ireland and Denmark had caused an increase in the private sector’s demand.

More recently, the non-Keynesian effect of fiscal adjustments has been refined<sup>1</sup>, and has been directly associated with the type of adjustment in terms of composition. According to McDermott and Wescott (1996), Alesina and Perotti (1995, 1996, 1996b, 1998), Buti and Sapir (1998) and Von Hagen, Hallett and Strauch (2001), fiscal adjustments that rely primarily on spending cuts in transfers and the government wage bill can be expansionary and have 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 the mentioned effect on demand of serious fiscal tightening, according to which wealth rises when future tax burden decline, and when interest rates decline credibility is restored and inflation and default risks abate. Both consumption and investment rise.

A newer alternative supply-side explanation affirms, however, 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 (most European countries), a cut in wage government consumption causes a fall in the demand for labor, while a cut in transfers reduces the alternative income available to union members,

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<sup>1</sup> See also the more recent empirical work by Giavazzi, Pagano, and Jappelli (1999).

respectively; both effects reduce the bargaining power of unions, thus increasing the competitiveness of the tradable sector and increasing exports.

But the composition of the budget is not only important for raising the level of income in the economy, it also has very important implications for the distribution of this income among citizens<sup>2</sup>. A superficial approach to public spending would erroneously lead to the conclusion that higher levels of public expenditures are always enough to reduce inequalities. But nothing is more mistaken. Some public expenditures are productive, some unproductive, some redistribute income, and some others just subsidize big but not always efficient bureaucracies<sup>3</sup>.

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<sup>4</sup>.

The ways in which equality can be promoted through fiscal policy are numerous. Some countries have, for example, promoted very actively direct transfers of income from public resources to

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<sup>2</sup> See in this respect Bergström (1997), especially the chapter dedicated to "Income Distribution, Fiscal Policy and Growth" by Alesina and Perotti. See also the compilation of articles by Tanzi and Chu (1998) on income redistribution and high-quality growth.

<sup>3</sup> For example, Przeworski perfectly exemplified the differences that Keynesians established between productive government spending and redistribution spending (that increases equality but not necessarily output growth). In his words: "Keynesian economics favors government spending over redistribution of income: the multiplier for government spending is greater than unity. Hence, at least in principle, government spending more than pays for itself in increased production, while distribution of income partially hurts other components of demand" (Przeworski, 1986: 210)

<sup>4</sup> "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)



improve the situation of the bottom tier of the income distribution. While others have focused on the top percentiles with highly progressive taxes.

These measures can be complementary to each other, as well as labor market policies have been considered complementary to fiscal policies to reduce inequality in European countries (the rationale being that relative wages exert a strong influence on income inequality).

Among these labor market measures, the most common have been the introduction of minimum wages, generous unemployment benefits, and a wide range of job-creating measures such as low payroll and income taxes for low-wage workers, or measures to reduce labor market rigidities. In addition, improved access to education and health, as long as new investments in formation of the low-skilled, investments in human capital and new technologies, are commonly accepted measures leading to increasing equality.

But normally, when fiscal adjustments are to be implemented, many of those policies of income redistribution and the most extensive benefits schemes will need to be reduced, or if maintained, it will be at the cost of a higher tax burden. The effect of fiscal adjustments on public initiatives to diminish income inequalities has generally “meant doing more with less”<sup>5</sup>.

Although there is a huge lack of empirical studies that address the impact of fiscal adjustments on income redistribution<sup>6</sup>, the

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<sup>5</sup> Ford (1998: 37)

<sup>6</sup> Only the IMF and the World Bank have systematically studied the effect of stabilization policies (that include serious fiscal adjustments) in developing countries on both growth and equality. Their studies almost always have concluded that successful stabilization experiences have increased economic growth and decreased inequalities, normally as a “collateral effect” of the general economic stabilization, and sometimes also helped by World Bank’s poverty reduction programs (See Nelson, 1993; and Tanzi, Chu, and Gupta, 1999). For industrial countries, among the very few studies that have addressed the equity dimension of fiscal adjustments is the work by Ford (1998), who affirms that fiscal consolidations among OECD countries have run parallel to widening distribution of incomes and poverty increases.

intuitive idea could be sorted as follows: when a fiscal consolidation is going to take place, and the impact on redistribution policies is to be minimized, governments should focus on reducing unproductive expenditures (such as military expenditures, bureaucratic wasted resources, etc), and at least maintain public consumption and public investment on education, health and infrastructures, for long-run equality purposes.

Finally, the composition of the budget is not only important due its economic effects on the generation and the distribution of income, but it is also important because of the political use that policy-makers can do of their budgetary decisions. When a government decides “who gets, what, when, and how” (Laswell, 1936: 19), it is not only reallocating resources to improve the growth rate or the degree of equality in a certain country, but it is also benefiting some social groups (most likely its electoral constituency) at the expense of others.

How the composition of the budget can be used by policy-makers to profit electorally from it, has been already discussed in depth in the previous chapters. Higher public consumption before the election will increase momentarily economic growth and the employment level, and this will normally be rewarded by the electorate<sup>7</sup>. Direct targeted transfers and lower taxes will collect a higher percentage of votes among the benefited groups. Sometimes, even a credible promise of future tax decreases will be welcomed by the electorate<sup>8</sup>. And finally, an increase in public wages can also gain a good portion of the electorate in countries

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<sup>7</sup> The effects of economic performance in both retrospective and prospective voting decisions by the electorate is a vast field of political science. Some of the most prominent works in this literature are: Lewis-Beck (1988); Markus (1992); Harrington (1993); Maravall and Przeworski (1998); and Cheibub and Przeworski (1999). Further discussion on this subject is presented in chapter 7.

<sup>8</sup> Some examples are the presidential elections that Ronald Reagan (in 1982) and George W. Bush (in 2000) won with the promise of future tax-cuts. In Europe, some of the most recent examples are those of Blair’s victory in 1997, Aznar’s electoral triumph in 1996 and 2000, and Berlusconi’s victory in 2001, all campaigning for rationalization of public expenditures that would eventually allow them to reduce income taxes.

with extensive public employment, such as Sweden, where around 60% of women work in the public sector.

#### **4.2. Economics, Politics, and Composition of the Budget**

Given such remarkable economic and political consequences, the decision on the budget's composition is probably the most important decision that any government takes every year. Thus it is my purpose in this section to investigate what are the causes of that decision, or in other words, what are the economic and political factors that influence that transcendent choice.

The possible explanatory factors that I am going to test are the same that I have been discussing and testing in the two previous chapters.

On the economic side, the composition of the budget might be influenced by the economic cycle (in terms of growth, unemployment rate and inflation), the accumulated level of debt (basically through its affect on interest payments) and the fiscal record of previous years (most importantly the public deficit of the previous year).

On the political side, the degree of fragmentation of the cabinet is expected to increase the total level of public expenditures, mainly via public transfers. The electoral calendar is supposed to have an impact on both increased public consumption (to increase aggregate demand) and a decrease in taxes. And finally, the effect of cabinet's ideology is expected to influence both revenues and expenditures. Normally, it would be reasonable to observe higher expenditures and taxes (although not necessarily deficits) to be associated with social democratic governments. Also, these higher expenditures are likely to be concentrated on public consumption, public wages, public transfers and public investment, all financed with the corresponding increase in direct taxation under progressive tax systems.

To test all these hypotheses, I run the following regression of time-series cross-national data for the period from 1970 to 2000 in the fifteen European Union Member States.<sup>9</sup>

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

(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  $t$ ;

1)  $PCABB$  is the cyclically adjusted budget balance minus interests (a positive balance is a primary surplus and a negative balance is a primary deficit);

2)  $\Delta U$  is the change in the unemployment rate;

3)  $\Delta P$  is the rate of inflation of the consumer price index;

4)  $X$  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)<sup>10</sup>;

5)  $T$  is a vector of time effects;

6)  $C$  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.<sup>11</sup>

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<sup>9</sup> The period is reduced to 1970-2000 compared to the broader period covered by the timing and duration analysis performed in chapter 3 (1960-2000), because lack of sub-aggregate data for many countries in the sixties did not allow me to extend also the composition analysis to that decade.

<sup>10</sup> These variables are the same that were used in the duration analysis of chapter 3. Refer to that chapter for specific definitions of these variables. Also, see Appendix 5 for further specification of all variables used in this dissertation.

<sup>11</sup> Note that in the duration analysis the cox-regression based tests showed that there was temporal heterogeneity but not spatial heterogeneity in the sample. Recall however that the sample used in chapter 3 was a sample of exclusively adjustment episodes, whereas now the sample covers all years and all countries, including both adjustment and non-adjustment years. In this case there also exists

The specification is identical to the one used by Perotti and Kontopoulos (1998) to explore the same question, though with a different sample. As they explain: “the use of variables representing the economic environment-  $\Delta U$  and  $\Delta P$  - has two basic justifications: first, to capture the effects of, say, unemployment on expenditure via unemployment-related subsidies and similar types of expenditures<sup>12</sup>; second, to capture the reaction function of policymakers implementing countercyclical policies.” (p. 15).

By introducing as independent variables coalition size and cabinet size, as I did in the chapter on timing and duration, I also follow Perotti and Kontopoulos (1998) in abandoning the classical “Type of Government” variable<sup>13</sup>. I have decided not to include as independent variable 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<sup>14</sup>. For similar reasons, the number of parliamentary seats held by the party in government is excluded from these regressions<sup>15</sup>.

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spatial heterogeneity, and the country dummies are included in the model used in this chapter attempt to capture this effect.

<sup>12</sup> This type of control is especially important for some sub-items of the budget, where the EU Commission does not perform cyclical adjustments.

<sup>13</sup> 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. As I have already mentioned in previous chapters, this variable is a multinomial variable with six levels that decrease from single party government to caretaker government.

<sup>14</sup> See Halleberg and Von Hagen (1997).

<sup>15</sup> The effect of parliamentary majorities in the duration and composition of fiscal adjustments has been tested separately from the models of chapters 3 and 4 that include coalition and cabinet size as regressors, and the corresponding coefficients were not statistically significant. These results seem to confirm the decisive role that those variables affecting the cabinet have in determining fiscal policy outcomes. One cannot forget in this respect that in all European parliamentary democracies it is the cabinet the governmental body who designs the budget, the Parliament discusses and votes it, but it is the cabinet again who finally implements it (with a wide margin to depart from the initial budget) (González-Páramo, 2001: 24-26).

In addition, as I did in the duration analysis, I have decided to exclude 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), because they are time invariant and cannot be distinguished from country dummies, and because Perotti and Kontopoulos have lastly demonstrated that contrary to previous findings, the impact of those variables on fiscal outcomes is rather insignificant.<sup>16</sup>

To study the effect of the same independent variables in the composition of the budget, the same regression has been run several times with the following dependent variables:

1) The government's primary cyclically adjusted budget balanced;

2) Total revenues of general government cyclically adjusted, and:

Taxes on income and wealth (direct taxes); Taxes on production and imports (indirect taxes); Social contributions;

3) Total primary expenditures of general government cyclically adjusted, and:

Subsidies; Final government consumption (public consumption); Collective consumption; Social benefits in kind; Social transfers other than in kind (social transfers); Compensation of employees (public wages); and Gross fixed capital formation (public investment).

I have done this for the whole 1970-2000 period, and two sub-periods, 1970-1994 and 1996-2000, to avoid the inconsistencies that the change from ESA-79 to ESA-95 generate in the AMECO Database of the European Commission<sup>17</sup>.

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<sup>16</sup> In any case, I have replicated with my database their analysis on the effect of spending limits (targets) and top-down negotiations in fiscal outcomes. Results of this replication are reported in Appendix 4, and looking at them one can arrive at the same conclusion that the impact of procedural fragmentation variables is rather insignificant.

<sup>17</sup> To test the importance of the Maastricht Agreement, as a possible better criterion to split up the sample in two periods, all regressions have been run also

I have followed for all these regressions the methodology 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<sup>18</sup>.

Table 4.1. presents the estimated coefficients for all regressions on main aggregates (Revenues, Expenditures and Budget Balance). These 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 tend 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 is very cyclical. A worsening of the unemployment rate reduces public revenues and increases public expenditures. Similarly, an increase in the level of prices, increases both public revenues and expenditures. The positive effect that prices have on the change in the budget balance confirms the hypothesized impact formulated in chapter 2 that monetary easing (normally conducive to price increases) drives the budget balance in the direction of tightening.

Between 1970-2000 left-wing governments were not associated with budget deficits, although 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

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for periods 1970-1992 and 1993-2000 (excluding 1995), and results are basically the same than those for periods 1970-1994 and 1996-2000.

<sup>18</sup> 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 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." For further details on this technique, see Appendix 3.

Table 4.1. Composition of the Budget. Main Aggregates, 1970-2000

	1970-2000	1970-2000	1970-2000	1970-1994	1970-1994	1970-1994	1970-1994	1970-2000	1970-2000	1970-2000	1970-2000	1970-2000	1970-2000	1970-2000	1970-2000	1970-2000	1970-2000	1970-2000	1970-2000		
	Var.BBal	Var.Rev	Var.Exp	Var.BBal	Var.Rev	Var.Exp	Var.BBal	Var.Rev	Var.Exp	Var.BBal	Var.Rev	Var.Exp	Var.BBal	Var.Rev	Var.Exp	Var.BBal	Var.Rev	Var.Exp	Var.BBal	Var.Rev	Var.Exp
PCABudget Balance t-1	-0.182*** (4.18)	-2.805 (1.52)	1.907 (0.96)	-0.177*** (3.21)	-3.917* (1.81)	1.125 (0.46)	-0.177*** (3.21)	-3.917* (1.81)	1.125 (0.46)	-0.725*** (10.47)	4.723** (2.60)	-1.798 (0.32)	-0.725*** (10.47)	4.723** (2.60)	-1.798 (0.32)	-0.725*** (10.47)	4.723** (2.60)	-1.798 (0.32)	-0.725*** (10.47)	4.723** (2.60)	-1.798 (0.32)
Var. Unemployment	-0.003 (0.03)	-4.114*** (2.91)	3.751** (2.27)	-0.024 (0.23)	-3.672* (1.87)	2.086 (1.64)	-0.024 (0.23)	-3.672* (1.87)	2.086 (1.64)	0.019 (0.11)	-2.381 (0.14)	3.011 (0.27)	0.019 (0.11)	-2.381 (0.14)	3.011 (0.27)	0.019 (0.11)	-2.381 (0.14)	3.011 (0.27)	0.019 (0.11)	-2.381 (0.14)	3.011 (0.27)
Var.Prices	0.080*** (3.02)	2.963*** (3.11)	0.207 (0.17)	0.083*** (2.61)	3.217*** (3.21)	0.240 (0.18)	0.083*** (2.61)	3.217*** (3.21)	0.240 (0.18)	0.058* (1.80)	3.913** (2.07)	-0.316 (0.13)	0.058* (1.80)	3.913** (2.07)	-0.316 (0.13)	0.058* (1.80)	3.913** (2.07)	-0.316 (0.13)	0.058* (1.80)	3.913** (2.07)	-0.316 (0.13)
Government-Left	-0.002 (0.79)	0.197* (1.80)	0.114* (1.90)	-0.003 (1.06)	0.070 (0.57)	0.134* (1.86)	-0.003 (1.06)	0.070 (0.57)	0.134* (1.86)	0.017*** (3.63)	1.305*** (2.97)	-0.460 (1.47)	0.017*** (3.63)	1.305*** (2.97)	-0.460 (1.47)	0.017*** (3.63)	1.305*** (2.97)	-0.460 (1.47)	0.017*** (3.63)	1.305*** (2.97)	-0.460 (1.47)
Coalition Size	-0.107 (1.19)	1.515 (0.30)	2.166 (0.42)	-0.110 (1.01)	3.143 (0.53)	2.588* (1.75)	-0.110 (1.01)	3.143 (0.53)	2.588* (1.75)	-0.354*** (2.83)	2.364** (2.22)	-1.147 (0.76)	-0.354*** (2.83)	2.364** (2.22)	-1.147 (0.76)	-0.354*** (2.83)	2.364** (2.22)	-1.147 (0.76)	-0.354*** (2.83)	2.364** (2.22)	-1.147 (0.76)
Cabinet Size	-0.168** (2.41)	1.568** (2.03)	2.712* (1.88)	-0.159* (1.79)	2.705 (1.17)	3.433*** (2.80)	-0.159* (1.79)	2.705 (1.17)	3.433*** (2.80)	0.201 (1.17)	2.021 (0.38)	-2.626 (1.60)	0.201 (1.17)	2.021 (0.38)	-2.626 (1.60)	0.201 (1.17)	2.021 (0.38)	-2.626 (1.60)	0.201 (1.17)	2.021 (0.38)	-2.626 (1.60)
Months - Election	0.014*** (2.91)	0.384 (1.37)	-0.433* (1.73)	0.017*** (2.93)	0.201 (0.60)	-0.700** (2.36)	0.017*** (2.93)	0.201 (0.60)	-0.700** (2.36)	0.008 (1.36)	0.947 (1.60)	0.228 (0.45)	0.008 (1.36)	0.947 (1.60)	0.228 (0.45)	0.008 (1.36)	0.947 (1.60)	0.228 (0.45)	0.008 (1.36)	0.947 (1.60)	0.228 (0.45)
Constant	1.773** (2.30)	84.758** (2.10)	12.491 (0.29)	1.387 (1.48)	92.954** (2.03)	-35.223 (0.78)	1.387 (1.48)	92.954** (2.03)	-35.223 (0.78)	-0.216 (0.12)	13.766 (0.07)	37.593** (2.13)	-0.216 (0.12)	13.766 (0.07)	37.593** (2.13)	-0.216 (0.12)	13.766 (0.07)	37.593** (2.13)	-0.216 (0.12)	13.766 (0.07)	37.593** (2.13)
Observations	412	413	413	339	340	340	339	340	340	73	73	73	73	73	73	73	73	73	73	73	73
Number of groups	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
R-Squared	0.30	0.36	0.37	0.29	0.33	0.36	0.29	0.33	0.36	0.75	0.63	0.55	0.75	0.63	0.55	0.75	0.63	0.55	0.75	0.63	0.55
Wald-Chi2	2002.77	1892.16	4628.05	5952.09	5952.97	20423.28	5952.09	5952.97	20423.28	11.16	7.40	7.76	11.16	7.40	7.76	11.16	7.40	7.76	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Note 2: Regressions for 1996-2000 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.

Note 3: For presentation purposes, I have not included in this table the 14 Country and 30 Time dummy variables



run-up to EMU. 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, more fragmented governments became associated with revenue-based strategies of fiscal adjustment, consisting on a significant positive impact on revenues, and a non-significant negative impact on expenditures.

Finally, the effect of the number of months before next election also confirms the initial electoral cycle hypothesis: the longer the time before next election, the higher the cyclically adjusted primary deficits; and in the period 1970-1994, the closer the election, the higher the adjusted expenditures. Again, during the second half of the nineties, the effect of elections on the budget becomes insignificant.

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.

Results in table 4.2 show that between 1970-94, the budget balance in  $t-1$  has a negative effect on public revenues coming from direct and indirect taxes, showing that governments tend to lower taxes when the budget balance has improved in the previous year. In addition, a positive change in the unemployment rate lowers revenues coming from direct taxation and increases collective consumption, social benefits, and social transfers, while a positive change in the level of prices increases 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. In addition, these results also show that during that period leftist governments, coalition size and number of spending ministers were positively and very significantly correlated with higher social

Table 4.2. Composition of the Budget. Individual Items, 1970-1994

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

Regressions for variation of collective consumption and variation of social benefits were OLS with robust standard errors, not panel corrected standard errors. Regressions for Collective Consumption and Social Benefits in Kind are OLS-robust, 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 the average number of observations.

transfers<sup>19</sup>. In addition, leftist governments and big cabinets were associated with higher collective consumption, higher social benefits, and higher public investment. 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 not both are statistically significant, the negative coefficient of Months to next Election in the social transfers regression, and the positive coefficient 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 has not affected significantly the way in which economic variables influenced fiscal outcomes, but it has reversed the effects that political variables had on the budget composition in the previous period.

As can be observed in table 4.3, 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 the 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<sup>20</sup> and in public investment.

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<sup>19</sup> These results are consistent with those obtained by Perotti and Kontopoulos (1998) for the same period but with a larger sample of OECD countries.

<sup>20</sup> Significant only at the 80% confidence level.

Table 4.3. Composition of the Budget. Individual Items, 1996-2000

	Vindtax	Vdirtax	Vpwages	Vfconsu	Voolcon	Vsbenef	Vstransfer	Vpinvest
PCABudg.Balance t-1	3.165 (0.56)	-4.443* (1.82)	-2.208 (1.15)	1.765 (0.26)	3.112 (1.38)	2.538*** (4.58)	-0.082 (0.02)	2.981** (2.34)
Var.Unemployment	0.465 (0.04)	-1.412 (1.33)	2.483 (0.95)	1.587* (1.88)	1.767 (0.56)	3.057 (1.19)	1.970* (1.82)	-1.869 (0.28)
Var.Prices	1.520 (0.93)	1.068** (2.43)	0.383 (0.12)	2.316 (0.68)	1.070 (0.72)	-1.656 (0.59)	-1.300 (0.85)	-0.770* (1.94)
Government-Left	0.202 (0.62)	1.045** (2.60)	0.143 (1.69)	-0.213 (0.56)	-0.037 (0.29)	-0.307 (1.54)	-0.547* (1.80)	0.523** (2.44)
Coalition Size	-1.761 (0.98)	2.490* (1.89)	-1.935* (1.73)	-1.933 (1.30)	-2.102 (0.70)	-3.531 (0.74)	-3.179 (0.80)	-3.732 (0.51)
Cabinet Size	4.054 (0.23)	1.751* (1.76)	-1.586 (1.64)	-2.023** (2.13)	-4.281 (1.10)	-1.809** (2.66)	-2.033 (0.56)	-1.653 (1.24)
Months - Election	-0.104 (0.20)	0.756 (1.54)	-0.166 (0.55)	0.005 (0.01)	-0.050 (0.28)	-0.027 (0.14)	0.137 (0.52)	-0.449 (1.40)
Constant	135.353 (0.74)	184.155 (1.01)	226.85** (2.40)	285.80** (2.35)	66.542 (1.23)	168.610** (2.45)	125.552 (1.24)	136.928 (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 std errors, because panel corrected std. errors cannot be used when T>N.

These two items of the expenditures side of the budget were already positively associated with left-wing governments before 1995, but they were less 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: 818; Garrett, 1998).

#### **4.3. Composition of the Budget During Fiscal Adjustments**

Once the economic and political determinants that affect the composition of the budget have been investigated in the previous section, this section replicates the analysis but only for the sub-sample of fiscal adjustment episodes. By concentrating only on those years when a consolidation is taking place, very important questions can be explored: i.e. What explains that different countries chose different strategies to consolidate their budgets during the last forty years, and most importantly during the recent period of fiscal consolidation in the EU? Are the factors that

influence the composition of the budget in general also relevant to explain the composition of the budget, only during years of fiscal adjustment? Have they affected the strategies of fiscal adjustment during the recent period of strong consolidation in the European Union?

In principle, it can be assumed that the same economic and political factors that affect the budget composition in general, are the ones that affect the budget composition during fiscal consolidations. Therefore, all these factors will be included in the analysis, but a special attention will be paid to the role of ideology of the party in government.

As the previous section has shown, during the second half of the nineties, when the strongest fiscal adjustments were taking place in Europe, economic predictors behave similarly to the pre-1995 period, fragmentation and electoral variables lost statistical significance, and the only factor that reaffirmed its salience as an important variable to understand the composition of the budget was the cabinet's ideology. Therefore, it is reasonable to assume that this factor will become even more important to explain the composition of the budget during fiscal adjustment episodes.

Before proceeding to the statistical analysis, let me deepen into the definition of what a "partisan strategy of fiscal adjustment" might mean in terms of composition. If one recalls from chapter 3 that any government willing to reduce the public deficit has five possibilities: (S1) to increase revenues more than what it increases expenditures; (S2) to increase revenues and freeze expenditures; (S3) to increase revenues and reduce expenditures; (S4) to freeze revenues and reduce expenditures; or

(S5) to reduce revenues less than what it reduces expenditures, then the "partisan strategy of fiscal adjustment" can be defined in terms of these choices.

A purely revenue-based strategy of adjustment would be any strategy like S1 or S2. A purely expenditure-based strategy of fiscal adjustment would be any strategy like S4, or S5. And, finally, S3 could be defined as a "mixed-strategy"

Because S1 and S2 are strategies that despite the consolidation effort still increase the role of the public sector in the economy, one can expect left-wing governments to be associated with those strategies. Left-wing governments should prefer revenue-based strategies because their preference for equality and for bigger presence of the state in the economy increases public expenditures, that call for higher revenues in order to consolidate the budget. By contrast, because S4 and S5 imply a decrease in the size of the public sector and its coverage, one expects that these strategies should be preferred by right-wing governments. S3 is a middle-strategy that could be chosen by both social democratic and conservative governments, and most likely by coalition governments with “mixed” ideologies.

If the previous set of expectations are represented more formally in a graph like the one in figure 4.1., I would expect all governments undertaking a fiscal adjustment to place themselves to the right of the 45° line, when the FEL (Fiscal Expansion Line) becomes the FAL (Fiscal Adjustment Line). And at each level (levels defined by the degree of the adjustment), I would expect leftist governments 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).

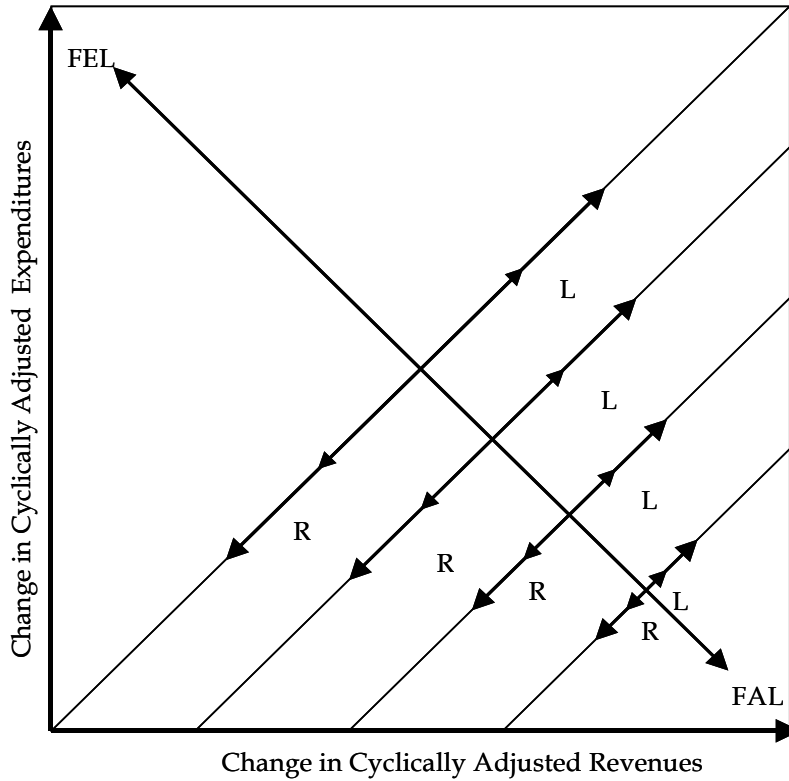
If the previously described partisan strategies of fiscal adjustment, in which leftist governments would prefer revenue-based strategies and rightist governments would prefer expenditure-based ones, has any application to reality is still empirically unknown.

In order to test these previous hypotheses, I have selected periods of fiscal adjustment in the European Union from 1960-2000, according to the definition provided in chapter 2.<sup>21</sup> The total number of cases of fiscal adjustment is 53.

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<sup>21</sup> Because in the last section of chapter 3, I demonstrated that results on duration of consolidations were sensitive to the definition of adjustment, in the sense that political variables were more relevant than economic variables to

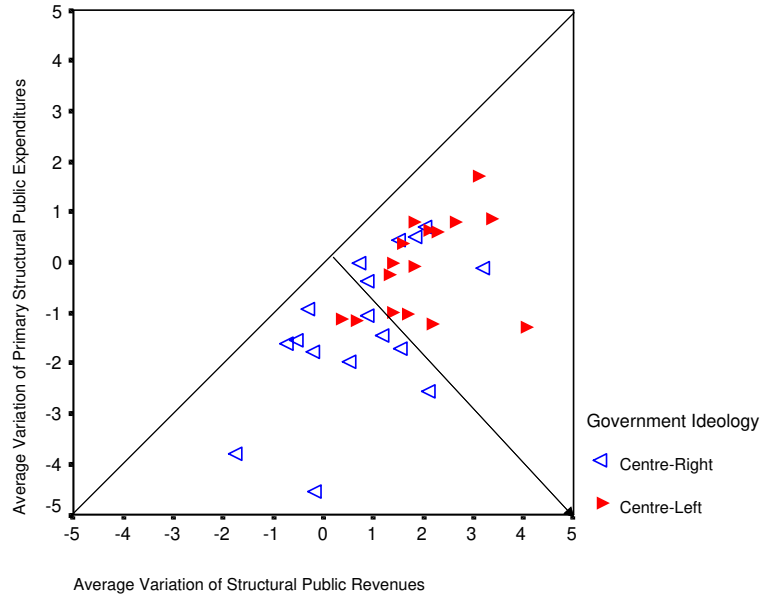
Figure 4.1. Strategies of Fiscal Adjustment. Ideal Types



explain the strongest fiscal adjustments, then I will stick to the strongest definition of adjustment. This *Stronger* definition has also the advantage that is the most commonly used in the literature (see Alesina and Perotti, 1995 and 1996b). To be consistent with this literature and to make my findings comparable, I have followed the same criteria to select the periods of fiscal adjustment from my sample. Therefore in this chapter I 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. The only innovation that I have introduced is that if for example a period of fiscal adjustment lasts for 4 years and there is a change in the government's ideology in



Figure 4.2. Strategies of Fiscal Adjustment 1960-1991.<sup>22</sup>



Simple plotting of cases, 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, for the years previous to the signature of the Maastricht Treaty.

Basically, both left-wing and right-wing governments followed their expected behavior when they chose the composition of their fiscal consolidation strategy.

Nevertheless, it looks like between 1960-91 some rightist governments followed leftist strategies of fiscal adjustment,

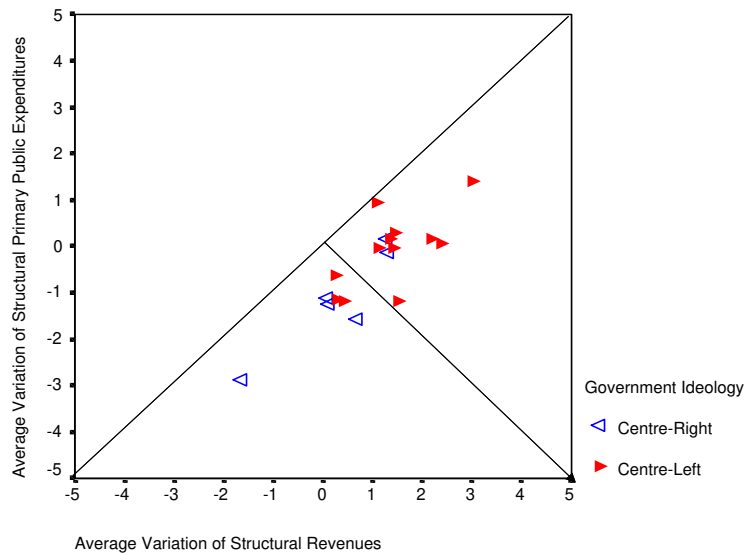
the middle, I split the episode into two consecutive but different episodes. This facilitates the comparison between leftist and rightist strategies of adjustment.

<sup>22</sup> Centre-right governments are those where at least 51% of cabinet post are held by right-wing parties alone or in combination with centre parties. Centre-left governments are those where at least 51% of cabinet posts are held by left-wing parties alone or in combination with centre parties.

increasing revenues substantially to finance increases in expenditures. This probably reflects the Welfare State consensus of the sixties and seventies 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 ideological hypotheses still fits very well. As can be seen in figure 4.3., during 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<sup>23</sup>.

Figure 4.3. *Strategies of Fiscal Adjustment 1992-2000.*



<sup>23</sup> If a different definition of fiscal adjustment was used, for example considering periods of fiscal adjustment as every case in which the variation of the cyclically adjusted primary budget balance is >0, the total number of cases of

Moreover, the fact that some rightist governments followed revenue-based strategies of adjustment (France 1995-96 or Portugal 1992-93), and some leftist governments followed expenditure-based ones (Denmark 1996-99 and Sweden 1995-98), adds some additional confusion to the picture.

These illustrative results stress the importance of looking at the detailed composition of the strategies of adjustment. That is, when the effect of variables lose presence in aggregated magnitudes, it is necessary to look at minor components before arriving at definitive conclusions.

For that purpose, I will use again regression analysis to see if the same economic and political factors that showed a remarkable importance in explaining the timing and duration of consolidations (in chapter 3), and composition of the budget during both years of adjustment and expansion (section 2 of this chapter), are still relevant to explain the composition of the budget, only during episodes of fiscal consolidation.

Hypotheses of the effects that political variables may have on fiscal adjustment strategies must be logically based on the effects that I have already seen these variables have on the composition of the budget during adjustment and non-adjustment years. Because more fragmented governments, more leftist governments and closeness to election tend to be associated with higher expenditures, one can expect these variables to be associated now with revenue-based strategies of fiscal adjustment, because the only way to reduce the deficit while expenditures are maintained or even increased, is to increase revenues even more.

Bigger coalitions and bigger cabinets are expected to maintain their preference for social transfers and expenditures, and in principle one should not expect them to cut these expenditures even in periods of fiscal adjustment.

On the contrary, the effect of elections on the strategies of fiscal adjustment cannot be expected to be the same than in the

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adjustment would increase from 12 to 34, out of which 17 were held under leftist governments and 17 under rightist governments.

case of non-adjustment periods. Politicians may still want to manage the cycle electorally. The closer the elections, the lower the taxes (and thus the revenues) and the higher the expenditures. Nevertheless, this is a combination of policies that leads easily to run budget deficits. Thus, if the election is close, it is unlikely that the government starts a fiscal adjustment, and most likely it will end the consolidation (as was highlighted in chapter 3). Consolidations only will take place during elections in cases where the fiscal adjustment is “unavoidable”, and has to comply with an inalterable calendar<sup>24</sup>. 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, makes me expect a different effect of elections on fiscal policies than what we saw in the previous section.

Finally, taking into consideration the effect that the ideology of the government demonstrated as strong predictor of the composition of fiscal policy, and looking at the plots in figures 4.2. and 4.3., it is very clear that I should expect socialist control of the cabinet to be a very significant factor that explains why some countries chose revenue-based strategies, while other preferred to follow expenditure-based adjustments. Deepening in leftist preferences with respect to the composition of the budget during fiscal adjustment periods, one can expect those preferences to be the same than their preferences during non-adjustment years: in principle, one should expect left-wing governments to increase revenues in order to maintain the level of expenditures. But if forced to freeze or reduce expenditures as could have been the case during recent years, under the pressure of the Stability and Growth Pact, one should still expect leftist governments to maintain the government wage bill, transfers payments and public investment, due to their redistributive and supply-side implications.

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<sup>24</sup> In fact, some politicians even ran their campaigns during the second half of the nineties on their capability to fulfill the Maastricht criteria better than the opponent.

To study the effect that all economic variables, plus fragmentation of decision-making, ideology of the party in government and closeness to elections have had on strategies of fiscal adjustment and the composition of the budget during periods of fiscal consolidation, I run the same regressions as in section 2 of this chapter, but now only for the 53 episodes of consolidation.

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

The technique now is OLS with robust standard errors, with country dummies and no year dummies, because the panel is markedly unbalanced, and the environment is assumed to be common for every EU country in the nineties<sup>25</sup>.

Given the fact that now observations are episodes of fiscal adjustment that normally last for more than one year, the values in levels and first differences of the different dependent and independent variables are averages of the levels and variations of the whole episode of adjustment.

A new dependent variable was created, “Strategy Type”, which is the sum of the average variation 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 aggregate measures of the adjustment composition are presented in table 4.4. As can be seen, results confirm the initial hypotheses. The effect of economic variables is not very important, except for the rate of unemployment that has a very positive effect on public expenditures, and thus require higher revenues in order to maintain the fiscal adjustment.

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<sup>25</sup> Also if I had introduced time dummies, I would have encountered a problem of insufficient degrees of freedom, since the sample is small. (N=53)

*Table 4.4. Strategies of Fiscal Adjustment. Main Aggregates, 1960-2000*

	Var. Reven	Var. Expend	Strategy Type
PCABudg.Balance t-1	-0.092** (2.32)	0.023 (0.67)	-0.068 (1.13)
Var.Unemployment	-0.349** (2.42)	0.442*** (2.89)	0.791*** (2.89)
Var.Prices	-0.008 (0.61)	-0.016 (0.95)	-0.024 (0.91)
Government-Left	0.015*** (3.26)	0.012*** (3.05)	0.028*** (3.37)
Coalition Size	0.241** (2.46)	0.193* (1.69)	0.434** (2.13)
Cabinet Size	0.023 (0.40)	0.062 (1.06)	0.085 (0.84)
Months - Election	-0.441 (1.65)	0.215 (0.70)	-0.227 (0.45)
Constant	0.150 (0.26)	-2.363*** (3.36)	-2.217** (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%

During episodes of fiscal adjustment between 1960-2000, bigger coalitions, bigger cabinets, and more leftist governments were associated with 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, as was previously hypothesized, of the overlapping of the “electoral calendar” and the “Maastricht

calendar”<sup>26</sup> which occurred in some European countries between 1995 and 1998.

The analysis of the effect that the economic and political variables had on the individual components of the budget during episodes of fiscal adjustment (see table 4.5.), confirm again the main hypotheses that had been previously formulated in this respect.

As in previous regressions, the unemployment rate is the only economic variable statistically significant. In order to consolidate the budget in countries where the unemployment rate is growing, the only possible strategy available to government is to increase public revenues coming from indirect taxes (since those from direct taxes tend to fall), that pay for a growing level of expenditures coming from unemployment subsidies.

Coalition size and cabinet show the expected signs in all specifications and were positively associated with increases in transfers during fiscal adjustment episodes, though these effects were not statistically significant.

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 in public 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 chapter 3, consolidations that rely on increases in revenues and do not cut the government wage bill and public transfers are unlikely to be successful<sup>27</sup>. Nevertheless, and

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<sup>26</sup> See the already mentioned article by *New York Times*, March 25, 1997 for a description of this calendars' overlapping.

<sup>27</sup> See for example Alesina, Perotti and Tavares (1998).

Table 4.5. Strategies of Fiscal Adjustment. Individual Items, 1960-2000

	Vindtax	Vdirtax	Vfincon	Vpwages	Vstransf	Vpinvest
PCABudg.Balance <sup>-1</sup>	-0.032 (1.47)	-0.023 (1.20)	0.024 (1.22)	0.018 (1.43)	-0.010 (0.44)	0.025** (2.24)
Var. Unemployment	0.045** (2.06)	-0.031* (1.72)	0.064 (0.60)	0.083 (1.43)	0.372*** (3.12)	0.007 (0.22)
Var. Prices	0.011 (1.40)	0.007 (0.67)	-0.001 (0.20)	-0.003 (0.44)	-0.004 (0.33)	0.010 (1.41)
Government Left	0.003 (1.42)	0.006** (2.39)	0.007*** (2.99)	0.005*** (3.18)	0.001 (0.30)	0.012** (2.06)
Coalition Size	0.025 (0.49)	0.109 (1.48)	0.079 (0.86)	0.030 (0.66)	0.001 (0.30)	0.020 (0.86)
Cabinet Size	0.016 (0.60)	-0.010 (0.21)	-0.004 (0.10)	-0.010 (0.43)	0.035 (0.75)	0.027* (1.85)
Months - Election	-0.214 (1.61)	0.040 (0.22)	-0.082 (0.40)	0.011 (0.11)	-0.056 (0.23)	-0.023 (0.32)
Constant	0.050 (0.18)	0.024 (0.05)	-0.383 (1.09)	-0.237 (1.41)	-0.468 (0.98)	-0.659* (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%



in relation to the EMU process, it should be recalled at this point that evidence from section 2 of this chapter showed already that since 1995 all governments started to reduce slowly social transfers, and that the effect of a more vigilant European Commission could slowly change leftist strategies on the aggregate level.

Nevertheless, these results present very clear evidence that, even under the strongest pressures for further convergence of fiscal policies, there is still place to formulate different approaches to fiscal policy at sub-aggregate levels 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 in periods 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 (see table 2.4.).

#### **4.4. Conclusion**

This chapter 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 in periods of fiscal consolidation.

Results have confirmed that economic variables that were very strong predictors of the timing and duration of fiscal consolidation analyzed in chapter 3, lose predictive power in favor of political variables as predictors of the budget's composition during fiscal adjustment episodes.

In this respect, bigger coalitions, bigger cabinets, more leftist governments and closeness of elections affect positively the

increase in public expenditures, especially 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 budget's composition during this period, when leftist governments have reoriented their policies and used increasing revenues from direct taxes to balance the budget and 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 cuts in subsidies, consumption and social transfers. The importance of political variables was confirmed in the section dedicated to the study of the budget's composition during episodes of fiscal adjustment.

Because the composition of the adjustment is related to its likelihood of success<sup>28</sup>, 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 are not optimal in the medium run. In fact, some of these countries have already shown difficulties to keep their budgets balanced during the first economic slowdown of the euro era, and are being forced by their European partners to adopt expenditure-based strategies of adjustment to cope with the new situation.

By pointing out the influence that political factors have of fiscal policy, and the special relevance that partisan strategies of adjustment played in the process toward EMU, this chapter is crucial to understand why those decisions were made and those strategies were chosen.

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<sup>28</sup> Alesina and Perotti (1996b)

## CHAPTER 5

### FISCAL ADJUSTMENT IN THE NINETIES: CASE STUDIES

*«If quantification produces precision, it does not necessarily encourage accuracy (...) Case studies are essential for description and accuracy, and are, therefore, fundamental to social science» (King, Keohane and Verba, 1994: 44)*

In the context of the strict limits established by the Maastricht Treaty and the Stability and Growth Pact, to affirm that fiscal policy is not as homogeneous across Europe as the common wisdom may suggest because domestic economic and political factors still have a strong influence, can result unconvincing in spite of the statistical evidence presented until now.

In this respect, the first set of questions that arises in view of the empirical results presented in chapters 3 and 4 regarding the influence that domestic economic and political factors have on the timing, the duration and the composition of different fiscal adjustment strategies, is the following: if governments at the national level have been traditionally seeking to formulate differentiated fiscal policies, why did they tighten their hands in the first place by setting the Maastricht convergence criteria? Why was monetary union a project that attracted all European national governments so as to make them give up their sovereignty in monetary policy and constrain their future ability to manage fiscal policy? Also, if social democratic parties have usually formulated

their economic policies within the limits of the nation-state, why did they signed and promoted the project of monetary union?

The answer to these questions will be the subject of the first part of this chapter. The project of monetary union arrived in Europe when the internationalization of capital had created the conditions for cooperative solutions to the slow growth and inflation problems that European partners started to share from the seventies. Aiming at isolating European countries from exchange rate volatility in the 1970s, they agreed on a common exchange rate mechanism (the EMS). By the end of the nineties, the asymmetries in the EMS created the need to counterbalance the German monetary power in Europe. EMU was conceived as a mechanism to redistribute the costs derived from a unique monetary policy managed by the Bundesbank, as well as a mechanism to consolidate the postwar project of European peace and stability in the midst of the uncertainty created by the German re-unification.

The second part of this chapter deals with the second set of possible objections that the results presented in the first part of the thesis could generate. These objections would generally take the form of concrete case studies where the main predictions of the model would apparently not work. In this respect, the most common objection, would be to mention the example of a certain European country which having had a social democratic government, would have still implemented an expenditure-based consolidation. Besides the possible misunderstandings in terms of the concrete characteristics of the adjustment episode in question, the objector could be still right in using that concrete example to question the prediction that the ideology of the party in government plays an important role in determining fiscal policy decisions. If that was the case, I would argue, it was either because the party has changed its nature (although its name may have remained unchanged), as happens with the New Labour party of Tony Blair, or most likely, because there has been a very strong influence of the other two political variables, namely fragmentation of decision making and/or the proximity of

elections, that has displaced the influence of ideology as the main determinant of certain fiscal policy decisions.

Therefore, the second part of this chapter presents country studies that are paradigmatic examples of these different interactions. It starts by comparing two paradigmatic cases where the ideology of the party in government played a crucial role as the main determinant of the fiscal adjustment strategy. Spain, between 1996-2000, epitomizes the typical conservative expenditure-based adjustment, while Portugal between 1995-1999 is paradigmatic of the opposite revenue-based social democratic approach. In a similar way, the UK and Italy are compared to each other to exemplify the influence of fragmentation of decision-making. Italy, the European country with the most fragmented budgetary process, is also the one where the effect of partisanship has been blurrier during the nineties, while the UK, with the least fragmented system, has traditionally tended to witness the clearest patterns of partisan management of fiscal policy until the nineties. Finally, France and Germany became during the nineties clear examples of the strong influence that electoral considerations have for the formulation of fiscal policy. Elections can affect the strategic timing of consolidations (the French case in 1995-97), or can motivate the weakening of domestic fiscal institutions with electoral purposes (the German case).

The purpose of this chapter is, therefore, to go beyond the results of the quantitative analysis of previous chapters, and to shed light around the same issues through concrete and real examples. At last, “in comparative analysis we work with concepts (...) [but] when we confront them with political and social realities we sometimes realize that they do not fit; or indeed that the concepts obscure or confuse. Then our task is to reformulate them, highlight different dimensions, and sometimes to introduce new conceptualizations.” (Stepan, 2001: 4)

## **5.1. The Maastricht Treaty and the Decision of Monetary Union**

### *5.1.1. The Maastricht Treaty*

In February 1992, the final version of the Treaty on the European Union was signed by the Heads of States of the twelve members of the former European Community. They did so after three months of “polishing-up” of the text that was agreed in the European Council meeting of 9-10 December 1991 in the Dutch city of Maastricht. Finally, following delays in the ratification process at the national level (specially the rejection in the Danish referendum), the Treaty on European Union came into effect on 1 November 1993.

The Treaty had three pillars, the most important of which was monetary union. That section of the Treaty stated that EMU would be fully in place by 1999 at latest, and possibly as early as 1997. Monetary union would be managed by an European Central Bank (ECB), independent of national or supranational governments whose primary objective would be price stability. During the transition period full capital mobility should be ensured in all member states, and full independence of national central banks should be granted as well. The European Monetary Institute would be the seed of the future ECB, but adoption of the single currency would only happen after nominal convergence among European economies. The famous Maastricht convergence criteria laid out in the Treaty established that every country moving to Stage 3 would display: (1) a rate of inflation in the consumer price index no higher than 1.5% higher than the average of the three states with the lowest inflation; (2) interest rates on long-term government bonds no higher than 2% above the average of the three countries with the lowest rates; (3) a central government budget deficit no greater than 3% of GDP; (4) a public debt-to-GDP ratio below 60% of GDP; and (4) a national currency that had remained within the narrow (2.25%) fluctuation margins of the exchange rate

mechanism of the EMS for the previous two years and had not been devalued against other member state currency over the same period.

In general terms, the agreement on monetary union followed very closely the recommendations of the previous “Report on Economic and Monetary Union in the European Community”, also known as the *Delors Report*. This report was prepared by the European Commission and endorsed by the European Council held in Madrid in June 1989 (see table 5.1). Some changes were however included in this proposal during the intergovernmental conference (IGC) to study monetary union<sup>1</sup> that started in December 1990 in Rome and finished in Maastricht in 1991.

The agreement on monetary union was however a long process<sup>2</sup>. Already in the 1960s, the Werner Report presented at the Hague EC summit in December 1969 mentioned for the first time the project of a future monetary union. These first thoughts were motivated by the mounting tensions in the Bretton Woods system of fixed exchange rates, and by the French dissatisfaction with both the American leadership in European affairs, as well as the growing German leadership on monetary policy in the continent.

Later, after the first oil shock, and the demise of the Bretton Woods system, German Chancellor Helmut Schmidt proposed the European Monetary System (EMS) at the April 1978 European Council in Copenhagen. Between April and December, EC

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<sup>1</sup> “The IGC on EMU met at different levels: on eleven occasions as a ministerial IGC, but twice as regularly at the level of officials (“Permanent Representatives”). Alongside the IGC negotiations, three “informal” meetings of ECOFIN (ministers of finance) were important for the progress of the negotiations. The Dutch Presidency also instituted a third technical level to agree texts, involving central bank and finance ministry officials. In addition, the IGC asked the Committee of EC Central Bank governors to make various technical submissions; its papers on the statutes of the ECB and of the European Monetary Institute (EMI) determined much of the final content. (Dyson and Featherstone, 2000: 5)

<sup>2</sup> See, The Economist (1991a; 1991b); Crawford (1996); Giordano and Persaud (1998); and Levitt and Lord (2000).

policymakers bargained over the proposed system's institutional framework, creating an exchange rate system based on a bilateral

*Table 5.1. Key Recommendations of the "Delors Report"*

<i>Stage</i>	<i>Objectives</i>
Stage 1 (1992)	Complete the internal market (the 1992 program) Coordinate the economic policies of the member states Remove all exchange and capital controls Bring all European Community (EC) currencies into the exchange rate mechanism Eliminate obstacles to the private use of the European Currency Unit (ECU) Give the committee of central bank governors a role in assessing monetary policies and advising national governments and the Council of Ministers Prepare a treaty on monetary union
Stage 2 (1994)	Establish a European System of Central Banks (ESCB) with a federal structure Transfer the functions of existing EC monetary institutions to the ESCB Leave monetary policy decisions in the hands of national authorities Narrow the fluctuation margins in the exchange-rate mechanism
Stage 3 (1997 or 1999) 2002	Move to irrevocably fixed exchange rates, with eventual replacement of national currencies by a single EC currency Transfer full monetary policy authority to the ESCB Create binding rules to constraint national budget deficits Circulation of the euro

*Source:* Committee for the Study of Economic and Monetary Union (EC, 1989: 27-38). In Sandholtz (1993: 15)

parity grid, centered around the Bundesbank and supported by restrictive financial mechanisms "that asymmetrically placed the costs of exchange rate stability upon weak-currency policymakers" (Oatley, 1998: 47). The system, a "snake" that established the upper and lower limits for currency fluctuations, began operation in March 1979, but only France and Germany, together with the rest of small member states joined at first. Italy joined but subject to partial membership, while Britain refused to



enter the exchange rate mechanism<sup>3</sup>. Then, between 1987 and 1991, EMS institutions evolved toward greater exchange rate stability. The achievement of a high degree of nominal convergence, the integration of financial markets in conjunction with the Single European Act (1986), and reforms that placed less emphasis on exchange rate realignments and more emphasis on interest rate coordination to manage the system (the Basel-Nyborg reforms) combined to push the EMS first toward a more rigid exchange rate system and then toward monetary union (Oatley, 1998: 143).

Finally, in June 1988 at the Hannover summit, EU Heads of State called, over British objections, for a committee of experts to draw up a plan for monetary union. The committee, composed by central bank governors and chaired by the European Commission's President, Jaques Delors, produced the mentioned "Report on Economic and Monetary Union in the European Community" in April 1989. Discussions since then were hard, mostly regarding the issue of whether entering stage 1 already implied acceptance of stage 2 and stage 3. The dates when each stage should start, the conditions of entry<sup>4</sup>, and the powers of the future European Monetary Institute (later the ECB), also caused some conflict. However, the decision to proceed was firm and became clearer as German re-unification appeared inevitable. Despite Thatcher's blockage of all the process, the steps toward

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<sup>3</sup> For a detailed account of the reasons that motivated each country to join the EMS, see Oatley (1998).

<sup>4</sup> "Two hotly debated topics included (1) the degree of convergence in economic criteria (inflation, interest rates, public budgets) that should be required before moving to EMU and (2) the possibility of delayed entrance for some members. Germany, the Netherlands, and the United Kingdom favored strong conditions that there would be no move to EMU until a sufficient number of states have met strict and explicit economic conditions. France, Greece, Italy and Spain favored looser criteria, arguing that EMU would produce full convergence" (Sandholtz, 1993: 16-17). A similar split emerged over the delayed participation of countries, where Germany and the Netherlands supported a plan whereby a core of strong-currency countries (5 or 6) would move first to monetary union, and the other would follow later. This notion of two-speed EMU was opposed by most of other states, especially by Greece, Ireland, and Italy.

monetary union accelerated through the Spanish, the French, the Italian and the Dutch consecutive presidencies, and ended with the signing of the Maastricht Treaty in December 1991<sup>5</sup>.

*5.1.2. Why Monetary Union? Why Was It Embraced By All Governments?*

This question does not have a single straightforward answer, but can be solved through the combination of various perspectives.

Certainly, the movement toward monetary union would have not taken place without the previous shift in European domestic political economies toward macroeconomic discipline during the eighties (Sandholtz, 1993). Germany being the largest economy in Europe and the most vigilant of monetary stability, would have never agreed to monetary integration with countries that had long pursued economic strategies based on cycles of inflation and devaluation. Technological changes that speeded the mobility of capital, together with the failure of the Keynesian approach to macroeconomic policy management during the seventies, created the momentum for a radical change in the economic policy ideas of the governing elites across Europe. In France, this shift toward restrictive economic policies began in 1976 when the Barre

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<sup>5</sup> Note that the final push toward monetary union came from the decisive impulse given by a series of Franco-German bilateral meetings. In 1991 these two countries celebrated two Presidential Summits on monetary union, two Economic Council meetings, and six top-secret bilaterals of French and German negotiators. In addition to this Franco-German leading dynamic, various delegations submitted papers to the IGC. "Draft treaties on EMU were presented by the EC Commission (10 December 1990), the French (28 January 1991), and the Germans (26 February 1991). The Spanish presented a more limited text (25 September 1990); whilst the British tabled an updated version of its 'hard' ECU plan [alternative to monetary union] (8 January 1991). The two presidencies were obliged to present composite draft treaties to signal the progress made in the IGC. The Luxembourg text (18 June 1991) proved much more consensual than the various submissions of the Dutch (29 August, 24 September, 28 October, 8 November), and served as the basis for the final version of the Treaty." (Dyson and Featherstone, 2000: 5)

government was installed with the explicit mandate for economic austerity. After the failed Keynesian expansion of the first Mitterrand government in 1981, French political elites pegged to the *franc fort* policy based on macroeconomic stability. This commitment still holds today. Italy followed France in the eighties, under the leadership of a small elite from the Bank of Italy, and other countries such as Belgium, Luxembourg, Denmark, Ireland and the Netherlands made their transitions to macroeconomic discipline also by the end of the seventies and the mid eighties.

Nevertheless, although this generalized conversion to the new disinflationary zeal was a necessary precondition for talks on monetary union to start, it is not sufficient to explain the choice that EU countries finally made. In principle, in order to sustain low inflation across the continent, monetary union is not necessary. EU countries could have maintained low inflation without surrendering their sovereignty on monetary policy. It is not even clear among economists that the EU meets the minimum standards of an optimal currency area, or that monetary union was a real economic necessity to complete the Single Market.<sup>6</sup>

European countries could have tried to maintain their commitment to low inflation under a floating exchange regime, by taking credible steps in this direction (mostly the establishment of truly independent central banks, obligated by law to pursue low

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<sup>6</sup> On the discussion of whether Europe is or not an optimal currency area see, Eichengreen (1990); and Wihlborg and Willett (1993). With respect to the more technical discussion that took place at the beginning of the nineties regarding the economic pros and cons of the Maastricht criteria, the literature is abundant. However, some articles can be selected from all of them. For example, a critique of the arbitrariness and inutility of the Maastricht criteria was made, among others, by Eichengreen and Von Hagen (1996); Eichengreen and Wyplosz (1998); and Dailey (1999). Additional critiques regarding the economic contraction that these criteria would create in Europe was made by Barrell and Sefton (1997). Nevertheless, there were also strong supporters of the EMU design. Among the most important works in favor of the Maastricht criteria and the Stability and Growth Pact were those by Buti, Franco, and Ongena (1998); and Thygesen (1999).

inflation). They could have also tried to strengthen the EMS, which in fact could have been seen as superior to monetary union because it would have given the chance to low growth/low productivity countries to adjust to asymmetric shocks via minor realignments, instead of via factor mobility across countries. However, they finally decided to push for monetary union. Why did they do so?

The advantages that the European Commission and other European policy makers put forward during all the process were certainly important aspects that contributed to the final decision. Some of the crucial arguments that were raised in this respect were: (1) for each member government, a single currency would constitute the most credible possible commitment to low inflation, since they could no longer resort to devaluation to compensate for high inflation or low productivity; (2) low inflation would provide the basis for increased investment, and therefore higher growth and employment; (3) A single currency would eliminate exchange-rate risk and the transaction costs of exchange currencies within the European market. These costs were considerable, as intra-comunitarian trade kept growing. By the end of 1991, the European Commission estimated these savings to range between 13 to 19 billion ECU, or 0.5% of GDP per year for the larger countries, and 1% of the smaller ones; (4) the ECU (euro) would become a major international currency for trade, international bond issues, and reserves (the savings in exchange reserves for the EU were estimated to be around ECU 230 billion); (5) the monetary union could handle asymmetric shocks in a variety of ways, including wage and price flexibility, increased factor mobility, and investment (public and private); (6) and finally, a single currency will boost the European identity, and would thus become a further step toward permanent peace and future political integration in Europe. (EC, 1990)

However, besides all these advantages, the decisive reasons for the final choice in favour of monetary union had to do with the coincidence of a variety of factors among which foreign policy motivations in France and Germany played a crucial role.

Among these various factors that coincided as driving forces of European monetary union, five can be mentioned as the most important<sup>7</sup>:

1- Spillovers From the 1986 and 1992 Processes: according to this proposition, the completion of the single market in 1992, as projected in the Single European Act of 1986 would have created internal dynamics by which only through monetary union all the parts could obtain the full benefits of integration in the economic area. The theoretical case for spillovers was initially developed in neofunctionalist theories of integration in the 1960s (Haas, 1958)<sup>8</sup>. Even in its revised formulation (Schmitter, 1970) the spillover argument sustains that integration in one issue-area (trade integration) would reveal functional linkages to other issue areas (monetary union), and then to other issue areas (single economic government or political union).

This argument was very much used by the European Commission in making their first arguments for monetary union. The Commission repeated in several documents that the single market project would never be fully completed without monetary union. In their own words: “A single currency is the natural

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<sup>7</sup> Here I follow Sandholtz (1993: 18-35)

<sup>8</sup> Theoretical debates concerning the European Union often frame the central issue as a contest between “intergovernmentalist” and “institutionalist” (or “neorealist” and “neofunctionalist”) perspectives. Intergovernmentalists hold that nation-states dominate European politics and that outcomes directly reflect the interests and relative powers of the member states (see, for example, Grieco, 1988; and Moravcsik, 1991). Institutionalists argue, in contrast, that the supranational institutions of the EU can exercise an independent effect on European politics and help shape their outcomes (see, for example, Keohane and Hoffman, 1991; and Cameron, 1992). These theoretically opposed approaches meet at a central point due to the fact that European institutions have both intergovernmental bodies and procedures (the Council), and supranational ones (the Parliament, the Court of Justice, and the Commission). Both types of institutions are interconnected, and influence each other, in defining their interest, their projects and their ideas. For some of the classical arguments on the impact of international institutions on national interests, see Keohane (1984) and Nye (1988).

complement of a single market. The full potential of the latter will not be achieved without the former” (EC, 1989: 11). Therefore, “the economic advantages of 1992 are certainly not fully achievable without a single currency” (EC, 1990: 17), because with complete capital mobility, capital would fly out of European countries with high inflation to those with lower inflation, creating massive fluctuations in the exchange rates. In that situation, either the EMS would become a much more unstable mechanism in the future, or the full capital mobility could not be completed by 1992 as initially scheduled. (Padoa-Schioppa, 1998)

The most important drawback of this argument is that, as any functional logic, it explains the intermediate steps but not the initial decision. Also, it inherently implies a learning process by which actors realize that they are not obtaining all the benefits from the previous step, before deciding to move to the next one. This learning process did not happen in Europe, because discussions on monetary union started long before the official proposal of 1989, but in any case at least three years before the expected completion of the single market in 1992.

2- Domestic Business Actors: According to this proposition, the motivation of business groups and European multinationals, supported by the European enthusiasm of the general public, motivated national politicians to engage into negotiations for further European integration. In this respect, the creation of the two business lobbying groups in favour of monetary union (Committee for the Monetary Union of Europe and the Association for Monetary Union in Europe) before the formal discussion of EMU started by European governments is generally interpreted as evidence in favour of this argument (Frieden, 1991)<sup>9</sup>. However, the idea was circulating in European circles for quite a long time, and it looks like the support of this group once

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<sup>9</sup> After this contribution, Frieden, Gross, and Jones (1998) arrive at an interesting perspective of understanding EMU at the intersection of Europe as a whole, the member states, and the socioeconomic groups within them.

formal discussions started played a more important role than before this happened.<sup>10</sup>

With respect to a second argument in a similar direction, according to which the coincidence of peaks in the public opinion's support for further integration in the late eighties would have signalled national politicians in the direction of monetary union, the evidence is much weaker or points exactly in the opposite direction. It is true that public opinion's support for European integration boosted by the late eighties and the beginning of the nineties. However, there is also evidence that national politicians and European proposals ignited this public enthusiasm, instead of other way around. Moreover, some countries that took the lead toward monetary union were among the group with the lowest rates of support toward the single currency (in Germany this support was slightly lower than 50% in 1990).

3- Concerns About Credible Binding Commitments: A third factor traditionally seen as an important motive driving toward monetary union has been the existing concerns at the time in various member states about the impossibility to convince the markets of their serious commitment toward price stability. For some countries with bad history in terms of inflation performance and massive use of competitive devaluations, to tighten their hands into a monetary union was the best way to gain this definitive credibility. This was evidently so because accepting monetary union was the strongest binding commitment in which these countries could engage.

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<sup>10</sup> "A Gallup poll of 1,428 EC company presidents in July 1989 found that 83% were in favor of a common European currency and that only 10% were against it (...) A separate poll conducted by Ernst & Young for the Commission found similar results. EC businesspersons were asked their opinion on the prospects for the business climate with the 1992 program, and with 1992 plus a single currency. The total positive response rate rose just over 80% for 1992 alone to almost 90% for 1992 plus a single currency; within that the 'very positive' response increased from about 16% to over 45%." (Sandholtz, 1993: 24-25)

The evidence favouring the “tying hands” hypothesis is the broad consensus on the nature of monetary union. All European governments concurred that the future ECB would be granted complete independence from political authorities, and that its first mission would be to fight against inflation. They also agreed immediately that for this commitment to be regarded as decisive from the first step, national central banks should be granted full independence before any further decision toward monetary union was taken.

4- Politics of the European Monetary System: This proposition affirms that some countries like France and Italy would have pushed for monetary union in an attempt to gain greater voice in European monetary policy-making against German dominance of the EMS. This argument reinforces the “neorealist” view according to which countries cooperate with each other only in order to balance the power of a hegemonic state.

The idea is that in 1983 France found it more costly to exit the EMS than to gain greater voice in the system by setting the conditions of monetary policy in Europe. The French were disappointed with what they perceived was a fundamental asymmetry of the system, namely that the burden of the adjustment so as to maintain parities relied predominantly on the weak currency country. In the meantime, the Germans needed only consider domestic objectives and consequences.

What in its origins was conceived as a mechanism to force from abroad internal consensus around price stability was now seen as the source of important asymmetries. When Chancellor Schmidt proposed the EMS in 1978, he was facing pressures from the traditional labour unions close to the SPD to increase employment. At the same time he was constrained by a coalition government and the independent Bundesbank committed to price stability that by increasing interest rates was appreciating the currency and damaging the trade balance. For the Schmidt government, “a community exchange rate system, by stabilizing the mark, and perhaps also forcing the Bundesbank to adopt a less



restrictive monetary policy, could help them to achieve labour's demands. Thus Schmidt proposed the EMS to try to achieve domestic objectives he could not achieve otherwise." (Oatley, 1998: 48). Similarly, France accepted the proposal because monetary restriction was fully consistent with Giscard d'Estaing's domestic monetary policy objectives centered on disinflation, and helped to curb down domestic opposition, and the domestic tendency to wage-price spirals exhibited in the late sixties and the seventies.

By the beginning of the eighties, the EMS had fulfilled all its objectives by achieving a high degree of exchange rate stability and disinflation. However, French perceptions of unfair asymmetries forced the EMS revisions of 1987, leading up to the Basle-Nyborg reforms and the December 1987 realignment<sup>11</sup>. However, this was not enough. In January 1988, French Finance Minister, Edouard Balladur circulated a letter to his counterparts calling for an open discussion around the topic of a European Central Bank that would manage a single currency, and would therefore avoid the current situation where one country dictated the monetary policy of all the rest. Giuliano Amato immediately expressed the Italian support for this initiative. Other countries also supported the proposal, including Belgium and even the Netherlands, who finally hosted the signing of the Maastricht Treaty.<sup>12</sup>

5- Foreign Policy Interests: The previous argument, however, leaves unexplained German acceptance of the French proposal to counterbalance its power. One interpretation for this acceptance by the Kohl's government is that the German executive saw in EMU

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<sup>11</sup> These reforms implied the strengthening of the mutual credit mechanism in order to improve the defense of the weak EMS currencies in light of the approaching liberalization of capital flows. Without restrictions to capital mobility, further speculative attacks against weak currencies were expected. "The Bundesbank, however, worried that the commitment it had already assumed in support of the weaker currencies in the system would interfere with its constitutional commitment to price stability." (Thiel and Schroeder, 1998: 110)

<sup>12</sup> For an interesting overview of the process that led from the EMS to EMU, see Cobham and Zis (1999).

an instrument to circumvent the strong power of the Bundesbank who was raising interest rates in view of the fiscal expansion that was taking place to finance German re-unification. This restrictive monetary policy was damaging other European economies and also investment prospects in Germany. In this sense, Kohl would have accepted EMU for the same reasons that Schmidt proposed the EMS ten years before: to force the Bundesbank from abroad to soften monetary policy. However, this interpretation lacks strength, since Kohl was not subject to the strong domestic pressures from trade unions that Schmidt suffered. Also, Germany needed at the time tight monetary policy, in order to prevent inflation from spiralling in the context of the strong fiscal expansion that massive transfers to the East motivated. Therefore, the question remains, why did Germany moved to the front wagon and leaded monetary union?

The main reason, it is argued by defendants of this proposition, has to do with Germany's desire to prove to its European counterparts that despite German re-unification after the fall of the Berlin wall, German would remain loyal to the Western European post-war principles. According to this proposition, France, the Netherlands, Belgium, and other European states suggested the acceleration of the plans on monetary union, in view of the rapid strengthening of Germany in European geo-politics by means of its re-unification with the former Democratic Republic. At the same time, German foreign policy officials considered that in order to gain the support of their European counterparts to German re-unification, they had to reaffirm their commitment toward European integration. "According to some reports, German support for monetary (and political) union was a bargain, the other one half of which was French assent to rapid German unification" (Sandholtz, 1993: 33).

The fact that Hans-Dietrich Genscher, the German Foreign Minister at the time, took the lead in sending the message to all European governments that Germany would push for monetary union, in spite of the reticence expressed by the Finance Minister, Gerhard Stoltenberg, and the President of the Bundesbank, Helmut

Schlesinger, supports strongly the idea that Kohl's definitive support of monetary union was a political decision largely based on foreign policy considerations<sup>13</sup>.

None of these five factors alone can explain the whole story about the motivations that drove the move towards EMU, but together provide a very comprehensive explanation. The first three factors, the "spillovers" argument, the "business interests" argument, and the "credible commitment" argument, exemplify the influence that supranational institutions, actors and ideas played in generating the appropriate background for monetary union. The last two arguments, the one on "the politics of the EMS", and the one on "foreign policy motivations", help however explain the concrete motivations that made each country take the final decision of signing the treaty.

These last two arguments are also very useful to answer the question of why did social democratic governments supported EMU, if monetary union constrained so much their traditional preference for active fiscal policies and national economic management?

There are different ways to answer this question. First, it could be argued that of the twelve heads of state that met in Maastricht in December 1991, only three were social democrats. This would be why, although the socialist French president, François Mitterrand, played an important role in Maastricht, the institutional set-up for monetary union that was agreed there was much closer to German than to French preferences, and resulted therefore in institutions that guaranteed restrictive policies for the future. It could be also argued in this respect, that the three Scandinavian countries, traditionally considered among the paradigmatic examples of social democratic welfare states, joined the EU later in 1995, and had to take Maastricht as given. Nevertheless, although true, this argument would not be able to explain why social democratic parties in opposition backed their

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<sup>13</sup> For a detailed explanation of the importance of the Genscher's leadership during the German presidency of the EU in the second semester of 1988, see Dyson and Featherstone (2000: 370-451)

respective national governments in their decision of signing EMU, and never attempted later to reverse or modify the process once they reached power in the second half of the nineties.

A second alternative way to answer to these objections consists of re-interpreting EMU as a device that was in fact favourable to social democratic goals of macroeconomic policy management. This reinterpretation would argue that, EMU offers in fact a framework for cooperation of social democratic governments at the European level (Ladrech, 2000), where they can finally pursue coordinated demand stimulation at the European level, and can agree on welfare state harmonization to prevent a race-to-the bottom of the European welfare model. Finally, EMU can be interpreted as providing the new institutional set-up that can serve as the anchor that assures the wage restraint that was lost in the seventies when the corporatist centralized wage bargaining model disappeared and opened the door for the end of Keynesian approaches to demand management (Notermans, 2001a). Again, although theoretically plausible, this argument cannot be supported by strong empirical evidence. During the late nineties, when 12 out of 15 governments in the EU were social democratic, no step forward was taken in the direction of welfare state harmonization or common economic stimulation.

This is why, in my opinion, the social democratic consensus around EMU has to be interpreted as the result of two different factors: (1) the real conviction among social democrats that monetary union and fiscal restraint was the basis for sustainable growth, because fiscal balance was a precondition for the viability of supply-side policies and sustainable welfare systems; and (2) the logical support that opposition parties traditionally grant to their governments in issues that affect the national interest.

In this respect, EMU was interpreted as a foreign policy issue that was in the national interest of Germany, France, Italy and so on. In this circumstances, none of the social democratic parties in opposition in these big states hesitated in giving support to the project (Ross, 2001; Notermans, 2001b). Once the decision was taken, small countries such as the Netherlands, Austria, and

Belgium, traditionally pegged to Germany's monetary policies followed without delay<sup>14</sup>. The argument of national interest was always present among domestic political elites and all social democratic parties pledged to it. For example the PvdA leadership in the Netherlands kept insisting during the whole process that monetary union meant more integration, and that this, by bringing more trade gains to the country, could be very beneficial for the middle classes and the poor, as long as these gains were channelled properly through the correct institutions (de Beus, 2001). In the European periphery, countries such as Ireland, Spain, Portugal, and Greece, not only exchanged their support to EMU for cohesion funds<sup>15</sup>, but interpreted monetary union as something beyond an economic project. These countries saw in EMU a unique opportunity to achieve modernization, democratic consolidation, and future social prosperity. The objective of "not missing the train this time" became a national objective in these countries that the electorate supported and that no party disputed.

Finally, the case of Scandinavian countries presents a heterogeneous picture. Meanwhile Finland supported full EMU membership with the social democratic party taking the lead in this decision, the Swedish socialist party (SAP) opposed it frontally, and the Danish supported it but with conditions.

The Finnish support was a foreign policy decision that aimed at strengthening the European ties after the collapse of the Soviet Union (Pekkarinen, 2001). This foreign policy objective coincided in time with the social democratic party revision of its economic strategy after the unprecedented economic crisis of 1990. Economic austerity and a firm commitment to exchange rate stability in a very open economy became central objectives of this

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<sup>14</sup> For a complete review of the challenges that EMU presented to small member states in Europe, see Jones, Frieden, and Torres (1998).

<sup>15</sup> In fact, it was the socialist González's government who was widely recognized as the "creator" of the European structural and cohesion funds in order to compensate the poorer countries for the efforts needed to achieve economic convergence before joining the single currency.

new approach, what facilitated considerably the full embracement of EMU by Finnish social democrats.<sup>16</sup>

In the Swedish and the Danish cases the story was somewhat different. The neutrality identity of their citizens and political elites seems to have played an important role in shaping their common reticence toward EMU (Aylott, 2001; Haar, 2001). However, differences can be found in their respective attitudes. While the social democratic party in Denmark defended the country's participation in EMU as the only way to have voice at the European level in a policy area that may endanger their social model, the Swedish social democrats opposed it frontally. With an argument similar to the British one<sup>17</sup>, Sweden opted out of joining EMU in the first wave. Social democrats embraced fully what was a foreign policy decision, based on the argument provided by the Calmfors Report (1999), according to which they should not support monetary union because the Swedish economy was not still in the same economic cycle than the rest of Europe. This could result in unfavourable asymmetric shocks to its economy, which could not be counterbalanced through devaluation in case of being in a monetary union.

## **5.2. Case Studies: Complying with the Maastricht Criteria and the Influence of Political Variables**

The fact that national interests and foreign policy considerations were the driving forces that motivated member states to agree on monetary union and sign the Maastricht Treaty does not contradict the fact that during the post Maastricht period, in the process of meeting the Maastricht criteria, domestic factors had a decisive influence on the strategy of adjustment that was finally adopted by each country.

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<sup>16</sup> For a comparative analysis of the economic policy choices faced by Scandinavian social democracy during the nineties, see Iversen (1998).

<sup>17</sup> See Gamble and Kelly (2001)

As chapter 3 and chapter 4 have demonstrated, country differences in the timing, the duration, and the composition of fiscal adjustment strategies across Europe were still heavily influenced during the nineties by factors such as the economic cycle, the accumulated level of debt, proximity of elections, fragmentation of decision making, and ideology of the party in government. Therefore, once countries decided to sign the Maastricht Treaty based on foreign policy considerations, and committed themselves to fiscal deficit reduction, these domestic economic and political constraints started to play their role in affecting the decision over the adjustment strategy that each government chose to follow. Regarding partisan politics, this means that the fact that social democratic parties supported monetary union for foreign policy reasons and/or for their true belief in economic stability, does not contradict the fact that they decided to implement adjustment strategies that were different from those chosen by conservative governments. To sign EMU and still try to preserve the role of the state in the economy, and its capacity to launch supply-side policies and affect income distribution, does not imply any contradiction.

Of course, during the process of convergence, between 1992 and 1997, state-level “realpolitik” in the European arena still played a role. This was specially the case around the decisions over how many countries would join the third stage of EMU in the first phase, and how strictly should the convergence criteria be interpreted. Both decisions were of course interrelated. After the exchange rate crisis in the EMS of 1992 and 1993, when the pound and the lire were spelled out of the system, several currencies depreciated and fluctuation boundaries had to be widened to  $\pm 15\%$ , the criteria on exchange rate stability was completely relaxed. The issue became then how to fulfil the deficit and debt criteria in the midst of a strong economic recession. When the effects of the recession were not still very acute in Germany, this country insisted on the strict application of the criteria, and therefore on a small first group of core countries joining stage 3 of EMU. The problem was that Belgium and Italy,

two of the founding members of the European Community back in 1957, had accumulated debt figures that doubled the limits established in the Maastricht criteria. The group of Germany, the Netherlands, Austria, and Luxembourg was more reluctant to leave Belgium out (for obvious economic ties), than Italy. However, if criteria were strictly applied to one, no exception could be made with the other.

Things remained like that until 1997, when a final decision had to be made on the final membership to the euro, meanwhile all countries struggled to meet the 3% limit. Only Germany took one step further its obsession to secure the German public that the euro would be as stable and strong as the Deutsche Mark, and forced in 1995 the negotiations over the Stability and Growth Pact, that was finally signed at the Amsterdam summit in June 1997. This pact established that budget deficits would remain below 3% after Stage 3 of EMU, and that they would aim at balance or surplus, to be able to accommodate economic downturns without exceeding the limit. Fines of up to 0.5% of GDP would be imposed to those countries violating the Treaty provisions, except if they were hit by a permanent recession.

As an irony, at the beginning of 1997 it came as a surprise the perspective that countries such as France and Germany would not be able to meet the “3.0% limit” (as the German Finance Minister Theo Waigel had insisted in calling it). As France and Germany ran into massive use of last-minute one-off measures, the rest followed the example. France obtained the equivalent of 0.5% GDP from France Télécom in exchange for assuming the pensions of its employees in a future privatization, while Portugal did the same with Banco Nacional Ultramarino and received a payment equal to 0.3% of GDP. Germany sold some gold reserves and tried to revalue the rest, and cash-in the surpluses; Belgium followed the same example and sold part of the Central Bank’s gold reserves; Austria sold a third generation mobile phone license, received a payment from the Sparkasse (both amounting to 0.25% of GDP), and reclassified municipal agencies and road financing agencies out of the government structure. Finally, Italy levied an



special euro-tax on all incomes, and the UK levied a “windfall tax” on the profits of recently privatized public enterprises.

Despite all these one-off measures, acknowledged and “permitted” by the European Commission (EC, 1998a), there was tension until the last moment surrounding the question of Italy. Germany did not want Italy in the first group, but Jospin, in one of his first foreign policy statements as prime minister, said that France would not join without Italy. Finally, there was a flexible interpretation of the criteria (mainly the debt criteria), and in an extraordinary European Council held in Brussels on 2 May 1998 it was agreed that eleven states would join Stage 3 (all except the three opt-outs and Greece). The ECB board was also appointed and the dates of 1999 for blocking exchange rates, and of 2002 for circulation of euro coins and bills, were confirmed.

It must be also noticed, however that, despite the above accounting tricks, and the inter-states fights over the “ins” and “outs”, it is undisputable that the nineties witnessed some of the strongest episodes of fiscal adjustments in the last three decades of European economic history. It is also undisputable that different countries followed different strategies of adjustment, and that in these choices, domestic economic, institutional and political factors played a crucial role.

In what follows, the rest of the chapter will deepen into the details of some paradigmatic case studies, with the purpose of illustrating with concrete empirical evidence some of the most important conclusions reached in the previous statistical chapters. The cases of Portugal, Spain, the UK, Italy, France, and Germany, illustrate, each in its own way, how domestic political factors such as the ideology of the party in government, the fragmentation of the cabinet, and the proximity of elections, affected fiscal adjustment strategies in these countries during the nineties.

5.2.1. *The Ideology of the Party in Government: Portugal vs. Spain*

During the nineties, several examples of “partisan strategies” of fiscal adjustment can be found. In France, for example, the Socialist government of Jospin followed a fiscal adjustment strategy that combined relative increases in revenues from direct taxation, freezing of unproductive expenditures, and expansion of public investment, following the archetypical supply-side economic strategy of social democratic parties after the fall of Keynesianism. The same strategy was followed by the Finnish government from 1999 on, under a center-left coalition, as well as in the Netherlands (1990-1994) or Greece (1994-1999). There are other examples as well of centrist coalitions and conservative governments undertaking expenditure-based fiscal adjustments. These were the cases of Austria (1995-1997), Ireland (1990-1993, and again 1998-2000), Finland (1993-95), Denmark (1990-1993), Germany (1995-1997), Italy under Berlusconi (1990-1993), or the United Kingdom under John Major (1993-1996).

But probably the two most salient cases of opposite partisan influence on fiscal policy are those of Portugal and Spain in the second half of the nineties. Both countries achieved remarkable reductions of the public deficit and the stock of debt after 1995, starting at levels around 6% deficit and 65% debt in 1995 and qualifying for EMU in 1997 under the 3% deficit limit and close to the 60% debt limit.

Both countries grew during the second half of the nineties above the EU average recording sustained rates of real GDP growth around 3% per year. And, if any, only small differences can be seen in the sources of aggregate demand expansion. Portugal’s growth was more export-driven, and Spain’s expansion shows a stronger component of domestic consumption and investment.

Table 5.2. Macroeconomic Situation in Portugal and Spain, 1990-2000

	Portugal										Spain							
	1990	1996	1997	1998	1999	2000	1990	1996	1997	1998	1999	2000	1990	1996	1997	1998	1999	2000
GDP Per Capita (PPS, EU -15=100)*	66	71	74	76	78	80	80	80	80	80	80	80	81	82	84	86	87	87
GDP Growth Rate	2.2	3.2	3.7	4.2	3.4	3.6	3.6	1.7	2.4	3.5	3.6	3.5	2.4	3.5	3.8	3.6	3.5	3.5
Private Consumption	3.2	2.5	2.9	3.6	3.4	3.4	3.4	1.5	2.0	3.1	3.4	3.5	2.0	3.1	3.4	3.7	3.5	3.5
Gross Fixed Investment	2.9	5.7	11.3	8.4	6.3	7.2	0.4	1.3	1.3	5.1	8.8	8.5	1.3	5.1	8.8	8.0	8.5	8.5
Domestic Demand	3.3	2.8	4.7	4.7	4.0	3.9	1.4	1.6	1.6	2.9	4.6	4.6	1.6	2.9	4.6	4.5	4.6	4.6
Exports	5.2	10.2	8.4	10.3	6.1	7.9	8.9	10.6	10.6	14.8	9.8	8.3	10.6	14.8	9.8	7.0	8.3	8.3
Imports	7.4	7.5	10.4	10.4	7.1	7.7	6.7	7.4	7.4	12.2	11.6	10.5	7.4	12.2	11.6	9.3	10.5	10.5
Unemployment (%CivilLabForce)	5.5	7.3	6.8	5.7	5.1	4.7	20.2	22.2	20.8	18.9	17.2	15.7	22.2	20.8	18.9	17.2	15.7	15.7
Inflation	8.4	3.6	2.5	2.6	2.4	2.1	5.7	3.4	2.5	2.3	2.1	2.1	3.4	2.5	2.3	2.1	2.1	2.1
Current Account Balance	-3.1	-5.1	-2.0	-2.1	-1.8	-2.0	-2.2	0.2	0.2	0.4	0.1	-0.8	0.2	0.4	0.1	-0.4	-0.8	-0.8
Nominal Short -Term Interest Rate	14.2	7.4	5.7	4.5	--	--	11.8	7.5	5.4	4.3	--	--	7.5	5.4	4.3	--	--	--
Real Effective Exchange Rate	4.8	2.0	0.4	0.8	2.2	--	-0.9	2.2	-4.5	0.3	1.1	--	2.2	-4.5	0.3	1.1	--	--
Government Budget Balance (%GDP)	-5.3	-3.3	-2.5	-2.3	-2.0	-1.8	-5.6	-4.7	-2.6	-2.1	-1.6	-1.3	-4.7	-2.6	-2.1	-1.6	-1.3	-1.3
Primary Bud. Bal. (%GDP)	1.7	1.5	1.8	1.2	1.1	1.1	-0.9	0.4	1.8	2.1	2.3	2.5	0.4	1.8	2.1	2.3	2.5	2.5
Structural and Cohesion Funds *	2.7	2.7	3.7	3.1	3.2	3.0	0.7	1.4	1.4	1.3	1.2	1.2	1.4	1.3	1.3	1.2	1.2	1.2

Source: Annual Economic Report, Part 2, Country Section (EC, 1999)\* Euro p.195.\* European Economy, 2000. No.71. p.213. (EC, 2000c). No.71.

In both cases, interest rates and inflation rates converged rapidly toward the EU average from 1995, and in both cases too, a currency devaluation preceded the fiscal adjustment.

Probably, the strongest differences between both countries can be found in the level of structural and cohesion funds that each country received during the period (with Portugal doubling Spanish figures, in response to their differences in economic development), and their unemployment rates (much lower in Portugal than in Spain). However, both countries showed too a very similar rhythm of employment creation in both countries during the period of study.

All these commonalities in the economic sphere would have pointed toward a common strategy of fiscal adjustment in both cases (Von Hagen, Hallett and Strauch, 2001). However, this was not at all the case.

Portugal reduced dramatically its budget deficit between 1995 and 1999 (around 3.6 percentage points), and in fact qualified in a better position than Spain for the third stage of EMU, following a revenue-based strategy of adjustment. This strategy consisted in collecting more revenues from direct taxation and reducing interest payments, in order to enable the government to both consolidate the budget and increase social spending, public wages, and most importantly, public investment in education and infrastructures.

In contrast, Spain consolidated its budget during the second half of the nineties (around 4 percentage points) following an expenditure-based strategy consisting in cutting primary spending, mainly interest payment, social transfers, public wages, public consumption and public investment, and then using the surplus to reduce general direct taxation for businesses and individuals.

This section argues that the main difference driving the different strategies of adjustment that were chosen by each country, given their initial economic similarities, was the ideology of the party in government during each consolidation episode. While the Socialist government of Antonio Guterres launched a revenue-based adjustment in Portugal aiming at preserving and

increasing the role of the state in the economy, the strategy followed by the conservative government of José María Aznar was exactly the opposite.

*5.2.1.1. Portugal: Left-Wing Government and Revenue-Based Fiscal Adjustment, 1995-1999*

Portugal experienced two fiscal adjustments during the nineties, in 1991-92 and in 1995-98. The first fiscal adjustment was launched by the PSD right-wing government of Prime Minister Cavaco Silva, who led the country between 1985 and 1995 in cohabitation with the socialist president President, Mario Soares. This adjustment episode was short and sharp, achieving a reduction of 3% in the deficit, from (-5.9% of GDP to -2.9%) in only one year<sup>18</sup>. Some view it as unintentional, meaning that the fiscal adjustment was more the result of a broader economic policy attempting to stabilize the economy, reducing inflation and controlling the exchange rate (Torres, 1998), than an objective on its own, since the fiscal policy was at the time accommodating to the inflation target that was established every year.

After the IMF adjustment programs of the eighties, the accession to the EC, and the elections of 1985, Cavaco Silva pursued a strategy of gradual convergence toward European standards that comprised a sequence of economic adjustment programs. The first adjustment program, the PCEDED, was launched after the PSD won a parliamentary majority in 1987. Its successor, P2, featured initial fiscal adjustment measures based on privatization of state-owned enterprises and increases in indirect taxation that ran parallel to the introduction of the VAT. Forty percent of the revenues from privatizations were used to bring the accumulated debt down to 63.3% from a previous level of 72%, what helped to reduce interest payments by 1.7% of GDP between

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<sup>18</sup> The reduction of the public deficit was even higher once the cycle is taken into account. The cyclically adjusted budget balanced improved from -7.3 to -4.0.

1991 and 1993. Freezing of public consumption and public investment, together with the revenues coming from the new indirect taxation (that increased 2% of GDP in only one year), were responsible for the additional fiscal consolidation. This episode was however very short, since the economic recession of 1992-93 and a sweeping increase of the public sector wage scale, raised substantially the spending in social transfers and the government's wage bill by the end of 1992.

By contrast, the government of Antonio Guterres designed a completely different strategy in the mid-nineties that epitomizes the type of revenue-based adjustment that the model presented in chapter 4 predicted for left-wing cabinets undertaking a fiscal consolidation. As shown in table 5.3, Portugal's fiscal adjustment relied on increasing revenues, mainly from direct taxation, and redistribution of expenditures through the reduction of interest payments, and the increase of social transfers, and public investment in human and physical capital.

The process of adjustment was smooth and constant, and started with a "rigorous but socially conscious budget, in an attempt to stimulate the economy, while promoting investment, disinflation and fiscal consolidation"<sup>19</sup>.

The government passed<sup>20</sup> its first budget in 1996 planning to increase nominal current spending by 7.6%, and capital spending by 11.6%. Among current spending, social spending was to increase by 10.4% underlining the greater emphasis on social related programs.

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<sup>19</sup> Antonio Guterres, quoted in EIU-Portugal Country Report (1996: 11)

<sup>20</sup> The two crucial budgets of 1996 and 1997 were passed by the socialist government with the abstention of the two main opposition parties (right-wing PSD and PP), and the rejection vote of the Communist party. The abstention vote of the PSD was agreed as a policy of national interest, while the abstention vote from the PP was negotiated in exchange for some political concessions and the abolition of the stamp tax. This bilateral negotiation between the cabinet and the leader of the PP, Manuel Monteiro, originated internal critiques to the cabinet from some members of the Socialist parliamentary group.

Table 5.3. Fiscal Policy in Portugal, 1993-2001

	Fiscal Adjustment Episode									
	1993	1994	1995	1996	1997	1998	1999	2000	2001	
<b>Total current resources</b>	36.9	36.6	38.4	38.1	39.1	39.6	40.3	41.8	42.7	44.7
Taxes on production and imports	13.0	13.4	14.3	14.4	14.2	14.2	14.6	14.8	14.7	14.7
Current taxes on income and wealth	9.0	8.8	9.3	9.5	10.1	10.6	10.7	10.8	11.9	11.9
Social contributions	11.8	11.5	11.0	11.0	11.1	11.4	11.5	11.9	12.0	12.0
Other current resources	3.1	2.6	3.9	4.1	3.8	3.5	3.5	4.3	4.2	4.2
Capital transfers received	:	:	1.9	2.1	2.3	1.6	2.2	1.6	1.6	1.6
<b>Total Public Revenues</b>	36.9	36.3	40.4	41.6	41.7	41.8	42.7	43.4	44.7	44.7
<b>Total current expenditures</b>	39.0	39.1	39.7	39.6	38.2	37.8	38.1	39.5	39.4	39.4
Government consumption expenditure	17.5	17.2	18.7	19.0	19.1	19.1	19.7	20.6	20.6	20.6
<i>Of which</i> compensation of employees	14.2	13.7	13.7	13.7	13.8	14.0	14.4	14.9	14.9	14.9
Social transfers other than in kind	12.9	12.8	11.8	11.8	11.7	11.7	11.8	12.4	12.4	12.4
Interest payments	6.1	6.1	6.2	5.4	4.2	3.5	3.2	3.2	3.1	3.1
Subsidies	1.3	1.2	1.4	1.5	1.2	1.5	1.0	0.9	0.9	0.9
Other current expenditure	:	:	1.6	1.9	1.0	2.1	2.3	2.5	2.5	2.5
Gross fixed capital formation	3.9	3.5	3.7	4.2	4.4	4.5	4.3	4.3	4.3	4.3
Other capital expenditure	:	:	1.4	1.7	1.6	1.7	2.2	1.4	2.2	2.2
<b>Total Public Expenditures</b>	42.9	42.2	44.9	45.6	44.2	44.1	44.8	45.1	46.2	46.2
Tax burden	34.5	34.7	34.5	35.3	35.4	35.8	36.8	37.5	38.5	38.5
<b>Budget Balance</b>	-6.0	-5.9	-4.6	-4.0	-2.7	-2.3	-2.1	-1.4	-1.5	-1.5
Cyclically Adjusted Budget Balance	5.5	-5.0	-3.9	-3.6	-2.5	-2.4	-2.2	-2.0	-1.7	-1.7
Consolidated Gross Public Debt	62.1	63.7	64.7	63.6	60.3	56.4	56.7	57.2	55.1	55.1

Source: Commission services (EC, 2002)

To fulfil its goal of investing more in education as a means to increase the competitiveness of the work force, the government increased education outlays by 12%, while health-related categories rose by 7.7%.

These increases were partially made possible by cuts in defence, agriculture and administrative expenditures. Most importantly, within capital expenditure, public investment was projected to rise 17.3% (half of it financed by EU Structural and Cohesion funds), while the increase in infrastructure and transport spending rose by 35%. These measures ran against the predictions of “many observers who speculated that the government would take the easy choice of slashing infrastructure spending in order to meet its 1996 deficit target”. In contrast “Antonio Guterres reaffirmed the importance of the ambitious investment programme, not only to upgrade deficient networks but also to counteract slower growth in Europe.”(EIU-Portugal Country Report, 1996: 12). This overall picture was maintained during the whole adjustment episode: social spending was budgeted to increase 8.4% in 1997, and 6.2% in 1998. The effort in education spending and public investment was also sustained at similar levels of annual increases of 10% during the following years.

On the revenue side, with current revenue projected to rise by 9.7% in 1996, the government aimed at keeping its promise not to increase major tax rates. In order to do this, it raised excise taxes on petrol and alcohol, used most of the Esc380bn from privatizations to write off the public debt<sup>21</sup> and reduce interest payments, and emphasized the intention of the government to increase revenues from direct taxation, not through higher tax rates, but through greater efficiency in tax collection and crackdown of tax evasion. In this respect, some important measures were implemented: tax brackets and allowances were adjusted at the inflation rate, the tax base was broadened by a reduction of exemptions, and deductible accumulated losses were

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<sup>21</sup> Up to 22 public enterprises were projected to be partly sold to private investors during 1996 and 1997.



diminished (Banco de Portugal Annual Report, 1996: 109; 1997: 109-10). Moreover, direct taxes on corporate and income rose due to the greater effectiveness of the tax collection (Banco de Portugal Annual Report, 1997: 109-10; 1998: 119). Here, the government benefited from the effectiveness of the “Mateus Plan” which provided incentives for taxpayers to formalize their tax situation and pay arrears to the tax and social security system, before 31 December 1997. Also, the VAT was revised in various occasions during the consolidation episode, and a small tax was imposed on self-employed workers. The car tax was strongly raised due to a broadening of the tax base and the introduction of a new tax scale in 1995 and 1996 (EC, 1996; Banco de Portugal Annual Report, 1997: 111; 1998: 120). In order to tackle firms’ tax evasion, the government introduced in 1998 a corporate minimum tax payment, independent of profit or losses. And again in 2001 the government introduced further measures against fraud, such as requiring taxpayers to prove the veracity of their declaration, the total abolition of bank secrecy, and the use of external signs of wealth as indicator of income. (EIU-Portugal Country Report, 2001: 18)

But most importantly, the government also introduced during the adjustment episode some minor income tax reforms aimed at increasing the proportionality of the system. Between 1998 and 1999, a lower income tax was introduced for the low paid, diminishing it from 15% to 13%. Also, the upper income limit for the 25% band was increased, while the upper brackets of 35% and 40% did not benefit from any measure. The tax rates for small companies were cut from 34% to 20% in 1999, and again in 2000. Furthermore, the 2001 budget projected cuts in income tax for salaried employees, reducing revenues by an estimated Esc100bn a year, or 0.5% of GDP, that were to be offset by equally growing revenues from taxes on capital gains, “following changes in the way CGT was assessed, and a series of measures to tackle endemic rates of capital tax evasion and fraud.”(EIU-Portugal Country Report, 2001: 18)

Therefore, the mentioned increase in revenues was the result of both the growing economic cycle, and a bunch of very concrete measures to improve tax collection and making it more progressive. As a result, public revenues that represented 38.3% of GDP in 1994, rose to 41.6% in the first year of the socialist-led fiscal consolidation, and ended the episode in 1998 at a level of 41.8% (see table 5.3). The government then, still maintained its strategy of increasing the presence of the public sector in the economy and rose public revenues until they reached the 43.8% of GDP at the end of 2001. With more revenues flowing into the public budget, a typical leftist strategy of welfare state expansion and supply-side policy was made compatible with the Maastricht criteria. In order to make it possible, the composition of public expenditures was also modified. While public consumption, public wages and public transfers remained frozen at the levels of 19%, 14% and 11.8% of GDP respectively during the strongest part of the adjustment period (1995-98), they grew in the aftermath and reached levels of 20.6%, 14.9% and 12.4% of GDP in 2001. Other expenditures increased in spite of the consolidation effort. This was specially the case of education spending and public investment, which rose to 4.5% of GDP in 1998 from a previous level of 3.5% in 1994. Besides the increase in revenues, this redistribution of expenditure was possible mainly because the public debt was reduced from 64.7% of GDP in 1995 to 56.5% in 1998, and then again to 55.1% in 2001, driving down interest payments from 6.2% of GDP in 1995, to 3.5% in 1998, and then 3.1% of GDP in 2001.

Such a revenue-based strategy allowed the Portuguese socialist government to successfully reduce the budget deficit and to qualify for the single currency in 1999, without renouncing to develop its program of expanding welfare programs to alleviate the situation of the poorest strata of the population, and investing strongly in education and infrastructures to increase the competitiveness of the economy in the long-run. This was in fact a sustained commitment of the government. Even “when the European Commission and the OECD criticized the government

for timidity in tackling public finances, the government insisted that budgetary policy must strike the right balance between fiscal rigour and its social objectives, with spending on health, education and infrastructures projected to rise until 2002.” (EIU-Portugal Country Report, 1999: 14)

Together with the outstanding effort to increase public investment in education and infrastructure, there were two typically leftist expenditure initiatives taken while the fiscal consolidation was still ongoing in 1995-98. They were the extension of the coverage of the income maintenance program in line with the social objectives set by the socialist cabinet (Von Hagen, Hallett, and Strauch, 2001: 109), and the rise of public wages. Expenditures related to the means-tested minimum program were actually multiplied by five, reaching Esc 33.8 billion in 1998 (Banco de Portugal Annual Report, 1999: 137). The final agreement with the unions to concede a wage rise of 3% to 500.000 public workers, increased the government’s wage bill, and showed a firm commitment towards public employment, which contrasts with exactly opposite measures in other converging countries such as Spain<sup>22</sup>. Because in Portugal public wages serve as a bottom reference to wage-bargaining in the private sector, the socialist cabinet immediately achieved a private sector wage deal too, based on an annual wage rise of 3.5% over the period 1997-2000, in exchange for additional investment of Esc140bn in job creation, with the purpose of controlling inflation in the run-up to EMU. This corporatist-type income policy initiative proved successful in keeping inflation inside the limits set by the Maastricht criteria.

As a consequence of this overall strategy of revenue-based fiscal adjustment designed and implemented by the socialist cabinet of Antonio Guterres, Portugal gained the confidence of the markets, and an incredibly relaxed fulfilment of all the Maastricht criteria with even better numbers than core countries such as the

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<sup>22</sup>This clearly contrasts with the freezing of public wages imposed by the conservative PP government in Spain, the same year.

Netherlands, France, Italy, and also Spain. It also granted the cabinet strong domestic and external political support, translated into notable achievements during the first semester of European presidency in 2000, and the re-election just one seat short of the absolute majority (215 of 230 seats) the same year. This growing popular support became evident in the strong victory and re-election of Jorge Sampaio as President, beating the right-wing AD electoral alliance between the PSD and the PP, and sending both parties into internal battles and mutual doubts about the continuation of the coalition. In addition, the government also achieved remarkable economic outcomes, in a framework of generalized economic growth in Europe.

*5.2.1.2. Spain: Right-Wing Government and Expenditure-Based Fiscal Adjustment, 1996-2000*

Similarly to Portugal, Spain experienced two fiscal adjustments during the nineties, in the same years but with opposite “colours” in the two cabinets that implemented them. The first episode of adjustment, between 1992 and 1993, was also short, but weak and revenue-based. The second one, between 1995 and 1999, was longer, stronger and expenditure (mixed)-based. While between 1992 and 1993 the conservative cabinet of Cavaco Silva attempted an expenditure-based fiscal adjustment in Portugal, the socialist government of Felipe González launched a revenue-based one in Spain. Later, when a second and stronger adjustment was required in both countries to qualify for EMU, Guterres pursued a revenue-based fiscal adjustment between 1995 and 1999 in Portugal, at the same time that the conservative government of José María Aznar chose to pursue an expenditure-based consolidation strategy. Both were admitted in Spring 1998 to the third stage of EMU along with nine additional Member States.

In April 1992, the government of Felipe González, under the auspices of his Minister of Finance, Carlos Solchaga, launched its

first Convergence Program and included fiscal policy “into a broader two-pronged strategy: a radical change towards a balanced macroeconomic policy-mix and structural reforms particularly in the labour market and service sector. Within that framework, the government proposed a continuous reduction of the deficit from 4% in 1992 to 1% in 1996. The course of this adjustment, however, was based on excessive optimistic growth assumptions of more than 3% of GDP per year.” (Von Hagen, Hallett, and Straucht, 2001: 110). In spite of some attempts to tighten some unemployment benefits, and the transference of some disability benefits to private companies, the adjustment maintained the level of expenditures untouched, and relied greatly on higher revenues. On the revenue side of the budget, the personal income tax schedule was revised upwards and the related withholding rates adjusted; the VAT rate was raised from 13% to 15%, excise tax rates also increased, and the employers’ social security contributions for unemployment were raised 1% in 1992 (Banco de España Annual Report, 1992; OECD Economic Survey, 1993: 37). The consolidation of 1992 that relied on freezing of expenditures and increases in revenues ended in 1993, a crucial calendar year for the government after 14 years in power, when the government changed its policy stance to give more importance to measures offsetting the effect of the economic crisis. “Primarily transfer payments to social security funds, such as the labour office INEM, and other public companies and entities were responsible for the deterioration of the deficit in 1993. In addition, growing interest payments and government purchases contributed to the strong expansionary trend” (Von Hagen, Hallett and Strauch, 2001: 111). Particularly, however, expenditure policies among the Autonomous Communities did not pledge to the fiscal austerity that they had promised in 1992. “At least, transfers from the central government to the regions remained a source of fiscal overrun until 1995” (OECD Economic Survey, 1995: 28). This fiscal expansion at the end of 1993 has been interpreted by some analysts as a clear example of political fiscal cycle, motivated by

the imminent general elections of 1993. (Von Hagen, Hallett and Strauch, 2001)

Soon after his election in 3 March 1996, the minority government (156 seats of 350)<sup>23</sup> led by the new President José María Aznar and his Minister of Finance, Rodrigo Rato, showed a convincing commitment to place Spain in the first group of qualifying countries in 1999. They were explicit on the expenditure-based strategy of adjustment<sup>24</sup>, since they promised in their campaign a general reduction of taxes that had to be coupled with cuts in inefficient public spending, and amelioration of the whole system of public administration. After the presentation of the 1997 budget, in September 1996, the government started to implement its plan very rapidly, since it had only one year and a half to reduce the budget deficit by two percentage points.

Measures on both the revenue side and the expenditure side of the budget were simultaneous, and aimed at both reducing the deficit, and reducing the presence of the public sector in the economy (see table 5.4). This combined measures aimed also at providing new incentives to the private sector, that should “crowd-in” and push the economy decisively toward an economic expansion.

On the revenue side, the government followed exactly the opposite policy to that depicted in the Portuguese case. It started cutting at the end of 1996 the corporate tax rates for small

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<sup>23</sup> In March 1996, José María Aznar, 20 seats short of the majority needed to govern, formed a minority government with the parliamentary support of the Catalan nationalists (CiU), the Basque nationalists (PNV), and the Canarian Coalition. Previously, Felipe González governed between 1993 and 1996 with the parliamentary support of the 17 seats of CiU.

<sup>24</sup> Note, however, that the last González government already took some measures to restrain public spending under the leadership of the new independent minister of finance, Pedro Solbes, and with the support of the right-wing nationalists of CiU. Basically, they tightened unemployment benefits, reached an agreement on wage moderation in 1995, and sealed a pact with regional governments to share the financing of health services for the period 1994-1997 (Banco de España Annual Report, 1995). In spite of these measures, the consolidated government deficit at the end of 1995 reached 6.6% of GDP.

Table 5.4. Fiscal Policy in Spain, 1993-2001

	Fiscal Adjustment Episode									
	1993	1994	1995	1996	1997	1998	1999	2000	2001	
<b>Total current resources</b>	40.9	39.8	38.0	37.8	38.1	38.2	38.6	38.6	38.8	
Taxes on production and imports	10.1	10.6	10.2	10.2	10.4	11.1	11.7	11.6	11.8	
Current taxes on income and wealth	11.5	11.0	10.7	10.5	10.4	10.2	10.3	10.5	10.3	
Social contributions	14.3	14.0	13.0	13.1	13.1	13.1	13.	13.4	13.4	
Other current resources	5.0	4.2	4.1	4.1	4.0	3.7	2.6	3.1	3.2	
Capital transfers received	:	:	1.4	1.4	1.3	1.3	1.4	1.2	1.3	
<b>Total Public Revenues</b>	<b>40.9</b>	<b>39.8</b>	<b>38.4</b>	<b>38.8</b>	<b>39.1</b>	<b>39.1</b>	<b>39.6</b>	<b>39.5</b>	<b>39.8</b>	
<b>Total current expenditures</b>	42.6	41.3	39.2	39.0	37.6	37.0	35.9	35.2	34.8	
Government consumption expenditure	16.8	16.2	18.1	17.9	17.6	17.5	17.3	17.1	16.9	
Of which: compensation of employees	11.8	11.3	11.3	11.3	10.9	10.7	10.5	10.4	10.2	
Social transfers other than in kind	16.2	15.8	13.9	13.8	13.3	12.8	12.4	12.4	12.3	
Interest payments	5.0	4.7	5.2	5.3	4.8	4.3	3.6	3.3	3.2	
Subsidies	3.1	2.9	1.1	1.0	0.9	1.1	1.2	1.1	1.1	
Other current expenditure	:	:	0.9	1.0	1.1	1.2	1.3	1.3	1.3	
Gross fixed capital formation	4.1	4.0	4.0	3.2	3.1	3.1	3.2	3.3	3.3	
Other capital expenditure	:	:	2.3	2.0	1.9	1.9	2.0	1.7	1.8	
<b>Total Public Expenditures</b>	<b>47.6</b>	<b>45.9</b>	<b>45.0</b>	<b>43.7</b>	<b>42.2</b>	<b>41.7</b>	<b>40.8</b>	<b>39.9</b>	<b>39.7</b>	
<b>Tax burden</b>	36.5	36.1	35.0	34.4	34.8	35.1	35.7	36.2	36.2	
<b>Budget Balance</b>	-6.7	-6.1	-6.6	-4.9	-3.0	-2.6	-1.2	-0.3	0.1	
Cyclically Adjusted Budget Balance	-6.1	-5.4	-5.9	-4.0	-2.6	-2.4	-1.2	-0.8	-0.2	
Consolidated Gross Public Debt	57.9	60.4	63.2	68.1	66.7	64.9	63.5	62.3	59.9	

Source: Commission services (EC, 2002)

companies (defined as those with turnover less than Pta250bn) from 35% to 30%, and prepared measures to make private pension funds more attractive, increasing from 15% to 20% the proportion of contributions that were tax deductible. Also, the withholding rate of the income tax was reduced by 2.7% to increase disposable income in the hands of consumers (EIU-Spain Country Report, 1997: 15).

In addition to these small cuts on some secondary sources of revenue, the government announced that it would commit to its electoral promise of cutting personal income taxes, reducing the top rate of tax from 56% to as low as 40%, and reducing the number of tax bands from eight to three. These tax cuts were approved in 1998 and finally became effective in January 1999.

The government took these measures under the assumption that the income tax bill would fall around 11% during that year, and hoping that the subsequent injection of an additional Pta 776 billion into the economy (0.9% of GDP) coming from the economic expansion would mitigate the decline in revenue. Finally, the government decided to cut also taxes on capital gains that were reduced from 20% to 18% in 2000.

If these reductions in public revenues were to be compatible with the fulfilment of the 3% deficit limit set in Maastricht and the Stability Pact, either additional revenues had to be levied from alternative sources, or public expenditures had to be strongly cut. There was a little of the former and much more of the latter. The only revenues that were discretionarily raised were those coming from excise duties on alcohol, tobacco and beverages (Banco de España Annual Reports, 1996 and 1997), while the bulk of the adjustment took place on the spending side. During the first two years of the PP-government, one of the main sources of cuts in public expenditure was the reduction of interest payments as a consequence of debt-repayment after massive privatization of public enterprises. Only in 1997, the government raised Pta1.7trn in privatization receipts, which amounted for more than the total receipts for the preceding ten years put together. "The main operations were the flotation of the state's remaining shares in the



telecommunications group, Telefónica, and the energy group, Repsol, as well as a 25% stake in the electricity utility, Endesa, and a 53% stake in the new steel company, Aceralia.”(EIU-Spain Country Report, 1998: 18).

In addition to these, some very important policy measures helped to reduce other important items of the budget. “Regarding public consumption, an agreement was reached with the unions that public wages and pensions were to be raised in line with the official inflation target and not actual inflation during 1996 and 1997” (Von Hagen, Hallett and Strauch, 2001: 112). This was complemented by several directives to freeze the public sector’s employment and payments (Banco de España Annual Report, 1997). In 1998, the central government and the unions reached another agreement on a new Civil Servant’s Charter, also agreed with the territorial governments, under which wages were to be set at a centralized level. (EC, 1998b). This strengthening of the central government’s position vis-à-vis subnational governments, that had traditionally tended to care less about fiscal austerity, was reinforced by the end of 2000, when the government passed a draft bill “obliging all levels of government (central, local and regional) to balance their budgets. Under this legislation, deficits would only be permitted in times of recession or natural catastrophe” (EIU-Spain Country Report, 2001: 18). This overall strategy of curtailing the most rigid items of the budget, achieved a general reduction in public consumption from 18.1% of GDP in 1995 to 17.3% of GDP in 1999, and 16.9% of GDP in 2001. Similarly, public wages were reduced from 11.3% of GDP in 1995 to 10.5% of GDP in 1999, and finally, to 10.2% of GDP in 2001.(see table 5.4. above).

Social transfers were curtailed even more than public wages or government consumption during the run-up to EMU (from a level of 13.9% of GDP in 1995 to 12.4% of GDP in 1999). This was the result of two factors. The upswing of the economy which alleviated the pressure coming from unemployment benefits, and some other specific policy measures aimed at reducing other sources of social spending. For example, in 1997, the *Social*

*Security Consolidation and Rationalization Act* that was signed in October 1996, came into force. The Act guaranteed the purchasing power of pensions in terms of the CPI. It also raised from 8 to 15 the number of years needed to determine the regulatory base and widened the pension base reducing the percentage applied to that base. According to the OECD, “these measures achieved an approximate reduction of the average pension of 5%.”(OECD Economic Survey, 1998: 71).

Finally, and in contrast to what happened in other “Cohesion countries” such as Greece, Ireland, and specially Portugal, public investment was severely curtailed in Spain (Bank of Spain Annual Report, 1998: 62-63). In only one year, gross fixed capital formation by the public sector was reduced from 4.0% of GDP in 1995 to 3.2% of GDP in 1996 and remained at such since then (see table 5.4. above). Public works were postponed or cancelled, and in some cases transferred to private companies in packages that delayed payments in the future (Mauro and Spilimbergo, 2001).

Finally, public spending in health and education, the other two components of a classic social democratic strategy were also frozen and reduced (see table 5.5.).

As a result, the total share of social spending with respect to GDP in Spain fell from 22.5% in 1996 to 20% in 1999, compared to a 0,9% decrease in the EU-15 average during the same period (OECD, Economic Survey, 1999: 85)

Summing up, the expenditure-based strategy of fiscal consolidation implemented by the cabinet of José María Aznar between 1996 and 2000 resulted in a reduction of the weight of public expenditures in the economy, from 45% of GDP in 1995 to 40.8% in 1999 (and 39.7 in 2001), while public revenues remained at a constant level of 39.2% of GDP during the whole period. Because the fiscal consolidation took place in the strongest period of economic growth in the last 25 years in Spain, the additional incoming revenues coming from increasing social security contributions and taxes on general consumption, allowed the government to reduce direct taxation, through a general reform of

the IRPF (personal income tax) in 1998, that is expected to be deepened in 2002.

*Table 5.5. Total Expenditure in Health, Education and Public Investment, 1990 and 1998 (%GDP)*

	Health		Education		Public Investment	
	1990	1998	1990	1998	1990	1998
Austria	5.3	6.0	0.3	0.4	3.2	1.9
Belgium *	6.6	7.9	1.2	1.3	1.3	1.5
Denmark	7.0	6.8	1.1	1.9	1.6	1.7
Finland	6.4	5.3	1.0	1.2	3.7	2.9
France *	6.7	7.3	0.8	1.4	3.5	2.9
Germany	6.7	7.9	1.0	1.3	2.3	1.8
Greece *	4.8	4.7	0.4	0.3	2.8	3.6
Ireland *	5.0	4.8	1.4	1.7	2.0	2.7
Italy *	6.3	5.7	1.4	1.1	3.3	2.4
Luxembourg *	6.1	5.4	0.3	0.3	4.5	4.6
Netherlands	6.1	6.0	1.3	1.7	1.9	3.0
<b>Portugal *</b>	<b>4.2</b>	<b>5.8</b>	<b>0.6</b>	<b>0.9</b>	<b>3.2</b>	<b>4.0</b>
<b>Spain</b>	<b>5.4</b>	<b>5.4</b>	<b>0.9</b>	<b>0.7</b>	<b>4.9</b>	<b>3.2</b>
Sweden <sup>a</sup>	7.9	7.4	1.7	2.0	2.3	2.7
United Kingdom *	5.1	5.9	0.6	0.4	2.3	1.2

*Source:* OECD, Labour Market Expenditures, 1999; OECD Health Data.

*Note 1:* <sup>a</sup> For Sweden year 1990 refers to 1990-1991

*Note 2:* <sup>\*</sup> For Belgium, France, Luxembourg, and Portugal year 1998 refers to 1997, for Italy and Ireland to 1996, and for Greece to 1994. Finally, for UK year 1990 refers to 1990-1991, year 1998 to 1997-1998. These exceptions only apply to data on education spending.

According to the government, “the reform will benefit all workers, and will give them more money to save and spend”<sup>25</sup>. According to the opposition, the fact that the reform of the personal income tax consists on a double process of increasing the

<sup>25</sup> Declaration by Cristóbal Montoro (Spain’s Treasury’s Minister in 2002), to *El Mundo*, April 18, 2002.

lower limit of income that is exempt from declaring, and reducing the tax rates of the upper salaries, makes it strongly regressive in social terms. In addition, the parallel reduction of the tax rates applied to capital gains and inheritances has increased the number of criticisms against the regressive character of both tax reforms. Sevilla (2002:8)<sup>26</sup> affirms that: “the ten percent with the highest incomes have benefited from 35% of the savings generated by the last fiscal reform in 1998, while the 10 percent with the lowest incomes have only benefited from 0.5% of those savings (...) In addition, today in Spain, two people with the same family situation and with the same level of income, can differ in their contributions depending on the sources of their income. The one who works can pay up to three times more (45%) than the one who makes the same amount of money by selling shares in the market (15%).”

Despite the normal partisan biases that above statements may have, it is difficult to deny that Portugal and Spain present opposite strategies of fiscal adjustment during the second half of the nineties. These differences respond to opposite ideologies regarding the role of the state in the economy. While, the center-left socialist cabinet of Antonio Guterres was convinced of the role of the state in reducing income inequalities and leading public investment in infrastructures and education, the center-right popular cabinet of José María Aznar cared less about income redistribution, and believed that these supply-side initiatives must be left to the private sector. These two different approaches to economic policy made them design opposite strategies of fiscal adjustment.

On the one hand, the socialist cabinet in Portugal, kept tax rates on labour, increased the corporate taxes for big enterprises, extended the tax base and attacked tax evasion. With the growing public revenues generated by these initiatives and economic growth, the Portuguese socialist government not only consolidated

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<sup>26</sup> In 2002, Jordi Sevilla is the Secretary for Economic Policy and Employment of the Socialist Party of Spain (PSOE).

the budget, but it recorded increases in public wages, maintained general public transfers and increased them to the poorest, and boosted public investment in education and infrastructures. This strategy placed Portugal in 1999 among the group of countries where the public sector represented the highest shares of GDP, close to Germany, the Netherlands and Italy, and only below the Scandinavian countries and Austria, when only in 1994 it was in the lowest position with Greece (see figure 5.1).

On the other hand, the conservative government of José María Aznar reduced public spending and maintained public revenues<sup>27</sup>. Overall, personal income taxes and corporate taxes were cut, and nominal public revenues remained constant only thanks to the strong economic performance that accompanied the consolidation episode. Nevertheless, these initiatives on the revenue side left the burden of the adjustment to public expenditures. Public consumption was significantly curtailed, public wages were frozen first, and then reduced, and social benefits schemes were tightened. Finally, education spending and public investment on infrastructures were cut first, and then maintained at constant levels. This strategy has placed Spain, in only four years, among the group of countries where the public sector represents the lowest shares of GDP in Europe, close to United Kingdom and Ireland.

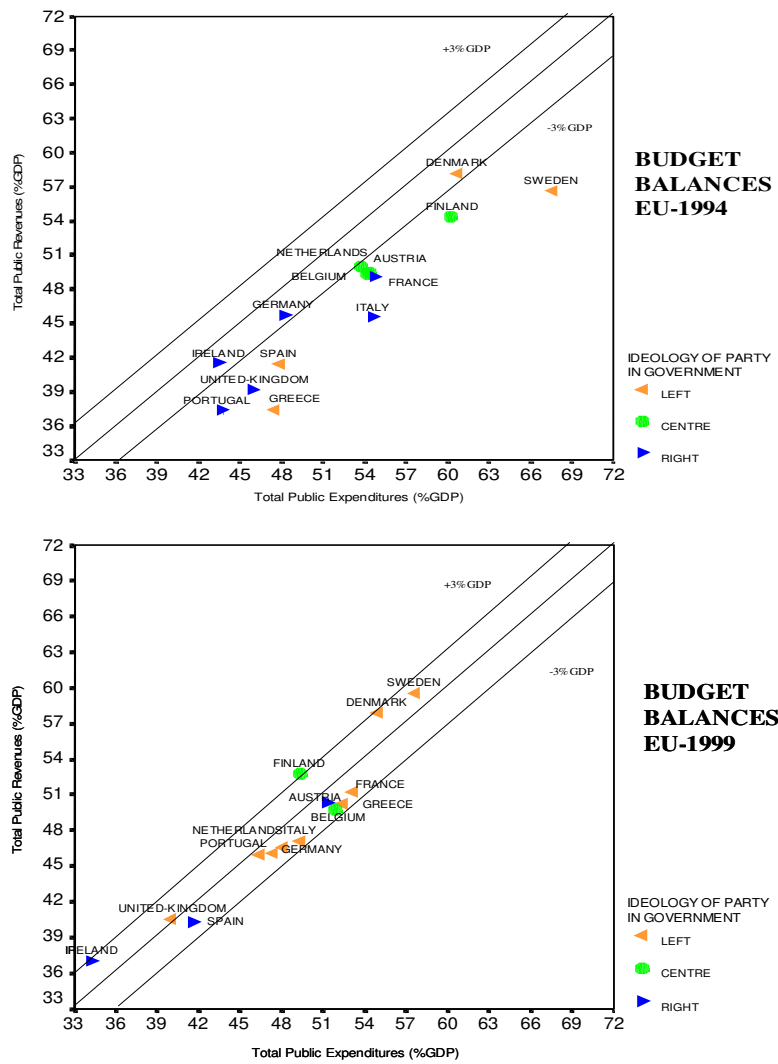
Nonetheless, the crowding-in of the private sector in the Spanish economy motivated by this expenditure-based strategy of adjustment has boosted private investment, employment creation and economic growth during the last five years. It also gave José María Aznar the re-election with a comfortable absolute majority in March 2000 that send the PSOE into a profound period of renewal and weak opposition<sup>28</sup>.

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<sup>27</sup> “So far, José María Aznar has defined himself as a classic liberal” (Frain and Wiarda, 1998: 210)

<sup>28</sup> While Felipe González lost the 1996 elections to José María Aznar by a razor-thin margin of 1.4% of the vote (around 400.000 votes), Aznar obtained an absolute majority in 2000 with a much wider margin (2.900.000 votes) over PSOE. These results caused the immediate resignation of the socialist candidate,

Figure 5.1. Relative Size of Public Sector in EU Member States, 1994 and 1999



Joaquín Almunia, and led to a profound renewal of the party that started after the 35<sup>th</sup> extraordinary congress that chose José Luís Rodríguez Zapatero as the new Secretary General.

At the same time, however, these achievements have ran parallel to growing income inequalities in Spain, recording increases in the inequality index of 6% in four years significantly above most countries in the UE and only below Italy, Finland, Austria and the UK (see chapter 6, table 6.9).

### *5.2.2. Fragmentation of Decision-Making: UK vs. Italy*

The degree of fragmentation in decision-making over the public budget is the variable that usually explains why in some countries partisan patterns of fiscal adjustment cannot be identified. Coalition governments, fragmentation of decision-making, and weak influence of the parties' ideologies in cabinet decisions, are mutually associated. The explanation runs as follows: because the degree of fragmentation is highly correlated to the electoral system, in countries where proportional systems tend to create the conditions for coalition formation in the cabinet, the partisan pattern of fiscal policy appears diluted. This is the case in countries such as Belgium, the Netherlands, Finland or Italy. In these countries, also as a consequence of their institutional structure, deficits are more difficult to control, and as I have already pointed out in previous chapters, public debt tends to accumulate, generating a vicious cycle of "more debt-more interests-more debt", known as the "snow-ball effect".

As previous chapters have also shown, expenditure-based adjustments are easier to be implemented in countries with low degrees of fragmentation, while revenue-based adjustments are normally associated to higher degrees of fragmentation. This is usually the case because the larger the number of voices that have a word in the spending decision, the more difficult it is to cut expenditures. Each member in the coalition claims a part for its constituency, and threatens to abandon the cabinet and collapse the government if its demands are not satisfied. Every member in the coalition has an incentive to spend because the benefits will be enjoyed by its constituency, while the total cost of an additional

unit of spending will be paid by all the population. “Italy’s experience with growing welfare payments is a prime example for this mechanism. In the past 30 years, Italian politicians used the disability pension system quite openly to buy voter support” (Von Hagen, Hallett and Strauch, 2001: 41). Consequently, a low centralization index<sup>29</sup> has placed Italy among the worst fiscal performers in Europe, recording the second highest average deficit, and the third highest debt-to-GDP ratio among Member States.

The UK represents, on the other hand, the country with the most centralized process of budget negotiation (figure 5.2), what has contributed to place the UK as the country with the second lowest average deficit and the third lowest debt-to-GDP ratio in the fifteen years previous to 1996, before most of the strongest fiscal consolidations to qualify for EMU took place across Europe.

The coordination problem produced by fragmentation of decision-making cannot be overcome unless the rules that regulate the process of budgetary decision-making change the internal mechanism itself, and create a different structure of incentives that allow coalition members to control the level of spending.

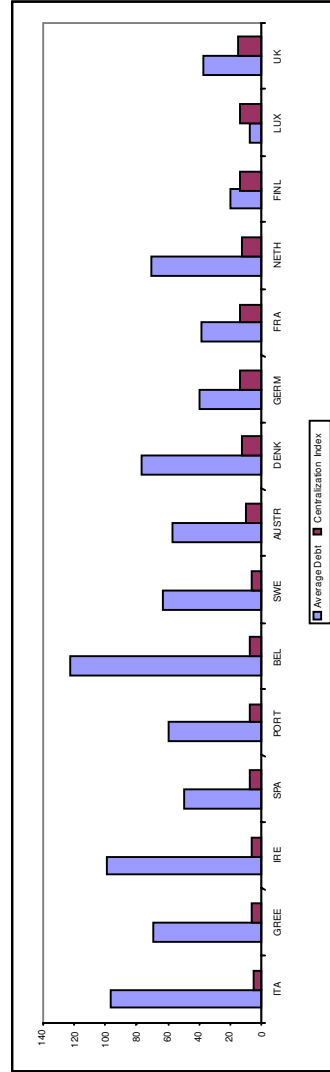
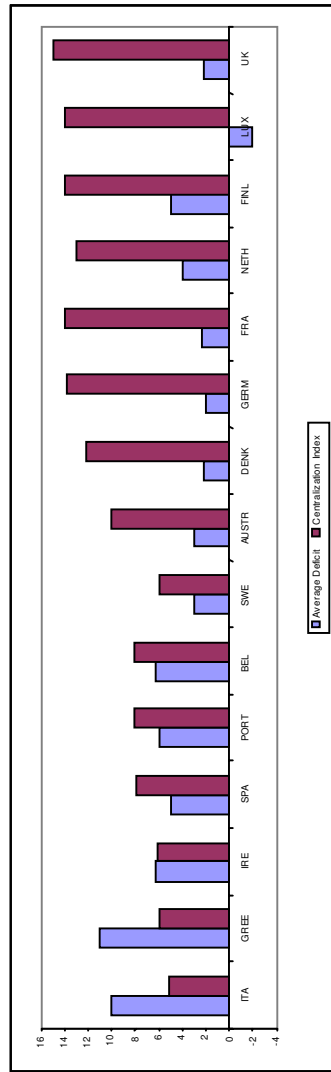
Therefore, the solution to fragmentation is centralization. There are two basic institutional approaches to achieve more centralization: the “delegation approach” and the “contracts approach” (Von Hagen, 1992). The “delegation approach” emphasizes hierarchical relationships, and usually consists on vesting the finance ministers with more power over the rest of spending ministers.

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<sup>29</sup> The index is a weighted average of: 1) the relative strength of the prime minister or the finance minister in the government to establish spending targets early in the negotiation process; 2) the relative presence of amendments or item-by-item votes in the parliamentary process; 3) the degree of transparency of the budget; 4) the relative strength of the finance minister over the rest of spending ministers. A high score of the index signals that a country’s budget conforms to the above strategies, and therefore is centralized, while the opposite signals strong fragmentation in decision-making. (Von Hagen and Harden, 1995; Von Hagen, Hallett and Strauch, 2001)



Figure 5.2. Budget Processes, Deficits and Debt, 1981-1995



Source: Von Hagen, Hallett and Strauch (2001: 44)

This approach normally takes the form of a finance minister being vested with strong agenda-setting power relative to the rest of members of the executive; a finance minister with strong monitoring capacity in the implementation of the budget; and/or a strong position of the executive relative to the legislature in the parliamentary phase of the budget process.

On the contrary, the “contract approach” emphasizes “horizontal relationships among the relevant policy makers (...) being the process of negotiation what makes the participants realize the externalities created by the general tax fund”(Von Hagen, Hallett and Strauch, 2001: 42). This approach normally takes three forms: “A strong emphasis on budgetary targets negotiated among all members of the executive at the beginning of the annual budget cycle (...); a finance minister vested with strong monitoring capacities in the implementation of the budget, yet little agenda setting powers; and/or a weak position of the executive relative to the parliament exemplified by weak or no limits on parliamentary amendments to the budget proposal, and strong monitoring capacities of parliamentary committees overseeing the activities of individual departments of the executive” (Von Hagen, Hallett and Strauch, 2001: 43).

The type of approach that best suits each country depends heavily on the electoral system. The “delegation approach” is better for plurality systems that produce single party governments, while the “contract approach” is better suited for proportional systems that produce coalition governments (Hallerberg and Von Hagen, 1999). As table 5.6. shows, the electoral system and the institutional choice of the budget process are significantly related. Historically, countries with proportional systems chose a “contract approach” to the budget process to achieve a higher degree of centralization, while countries with plurality systems chose a “delegation approach” to achieve the same solution.

Table 5.6. Electoral Systems and Electoral Choice

Electoral System	Institutional Choice		
	Contract	Delegation	Fragmentation
<i>Proportional Representation</i> AUS, BEL, DENK, FIN, IRL, ITA, LUX, NETH, POR, SPA, SWE	AUS, BEL, DENK, FIN, IRL, LUX, NETH, POR, ITA*, SPA*, SWE*		ITA*, SPA*, SWE*
<i>Plurality System or PR with restrictive minimum vote requirements</i> GERM, FRA, GREE, UK		GERM, FRA, UK	GREECE

Source: Von Hagen, Hallett and Strauch (2001: 45).

Note: \* Italy, Sweden and Spain introduced measures moving toward a contract model in the 1990s

The exceptional case in the table above is Germany. Although Germany has a proportional system, it is augmented by a minimum vote requirement. According to this requirement, parties winning less than 5% of the vote do not obtain any seat in parliament. As a consequence, this has traditionally produced two-party governments of one big party and one small party (the liberal democrats). “In this situation, neither coalition partner could threaten effectively to break up the coalition, since neither one would easily find an alternative partner for a new coalition. The ineffectiveness of the threat implies that the contracting approach does not work, making Germany a delegation country instead.” (Von Hagen, Hallett and Strauch, 2001: 45)

Another interesting feature partially outlined by table 5.6. is the institutional change through which Sweden, Italy, Spain, Belgium, and Austria have gone during the nineties. The Swedish case is somewhat different to the other four. In that country the reform of the budgetary process in the nineties was designed to give more visibility to the budgetary process, and to constraint the

different parties in parliament by forcing them into a system of expenditure ceilings, negotiated and established in advance on the basis of economic forecasts, that cannot be modified except if more spending in one item is offset by less spending in another (Molander, 2001).

In contrast, Italy and Spain moved during the nineties toward “contract approaches” that were more oriented toward controlling the level of deficit and debt in local and regional units of government. This strategy was followed too by Belgium and Austria: although they did not make any formal change to its previous model, they reinforced some of their existing institutions substantially. In all these four cases the progressive process of expenditure decentralization to sub-national levels of government was compensated by “contractual approaches” aimed at negotiating indebtedness ceilings for the lower levels of government. In Belgium, this was done by strengthening the High Council of Finances (HCF), which monitors the compliance of all parts of government with Belgium’s Convergence Program, and decides how much each level of government has to contribute to the desired reduction in the debt-to-GDP ratio and the deficit. (Stienlet, 2000; Hallerberg 2000a; 2000b). In Austria, the mechanism that was put in place was a series of coordination committees in charge of monitoring public finances at each level of government, and making further transfers of competencies subject to good fiscal performance (Huttner, 1999). And in Spain, an Internal Stability Pact between the central government and the regions gave the central government the veto-power to deny or accept the debt and deficit proposals sent by lower levels of government. This process was coordinated by the Fiscal and Financial Policy Council (Gordo and Hernández de Cos, 2000; González-Páramo, 2001)

But it was in Italy where initiatives were more numerous, and in fact where changes were more effective in contributing to the final qualification of Italy among the group of countries joining EMU in 1999. As was shown in figure 5.2, Italy is the country with the lowest score in the fragmentation index developed by

Von Hagen (1992). During three decades, this has gone hand in hand with the second highest average deficit and debt-to-GDP ratios in Europe, and had placed Italy at the beginning of the nineties “surely off the list, for immediate consideration” to enter Stage 3 of EMU (Dornbush, 1996: 11). The fact that Italy finally qualified in the first wave of countries joining the euro is related to many factors, among which the institutional change directed toward centralizing decision-making was one of the most important.

The fact that during many years, fiscal policy in Italy relied almost always on uncontrolled spending independently of the party in government had to do with the political fragmentation generated by its electoral system. As such, Italy is a paradigmatic example of how in very fragmented systems, the ideology of the party in government does not predict the possible strategy of adjustment, because either the adjustment never takes place, or if it does, it is almost always revenue-based in response to the high degree of fragmentation. The opposite case, the UK, would constitute a clear example of how the party in government, always alone in the cabinet, can implement any initiative to increase or decrease the role of the public sector in the economy, but always keeping the budget as close to equilibrium as desired.

Because these two cases represent the two opposite extremes in terms of fragmentation of decision-making, the next two sections will describe the strong fiscal adjustment episodes that they experienced during the nineties. The UK under the government of John Major pursued a strong expenditure-based fiscal adjustment, without major political difficulties, in terms of parliamentary opposition. Italy, however, pursued a general strategy based on higher revenues, independently of the “color” of the cabinet, due to the strong coalitional component in every cabinet and the instability of these governments. Nonetheless, the fact that Italy pursued an overall revenue-based strategy of fiscal adjustment, cannot hide the important fact that many measures were taken on the spending side, so as to almost make it a mixed strategy of adjustment during the second half of the nineties.

When and how this was done had a lot to do with the institutional changes undertaken by the Italian legislature in order to make it a less fragmented system, although the “contract approach” chosen there to centralize the process was still very distant to the more hierarchical delegation system present in the UK. In Italy, as well, the external component of the Maastricht Treaty and the “national pride factor” played a major role in forcing all the changes through which Italy went between 1996 and 1999. For this reason, Italy is also the best example to illustrate an additional “external contract” between supranational bodies and the nation-states that took place in many countries in the run-up to EMU, and that clearly acted as a complementary mechanism that reduced the effect of fragmentation in those political systems.

*5.2.2.1. The United Kingdom: Low Fragmentation of Decision-Making and Expenditure-Based Adjustment, 1993-97*

The budget process in the United Kingdom is highly centralized, as corresponds to the only country in the European Union that uses a pure plurality electoral system. Indeed, the structure of its budget process epitomizes the “delegation approach”. The prime minister is exceptionally strong, and the Chancellor of the Exchequer (finance minister), considered the second in the cabinet, has the power to negotiate one-on-one with spending ministers about their budget allocations. If there is a dispute between the finance minister and other spending ministers, it goes to a committee of non-portfolio ministers (not the whole cabinet) who usually resolve in favour to the minister of finance. Together with this low fragmentation inside the cabinet, the budgetary process in the UK is also safe from any additional fragmentation coming from the legislature. The possibility of the Parliament to include amendments in the budget is very limited. With such a system, changes in taxation rates against the desire of the government have been very rare in the House of Commons,

while changes in expenditures have never been included in opposition to government's plans, except if they were to reduce the level of budgeted expenditures.<sup>30</sup>

As a direct consequence of this institutional structure, parties have always found easy to implement their preferred policies once in government. The only limit to the government's formulation of fiscal policy came from the electorate's preferences.

During years, ideological differences between conservatories and labourists around fiscal policy were on the top of the political agenda. Only after the end of the Labour government of Callaghan in the seventies, the consensus around fiscal conservatism seemed to reach both parties. Moreover, Thatcherism and its open neo-liberalism were inherited by the two Major government's, and in fact the Labour party had to go through the 1987 and 1997 Policy Reviews to win the election defending a fiscal approach that was almost identical to that of the conservatories (Gamble and Kelly, 2001). This is important, because the well known shift in the traditional Labour policies under Tony Blair is the result of a strategic redefinition of the Labour party postulates in search for the median voter that would return them to power after 18 years, and not the result of any variation in the institutional setting of the budget process that may have disrupted the traditionally strong influence of party ideologies in the formulation of fiscal policy in Britain. If any, the radicalisation of the British left toward more

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<sup>30</sup> The UK's "reductions only" powers of the Parliament are unique and have evolved from a peculiar historical situation. "The explanation of this provision can be traced to the early days of the House of Commons, to the time when it met to consider demands for subsidies made by the Crown. Its task was to decide whether to comply with the demand and, if so, within what limits and by what means. This explains the prohibition on proposals to increase expenditure and consequently on proposals to increase taxation. The British parliament still respects this long-standing custom and practice and, as a result, it may not vote sums in excess of government's estimates. Consequently, the only amendments that are in order are those which aim to reduce the sums requested and have as their purpose the chance for Members to raise explanations before the sums in question are approved." (IPU, 1986: 1093). Cited in Krafchik and Wehner (1999).

conservative positions has to do with the fiscal conservatism towards which the British electorate has shifted in the last two decades. Nevertheless, when the composition of the fiscal adjustments under Major and Blair are analysed together, still some differences can be found, although both are embedded in a general trend of lowering the role of the public sector in the economy.

The United Kingdom started the decade of the nineties entering a strong recession that caused a strong deterioration of the budget balance. The budget deteriorated from  $-0.9\%$  of GDP in 1990 to  $-7.8\%$  of GDP in 1993. This deterioration can be very much attributed to the cyclical effect of decreasing revenues from direct taxation and growing transfer payments, which rose by  $3.5\%$  of GDP.

The fiscal consolidation started by the second cabinet of John Major in 1994 reversed the previous unsustainable path of public spending. During the first year of the adjustment episode most of the amelioration of the budget came from growing revenues from direct taxation and social contributions, reflecting the new expansion of the economic cycle. In addition some tax measures in 1993 and 1994 raised revenues from mineral oil and tobacco products, while tax breaks were closed (EC, 1998a: 187). However, after 1995, revenues remained constant around  $40\%$  of GDP, and most of the adjustment came from spending cuts.

The reduction was especially important in the government's wage bill and in public investment. Wage payments fell from  $10.7\%$  of GDP in 1993 to  $7.4\%$  of GDP in 1998. "The fall of wages was produced by an impressive amount of employment reduction between 1993 and 1995. During these years, several public firms were privatized, most importantly British Rail and British Coal in 1994 and 1995." (Von Hagen, Hallett and Strauch, 2001: 116)<sup>31</sup>. Similarly, gross fixed capital formation by the public sector fell from  $2\%$  of GDP in 1994 to  $1.2\%$  of GDP in 1997 and 1998, contributing to the general decrease of public

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<sup>31</sup> See also EC (1993) and OECD Economic Survey (1993: 58, 1995: 118).



expenditures as a percentage of GDP from 45.8% in 1994 to 40.7% in 1998 (see table 5.7).

While the expenditure-based adjustment of the Major's government in the UK exemplifies how partisan strategies of fiscal adjustment can be more easily pursued in countries where the institutional set-up prevents the cabinet from dealing with additional coalition partners either in government or in parliament, a word should be also said about the fiscal conservatism during the Blair's administration.

Despite all that has been said since 1997 about the Blair's government strategy of not raising taxes (Blair lost the 1992 election after advocating for new taxes), not re-nationalizing former public enterprises, and its permanent amelioration of the budget balance at the expense of reducing the role of state in the economy (Rasmussen, 1997), some differences can still be identified when the composition of fiscal policy during his mandate is compared to that of the previous conservatory government.

As table 5.7. shows, between 1997 and 1998, total public revenues rose by 1% of GDP. This was the result of a windfall tax on the gains of privatized public utilities in 1997 and 1998, but this level of revenues was maintained during the following years. In addition, Tony Blair decided at the beginning of 2002 to break his electoral promise of not raising taxes and ordered an increase in the Social Security tax rates to collect additional 65 billion euros to renovate the National Health System (El País, 18 April 2002).

Most importantly, payments of public wages rose by 0.8% between 1998 and 2001, and similarly public investment started to grow again after 1997, showing an increase of 0.5% of GDP in the same period. Although the purpose of this section is not to repeat previous conclusions with new examples, these timid developments seem to be very consistent with the postulated supply-side social democratic policies and the new approach of the New Labourism to social justice. According to these new ideas, equality should not be conceived anymore as a question related to

Table 5.7. Fiscal Policy in the United Kingdom, 1993-2001

	Fiscal Adjustment Episode									
	1993	1994	1995	1996	1997	1998	1999	2000	2001	
Total current resources	35,2	35,8	38,6	38,6	38,9	40,2	40,5	41,1	40,6	
Taxes on production and imports	15,4	15,5	13,2	13,3	13,6	13,5	14,0	14,1	13,9	
Current taxes on income and wealth	11,5	11,9	15,0	14,8	15,0	16,5	16,3	16,9	16,7	
Social contributions	6,1	6,2	7,6	7,5	7,5	7,6	7,5	7,6	7,5	
Other current resources	2,2	2,2	2,9	3,0	2,7	2,6	2,6	2,4	2,5	
Capital transfers received	:	:	0,3	0,3	0,3	0,3	0,3	0,4	0,3	
<b>Total Public Revenues</b>	<b>35,2</b>	<b>35,8</b>	<b>40,1</b>	<b>39,8</b>	<b>40,0</b>	<b>41,2</b>	<b>41,4</b>	<b>42,1</b>	<b>41,6</b>	
Total current expenditures	40,2	40,0	41,5	40,8	39,2	38,2	37,8	37,8	37,9	
Government consumption expenditure	21,6	21,3	19,8	19,4	18,4	18,2	18,5	18,7	19,1	
Of which compensation of employees	10,7	9,1	8,8	8,3	7,8	7,4	7,5	7,5	7,7	
Social transfers other than in kind	13,8	14,7	15,4	14,9	14,4	13,7	13,5	13,3	13,2	
Interest payments	2,8	3,2	3,7	3,7	3,7	3,6	3,0	2,7	2,3	
Subsidies	1,1	1,1	0,7	0,8	0,6	0,5	0,6	0,6	0,6	
Other current expenditure	:	:	1,9	2,0	2,0	2,2	2,2	2,5	2,8	
Gross fixed capital formation	2,0	2,0	1,9	1,5	1,2	1,2	1,1	1,2	1,6	
Other capital expenditure	:	:	1,2	0,9	0,7	0,6	0,6	- 1,9	0,5	
<b>Total Public Expenditures</b>	<b>43,0</b>	<b>42,5</b>	<b>45,8</b>	<b>44,2</b>	<b>42,0</b>	<b>40,7</b>	<b>40,1</b>	<b>37,7</b>	<b>40,6</b>	
Tax burden	31,4	32,0	36,8	36,5	36,9	38,3	38,5	39,3	38,7	
<b>Budget Balance</b>	<b>- 7,8</b>	<b>- 6,7</b>	<b>- 5,8</b>	<b>- 4,4</b>	<b>- 2,0</b>	<b>0,4</b>	<b>1,3</b>	<b>4,3</b>	<b>1,0</b>	
Cyclically Adjusted Budget Balance	- 6,5	- 6,3	- 5,5	- 4,1	- 2,2	0,3	1,3	1,8	0,9	
Consolidated Gross Public Debt	47,9	49,8	52,1	52,7	51,1	48,1	45,7	42,9	38,3	

Source: Commission services (EC, 2002)

equality of income, but rather as equality in terms of social inclusion (Giddens, 1999). This, they affirm, is best achieved through strong public investment in public education, in new technologies and in infrastructures for the poorest areas.

*5.2.2.2. Italy: High Fragmentation of Decision-Making and Revenue-Based Adjustment, 1991-97*

In contrast to the United Kingdom, Italy is a country with an extreme fragmentation of decision-making in the budget process. This is mainly due to the extreme proportionality of its electoral system that provokes multiple representation in the parliament, and therefore the survival of minority parties. Also, Italy's budgetary process has traditionally lacked transparency. For example, there is no single document describing the budget, but a set of documents with different accounting bases that are issued along the year, and that describe different items of revenues and expenditures. In addition, there is no link between the accounts in those documents and the national accounts, and government loans to non-government entities are not included in those budgetary documents. Finally, at the stage of budget formulation, three ministries (the Treasury, Budget, and Finance) are involved, what diffuses responsibility at this stage. Also, the Treasury, who used to have a higher responsibility at the implementation stage, could not block expenditures if they were already approved by the budget, what gave it little flexibility to correct any deviation from the forecasts. (de Haan, Moessen, and Volkerink, 1999)

As a consequence of this institutional structure, Italy has traditionally been among the worst fiscal performers in Europe. In fact, at the beginning of the nineties, Italy was the country that most worries caused among Europe's policy-makers that were designing convergence in fiscal policies as a previous step toward monetary union. Italy's debt level above annual GDP and a fiscal deficit in 1990 of -11% seemed to require tremendous and sustained efforts to meet the Maastricht convergence criteria.

The consolidation episode in Italy during the nineties was continuous and uninterrupted, although the strongest part of the adjustment took place between 1991 and 1997. During this period three phases can be identified.

The first phase expanded from 1990 to 1993, a period particularly volatile in political terms, since each year witnessed a new Prime minister: the Christian Democrat Giulio Andreotti in 1990-91, the Socialist Giuliano Amato in 1992, and the independent Ciampi from April 1993 to the following May 1994. During these years, the strategy of adjustment was strongly based on temporary measures on the revenue side, since they were enacted through supplementary emergency budgets when the actual budget deviated substantially from the forecasted budget. For example, in 1991 the government promoted advanced tax payments on imputed capital gains and raised the withholding tax on saving deposits with maturity inferior to one year. In addition, higher indirect taxes and social security contributions were also imposed (OECD Economic Survey 1992). During 1992 and 1993, excise duties on tobacco and oil products were raised, the VAT rates were harmonized with EU rules, and social contributions were raised once again to provide local health care institutions with more resources and to reduce intergovernmental transfers (Banca d'Italia Economic Bulletin, 1993: 45). Direct taxation was also augmented. The government enacted a compulsory revaluation of corporate property, a tax amnesty, and one-off taxes on real estate and bank deposits. "More importantly, the personal tax rate on all income brackets except the first and second one increased one percentage point" (Von Hagen, Hallett and Strauch, 2001: 100). This happened in 1992, and again in 1993 the personal income tax was revised upwards and income tax brackets of 1989 were reintroduced. The only measures on the spending side were those related to public sector pay, through the freezing of public sector hiring, and a timid initial reform of the pension system which included the gradual rise of the compulsory retirement age and the enlargement of the reference period for the calculation of pensions (OECD Economic Survey, 1992: 46).

A second phase started in 1994. In that year there was a break in the fiscal policy of previous years, and the Berlusconi's government largely avoided any renewal of temporary taxes. In fact, in an attempt to revive economic activity, a tax exemption for reinvested corporate profits was introduced, taxation on imputed rents was reduced, and lower advances of income tax payments were approved (Banca d'Italia Economic Bulletin, 1995: 38). These liberal measures on the revenue side were coupled with important spending cuts: the government reclassified drugs that were covered by the public system, "seniority pensions for public employees having less than 35 years of service were cut, the automatic adjustment for disability pensions suspended, and the commencement date for new pensions under the general scheme for the private sector postponed." (Von Hagen, Hallett and Strauch, 2001: 101). Reforms of the pensions and health systems continued during 1995, under the technocratic government of Lamberto Dini. An encompassing pension reform was enacted in 1995, while a strong reduction of local health care units was supposed to enforce a long run rationalization of health expenditures. In addition prices paid to retailers were renegotiated downward and a new reclassification of "free" pharmaceutical products was issued. These measures were reinforced a third time by the new socialist government of Romano Prodi in 1997, who accelerated the increase in the early retirement age, brought forward the harmonization of public and private pension schemes, increased the pension contributions of the self-employed, set forth measures to reduce the over capacity of the hospitals, reduced again the profit margins of pharmacists, and provided guidelines for diagnostic and ambulatory standards. (OECD Economic Survey, 1997: 61-63).

A third phase of new temporary revenue-side measures took place between 1996, 1997 and 1998 under both the socialist Prodi's and Amato's consecutive coalition governments. For example, in 1996 some tax reductions were removed, higher property taxes and social security contributions were enacted, and a one percent increase in the corporate tax rate was approved. The

VAT tax rate was also raised from 9% to 10% and from 13% to 16%, respectively (OECD Economic Survey, 1996: 43-44; Banca d'Italia Economic Bulletin, 1996: 38). In 1997, the most important measure was the introduction of the special "Euro-tax", a one year progressive income tax, the rate ranging from 1.5% for employees with a minimum annual salary of ITL 23.4 mill to 3.5% on incomes over ITL 100 mill (OECD Economic Survey, 1997: 65). This measure was also accompanied by new measures against tax avoidance and new taxes on lotteries, drugs and tobacco (OECD Economic Survey, 1997: 63). Finally, in 1998, the structure of revenues was changed again by a broad based tax reform<sup>32</sup>. "The most important features of the reform were the following: "first, the introduction of a new regional tax on production activities with the abolition of a number of excise duties, capital taxes and health contributions; second, the revision of the personal income tax; third the reorganization rules governing the taxation of capital gains; fourth the introduction of a two-tier system for corporate taxation; fifth, the change of the VAT tax system (see OECD Economic Survey, 1999: 68-70; Banca d'Italia Economic Bulletin, 1998). Overall, the tax reform was designed to rationalize and simplify the tax system and to increase the fiscal autonomy of the lower levels of government." (Von Hagen, Hallett and Strauch, 2001: 103)

Summing up, the episode of fiscal adjustment in Italy during the nineties relied more on revenue-based measures than on spending cuts. As table 5.8 shows, total public revenues grew almost 6 percentage points, from 42.8% of GDP in 1991 to 48.4% of GDP in 1997, while total public expenditures only fell 2.7 percentage points, from 53.8% of GDP in 1991 to 51.1% of GDP

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<sup>32</sup> It is important to note, that some complementary measures were also taken on the spending side. "In 1998 the government continued its rather restrictive policy concerning social transfers, and health care expenditures, which could be cut due to an increase in the contribution rates for the self-employed, and transfers to local governments (OECD Economic Survey, 1999: 52-53). An expansionary initiative was also taken with the introduction of a minimum income scheme aiming to help low earners and families to find employment." (Von Hagen, Hallett and Strauch, 2001: 103)

Table 5.8. Fiscal Policy in Italy, 1990-2000

	Fiscal Adjustment Episode										
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Total current resources</b>	42,8	43,8	44,5	47,7	45,5	44,8	45,5	47,2	45,8	46,3	45,5
Taxes on production and imports	11,3	11,8	11,8	12,7	12,3	12,1	11,8	12,4	15,3	15,2	15,1
Current taxes on income and wealth	14,3	14,4	14,6	16,0	14,8	14,8	15,4	16,1	14,4	15,1	14,6
Social contributions	14,3	14,6	14,9	15,4	14,8	14,8	15,0	15,3	12,8	12,8	12,7
Other current resources	2,9	3,0	3,3	3,6	3,6	3,1	3,2	3,2	3,2	3,3	3,0
Capital transfers received	:	:	:	:	:	0,9	0,4	1,0	0,7	0,5	0,4
<b>Total Public Revenues</b>	<b>42,8</b>	<b>43,8</b>	<b>44,5</b>	<b>47,7</b>	<b>45,5</b>	<b>45,8</b>	<b>46,1</b>	<b>48,4</b>	<b>46,8</b>	<b>47,1</b>	<b>46,1</b>
<b>Total current expenditures</b>	<b>48,5</b>	<b>49,5</b>	<b>51,6</b>	<b>53,1</b>	<b>51,0</b>	<b>48,6</b>	<b>49,2</b>	<b>47,4</b>	<b>45,6</b>	<b>44,7</b>	<b>43,8</b>
Government consumption expenditure	17,4	17,4	17,5	17,5	17,0	17,9	18,1	18,2	17,9	18,1	18,0
Of which compensation of employees	12,6	12,6	12,5	12,4	11,9	11,2	11,5	11,6	10,7	10,7	10,5
Social transfers other than in kind	18,3	18,4	19,5	19,7	19,7	16,7	16,9	17,3	17,0	17,2	16,7
Interest payments	9,4	10,1	11,4	12,0	10,9	11,5	11,5	9,4	8,0	6,7	6,5
Subsidies	2,5	2,6	2,3	2,7	2,4	1,5	1,5	1,2	1,3	1,2	1,2
Other current expenditure	:	:	:	:	:	1,1	1,3	1,3	1,3	1,4	1,4
Gross fixed capital formation	3,3	3,2	3,0	2,6	2,3	2,1	2,2	2,2	2,4	2,5	2,4
Other capital expenditure	:	:	:	:	:	2,5	1,6	1,3	1,4	1,4	0,1
<b>Total Public Expenditures</b>	<b>53,8</b>	<b>53,8</b>	<b>54,0</b>	<b>57,1</b>	<b>54,6</b>	<b>53,4</b>	<b>53,2</b>	<b>51,1</b>	<b>49,6</b>	<b>48,9</b>	<b>46,5</b>
Tax burden	40,0	40,9	41,5	44,2	42,1	42,3	42,9	44,4	43,2	43,5	43,0
<b>Budget Balance</b>	<b>- 11,0</b>	<b>- 10,0</b>	<b>- 9,5</b>	<b>- 9,4</b>	<b>- 9,1</b>	<b>- 7,6</b>	<b>- 7,1</b>	<b>- 2,7</b>	<b>- 2,8</b>	<b>- 1,8</b>	<b>- 0,3</b>
Cyclically Adjusted Budget Balance	- 11,9	- 10,7	- 9,8	- 8,6	- 8,5	- 7,5	- 6,7	- 2,4	- 2,5	- 1,2	- 1,3
Consolidated Gross Public Debt	97,3	100,7	107,7	118,2	123,9	123,3	122,1	120,1	116,2	114,5	110,3

Source: Commission services (EC, 2002)

in 1997. On the revenue side, all items were increased during that period around 1% and 1.7% percentage points, while on the expenditures side social transfers, the government wage bill, and public investment were cut by 1 percentage point during the adjustment episode, while interest payments fell only by 0.6% of GDP.

The mentioned trends hide however some interesting particularities, specially regarding the possibility of identifying small pieces of evidence of partisan fiscal behaviour, in the midst of the general chaos of Italian public finances during the nineties. For example, under the Berlusconi's government, there was an important retrenchment of social transfers between 1994 and 1996, which fell by 3 percentage points. On the contrary, during the posterior Prodi's government, public investments stopped falling and were maintained at the level of 2.2% of GDP during the latest part of the consolidation.

Finally, in 1998-99, still under the leftist coalition of L'Olivo, the primary balance deteriorated again, while transfers and wage payments continued to fall, but "purchases started to grow and public investment expanded modestly." (Von Hagen, Hallett, and Strauch, 2001: 104).

This latter fiscal policy strategy under the Prodi's government looks very much alike to the typical leftist strategy of fiscal adjustment depicted in chapter 4, according to which, left-wing governments, if forced to adjust, prefer to increase revenues and maintain expenditures; and if forced to reduce expenditures too, they prefer to keep public investment in order to articulate supply-side policies of physical and human capital formation, even at the expense of social transfers or public employment. In addition, the strong spending cuts of the Berlusconi's cabinet during 1994 and 1995, that have resumed again after he was reelected in 2001, might be also interpreted as further evidence of the partisanship hypothesis starting to play a role in explaining part of fiscal policy in Italy. Nevertheless, if this partisanship hypothesis has really started to play any role at all in the second half of the nineties, it is due to a previous and more important process of institutional



transformation that has modified deeply the budgetary process in Italy, reducing its degree of fragmentation.

The institutional change in Italian public finances started in 1992, and its main objectives were: 1) to re-establish fiscal responsibility at the local level, reducing the high degree of vertical imbalance of the public finance system; and 2) to improve the budgetary process at the federal level (Bordignon, 2000).

At the local level, policy measures were taken in 1992 and 1994 to finish with the practice of local governments' overspending, and demanding additional funds to the national government under the threat of a likely collapse of the local public services such as health and education. The reform of 1992 limited the responsibility of the central government in these areas, to the extent that it was made only responsible for setting and financing minimum national standards, leaving the regions with the responsibility of financing any cost beyond those standards. In 1995, this initiative was complemented with a new regulation that abolished conditional and unconditional grants from the national government to the regions. In return, the regions obtained a larger share of tax collections, and the national government introduced a system of redistribution to reduce inequalities among the regions. Finally, in order to increase transparency and accountability of local governments, the national government reduced the level of managerial intervention at the local level, and forced some changes in the municipalities to increase politicians accountability in local elections.

At the national level, the main reforms took place in 1994, and focused on strengthening the role of the parliament in the budgetary process in order to increase transparency; strengthening the role of the Treasury minister; and providing the conditions for more flexibility during the implementation of the budget (see table 5.9).

These changes were accompanied by a crucial modification of the electoral system, away from pure proportional representation. Since the 1994 elections, three quarters of the seats in the Senate and one quarter of the seats in the Chamber of Deputies are

*Table 5.9. Changes in Budgetary Procedures in the Nineties*<sup>33</sup>

Aspect	Belgium		Ireland		Italy		Sweden	
	Old <sup>a</sup>	New*	Old	New	Old	New	Old	New
Position of Finance Minist	1.25	3.25	0.25	3.25	<b>0.75</b>	<b>0.95</b>	1.00	1.75
Position of Legislature	0.80	1.60	1.60	3.00	<b>1.20</b>	<b>2.80</b>	1.60	3.20
Constraints	0.00	3.00	2.50	3.00	<b>2.50</b>	<b>2.50</b>	0.50	4.00
Transparency	2.00	3.13	1.00	1.53	<b>1.00</b>	<b>0.80</b>	1.00	3.20
Flexibility in Execution	1.80	2.92	3.00	2.67	<b>0.25</b>	<b>1.58</b>	1.68	2.02
Relationship with other parts of Gov't	1.33	1.33	0.00	3.33	<b>1.33</b>	<b>2.66</b>	0.00	1.33
Total	7.18	15.23	8.35	16.78	<b>7.03</b>	<b>11.29</b>	0.78	15.5

Source: de Haan, Moessen, and Volkerink (1999: 275).

Note 1: <sup>a</sup> Old refers to classification in Von Hagen (1992).

Note 2: \* New refers to the revision of these indexes in 1999 by the mentioned authors.

determined according to plurality votes. Taking into account that both chambers have the same legislative and veto powers in the process of budget approval, the change in the electoral law was very important to reduce the fragmentation of decision-making. The intended shift toward a more bi-polar party system, however, only occurred in the 1996 elections. "Under the Prodi government, new legislation was passed that moved the budget process in the direction of centralization under the delegation approach. The former Budget ministry was incorporated in the Treasury, which now has a leading role in the budget process. The Treasury was also given the authority to block expenditures, thus reducing the power of the spending ministries during the implementation phase of the budget" (Von Hagen, Hallett and Strauch, 2001: 47). Finally, another very important change took place in 1997 when

<sup>33</sup> Note that these four countries were the most indebted countries in terms of GDP of the EU, at the beginning of the nineties. Only Ireland started to modify its budgetary process and reduce its debt in the mid eighties. The rest followed similar processes at the beginning of the nineties.

the parliament did not approve anymore a budget in which expenditure was organized six thousand items, but a budget organized according to “functional targets” that indicate the main political decisions, and according to “base units” that indicate resources for the responsibility centers of state administration (de Haan, Moessen, and Volkerink, 1999).

The “impossible” qualification of Italy was then achieved in 1999, through the combined action of two institutional factors that succeeded in curbing down the endemic fragmentation of decision-making in Italian politics: the reform of the Italian budgetary process, and the external pressure of the Maastricht criteria.

When the Prodi’s government realized that it could join the euro in 1999 combining all the previous years of slow but constant fiscal adjustment, and the internal institutional reforms mentioned above, Prodi’s became determined to join with the first group and pledged to resign in case of failure. This decision was taken after Italy realized that it could not count on Spain to relax the criteria in a bilateral meeting between Aznar and Prodi in Valencia (23-24 September, 1996) (Chiorazzo and Spaventa, 1999). It was then when Prodi confronted the possibility of Italy being left out the group of core countries, and when he decided to use the “national pride” argument to ask Italians for a new budgetary effort. In this respect, the Maastricht criteria, as an external institutional constraint, contributed very much in Italy (as well as in Belgium, Finland, or Spain) to reduce dramatically the degree of domestic fragmentation traditionally present in every budgetary decision. This could be done in Italy only because a previous domestic institutional reform had taken place, but certainly, the external constraint, played a crucial role during the last year of hard, but uncontested measures taken by the government.<sup>34</sup>

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<sup>34</sup> For more the role of international constraints on domestic decisions regarding the budget deficit in the European Union, see Freitag and Scianni (2001). For the system of incentives that the Maastricht treaty created among member states to implement difficult convergence policies, see Winkler (1997).

5.2.3. *Proximity of Elections: France vs. Germany*

If in the previous section the cases of the United Kingdom and Italy served to illustrate how fragmentation of decision-making can influence the strategy of adjustment and distort or enhance the influence of cabinet's ideology as the main predictor of fiscal policy, in this section the French and German cases will be presented as clear examples of how the proximity of elections can reverse the influence that both ideology and fragmentation of decision-making normally have during non-election years.

There are numerous examples of alterations in fiscal policy caused by the proximity of elections. These alterations take different forms. Normally, the most common alteration takes the form of expansionary fiscal policy occurring previous to the election, in order to accelerate the rate of economic growth and increase the chances of re-election. Consequently, when elections come and the country had plans to start a fiscal adjustment, these plans are postponed. Or if the country was already in the midst of a fiscal consolidation, the probability of ending this episode of adjustment increases rapidly as the election gets closer (see chapter 3).

A case that combines these two aspects was the case of Spain in 1993. The socialist government of Felipe González submitted its first Convergence Program to the European Commission in 1992, when the deficit was at 4% of GDP. The "promised" path of adjustment in April 1992 established that the deficit should fall continuously in the following four years to reach 1% of GDP in 1996. But the predictions of that first Convergence Program relied on extremely optimistic scenarios of 3% annual GDP growth. The reality turned out however very different, and the economic slowdown of 1991-92 indicated that if a reduction of the deficit was to take place, hard measures were needed on the expenditure side. However, the damaging effect of the first publicly known cases of corruption, and the growing voter support for the conservative Popular Party, placed the socialist government in a position very close to lose the election for the first time in eleven

years. As a consequence, González decided to use the “fear of dismantling the welfare state” as the axis of his campaign to convince the electorate that he was the only political option that would defend this system from the neoliberal intentions he attributed to “the right”. Therefore, measures to maintain public expenditures and increase social transfers were enacted despite what was promised in the first Convergence Program; the deficit reached 6.7% of GDP by the end of 1993, and the necessary fiscal consolidation had to wait until 1994-95. González, however, was re-elected to serve his fourth term in office.

Nevertheless, sometimes the fiscal consolidation cannot be avoided or postponed, and then the government decides to alter the electoral calendar, instead of altering fiscal policy plans. This is what happened in France in 1997, when president Chirac dissolved the parliament and called an early election to avoid having these elections in 1998 right after all hard budget measures needed to qualify for the third stage of EMU in 1999 had taken place.

Other times, neither elections can be postponed nor sound fiscal policy can be avoided. When fiscal institutions are so strongly oriented to budget stability as the German ones, when the Maastricht criteria cannot be circumvented by their very promoter, and when the electoral calendar cannot be altered either, one confronts very particular situations: in such circumstances governments tend to either implement the fiscal adjustment even if they coincide with elections, or they try to weaken fiscal institutions due to electoral reasons. This latter case is the German case during the nineties.

Both, Germany and France have fiscal institutions that use the “delegation approach” to maintain a high degree of fiscal balance. Both countries, too, had conservative governments in power in the mid nineties. And both countries faced elections in 1997, the last year to meet the 3% deficit limit, because they wanted to limit the degree of pain inflicted to their electorates in an election year (Willett, 1999: 55). The difference between both cases relies however on the point of departure. While France maintained

important fiscal deficits during the eighties and followed an expansionary fiscal policy between 1991 and 1994 that situated the country with a deficit of 5.6% of GDP in 1994, Germany started the decade with no apparent problems to fulfil any of the criteria, but finally ended up becoming very close to be left out of the qualifying group in 1997. Although the partisanship hypothesis would have predicted clear expenditure-based adjustments taking place in both countries (even more so given the low degree of fragmentation in decision-making present in both cases), the proximity of elections turned France into a late revenue-based strategy, and sent Germany into an artificial “freezing effort” accompanied by a weakening of its fiscal institutions that is again causing new difficulties to perform its fiscal obligations again in year 2002.

*5.2.3.1. France: Early Elections and Revenue-based Adjustment, 1995-97*

At the beginning of the nineties, the budget deficit in France was only 2% of GDP and the accumulated debt level represented 40% of GDP. Then, however, the deficit quickly deteriorated to 4.3% in 1992 and 5.6% in 1993, basically as a result of the economic recession that took place in Europe at the start of the decade.

Fiscal policy combined at that time different measures that pushed in opposite directions. On the one hand, spending caps on ambulatory care expenditures, direct payments by patients, and general guidelines for savings in hospitals were introduced in 1992, together with a pension reform and new measures to tighten unemployment compensation, in 1993. On the other hand, these measures were offset by other expansionary initiatives, such as new labour market policies in 1992, new programs to subsidize agriculture, small and medium industry enterprises, and extraordinary capital spending in state-owned enterprises. The revenue side presented also a combination of offsetting initiatives.

Corporate taxes and the top VAT rate were cut in 1992, while social security contributions were raised in 1993.

This cross-combination of policies remained intact during 1994, although the remarkable enlargement of subsidies and transfers to households ended up placing French public finances on a path incompatible with the Maastricht criteria. Many initiatives were taken then on both sides of the budget to reduce the deficit, being the increase in revenues the dominant strategy until 1996. In this respect, a temporary increase in wealth and corporate taxes (10% surcharge) was imposed. In addition, excise duties on tobacco and gasoline were raised. A two point rise in VAT (from 18.6% to 20.6%) became effective from August 1995, while employer's social contributions were raised 3.8 points in order to balance the accounts of the local authorities' pension funds (Banque de France Bulletin Digest 2/95).

Finally, some emergency measures were taken to comply with the 3% reference value of the Maastricht criteria: "a 5% increase (from 36.6 to 41.6%) in corporate tax was levied on companies with a turnover above FFfr 50 Million was imposed for two years. This tax hike affected also certain long-term capital gains which were included in the tax base and, therefore, were subjected to a tax increase from a reduced rate of 19% to 41.6%" (Von Hagen, Hallett and Strauch, 2001: 88). Furthermore, the domestic tax on oil products increased, and a 1% rise in the social security surcharge was approved to offset the 1.3% cut in employees' health contributions (Banque de France Bulletin Digest 11/96; OECD Economic Survey, 1997: 51).

As a result of the strategy depicted above, France maintained the level of its public expenditures at 55% of GDP, and increased the share of public revenues in terms of GDP by 3.5% between 1994 and 1997, until they reached 52% of GDP (see table 5.10).

This revenue-based strategy of adjustment is directly related to the difficulties that the Juppé government encountered to introduce its numerous plans of welfare reform aimed at reducing public expenditures to allow for important tax cuts that could stimulate the French economy and accelerate job creation.

Table 5.10. Fiscal Policy in France, 1993-2001

	Fiscal Adjustment Episode									
	1993	1994	1995	1996	1997	1998	1999	2000	2001	
<b>Total current resources</b>	48,4	48,3	48,1	49,7	49,7	49,6	50,4	50,2	49,8	
Taxes on production and imports	14,3	14,7	15,4	16,1	16,0	16,0	16,1	15,7	15,4	
Current taxes on income and wealth	9,0	9,2	8,5	8,9	9,5	11,7	12,2	12,3	12,1	
Social contributions	21,1	20,7	20,5	20,7	20,3	18,2	18,4	18,5	18,5	
Other current resources	4,1	3,7	3,7	4,0	3,9	3,7	3,6	3,7	3,7	
Capital transfers received	:	:	0,4	0,3	0,8	1,2	1,4	1,5	1,5	
<b>Total Public Revenues</b>	48,4	48,3	49,7	51,4	51,9	51,3	52,1	51,9	51,4	
<b>Total current expenditures</b>	50,7	50,4	49,2	50,0	49,8	48,6	48,3	47,9	47,3	
Government consumption expenditure	19,4	19,2	23,9	24,2	24,2	23,5	23,7	23,5	23,3	
<i>Of which</i> compensation of employees	14,0	14,0	13,7	13,9	13,8	13,7	13,7	13,5	13,2	
Social transfers other than in kind	23,1	22,9	18,5	18,7	18,8	18,4	18,3	18,1	17,8	
Interest payments	3,3	3,5	3,8	3,9	3,7	3,6	3,4	3,3	3,2	
Subsidies	2,4	2,3	1,5	1,5	1,5	1,4	1,3	1,3	1,3	
Other current expenditure	:	:	1,6	1,7	1,6	1,7	1,7	1,7	1,6	
Gross fixed capital formation	3,1	3,1	3,3	3,2	3,0	2,9	2,9	3,0	3,0	
Other capital expenditure	:	:	1,5	0,9	0,8	2,1	2,2	2,1	1,5	
<b>Total Public Expenditures</b>	54,1	54,0	55,2	55,5	55,0	54,0	53,7	53,2	51,9	
<b>Tax burden</b>	45,6	45,9	45,2	46,4	46,5	46,5	47,3	47,0	46,6	
<b>Budget Balance</b>	- 5,6	- 5,6	- 5,5	- 4,1	- 3,0	- 2,7	- 1,6	- 1,3	- 0,6	
Cyclically Adjusted Budget Balance	- 5,2	- 5,4	- 5,1	- 3,3	- 2,2	- 2,2	- 1,3	- 1,3	- 1,2	
Consolidated Gross Public Debt	46,1	49,6	54,0	57,1	59,3	59,7	58,8	58,0	56,9	

Source: Commission services (EC, 2002)



The failure of the partisanship hypothesis to explain the strategy of fiscal adjustment pursued by France between 1995 and 1997, has to do with the wide rejection of the French society to the liberal measures promoted by the conservative government of Chirac and Juppé, and most importantly with the fear that the government had of implementing hard unpopular measures when elections were imminent.

Their fears did not lack a consistent base. On November 7, 1995 Alain Juppé was reappointed by president Chirac to form a new government. Juppe's first announcement after the cabinet reshuffling was that the "new team's main tasks would be to restore order to the government's finances, so as to open the way for lower interest rates and an easing of the tax burden. Of particular importance, he said, were reform of the social security system, government administration and taxation, and the implementation of a policy of urban renewal aimed at social integration" (EIU France Country Report, 1996, ¼: 9). Eight days after, the social security reform was made public, and on November 24, nationwide strikes of public sector workers and students erupted, causing four weeks of economic havoc.

Although the massive demonstrations were motivated by different factors, ranging from general discontent with the inability of the government to maintain Chirac's presidential promises of employment creation<sup>35</sup>, to the massification in public universities, the cuts in education spending<sup>36</sup>, and the labour conditions of workers in the public transportation system, the social explosion was very much directed against the Juppé government crusade for public finance deficit reduction and the social security package.

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<sup>35</sup> Chirac campaigned in the 1995 presidential elections giving the vague impression that faster progress could be made in reducing unemployment by the government's opting for the pursuit of more growth-oriented policies. When Juppé addressed the Assembly after substituting Balladur, he also promised job creation without mentioning any painful economic medicine (EIU France Country Report, 1996, ¼: 14).

<sup>36</sup> Education spending increased in nominal terms by 3.5% in 1996 and 1.3% in 1996, but this implied a cut in real terms that was unprecedented in France. (EIU France Country Report, 1996, ¾).

In the intensity of the protests there was also a component of personal rivalry on the part of the trade union leader of Force Ouvrière (FO), Marc Blondel, who promoted the most intense strikes in the government administration and public service sectors, where its union had traditionally have the strongest representation. These protests entailed a direct response to the unilateral initiative of the Juppé government to freeze the civil service pay-scale announced for 1996, to tighten the public sector pension schemes, and to launch health care reforms directly affecting public workers, without any previous consultation with the union, as had traditionally been the case. (Howarth, 2000)

In view of the dimension of the social unrest created by the announced initiatives, the government and the presidency launched a common campaign explaining the public opinion, through several interviews in the media, the importance that public deficit reduction had as a precondition for lower interest rates, sustained growth, and further employment creation. This was also interpreted as an attempt to detach the needed reforms in the French welfare system from the process of European Monetary Union.

During 1996, the introduction of the pension reform proceeded. For the Juppé government it was a crucial question that could not be postponed once again, as the governments of Bérégovoy in 1992 and the Balladur government had done for electoral considerations (Reland, 1998: 99). The repayment of the social security debt was finally decided to be financed through a special tax called the social debt repayment (RDS) levy, that was imposed in 1996 at a rate of 0.5% on all incomes. In addition the government wage bill was frozen again, but this time not by means of a real freeze in public salaries, but by an actual cut in public employment largely coming from the non-replacement of posts vacated through normal retirement.

As a consequence, social tensions remained. In January 1997, the French president, Jaques Chirac, exhibited only 30-35% of electoral support, while its prime minister had only 25-27%. However, polls still gave them a victory if elections were to be

held then<sup>37</sup>, and suddenly on April 21 1997, Chirac announced the dissolution of the National Assembly, nearly a year ahead of the end of its 5-year normal term. He told the French public that “the government was in need of a new mandate in view of the difficult, but important, challenges that laid ahead, including the introduction of further reforms of the country’s public finances (providing for major cuts in both taxes and expenditures); the creation of a more favourable climate for business and employment creation; and, above all, additional progress in European integration” (EIU France Country Report, 1997, 2/4: 11). However, the true reason for this early call was one of political calculation, according to which Chirac was convinced that it would be easier to maintain the conservative majority and avoid a third cohabitation<sup>38</sup>, if elections did not coincide with the strongest measures that remained ahead, and if it took by surprise the opposition, which at the time was very divided regarding the austerity measures attached to EMU and was willing to join the government later if this meant a slower rhythm of reforms.

But Chirac’s gamble failed, despite a last minute attempt to regain the leadership in the polls (which the government kept until the first round of the legislative elections on May 25) consisting in forcing Juppé to publicly renounce before the second round to any ambition of staying as prime minister, and signalling the popular president of the National Assembly, Philippe Séguin, as the next prime minister in the event of the right’s maintaining power. Lionel Jospin and his leftist allies won 320 seats in the 577-member National Assembly, formed a new government before the summer, and France finally met the 3% deficit criteria thanks to a controversial inclusion as a budget receipt of a one-off payment to the State by France Télécom, linked to the posterior partial

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<sup>37</sup> In February and March 1997, Sofres, an important French opinion pollster, predicted a comfortable majority of the RPR-UDF alliance if elections were to take place in the following Spring. (EIU-France Country Report, 1/4, 1997)

<sup>38</sup> The first two *cohabitations* occurred under the presidency of FrançoisMitterrand, during the periods 1986-88 and 1993-95.

privatization, which was estimated as the equivalent of 0.45% of GDP. The European Commission permitted this payment, and it certainly allowed France to qualify among the first group of countries joining the euro.

A posteriori, most French political analysts agreed that the surprising victory of Lionel Jospin, was more a punishment inflicted to Chirac for not having complied with his 1995 electoral promises of a radical shift in economic policy to stimulate the economy, than a strong preference for a socialist government<sup>39</sup>. Nevertheless, it must be noticed too that Jospin ran the election campaign on a platform of socialist-communists that was purposely ambiguous regarding the reforms entailed by the Maastricht criteria. In fact, Jospin, advocated for including the unemployment rate among the convergence criteria, for creating an Economic government that would serve as counterweight to the monetarist European Central Bank, and initially admitted that a relaxation of the criteria or a postponement of the entry date were acceptable measures if this served to bring the needed stimulation to the French economy. However, once in power, Jospin became satisfied on the European front with the inclusion of an employment chapter in the Treaty of Amsterdam of 1997 and the inclusion of all small candidates and Italy in the euro group. On the domestic arena, Lionel Jospin, during his first year in power left untouched the social security reform launched by his predecessor Alain Juppé, and postponed the promised downward revision of the VAT. Because the economy started to grow, public finances worries became less urgent and the new government immediately focused on innovative social policies (such as raising the minimum wage by 4%), and active labour market policies to reduce unemployment (the most important of which was the passage of the law introducing the week of 35 working hours), that started in 2000.

All in all, the French case comes to illustrate that if elections are close and the government cannot postpone a necessary fiscal

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<sup>39</sup> See for example "Losing Bet" in *Time Europe*, June 16 1997.

consolidation (because the EMU timetable was fixed), then politicians will opt for altering the electoral calendar to avoid campaigning for re-election exactly in an adjustment year. In this case, the manipulation resulted extremely evident and displeased the French electorate, who punished the incumbent government for not having complied with its previous electoral promises. As such, this latter aspect is to be kept in mind for chapter 7, when the political consequences of fiscal adjustments will be analysed.

*5.2.3.2. Germany: Elections, Weakening Institutions and Non-Adjustment, 1990-97*

On Wednesday, 30 January 2002, Germany received an unprecedented warning from the European Commission over its budget deficit. Due to the economic downturn Germany's deficit had risen to 2.7% of GDP in 2001, quite near to the maximum of 3% laid down in the Stability Pact (a set of budgetary rules that was promoted by Germany itself to guarantee sound budgetary politics in the countries joining the euro). How could the strongest advocate of fiscal discipline be the first one in receiving a warning for getting extremely close to the limit in 2001, and finally breaking it at the end of 2002<sup>40</sup>?

The explanation to this paradox is very much related to the weakening of the German budgetary institutions driven by political considerations of the Kohl government in the aftermath of German re-unification, as explained by Von Hagen and Strauch (1999). As such, the German case exemplifies, one of a government who, unable to modify the electoral calendar or the fiscal austerity that its institutions forced it to follow, decided to weaken those same institutions in order to implement an expansionary fiscal policy directly oriented toward guaranteeing the re-election. As a consequence, when the time to evaluate the

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<sup>40</sup> According to the European Commission, at the end of 2002 the budget deficit of Germany reached 3.8% of its GDP.

fiscal accounts came, Germany found itself among the non-complying countries in 1996. Then, with the German fiscal institutions badly damaged, and new elections coming, the same conservative government of Helmut Kohl resorted to a set of revenue-based adjustment measures that had only temporary effects on the budget, allowing Germany to qualify for the third stage of EMU, but conditioning the capacity of future German governments to maintain fiscal discipline.

The process of German re-unification between 1989 and 1991 was indeed an exogenous and unexpected shock to German fiscal policy that had a strong impact on Germany's public finances. As an example, re-unification transformed in only two years a structural surplus of 0.4% of GDP in 1989 into a deficit of -5.9% of GDP in 1991, and a debt level of 38% of GDP in 1989 into a debt level of 57.1% of GDP in 1995 (see table 5.11).

For most observers, German re-unification was a classical case of tax-smoothing. According to this view, Germany was right to finance the real investment necessary to rebuild the East German economy with additional public debt.

“But this view is inconsistent with the nature of the public transfers actually paid to former East Germany since unification, which predominantly served to finance consumption, [and were] the outcome of a series of political choices based on short run strategic considerations that led to the deterioration of public budgeting and budgetary institutions in Germany.” (Von Hagen and Strauch, 1999: 70-71)

The first political re-unification measures taken by the Kohl government had important fiscal consequences. The most important of these measures was the determination of the conversion rate between the West and East Deutsche Marks. Although most economists agreed that the proper conversion should have been 1 West DM per 4 East DM, the government established a conversion rate of 1:2 for most bank accounts, but for prices, pensions and wages, the conversion rate was 1:1 (Deutsche Bundesbank Annual Report, 1990). Together with this

Fiscal Adjustment Episode

Table 5.11. Fiscal Policy in Germany, 1991-2001

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
<b>Total current resources</b>	43,5	44,9	45,3	45,9	44,8	45,7	45,4	45,5	46,1	46,0	44,6
Taxes on production and imports	12,2	12,4	12,7	13,1	11,4	11,4	11,4	11,6	12,2	12,0	12,1
Current taxes on income and wealth	11,3	11,6	11,2	10,8	11,1	11,5	11,2	11,5	12,0	12,5	11,4
Social contributions	17,5	17,8	18,4	18,9	18,8	19,4	19,6	19,2	18,9	18,7	18,3
Other current resources	2,6	3,1	3,0	3,0	3,5	3,4	3,2	3,2	3,1	2,9	2,8
Capital transfers received	:	:	:	:	0,5	0,4	0,4	0,5	0,4	0,4	0,4
<b>Total Public Revenues</b>	43,5	44,9	45,3	45,9	46,1	46,8	46,5	46,6	47,2	47,0	45,9
<b>Total current expenditures</b>	42,3	43,4	44,8	44,9	44,9	46,2	45,5	44,8	44,8	44,3	43,8
Government consumption expenditure	18,9	19,5	19,6	19,4	19,8	19,9	19,5	19,1	19,0	18,9	18,7
Of which compensation of employees	10,1	10,4	10,6	10,3	9,0	8,9	8,7	8,4	8,3	8,1	7,9
Social transfers other than in kind	16,6	17,3	18,4	18,6	18,1	19,3	19,3	18,9	18,9	18,7	18,5
Interest payments	2,6	3,2	3,2	3,3	3,7	3,7	3,6	3,6	3,5	3,3	3,2
Subsidies	2,4	2,1	2,1	2,1	2,1	2,0	1,8	1,8	1,7	1,7	1,6
Other current expenditure	:	:	:	:	1,2	1,3	1,4	1,4	1,6	1,7	1,7
Gross fixed capital formation	2,6	2,8	2,7	2,5	2,3	2,1	1,9	1,8	1,8	1,8	1,8
Other capital expenditure	:	:	:	:	1,6	1,2	1,2	1,3	1,3	1,1	1,2
<b>Total Public Expenditures</b>	46,8	47,6	48,8	48,4	49,6	50,3	49,2	48,6	48,6	45,6	47,6
Tax burden	40,8	41,5	42,0	42,5	42,2	43,1	43,0	42,9	43,7	43,8	42,3
<b>Budget Balance</b>	- 3,2	- 2,8	- 3,5	- 2,6	- 3,5	- 3,4	- 2,7	- 2,1	- 1,4	- 1,5	- 2,6
Cyclically Adjusted Budget Balance	- 5,9	- 4,7	- 3,8	- 3,0	- 3,7	- 3,1	- 2,1	- 1,5	- 0,7	- 0,8	- 1,9
Consolidated Gross Public Debt	40,4	43,1	47,2	49,5	57,1	59,8	60,9	60,7	61,1	60,3	61,7

Source: Commission services (EC, 2002)

decision, the Kohl government decided also the full extension of West Germany's labour market institutions. Both measures had important fiscal consequences, since the higher rate of conversion resulted in higher pensions, and the extension of the long and high Western unemployment insurance, resulted in higher pressures on the social security system.

The decision to transplant labour market conditions to the East had also very important effects on East Germany's unemployment rate. Because Western trade unions and employers soon extended their wage bargaining process to the East, aiming at dissolving any possibility of low-wage/low-price competition from these regions, real wages grew in the East much faster than productivity, resulting in massive unemployment during the nineties. "Instead of creating jobs in the East, the adjustment process triggered huge social transfers flowing from West to East Germany." (Von Hagen and Strauch, 1999: 75).

These massive transfers, the largest share of them being transfers to private households, were mainly financed by the general government. While total gross transfers from the West to the East rose from DM 139 Billions in 1991 to DM 189 Billions in 1997, local governments did not transfer to their East counterparts more than DM 14 Billion in the whole process (Deutsches Bundesbank Annual Report, 1998). In contrast, in the same period, public investment in East Germany financed by West Germany only rose from DM 22 Billion to DM 33 Billion, and never exceeded a fifth of the social transfers. "This is a clear refutation of the tax smoothing interpretation of German fiscal policy after unification." (Von Hagen and Strauch, 1999: 80).

The financing of all these expenditures came largely from government borrowing, as they were thought to be temporary measures. At last, the re-unification process was conceived as an event that would be self-financing in the medium and long-term. However, already in 1992-93, it became clear that the re-unification would need long-term permanent transfers, mostly as a



result of the high unemployment rate triggered by the labour market initiatives of 1989 and 1990<sup>41</sup>.

This is why, from 1993 onward, the Kohl's government, unable to mobilize the political strength to cut spending and facing new elections in 1994, engaged in a series of revenue raising measures that affected almost all taxes and revenue sources. As table 5.11 reports, total public revenues rose 1.3% of GDP between 1993 and 1998, while total public expenditures fell only 0.2% during the same period. Some of the most important measures on the revenue side were: the increase in the mineral oil tax in 1994, the reintroduction of the "solidarity surcharge" in 1995<sup>42</sup>, the increase in the VAT from 12% to 15%, and the doubling of the wealth tax from 0.5% to 1% for most assets<sup>43</sup>. This overall revenue-based adjustment, switched, however, to an expenditure-based strategy in 1997, when public expenditures were cut by 0.8%, mostly those coming from the government's wage bill (0.3%), public transfers (0.4%), and public investment (0.1%).

However, in spite of these numerous budgetary initiatives, slow economic growth made it increasingly difficult to match

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<sup>41</sup> Note also that these labour market measures coincided with an economic downturn provoked in all Europe by the tight monetary policy with which the Bundesbank accommodated the fiscal expansion associated to the German reunification. This tight monetary policy rose German interest rates and appreciated the DM vis à vis the rest of European currencies. As a consequence the economic deceleration of the early nineties worsened. See Giordano and Persaud (1998).

<sup>42</sup> The solidarity surcharge on personal and corporate income was introduced in 1991. The surcharge of 7.5% of the tax liability was implemented until June 1992, and then was reintroduced in 1995.

<sup>43</sup> Together with these revenue raising measures, the government took some fiscal initiatives from 1994 onwards to reduce the tax burden on firms and to improve business conditions. The *Investment Location Law* envisaged a reduction of corporate taxes on retained profits from 50% to 45%, and on dividends from 36% to 30%. In addition, the top rate of taxes on business income was reduced from 53% to 47%. These reductions were "to be financed through the replacement of the declining-balance depreciation by the linear depreciation on company buildings and the closure of several tax loopholes and tax simplifications reducing tax evasion." (OECD Economic Survey, 1995: 158)

revenue forecasts and actual revenues (SVR, 1997). As a consequence, Germany was close to fail the “Maastricht exam”. Only the consecutive exercise by Theo Waigel of the finance minister’s prerogative to block expenditures in March 1995 and June 1997, made Germany’s qualification possible. This qualification happened, however, after the German government attempted to force the Bundesbank to revalue its gold reserves against accounting conventions in May 1997, and cash in the resulting profits. In addition, the German government used unreported budget gimmicks that accounted for about 0.4% of GDP (DIW, 1998), what summed to the official 2.7% budget deficit recognized by the European Commission in 1998, would have caused a violation of the deficit criterion by Germany.

During all this process, political decisions in Germany were heavily marked by electoral considerations. In a general climate of uncertainty of the economic impact of re-unification, and fearing massive migrations from the East into the West, the Kohl’s government moved fast to grant all types of benefits to the new Eastern German citizens. These measures were also full of electoral motivations. Earlier in 1989, electoral expectations for the governing coalition had looked rather bleak, with the CDU-CSU lagging behind the SPD in opinion polls from Fall 1989 (Schwin, 1997). Active policy initiatives returned the governing coalition to a leadership position in setting the German political agenda, a position that had been lost to the SPD in the two years previous to the fall of the Berlin wall. The conversion rate of 1:1, the extension of all labour benefits, and the massive transfers to East Germany must be understood against this background. Even more if one takes into account the strong incentives that the West German government faced to please fresh new East German electorate that would eventually vote in the 1990 federal elections.

To do this, the Kohl’s government resorted to a series of political initiatives aimed at circumventing the strict provisions of the German budgetary process. The increased use of special funds by the federal government to finance re-unification is the most important of these initiatives. The fact that these special funds do

not appear in the budget meant that their use was not scrutinized by the powerful budget committee in the Parliament, and the government could then escape from legislative control. Another important initiative was the increased use of tax expenditures. "While the budgetary effect of tax expenditures is the same as that of explicit subsidy payments, they are harder to control in the budget process, because they do not appear as an expense in the budget law." (Von Hagen and Strauch, 1999: 88).

Also, Kohl decided to weaken the otherwise strong institutional budgetary powers of the finance minister, either by assuming some of its duties, or by transferring also some powers to other offices strongly involved in the re-unification process, such as the Treuhand<sup>44</sup>.

A third indication of the institutional deterioration of the budget process was the proliferation of budget freezes, last-minute revisions of budget proposals, and multiple "ad hoc" fiscal measures. These measures generally took the form of amendments to the budget, and/or direct compensation of pressure groups who complained of being particularly affected by the re-unification process. It was said at the time that the Chancellery was so ready to gather support for the re-unification project, that it used to compensate those with "particularly affected interests" with sums of up to DM 1 billion (Von Hagen and Strauch, 1999).

As a result, while German governments had only resorted to supplementary budgets four times between 1952 and 1980, the Kohl's government presented seven supplementary budgets

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<sup>44</sup> Von Hagen and Strauch describe perfectly the importance of the Treuhand: "*De jure*, it was an independent federal agency under the supervision of the Ministry of Finance and subject to the scrutiny of a special parliamentary committee. *De facto*, the Ministry of Finance exercised special control, at best, over its activities (...) Requests of the Ministry concerning the usage of funds the Treuhand borrowed in the capital markets or received from other sources were not necessarily answered. For example, the Treuhand's president Birgit Breuel flatly refused to produce information on the credit commitments which the Treuhand had made to firms taking over ex-socialist enterprises, commitments that reached an amount of Deutsche Mark 20 billion." (Czada, 1994: 40; In Von Hagen and Strauch, 1999: 88)

between 1990 and 1997 (Sturm, 1998). “Disastrous financial decisions taken out of electoral opportunism were never reversed or replaced by a more long-term orientated financial strategy. The 1990s, therefore left Germany with a large fiscal problem that still awaits a sustainable solution.” (Von Hagen and Strauch, 1999: 90)

The solution to this problem, however, seems very difficult, because it requires deep reforms of the German welfare system, spending cuts, and a reform of the labour market. Once Germany qualified for the third stage of EMU, it will be difficult for the German electorate to understand the need for stronger fiscal measures on the spending side. Even more so, the “external constraint” argument will not be accepted either by the German electorate in the future, once the Schröder’s government, motivated again by electoral considerations in a crucial election year, demonstrated at the beginning of 2002 great political influence to stop the early warning recommended by the European Commission, at the ECOFIN Council.

But this difficulty will not only come from the intransigency of the electorate, but also from the political elite itself. During the nineties, German fiscal institutions were circumvented unofficially, meaning that there has not been any specific legal reform of these institutions, and therefore, no legislative initiative can restore their previous power. It is the task of politicians to return to old practices, which mostly relied on the mutual agreement among the main German political actors to abide by these institutional rules. However, once one party in the contract has ceded to the temptation of electoral manipulation of the budget process, the incentives for the political opponent to keep its word and stick to the rules diminish.

### **5.3. Conclusion**

This chapter has illustrated with concrete case studies the type of constraints that political and institutional factors impose to fiscal policy formulation. The strong effect that ideology of the

party in government, fragmentation of decision-making, and proximity of elections have on fiscal adjustment strategies was already highlighted in chapter 3 and chapter 4. However, one of the disadvantages of arriving at substantive conclusions by means of statistical analysis is that the story lacks the richness of concrete historical examples. The purpose of this chapter was precisely this: to provide the thesis with some historical background against which statistical results could be contrasted. Given its historical salience, the chapter tells the story of the Maastricht treaty and the fiscal efforts made by all member states to qualify for the third stage of EMU, underscoring the political dimensions of the process.

This is why the chapter started answering some of the more puzzling questions that arise from the results obtained in chapters 3 and 4. Questions such as why did European countries tight their hands in the first place by establishing the Maastricht convergence criteria, if domestic constraints had such an important role?; and why did social democratic parties, traditionally associated to economic management within national boundaries, embraced monetary union so enthusiastically?, have been the subject of the first part of this chapter.

Although answered from different perspectives, the response to the first question provided in the chapter has been a response in terms of foreign politics, whereby the move to EMU was a combination of the French and Italian desires to rebalance the power in the EMS, and the German acceptance of these new conditions in exchange for approval of the German re-unification. In a similar way, the main reason why social democratic parties across Europe embraced monetary union had to do with two factors: their conviction of the merits of economic stability, and the normal support that opposition parties always give to their governments in issues related to foreign policy and the national interest.

This pre-eminence of foreign policy motivations in the period conducive to the signing of the Treaty of Maastricht does not imply, however, that domestic political constraints did not play a

role in the subsequent period of fiscal adjustment. Once countries agreed on the convergence criteria, each one found its own way to fulfil them. It was precisely in the formation of this interim decisions when factors such as ideology of the party in government, fragmentation of decision-making and proximity of elections, played a role again in the nineties. The cases of Portugal, Spain (in terms of ideology), the UK, Italy (with respect to institutional fragmentation), and France and Germany (regarding the influence of elections), all illustrate, in different ways, the influence that one or more of these factors had in the formulation of alternative fiscal adjustment strategies during the nineties.

Overall, revenue-based or expenditure-based strategies of adjustment are important not only for the role that they assign to the State in the economy, but mainly because they may have different economic and political consequences for the countries and governments that implement them. The last two chapters of the dissertation deal precisely with this aspect. While chapter 6 investigates the economic consequences of different adjustment strategies, chapter 7 analyses the political ones.

## CHAPTER 6

### THE ECONOMIC CONSEQUENCES OF FISCAL ADJUSTMENTS

*«Large fiscal adjustments that are expenditure-based and are accompanied by wage moderation and devaluation, are expansionary» (Alesina and Ardagna, 1998: 516) «Large changes in the distribution of income have taken place within many European nations, with most finding a higher level of inequality in the mid-to-late 1990s than in the 1980s» (Smeeding, 2000: 2)*

A central issue on the political economy of fiscal adjustments is whether these adjustments bring about any economic consequence or not.

The first part of this dissertation has analysed the economic and political factors that determine the timing, the duration, and the composition of adjustment episodes. Nevertheless, it seems reasonable to expect that different strategies of adjustment (in their length and their composition) can have different economic and political consequences. This chapter will deal with the economic consequences of fiscal adjustments, while chapter 7 will analyse the political ones.

To analyse the economic impact that different types of fiscal consolidations have, implies in itself a primarily empirical question, given that theoretical predictions are varied and sometimes even contradictory. For example, while standard

Keynesian theory predicts that a fiscal adjustment will reduce the level of output, supply-side theorists sustain the opposite. In their view if tax cuts and decreasing interest rates accompany the fiscal adjustment, consolidations can have a crowding-in effect of private investment and consumption that might eventually overcome the loss in economic presence of the public sector and have overall expansionary effects.

Although the empirical literature on the effects of fiscal policy on economic activity in advanced economies expands from macroeconomic models that estimate the sign of fiscal multipliers to simulations that try to test the Ricardian equivalence, the most popular strand of this empirical literature is the one that draws lessons by looking across episodes of fiscal consolidations, with a special emphasis on identifying expansionary fiscal adjustments. As can be seen in Appendix 5, although the country examples that are identified differ between studies, most of them identify expansionary fiscal contractions and confirm the original Giavazzi and Pagano (1990) finding, namely that Denmark (1983-86) and Ireland (1987-89) are clearest instances of expansionary fiscal contractions.

In order to test if these findings apply also to the set of fifteen EU Member States between 1960-2000 that are the object of study of this dissertation, I will basically replicate those analyses with my sample of adjustment episodes<sup>1</sup>. Nonetheless, I will introduce some innovations, the most important of which is the analysis of the effects that fiscal adjustments have on income distribution and inequality. Although always absent from all studies on the economic impact of fiscal consolidations, the equity dimension of those adjustments will prove crucial to understand why different political parties choose different strategies of fiscal adjustment, and what are the political consequences that these decisions can have.

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<sup>1</sup> In this respect, the article that I take as the main reference is Alesina and Ardagna (1998).



Therefore, this chapter attempts to answer three related questions: (1) What are the macroeconomic effects of fiscal policy?; (2) What are the economic effects of fiscal adjustments; And (3) given that most adjustment episodes have taken place during the last decade, have fiscal adjustments in the nineties had the same economic impact that they had in the past?

Section 1 summarizes the theoretical debate about fiscal policy and the macroeconomy, and offers some preliminary empirical evidence pointing to the existence of non-Keynesian effects linked to the quality of the budget, as well as the existence of an important trade-off between growth and equality mediated by fiscal policy. Section 2, analyses in detail the 53 episodes of fiscal adjustment occurred in the EU in the last forty years, and demonstrates that in the short-run fiscal adjustments that rely on spending cuts, that start in conditions of fiscal stress, and that are accompanied by monetary expansions, can increase economic growth, but at the expense of increasing income inequality. Finally, section 3, confirms that these findings are reinforced when the decade of the nineties is analysed in isolation. The last section summarizes the main findings and concludes.

### **6.1. Fiscal Policy and the Macroeconomy**

The effects of fiscal policy on the macroeconomy have been subject to a long and fruitful debate. The understanding of the different theoretical contributions to this issue is crucial in order to comprehend the possible economic impact of fiscal adjustments, and the channels through which fiscal variables influence the economy. The following theoretical revision extends the brief analysis that was presented in chapter 2, and then in chapter 4, with the purpose of providing more detailed explanations that contribute to this understanding.

*6.1.1. Demand-Side Effects of Fiscal Policy: Keynesian Effects*<sup>2</sup>

A natural place to start a review of the theoretical literature on the demand-side effects of fiscal policy is with the Keynesian approach. The simplest Keynesian model assumes price rigidity and slack in productive capacity, so that output is determined by aggregate demand. In this model, a fiscal expansion has a multiplier effect on aggregate demand and output. The Keynesian multiplier exceeds one, it increases with the responsiveness of consumption to current income, and it is larger for a spending increase than for a tax cut. If a spending increase is matched by a tax increase, the resulting “balanced budget multiplier” is exactly one.

Extensions of the simplest Keynesian model allow for crowding-out through induced changes in interest rates and the exchange rate. This is additional to the crowding-out which occurs to the extent that the government provides goods and services that substitute those provided by the private sector, and insofar as part of any increase in domestic demand in an open economy is met from imports. The extent of crowding-out affects the size of fiscal multipliers but does not change their sign. In the standard IS-LM model, private investment depends negatively on interest rates, and therefore a fiscal expansion paid for by increased borrowing that leads to higher interest rates reduces investment. In the open economy IS-LM (Mundell-Fleming) model, there can also be crowding-out through the exchange rate. Higher interest rates attract capital inflows which appreciate the exchange rate, and the resulting deterioration in the external current account offsets the increase in domestic demand deriving from a fiscal expansion.

Crowding-out through interest rates and the exchange rate is influenced by certain features of the IS-LM framework such as: (1) the determinants of private investment (crowding-out is likely to be greater if investment is fairly sensitive to interest rates); (2)

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<sup>2</sup> The next three sections are based on an internal document produced by the Fiscal Affairs Department of the International Monetary Fund in which the author worked. From now on this document will be referred as IMF (2000).

money demand and monetary policy (the tendency for interest rates to rise in response to a fiscal expansion could be offset by a monetary expansion; (3) openness and the exchange rate regime (with perfect capital mobility and flexible exchange rates and perfect capital mobility, there is a complete crowding-out and so fiscal policy is ineffective).

The extent of crowding-out is also affected by price flexibility. Neo-Keynesian models allow for price flexibility, although nominal rigidities remain if prices do not adjust completely to clear markets. Price flexibility, even if it is limited in the short term, will tend to narrow the range of values taken by fiscal multipliers, and in particular to limit the influence of the exchange rate regime. In an open economy with a flexible exchange rate, the extent of crowding-out depends on the response of domestic prices to changes in the exchange rate. In particular, if domestic prices move with the exchange rate, crowding-out will be less than with price rigidity, since appreciation of the exchange rate will lower prices. With a fixed exchange rate, the current account will deteriorate in response to price increases via a real appreciation of the exchange rate, and there will be more crowding-out than with price rigidity.

Changes in interest rates, the exchange rate, and prices can in addition influence crowding-out via wealth effects on aggregate demand. This will be the case in particular if consumption depends on current financial wealth. An increase in interest rates will generally reduce the nominal value of financial assets, as will an appreciation of the exchange rate in the case of foreign currency denominated assets. For households and firms that are net creditors these wealth effects will reinforce the crowding-out effects through interest rates and exchange rates described above, and reduce fiscal multipliers further. The impact of higher prices is more ambiguous, since they can have opposite effects on nominal and real wealth.

Finally, dynamic effects of fiscal policy have to be considered (Auerbach and Kotlikoff, 1987). If crowding-out takes longer to manifest than the direct impact effect of a fiscal expansion, fiscal

multipliers are likely to be relatively large in the short term but then to decline over time. In particular, the wage price-loop, which determines the rapidity of wage increases in response to a fiscal expansion, and the responsiveness of trade volumes to changes in the domestic currency price of imports and exports, will influence the size of short-term fiscal multipliers.

#### *6.1.2. Demand-Side Effects of Fiscal Policy: Non-Keynesian Effects*

Non-Keynesian effects of fiscal policy emerge from new classical models which address the well-known shortcomings of the Keynesian approach, and in particular its lack of microeconomic foundations. While new classical models place considerable emphasis on the supply-side effects of fiscal policy, the focus here is on the features of some new classical models (i.e., those that do not assume full market clearing) with demand-side implications. An important consequence of non-Keynesian effects is that they can lead to negative fiscal multipliers, which at last could make fiscal adjustments to have an expansionary effect of economic activity, instead of their traditional recessionary impact.

While some variants of the Keynesian approach recognize the role of expectations (e.g., on consumption in life cycle and permanent income models), they typically rely on adaptive expectations. By comparison, rational expectations tend to bring forward adjustments in variables that would occur more progressively with adaptive expectations. Thus the longer-term effects of fiscal policy will matter even in the short-term, and in this connection the distinction between temporary and permanent policy changes is important. For example, while a temporary fiscal expansion that has no long-term effects will not influence expectations, a permanent fiscal expansion can add to crowding-out (possibly to an extent that fiscal multipliers turn negative) because households and firms will expect that an initial increase in

interest rates and appreciation of the exchange rate will persist and could become larger (Krugman and Obstfeld, 1987). The opposite effect applies then for a fiscal adjustment that is perceived as permanent. As I will show later, empirical evidence suggests that a crowding-in following the episodes of fiscal adjustment in the European Union has occurred thanks to the perception by private agents that consolidations would be permanent.

The Keynesian approach is based on an assumption that consumption is related to current income. If consumers are Ricardian, in the sense that they are forward-looking, and are fully aware of the government's intertemporal budget constraint, they will anticipate that a tax cut today, financed by higher debt, will result in higher taxes being imposed on themselves and/or their children in the future. Permanent income is therefore unaffected, and in the absence of liquidity constraints and with perfect capital markets, consumption will not change (Barro, 1974). Thus there is Ricardian equivalence between taxes and debt. Ricardian equivalence implies that a reduction in government saving resulting from a tax cut is fully offset by higher private saving and bequests, and aggregate demand is not affected. The fiscal multiplier is zero in this case. Nevertheless, if taxes are not lump-sum but progressive, financing the deficit through tax increases or debt will not have the same impact. At last, it is important to note that Ricardian equivalence is based on strong assumptions. Thus short time horizons, less than perfect foresight, partial liquidity constraints, imperfect capital markets, and non-altruistic desire to pass some of the current fiscal burden to future generations can re-establish a stronger link between fiscal policy and consumption. Consequently, the practical significance of Ricardian equivalence is problematic, at least in its perfect form.

Finally, another, perhaps more important, channel through which debt accumulation may affect the fiscal multiplier relates to risk premia on interest rates. As government debt builds up with fiscal expansion(s), risk premia that reflect the mounting risk of default or increasing inflation risk will reinforce crowding out effects through interest rates (Miller, Skidelsky, and Weller,

1990). Under such circumstances, a temporary fiscal expansion will be more effective than a permanent one, because it poses less risk of undermining debt sustainability. In this context, policy credibility is crucial. If there is little faith in the government's ability to reverse a temporary spending increase or tax cut because it lacks a track record of fiscal prudence, and the expectation is that a fiscal expansion which is announced to be temporary will in fact turn out to be permanent, then interest rate will most likely reflect risk premia. Sizable risk premia represent perhaps the clearest reason that fiscal multipliers could turn negative, because private spending responds positively to a credible commitment to debt reduction and a lowering of risk premia. This is one of the main explanations for expansionary fiscal contractions given by Giavazzi and Pagano (1990) and Alesina and Perotti (1997). As this chapter shows too, it was in countries that started fiscal adjustments in conditions of fiscal stress and subsequently with high risk premia where decisive cuts in welfare spending sent a signal of credible commitment to deficit reduction and produced a crowding-in effect that resulted in non-Keynesian effects and expansionary fiscal adjustments.

### *6.1.3. Supply-Side Effects of Fiscal Policy*

The analysis of the stabilization role of fiscal policy traditionally focuses on its demand-side effects, while supply-side effects are seen as more important over the longer-term. However, the distinction between short-term demand-side concerns and longer-term supply-side issues may not be so clear. If the economy is operating at full capacity and productive capacity cannot be increased in the short-term, a fiscal expansion (which may be undertaken on the assumption that there is excess capacity or for political reasons) has to be crowded-out. Only policies that promote supply-side responses can address capacity constraints, and their impact is primarily longer term. However, supply-side effects of fiscal policy can have short-term demand-side

consequences because of expectations that longer-term growth will be higher. If a fiscal adjustment is imparted through tax increases and spending cuts that are good for the supply side, this will tend to decrease fiscal multipliers, and the adjustment will be expansionary.

In assessing the long-term impact of fiscal policy, attention should thus be paid to the way in which changes to labour income taxes affect the supply of labour, and changes to capital taxes affect saving and investment. The location of internationally mobile labour and capital can also be affected. In the final analysis, however, the impact of tax changes on the supply of labour and capital, and thus on growth, is an empirical issue about which clear-cut conclusions have yet to be provided (Blundell and MacCurdy, 1999). Attention should be also paid to the way in which spending on public goods and other goods with positive externalities can lead to higher growth. As was already explained in chapter 2, this is demonstrated in models where the government invests in both physical and human capital (Murphy, Shleifer, and Vishny, 1989; Lucas, 1988), typically an option that social democratic parties have embraced since the late seventies in Europe.

Changing the emphasis, some attention has been given to the way in which labour market characteristics might influence whether changes in taxes and spending can have non-Keynesian effects through supply-side channels. In particular, Alesina and Perotti (1997) note that increases in labour income taxes can have a significant negative supply-side impact in unionized, imperfectly competitive labour markets where before-tax wages, and hence labour costs, also increase to reflect the higher taxes. However they argue that an agreement on wage moderation with trade unions could limit the increase in before-tax wages, or inflationary pressures during a fiscal contraction accompanied by a sharp devaluation, thus reducing the fiscal multiplier and possibly contributing to non-Keynesian effects. Such an agreement is more likely with highly centralized unions. Lane and Perotti (1996) also argue that reductions in government employment (which reduce

labour demand, weaken unions, lower wages, and thus increase profitability) can be a source of non-Keynesian effects.

A final word should be dedicated here to new classical models. The distinctive feature of full-fledged new classical models is that prices clear markets, so that fluctuations in output are the result of supply-side shocks and not of changes in aggregate demand. One implication of new classical models, first highlighted by Lucas (1975) and Sargent and Wallace (1975), is that fully anticipated policies affecting aggregate demand (but not aggregate supply) have no effect on growth either in the short term or the longer term. Only unanticipated policies (which reflect either surprises by the government or imperfect information) have an effect, which emerges entirely through the supply side. This does not mean that these models are silent on fiscal policy. However, they focus on the design of optimal fiscal policy, as distinct from the impact of fiscal policy on economic activity (see Lucas and Stokey, 1983; and Chari and Kehoe, 1998).

#### *6.1.4. Preliminary Empirical Evidence*

From the previous theoretical review, most predictions regarding the effect of fiscal policy on the macroeconomy remain ambiguous. The purpose of the following empirical sections is to disentangle these ambiguities.

To start doing so, table 6.1 reports bilateral Spearman correlations between the common two measures of fiscal policy (the annual change in the primary budget balanced, corrected and non corrected by the economic cycle), and different measures of economic policy outcomes (GDP growth, unemployment, inflation and income distribution<sup>3</sup>).

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<sup>3</sup> Inequality is measured by the Gini coefficient. Data has been obtained from the World Income Inequality Database of the United Nations (2000), and has been completed for some years and some countries with the database from the Luxembourg Income Study Group (2001). Overlapping three-year moving averages have been used to fill out the gaps in the series. The Gini coefficient as



Table 6.1. Bilateral Correlations. Fiscal Policy and Macroeconomic Outcomes, 1960-2000

	(1)	(2)	(3)	(4)
Var. Primary Budget Balance (1)	1			
Var. Prim. Cyclic. Adj. Bbal. (2)	0.77***	1		
Quality of Adjustment (3)	0.16***	0.15***	1	
Strength of Adjustment (4)	0.74***	0.93***	0.22***	1
Var. Real GDP Growth	0.14***	-0.17***	0.10***	-0.13***
Var. Unemployment Rate	-0.24***	0.04	-0.06	-0.06
Var. Prices	0.03	0.12***	-0.12***	0.04
Var. Inequality Index	0.18***	0.24***	0.16***	0.21***

Source: Own elaboration

The inclusion of this last variable is new in the literature on the economic impact of fiscal adjustments. Taking into account that parties formulate their fiscal policy aware of its distributive consequences, it is crucial to ascertain whether these policies achieve the results they intend or not. In addition, two other variables from chapter 3 are included in the table, measuring the quality of the budget<sup>4</sup> and the strength of the adjustment<sup>5</sup>.

Simple bilateral correlations provide many interesting findings. Economic growth is negatively associated with fiscal adjustments and especially if those are strong, since strong adjustments give the private sector less chances to completely replace the public sector in the areas where it has unexpectedly withdrawn its activity. Nevertheless, economic growth is

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expressed in these databases runs from 0 to 100. It is 0 when the distribution of income is completely egalitarian, and it is 100 when it is completely inegalitarian and one person holds all the income in a society. See Appendix 5 (section 2) for a simple explanation of the Gini coefficient.

<sup>4</sup> The quality of the budget measures the contribution of cyclically adjusted primary expenditures to the total amelioration of the budget balance. See chapter 3 for a more detailed definition of this variable.

<sup>5</sup> The strength of the adjustment measures in absolute terms the distance between the annual change in the cyclically adjusted primary budget balance and the 1% adjustment threshold beyond which a consolidation is considered to be taking place.

positively correlated with better quality of the budget, which would imply that adjustments based on spending cuts are more likely to be expansionary. Unemployment is negatively associated to improvements in the budget balance, since higher unemployment means less public revenues and more expenditures. By contrast, prices are positively associated to improvements in the budget balance, meaning that monetary easing and fiscal adjustment work together. Finally, inequality is positively associated to improvements in the budget balance.

These results point toward the existence of an important trade off between economic growth and income distribution that is mediated by fiscal policy. The idea of a trade off between growth and equality was deeply developed in the framework of neoclassical economics at the beginning of the past century, but still seems to hold pretty well today when fiscal policy is under discussion.

The reasoning behind this trade off is that if the State is going to intervene to redistribute income, it will impose taxes that will distort the sound functioning of efficient markets, which in turn will discourage private investment and will have a decisive negative impact on productivity and economic growth (Przeworski, 1986; Boix, 1996). Therefore public transfers of income and capital from the richer strata to the poorer strata of any economy would only be sustainable in the long run as long as the associated taxes do not damage domestic productivity and the capital's net rate of return. If the productivity and the rate of return are positive and higher than in other countries with lower taxes, investors will still remain in the country.

Both conditions are necessary to maintain growth in the long-run with considerable public spending. In fact, these are the conditions that have supported the generous welfare states in Europe until today.

The existence of this trade off between growth and redistribution was widely accepted under the paradigm of neoclassical economics up to the point that socialist governments in the twenties were willing to abandon redistributive policies if

they harmed the medium term rate of economic growth (Boix, 1996). The substitution of this paradigm by the Keynesian one offered a way to escape that zero-sum game.

Keynesian economics affirmed that economic growth was less a matter of supply conditions, and more a matter of aggregate demand. By stimulating aggregate demand, output would grow, and full employment could be reached, without very strong costs in terms of inflation. The combination of full employment policies and public spending expansion to stimulate domestic consumption, offered a combination of policies that were positive for both growth and equality.

Once these policies proved no longer applicable in the seventies, basically due to the induced rigidities that they had generated in the aggregate supply, the neoclassical paradigm came again to dominate the landscape of economic ideas. EMU was conceived under its direct influence, and as the empirical evidence in this chapter will show, it has coincided with a rebirth of the old trade off.

With aggregate demand locked by means of a supranationalized monetary policy and the 3% deficit limit to fiscal policy, economic growth has become again a question of supply-side economics. For social democratic governments this means intervening in the provision of human and physical capital. For more conservative governments this means lowering the taxes that disincentive private investment, and reducing labour costs. In this framework again, direct transfers of income to the worse off (the very basis of the welfare state) are very much restricted by how much they damage the capital's rate of return, and how much they affect productivity.

When too much social spending reduces both, economic growth will be negatively affected and redistribution policies will not be sustainable. Then, expenditure-based fiscal adjustments that arrive in moments when budget deficits are harming productivity and private investment, are likely to increase economic growth (via positive supply-side effects associated to a crowding-in of

private investment and consumption). However, this will be achieved at the cost of increasing income inequality.

Only the IMF and the World Bank have systematically studied the effect of stabilization policies (that include serious fiscal adjustments) in developing countries on both growth and equality.

Their studies almost always have concluded that successful stabilization experiences have increased economic growth and have reduced inequalities, normally as a “collateral effect” of the general economic stabilization, and sometimes also helped by World Bank’s poverty reduction programs (Tanzi, Chu, and Gupta, 1999).

Nevertheless, the story for industrial countries seems to be somewhat different. Among the very few studies that have addressed the equity dimension of fiscal adjustments in advanced economies is the work by Ford (1998) and Smeeding (1997, 2000), who find that recent fiscal consolidations in OECD countries have run parallel to widening distribution of incomes and poverty increases. These results will be also confirmed by the empirical evidence presented in this chapter.

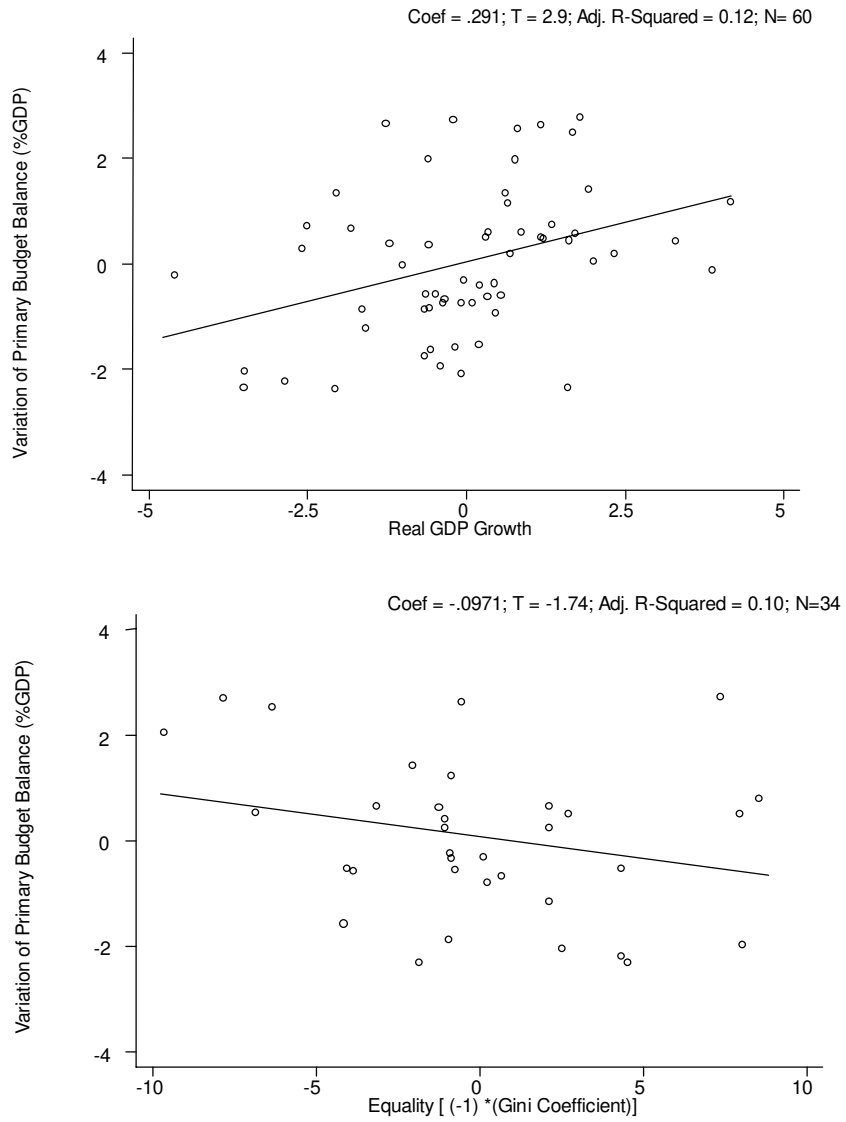
In fact, the continuous presence of the mentioned trade off between growth and equality, mediated by fiscal policy during episodes of expenditure-based consolidation becomes graphically very clear in figure 6.1, where results in terms of growth and equality are plotted against the amelioration of the budget balance through expenditure-based adjustments.

## **6.2. The Economic Impact of Fiscal Adjustments**

The preliminary evidence presented in the previous section allows the formulation of three hypotheses regarding the economic impact of different types of fiscal adjustments, be they revenue-based or expenditure-based adjustments.

1-Fiscal adjustments can have Keynesian or anti-Keynesian effects on growth and employment, depending on the “good quality” composition of the adjustment. Expenditure-based

Figure 6.1. Expenditure-based Fiscal Adjustments, and the Trade off between Growth and Equality, 1960-2000



adjustments are more likely to have expansionary anti-Keynesian effects, while revenue-based adjustments are more likely to be associated with contractionary Keynesian effects. Initial fiscal conditions and accompanying monetary conditions are likely to be important in both cases.

2-Even if expansionary fiscal adjustments are likely to occur under some specific circumstances, it remains unclear whether the “good quality” composition that generates them works through aggregate demand or aggregate supply.

3-Finally, while some expenditure-based fiscal adjustments can be expansionary, they are also likely to increase income inequality.

In order to test hypotheses 1 and 3, and to solve the open question in 2, I split the sample of 53 episodes of fiscal consolidation defined in chapter 4 between 28 revenue-based adjustments and 25 expenditure-based adjustments.<sup>6</sup> And then I look at the average values of a wide range of economic variables two years before the adjustment, during the adjustment episode, and two years after the adjustment. The main reasons for looking only at two-year intervals before and after the consolidation episode have to do with the attempt to keep as many data points as possible during the nineties (when 18 of the 53 episodes occurred), and because in the longer term the relationship between fiscal adjustments and other economic variables is more difficult to identify, since the latter can be reflecting the impact of many other factors (Alesina and Ardagna, 1998).

As was already explained in chapter 4, fiscal adjustments can differ substantially, depending on whether they rely on increases in revenues or on spending cuts. Table 6.2 is very illustrative in this respect.

On the one hand revenue-based adjustments typically increase revenues from direct taxes to maintain public spending in public

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<sup>6</sup> An episode of fiscal adjustment is considered to be revenue-based when more than half of the contribution to average deficit reduction during the episode of adjustment comes from an increase in the average total revenues during the episode. The opposite applies to expenditure-based adjustments.

transfers, public wages, and public investment. On the other, expenditure-based adjustments rely mostly on cuts in transfers, wages and investment, and only increase direct taxes marginally during the adjustment. This slight increase in revenues coming from direct taxation is however immediately reversed once the adjustment has ended and the size of public expenditures in terms of total GDP has been reduced.

It is important to note that expenditure-based adjustments take place when the initial fiscal conditions are very deteriorated. This confirms the findings of chapter 2, which showed an increase in the probability of starting a fiscal adjustment when the public debt increased. The debt to GDP ratio, the level of expenditures and the overall budget deficit are systematically higher in the two years previous to expenditure-based adjustments.

This implies that governments facing strong fiscal imbalances, created by high public transfers and wages that cannot be financed by total revenues, are more likely to undertake a fiscal adjustment based on spending cuts. The amelioration of the debt-to-GDP ratio, the reduction of total expenditures, and the improvement of the budget balance is remarkable after the adjustment episode in cases of expenditure-based adjustments, while it is more moderate in cases of revenue-based adjustments.

In the latter cases, once the budget deficit is under control and the consolidation episode comes to an end, the increase in revenues that made the adjustment possible is then used to finance further increases in public transfers, wages and investment. These two different strategies, already typified in chapter 4, have been generally associated to governments with different economic preferences. These two different strategies (see table 6.2.), however, may not be neutral (Garcia and Hénin, 1999), in the sense that they may not have the same economic results (see table 6.3.).

Table 6.2. *Initial Fiscal Conditions, Budget Composition and Strategies of Fiscal Adjustments, 1960-2000*

<i>Fiscal Policy</i>	Non-Adj.	Adjustment					
		<i>Revenue-Based</i>			<i>Expenditure-Based</i>		
		Before	During	After	Before	During	After
Debt Ratio	47.44	55.05	61.60	60.37	59.62	69.26	65.11
Var. Debt Ratio	0.87	2.32	2.34	1.03	4.36	1.67	0.04
Budget Balance	-1.60	-4.41	-3.41	-2.95	-6.34	-4.11	-3.33
Var. Budget Balance	-0.29	-0.99	0.96	-0.32	-1.03	1.53	0.19
Total Revenues	39.19	40.89	43.22	44.89	46.18	46.48	44.09
Var. Total Revenues	0.36	0.58	1.41	-0.08	0.22	0.78	-0.42
Total Direct Taxes	12.10	12.60	13.59	14.04	13.24	14.07	13.27
Var. T. Direct Taxes	0.20	0.17	0.56	0.01	-0.03	0.31	-0.23
Total Expenditures	41.08	45.34	46.50	47.75	52.30	51.59	48.12
Var. Total Expenditures	0.68	1.41	0.41	0.05	1.46	-0.81	-0.18
Total Transfers	14.60	15.75	16.46	16.23	17.75	17.25	16.46
Var. T. Transfers	0.33	0.43	0.42	0.22	0.40	-0.34	-0.28
Total Public Wages	11.26	11.28	11.28	11.63	12.67	12.37	11.68
Var. T. Public Wages	0.23	0.13	0.06	0.03	0.13	-0.29	0.04
Total Pub. Investment	3.33	3.54	3.28	3.42	3.48	2.82	2.72
Var. T. P. Investment	0.06	0.06	-0.10	0.03	-0.01	-0.24	0.02

Source: Own elaboration



Table 6.3. Macroeconomic Outcomes of Fiscal Adjustments, 1960-2000

<i>Macroeconomic Outcomes</i>	Non-Adj.	Adjustment					
		<i>Revenue-Based</i>			<i>Expenditure-Based</i>		
		Before	During	After	Before	During	After
Real GDP Growth	3.72	2.19	1.61	3.16	1.73	2.46	3.36
Var. Real GDP Growth	-0.11	-0.50	-0.11	0.50	-0.19	0.50	0.56
Real GDP Growth (G4)*	0.60	0.34	-0.42	0.50	0.23	0.32	0.63
Unemployment Rate	5.32	6.14	7.02	6.96	8.76	9.08	8.41
Var. Unemployment Rate	0.08	0.25	0.55	-0.02	0.63	0.04	-0.45
Unemploym. Rate (G4)*	-0.03	-0.10	0.00	-0.14	0.05	-0.22	-0.33
Price Index	73.33	91.76	116.56	128.86	117.89	133.50	120.93
Inflation Rate	3.71	6.80	7.03	6.70	9.36	7.53	6.75
Inflation Rate (G4)*	0.46	1.73	2.10	2.73	3.88	3.35	2.02
Inequality Index	30.56	29.86	30.90	31.51	30.84	33.31	34.15
Var. Inequality Index	0.12	0.04	0.10	0.19	0.03	0.31	0.47

Source: Own elaboration

Note: \* Real GDP Growth (G4), Unemployment Rate (G4), and Inflation Rate (G4), show the difference from the weighted average for the four European G7 members (France, Germany, Italy, and the UK).

As shown in table 6.3, GDP growth, unemployment, inflation, and inequality behave very differently depending on the type of adjustment implemented. Starting with initial conditions, it is worth noting that GDP growth is lower before expenditure-based adjustments than before revenue-based ones, and both are smaller than during years of non-adjustment. The same happens with unemployment and inflation rates. This means that governments

decide to undertake expenditure-based adjustments when domestic macroeconomic conditions have worsened considerably, probably because it is only then when the public opinion is willing to accept the welfare cuts associated to expenditure-based adjustments. As an example, the average unemployment rate before expenditure-based adjustments is 2.5 percentage points higher than before revenue-based ones. In the cases of inflation rate and GDP growth, these differences are around 3% and 0.5%, higher and lower respectively.

Increased growth follows after both revenue-based and expenditure-based consolidations. However, during revenue-based consolidations there is a typical Keynesian temporary recession that increases unemployment, and reduces the growth rate, while the opposite happens during expenditure-based adjustments. During and after the latter, growth increases and unemployment is reduced. In the same way, inflation remains constant during and after revenue-based consolidations, but decreases considerably in cases of expenditure-based adjustments.

Nevertheless, not everything is positive in favour of expenditure-based adjustments. Fiscal consolidations that rely on spending cuts have higher costs in terms of income inequality than do revenue-based ones. As Figure 6.1 illustrated and table 6.3 clearly shows now, inequality increases during and after both types of fiscal adjustments, but it is during and after expenditure-based adjustments when the Gini coefficient grows more dramatically, indicating important increases in income inequality.

The reasoning behind this fact is straightforward. Since welfare systems across Europe consist, roughly speaking, on tax collection through progressive-tax systems, in order to finance the social transfers to the worse-off, fiscal adjustments that reduce taxes and public expenditures by a greater amount, have the double effect of undermining the main source of income progressivity (progressive direct taxation), and withdrawing resources from programs that are targeted to the poorer people in each society.

These results confirm the latest findings by the most prominent authors in the area<sup>7</sup>, who have found at the end of the nineties important increases in income inequality. In fact, already in one of their initial articles on the topic, Alesina and Perotti (1996) raised the point that it was maybe due to the possible inequality consequences of fiscal adjustments why European governments were traditionally so reluctant to undertake expenditure-based adjustments. In fact, as I will show in chapter 7, besides the possible ideological aversion that some political parties (mainly social democratic ones) may have traditionally had toward income inequality, lies also the fact that the electorate tends to punish incumbent governments if during their mandate inequality has increased.

So far, the empirical evidence presented until now in tables 6.2. and 6.3. supports the argument that expansionary fiscal adjustments occur primarily when initial fiscal and economic conditions have worsened considerably (high debt-to-GDP ratios, high budget deficits, high inflation and unemployment rates, and low GDP growth), and when the adjustment is expenditure-based (cutting public transfers, public wages, and investment)<sup>8</sup>. These expenditure-based adjustments, although they can be expansionary and increase economic growth, have important costs in terms of increasing income inequality.

But if hypotheses 1 and 3 at the beginning of this section have been already confirmed, it remains unclear whether the budget's composition and initial economic conditions are the only factors behind expansionary fiscal adjustments; it can be the case that the

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<sup>7</sup> Gottchalk, Gustaffson, and Palmer (1997); Danzinger and Reid (1999); Ford (1998); Atkinson (2000); Smeeding (2000); and Freeman (2000).

<sup>8</sup> Note that these results are very similar to those reported by Alesina and Ardagna (1998), and all other similar studies collected in Appendix 1. Note also that the importance of bad initial fiscal conditions in generating expansionary fiscal adjustments, while very much stressed in studies dealing with advanced economies such as (Perotti, 1999; Giavazzi, Jappelli and Pagano, 2000), has been also corroborated in studies dealing with low-income countries (Gupta, Clements, Baldacci and Mulas-Granados, 2002).

size of the adjustment<sup>9</sup> and the accompanying monetary conditions can also play a role in generating the economic expansion. Furthermore, it remains to be clarified whether these expansionary fiscal adjustments work primarily through supply-side or demand-side mechanisms.

In relation to the question of size of the adjustment, there may be a role for this as a factor generating expansionary fiscal consolidations, since the difference between the figures for the budget balance “after” and “before” adjustment is bigger in the case of expenditure-based expansionary fiscal adjustments than in the case of revenue-based ones (meaning that the budget deficit is reduced more in the former than in the latter case). However, this effect does not seem to be very important because the differences are small in comparison: expenditure-based adjustments reduce the budget deficit by 2 average percentage points, while revenue-based adjustments reduce the budget deficit by 1.5 percentage points.

The question of accompanying monetary conditions does seem to play a role too, but again a very limited one. As can be seen in table 6.4, both types of fiscal adjustments are usually accompanied by a nominal devaluation (an increase in the exchange rate). This devaluation is however maintained after expenditure-based consolidations but reversed after revenue-based ones. With respect to short-term real interest rates, there seems to be no differences in their behaviour across types of adjustment, since they remain more or less constant before and during the adjustment, and they only fall after expenditure-based ones, reflecting the lower risk premia. Therefore, the story of expansionary fiscal adjustments seems to be based more on the composition of the budget, than on the size of the budget cut or the simultaneous expansion of monetary conditions. It is true that monetary policy was slightly more relaxed during and after expenditure-based expansionary adjustments, but this can also be reflecting the fact that almost all

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<sup>9</sup> Giavazzi and Pagano (1996) argue that a large adjustment, by inducing a permanent change of fiscal regime, can be expansionary because expectations are less susceptible to be affected by smaller adjustments.

expenditure-based fiscal consolidations that took place in the nineties started right after the monetary storms in the EMS during 1992-93.

*Table 6.4. Monetary Policy and Fiscal Adjustments, 1960-2000*

<i>Monetary Policy</i>	Non-Adj.	Adjustment					
		<i>Revenue-Based</i>			<i>Expenditure-Based</i>		
		Before	During	After	Before	During	After
Real Interest Rate (S-term)	1.85	3.02	3.11	3.11	3.04	2.95	2.62
Var. Real Interest Rate	0.07	-0.44	-0.11	0.41	0.30	-0.17	-0.02
Real Interest Rate (G4)	-0.14	-0.54	-0.47	-0.74	-0.50	-0.30	-0.22
Real Exchange Rate	99.06	101.18	102.75	101.11	97.19	97.89	96.62
Var. Real Exchange Rate	-0.07	-0.27	0.50	-0.69	-0.12	0.64	0.87

*Source:* Own elaboration

Once the macroeconomic results that different types of fiscal adjustments bring about have been described, and once the type of initial and accompanying fiscal and monetary conditions that influence those final outcomes have become clear, the last step in this analysis is then to investigate the channels through which expansionary fiscal adjustments work.

As can be observed in table 6.5, economic expansion after expenditure-based fiscal consolidations is mediated by a remarkable crowding-in of the private sector in the form of increasing consumption and a boom of private investment. This crowding-in is also present in revenue-based adjustments but is much less important<sup>10</sup>.

<sup>10</sup> See Argimón, González-Páramo, and Roldán (1997) for similar evidence on crowding-in after fiscal adjustments.

Table 6.5. *Microeconomic Outcomes, Trade Policy Outcomes, and Fiscal Adjustments, 1960-2000*

	Non-Adj.	Adjustment					
		<i>Revenue-Based</i>			<i>Expenditure-Based</i>		
		Before	During	After	Before	During	After
<b>Microeconomic Outcomes</b>							
Private Consumption	57.80	57.93	58.32	58.09	57.95	58.39	58.97
Var. Private Consumption	-0.09	-0.07	0.19	0.03	-0.02	0.23	0.37
Private Investment	18.66	17.63	18.22	18.01	17.35	18.16	19.26
Var. Private Investment	0.02	-0.03	0.49	-0.40	0.05	0.55	0.76
Labour Costs Index	107.08	108.88	108.02	105.43	108.20	104.86	101.83
Var. Labour Costs	-0.13	0.48	-0.49	-1.39	-0.98	-1.85	-1.54
Profits Share	31.84	31.77	31.06	31.88	31.10	32.31	32.92
Var. Profits Share	0.04	0.05	0.02	0.09	0.03	0.72	0.31
<b>Trade Policy Outcomes</b>							
Imports	29.60	35.99	35.50	36.60	36.34	35.86	37.44
Var. Imports	0.80	0.47	0.33	1.54	0.74	0.94	1.10
Exports	21.46	24.06	24.13	26.01	25.80	28.51	29.08
Var. Exports	0.65	0.34	0.61	0.77	0.87	1.08	1.15
Trade Balance	-0.36	-1.41	-0.25	-0.30	-1.77	0.67	0.68
Var. Trade Balance	-0.08	-0.20	-0.02	-0.11	0.31	0.95	0.20

Source: Own elaboration

This important crowding-in of the private sector in expansionary expenditure-based consolidations is accompanied by higher profits and lower labour costs, which are at last translated into an improvement of the trade balance.

The argument behind the reduction in labour costs that improves the budget balance, increases profits and investment, thus contributing to an increase in the level of output is the following: during expenditure-based adjustments, the government wage bill is reduced and there are no increases in direct taxes (that principally rely on the labour factor). Both measures have the effect of reducing labour costs directly and indirectly by undermining the bargaining power of labour unions.

The truth is that this mechanism of diminishing labour costs that trigger expansionary fiscal adjustments should not be uniquely associated to expenditure-based fiscal adjustments. In fact, this mechanism would also work for revenue-based fiscal adjustments if trade unions internalised the government's budget constraint, or if they did not ask for an increase in real salaries when taxes grew. This only happens in countries such as the United States or Canada, where trade unions are almost inexistent, or in countries such as the Scandinavian ones, where the high degree of corporatism and a centralized wage bargaining process have traditionally made trade unions encompassing and collaborative with the government's budget constraint, and have thus permitted social democratic governments to balance their budgets via revenues without damaging labour costs, domestic productivity and economic growth (Alesina and Ardagna, 1998; Alesina, Perotti and Tavares, 1998; Garrett 1998, and Esping-Andersen, 1995, 1996, 1999). In other countries, trade unions are strong enough to protest and demand higher salaries, but not enough to be able to control all wage demands across different sectors of the economy, that can bring about a concertation at the national level<sup>11</sup>. This is what has given expenditure-based adjustments the monopoly in reducing labour costs and generating expansionary fiscal adjustments, while revenue-based adjustments can only have these effects in countries with a very strong corporatist tradition.

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<sup>11</sup> According to Alesina and Perotti (1997b), in such cases where trade unions are neither weak nor strong enough, a 1% increase in the income tax, increases labour costs in 2%.

Summing up, what the empirical evidence presented in this section has shown can be grouped in three different sets of conclusions, that confirm the three initial hypotheses that were stated at the beginning of the section:

1- In the short-run, the composition of fiscal adjustments is a crucial factor determining the economic consequences of consolidation episodes. Expenditure-based adjustments normally take place in situations of fiscal stress, with low GDP growth, high debt levels, strong budget deficits and poor initial economic performance. When these consolidations succeed in reducing the most rigid items of the budget, namely public transfers and public wages, they are expansionary. Their economic effects are to increase GDP growth, and reduce inflation and unemployment rates, but they do so at the cost of increasing income inequality more than what revenue-based adjustments do. Note that these results are important for two strands of the economic literature: the one on the growth-equality trade-off, and the one related to growth theory. With respect to the latter, these results are particularly important since they provide further evidence of the role that endogenous growth theories give to fiscal policy<sup>12</sup> in generating growth. In endogenous growth models (Barro, 1990 and 1991; Barro and Sala-i-Martin, 1995; and Mendoza, Milesi-Ferretti and Asea, 1997), investment in physical and human capital can affect both the level of output and the steady-state growth rate. Taxes that affect the investment decision (thus labelled as distortionary) can create tax wedges and thus diminish the rate of growth. And expenditures that are included as arguments in the private production function (thus classified as productive) can have a

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<sup>12</sup> Previously to endogenous growth models, the neoclassical growth models of Solow (1956) and Swan (1956) rejected a direct connection between fiscal policy and growth. In their view, the share of government expenditure in output, or the composition of expenditure and revenue, can influence the savings rate or the incentive to invest in physical or human capital, but they cannot affect the long-run rate of growth. Fiscal policy cannot affect the growth rate because it is driven by exogenous factors of population growth and technological change. See Judd (1985), and Chamley (1986).



direct positive impact on the steady-state rate of growth<sup>13</sup>. Also, in this respect Kneller, Bleaney and Gemmel (1999: 171) affirm that: “(1) distortionary taxation reduces growth whilst non-distortionary does not; and (2) productive government expenditure enhances growth, whilst non-productive expenditure does not”<sup>14</sup>.

2-When fiscal adjustments are expansionary, non-Keynesian effects work through both demand-side and supply-side mechanisms.

a) With respect to demand-side mechanisms, this section has provided evidence of the existence of *wealth effects*, given that a cut in public consumption that is perceived as permanent increases private consumption, because households discount future higher levels of disposable income as a result of the expected reduction in taxes.

b) There are also *credibility effects* that benefit both private consumption and private investment. When debt is high, interest rates are high and any deficit reduction, mostly if it is based on spending cuts, reduces the risk premia, and consequently interest rates, facilitating the crowding-in of private consumption and investment.<sup>15</sup>

c) And with respect to the supply-side, the reduction in the government wage-bill in unionized imperfectly labour markets proves crucial to reduce labour costs, to increase business's

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<sup>13</sup> See Gerson (1998) for an extensive review of the theoretical and empirical literature on the relationship between taxation and government expenditure and economic growth.

<sup>14</sup> For similar conclusions see also Aschauer (1989); Barro (1990, 1991); King and Rebelo (1990); Easterly and Rebelo (1993); Jones, Manuelli and Rossi (1993); Easterly, Rodríguez, and Schmidt-Hebbel, 1994; and Kneller, Bleaney and Gemmel (2000).

<sup>15</sup> Note that the size of the increase in private consumption depends on the absence of liquidity-constrained consumers (Alesina and Ardagna, 1998), and therefore, as noted by Perotti (1999), the result hinges on the efficiency of financial markets, and should be stronger when fiscal consolidation occurs in bad times when the debt-to-GDP ratio is growing rapidly. For similar previous arguments in this respect, see also Blanchard (1990) and Bertola and Drazen (1993).

profits, and to improve the trade balance, thus contributing to the economic expansion.

3- Finally, the choice that governments planning to undertake a fiscal adjustment face seems to lie between two extremes: one option is to undertake a revenue-based adjustment that may not be so expansionary but that will prevent income inequality from raising dramatically; and an alternative option is to pursue an expenditure-based strategy that may be expansionary but at the cost of increasing inequalities substantially. As was already discussed in chapter 4 this decision is heavily influenced by the rate of unemployment, by the structural budget balance in previous years, by the electoral calendar, by the fragmentation of the cabinet, and most importantly, by the ideology of the party in government.

### **6.3. The Economic Impact of Fiscal Adjustments During the Nineties**

During the nineties, the dynamics presented in previous sections can be applied without any major revision. Revenue-based adjustments and expenditure-based ones have had similar characteristics than those from previous decades<sup>16</sup>. Similarly, they have also had opposite economic consequences, in the short-run. While expenditure-based adjustments in the nineties have shown better chances of increasing economic growth, revenue-based ones have proved less likely to increase income inequality.

The driving forces leading to expansionary fiscal adjustments during the nineties have also been a mix of supply-side and demand-side mechanisms of wealth effects, investment boom and credibility effects. The process of strong deficit reduction in Europe, and the downward convergence of interest rates,

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<sup>16</sup> For details on fiscal policy, monetary policy, microeconomic outcomes, and trade policy outcomes during the nineties, see Appendix 3.

maintained inflation at historically low levels, and this curbed unit labour costs down following expenditure-based adjustments. The trade balance improved, and private investment and consumption boomed, increasing the GDP growth rate in the EU up to a point that made European leaders affirm at the Lisbon European Summit of 2000 that the objective for 2010 should be to become the most competitive and developed knowledge-based economy in the world.

Furthermore, the decade of the nineties shows some of the most salient and paradigmatic cases of expansionary fiscal consolidations (among them, Italy and Spain). In the first case, after the strong devaluations that made the lira exit the EMS in 1992, the sustained fiscal adjustment that took place during the whole decade of the nineties multiplied the credibility effects that served as the basis for their posterior economic growth. The pension reform implemented in 1995 showed the commitment of the Italian government to making fiscal balance a durable policy, and became the turning point for the Italian government in gaining the credibility of markets and private agents. The subsequent decrease in interest rates boosted private investment and served as the basis for the economic growth of the second half of the decade<sup>17</sup>. In this respect, the announcement of future reimbursement of the special tax that the government levied to qualify for the third stage of EMU, was crucial for not losing again the credibility of private agents. If the tax was to be returned in the future, it indicated that the fiscal discipline would have to be even tighter than before.

The Spanish case was somewhat different because its debt-to-GDP ratio was not as astonishingly high as the Italian one, and therefore the crowding-in of the private sector came through a wealth effect channel, instead of through a credibility effect mechanism. The turning points in this case were the reform of the unemployment benefits system of 1994 and the freezing of public

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<sup>17</sup> I thank Marco Buti, Head of the Public Finances Division of the European Commission during my period at the Commission in the fall of 2000, for providing me with the detailed insights of the Italian experience.

wages in 1997. Both decisions showed the strong commitment of both the Socialist and the Popular governments to comply with the Maastricht criteria and to qualify with the first group joining the euro. These measures, together with the 1992, 1993, and 1995 devaluations of the peseta increased the competitiveness of Spanish exports that led the economic recovery during the three years following the 1992 economic recession. After that, the systematic reduction in interest rates following the fiscal effort made by the government (based on cuts in public consumption, transfers, and public investment) was the main factor driving the private investment and consumption booms responsible for the second strongest economic rate of growth in Europe during the second half of the nineties.

Similar examples can in fact be found all across Europe. As Von Hagen, Hallet and Strauch (2001), and Gemmell and Kneller (2001) show, the story of expansionary fiscal adjustments applies specially well in the nineties<sup>18</sup>. And this was so because the Maastricht criteria came to impose a credible deficit reduction precisely when European countries faced some of their worst moments in terms of budget deficits and accumulated debts since the Second World War. The fact that the pre-consolidation fiscal stance was seen by private agents as unsustainable, in the sense that it would have required higher taxes to serve the public debt, explains why the adjustment episodes of the nineties had a positive expectation effect on forward-looking consumers and investors. These new expectations increased growth and employment despite the period of fiscal restraint. An easing of monetary policy coming from the devaluations triggered by the 1992-92 ERM crisis, and decreasing interest rates, also played a significant role in achieving these results.

Table 6.6. below reports the results of replicating the model used by Von Hagen, Hallett and Strauch (2001) with my database,

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<sup>18</sup> It is interesting to note that these findings with actual data reject the predictions made in the middle of the nineties by the same authors, when they predicted pronounced recessions as a consequence of the fiscal effort needed to fulfil the Maastricht criteria (see for example Von Hagen and Lutz, 1996).

in order to answer if non-Keynesian effects in the nineties were stronger than those already identified by many authors for previous decades<sup>19</sup>. This is done by estimating a model for the interaction between fiscal policy, real output and monetary conditions, analysed in a system of three endogenous variables.

$$\begin{aligned}\Delta F_t &= f(\Delta F_{t-1}, M_{t-1}, \Delta Y_t, \Delta Y_{t-1}, \Delta GAP_t, DEBT_t, dummies) \\ \Delta M_t &= m(\Delta M_{t-1}, F_t, i_{t-1}, \Delta Y_t, \Delta F_{t-1}) \\ \Delta Y_t &= y(\Delta Y_{t-1}, \Delta F_{t-1}, \Delta M_{t-1}, \Delta GAP_t)\end{aligned}\quad (1)$$

Replicating their procedures, I estimate the following model, including debt/DGP, long-term interest rate, both lagged one period, and the change in the EU-15 output gap as exogenous variables.

The GDP growth equation is characterized by output being dependent only on lagged fiscal or monetary policies, lagged output growth, and the change in the EU-15 output gap<sup>20</sup>. The monetary policy equation has the real monetary conditions index<sup>21</sup> depending on its own lag, the change in the cyclically adjusted domestic structural balance, and its lag, output growth, and the lag of long term interest rate. Finally, the fiscal policy equation describes the change in the cyclically adjusted domestic structural balance as a function of its own lag, current monetary policy, current and lagged domestic output growth, the EU-15 output gap,

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<sup>19</sup> They apply their model to a sample of 19 OECD countries, while I replicate it with the usual sample of 15 EU countries used in all previous chapter of this dissertation.

<sup>20</sup> Measured as the difference between aggregate demand and potential output, as defined by the European Commission in the AMECO database. This variable was also used in chapter 3 for the timing analysis.

<sup>21</sup> Recall from chapter 3 that the stance of monetary policy is measured by the Monetary Conditions Index built specifically for this purpose. The index is the sum of the short-term real interest rate and the real exchange rate, each weighted by its sample standard deviation.

and the debt-GDP ratio. As they do, I also include country dummies in the fiscal policy equation only<sup>22</sup>.

This model is estimated using a “three-stage least squares estimator in order to take into account any cross correlation between the various residuals which may reflect some of the behaviour of the variables which had to be omitted from the panel estimation. Robust standard errors were estimated to account for heteroskedasticity and any remaining serial correlation” (Von Hagen, Hallett and Strauch, 2001: 54)<sup>23</sup>. As results in table 6.6 show<sup>24</sup>, during the seventies and the eighties, GDP growth was strongly positively affected by its own lag, and by the surrounding cyclical conditions in the EU.

It was negatively affected by monetary and fiscal contractions, although the coefficient for the change in the fiscal stance is not statistically significant. These effects were all reinforced in the nineties. GDP growth became even more dependent on its lag and on the average EU output gap, what reflects the growing interdependence of European economies, and it was also more negatively affected by monetary contractions, meaning that devaluations and/or falling interest rates had a bigger positive impact in increasing growth during the nineties than they had before. But what is most striking is that the impact of fiscal consolidations on growth became much less negative during the

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<sup>22</sup> The results for the estimation of this equation are not shown in table 6.6, but they are available upon request.

<sup>23</sup> The ideal specification for such a three equations system would have been a structural VAR system, but that was impossible to estimate given data limitations that ruled out the estimation of a model with sufficient lags for all variables. Instead I used, following Von Hagen, Hallett, and Strauch (2001), a simple partial reduced form system.

<sup>24</sup> Since the determinants of fiscal policy have been extensively analyzed in previous chapters, and the determinants of monetary policy lie outside the focus of this dissertation, and most importantly because the main focus of this chapter is on the impact of fiscal policy on growth, only results for the growth equation are reported in table 6.6. However, the results for the estimation of the other two equations are available upon request.

nineties. Also, the positive impact that quality of the budget had on growth before 1990, was reinforced in the following decade.

*Table 6.6. Expansionary Fiscal Adjustments. The 1990s in Perspective*

	Real GDP Growth (1970-1989)	Real GDP Growth (1990-2000)
Real GDP Growth t-1	0.253*** (3.76)	0.562*** (6.79)
Monetary Conditions Index t-1	-0.242** (1.91)	-0.489*** (2.88)
Var. Output Gap (UE-15)	0.677*** (8.01)	0.793*** (3.55)
Var. PCABBalance t-1	-0.101 (1.40)	-0.078 (0.57)
Quality of the Adjustment t-1	0.088* (1.89)	0.112** (2.23)
Constant	1.885*** (6.73)	1.655*** (3.70)
Observations	297	163
Adj. R-squared	0.31	0.46
LR Chi 2(7)	72.66	110.71
Prob>Chi 2	0.000	0.000

*Note:* Absolute value of t-statistics in parentheses: \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

These two results confirm that non-Keynesian effects of expenditure-based fiscal consolidations applied even better during the nineties than in previous decades. Nevertheless, the reverse side of this paradigmatic story of expansionary fiscal consolidations during the nineties was the parallel process of growing income inequalities (see table 6.7).

As table 6.7. shows, the difference between the average increase in GDP growth after expenditure-based fiscal adjustments and revenue-based ones is bigger in the nineties than in previous decades (compare with results in table 6.3), meanwhile the increase in income inequalities after expenditure-based adjustments that took place during the nineties, was also more

pronounced and continues to increase in the large majority of European nations

*Table 6.7. Macroeconomic Outcomes of Fiscal Adjustments, 1990s*

<i>Macroeconomic Outcomes</i>	Non-Adj.	Adjustment					
		<i>Revenue-Based</i>			<i>Expenditure-Based</i>		
		Before	During	After	Before	During	After
Real GDP Growth	2.74	1.96	2.26	2.66	1.74	2.56	3.61
Var. Real GDP Growth	0.01	0.03	-0.04	0.25	0.42	0.13	0.30
Real GDP Growth (G4)*	0.84	0.28	0.90	0.45	0.12	0.81	1.36
Unemployment Rate	8.54	8.24	8.42	9.10	9.35	8.84	8.82
Var. Unemployment Rate	-0.03	0.21	0.21	-0.09	0.55	-0.08	-0.67
Unemploy. Rate (G4)*	-0.08	-0.02	-0.22	-0.02	0.14	-0.18	-0.44
Price Index	163.69	155.88	193.75	212.96	172.81	170.31	162.85
Inflation Rate	6.11	8.14	8.48	8.80	10.67	6.94	6.29
Inflation Rate (G4)*	1.88	3.04	4.18	5.36	6.51	3.28	2.58
Inequality Index	32.43	30.60	31.08	31.41	29.30	30.28	34.64
Var. Inequality Index	0.09	0.03	0.07	0.10	0.05	0.24	0.65

*Source:* Own elaboration. Average results for the period 1990-2000.

Fiscal adjustments alone cannot be made the sole driving force responsible for the mentioned increase in income inequality during the nineties. The widening of the income distribution has been also exacerbated by two simultaneous factors, such as technological change that has increased the demand for highly paid skilled labour, and globalization of trade and production that has



increased competition between low-paid workers in developing countries and the unskilled in industrialized ones (Ford, 1998).

This is what has been named the “efficiency hypothesis” in some of the latest studies in globalization (Garrett, 1998; Kaufman and Segura-Ubiergo, 2001), according to which globalization of trade has imposed cuts in welfare spending as a means of gaining external competitiveness. The result of all these changes has been a U-turn in the trend of income inequality among advanced economies.

As shown in table 6.8, the downward trend in inequality that characterized the sixties and the seventies turned into an upward trend of increasing inequalities from the mid eighties until today.

*Table 6.8. Historical Trends in Income Distribution, 1970-2000*

	Mid-Early 1970s to Mid-Late 1980s	OECD Study 1980s	Mid-Late 1980s to Mid-Late 1990s
Austria	0	0	++
Belgium	0	+	+
Denmark			-
France	-	0 (-)	+
Finland	-	0	+
Germany	-	+	+
Greece			-
Italy	--	-	++
Ireland			+
Luxembourg			
The Netherlands	0	+	++
Portugal			-
Spain		-	+
Sweden	-	+	+
UK	++	+++	++
EU-15	-	0	+

*Source:* Smeeding (2000: 26)

*Note:* +++ (- - -) Significant rise/decrease in income inequality (more than 15%); ++ (- -) Moderate rise/decrease in income inequality (7%-14%); + Modest rise/decrease in income inequality (1%-6% increase); 0 No change (-1% to +1%).

Table 6.9. *Changes in Social Spending and Income Inequality, 1993-1997 (%GDP)*

	Income Inequality	All Transfers (Total Change)	Major Transfers (Disaggregated Change)		
			Transfers Working Age People	Disability	Unemployment
Austria	1.1	-0.6	0.3	0.4	-0.1
Belgium	0.4	-1.2	-0.7	-0.3	-0.4
Denmark	-1.6	-1.1	-2.1	0.1	-2.0
France	0.1	0.2	-0.3	-0.1	-0.3
Finland	1.4	-4.3	-2.5	-0.9	-1.6
Germany	0.2	0.6	-0.1	0.1	-0.3
Greece	-0.2	0.7	-0.1	-0.1	0.0
Italy	1.5	-0.9	-0.4	-0.2	-0.2
Ireland	0.4	-2.3	-0.6	0.0	-0.7
Luxembourg	-0.2	..	..	..	..
Netherlands	0.5	-2.9	-1.2	-0.7	0.2
Portugal	-0.2	0.7	-0.1	-0.2	0.0
Spain	0.6	-2.3	-2.3	-0.1	-2.2
Sweden	0.4	-3.5	-1.2	-0.4	-0.6
UK	0.9	-1.3	-0.8	0.0	-0.8
EU-15	0.3	-0.4 (^)	-0.6	-0.1	-0.5

*Source:* Own elaboration. Data on social spending from EC (2001: 25). Data on Income Inequality from Smeeding (2000) and WIID (2000).

*Note 1:* Figures show changes between 1993 and 1997, all measured in terms of GDP, except the change in income inequality measured by the Gini coefficient.

*Note 2:* (\*) Includes unemployment, plus disability benefits, plus social assistance.

*Note 3:* (^) Weighted by Real GDP share in 1997, excluding Luxembourg.

Although the turning point can be generally identified at the beginning of the eighties, it varies across nations. For example, Scandinavian countries did not experience a rise in inequality until the nineties, while in others such as Germany and France, these

increases were fairly modest. Nevertheless, besides the obvious impact that globalization has had in widening income distribution and increasing inequality, it is also evident that growing income inequality in the European Union has run parallel to significant cuts in social spending along the decade, accelerated and accentuated in the run-up to EMU.

Some cases are especially relevant in this respect, such as Finland, Austria, Italy, the United Kingdom and Spain. In all of them, strong reductions of the relative share of social spending to GDP were accompanied by remarkable increases in income inequality.

On the other hand, Portugal and Greece offer the positive side of the story, with transfers being maintained or increased during the mid-nineties, and income inequality being reduced.

There are some cases, however, which do not fit exactly in the mentioned correlation between cuts in social transfers and increases in income inequality. France and Germany, for example, are two cases where income inequality increased in spite of moderate increases in transfers. While the German case is obviously explained by the process of German unification, and the effect of expanding the German Welfare State to the Eastern part of the country, the French case remains unclear. Something similar, but with an opposite sign, happened with Denmark, the only country where inequalities were importantly reduced during the nineties in spite of a serious retrenchment in public transfers.

#### **6.4. Conclusion**

The clearest and most comprehensive way to conclude this chapter and to summarize all the empirical evidence presented until now is to affirm that different strategies of fiscal adjustment bring about different economic consequences.

Expenditure-based adjustments that are preceded by bad economic and fiscal initial conditions, that are accompanied by a devaluation, and that succeed in cutting the least productive

expenditures of the budget, are likely to have anti-Keynesian effects and to be expansionary. Nevertheless, they do so at the expense of increasing income inequality. The opposite is true for revenue-based consolidations.

For expansionary fiscal adjustments to take place, demand-side effects in the form of crowding-in of the private sector, as well as supply-side effects in the form of lower labour costs and increased investment, usually take place simultaneously. The signal that expenditure-based adjustments send to private agents inform about the commitment of the government to a sustained fiscal effort, and this produces a credibility effect that is crucial for expansionary fiscal adjustments to take place.

The nineties epitomize the story of expansionary fiscal consolidations, since the process of fiscal adjustment imposed by the Maastricht criteria arrived in a moment of special fiscal stress for public finances across Europe. However, the negative side of the strongest episode of fiscal adjustment in Europe in the last three decades has been the progressive widening of income distribution and the increase in inequalities that have reached in the nineties its higher levels as well.

The reactions of the public opinion to the formulation of the different strategies described in chapter 4, and to the divergent economic consequences that they have brought about as shown in this chapter, are crucial to close the circle and understand what is the political price that governments pay (if any) for implementing different fiscal adjustments that have different economic impacts. This task is further undertaken in chapter 7.

## CHAPTER 7

### THE POLITICAL CONSEQUENCES OF FISCAL ADJUSTMENTS

*«Governments do not seem to be systematically punished at the ballot box for engaging in fiscal adjustments» (Alesina, Perotti, and Tavares, 1998: 241)*

As important as the economic consequences that fiscal adjustments bring about is the question of whether these adjustments have any political consequence for the cabinets that implement these policies or not.

Evidence from chapter 3 and chapter 4 respectively showed that the probability of ending a fiscal adjustment increased when elections were imminent. It also showed that taxes decreased, and public transfers and consumption increased, when governments felt the pressure of facing again their electorates. This evidence suggested that politicians believe that voters dislike fiscal adjustments and will not re-elect them in the aftermath of fiscal consolidations. Are politicians right in acting according to these assumptions?

Evidence from the only study that has indirectly<sup>1</sup> tested if this belief is correct or not in Western democracies, concludes that the

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<sup>1</sup> As will become clear during this chapter, I claim that assessing the political consequences of fiscal adjustments looking at the probability of government termination implies an indirect approach to this question. A much direct approach

probability of government termination after fiscal adjustments is not higher than the average<sup>2</sup>. In their words: «governments do not seem to be systematically punished at the ballot box for engaging in fiscal adjustments» (Alesina, Perotti, and Tavares, 1998: 241).<sup>3</sup>

If voters do not care about fiscal adjustments but politicians are making their fiscal decisions dependent on the proximity of elections (assuming that the public prefers less taxes and more transfers) then evidence from previous chapters showing certain degree of responsiveness on the part of the rulers with respect to the fiscal preferences of the ruled, should be re-assessed.

Is it really the case that the probability of re-election is not affected by the budget balance? Are politicians truly misinformed about voters' preferences when they think about the electoral calendar before deciding on the timing, the duration, and the composition of fiscal adjustments? If European voters really do not punish national politicians for undertaking fiscal adjustments, are they blaming anyone else, maybe Brussels?

It is the purpose of this chapter to answer these three crucial questions. Accordingly, this chapter reports also three main findings: (1) by looking at the probability of re-election, instead of looking at the probability of government termination, some conclusions of previous work on the topic can be rejected; (2) the composition of the budget is an important factor driving the

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is to look at the probability of re-election, which excludes from the sample the reshuffling of cabinets that are the result of coalition rearrangements, but are totally independent of the public opinion's reaction to fiscal adjustments.

<sup>2</sup> Peltzman (1992) and Kraemer (1997) have reached similar conclusions for Latin America and the US States, respectively.

<sup>3</sup> In the same vein than Alesina, Perotti, and Tavares (1998), Lowry, Alt, and Ferree (1998) analysed the electoral response of American voters to the fiscal policy implemented by American State-level governments and found that: "the incumbent governor's party is punished in legislative elections for failing to maintain fiscal balance." (p.759). Nevertheless, Obstfeld and Eichengreen (1998) reject the idea of fiscally conservative voters at the national level pointed out by Alesina, Perotti, and Tavares (1998), and affirm that they find fiscal conservatism "much more plausible at the local level (because) at the national level, there are too many "other" onto whom the burden of public spending can be shifted." (p. 253)

political consequences of fiscal adjustments; (3) the traditional voters' aversion to expenditure-based fiscal adjustments has decreased during the nineties, most likely as a result of the broad information campaigns supporting fiscal adjustments, associated to the process of economic and monetary union in Europe.

Therefore, I provide here systematic direct empirical evidence of the negative impact that expenditure-based fiscal adjustments have on the probability of re-election. Not only the probability of re-election decreases during years of fiscal adjustment, but also if these adjustments have taken place on the expenditure side of the public budget, the probability of losing the next election is even higher. These results are perfectly consistent with the previous findings of this dissertation, according to which the proximity of elections is an important factor explaining the timing, the duration, and composition of fiscal adjustments.

Nevertheless, when time is taken into account, it is striking to observe that this adverse effect of expenditure-based adjustments on the probability of re-election which was very strong between 1960 and 1989, stops being so during the nineties.

This calls for an explanation which I offer at the end of the chapter based on two related aspects: first, the unbreakable commitment of European and national authorities to stick to the conditions of the Maastricht convergence criteria made European voters to assume fiscal adjustments as something imposed from Brussels" that was going to happen anyway; and second, the strong national coalitions between government and opposition that crystallized after 1994 offered European electorates no visible political alternative on fiscal policy issues. These two factors, together with an unprecedented Europe-wide campaign underscoring the economic prosperity that these adjustments would generate in the future, succeeded in changing the traditional negative electoral response that public opinion has previously had toward fiscal adjustments.

Despite the high probability of "demonizing" Brussels for imposing such adjustments, this possibility only temporarily materialized, and this change in the public attitudes toward fiscal

consolidations was achieved without any major impact on the medium-term public support for the European integration project.

### **7.1. Fiscal Policy, Elections, and Government's Accountability**

Fiscal adjustments may or may not have direct political consequences. If they have, these consequences will be positive or negative depending on whether politicians have followed the mandate and the preferences of the electorate regarding fiscal policy or not.

As I have already explained, it has been common in the literature to assume that voters dislike taxes and like government outlays, in the form of public health, education, unemployment benefits and pensions. Also, the common wisdom supports the idea that voters prefer higher rates of economic growth because they boost employment creation. These assumptions are the basis for the literature on political business cycles, already commented in previous chapters, according to which politicians undertake fiscal expansions just before elections take place, in order to artificially accelerate the economy and the rate of job creation, because they expect to be rewarded at the polls if the economy is doing well when the election arrives. Consequently, the basis for believing that voters dislike fiscal adjustments relies on two explanations: fiscal adjustments imply raising revenues and/or reducing government outlays; and if classical Keynesian effects apply, they are likely to cause a temporary economic recession and loss of jobs. Because neither of these options is liked by voters, governments expect to be punished at the ballot box if they undertake a fiscal adjustment just before elections.

As I have already shown in previous chapters, these assumptions are the ones that have driven European policy-makers in the last forty years when choosing the timing and the characteristics of fiscal consolidations. Closeness of elections decreased both the probability of starting consolidations and their



duration (as shown in chapter 3), and clearly affected their composition (chapter 4).

Therefore, if one is to investigate what are the political consequences of fiscal adjustments, the obvious first step would be to look at whether the electorate has used its vote to actually make the government accountable for having pursued a policy that did not correspond to the electorate's preferences.

A definition of accountability is needed at this point. According to Cheibub and Przeworski (1998: 225), "governments are accountable if citizens can discern whether governments are acting in their best interest and sanction them appropriately, so that those incumbents who satisfy citizens remain in office and those who don't lose it. Accountability is a retrospective mechanism in the sense that the actions of rulers are judged ex-post by the effect they have."

In democratic politics, the only way to punish the government and make it accountable for having undertaken a fiscal adjustment that is contrary to the electorate's preferences, will imply abandoning the government at the polls and throwing it out of office by voting the opposition.

As I have already noted, other studies have addressed this issue in an indirect way by focusing on the analysis of fiscal policy and government terminations. In my opinion this is not a satisfactory approach. Instead of looking at the effect that fiscal policy has on the probability of government termination, a much direct approach is to look at the probability of re-election, because it excludes from the sample the reshuffling of cabinets that are the result of coalition rearrangements, and that are somewhat independent of the public opinion's reaction to fiscal adjustments. Therefore, contrary to previous studies, I take electoral consequences as the main indicator of broader political consequences, because I assume that politicians are office-seekers and thus want to be elected and re-elected again and again, to stay

as long as they can in power in order to formulate their preferred policies.<sup>4</sup>

Another innovation that I introduce in this chapter is the inclusion of a measure of income inequality as a possible determinant of electoral outcomes, after fiscal adjustments. This variable proves that while European voters may reward their governments for achieving higher rates of economic growth, they will also punish them if this is done at the expense of an unfair distribution of income. This explains why it has been so difficult for some governments to undertake strong fiscal adjustments when they required significant cuts in public expenditures. These expenditure-based adjustments will not only be opposed *per se* by the recipients of those social benefits, but they will likely bring further political costs if in the future these cuts are responsible for growing income inequalities that are disliked by the electorate.

To start the analysis, I take first the set of all government terminations; that is, any instance in which a government ends, regardless of the reason<sup>5</sup>, and I create a dummy variable called government termination, which takes value one, when there is a termination, and zero otherwise. Then I calculate the duration of each government by counting the number of years between two consecutive terminations. Note that in order to keep the correspondence between fiscal policies and government changes occurred as a response to those policies, I have considered that

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<sup>4</sup> Note that the assumption of politicians being office-seekers stated here does not contradict the assumption put forward in chapter 2 and chapter 4 (according to which politicians are policy-seekers and formulate different policies depending on their ideology). All the dissertation assumes that politicians seek to win office, in order to formulate their preferred policies once they are in power. Of course, if politicians want to keep making policies they have to fight hard for re-election. Indeed, the electoral calendar also shapes the way policies are formulated themselves, as previous chapters have shown.

<sup>5</sup> Other reasons for government termination, besides elections, are: voluntary resignation of the prime minister, resignation of the prime minister due to health reasons, dissension within government, lack of parliamentary support, intervention of the Head of State, or broadening of the coalition. The source of data to build this variable is Woldendorp, Keman and Budge (2000).

government terminations that occur between July 1 of year  $t$  and June 30 of year  $t+1$  fall into calendar year  $t$ . Or as Alesina, Perotti, and Tavares (1998: 221) put it: “In other words, the fiscal policy of year  $t$  is regarded as a determinant of government collapses from July 1 of year  $t$  to June 30 of year  $t+1$ .”

Government terminations may lead to changes in the prime minister and/or changes in the ideological orientation of the cabinet. These are dummy variables, equal to one when each type of change occurs. But the two sets are not the same. For example, the replacement of J. Santer by J.L. Dehaene, when the first one abandoned the Luxembourgish government to become President of the European Commission in 1994, is classified as prime minister change but not as ideology change. Changes in prime minister are more frequent than changes in ideology, because often the leadership of a major coalition party changes, and hence also the prime minister, although the ideological status of the cabinet remains unchanged.<sup>6</sup>

When an ideological change occurs, this change may replace a leftist government by a centrist or rightist government, or replace a rightist government by a centrist or leftist one. The first set of cases is labelled as change to the left, and the second set of cases, as change to the right. Note that if the initial government was a centrist government and it was replaced by a leftist government, the case would be labelled as a change to the left, while if it was replaced by a rightist government, the case would be labelled as a change to the right.

Finally, from the sample of government changes, I create a dummy variable called re-election that takes value one when the change was mediated by elections and the same prime minister was reappointed, and takes value zero in all other cases. Here I depart from Alesina, Perotti, and Tavares (1998), which “use the sample of changes irrespective of whether a transition to a new cabinet occurs by means of elections, cabinet reshuffling or other

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<sup>6</sup> Until here I follow Alesina, Perotti, and Tavares (1998) in order to make my results comparable to theirs, before adding my original contributions to the analysis of the political consequences of fiscal adjustments.

procedures” (p. 220). As I will show, taking this difference into account is crucial to reject their conclusion that fiscal adjustments do not have major political consequences<sup>7</sup>.

Table 7.1 shows the relative frequency of positive values for the dummy variables defined above in the full sample and for each country. Out of a total of 574 observations<sup>8</sup>, 266 are government terminations. Of them, 100 are ideology changes (54 to the left, and 46 to the right) and 117 are changes in Prime minister. Of all government changes, 129 were mediated by elections (63 re-elections of prime minister).

The picture by country is very illustrative of some major tendencies. Finland, Italy and Belgium are the countries with the lowest government durations, lowest probability of re-election, and highest number of government terminations.

With a probability of government termination of 80%, a probability of re-election of only 28%, and an average government duration of only 1.22 years, the extreme case is Italy. As Pasquino (1994: 25) observed, in Italy, “governing parties seemed to expropriate the voters of the political influence by making and unmaking governments at all levels with very little respect for electoral results.”<sup>9</sup>

The most stable governments in Europe are those in Luxembourg (2.7 years), the United Kingdom (2.5 years), Austria (2.09 years) and Spain (2.08 years), while the countries with the highest probabilities of re-election are Germany (80%), Spain (71%), Portugal (66%) and Austria (60%). The probabilities of re-election are strikingly high in these countries, what makes one wonder about the possible influence that past authoritarian regimes may have had on the political culture of those countries.

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<sup>7</sup> Alesina, Perotti, and Tavares (1998: 220) say: “we have examined whether our results vary substantially when we use only changes following elections but we find that they do not”. Unfortunately, they do not show the results of this sensitivity analysis in their paper.

<sup>8</sup> The total number of data points is 615 (the 15 EU Member States for the period 1960-2000), but for this analysis, years under non-democratic governments in Spain, Portugal and Greece have been excluded from the sample.

<sup>9</sup> Cited in Cheibub and Przeworski (1998: 234)

*Table 7.1. Frequency of Government Termination and Cabinet Changes. By Country, 1960-2000*

	Gov' Duratio	Gov't Termin	Ideology Changes	Ideology Ch. Left	Ideology Ch. Right	Pr.Minist Changes	Reelect
Austria	2.09	0.36	0.20	6.67	13.33	0.53	0.60
Belgium	1.92	0.46	0.47	26.32	21.05	0.42	0.28
Denmark	1.75	0.51	0.30	15.00	15.00	0.60	0.66
Finland	1.56	0.58	0.42	20.83	20.83	0.25	0.10
France	1.41	0.63	0.34	19.23	15.38	0.42	0.30
Germany	1.90	0.43	0.16	11.11	5.56	0.72	0.80
Greece	2.01	0.48	0.50	33.33	16.67	0.29	0.50
Ireland	1.95	0.36	0.46	20.00	26.70	0.33	0.57
Italy	1.22	0.80	0.37	15.63	21.88	0.36	0.28
Luxembourg	2.70	0.24	0.50	20.00	30.00	0.60	0.57
Netherlands	2.17	0.36	0.66	33.33	33.33	0.40	0.33
Portugal	1.84	0.48	0.60	40.00	20.00	0.41	0.66
Spain	2.08	0.37	0.33	22.22	11.11	0.55	0.71
Sweden	1.78	0.46	0.36	21.05	15.79	0.52	0.61
U.Kingdom	2.50	0.34	0.35	21.43	14.29	0.42	0.50
All Countries	1.90	0.46	0.39	21.32	17.83	0.44	0.49
Observ. (*)	574	266	266 (100)	54	46	266 (117)	129 (63)

*Source:* Own elaboration

*Note:* (\*) The 266 terminations of government motivated 100 changes of ideology, 117 changes of primer minister, and 49 continuations of cabinet composition. Out of the 217 changes, only 129 occurred by means of elections (of which 63 were re-elections of the prime minister).

With respect to ideological volatility, Portugal, the Netherlands, and Belgium show the highest scores around 60%, while Germany and Austria remain in the very low 20%

probability that there is a change in the ideological complexion of the cabinet, whenever there is a change in the cabinet.

Finally, Portugal, the Netherlands, and Greece experienced the highest number of changes toward more leftist governments, and Luxembourg and Ireland toward more rightist ones. As in previous chapters, I use again the annual variation in the primary budget balance, adjusted and not adjusted by the economic cycle, as indicators of fiscal policy. The reason for including also the figures of the budget balance not adjusted by the cycle is that voters may not be very accurate in distinguishing between discretionary policy and cyclical effects of the budget. But as will be shown, results are very robust to the use of any of these measures. The correlations in the panel among these different definitions of changes in the budget balance, and the cabinet change and re-election variables are reported in table 7.2.

*Table 7.2. Correlations Among Budget Balance and Cabinet Changes Variables*

	Var. Primary Budget Balance	Var. PCA Budget. Balance
Var. PCA Budget Balance	0.77***	
Government Termination	-0.13**	-0.11**
Ideology Change	0.12*	0.09
Ideology Change to the Left	0.14	0.13
Ideology Change to the Right	-0.12	-0.09
Prime minister Change	0.01	0.02
Re-election	-0.15**	-0.08*

*Note:* \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

Note the high correlations between the different definitions of the budget balance. More importantly, increases in the contemporaneous budget balance (fiscal adjustments), are weakly but negatively correlated with government terminations. Nevertheless, this finding is at odds with the parallel finding that

fiscal adjustments are positively correlated with ideological changes, and negatively correlated with prime minister re-election.

This apparent contradiction may just be implying that it is government termination what influences fiscal adjustments and not the other way around, as defended by Alesina, Perotti, and Tavares (1998). As will be discussed later more extensively, this reverse causality problem is likely to be less important in the relationship between prime minister re-election and fiscal adjustments than between government termination and fiscal adjustments.

Because my purpose is to determine the effect of changes in the fiscal stance on the probability of cabinet survival and re-election of prime minister, I run probit regressions on the panel of 15 EU Member States between 1960-2000 using government termination, ideology change, prime minister change and re-election as dependent variables. For each of these dependent variables, I estimate the effect of a 1 percentage point change in the budget balance-to-GDP ratio, according to one of the two definitions: using change in the uncorrected primary budget balance, and using change in the cyclically adjusted primary balance.

In addition, I introduce four other macroeconomic indicators as right-hand-side variables:

- 1) Real GDP growth;
- 2) Change in the price level (inflation);
- 3) Change in the unemployment rate; and
- 4) Change in income inequality (measured by the annual change in the Gini coefficient).

The motivation for these controls deserves an explanation, intimately related to the literature on economic voting.

In its simplest form, the fundamental contention of the literature on economic voting is that voters tend to reward incumbents when the economy is sound and punish them when it is not. So rather than looking at economic promises, citizens assess past performance (Key, 1966; Fiorina, 1981; Norpoth,

Lewis-Beck and Lafay, 1991). The effect of economic performance on government tenure has been widely studied, with unclear and even contradictory results. While there is a wealth of evidence confirming that short-term economic conditions do influence electoral outcomes in the United States (Tufte, 1978; Erikson, 1989; Kramer, 1983; Markus, 1988), the strength of the relationship appears to be weaker in other democracies (Lancaster, and Lewis-Beck, 1986; Rattinger, 1991; Sanders, Ward, and Marsh, 1991). Thus, while most agree that economics matter for the election outcome (Paldam, 1991), the relative effect is by no means constant in all countries, and there is, further, no agreement as to what explains such differences (Lewis-Beck, 1988) .

Some advocate in favour of institutional approaches to explain these differences. For example, Pacek and Radcliff (1995) argue that the degree of development of the welfare state makes a difference, given that economic voting patterns are clearer in countries with low to moderate levels of welfare spending where public welfare programs do not insulate completely citizens from economic adversity.

Others emphasize the role of the relative presence of monitoring difficulties that may prevent the electorate from attributing correctly the responsibility for bad economic outcomes. For example, in most European countries, primary political responsibility rests with parties forming the government, rather than with a single elected executive. Because power and responsibility may be divided among multiple parties in a governing coalition, and because the composition of coalitions may change between elections, assessing political responsibility for economic outcomes becomes more difficult (Powell and Whitten, 1993; Chappell and Veiga, 2000). Therefore when the degree of institutional clarity of responsibility increases, and the availability of political and economic alternatives becomes clearer to voters, the accountability for economic outcomes in the form of electoral gains or losses is likely to increase (Anderson, 2000). But monitoring problems could be also the result of intended disinformation strategies implemented by political party elites and



government authorities not interested in making easier the process of attributing responsibility for economic outcomes (Maravall, 1998).

Note that, as I already mentioned in chapter 6, empirical studies on the effect of fiscal adjustments on income inequality, are almost inexistent, not to mention studies that address the possible electoral effect that fiscal adjustments that increase inequality may have. But as was also shown in that chapter, the impact of expenditure-based fiscal adjustments on income distribution is so important, that it is imperative to test the electoral consequences that such economic outcome may have.

Therefore, the inclusion of economic growth, inflation, unemployment and inequality as independent variables responds to the need of taking into account all this literature. Given that fiscal policy, as has been systematically repeated in this dissertation, is just an economic policy tool aiming at achieving certain desirable economic outcomes (such as high growth, high employment, low prices, and a fair distribution of income), these outcomes themselves must be included in the equation as possible determinants of the probability of government termination or prime minister re-election.

In addition, I include in the equation three other political characteristics of cabinets that may affect their political survival:

5) Number of years in power (government duration);

6) Parliamentary status of the government (whether it is supported by a majority in parliament);

7) Number of parties that form the government (coalition size).

The reason for including government duration among the explanatory variables attempts to take control for the likely presence of anti-incumbent forces. These forces are likely to be important (Rose and Mackie 1983; Paldam 1986). Several possibilities have been offered to explain anti-incumbent voting. Mueller (1970) suggests, for example, that governmental policy choices inevitably alienate coalitions of minorities that chip away at government support. In addition, with office and power come

scandals and corruption that tarnish any administration. Brittan (1975), among others, pointed out that election campaigns create inflated expectations among voters, some of whom are disenchanted with subsequent results. Finally, as Downs (1957) noted, the positive achievements of incumbents may be effectively discounted by a strategic opposition promising to continue such policies. In sum, incumbent status is generally associated with an erosion of electoral support, and therefore longer duration of governments can be expected to increase the probability of government termination. Finally, the strikes and demonstrations against welfare cuts across Europe between 1995 and 1997, convinced me of the necessity to include another variable to control for social mobilizations against fiscal adjustments. This proxy variable is the total number of working days lost per year due to strikes.

One expects the probability of government termination to increase with tenure and with big government coalitions, and to decrease with strong parliamentary support. The opposite signs are expected in the case of probability of re-election.

Results for the regressions on government termination and ideology changes are very similar to those presented by Alesina, Perotti, and Tavares (1998) using a different sample that included all OCDE countries for the period 1965-95, while the other two sets of regressions on the probability of prime minister change and the probability of re-election offer very interesting new results (see table 7.3.).

In general, none of these specifications capture very well the observed variation in the respective dependent variables, except for the re-election models. In most cases, fiscal policy variables are important determinants of every measure of government survival, ideological change, and prime minister re-election. Political variables show the expected signs: longer government durations increase the probability of government termination, parliamentary majorities decrease it but increase the probability of re-election, and larger coalitions make government survival increasingly difficult. Social mobilization does not have any effect

Table 7.3. Budget Balance and Cabinet Changes, 1960-2000. All Years

	Gov't Termination		Ideology Change		Prime M in Change		Re-election	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Var. Prim. Budg. .Bal	-0.085** (2.25)	-0.089* (1.83)	0.088 (1.26)	0.084 (1.25)	0.002 (0.03)	0.046 (0.70)	-0.183* (1.85)	-0.068 (0.76)
Var. CA dj Pr. Bug Bal								
Real GDP Growth	-0.062 (1.59)	-0.059 (1.44)	-0.132** (2.41)	-0.097* (1.72)	0.065 (1.24)	0.071 (1.28)	0.204*** (2.66)	0.163** (2.17)
Var. Prices	-0.012 (0.94)	-0.014 (1.05)	-0.005 (0.27)	-0.006 (0.33)	0.008 (0.45)	0.004 (0.21)	0.058 (1.70)	0.061* (1.78)
Var. Unemployment	0.034 (1.42)	0.064* (1.78)	0.040 (0.34)	0.050 (0.43)	0.006 (0.35)	0.002 (0.42)	-0.082* (1.74)	-0.028** (1.99)
Var. Inequality	0.115* (1.83)	0.120* (1.84)	0.085 (0.96)	0.099 (1.06)	0.330*** (3.56)	0.379*** (3.76)	-0.575*** (3.62)	-0.543*** (3.55)
Gov't. Duration	0.390*** (5.52)	0.405*** (5.51)	-0.042 (0.50)	-0.054 (0.64)	0.141* (1.72)	0.134 (1.61)	0.118 (1.00)	0.137 (1.17)
Majority Parliament	-0.635*** (3.71)	-0.592*** (3.40)	0.246 (1.05)	0.250 (1.04)	-0.117 (0.52)	-0.164 (0.70)	0.282 (0.80)	0.186 (0.54)
Coalition Size	0.194*** (3.59)	0.188*** (3.41)	-0.033 (0.44)	-0.040 (0.52)	-0.055 (0.75)	-0.041 (0.54)	-0.208* (1.73)	-0.191* (1.70)
Social Mobilization	0.001 (1.05)	0.001 (0.91)	0.002 (0.50)	0.001 (0.36)	-0.000 (1.48)	-0.000 (1.39)	-0.011** (2.19)	-0.010** (2.13)
Constant	-0.797*** (2.94)	-0.808*** (2.90)	0.123 (0.32)	0.095 (0.24)	-0.320 (0.86)	-0.269 (0.71)	-0.832 (1.54)	-0.731 (1.37)
Observations	557	546	194	185	198	189	113	111
Log likelihood	60.78	58.76	11.41	10.21	24.10	25.88	43.57	39.58
Pseudo R-squared	0.12	0.12	0.04	0.04	0.09	0.10	0.27	0.26
LR Chi 2(9)	-230.34	-216.57	-121.71	-117.60	-124.69	-117.84	-56.53	-57.14
Prob>Chi 2	0.000	0.000	0.249	0.334	0.041	0.021	0.000	0.000

Note: Absolute value of z-statistics in parentheses. \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

on the probability of government termination, but it does play a role on the probability of prime minister re-election.

With respect to the impact of economic variables, results in table 7.3. are also similar to those of Paldam (1991) who found a moderate effect for economic growth, unemployment, and inflation.. Inflation is not an important determinant of government termination, ideology change, and prime minister change, and only becomes statistically significant as a determinant of prime minister re-election. In any case, its sign runs counter to those who affirm that voters punish governments that create inflation, and support the classical theses of the literature on political business cycles, that predict that those politicians who expand the aggregate demand and accelerate the rate of economic growth before the election arrives, will be re-elected at the polls, even if prices have risen slightly as a consequence of that temporary expansion. It looks like voters are willing to tolerate moderate levels of inflation if this brings higher economic growth.

On the other hand, unemployment seems to become a much more important factor in explaining the probability of prime minister change and the probability of prime minister re-election. This result is consistent with the findings by Cheibub and Przeworski (1998) who found in a sample of 135 countries between 1950 to 1990 that “when employment grows faster, prime ministers are more likely to survive” (p. 227). Some recent European events are very illustrative in this respect. In the midst of high unemployment, the Socialists under Lionel Jospin were swept into power amid promises of greater social protections and job creation, a theme that was echoed by other parties of the left, and that gave them power in thirteen out of fifteen EU Member States in the aftermath of the “Maastricht exam” (Bohrer and Tan, 2000).

Finally, the change in inequality proves to be a very important factor in determining electoral outcomes. This has to do with the relative importance of social mobilization. The more able are societies to articulate their social demands, through strikes and demonstrations, the more likely is that their protests will

determine election outcomes. Because these groups are usually made of trade unionists and leftist militants it is likely that the reduction of income inequality is among their main claims, and that this issue will become also important in determining the probability of government re-election when a fiscal adjustment has taken place. The strong explanatory power that this variable has to explain the type of political consequences that politicians bear after fiscal consolidations has been systematically ignored in the literature. Nevertheless, it is a very important variable to understand why some politicians are reluctant to implement these policies.

What previous results show is that although it is not clear if politicians are going to be judged by the aggregate numbers that the budget balance shows, it is very likely that they will be judged by the economic consequences that these adjustments create. As was shown in chapter 6, expenditure-based fiscal adjustments can have expansionary effects under certain circumstances. But the reverse of the coin, also absent from the most popular studies on the topic, is that these adjustments normally increase income inequality, that are at last politically costly for the governments that implement them. While results from chapter 6 confirmed the ongoing validity of the classical trade off between growth and equality in the framework of fiscal adjustments and their economic consequences, results from table 7.3 suggest that this trade off is also present in the framework of their political consequences. At the end, politicians aiming at consolidating the budget will have to choose between facing a loss of support due to increases in inequality, or gaining future electoral support due to future increases in the rate of growth.

In table 7.4. it can be observed that all these results are reinforced when the analysis is extended to take into account the composition of the budget as a possible determinant of government termination or prime minister re-election.

Table 7.4. Budget Composition and Cabinet Changes, 1960-2000. All Years

	Government Termination				Re-election			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
Var. Prim. Budg. Bal	-0.067* (1.72)	-0.086** (2.26)	-0.083** (2.18)	-0.087** (2.27)	-0.112** (2.19)	-0.191** (3.15)	-0.169** (2.22)	-0.145** (2.14)
Real GDP Growth	0.050 (1.21)	0.028 (0.66)	0.014 (0.33)	0.022 (0.51)	0.117 (1.36)	0.251** (2.84)	0.199** (2.20)	0.166* (1.84)
Var. Prices	-0.012 (0.93)	-0.012 (0.93)	-0.012 (0.93)	-0.011 (0.86)	0.068* (1.74)	0.061 (1.62)	0.068* (1.71)	0.066* (1.72)
Var. Unemployment	0.027 (1.32)	0.011 (1.08)	0.013 (1.04)	0.003 (1.14)	-0.155** (1.96)	-0.036* (1.73)	-0.089** (1.97)	-0.094** (1.99)
Var. Inequality	0.103 (1.60)	0.104 (1.63)	0.097 (1.51)	0.104 (1.63)	-0.590*** (3.45)	-0.525*** (3.26)	-0.557*** (3.32)	-0.562*** (3.33)
Gov't. Duration	0.389*** (5.29)	0.400*** (5.55)	0.407*** (5.59)	0.395*** (5.46)	0.154 (1.20)	0.067 (0.54)	0.077 (0.62)	0.105 (0.85)
Majority Parliament	-0.577*** (3.25)	-0.698*** (3.92)	-0.632*** (3.61)	-0.752*** (3.68)	0.459 (1.19)	0.361 (1.00)	0.377 (1.01)	0.420 (1.04)
Coalition Size	0.203*** (3.65)	0.225*** (3.97)	0.230*** (4.01)	0.219*** (3.81)	-0.151 (1.19)	-0.256** (1.99)	-0.243* (1.82)	-0.196 (1.49)
Social Mobilization	0.001 (1.09)	0.001 (0.79)	0.001 (0.58)	0.001 (1.01)	-0.001* (1.87)	-0.002** (2.06)	-0.001* (1.69)	-0.002** (2.01)
Quality of Budget.	0.001 (0.10)				-0.059 (1.36)			
Total Expen. % GDP		-0.018* (1.93)				0.027* (1.91)		
Social Transf. % GDP			-0.034** (2.04)				0.052 (1.46)	
Public Wages % GDP				-0.041 (1.23)				0.022 (0.33)
Constant	-0.821*** (2.91)	0.094 (0.18)	-0.232 (0.61)	-0.195 (0.36)	-1.054* (1.82)	-2.027* (1.89)	-1.628** (2.10)	-1.147 (1.11)
Observations	551	577	566	566	101	110	102	102
Log likelihood	-217.65	-228.20	-223.84	-225.20	-51.45	-55.29	-52.65	-53.69
Pseudo R-squared	0.11	0.12	0.12	0.11	0.25	0.27	0.25	0.24
LR Chi 2(9)	50.46	61.19	59.43	56.70	34.25	41.87	35.93	33.85
Prob>Chi 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: Absolute value of z statistics in parentheses: \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

If the political impact of balanced budgets was not totally clear from previous results, what becomes clear in table 7.4 is that the composition of any fiscal adjustment is more important than the adjustment itself. When total expenditures as a percentage of GDP grow, the probability of a change in government decreases, and the probability of re-election increases. The same is true for the share of social transfers and public wages, although their statistical significance is weaker.

It is worth noting that the inability of voters to reward or punish the quality of the budget is a clear sign of how difficult it is for voters to understand the details of fiscal policies<sup>10</sup>, despite the official discourses that underline the benefits of good quality budget balances (EC, 2001). Nevertheless, their ability to discriminate among the major aggregates that affect them more directly, such as total expenditures and social transfers, can still guarantee some degree of political accountability regarding fiscal policy.

Finally, and before continuing to the next section, there are some of the previous results in both table 7.3. and table 7.4. that, seeming contradictory, need a more elaborate explanation.

For example, an important contradiction that needs to be explained is the different effect that government duration has on the probability of government termination and on the probability of re-election. While accumulated tenure increases the probability of government termination, it also increases the probability of re-election. This apparent contradiction can only be explained by looking at its sources. Since the only difference between both samples is that regressions on government termination include all terminations independent of whether they are the result of elections, of coalition rearrangements, or of resignations, while re-elections only look at cases where the prime minister has been reappointed after an election, the interpretation must be that longer government durations increase the probability of termination due

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<sup>10</sup> The quality of the budget measures the contribution of cyclically adjusted primary expenditures to the total amelioration of the budget balance. See chapter 3 for a more detailed definition of this variable.

to coalition fights, but not due to electoral fatigue. In fact, these results suggest that longer government tenures increase the probability of prime minister reappointment (maybe through accommodation or media manipulation mechanisms), and confirm that it is the government who loses elections, not the opposition who wins them.

But the most important apparent contradiction is the negative and significant impact that fiscal adjustments have on government termination, combined with the negative and significant impact that they have on the probability of prime minister re-election. These results are clearly sending us two different messages. On the one hand, one could argue that fiscal adjustments do not have political consequences because they don't increase (or even reduce) the probability of government termination. This is in fact what Alesina, Perotti, and Tavares (1998) claim in their famous paper. But on the other hand, there is strong evidence saying that fiscal adjustments decrease the probability of prime minister re-election.

Besides the obvious differences between both datasets, regressions on the probability of government termination suffer from a reverse causality problem. As I showed in chapter 3, only strong governments attempt to undertake fiscal adjustments. In itself a strong government is a government with a very low probability of termination. Therefore, it may very well be the case that not only fiscal adjustments increase the survival of governments, but that politically strong governments, which tend to survive longer, are the only ones with enough courage to undertake fiscal consolidations. This reverse causality problem is the first problem in that type of specification. The second problem is a problem of multicollinearity, resulting from the simultaneous inclusion as regressors of the two main indicators of political fragmentation (majority status in the parliament, and coalition size), and a measure of fiscal adjustment. The former indicators of fragmentation are the most robust predictors of government tenure, but are also predictors of fiscal policy. This causes multicollinearity between independent variables and makes "the



effect of the latter (fiscal variables) difficult to pin down” (Obstfeld and Eichengreen, 1998: 260).

Maybe due to these two important problems, Alesina, Perotti, and Tavares (1998) find such surprising conclusions. Nevertheless the rationality of these conclusions is never revisited, and they leave us wondering: if fiscal adjustment are politically rewarding, why would then politicians be so reluctant to implement them? This obvious question is never raised in their article, nor are the statistical problems answered. This is why, considering all those previous problems, I choose the regressions on the probability of re-election as the most reliable indicators of the political consequences that fiscal adjustments bring about, and therefore I will only focus on them in the second part of the chapter.

## **7.2. The Electoral Consequences of Fiscal Adjustments**

The chapter turns now to answer the second of the three questions that were posed at the beginning: Are politicians truly misinformed about voters’ preferences when they think about the electoral calendar before deciding on the duration and the composition of strong fiscal adjustments?

Results from the previous section on the sample of both years of fiscal expansion and fiscal adjustment have already demonstrated that voters are not immune to fiscal policies when they vote. If positive changes of the budget balance are associated with lower probabilities of re-election, one can hypothesize that after episodes of strong fiscal consolidation, the probability of prime minister re-election in the following election will be lower than if the adjustment would have never taken place. In addition, if higher levels of public expenditures are associated to higher chances of re-election, it is also reasonable to expect that expenditure-based adjustments will be more punished at the polls than revenue-based ones. If this were true, the answer to the above question would be negative.

In order to test these hypotheses, this section will base its results on the detailed analysis of the characteristics and political consequences of the 53 episodes of strong fiscal consolidation, as were defined in chapter 4.<sup>11</sup>

Table 7.5 presents a very illustrative comparison of re-election probabilities between three different samples: (1) the whole sample of adjustment and non-adjustment years used in the previous section, (2) the same sample but only for adjustment years; and finally, (3) the sample of adjustment episodes<sup>12</sup> (which last more than one year) that will be used in the present section.

As can be observed, systematically during adjustment years and after adjustment episodes, the probability of re-election is lower than during non-adjustment years. This is the case for the four decades between 1960 and 2000. Nevertheless, it is surprising to observe that during the nineties the probability of re-election after fiscal adjustment episodes is 51%, still below the average probability for the whole sample, but seven points higher than the probability of re-election after an adjustment episode during 1960-1989. This indicates an increasing tolerance to fiscal adjustments on the part of the electorate during the last decade, precisely when the most important fiscal consolidations took place across Europe<sup>13</sup>.

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<sup>11</sup> Remember, episodes of fiscal adjustment can last more than one year, and include every year in which the amelioration of the cyclically adjusted primary balance was higher than 1.5% of GDP, or when it was at least 1.25%, and the next or the previous year the variation in the budget balance was also positive.

<sup>12</sup> Note that because strong adjustment episodes were classified taking into account if different cabinets performed different adjustments, any adjustment that experienced a change in the middle of the episode was split into two cases. Therefore, every episode of adjustment in this restricted sample has been implemented by only one government. Thus, the re-election variable here is constructed as follows: it takes value 1 whenever the Prime minister that pursued the consolidation is re-elected in the first election following the end of the adjustment episodes, and takes value zero when it is not re-elected.

<sup>13</sup> Out of a total of 53 episodes of strong fiscal consolidation between 1960-2000, 18 of them occurred during the nineties. This is equal to 34% of the cases concentrated in the last decade, instead of a 25% that would have made the distribution of adjustments symmetrical along time.

Table 7.5. Probability of Re-election During Fiscal Adjustments

Probability of Re-election	1960-2000		1960-1989		1990-2000	
	Prob.	Obs.	Prob.	Obs.	Prob.	Obs.
(1) Whole Sample	0.49	129	0.48	92	0.54	34
(2) Adjustment Years	0.47	73	0.47	55	0.50	18
(3) Adjustment Episodes	0.47	51	0.44	35	0.51	16
Adjust. by Leftist Cabinets	0.41	22	0.31	17	0.55	11
Adjust. by Rightist Cabinets	0.59	29	0.69	18	0.35	5
Revenue-based Adj. Episodes	0.65	27	0.70	17	0.60	10
Expenditure-based Adj. Episod.	0.35	24	0.30	18	0.40	6

Source: Own elaboration

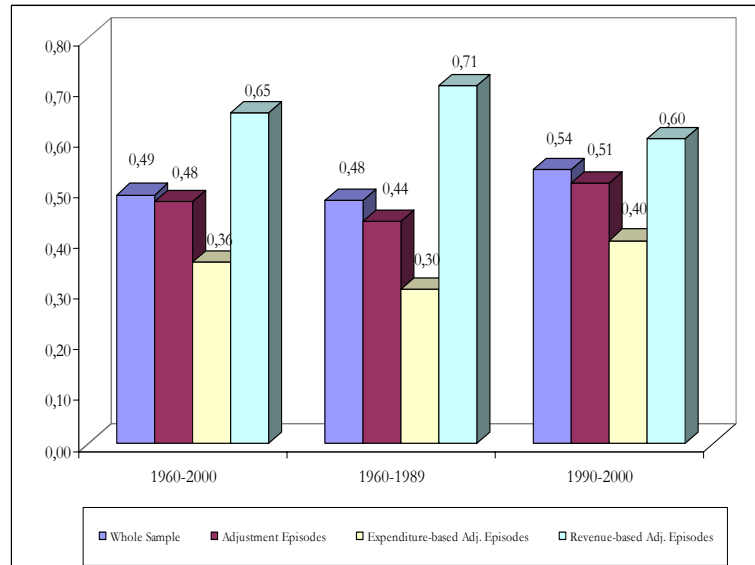
The second interesting finding is that adjustments launched by leftist cabinets showed a lower probability of re-election during 1960-1989<sup>14</sup> that was radically reversed during the nineties. In fact, during the nineties, the probability of re-election when a leftist cabinet had launched the adjustment is higher than the probability when a rightist government did it.

This is showing that electorates across Europe appointed leftist governments during the nineties being conscious that fiscal consolidations were a “must” that any government was going to undertake anyway. This certainty reversed the traditional electoral punishment that voters imposed on leftist adjustors. In this line of reasoning, one can understand the increase that the probability of re-election after expenditure-based adjustments has experienced in the nineties.

<sup>14</sup> The traditional voter support for deficit-led expansionary policies by governments on the left, is an evidence that has been even found in political systems as weakly polarized as the American one. For example, Lowry, Alt, and Ferree (1998) find that “Republican gubernatorial candidates lose votes if their party is responsible for unanticipated increases in the size of the state budget (while) Democrats do not and, indeed, may be rewarded for small increases.”(p.759)

As Figure 7.1 illustrates, the probability of re-election after an expenditure-based adjustment was as low as 30% during the three decades of the period 1960-1989. This probability increased 10 percentage points in only one decade, to reach a 40% re-election probability during the nineties.

*Figure 7.1. Probability of Re-election During Fiscal Adjustments*



*Source:* Own elaboration

These changes in the nineties are corroborated when one looks at the bilateral correlation between probability of re-election and expenditure-based adjustment. As table 7.6 shows, between 1960-1989 it looks like after expenditure-based adjustments took place, it was more likely that there was a change toward more rightist governments. This suggests that left voters punished leftist governments when they pursued expenditure-based adjustments

by switching the sign of their vote, while rightist voters rewarded rightist governments that consolidated the budget by means of cuts in expenditures.

*Table 7.6. Correlations Among Type of Adjustments and Cabinet Re-election Variables*

Type of Adjustment (1=expenditure-based; 0=revenue-based)	1960-2000	1960-1989	1990-2000
Re-election	-0.29 ***	-0.37 ***	-0.09
Ideology Change	0.36 ***	0.39 ***	0.25
Ideology Change to the Left	0.11	0.20	-0.09
Ideology Change to the Right	0.32 ***	0.29 **	0.33

*Note:* \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

This effect of punishing leftist governments for undertaking fiscal consolidations, and rewarding rightist ones, does not hold anymore during the nineties, due to the fact that some leftist government implemented expenditure-based adjustments during the nineties (see table 7.7. below). This conclusion does not contradict the findings presented in chapter 4.

Remember that it was shown in that chapter that despite of this apparent convergence between leftist and rightist governments toward expenditure-based adjustments during the nineties, a majority of leftist governments still preferred to follow revenue-based adjustment strategies.

Also, if those leftist governments were forced to reduce expenditures they preferred to safeguard public consumption, public wages, and public investment, in order to maintain the role of the State in the economy, and their capacity to implement supply-side policies of human and physical capital formation.

Table 7.7. Fiscal Adjustments and Prime Minister Re-elections, 1990-2000

Country	Adj. Years	Adj. Type	Re-election	Re-election		Previous Prime Minister	New Prime Minister
				Year	Change		
Austria	1995-97	Exp.-based	No	1999	Right	Vranitzky, F. (SPÖ)	Schüssel, W. (ÖVP)
Belgium	1992-94	Rev.-based	Yes	1995	None	Dehaene, J.-L. (CVP)	Dehaene, J.-L. (CVP)
Denmark	1993	Rev.-based	Yes	1994	None	Rasmussen, N (SD)	Rasmussen, N (SD)
Denmark	1998-99	Exp.-based	No	2001	Right	Rasmussen, N (SD)	Rasmussen, A.F.(CON)
Finland	1993-94	Exp.-based	No	1995	None	Aho, E (KESK)	Lipponen, P.(SDP)
France	1996-97	Rev.-based	No	1997	Left	Juppe, A. (RPR)	Jospin, L. (PSF)
Greece	1991-92	Exp.-based	No	1993	Left	Mitsotakis, C. (ND)	Papandreu, A. (PASOK)
Greece	1995-98	Rev.-based	Yes	2000	None	Simitis, K. (PASOK)	Simitis, K. (PASOK)
Ireland	1999	Exp.-based	Yes	2002	None	Bertie Ahern (FFail)	Bertie Ahern (FFail)
Italy	1991-93	Rev.-based	No	1994	Right	Ciampi, C.A. (NONA)	Berlusconi, S. (Forza)
Italy	1999	Rev.-based	No	2001	Right	Amato, G. (Olivio)	Berlusconi, S. (Forza)
Luxembourg	1992-93	Rev.-based	Yes	1994	None	Santer, J. (CSP)	Santer, J. (CSP)
Netherlands	1991-93	Rev.-based	No	1994	Right	Lubbers, R.F.M.(CDA)	Kok, W. (PvdA)
Netherlands	1995-96	Exp.-based	Yes	1998	None	Kok, W. (PvdA)	Kok, W. (PvdA)
Spain	1996-97	Exp.-based	Yes	2000	None	Aznar, J.M. (PP)	Aznar, J.M. (PP)
Sweden	1995-98	Exp.-based	Yes	1998	None	Göran Persson(SAP)	Göran Persson(SAP)
UK	1994-96	Exp.-based	No	1997	Left	Major, J. (CON)	Blair, T. (LAB)
UK	1997-99	Exp.-based	Yes	2001	None	Blair, T. (LAB)	Blair, T. (LAB)

Source: Own elaboration Sources of data: Europa World Yearbook (2002)

Probit regressions on the probability of re-election after fiscal adjustment episodes confirm all these previous findings (see table 7.8.).

*Table 7.8. Type of Fiscal Adjustment and Probability of Re-election*

	Re-election		
	1960-2000	1960-1989	1990-2000 (a)
Real GDP Growth	0.186 (1.18)	0.026 (0.11)	0.047 (1.08)
Var. Prices	0.027 (0.94)	0.028 (0.36)	
Var. Unemployment	-0.080 (0.35)	-0.056 (0.19)	
Var. Inequality	-0.176 (0.52)	-0.180 (0.41)	0.577 (0.51)
Adj. Duration	-0.231 (1.03)	-0.336 (1.14)	-2.227 (1.38)
Majority Parliament	0.813 (1.35)	0.720 (1.07)	1.166 (0.73)
Coalition Size	0.275 (1.48)	0.367 (1.55)	
Social Mobilization	-0.001 (0.12)	0.001 (0.49)	
Expenditure-based Adj.	-0.838* (1.69)	-1.491* (1.80)	-2.712 (1.33)
Constant	-1.743* (1.70)	-1.306 (0.82)	-7.501 (1.64)
Observations	45	32	16
Log likelihood	-25.23	-15.80	-15.35
Pseudo R-squared	0.19	0.28	0.38
LR Chi 2(9)	11.89	14.52	6.62
Prob>Chi 2	0.024	0.018	0.025

*Note 1:* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.

*Note 2:* (a) Note that in order to avoid problems derived from lack of degrees of freedom, some independent variables have been excluded from the last regression.

The evolution of economic variables during episodes of fiscal adjustment is not anymore a statistically significant determinant of the probability of re-election. Neither it is the rest of political variables. However, coefficients show the expected signs.

As before, to have a majority in parliament increases the probability of re-election, while having a fragmented government diminishes it, indicating that more parties are likely to run in the election and therefore probabilities of re-election are lower. Also longer consolidations seem to exasperate the public and reduce the probability of re-election, while higher levels of social mobilization reinforce this effect.

Finally, and most importantly, regression analysis confirms that voters are likely to stop voting the incumbent government when it pursues an expenditure-based strategy of adjustment. However, this tendency was temporarily put on-hold during the nineties, up to a point that made this predictor statistically insignificant to explain the chances that a prime minister had of being re-elected after having pursued a fiscal consolidation based on strong cuts in public expenditures.

In conclusion, results from this section show that voters have had during the nineties a higher tolerance toward expenditure-based adjustments than in previous decades.

Behind this increase in the public opinion's tolerance to expenditure-based adjustments coexist two related factors: the strong commitment on the part of European officials and national governments to maintain the compromises signed in 1992 in Maastricht, and the unprecedented degree of campaigning of government officials in favour of doing whatever sacrifice was necessary to qualify for the third stage of monetary union. In this respect European politicians pursued a strategy of *crafted talk* to change public opinion in order to offset the potential political costs of not following the preferences of average voters<sup>15</sup>. They

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<sup>15</sup> This strategy is similar (in form not in content or context) to the one followed by Republican politicians during the impeachment process to President Clinton between 1998 and 1999. For a detailed account of *crafted talk* strategies designed to change the public opinion, see Jacobs and Shapiro (2000).



did it by reshaping their messages, insisting on the need to reduce budget deficits but in a way that was more appealing to national public opinions. As chapter 5 has illustrated, arguments such as “unique historical opportunity”, “national pride”, and “the best for our country’s future”, were among the preferred by politicians to convince their electorates that today’s effort would become tomorrow’s prosperity.

Also, the mere existence of opposition has traditionally been the basis of the voters’ capacity to make politicians responsive to their demands (Ferejohn, 1986). “Elections are not just about sanctioning an agent that has performed poorly, but about whether to appoint an alternative one” (Maravall, 1998: 161). However, the public did not perceive this alternative with respect to fiscal policy during the nineties. The fiscal effort to qualify for the third stage of EMU was accepted, and promoted by all national governments and oppositions across Europe. Occasionally, discrepancies about the rhythm of the fiscal consolidation efforts and their composition arose, mostly regarding pension reforms or cuts in unemployment benefits, but these discrepancies were not interpreted by the electorate as clear signs of fiscal policy alternatives, since main parties of the left and the right were committed to the fulfilment of the Maastricht criteria at any cost<sup>16</sup>.

### **7.3. Changing Public Opinion Toward Fiscal Adjustments**

If there are two unexpected findings in the previous two sections they are:

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<sup>16</sup> Except of course, the cases of the Conservatory Party in the United Kingdom, the coalition of former Stalinists of the Socialist People’s Party (SPP) and the extreme right-wing Danish People’s Party (DPP) in Denmark, and the Christian Democratic, center, left, and environmentalist parties in Sweden, whose open opposition to the common currency offered a political alternative to the electorate. For a detailed account of the attitudes toward EMU among social democratic parties in Europe, see Notermans (2001).

-Voters make national governments more responsible for increases in inequality and unemployment rates, than for increases in prices and slow economic growth.

-Voters stopped punishing governments that undertake expenditure-based fiscal adjustments during the nineties.

As will be shown in this last section, both results have a direct relationship with the supranationalization of responsibility. When European voters assumed that national governments were not able anymore to generate growth and control prices on their own, they deposited their confidence in the European Union as a more capable creator of economic well-being, and subsequently started to make it responsible for economic outcomes. Similarly, when voters assumed that fiscal policies were imposed from supranational institutions, they stopped blaming national governments for expenditure-based fiscal adjustments.

That voters started to assume in the nineties that there was a transfer of responsibility from national authorities to European ones on fiscal issues became clear in sections 1 and 2 of this chapter. The progressive attribution of responsibility in the generation of economic growth to the European level has been also a process easy to identify. As Eichenberg and Dalton (1993) affirm in their analysis of European public opinion between 1973 and 1992, the mere conception of the European Economic Community was explained to the European citizens as an agreement that would immediately increase economic prosperity through the liberalization of intra-communitarian trade. From the beginning, Europeans saw the EC as a helpful instrument to fight inflation and generate growth, while employment creation was perceived as being kept in the national sphere. Every reform, and every new treaty since then was explained on the same grounds to the public. The Single European Act in 1986 was publicly and academically interpreted as an European initiative to make the European economy more competitive and prosperous in a moment that was lagging behind Japan and the US. And finally, the Maastricht Treaty was depicted as the last step in the completion

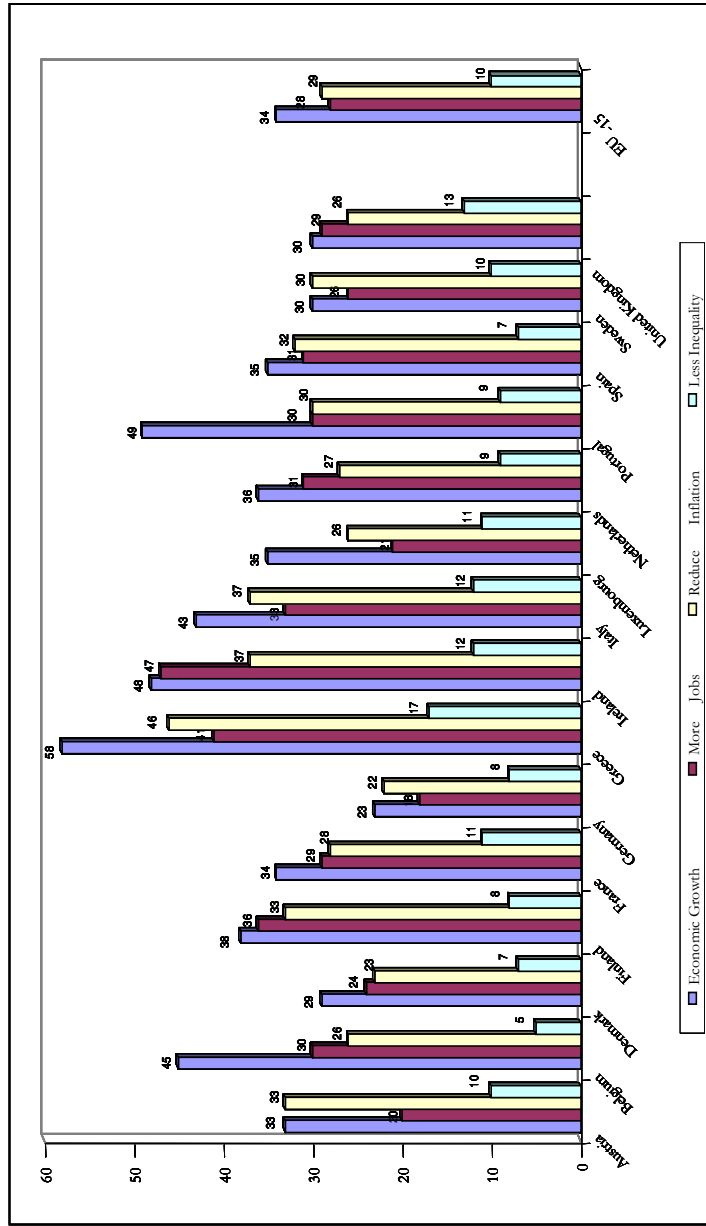
of a truly internal cohesive market that would multiply economic growth in the future.

The process was very similar with respect to the control of prices. After the price shocks of the late seventies, European countries pushed forward the coordination of their monetary policies. The increasing role that the European Monetary System progressively played in European monetary politics since the seventies was the basis for a continuous process of further transferences of national monetary sovereignty to the European level that culminated with the creation of the European Central Bank. This body is now the sole European monetary authority in charge of interest rates and the monitoring of inflation rates across Europe

There exists clear evidence that the European public opinion internalized these messages. As can be observed in figure 7.2, in 1995, just in the midst of the strongest episodes of fiscal adjustment, people in the EU perceived that the euro would mainly bring more economic growth. Everyone expected the efforts of today to be compensated by higher economic prosperity tomorrow. Despite the permanent mention by national politicians in public discourses that the aim of higher economic growth was to generate more jobs, in all countries job creation lagged behind economic growth, and remained close to inflation reduction in the classification of the perceived effects that the euro would have.

Probably after the second oil crisis of 1979, European citizens were ready to assume that economic growth was a matter of Europe-wide economic policy. This is why voters started not to punish poor economic performers, although they did not do the same with unemployment reduction. These attitudes have remained unaltered until today. In 1995 (see figure 7.2.), labour policy was still clearly perceived as a matter of national politics, for which national governments could be made responsible. Also in 1995, the European public was already perfectly conscious of what fiscal adjustments implied in terms of freezing or cutting social spending, and therefore did not expect from the euro any

Figure 7.2. Expected Consequences of the Euro, 1995



Source: Own elaboration. Sources of data: Eurobarometer 44 (1995)

significant improvement in income inequality, a policy that remained entirely in the hands of national authorities.

Did this supranationalization of responsibility harm the traditional support of European citizens for the European project in general and the single currency in particular? One could immediately think that if national electorates stopped punishing national politicians for implementing fiscal adjustments during the nineties, they may have started to blame someone else, mainly the European authorities. Since they are the guardians of the Treaties and the ones in charge of assessing whether each country qualified or not to join the third stage of EMU, it is easy to think that support for European integration may have dropped after strong fiscal adjustments were implemented during the nineties.

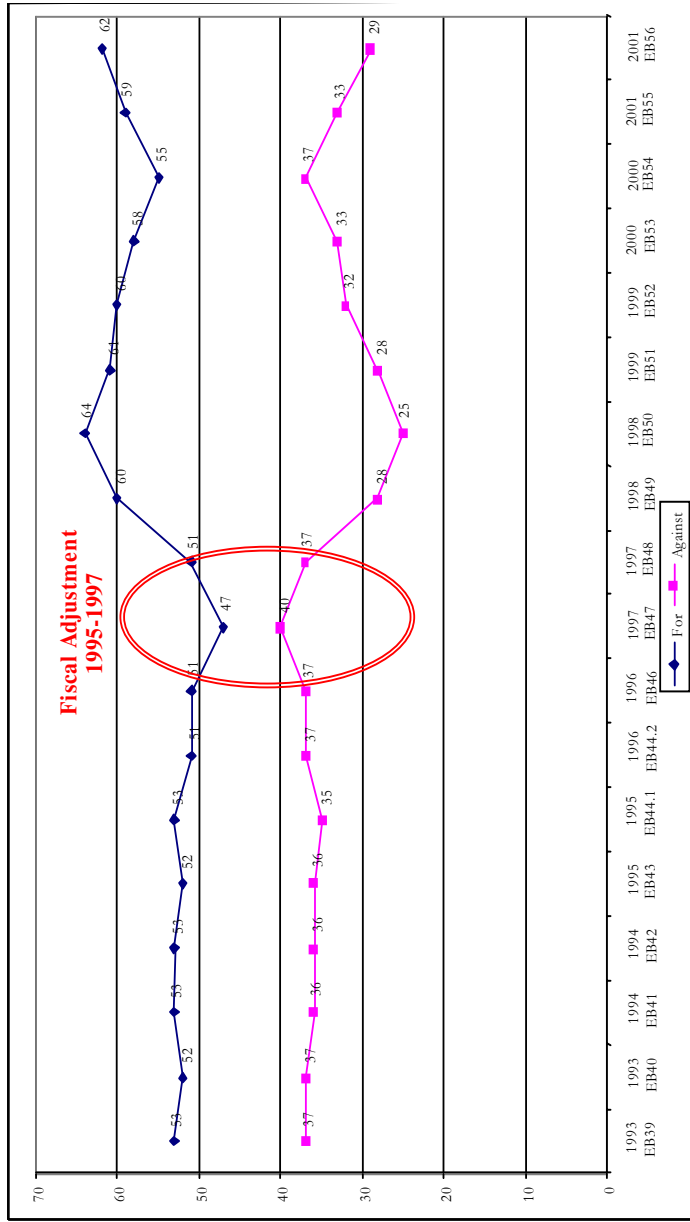
Evidence from public opinion polls on the support for the European currency confirm that there was a cost in public support when fiscal adjustments were stronger, but that this was only temporary.

As figure 7.3 below shows, once the effort passed, support for the main European project (the single currency) resumed and overcame initial levels.

The loss of popularity of the single currency project after the strongest episodes of adjustment between 1995 and 1997 was remarkable. In fact, most of the countries that made the strongest fiscal efforts during those two years, such as Belgium, Denmark, France, Greece, Portugal, Spain and the United Kingdom, rank among the group of countries in which support for the single currency remained stable or decreased between 1995 and 1998 (see figure 7.4).

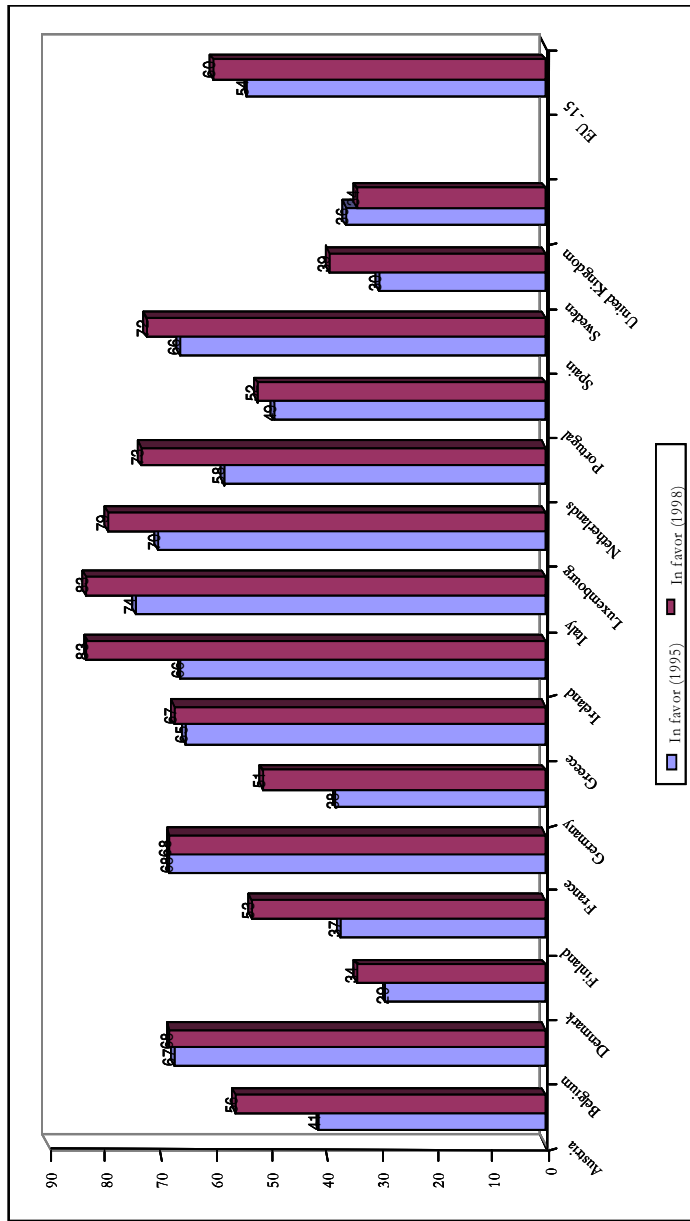
Some of these countries (Spain, Portugal, Greece, and the UK) were classified in 1995 (Eurobarometer, 44) as being the countries with the lowest degree of information about the single currency, but paradoxically, they were classified among the most supportive countries of the euro project. The fact that in 1998 these levels of support stopped growing and remained stable precisely in those countries, is a clear example of how those strong

Figure 7.3. Support for the Single Currency, 1993-2001



Source: Own elaboration. Sources of data: Eurobarometer 59-36

Figure 7.4. Percentage of Population in Favour of the Euro, Per country, 1995-1998



Source: Own elaboration. Sources of data: Eurobarometer 44 (1995) and Arendt (1999)

fiscal consolidations awoke the consciences of even the least informed and most supportive group of countries.

Nevertheless the popularity losses shown in figure 7.3 were only temporary. In Spring 1998, just after the European Commission released their famous Convergence Report (1998) where it recommended eleven countries to be accepted in the third stage of EMU, European support for the euro resumed. From that moment on, it remained at very high levels but on a decreasing path, probably reflecting the first problems that European citizens started to face in the use of the new currency as a “non-physical currency” between 1999 and 2002 (EC, 2001c). However, strong enough, the media campaign of the months immediately previous to the circulation of the physical currency, explain the impressive take-off in the support levels for the euro across Europe.

This evidence supports the argument that supranationalization of responsibility for economic growth and expenditure-based adjustments in the EU, entailed two parallel processes led by two different types of public campaigns.

The first one was led by national governments and consisted in explaining to their citizens that the occasion was historically unique. Each country was faced with the dilemma of struggling to fulfil the Maastricht criteria and join the “first class members” group, or let this crucial opportunity pass (with the associated dangers and uncertainties). Local elites formulated their message reinforcing that there was nothing that national governments could do at that point. The Treaty was there, the convergence criteria were clear, and every other country seemed ready to fight for a place in the “euro-club”. The decision was a “take it or leave it” one, based on a public message that insisted that future economic gains (basically higher growth and lower inflation) deserved the effort. National politicians across Europe explained fiscal adjustments to their electorates as policies “imposed from abroad” that had to be implemented because there was a national compromise to do it, and because of the long-term benefits associated to these policies. As I have already shown, this



campaign was terribly effective in undermining the public support for the single currency project, between 1995 and 1997.

The second public campaign was led by the European institutions. In an effort to compensate the previous one and compensate possible popularity losses, the supranational campaign ran parallel to the national one until 1998. The aim of the campaign was not to counteract the discourses of national politicians but to reinforce them by showing the inevitability of the convergence process and by stressing their economic and political advantages. Economic growth, increased mobility and facilities for European travellers, lower interest rates, and lower inflation were again the leading advantages on which those campaigns focused. Once the decision was taken as to how many countries would join the third stage of EMU in 1999, the only campaign that remained was the supranational one, perfectly articulated through national and local authorities<sup>17</sup>, that turned its focus toward the preparations for the single currency, and the future advantages that the new currency would bring.

The effect of this second campaign, day by day, overwhelmingly present in the media, regenerated all the lost

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<sup>17</sup> National and local authorities have been responsible for information campaigns on the euro, under the coordination and supervision of the European Commission. An example of this “supervised variety” is the different types of slogans chosen by different countries, aiming at capturing different information needs and different psychosocial characteristics of each population. These slogans ranged from the Italian “in Europa si conta in euro”, or the French “L’euro, c’est plus facile ensemble”, to the Spanish: “Euro: el valor de la Unión”. A second example of this “supervised delegation” of campaigning initiatives, is Spain, one of the most decentralized countries in Europe, where most of the one-to-one campaigns were organized by the local authorities. This was done through an array of very different initiatives such as the “Euromanual para la preparación de las empresas” by the Madrid local government, the web page-based campaign of Castilian government, the innovative campaigns “Benvinguts a l’euro” and “Ara és la nostra” by the Catalanian government, the guides about “Los interrogantes de los valencianos ante el euro” and “El euro y la economía valenciana” by Valencia local government, the “Euro Boletín” by the Andalusian government, or the comprehensive “Euroaz Informatzeko Euskal Plana” by the Basque government, among others.

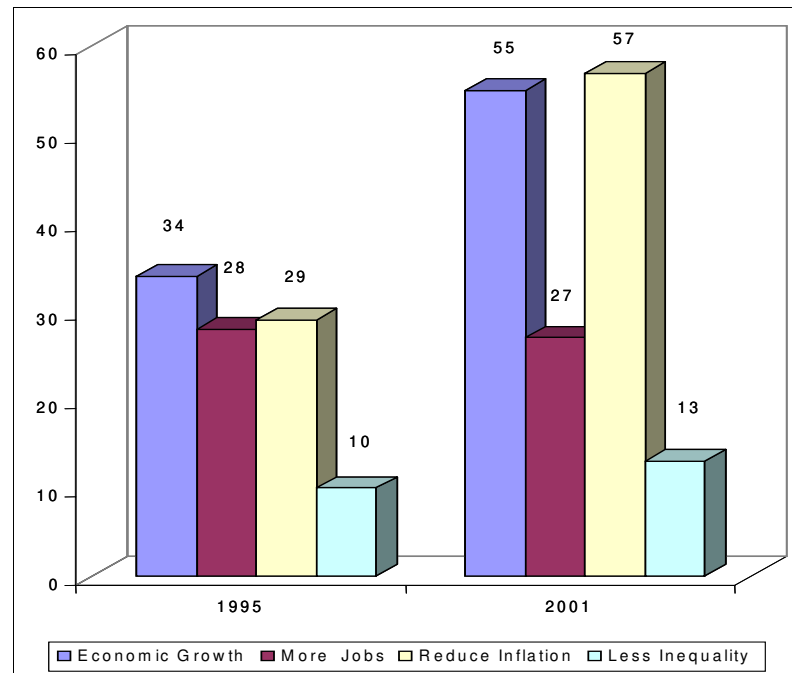
support in the European project, which reached its highest level when the euro was about to become a reality by the end of 2001, precisely when national governments joined the European Commission in the media campaigns. Data from Eurobarometer 56 from November 2001, show a remarkable increase of 12% points in two years on the average confidence on the European Union and the Commission. It also shows a “vast majority support of the Union’s policy initiatives” (p.5), while the support for the single currency records its maximum, over 62%.

These impressive records, despite the low numbers achieved during the worst years of fiscal consolidation in Europe, must be attributed to the targeted nature of the mentioned campaigns. Two were the major targets of these campaigns: on the one hand, by insisting on the economic benefits of joining the EMU, European authorities tried to reinforce all the economic and social efforts made by EU-11 countries, and hoped to widen the low level of support in the opt-outs, mainly in UK and Denmark. On the other hand by repeating the same messages again and again, and making them closer and familiar to the most reluctant parts of the social strata in all European countries, the aim was to reverse the low level of support among the elderly, the less educated, among women, and among manufacturers. Both strategies proved also very effective, since the public opinion was hungry of information (91% of Europeans demanded in 1995 more information about the single currency project (Eurobarometer 44)). The insistence on economic benefits increased even more the perception that the euro would be a vehicle for higher economic growth and lower inflation (and not unemployment anymore-see figure 7.5 below and compare it with figure 7.2).

Also the strategy of targeting the social groups more antipathetic to the single currency (those who normally feel more insecure about their economic stability, about changes in general, and who were more afraid of losing social benefits due to the convergence criteria) succeeded in removing some long-lived oppositions. For example, between 1995 and 1998, support for the single currency increased among women from 43% to 56%,

among people who left school before 16 year old from 44% to 52%, among the retired people from 48% to 56%, among the unemployed from 47% to 55%, and among manual workers from 46% to 54%.<sup>18</sup>

*Figure 7.5. Expected Consequences of the Euro, 1995-2001*



Source: Own elaboration. Sources of data: Eurobarometer 44 (1995) and Ahrendt (1999).

In other words, some of the reasons why voters have not been punishing their governments so strongly for bad economic

<sup>18</sup> All these increases are higher than average increases in public support for the whole population. Data from Eurobarometer 44 (1995) and Ahrendt (1999).

performance, or lately, by expenditure-based fiscal adjustments, have to do with the fact that voters assumed that in those fields there existed some exogenous determinants that made impossible for governments to totally control those variables. Because some factors were out of national politicians control, they were not the ones to be blamed for undesired outcomes. This is why the danger of shifting the blame from the national level to the European one, partially materialized during the worst two years of the fiscal adjustment effort to pass the “Maastricht exam”, between 1995 and the end of 1997. Nevertheless, the subsequent loss of popularity of the single currency project was only temporary, and levels of support quickly returned to the positive track, thanks to the simultaneity of information and propaganda campaigns launched by European institutions.

#### **7.4. Conclusion**

Once the previous chapter on the economic consequences of fiscal adjustments showed that different strategies of fiscal adjustments achieved opposite results in terms of economic growth and income inequality, the question about the possible reactions of the public opinion to these different strategies and results became even more salient.

This chapter came then to tackle this issue, attempting to answer three related questions, all of them regarding the likely political consequences that fiscal adjustments have for those governments who undertake them.

By looking at the probability of prime minister re-election, instead of the probability of government termination, this chapter questions previous findings in the literature and provides strong empirical evidence supporting the thesis that voters punish governments that implement expenditure-based fiscal adjustments. The composition of fiscal adjustments is an important determinant of their political consequences, since fiscal adjustments that

reduce social spending and increase income inequalities are normally punished by voters.

Nevertheless, the costly electoral consequences traditionally associated to expenditure-based adjustments have been reversed during the nineties, precisely when the most important consolidations have taken place. This suggests that voters became more tolerant to expenditure-based adjustments during that decade, probably because they saw no alternative in the political scenario regarding fiscal policy and the fulfilment of the Maastricht criteria.

Finally, the chapter shows that part of this process of not blaming national governments for what in other times were unpopular policies, had to do with the political campaigns that supranationalized political responsibilities and made Brussels responsible for constraining national fiscal manoeuvrability. As a consequence, the single currency project suffered an important decline in popularity during the years of strongest fiscal effort, but this only had temporary effects, thanks to the impressive effectiveness of the compensating campaigns launched by the European institutions.

## CHAPTER 8

### CONCLUSION

*«Domestic economic and political conditions are still important determinants of fiscal policy and fiscal adjustment strategies, despite the strict provisions of the Stability Pact. Factors such as the economic cycle, the debt burden, the fragmentation of the government, the proximity of elections, and the ideology of the cabinet have shaped in the last forty years the decisions that governments have taken relative to the timing, the duration and the composition of fiscal adjustments in the EU. By affecting these decisions, those factors have thus influenced decisively the economic and political consequences that these consolidations have generated»*

This dissertation was conceived to explore the economic and political factors that affect the formulation of fiscal policies in the European Union, with a special emphasis in understanding what explains that different countries followed different strategies of fiscal adjustment, when they all attempted to achieve the same aggregate fiscal outcomes, in the process toward monetary union.

The observed variation of fiscal policies and fiscal adjustment strategies among EU countries in the last forty years (chapter 2) finds its roots in the different domestic economic and politico-institutional conditions faced by each country when confronted to the need of consolidating its budget. Due to this original influence, these factors have also had a decisive impact in the strategy

designed by national governments to re-equilibrate their public finances.

These strategies have varied in three dimensions: the timing, the duration (chapter 3), and the composition (chapter 4) of the adjustment episode.

Since only government cabinets are responsible for the design and the implementation of these strategies, all the research has been specially focused on those factors that affect the cabinet in the moment of choosing between shorter or longer episodes of adjustment, based on raising revenues or spending cuts.

Among those factors, three were purely economic (the debt burden, the economic cycle, and the monetary conditions), and three were purely politico-institutional (the fragmentation of decision-making, the proximity of elections, and the ideology of the party in government).

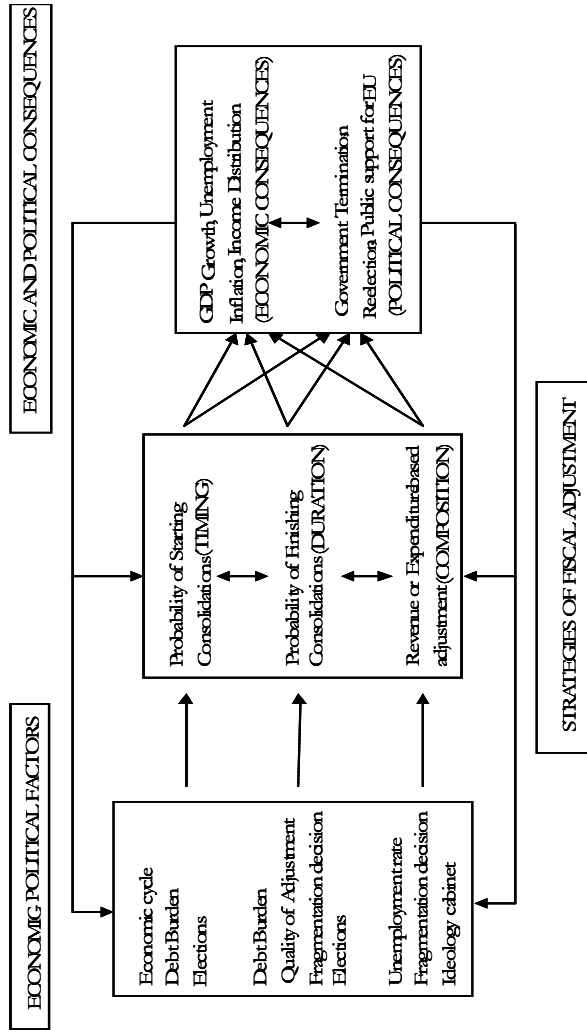
While economic factors demonstrated to be more important determinants of timing and duration of fiscal consolidations, political factors became crucial to understand the budget's composition during adjustment episodes.

The thesis rests on the assumption that policy-makers formulate economic policies aiming at obtaining certain economic and political objectives. Consequently, fiscal policies are used as policy tools to achieve concrete economic policy goals in terms of growth, unemployment, prices, income distribution, and/or electoral results.

Only by understanding the consequences that fiscal adjustments bring about, it is possible to compare if initial objectives that motivated the strategic choice of the type of adjustment, were fulfilled once the consolidation episode was over.

This circular relationship between causes and consequences of fiscal consolidations has shaped the structure and the conclusions of this dissertation (see figure 8.1.).

Figure 8.1. Summary of the Dissertation's Structure: Causes and Consequences of Fiscal Adjustments





Different choices regarding the timing, the duration or the composition of adjustment episodes bring about different economic (chapter 6) and political consequences (chapter 7), in terms of growth, unemployment, prices, income distribution, and electoral support.

The importance of these different economic and political consequences lies in their backward impact:

1) In principle, these consequences generate a new set of economic and political realities that will affect the formulation of fiscal policies in the future;

2) In addition, these consequences feed back policy-makers' expectations and reshape both the initial factors affecting the strategic choice, and the choice itself.

This process of [*expectations-design and implementation of fiscal adjustment strategies-economic policy outcomes-learning-and reshaping of initial expectations*], gives a circular dimension to fiscal policy that had never been studied before in a comprehensive work.

The first contribution of this thesis is precisely its comprehensive and circular structure.

The second contribution of this thesis is that it has complemented traditional economic approaches to the analysis of fiscal policy with a politico-institutional perspective, and by doing so it has been able to answer some of the puzzles that economic theory had not yet been able to solve. These puzzles are those related to the continuous accumulation of debt in European economies after the Second World War, or the reasons why some countries under fiscal stress postpone or finish their consolidations unexpectedly. Furthermore, economic theory alone has not been able to account for the determinants of different adjustment strategies undertaken by different European countries in the last decades. Only by complementing economic theory with politico-institutional approaches, this thesis has been able to understand those fiscal phenomena and to answer these questions.

Such a combination of economic and politico-institutional approaches has enriched this thesis and has arrived at an interesting set of conclusions, the most important of which are the following:

1-The probability of starting fiscal consolidations is higher when the domestic economy is doing well with respect to the European economy, when the accumulated level of debt is high, and when elections have just passed.

2-The duration of fiscal consolidations is very dependent on the accumulated fiscal effort, initial and accompanying economic conditions (such as debt level and quality of the adjustment), and also on political determinants (such as the number of spending ministers in the cabinet). The higher the debt burden, the weaker the initial budget measures, the better the quality of the adjustment (based on cuts in unproductive expenditures), and the lower the fragmentation of the cabinet, the higher the probability that the consolidation will last longer.

3-These results are sensitive to the definition of fiscal adjustment. When the definition is made more demanding, then political variables gain power as explanatory factors of duration of fiscal consolidations, while some economic factors lose that capacity. This means that duration of stronger fiscal adjustments is very much dependent on the political commitment of governments undertaking them than on any alternative factor. This political commitment is always easier to maintain when the cabinet that sticks to that hard decision is a single-party cabinet, with ideologically homogeneous members, and if elections are not too close. Under such circumstances, the debt burden continues to be an important determinant of duration, but the strength of the adjustment and quality of the budget lose their initial predictive capacity.

4-The composition of the budget in general, and during adjustment episodes in particular, depends on the accumulated structural deficit, the rate of growth, the rate of unemployment, and on the three crucial politico-institutional variables of this

thesis. In this respect, larger cabinets, larger coalitions, proximity of elections and more leftist governments are all associated to increases in public expenditures, specially in public transfers, and thus, they are also associated to revenue-based strategies of adjustment. Evidence from the nineties shows, however, that the effect of these variables has been reversed by the “Maastricht rules”, and in the case of leftist governments has forced them to prioritise their preferences. In doing so, leftist parties have preferred to increase revenues coming from direct taxation in order to finance increases in public consumption and public investments, even at the expense of public transfers. These policy choices seem to confirm the auto-proclaimed social democratic commitment to supply-side policies of physical and human capital formation.

5-The economic consequences of revenue-based and expenditure-based fiscal adjustments are different. While revenue-based adjustments are not conducive to remarkable increases in growth, they are also not remarkably harmful for equality in the income distribution. By contrast, expenditure-based consolidations can be expansionary if they are preceded by difficult fiscal conditions, and if they reduce the most rigid items of the budget (transfers and public wages). These type of consolidations generate wealth and credibility effects that induce a crowding-in of private consumers and investors, and accelerate economic activity. But expenditure-based adjustments imply also higher costs in terms of increasing inequality than revenue-based adjustments do.

6-The political consequences of fiscal adjustments work in two directions:

a) Fiscal adjustments reduce the probability of re-election. However, since this probability increases with economic growth, employment creation, and a fairer distribution of income, governments face two alternatives regarding their fiscal adjustment strategies: they can implement an expenditure-based adjustment hoping that higher growth will compensate the loss in

popularity, or they can implement a revenue-based adjustment hoping that the maintenance of popular spending items, and a lower cost in terms of income distribution, will compensate the growth losses and will be enough to gain re-election.

b) Fiscal adjustments reduce the popularity of those projects associated to spending cuts. For example, the public support for the EMU project worsened temporarily right in the midst of the consolidation effort between 1995-97. Nevertheless, this support was quickly recovered by means of strong campaigns from national governments and the European Commission, insisting on the advantages of fiscal discipline in terms of future employment and growth.

This thesis has combined a systematic theoretical revision of the literature on the political economy of economic policy-making and fiscal adjustments, with strong empirical evidence to support the main argument of this dissertation: that domestic economic and political conditions are still important determinants of fiscal policy and fiscal adjustment strategies in Europe, despite the strict provisions of the Stability Pact.

The combination of theoretical analysis with both quantitative and qualitative empirical evidence, in the form of systematic statistical analyses, and contemporaneous case studies, is the third contribution of this work. In this respect, the thesis has investigated the reasons behind the decision to give-up monetary policy and move toward monetary union, and the motivations of social democratic parties in Europe to support and promote this radical change of economic-policy framework (chapter 5). By answering to these questions regarding the origins of EMU and the Maastricht criteria, the dissertation has illustrated its conclusions with six historical case studies of fiscal adjustment episodes in the run-up to EMU. The fact that these case studies examined very recent episodes of consolidation in the biggest nations in Europe, made the chapter even more relevant.

Spain and Portugal followed opposite strategies of fiscal adjustment from 1995 when their initial imbalances were almost

identical, and reached very similar results in terms of fulfilment of the Maastricht criteria. This was the result, the thesis argues, of different preferences of the parties in government, regarding the role of the State in the economy. While the socialist government of Antonio Guterres launched a revenue-based adjustment to protect public transfers, wages and investment, the conservative government of J.M<sup>a</sup> Aznar preferred to cut both public expenditures and revenues, so as to promote a crowding-in effect of the private sector in the economy. The results of both strategies were similar in the short-run in terms of growth and qualification for Stage 3 of EMU, but in the medium-run, Spain has witnessed higher growth than Portugal, but also a rise in income inequality.

Similar comparisons of opposite case studies served also to illustrate the effect of institutional fragmentation and elections on the consolidation strategy. Italy and the UK present opposite examples due to the degree of fragmentation of their budgetary processes. Only when budgetary reforms were introduced in Italy, sustainable measures could be implemented on the spending side of the budget, and a definitive path of deficit and debt reduction was taking place. But these reforms are always difficult to undertake, even more so when elections are close. Under such circumstances, governments tend to postpone any decision to consolidate the budget, but if this is not possible, politicians will try to alter the electoral calendar calling for early elections, as Chirac did in France in 1997. The extreme case of constrained decision occurs when fiscal adjustments cannot be avoided, the electoral calendar cannot be altered, and the government faces strong institutions guaranteeing fiscal discipline. In such cases, the government will try to circumvent those institutional rules in order to gain re-election, as Kohl did in Germany between 1990 and 1998.

If any, the main problem of this dissertation is that its conclusions can only be generalized and exported to countries with similar economic, institutional and political structures to those of the European Union member states. Unfortunately, there are not many more countries with these characteristics, beyond the

EU and the OECD. This implies that if the political economy of fiscal adjustments in developing countries was the interest of any scholar reading this work, he would only be able to extract from this dissertation some of its initial hypotheses and probably the research methodology. And even with respect to the initial hypotheses, it is likely that only economic variables could be expected to have similar effects on the fiscal policy of both developing and developed nations<sup>1</sup>, since the effect of politico-institutional variables would be probably different between them. Therefore, such a research topic would deserve an entirely new study.

Having admitted the spatial limitations of this dissertation, let me finish with a last word on its temporal validity. While it is true that the current situation of economic globalization and economic policy convergence in Europe has constrained the capacity of national governments to formulate differentiated economic policies, this dissertation has shown that these governments have found ways to do so in the arena of fiscal policy. And they have done so because domestic economic and political factors are still as influential for them as evident are the existing external rules and constraints.

If the current fiscal framework in Europe does not move in the direction of a single (or at least fully coordinated and harmonized) fiscal policy that resembles the degree of supranationalization achieved in monetary policy, we can expect that the domestic economic and political factors highlighted by this dissertation will keep shaping fiscal policy and fiscal consolidations in the future.

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<sup>1</sup> Even in this case, the underdevelopment of welfare systems in developing countries would probably reduce the traditionally strong effect that the economic cycle and high unemployment rates have on the budget balance.

## APPENDIX 1

### **CYCLICALLY ADJUSTED BUDGET BALANCES: THE COMMISSION'S METHOD<sup>1</sup>**

For all the calculations in this dissertation I have used the AMECO-database of the European Commission. In most cases the data that I have used in the different empirical sections of this dissertation was cyclically adjusted, following the EU Commission's method for discounting the effect of the economic cycle on the budget. Thus, I present here what this method is about.

The cyclically adjustment method used by the DG ECFIN of the European Commission is a simple and transparent method which provides a uniform framework for the calculation of cyclically adjusted budget balances for each Member State of the European Union. As the adjusted balance estimates are calculated mechanically, they do not require judgmental fine-tuning and can therefore be easily replicated.

The DG ECFIN method involves three main steps. In the first step, the output gap is computed as the difference between actual output and an estimated output trend. 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.

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<sup>1</sup> From EC(2000b: 121-4)

### 1.1. First Step: Estimating Trend GDP and Output Gaps

To obtain estimates for the output trend, the DG ECFIN cyclical adjustment method applies the Hodrick-Prescott (HP) filter to the actual output series. The HP filter minimizes the sum of squared deviations of actual output around its trend subject to a constraint on the variation of the growth rate of trend output. The filter applies weighted moving averages to the actual output series to obtain trend GDP estimates.

The HP filter calculates the trend as the solution to the following minimisation problem:

$$\underset{\{y_t^T\}}{\text{Min}} \sum_{t=1}^T \left[ (y_t - y_t^T)^2 + \lambda \left[ (y_{t+1}^T - y_t^T) - (y_t^T - y_{t-1}^T) \right]^2 \right] \quad (1)$$

where the trend values  $y_t^T$  are chosen for each period such as to minimise (1) for a given value of the smoothing parameter  $\lambda$ . The second part of the expression in square brackets determines the smoothness of the resulting trend component which depends on the value of  $\lambda$ . The minimisation problem yields smoother trends as  $\lambda$  increases. For  $\lambda \rightarrow \infty$  a linear trend would result. For  $\lambda = 0$ , the trend line would coincide with the actual series. There is no commonly agreed value for the smoothness parameter. A lower bound for  $\lambda$  is usually 10, which implies that only cycles up to 8 years would be retained fully in the cyclical component. The Commission services set a value for  $\lambda$  equal to 100 which is the “industry standard”. This choice implies that cycles up to 15 years are passed and only cycles with a period larger than 20 years are fully eliminated.

However, the HP filter – as all moving-average-based methods – is sensitive to the lack of information at the extremes of the series to be analysed. When the extremes of the series are approached, the filter becomes asymmetric as no observations are available at one side of the reference year. This is the so-called



“end-point bias”.<sup>2</sup> Thus the HP filter underestimates the length of the cycle close to the end point, if no corrective measures are taken. Since this phenomenon especially occurs for the last 3 or 4 observations, one possibility to correct for this bias is to extend the data set by adding GDP forecasts over a range of 3 to 5 years.

DG ECFIN tackles the end-point bias problem by adding GDP forecasts and mechanical time series projections of GDP. This ensures a symmetric filtering of the trend at the end of the series. This solution is consistent with the overall methodological approach followed by DG ECFIN as this univariate statistical procedure is mechanical, simple, can be easily reproduced and is applied with minimal judgmental intervention.

The output gap is calculated as the difference between the actual level of GDP in volume and that of trend GDP, expressed as a percentage of trend GDP.

## **1.2. Second Step: Estimation of Revenue and Expenditure Sensitivities**

In order to estimate the cyclical component of the budget, the value of the budget sensitivity of revenue and expenditure to the output gap is required. The sensitivity of tax revenue is obtained by multiplying the output gap with the marginal change of receipts with respect to GDP. The overall revenue elasticity is a weighted average of four revenue elasticities (personal income taxes, corporate taxes, social security contributions and indirect taxes), whereby the different components are weighted by the relative share of each category in total revenue over the 1980-1998 period. Elasticities for these specific tax categories, and also government unemployment expenditures, are those calculated and recently updated in OECD (1999a). A similar approach is followed in the case of government expenditure. Government transfers to

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<sup>2</sup> Baxter and King (1995) show that close to the end points the HP filter has a tendency to already dampen the influence of cycles with a period larger than 4 years.

households to cover costs related to unemployment are the only expenditure category which is assumed to react ‘automatically’ to cyclical fluctuations.

The total budget sensitivity to the output gap, which is given by the sum of the revenue and expenditure sensitivities, is around 0.5 in the euro area and the EU as a whole (Table A.1). This implies that if the output gap changes by 1% point, the budget balance changes by 0.5% of GDP. As shown in the table, the major determinant of the size of the budget sensitivity is the overall size of the government sector in the economy (which is around 50% of GDP in the EU). The revenue sensitivity is more important than the expenditure sensitivity because most of tax revenues fluctuates with growth while only unemployment expenditure, which forms only a small part of overall government expenditures, is assumed to respond to cyclical fluctuations. This implies that in this approach, automatic stabilisers predominantly work on the revenue side.

### **1.3. Third Step : Calculation of Cyclically Adjusted Budget Balances**

The application of the marginal sensitivity of revenue and expenditure ( $\partial rev$  and  $\partial exp$ , respectively) to the output gap ( $OG$  allows for the determination of the cyclical component) of the budget balance ( $cc$ ). The cyclically adjusted budget balance is obtained by subtracting the cyclical component from the actual budget balance ( $def$ ):

$$CAB_t = def_t - cc_t = def_t - (\varepsilon_{rev} + \varepsilon_{exp}) * OG_t$$

(2)

In view of the simplifying assumption and usual estimation problems, the method only produces an approximate decomposition of the budget balance into a cyclical component

and a structural component. Its results must therefore be interpreted with the necessary caution.

*Table A.1. Budget Sensitivities Used by The Commission Services*

	Budget revenue sensitivity to the output gap	Budget expenditure sensitivity to the output gap	Total budget sensitivity to the output gap
B	0.5	0.2	0.7
D	0.4	0.0	0.5
E	0.3	0.0	0.4
F	0.3	0.1	0.4
IRL	0.3	0.1	0.4
I	0.4	0.0	0.4
NL	0.4	0.4	0.8
A	0.3	0.0	0.3
P	0.3	0.1	0.3
FIN	0.5	0.2	0.7
EU-11	0.4	0.1	0.5
DK	0.5	0.3	0.9
EL	0.3	0.0	0.3
S	0.5	0.3	0.8
UK	0.4	0.1	0.5
EU15	0.4	0.1	0.5

*Source:* Commission Services. EC (2000b)

## APPENDIX 2

### DURATION MODELS<sup>3</sup>

Duration analysis typically consist of: (1) a non-parametric analysis that focuses on the dependence of fiscal consolidation episodes on their accumulated duration; and (2) a parametric analysis that focuses of additional explanatory variables that can account for the observed variations in the duration of different consolidation episodes.

#### 2.1. Non-Parametric Analysis

In the non-parametric or empirical analysis I use the information contained in the “*Duration*” variable. Remember that this variable measures the time that passes between two years of fiscal expansion, or in other words, between the beginning and the end of a fiscal consolidation.

Those econometric models developed to analyse this type of information are called duration models. If  $T$  is defined as the discrete random variable that measures the time that passes between the beginning of a fiscal consolidation until its transition to a non-consolidation period, the observations at my disposal consist of a series of data  $(t1, t2, \dots, tn)$  which correspond to each of the observed durations of each consolidation period in my sample.

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<sup>3</sup> From Maroto and Mulas-Granados (2001: 8-13)

The probability distribution of the duration variable can be specified by the cumulative distribution function:

$$F(t) = \Pr(T < t) \quad (1)$$

which indicates the probability that the random variable  $T$  is smaller than a certain value  $t$ . The corresponding probability function is then:

$$P(t) = \Pr(T = t) \quad (2)$$

But in duration models, two main functions are used to characterize the probability distribution of the duration variable:

(a) The survivor function, which is defined as:

$$S(t) = \Pr(T \geq t) = 1 - F(t) \quad (3)$$

and gives the probability that the duration of the fiscal consolidation ( $T$ )<sup>4</sup> is greater than or equal to  $t$ .

(b) The hazard function, which is defined as:

$$h(t) = \Pr(T = t / T \geq t) \quad (4)$$

and gives, for each duration, the probability of ending a consolidation episode, conditioned to the duration of the consolidation through that moment.

There exists a relation between both functions given by the following expression:

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<sup>4</sup>  $T$  is the discrete random variable that measures the time that passes between the beginning of a fiscal consolidation until its transition to a non-consolidation period.

$$S(t) = \prod_{s=1|t} (1 - h(s)) \quad (5)$$

One of the advantages of the hazard function is that it allows us to characterize the dependence path of duration. Formally, there exists a positive duration dependence in  $t^*$  if  $dh(t)/dt > 0$ , in the moment  $t=t^*$ . This positive correlation implies that the probability that a fiscal consolidation ends in  $t$ , given that it has reached  $t$ , depends positively on the length of this consolidation period. Thus, the longer the period, the higher the conditional probability of entering into a fiscal expansion. Similarly, there exists negative duration dependence if  $dh(t)/dt < 0$  in  $t=t^*$ . In this case, the longer the fiscal adjustment period, the lower the conditional probability of fiscal expansion.

The non-parametric analysis is used to estimate the unconditional hazard function which registers all the observations for which there is a change, that is, the relative frequency of observations with  $T=t$ . For this analysis of duration, the Kaplan-Meier estimate is widely used (Kaplan and Meier, 1958). The hazard function is calculated as follows:

$$\hat{h}(t) = \frac{d_t}{n_t} \quad (6)$$

where  $d_t$  represents the number of failures registered in moment  $t$ , and  $n_t$  is the surviving population in moment  $t$ , before the change takes place. From the hazard function, it is possible to obtain the cumulative hazard function with a estimation procedure proposed by Nelson (1972) and Aalen (1978). It is given by the following expression:

$$\hat{H}(s) = \sum_{s=1}^t \hat{h}(s) \quad (7)$$

The Kaplan-Meier survivor function for duration  $t$  is calculated as the product of one minus the existing risk until period  $t$ :

$$\hat{S}(t) = \prod_{j|t_j \leq t} \left( \frac{n_j - d_j}{n_j} \right) \quad (8)$$

## 2.2. Parametric Analysis

The non-parametric analysis is very limited because it does not take into account other variables that can influence the probability of ending a period of fiscal consolidation. In order to address the issue of other variables determining this probability, I also included in chapter 3 a section dedicated to parametric analysis. In the literature, the model that has usually been used to characterize the hazard function is the *Model of Proportional Hazard* (PH), which assumes that the hazard function can be split as follows:

$$h(t, X) = h_0(t) * g(X) \quad (9)$$

where  $h_0(t)$  is the baseline hazard function that captures the dependency of data to duration, and  $g(x)$  is a function of individual variables. This function of explanatory variables is a negative function usually defined as  $g(x) = \exp(X'\beta)$ . Note that in this proportional specification, regressors intervene re-scalating the conditional probability of abandoning the period of fiscal consolidation, not its own duration.

This model can be estimated firstly without imposing any specific functional form to the baseline hazard function, following the *Cox Model* (1972)<sup>5</sup>:

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<sup>5</sup> Mathematically, the baseline hazard function,  $h_0(t)$ , is defined for all time  $t$  in which a change has taken place, and it is not defined for other moments of time. But the survivor function  $S_0(t)$  is defined for all values of  $t$ .

$$h(t, X) = h_0(t) * \exp(X' \beta) \quad (10)$$

Or an alternative estimation can be done by imposing one specific parametric form to the function  $h_0(t)$ . In this case, the models most commonly used are the *Weibull Model* and the *Exponential Model*. In the first one,  $h_0(t) = pt^{p-1}$ , where  $p$  is a parameter that has to be estimated. When  $p=1$ , the *Weibull Model* is equal to the *Exponential Model*, where there exists no dependency on duration. On the other hand, when the parameter  $p>1$ , there exists a positive dependency on duration, and a negative dependency when  $p<1$ . Therefore, by estimating  $p$ , it is possible to test the hypothesis of duration dependency of fiscal consolidations.

A reasonable question to ask is: “Given that I have several possible parametric models, how can I select one?” When parametric models are nested, the likelihood-ratios or the Wald tests can be used to discriminate between them. This can certainly be done in the case of Weibull versus Exponential. When models are not nested, however, these test are unsuitable and the task of discriminating between models becomes difficult. A common approach to this problem is to use the Akaike Information Criterion (AIC). Akaike (1974) proposed penalizing each log likelihood to reflect the number of parameters being estimated in a particular model and then comparing them. For this purpose, the AIC can be defined as:

$$AIC = -2 * (\log \text{likelihood}) + 2(c + q + 1) \quad (11)$$

where  $c$  is the number of model covariates (explanatory variables) and  $q$  is the number of model-specific auxiliary parameters. Although the best-fitting model is the one with the largest log likelihood, the preferred model is the one with the smallest AIC value.



Finally, there exists an additional method to test the power of each model, through graphic analysis of the Cox-Snell residuals (1968). These residuals are defined as follows:

$$\hat{e} = -\log S(t/x) \quad (12)$$

where  $S(t/x)$  is the estimated probability of surviving to time  $t$ . If the fitted model is correct, these residuals, which are always positive, should have a standard censored exponential distribution with hazard ratio 1. I can verify the model's fit by calculating, based for example on the Kaplan-Meier survival estimates or the Aalen-Nelson estimator, an empirical estimate of the cumulative hazard function, using the Cox-Snell residuals ( $cs$ ) as the time variable. If the model fits the data, then the plot of the cumulative hazard function versus  $cs$  should be a straight line with slope equal to unity and beginning at the origin.

As we could also see in chapter 3 (Figure 3.7), the *Weibull plot* satisfies the exponential requirement for most of the time, except in the part of larger residuals where the slope appears to exceed the unity. This confirms that the Weibull model should be my preferred model for the parametric analysis of duration of fiscal adjustment episodes.

## APPENDIX 3

### THE PANEL CORRECTED STANDARD ERRORS TECHNIQUE<sup>6</sup>

In pooled time series research designs, annual time series from a cross-section of countries are stacked on top of one another and analyzed jointly within the same data set. This implies a combination of time series (temporal observations on a unit of analysis) with cross-sections (observations on a unit of analysis at a single time points). The current popularity of pooled time series analysis stems from two great comparative advantages of this method. First, it produces a relatively large  $n$  and can therefore simultaneously test for the effect of a large number of independent variables. The number of cases is  $N \times T$ , where  $N$  is the number of cross-sections and  $T$  is the number of time points. The second fundamental advantage of pooled time series analysis is that it integrates both internal and external analysis, combining attention to both longitudinal and cross-sectional variation. It can therefore produce useful generalizations across both space and time.

Having said this, it is worth noting that any analysis of large pooled time series of cross sections usually suffers from three related problems: panel heteroskedasticity, spatial correlation, and/or serial correlation

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<sup>6</sup> I am specially grateful to Alex Segura-Ubiergo for his expert advice in the writing of this appendix and for his feedback during the process of choosing the best regression models and estimation procedures in chapter 4

The regression coefficients in panels of pooled time series can be estimated in several different ways, depending on the relative size of N with respect to T. James Stimson (1985: 929) developed an informal guide of pooled estimators for panel data:

	No Timewise Autocorrelation in Error	Timewise Autocorrelation present
Cross-sectional dominance (N>T)		
No between-unit effects	-Ordinary Least Squares (OLS)	*
Between-unit effects (fixed)		*
(random)	-Least-Squares with Dummy Variables (LSDV). -Error Components Model (GLSE)	
Time-serial dominance (T>N)		
No between-unit effects	-Ordinary Least Squares (OLS)	-GLS-ARMA
Between-unit effects	-Least-Squares Dummy Var. (LSDV)	-GLS-ARMA+Dummies

\* No estimator developed specifically for this case.

In a situation like the one this thesis confronted in chapter 4, where there was a temporally dominated panel of fifteen countries over a 31 years period, and where between unit effects were assumed to be taking place given the economic interrelations existing between European countries, the appropriate model prescribed is the table above had to be a LSDV. In addition, in a panel like this (with countries of such different sizes such as Germany and Luxembourg) the presence of strong panel heteroskedasticity was also taken for granted. That is why, following the standard procedure for these situations I included in every regression of chapter 4, a set of country and year dummy variables.

In order to estimate these models, political economists have traditionally used the Feasible Generalized Least Squares (FGLS) estimator described by Parks and Kmenta (1986). This method consists of two sequential transformations, first eliminating serial correlation of the errors, and then eliminating contemporaneous correlation of the errors (what automatically corrects for any panel heteroskedasticity). Although the LSDV model estimated by Parks' FGLS performs well in large samples, regression coefficients in panels of pooled time series can be also estimated by OLS if one takes the appropriate additional measures to correct for panel heteroskedasticity, serial autocorrelation and spatial correlation. If this is done successfully, one could obtain more accurate estimations of all regression coefficients than using the Parks-Kmenta methodology.

Nathaniel Beck and Jonathan Katz (1995, 1996) presented few years ago an alternative method to the Parks-Kmenta one, based precisely on a OLS estimation of regression coefficients with a panel correction of standard errors. Their method solved brilliantly all the problems mentioned above, and performed better in Monte Carlo analysis than the Parks-Kmenta (1986) method. In fact, Beck and Katz (1995: 634) showed that the "Parks standard errors are likely to lead to extreme overconfidence for typical Time Series Cross Section data (...) and may understate variability by between 50% and 300% in practical research situations". Given the success of the new Panel Corrected Standard Errors technique, the Beck and Katz method became the most popular estimation technique among political economists working with temporarily dominated panels.

That is why in chapter 4 I followed the Beck and Katz method for computing a heteroskedastic-consistent covariance matrix for pooled regression models. That covariance matrix estimate gave the Panel Corrected Standard Errors obtained as the square roots of the diagonal elements of the matrix:

$$\text{Cov}(\mathbf{b}) = \left[ \frac{1}{\mathbf{X}'\mathbf{X}} \right] \left[ \mathbf{X}'(\Phi * \mathbf{I}_t)\mathbf{X} \right] \left[ \frac{1}{\mathbf{X}'\mathbf{X}} \right]$$

Where  $\Phi$  is a  $N \times N$  matrix with the  $(i,j)$ th element estimated by:

$$(\sum_t = 1 \hat{\epsilon}_{i,t} \hat{\epsilon}_{j,t}) / T$$

When computing the standard errors and the variance-covariance estimates with that method, the disturbances were, by default, assumed to be heteroskedastic and contemporaneously correlated across panels. As such, the only problem that I still needed to correct was the possible presence of serial correlation, which I did by including the lagged dependent variable on the right-hand side of each equation.

Therefore, although the use of panel-corrected standard errors usually produces rather conservative results (since it tends to increase the standard errors of the estimates), it also increases our confidence that results which emerged as significant in chapter 4 are not the consequence of unsound statistical assumptions or inappropriate econometric methods.

## **APPENDIX 4**

### **THE EFFECT OF THE BUDGET PROCESS ON FISCAL POLICY**

Chapter 3 and Chapter 4 analyzed empirically the dynamic determinants of fiscal adjustments' duration and composition. Among those determinants, a set of different economic and political variables were included, and fragmentation of decision-making resulted to be one of the most important aspects influencing the fiscal adjustment strategy. The decision to include fragmentation of decision-making among the explanatory variables had to do with the set of hypotheses according to which the lower the degree of internalization of the costs associated to excessive expenditures the higher the probability of running fiscal deficits. As was mentioned then, there are two basic determinants of the degree of internalization of these costs: (i) the number of decision makers; (ii) the structure of the process in which they interact. The first aspect was instrumented by two time-variant variables such as coalition size (number of parties in government) and cabinet size (number of spending ministers). These variables were included as regressors in all the dynamic models used in the analysis of the duration (chapter 3) and the composition (chapter 4) dimensions of fiscal consolidations, and proved to be very significant explanatory variables.

The omission of any variable attempting to control for (ii) the structure of the budgetary process in which policy-makers interact, was justified in those chapters on the ground of two

factors: (1) the impossibility of including in a dynamic panel analysis time-invariant variables (such as the ones needed to describe the structure of the budgetary process); and (2) the lack of statistical significance of such variables as demonstrated in isolated experiments ran with the same data set.

Since the second point was only mentioned in chapters 3 and 4, this appendix presents the mentioned evidence of the empirical irrelevance of those structural variables, and therefore justifies why these variables were excluded from the analyses made in those chapters.

To do so, I replicate here the section on procedural fragmentation designed by Perotti and Kontopoulos (1998), since it is the most complete and recent in the related literature.

The existence of spending limits, either imposed by the Finance minister or by small committees is supposed to diminish the tendency of big coalitions and cabinets with many spending ministers (Hallerberg and Von Hagen, 1997). A second notion of procedural fragmentation concerns how ministers interact with each other when making bids on the budget: fragmentation is at a maximum when aggregate expenditure is determined by multilateral negotiations by among all spending ministers involved.

In order to test the influence of these two factors on the budget, I first borrow two variables from Perotti and Kontopoulos (1998) such as: TARGET and NEGOT. TARGET takes value 0 if the spending limits or targets are set by the Finance Minister the Prime Minister or both, 1 if they are set by a committee or the whole cabinet, and 2 otherwise. NEGOT is a variable meant to capture the negotiations among ministers. It assigns government a score of 1 if the negotiations are conducted by the Finance Minister or the Prime Minister or both (bilateral negotiations), and 0 if they are conducted by a committee or the entire cabinet (multilateral negotiations).

Then, I run a panel regression on all the time-varying variables plus the country dummies, followed by a cross-sectional regression of the estimated country dummies on TARGET and

NEGOT. In the regression for TARGET one would expect positive coefficients in the deficit, the expenditure and maybe also in the revenue regression. The opposite signs are expected for NEGOT.

*Table A.2. The Role of Spending Targets and Top-Down Negotiations in the Budget Process*

	Var.Deficit	Var.P.Exp	Var.P. Rev
TARGET	0.051 (0.99)	0.121 (0.87)	0.066 (0.23)
R-squared	-0.05	-0.06	-0.06
N.Obs	15	15	15
NEGOT	-0.001 (0.21)	-0.004 (1.01)	-0.002 (0.12)
R-squared	0.01	0.01	0.03
N.Obs	15	15	15

Absolute value of t-statistics in parentheses: \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

Despite of the fact that the expected positive and negative coefficients actually appear in the results reported in table A.2, they are not statistically significant at any confidence level.

Therefore, results above show that “one should not expect the reform of the budget process to be the panacea for all fiscal ills. Contrary to subnational governments, which are often limited in their ability to borrow anyway, there is nothing to prevent the government of a sovereign country to disregard, in practice, stringent budget rules” (Perotti and Kontopoulos, 1998: 28) If this *freedom from institutions* exists, one should focus, as I have done in chapters 3 and 4 on the analysis of the economic and political (but non time-invariant institutional) variables that affect policy-makers decisions regarding the public budget, namely ideological orientation and proximity of elections.



## APPENDIX 5

### THE ECONOMIC IMPACT OF CONSOLIDATIONS

#### 5.1. The Empirical Literature on the Economic Impact of Fiscal Adjustments

As can be observed in the literature review presented in table A.3., all studies identify expansionary fiscal adjustments. Growth rates tend to respond more favorably to episodes of successful fiscal consolidation<sup>7</sup> than do episodes of unsuccessful consolidation. The same is true of unemployment rates.

However, the quantitative impact of fiscal consolidations (that is, the size of the associated –negative- multipliers) varies markedly across successful and unsuccessful consolidations.

The characteristics of expansionary fiscal consolidations are not completely clear. Some studies as Cour, Dubois, Mahfouz, and Pisani-Ferry (1996), Giavazzi and Pagano (1996), and Giavazzi, Japelli, and Pagano (2000) find that large consolidations are most effective. While Alesina and Perotti (1997) and subsequent studies by the same authors emphasize instead the composition of adjustment, and in particular the gains from cutting transfers and other forms of unproductive spending, McDermott and Wescott

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<sup>7</sup> Successful consolidations are larger, of longer duration, or have a significant impact on the debt ratio.

Table A.3. Cross-Section Studies of Expansionary Fiscal Contractions

Authors	Sample	Definition of Contraction	N. of Episodes	Type of Analysis
1) McDermott & Wescott (1996)	20 OECD countries, 1970-95	-Primary structural balance improves by at least 1.5% of GDP in two years.	74	-Correlations of averages across groups of episodes
2) Giavazzi and Pagano (1996)	19 OECD countries, 1970-92	-Any period when the primary structural balance moved in a consistent direction; a cumulative 5 percentage point of GDP change marks a "large" consolidation.	223	-Panel regressions of consumption functions (error correction specification)
3) OECD (1996)	All OECD countries, 1975-95	-Primary structural balance improves by 3% of GDP in consecutive years.	15	-Correlations of averages across groups of episodes
4) Cour, Dubois, Mahfouz, & Pisani Ferry (1996)	17 OECD countries, 1970-94	-Continuous improvement in primary structural balance, including an "intense" subperiod.	19	-Correlations of averages across groups of episodes, consumption functions estimated across countries
5) Alesina & Perotti (1997)	20 OECD countries, 1960-94	-Primary structural balance improves by at least 1.5% of GDP in one year or 1.25% of GDP in two consecutive years.	62 years of tight fiscal policy	-Correlations of averages across groups of episodes.
6) Alesina & Ardagna (1998)	All OECD countries, 1960-95	-Primary structural balance improves by 1.5% of GDP in two consecutive years.	51, of which 23 expansionary	-Correlations of averages across groups of episodes.
7) Alesina, Perotti, & Tavares (1998)	19 OECD countries, 1960-95	-Primary structural balance improves by 1.5% of GDP in one year.	69, of which 19 successful	-Correlations of averages across groups of episodes.
8) Alesina, Ardagna, Perotti & Schiantarelli (1999)	18 OECD countries, 1960-96	-Primary structural balance improves by at least 2% of GDP in one year or 1.25% of GDP in two consecutive years.	Not given	-Correlations of averages across groups of episodes, investment equations from pooled regression
9) Perotti (1999)	19 OECD countries, 1965-94	-Not given	Not given	-Panel regressions of consumption functions (Euler equation specification).
10) Giavazzi, Jappelli, & Pagano (2000)	18 OECD countries, 1970-96	-Not given	38 expansions 65 contraction	-Panel regressions of national saving rates.

Source: IMF (2000: 20)

Table A.3. Cross-Section Studies of Expansionary Fiscal Contractions (Part B)

Authors	Main Evidence of Expansionary Contractions	Channels	Characteristics of Expansionary Contraction
1) McDermott and Wescott (1996)	-For successful consolidations, GDP growth rate relative to OECD average 0.2% (before), 0.1% (during) and 0.7% (after)	-For expansionary contractions, mostly through investment; for debt-increasing expansions, crowdingout of investment; for stable-debt expansions, growth via consumption	-Size is important, as composition; expenditure cuts (specifically transfers and government wages) more likely to be successful; timing with respect to world business cycle also important.
2) Giavazzi and Pagano (1996)	-For large/persistent consolidations, \$1 increase in taxes (cuts in transfers) raises private consumption by 1.520c in long run	Private sector consumption (other channels not tested)	-Size and persistence most important; clearer effects for government spending but also for taxes and transfers.
3) OECD (1996)	-Four of 15 consolidations had growth above potential and six were within 1% point of potential	-Not addressed	-Supportive monetary policy helps avoid adverse activity consequences.
4) Cour, Dubois, Mahfouz, and Pisani-Ferry (1996)	-Large retrenchments on average led to 0.1% reduction in G7 corrected growth, but small retrenchments led to 0.4% reduction. Non Keynesian retrenchments had higher growth rate of private consumption than predicted by a standard consumption function.	-Consumption most important.	-Size most important; other factors not clear.
5) Alesina and Perotti (1997)	-For successful consolidations, GDP growth rate relative to OECD average 0.2% (before), 1.1% (during), and 0.3% (after)	-Emphasizes impact of unit labor costs and competitiveness, and hence on investment and exports.	-Composition is crucial.

Source: IMF (2000: 2021)

Table A.3. (Part B...Continuation...)

Authors	Main Evidence of Expansionary Contractions	Channels	Characteristics of Expansionary Contractions
6) Alesina and Ardagna (1998)	-For expansionary contractions, GDP growth rate relative to G-7 average: 0.2% (before), 1.3% (during), and 0.9% (after).	-Emphasizes impact on unit labor costs and competitiveness; and hence on investment and exports.	-Composition more important than size; income policy and exchange rate depreciation are important preconditions.
7) Alesina, Perotti, and Tavares (1998)	-For successful consolidations, GDP growth rate relative to OECD average: -0.3% (before), 0.1%(during), and 0.2% (after)	-Investment more important than consumption; labor market also important.	-Composition more important than size; labor market structure also important.
8) Alesina, Ardagna, Perotti, and Schiantarelli (1999)	-1% cut in primary spending leads to 0.2% increase in investment after impact, and 0.8% increase after 5 years, similar effects for 1% increase in labor taxes; larger effects for cuts in government wages.	-Tax and spending affect labor costs, and hence profits and investment.	-Composition is crucial.
9) Perotti (1999)	-Expenditure shocks have Keynesian effects with low debt or deficits, but non-Keynesian effects with high debt or deficits; evidence on similar switch with tax shocks is less strong.	-Private sector consumption (other channels not tested).	-Initial fiscal conditions are crucial; composition is also important..
10) Giavazzi, Jappelli, and Pagano (2000)	-Non-Keynesian responses by private sector more likely when fiscal impulses are large and persistent.	-Private sector consumption/saving (other channels not tested)	-Size and persistence most important; but not initial fiscal conditions. Non-Keynesian effects larger for changes in taxes than spending, an for contractions rather than expansions.

Source: IMF (2000: 20-21)

(1996) conclude that both the size and composition of fiscal consolidation are important, which is precisely what has been found in also in chapter 6 of this thesis. Initial fiscal conditions and the other economic policies that accompany fiscal consolidation may also play a role. While some studies find no evidence that these things are important, OECD (1996), Alesina and Ardagna (1998) and Perotti (1999) suggest that the initial level of debt, an exchange rate depreciation preceding consolidation, wage restraint, and/or fiscal consolidation in the context of broader structural reform influence whether a fiscal consolidation is expansionary or contractionary.

Finally, the investment response to fiscal consolidation is important in some studies. Although the theoretical literature emphasizes the role of private consumption, Alesina and Ardagna (1998) and Alesina, Perotti and Tavares (1998) find that the behavior of investment prior to, during, and after fiscal consolidations is also significant, and in some cases more important, determinant of growth. Further evidence supporting this thesis has been also provided in this chapter.

## **5.2. The Lorenz Curve and the Gini Coefficient<sup>8</sup>**

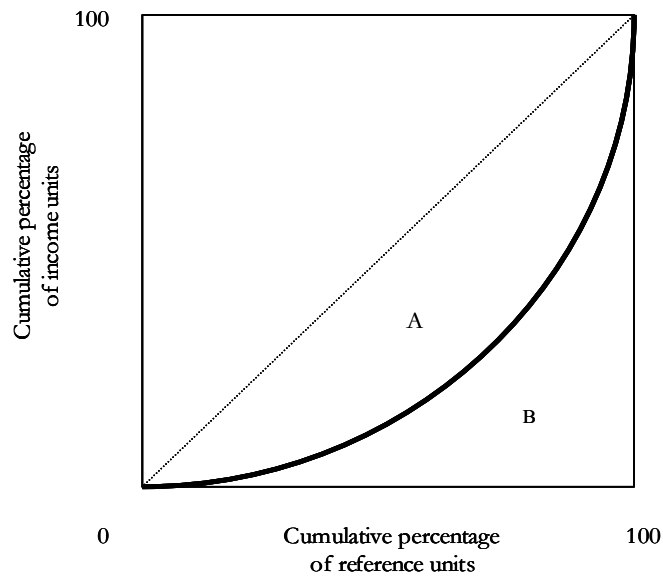
The following gives a brief graphical explanation of the Gini coefficient and the construction of equivalence scales. For further reference on these and other issues related to the design and analysis of household surveys, see Deaton (1997).

A straightforward graphical interpretation of the Gini coefficient is the Lorenz curve, which is the thick curve in the figure below.

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<sup>8</sup> World Income Inequality Database (2000: 21)

Figure A.1. *The Lorenz Curve and the Gini Coefficient*



The horizontal axis plots the cumulative percentage of the population whose inequality is under consideration, starting from the poorest and ending with the richest. The vertical axis plots the cumulative percentage of income associated with the units on the horizontal axis.

In the case of a completely egalitarian income distribution in which the whole population has equal incomes, the Lorenz curve would be the dashed straight 45-degree line. When inequality exists, the poor population has a proportionately lower share of income compared with the rich population, and the Lorenz curve may look like the above thick curve below the 45-degree line. As inequality rises, so the thick curve moves towards the bottom right-hand corner.

The Gini coefficient can be defined as:  $G = A/A+B$ . The Gini coefficient may be given as a proportion or percentage. From this it is clear that the Gini coefficient will be equal to 0 when the

distribution is completely egalitarian. If the society's total income accrues to only one person/household unit, leaving the rest with no income at all, then the Gini coefficient will be equal to 1, or 100%.

### 5.3. The Economic Impact of Fiscal Adjustments during the 1990s. Complementary Data

Table A.4. Initial Fiscal Conditions, Budget Composition and Strategies of Fiscal Adjustments, 1990-2000

Fiscal Policy	Non-Adj.	Adjustment					
		Revenue-Based			Expenditure-Based		
		Before	During	After	Before	During	After
Debt Ratio	66.64	75.80	81.80	86.65	68.85	65.68	68.07
Var. Debt Ratio	0.30	2.09	1.90	-0.49	2.42	0.39	-2.31
Budget Balance	-2.84	-5.18	-4.72	-3.50	-5.56	-3.40	-1.76
Var. Budget Balance	0.26	-0.81	1.11	0.75	-0.59	1.41	0.81
Debt Ratio	66.64	75.80	81.80	86.65	68.85	65.68	68.07
Var. Debt Ratio	0.30	2.09	1.90	-0.49	2.42	0.39	-2.31
Budget Balance	-2.84	-5.18	-4.72	-3.50	-5.56	-3.40	-1.76
Var. Budget Balance	0.26	-0.81	1.11	0.75	-0.59	1.41	0.81
Total Revenues	46.87	45.92	45.76	47.17	46.81	48.30	46.53
Var. Total Revenues	0.31	0.08	1.26	-0.08	-0.01	0.76	-0.21
Total Direct Taxes	14.38	14.74	14.51	15.38	15.08	15.87	14.21
Var. T. Direct Taxes	-0.04	0.04	0.78	-0.03	-0.15	0.37	-0.08

Source: Own elaboration

*Table A.4. Initial Fiscal Conditions, Budget Composition and Strategies of Fiscal Adjustments, 1990-2000 (...continuation...)*

<i>Fiscal Policy</i>	Non-Adj.	Adjustment					
		<i>Revenue-Based</i>			<i>Expenditure-Based</i>		
		Before	During	After	Before	During	After
Total Expenditures	50.31	51.18	50.15	50.53	54.45	52.44	49.35
Var. Total Expenditures	0.13	0.48	0.03	-0.12	0.74	-0.67	-0.74
Total Transfers	12.23	11.87	11.06	11.74	13.11	12.30	11.52
Var. T. Transfers	-0.02	-0.09	-0.05	-0.01	0.03	-0.26	-0.24
Total Public Wages	18.89	19.18	18.81	17.61	18.91	17.47	11.52
Var. T. Public Wages	-0.05	-0.09	0.20	-0.01	0.30	-0.80	-0.64
Total Pub. Investment	2.82	2.51	2.54	2.70	2.78	2.46	2.33
Var. T. P. Investment	0.01	-0.01	0.01	0.05	-0.03	-0.07	-0.04

*Source:* Own elaboration*Table A.5. Monetary Policy and Fiscal Adjustments, 1990-2000*

<i>Monetary Policy</i>	Non-Adj.	Adjustment					
		<i>Revenue-Based</i>			<i>Expenditure-Based</i>		
		Before	During	After	Before	During	After
Real Interest Rate (S-term)	4.13	5.71	5.17	4.90	4.71	3.75	3.22
Var. Real Interest Rate	-0.24	-0.13	-0.23	-0.22	-1.13	-0.36	-0.40
Real Interest Rate (G4)	0.04	0.86	0.99	1.00	0.47	-0.30	0.31
Real Exchange Rate	100.46	100.8	7	101.79	101.69	99.65	106.60
Var. Real Exchange Rate	-0.44	0.67	0.28	-0.14	-2.66	0.96	0.40

*Source:* Own elaboration



**STATISTICAL ANNEX 1**  
**DESCRIPTIVE STATISTICS**

*Table A.7. Descriptive Statistics. Variables Used in Chapter 3 (Timing)*

Variables (UE-15: 1970-2000)	Obs	Mean	Std. Dev.	Min	Max
Output Gap	465	.105	2.334	-7.58	8.85
Output Gap (t-1)	450	.090	2.364	-7.58	8.85
Output Gap UE-15	467	.110	2.542	-3.45	6.68
Monetary Conditions Index	457	6.98	1.412	2.86	11.61
Debt-to-GDP ratio	449	51.675	30.335	3.97	134.55
Election Year	451	.292	.455	0	1
Coalition Size (N.of Parties)	448	2.315	1.337	1	8
Cabinet Size (N.of Ministers)	448	10.746	2.176	5	17

*Source:* AMECO(2001) and Armingeon, Beyeler and Menegale (2000)

*Table A.8. Descriptive Statistics. Variables Used in Chapter 3 (Duration)*

Variables (UE-15: 1970-2000)	Obs	Mean	Std. Dev.	Min	Max
Failure	441	.768	.422	0	1
Duration	441	1.315	.669	0	5
Number of Failures	441	125.147	94.997	0	308
Quality of Adjustment	441	-.950	3.387	-21.736	15.753
Strength of Adjustment	429	1.441	1.177	.0082	6.595
Months to Next Election	449	17.291	14.638	0	48
Socialist Control of Cabinet	447	39.241	36.592	0	100

*Source:* AMECO(2001) and Armingeon, Beyeler and Menegale (2000)

*Note:* The first five variables correspond to the duration analysis in chapter 3 under the strong definition of fiscal adjustment

*Table A.9. Descriptive Statistics. Variables Used in Chapter 4 (Composition Analysis. All Years)*

Variable (UE-15: 1970-2000)	Obs	Mean	Std. Dev.	Min	Max
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All years					
Budget Primary Bal. Cycl. Adj.	463	1.312	3.245	-8.48	9.59
Total Revenues Cycl. Adj.	462	42.869	9.176	20.62	64.37
Total Prim. Expendit. Cyc.Adj	462	41.561	7.904	19.41	63.28
Direct Taxes	463	13.230	5.879	3.01	30.62
Indirect Taxes	465	13.439	2.469	6.08	19.07
Social Contributions	463	11.877	4.918	1.32	21.06
Subsidies	465	2.738	1.370	.14	8.71
Interest Payments	463	4.120	2.861	.26	13.92
Final Consumption	465	17.856	4.291	9.01	28.55
Collective Consumption	219	8.357	1.228	4.17	11.56
Social Benefits in Kind	219	12.624	2.885	5.88	22.73
Social Benefits Other-in kind	463	15.936	4.704	3.65	28.3
Compensation of Employees	463	11.905	2.788	6.14	20.04
Public Investment (GFCF)	463	3.227	1.025	1.03	6.37
Var. Total Revenues Cycl. Adj.	454	.444	1.660	-4.3	10.12
Var. T.Prim. Expend. Cyc.Adj	454	.374	1.639	-5.06	9.31
Var. Direct Taxes	454	.165	.826	-3.41	4.39
Var. Indirect Taxes	457	.045	.645	-3.65	2.93
Var. Social Contributions	454	.158	.554	-2.46	4.05
Var. Subsidies	457	-.019	.558	-3.74	2.82
Var. Final Consumption	457	.189	.944	-1.99	10.27
Var. Collective Consumption	203	-.024	.306	-.91	1.32
Var. Social Benefits in Kind	203	.067	.448	-1.16	1.87
Var. Social Benefits Oth-kind	454	.161	1.088	-10.44	5.83
Var. Compensat. Employees	454	.061	.481	-1.6	2.4
Var. Public Invest. (GFCF)	454	-.040	.343	-1.59	1.83
Budget Prim.Bal. Cycl. Ad(t-1)	456	1.233	3.212	-8.477	9.591
Var. Unemployment	455	.140	1.040	-2.9	5.1
Var. Prices	464	5.296	5.694	-.41	44.43

Source: AMECO(2001)

*Table A.10. Descriptive Statistics. Variables Used in Chapter 4 (Composition. Adjustment Episodes)*

Variables (UE-15: 1960-2000)	Obs	Mean	Std. Dev.	Min	Max
Adjustment Episodes					
Var. Total Revenues Cycl.Adj.	53	1.234	1.166	-1.74	4.05
Var. T.Prim. Expend. Cyc.Adj	53	-.409	1.434	-4.49	2.15

Var. Strategy Type	53	.649	2.185	-5.54	4.8
Var. Direct Taxes	53	.344	.479	-.69	1.95
Var. Indirect Taxes	53	.367	.623	-1.9	1.9
Var. Social Contributions	53	.225	.490	-.8	2.03
Var. Subsidies	53	-.222	.724	-3.74	.76
Var. Final Consumption	51	-.056	.837	-1.33	4.68
Var. CompensationEmployees	53	-.091	.376	-1.02	.73
Var. Social Benefits in Kind	53	.041	.989	-5.5	1.85
Var. Public Invest. (GFCF)	53	-.213	.280	-.93	.59
Budget PCABBalance (t-1)	53	-.339	3.901	-8.48	6.69
Var. Unemployment	53	.309	1.046	-2.2	3
Var. Prices	53	6.640	7.315	.66	42.74
Coalition Size (N.of Parties)	53	2.207	1.261	1	5
Cabinet Size (N.of Ministers)	53	10.408	2.186	6	16.5
Socialist Control of Cabinet	53	37.686	35.396	0	100
Election Year	53	.509	.504	0	1

Source: AMECO(2001)

*Table A.11. Descriptive Statistics. Variables Used in Chapter 6*

Variables (UE-15: 1960-2000)	Obs	Mean	Std. Dev.	Min	Max
Debt-to-GDP ratio	450	51.706	30.308	3.974	134.551
Var. Debt-to-GDP ratio	435	1.071	4.111	-10.131	18.022
Budget Deficit(Maastricht dfn)	593	-1.934	3.922	-15.907	6.983
Var. Budg. Def. (Maast.dfn)	577	-.0008	1.611	-6.769	5.304
Real GDP Growth	600	3.436	2.704	-6.571	13.204

*Table A.11. Descriptive Statistics. Variables Used in Chapter 6 (...continuation...)*

Var. Real GDP Growth	585	-.0475	2.850	-14.53	12.805
Inequality (Gini index)	365	34.163	6.870	23.2	54.3
Var. Inequality	336	-.0891	1.321	-4.432	7.926
Real GDP Gr.(G4 Countries)	600	2.951	1.639	-1.093	6.018
Var. Unemplo.(G4 Countries)	600	.154	.501	-.8	1.475
Variables (UE-15: 1960-2000)	Obs	Mean	Std. Dev.	Min	Max
Var. Prices (G4 Countries)	600	3.508	2.184	.37	8.439
Short-term Real Interest Rates	474	2.108	3.678	-12.864	12.284
Var. S-term Real Inter. Rates	460	.062	2.596	-15.663	10.608
S-term Real Inter. Rates (G4)	600	1.946	2.644	-5.87	6.721
Real Exchange Rate	574	99.342	15.312	64.331	160.764
Var. Real Exchange Rate	560	-.0911	5.373	-24.338	21.638
Private Consumption	615	57.814	6.288	40.48	78.738
Var. Private Consumption	600	-.0976	1.157	-6.072	6.764
Private Investment	523	19.234	3.183	11.572	30.374
Var. Private Investment	507	-.0423	1.354	-6.688	4.064
Labor Costs	615	106.945	8.058	85.784	152.690
Var. Labor Costs	600	-.309	2.921	-12.532	22.853
Profits Share	615	31.98	3.867	23.556	48.765
Var. Profits Share	600	-.14	1.123	-5.323	9.554
Imports (%GDP)	615	30.714	22.461	2.920	120.025
Exports (%GDP)	537	22.452	14.532	2.449	84.799
Trade Balance	615	-.202	5.078	-19.253	24.013

Source: AMECO(2001)

*Table A.12. Descriptive Statistics. Variables Used in Chapter 7 (All Years)*

Variables (UE-15: 1960-2000)	Obs	Mean	Std. Dev.	Min	Max
All Years					
Government Duration	573	1.900	1.057	1	5
Government Termination	266	.463	.499	0	1
Change in Gov't Ideology	100	.573	.781	0	2
Change in Prime Minister	117	.443	.497	0	1
Reelection	129	.496	.501	0	1
Majority in Parliament	572	.706	.455	0	1
Social Mobilization	445	955.176	1577.351	0	9891

Source: AMECO(2001) and Armingeon, Beyeler and Menegale (2000)

*Table A.13: Descriptive Statistics. Variables Used in Chapter 7 (Adjustment Episodes)*

Variables (UE-15: 1960-2000)	Obs	Mean	Std. Dev.	Min	Max
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Adjustment Episodes					
Reelection	51	.490	.504	0	1
Real GDP Growth	51	2.222	1.934	-1.16	9.82
Var. Prices	53	6.640	7.315	.66	42.74
Var. Unemployment	53	.309	1.046	-2.2	3
Var. Inequality	49	.0007	.745	-2.05	1.8
Adjustment Duration	53	-2.037	.979	-5	-1
Majority in Parliament	53	.698	.463	0	1
Coalition Size	53	2.207	1.261	1	5
Social Mobilization	51	2250.76	4092.077	22.3	20972
Expenditure-based Adjust.	53	.528	.503	0	1

Source: AMECO(2001) and Armingeon, Beyeler and Menegale (2000)

## STATISTICAL ANNEX 2

### DATA ON GENERAL GOVERNMENT BALANCES AND CYCLICAL CORRECTIONS: DEFINITIONS AND TABLES<sup>1</sup>

**General Government:** The general government sector covers central government, state governments, local governments and social security funds. The sector is not defined on an institutional basis but on a functional one. It includes all institutional units which are non-market producers whose output is intended for individual and collective consumption, and mainly financed by compulsory payments made by the units belonging to other sectors, and all institutional units principally engaged in the redistribution of national income and wealth. Publicly owned units dealing with commercial operations, such as public enterprises, are excluded.

#### **Public Resources:**

**Taxes Linked to Imports and Production (Indirect Taxes):** consist of compulsory, unrequited payments, in cash or in kind, which are levied by the general government, in respect of the production and importation of goods and services, the employment of labour, the ownership or the use of land, buildings and other assets used in production. These taxes are payable whether or not profits are made.

**Current Taxes on Income and Wealth (Direct Taxes):** cover all compulsory, unrequited payments, in cash or in kind,

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<sup>1</sup> From Statistical Annex in *Public Finances in EMU-2001*. (EC, 2001b).

levied periodically by the general government on the income and wealth of institutional units, and some periodic taxes which are assessed neither on the income nor the wealth.

**Social Contributions:** include actual social contributions paid by employers, employees, self-employed and non-employed people to social security funds. They also include the imputed social contributions recorded in the general government accounts

**Actual Social Contributions:** Do not include imputed social contributions.

**Other Current Receipts:** cover property income (interest received, dividends paid by public enterprises to governments, rents, etc...), other current transfers received (insurance claims, international cooperation, etc...) and gross operation surplus (which corresponds to the gross income which government obtains from its market production activities).

**Total Current Receipts:** total of current taxes, social contributions and other current receipts received by general government.

**Capital Transfers Received:** covers capital taxes (inheritance taxes, etc.), investment grants received and other capital transfers received.

**Total Resources:** covers current resources plus capital transfers received.

**Public Expenditures:**

**Final Consumption Expenditure:** consist of expenditure incurred by government on goods and services that are used for the direct satisfaction of individual or collective needs of the community. Final expenditure corresponds to expenditure on collective consumption plus expenditure on individual consumption.

**Collective Consumption:** covers the services for collective consumption (public services) which are provided simultaneously to all members of the community. The provision of the collective service to the individual does not reduce the amount available for other individuals.

**Compensation of Employees:** is defined as the total remuneration, in cash or in kind, payable by government to its employees in return for their work during the accounting period.

**Social Transfers in Kind:** also known as government expenditure on individual consumption, consists on individual goods and services provided as transfers in kind to individual households by government units. They include the reimbursement by social security funds of approved expenditures incurred by households, the medical treatments, social housing, dwelling allowances, day nurseries, professional training, reduction in transport prices, etc.

**Social Transfers Other than in Kind:** covers transfers to households, in cash, intended to relieve them from the financial burden of a number of risks or needs, made through collectively organized schemes. Example include wages during absences of work due to ill health, accident, maternity; the payment of education or other allowances in respect of dependants; the payments of retirement or survivors' pensions to employees or their survivors.

**Interest:** is the amount that the government becomes liable to pay to its creditors over a given period of time without reducing the amount of principal outstanding. Interests are recorded on an accrual basis.

**Subsidies:** are current unrequited payments by general government to resident producers with the objective of influencing their levels of production, their prices or the remuneration of the factors of production.

**Other Current Expenditure:** covers rents, direct taxes and other current transfers (insurance premia, current international cooperation, voluntary payments to non-profit institutions, etc.)

**Total Current Expenditure:** covers final consumption expenditure, transfers and other transfers than in kind, interests, subsidies, and other current expenditure.

**Gross Fixed Capital Formation:** includes net acquisitions of fixed assets (swellings, buildings, machinery and equipment), plus certain additions to the value of non-produced assets.

**Other Capital Expenditures:** includes changes in inventories, capital transfers paid, net acquisition of valuables, and net acquisition of non-produced and non-financial assets.

**Total Expenditure:** total of current expenditure, gross capital formation and other capital expenditure.



**Gross Savings:** balance of current resources minus current expenditure

**Net Lending (+) or Net Borrowing (-):** shows the net amount of resources which the government places at the disposal of other sectors or which other sectors provide to the government sector. It corresponds to the difference between total resources and total expenditure, and it is also known as the public budget balance.

**Table S.A.I. Resources and expenditure of general government (% of GDP)**

Austria	Former definitions											ESA 95 definitions (1)				
	1990	1985	1990	1991	1992	1993	1994	1995	1995	1996	1997	1998	1999	2000		
1. Taxes on production and imports	15.8	16.3	15.7	15.5	15.6	15.7	15.7	15.5	14.2	14.5	15.0	15.0	15.1	14.6		
2. Current taxes on income and wealth	12.5	14.0	11.6	12.2	12.7	12.8	11.3	11.9	12.0	13.1	13.5	13.7	13.4	13.2		
3. Social contributions	14.4	14.7	15.5	15.6	16.2	16.8	17.2	17.3	17.4	17.5	17.3	17.2	17.3	17.0		
4. Of which: actual social contributions	:	:	:	:	:	:	:	:	15.2	15.3	15.3	15.2	15.2	14.9		
5. Other current resources	2.8	2.9	4.4	4.4	4.8	4.6	4.4	4.5	5.8	5.2	3.8	3.5	3.1	3.1		
6. Total current resources	45.6	47.9	47.1	47.7	48.2	49.9	48.6	49.2	49.5	50.3	48.6	49.5	48.9	48.0		
7. Government consumption expenditure	17.4	18.4	18.4	18.7	19.1	19.9	20.0	19.8	20.4	20.3	19.7	19.6	19.6	19.3		
8. Of which: compensation of employees	11.6	12.4	11.7	11.8	12.0	12.5	12.4	12.4	12.6	12.4	11.5	11.3	11.4	11.2		
9. Collective consumption	:	:	:	:	:	:	:	:	8.1	8.0	7.8	7.8	7.7	7.5		
10. Social benefits in kind	:	:	:	:	:	:	:	:	12.4	12.3	11.9	11.9	11.9	11.8		
11. Social transfers other than in kind	18.4	19.8	19.5	19.7	19.9	21.5	21.7	21.6	19.5	19.5	18.9	18.6	18.7	18.7		
12. Interest payments	2.4	3.5	4.0	4.2	4.2	4.3	4.0	4.3	4.4	4.2	3.9	3.8	3.5	3.6		
13. Subsidies	2.9	2.8	2.8	3.1	3.0	3.1	2.5	2.9	2.9	2.6	2.6	2.8	2.6	2.5		
14. Other current expenditure	:	:	:	:	:	:	:	:	2.5	2.6	2.5	2.7	2.6	2.3		
15. Total current expenditure	41.3	44.7	44.9	45.9	46.5	49.1	48.6	49.6	49.7	49.3	47.5	47.4	47.0	46.3		
16. Gross savings	4.2	3.1	2.2	1.8	2.7	0.8	0.0	- 0.4	- 0.3	1.0	2.1	2.0	1.8	1.7		
17. Capital transfers received	:	:	:	:	:	:	:	:	0.2	0.2	0.3	0.1	0.1	0.1		
18. Total resources	45.6	47.9	47.1	47.7	48.2	49.9	48.6	49.2	52.1	52.8	52.2	52.0	51.6	50.6		
19. Gross fixed capital formation	4.3	3.6	3.2	3.2	3.2	3.2	3.3	2.8	3.1	2.8	2.0	1.9	1.8	1.7		
20. Other capital expenditure	:	:	:	:	:	:	:	:	2.0	2.2	2.1	2.5	2.2	1.2		
21. Total expenditure	47.2	50.3	49.6	50.6	51.2	54.1	53.5	54.2	57.2	56.6	53.9	54.3	53.7	51.8		
22. Tax burden	42.7	44.9	42.6	43.2	44.4	45.3	44.0	44.7	44.9	45.9	46.9	46.7	46.5	45.6		
23. Net lending (+) or net borrowing (-)	- 1.7	- 2.4	- 2.4	- 3.0	- 1.9	- 4.2	- 4.9	- 5.0	- 5.2	- 3.8	- 1.7	- 2.2	- 2.1	- 1.1		

(1) The table is based on ESA95 definitions which do not necessarily correspond with the former definitions. The Totals are obtained in ESA95 as follows:

- Line 6 = line 1 + line 2 + line 3 + line 5.
- Line 7 = line 9 + line 10.
- Line 15 = total of lines 9 to 14.
- Line 16 = line 6 - line 15.
- Line 18 = line 6 + line 17.
- Line 21 = line 15 + line 19 + line 20.
- Line 23 = line 18 - line 21.

Sources: Commission services.

**Table S.A.2. Resources and expenditure of general government (% of GDP)**

Belgium	Former definitions										ESA 95 definitions (1)					
	1980	1985	1990	1991	1992	1993	1994	1995	1995	1995	1995	1996	1997	1998	1999	2000
1. Taxes on production and imports	12.2	12.0	12.2	12.1	12.0	12.4	12.7	12.2	12.2	12.2	12.2	12.7	12.9	12.9	13.3	13.2
2. Current taxes on income and wealth	18.0	19.2	16.7	16.3	16.2	16.3	17.5	17.9	17.9	17.9	17.4	16.7	17.1	17.6	17.2	17.4
3. Social contributions	14.9	17.1	16.8	17.4	17.7	18.2	17.7	17.4	17.4	17.4	16.8	16.8	16.7	16.5	16.5	16.2
4. Of which: actual social contributions	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
5. Other current resources	2.6	2.3	1.8	1.9	1.8	1.8	1.5	1.5	1.5	1.5	3.1	3.2	3.0	2.9	2.8	3.0
6. Total current resources	47.7	50.6	47.4	47.7	47.7	48.6	49.4	49.0	49.0	49.0	48.9	49.4	49.7	50.0	49.9	49.8
7. Government consumption expenditure	17.3	16.7	13.9	14.3	14.1	14.6	14.6	14.5	14.5	14.5	17.3	17.8	18.3	18.8	19.3	19.8
8. Of which: compensation of employees	13.4	13.0	11.2	11.5	11.5	12.0	12.1	12.1	12.1	12.1	12.0	11.9	11.8	11.7	11.6	11.4
9. Collective consumption	.	.	.	.	.	.	.	.	.	.	7.8	7.7	7.6	7.6	7.7	7.6
10. Social benefits in kind	.	.	.	.	.	.	.	.	.	.	13.7	14.1	13.7	13.6	13.7	13.5
11. Social transfers other than in kind	23.6	24.9	23.1	24.0	24.3	24.7	24.3	24.3	24.3	24.3	16.6	16.6	16.3	16.0	15.7	15.5
12. Interest payments	5.9	10.3	10.4	10.0	10.6	10.7	10.0	8.8	8.8	8.8	9.3	8.9	8.0	7.7	7.2	6.9
13. Subsidies	3.6	3.7	2.8	2.9	2.6	2.6	2.4	2.4	2.4	2.4	1.5	1.6	1.4	1.5	1.5	1.5
14. Other current expenditure	.	.	.	.	.	.	.	.	.	.	2.0	2.1	2.2	2.2	2.2	2.1
15. Total current expenditure	51.4	56.3	51.1	52.1	52.7	53.7	52.4	51.0	51.0	51.0	50.9	50.9	49.2	48.5	48.0	47.2
16. Gross savings	- 3.7	- 5.8	- 3.6	- 4.4	- 5.0	- 5.1	- 3.0	- 2.0	- 2.0	- 2.0	- 2.0	- 1.5	- 0.5	1.5	1.9	2.7
17. Capital transfers received	.	.	.	.	.	.	.	.	.	.	.	0.4	0.4	0.6	0.5	0.6
18. Total resources	47.7	50.6	47.4	47.7	47.7	48.6	49.4	49.0	49.0	49.0	48.6	49.3	49.7	50.0	50.0	49.9
19. Gross fixed capital formation	4.4	2.5	1.3	1.3	1.4	1.6	1.6	1.4	1.4	1.4	1.8	1.6	1.6	1.6	1.5	1.8
20. Other capital expenditure	.	.	.	.	.	.	.	.	.	.	1.0	1.1	1.5	1.3	1.4	1.3
21. Total expenditure	56.2	59.5	52.8	53.9	54.6	55.8	54.2	52.9	52.9	52.9	53.0	53.0	51.6	50.9	50.7	49.9
22. Tax burden	46.2	49.4	46.8	46.8	47.0	47.9	49.1	48.6	48.6	48.6	46.9	47.2	47.8	48.1	48.0	47.9
23. Net lending (+) or net borrowing (-)	- 8.6	- 8.9	- 5.4	- 6.2	- 6.9	- 7.2	- 4.8	- 3.9	- 3.9	- 3.9	- 4.3	- 3.8	- 1.9	- 0.9	- 0.7	0.0

(1) The table is based on ESA95 definitions which do not necessarily correspond with the former definitions. The Totals are obtained in ESA95 as follows:

- Line 6 = line 1 + line 2 + line 3 + line 5.
- Line 7 = line 9 + line 10.
- Line 15 = total of lines 9 to 14.
- Line 16 = line 6 - line 15.
- Line 18 = line 6 + line 17.
- Line 21 = line 15 + line 19 + line 20.
- Line 23 = line 18 - line 21.

Source: Commissions services.

**Table S.A.3. Resources and expenditure of general government (% of GDP)**

Denmark	Former definitions										ESA 95 definitions ( <sup>1</sup> )				
	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000		
1. Taxes on production and imports	18.0	17.8	17.0	16.7	16.6	16.9	17.3	17.2	16.9	17.3	17.5	17.8	17.0		
2. Current taxes on income and wealth	25.1	27.8	28.3	28.5	29.0	30.1	30.6	30.3	30.4	30.6	30.3	29.6	28.7		
3. Social contributions	1.6	2.5	2.3	2.3	2.4	2.5	2.8	2.6	2.6	2.6	2.6	3.1	3.2		
4. Of which: actual social contributions	1.6	2.5	2.3	2.3	2.4	2.5	2.8	2.6	2.6	2.6	2.6	3.1	3.2		
5. Other current resources	6.0	7.1	7.5	7.2	6.0	8.4	7.5	6.8	6.8	7.1	6.7	6.0	5.5		
6. Total current resources	50.8	55.2	55.1	54.7	56.0	57.9	58.1	56.9	56.8	57.7	57.1	57.0	54.4		
7. Government consumption expenditure	27.0	25.6	25.6	25.7	25.8	26.8	25.9	25.7	25.8	25.9	25.5	25.7	24.7		
8. Of which: compensation of employees	18.0	17.4	17.7	17.7	17.8	18.1	17.5	17.3	17.3	17.3	17.1	17.3	16.6		
9. Collective consumption	:	:	:	:	:	:	:	:	8.5	8.5	8.3	8.1	7.7		
10. Social benefits in kind	:	:	:	:	:	:	:	:	17.3	17.4	17.1	17.6	17.0		
11. Social transfers other than in kind	16.3	15.9	18.0	18.7	19.2	20.3	21.7	20.8	20.4	19.8	18.8	18.1	16.8		
12. Interest payments	3.7	9.3	7.3	7.3	6.6	7.3	6.7	6.4	6.4	6.1	5.7	5.3	4.8		
13. Subsidies	3.0	2.8	3.3	3.2	3.8	3.9	3.7	3.6	2.5	2.6	2.4	2.3	2.2		
14. Other current expenditure	:	:	:	:	:	:	:	:	2.2	2.4	2.4	2.5	2.5		
15. Total current expenditure	50.0	54.4	54.9	55.7	56.3	58.9	58.8	57.4	57.3	56.8	54.9	53.9	50.3		
16. Gross savings	0.7	0.8	0.2	- 1.0	- 0.4	- 1.0	- 0.7	- 0.5	- 0.5	0.9	2.2	2.9	4.1		
17. Capital transfers received	:	:	:	:	:	:	:	:	0.5	0.4	0.5	0.5	0.5		
18. Total resources	50.8	55.2	55.1	54.7	56.0	57.9	58.1	56.9	58.0	58.8	58.4	58.0	55.7		
19. Gross fixed capital formation	3.3	2.1	1.6	1.5	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.7	1.8		
20. Other capital expenditure	:	:	:	:	:	:	:	:	0.5	0.4	0.4	0.5	0.4		
21. Total expenditure	53.1	56.4	56.1	57.1	58.2	60.7	60.7	59.2	60.3	59.8	58.0	56.9	53.3		
22. Tax burden	44.7	48.0	47.6	47.5	48.0	49.5	50.7	50.1	50.2	50.7	50.7	50.4	49.1		
23. Net lending (+) or net borrowing (-)	- 3.2	- 2.0	- 1.0	- 2.4	- 2.2	- 2.8	- 2.6	- 2.2	- 2.3	- 1.0	0.4	1.1	3.1		

(<sup>1</sup>) The table is based on ESA95 definitions which do not necessarily correspond with the former definitions. The Totals are obtained in ESA95 as follows:

- Line 6 = line 1 + line 2 + line 3 + line 5.
- Line 7 = line 9 + line 10.
- Line 15 = total of lines 9 to 14.
- Line 16 = line 6 - line 15.
- Line 18 = line 6 + line 17.
- Line 21 = line 15 + line 19 + line 20.
- Line 23 = line 18 - line 21.

Source: Commission services.

Table S.A.4. Resources and expenditure of general government (% of GDP)

	Former definitions											ESA 95 definitions (*)				
	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000			
<b>Finland</b>																
1. Taxes on production and imports	13.1	14.1	14.9	15.0	14.7	14.5	14.2	13.6	13.5	14.3	14.1	14.0	13.3			
2. Current taxes on income and wealth	14.2	16.5	17.7	17.6	16.9	15.2	16.8	17.6	18.9	18.4	18.8	18.6	21.0			
3. Social contributions	10.9	11.4	12.9	13.6	14.6	15.0	15.8	14.8	14.3	13.4	13.0	13.0	12.1			
4. Of which: actual social contributions	:	:	:	:	:	:	:	:	:	:	:	:	:			
5. Other current resources	3.8	5.1	5.9	6.8	7.6	8.0	6.7	7.0	6.7	6.3	5.9	5.4	6.2			
6. Total current resources	42.0	47.0	51.4	53.1	53.7	52.7	53.5	52.0	53.2	53.5	51.8	51.0	56.7			
7. Government consumption expenditure	17.6	19.8	20.8	23.8	24.3	22.8	21.8	21.2	22.8	23.2	21.7	21.5	20.6			
8. Of which: compensation of employees	12.0	13.9	14.4	16.8	17.3	16.2	15.2	14.8	15.4	15.6	13.9	13.6	13.0			
9. Collective consumption	:	:	:	:	:	:	:	:	8.3	8.4	8.1	8.1	7.6			
10. Social benefits in kind	:	:	:	:	:	:	:	:	14.5	14.8	14.1	13.6	13.5			
11. Social transfers other than in kind	12.5	15.3	15.5	19.3	23.2	24.7	24.5	22.9	22.2	21.5	19.9	18.4	17.9			
12. Interest payments	1.0	1.8	1.4	1.9	2.6	4.5	5.0	5.2	4.0	4.3	3.6	3.1	2.8			
13. Subsidies	3.2	3.1	2.8	3.4	3.5	3.3	3.0	3.2	2.8	2.1	1.9	1.7	1.5			
14. Other current expenditure	:	:	:	:	:	:	:	:	1.9	2.1	2.3	2.2	2.2			
15. Total current expenditure	34.6	40.5	42.2	50.5	56.8	57.7	56.4	54.3	53.7	53.0	50.7	47.6	43.6			
16. Gross savings	7.4	6.5	9.1	2.6	- 2.1	- 5.0	- 2.9	- 2.2	- 0.5	0.4	1.6	4.2	4.6			
17. Capital transfers received	:	:	:	:	:	:	:	:	0.2	0.2	0.3	0.3	0.4			
18. Total resources	42.0	47.0	51.4	53.1	53.7	52.7	53.5	52.0	56.2	56.8	54.5	53.6	55.1			
19. Gross fixed capital formation	3.8	3.6	3.7	3.8	3.5	2.8	2.9	2.7	2.8	2.9	3.2	2.9	2.8			
20. Other capital expenditure	:	:	:	:	:	:	:	:	0.6	0.9	0.3	0.3	0.1			
21. Total expenditure	38.6	44.2	46.1	54.5	59.5	60.6	59.5	57.1	59.9	59.9	56.8	53.2	48.4			
22. Tax burden	38.3	42.3	45.8	46.6	46.5	44.9	47.2	45.9	46.6	47.4	46.7	46.5	46.1			
23. Net lending (+) or net borrowing (-)	3.3	2.8	5.3	- 1.5	- 5.7	- 7.9	- 6.0	- 5.0	- 3.7	- 3.2	- 1.5	1.3	6.7			

(\*) The table is based on ESA95 definitions which do not necessarily correspond with the former definitions. The Totals are obtained in ESA95 as follows:

Line 6 = line 1 + line 2 + line 3 + line 5.  
Line 7 = line 9 + line 10.  
Line 15 = total of lines 9 to 14.  
Line 16 = line 6 - line 15.  
Line 18 = line 6 + line 17.  
Line 21 = line 15 + line 19 + line 20.  
Line 23 = line 18 - line 21.

Source: Commission's services.

**Table S.A.5. Resources and expenditure of general government (% of GDP)**

France	Former definitions										ESA 95 definitions (1)				
	1980	1985	1990	1991	1992	1993	1994	1995	1995	1996	1997	1998	1999	2000	
1. Taxes on production and imports	14.9	15.6	14.9	14.5	14.3	14.3	14.7	14.9	15.4	16.1	16.0	16.0	16.1	15.7	
2. Current taxes on income and wealth	8.1	8.9	8.7	9.2	8.8	9.0	9.2	9.4	8.5	8.9	9.5	11.7	12.2	12.3	
3. Social contributions	19.1	20.8	20.6	20.7	20.9	21.1	20.7	21.0	20.5	20.7	20.3	18.2	18.4	18.5	
4. Of which: actual social contributions	:	:	:	:	:	:	:	:	18.7	18.9	18.4	16.4	16.6	16.7	
5. Other current resources	3.2	3.8	4.0	3.9	4.1	4.1	3.7	3.8	3.7	4.0	3.9	3.7	3.6	3.7	
6. Total current resources	45.3	49.1	48.2	48.2	48.0	48.4	48.3	49.0	48.1	49.7	49.7	49.6	50.4	50.2	
7. Government consumption expenditure	17.7	19.1	17.7	17.9	18.5	19.4	19.2	19.0	23.9	24.2	24.2	23.5	23.7	23.5	
8. Of which: compensation of employees	13.4	14.4	13.0	13.1	13.4	14.0	14.0	14.1	13.7	13.9	13.8	13.7	13.7	13.5	
9. Collective consumption	:	:	:	:	:	:	:	:	9.8	9.9	10.0	9.5	9.5	9.4	
10. Social benefits in kind	:	:	:	:	:	:	:	:	14.1	14.2	14.2	14.1	14.1	14.1	
11. Social transfers other than in kind	18.6	21.7	20.9	21.4	22.0	23.1	22.9	23.0	18.5	18.7	18.8	18.4	18.3	18.1	
12. Interest payments	1.4	2.8	2.9	2.9	3.2	3.3	3.5	3.7	3.8	3.9	3.7	3.6	3.4	3.3	
13. Subsidies	2.5	3.0	2.1	2.2	2.2	2.4	2.3	2.3	1.5	1.5	1.5	1.4	1.3	1.3	
14. Other current expenditure	:	:	:	:	:	:	:	:	1.6	1.7	1.6	1.7	1.7	1.7	
15. Total current expenditure	41.7	48.6	45.7	46.7	48.4	50.7	50.4	50.4	49.2	50.0	49.8	48.6	48.3	47.9	
16. Gross savings	3.7	0.5	2.4	1.4	- 0.4	- 2.2	- 2.1	- 1.4	- 1.1	- 0.3	0.0	1.1	2.1	2.3	
17. Capital transfers received	:	:	:	:	:	:	:	:	0.4	0.3	0.8	1.2	1.4	1.5	
18. Total resources	45.3	49.1	48.2	48.2	48.0	48.4	48.3	49.0	48.7	51.4	51.9	51.3	52.1	51.9	
19. Gross fixed capital formation	3.3	3.2	3.5	3.5	3.5	3.1	3.1	3.2	3.3	3.2	3.0	2.9	2.9	3.0	
20. Other capital expenditure	:	:	:	:	:	:	:	:	1.5	0.9	0.8	2.1	2.2	2.1	
21. Total expenditure	45.4	52.0	48.7	50.1	51.8	54.1	54.0	53.8	55.2	55.5	55.0	54.0	53.7	53.2	
22. Tax burden	42.9	46.3	45.1	45.4	45.0	45.6	45.9	46.6	45.2	46.4	46.5	46.5	47.3	47.0	
23. Net lending (+) or net borrowing (-)	0.0	- 2.8	- 1.5	- 2.0	- 3.9	- 5.6	- 5.6	- 4.8	- 5.5	- 4.1	- 3.0	- 2.7	- 1.6	- 1.3	

(1) The table is based on ESA95 definitions which do not necessarily correspond with the former definitions. The Totals are obtained in ESA95 as follows:

Line 6 = line 1 + line 2 + line 3 + line 5.  
Line 7 = line 9 + line 10.  
Line 15 = total of lines 9 to 14.  
Line 16 = line 6 - line 15.  
Line 18 = line 6 + line 17.  
Line 21 = line 15 + line 19 + line 20.  
Line 23 = line 18 - line 21.

Source: Commission services.

**Table S.A.6. Resources and expenditure of general government (% of GDP)**

	Former definitions										ESA 95 definitions (*)				
	1980	1985	1990	1991	1992	1993	1994	1995	1995	1996	1997	1998	1999	2000	
Germany (1)															
1. Taxes on production and imports	13.1	12.6	12.5	12.2	12.4	12.7	13.1	12.7	11.4	11.4	11.4	11.6	12.2	12.0	
2. Current taxes on income and wealth	12.8	12.6	11.2	11.3	11.6	11.2	10.8	11.1	11.1	11.5	11.2	11.5	12.0	12.5	
3. Social contributions	16.9	17.6	16.9	17.5	17.8	18.4	18.9	19.1	18.8	19.4	19.6	19.2	18.9	18.7	
4. Of which actual social contributions	;	;	;	;	;	;	;	;	17.7	18.3	18.5	18.1	17.9	17.6	
5. Other current resources	2.3	3.2	2.7	2.6	3.1	3.0	3.0	2.7	3.5	3.4	3.2	3.2	3.1	2.9	
6. Total current resources	45.1	46.0	43.3	43.5	44.9	45.3	45.9	45.6	44.8	45.7	45.4	45.5	46.1	46.0	
7. Government consumption expenditure	20.2	20.1	18.3	18.9	19.5	19.6	19.4	19.5	19.8	19.9	19.5	19.1	19.0	18.9	
8. Of which compensation of employees	11.0	10.6	9.7	10.1	10.4	10.6	10.3	10.2	9.0	8.9	8.7	8.4	8.3	8.1	
9. Collective consumption	;	;	;	;	;	;	;	;	8.4	8.4	8.1	8.0	7.9	7.8	
10. Social benefits in kind	;	;	;	;	;	;	;	;	11.4	11.6	11.3	11.1	11.1	11.0	
11. Social transfers other than in kind	17.2	16.8	15.8	16.6	17.3	18.4	18.6	19.0	18.1	19.3	19.3	18.9	18.9	18.7	
12. Interest payments	1.9	3.0	2.6	2.6	3.2	3.2	3.3	3.7	3.7	3.7	3.6	3.6	3.5	3.3	
13. Subsidies	2.3	2.3	2.2	2.4	2.1	2.1	2.1	2.1	2.1	2.0	1.8	1.8	1.7	1.7	
14. Other current expenditure	;	;	;	;	;	;	;	;	1.2	1.3	1.4	1.4	1.6	1.7	
15. Total current expenditure	42.7	43.4	42.0	42.3	43.4	44.8	44.9	45.6	44.9	46.2	45.5	44.8	44.8	44.3	
16. Gross savings	2.4	2.6	1.3	1.2	1.4	0.5	1.0	0.0	- 0.1	- 0.5	- 0.1	0.6	1.3	1.8	
17. Capital transfers received	;	;	;	;	;	;	;	;	0.5	0.4	0.4	0.5	0.4	0.4	
18. Total resources	45.1	46.0	43.3	43.5	44.9	45.3	45.9	45.6	46.1	46.8	46.5	46.6	47.2	47.0	
19. Gross fixed capital formation	3.6	2.4	2.3	2.6	2.8	2.7	2.5	2.3	2.3	2.1	1.9	1.8	1.8	1.8	
20. Other capital expenditure	;	;	;	;	;	;	;	;	1.8	1.2	1.2	1.3	1.3	- 1.1	
21. Total expenditure	48.0	47.2	45.3	46.8	47.6	48.8	48.4	48.0	48.6	50.3	49.2	48.6	48.6	45.6	
22. Tax burden	42.8	42.8	40.5	40.8	41.5	42.0	42.5	42.5	42.2	43.1	43.0	42.9	43.7	43.8	
23. Net lending (+) or net borrowing (-)	- 2.9	- 1.2	- 2.1	- 3.2	- 2.8	- 3.5	- 2.6	- 3.4	- 3.5	- 3.4	- 2.7	- 2.1	- 1.4	1.5	

(1) From 1991 including former East Germany.

(2) System is based on ESA95 definitions which does not necessarily correspond with the former definitions.

Line 6 = line 1 + line 2 + line 3 + line 5.

Line 7 = line 9 + line 10.

Line 15 = total of lines 9 to 14.

Line 16 = line 6 - line 15.

Line 18 = line 6 + line 17.

Line 21 = line 15 + line 19 + line 20.

Line 23 = line 18 - line 21.

Source: Commission services.

Table S.A.7. Resources and expenditure of general government (% of GDP)

	Former definitions											ESA 95 definitions (*)				
	1990	1995	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000			
<b>Greece</b>																
1. Taxes on production and imports	10.4	12.5	13.9	14.6	15.3	14.7	14.3	14.2	13.5	14.0	14.3	14.4	15.2	15.3		
2. Current taxes on income and wealth	4.5	4.6	5.4	5.5	5.4	5.7	6.8	7.2	7.4	7.1	7.8	9.5	10.5	10.8		
3. Social contributions	9.3	11.6	11.5	11.1	11.0	11.9	12.1	12.4	12.6	12.9	13.3	13.5	13.7	13.8		
4. Of which: actual social contributions	:	:	:	:	:	:	:	:	10.5	10.8	11.2	11.4	11.7	11.8		
5. Other current resources	1.9	1.7	1.7	2.2	2.5	3.1	3.8	4.2	2.9	2.9	3.4	2.7	2.7	2.7		
6. Total current resources	26.2	30.3	32.5	33.4	34.2	35.4	36.9	38.0	36.4	36.9	38.8	40.1	42.0	42.6		
7. Government consumption expenditure	13.4	16.1	15.1	14.2	13.7	14.3	13.8	15.3	15.3	14.5	15.2	15.3	15.0	15.2		
8. Of which: compensation of employees	9.3	11.4	12.5	11.5	10.9	10.9	10.6	11.3	11.3	10.7	11.6	11.7	11.5	11.6		
9. Collective consumption	:	:	:	:	:	:	:	:	9.4	8.5	8.9	9.1	8.9	8.8		
10. Social benefits in kind	:	:	:	:	:	:	:	:	5.9	6.0	6.3	6.2	6.1	6.3		
11. Social transfers other than in kind	9.3	14.1	15.0	14.9	14.8	15.1	15.2	15.5	15.1	15.4	15.6	15.6	15.8	15.9		
12. Interest payments	2.0	4.9	10.0	9.3	11.5	12.6	13.9	12.7	11.1	10.5	8.2	7.8	7.6	7.2		
13. Subsidies	2.2	5.2	4.0	3.5	3.6	3.9	3.6	3.3	0.4	0.5	0.2	0.1	0.2	0.2		
14. Other current expenditure	:	:	:	:	:	:	:	:	1.3	1.2	1.1	1.2	1.6	1.2		
15. Total current expenditure	26.2	37.7	41.9	39.8	41.2	43.4	44.0	45.1	43.3	42.2	40.3	40.1	40.1	39.7		
16. Gross savings	- 0.1	- 7.4	- 9.4	- 6.4	- 7.0	- 7.9	- 7.1	- 7.1	- 6.8	- 5.2	- 1.5	0.0	1.9	2.9		
17. Capital transfers received	:	:	:	:	:	:	:	:	0.0	0.0	0.0	0.0	0.0	:		
18. Total resources	26.2	30.3	32.5	33.4	34.2	35.4	36.9	38.0	37.7	38.1	40.0	41.4	43.3	43.8		
19. Gross fixed capital formation	2.1	3.6	2.8	3.1	3.5	3.3	3.1	3.3	3.2	3.2	3.4	3.6	4.1	4.3		
20. Other capital expenditure	:	:	:	:	:	:	:	:	0.2	- 0.6	- 0.2	- 0.5	- 0.3	- 0.5		
21. Total expenditure	28.8	41.9	48.4	44.7	46.8	49.0	46.8	48.5	47.8	45.9	44.7	44.6	45.2	44.7		
22. Tax burden	24.4	28.8	31.0	31.4	31.9	32.6	33.4	34.0	34.4	34.8	36.0	38.2	40.1	40.6		
23. Net lending (+) or net borrowing (-)	- 2.6	- 11.6	- 15.9	- 11.4	- 12.6	- 13.6	- 9.9	- 10.5	- 10.2	- 7.8	- 4.7	- 3.1	- 1.8	- 0.9		

(\*) The tables based on ESA95 definitions which do not necessarily correspond with the former definitions. The Totals are obtained in ESA95 as follows:

Line 6 = line 1 + line 2 + line 3 + line 5.  
Line 7 = line 9 + line 10.  
Line 15 = total of lines 9 to 14.  
Line 16 = line 6 - line 15.  
Line 18 = line 6 + line 17.  
Line 21 = line 15 + line 19 + line 20.  
Line 23 = line 18 - line 21.

Source: Commission services.



**Table S.A.8. Resources and expenditure of general government (% of GDP)**

Ireland	Former definitions											ESA 95 definitions (1)				
	1980	1985	1990	1991	1992	1993	1994	1995	1995	1996	1997	1998	1999	2000		
1. Taxes on production and imports	15.3	16.7	15.5	15.2	15.2	14.4	15.3	14.6	13.5	13.7	13.5	13.2	13.4	13.4		
2. Current taxes on income and wealth	11.5	13.1	13.1	13.7	14.1	14.8	15.2	13.5	13.6	14.1	14.0	13.9	13.5	13.0		
3. Social contributions	4.4	5.1	5.0	5.2	5.3	5.3	5.1	4.7	6.8	6.3	6.0	5.8	5.8	5.8		
4. Of which: actual social contributions	:	:	:	:	:	:	:	:	5.0	4.6	4.4	4.3	4.5	4.5		
5. Other current resources	3.3	3.8	2.2	2.5	2.5	2.4	2.1	1.8	2.8	2.9	2.7	2.5	2.8	2.7		
6. Total current resources	34.5	38.8	35.9	36.6	37.0	36.9	37.6	34.7	36.7	37.0	36.2	35.4	35.5	34.9		
7. Government consumption expenditure	18.1	16.9	14.2	15.1	15.4	15.3	15.2	14.2	16.4	15.8	15.2	14.5	14.0	13.3		
8. Of which: compensation of employees	11.8	11.5	9.8	10.5	10.6	10.8	10.4	9.6	10.2	9.7	9.2	8.8	8.2	7.8		
9. Collective consumption	:	:	:	:	:	:	:	:	6.1	5.8	5.5	5.2	5.0	4.8		
10. Social benefits in kind	:	:	:	:	:	:	:	:	10.4	10.0	9.6	9.3	8.9	8.5		
11. Social transfers other than in kind	11.6	15.1	13.4	14.1	14.6	14.5	14.4	13.7	11.8	11.6	10.9	10.3	9.9	9.2		
12. Interest payments	6.0	9.3	7.4	7.2	6.7	6.3	5.6	5.0	5.4	4.6	4.2	3.4	2.4	2.1		
13. Subsidies	7.2	7.4	5.6	5.5	4.7	4.9	4.4	4.1	1.0	1.0	1.0	0.8	1.0	1.0		
14. Other current expenditure	:	:	:	:	:	:	:	:	2.1	2.4	2.2	2.2	2.1	1.9		
15. Total current expenditure	39.5	46.1	36.7	37.8	38.2	38.0	37.0	34.8	36.8	35.3	33.6	31.2	29.5	27.6		
16. Gross savings	- 4.9	- 6.2	- 0.8	- 1.2	- 1.2	- 1.0	0.6	- 0.2	- 0.1	1.7	2.6	4.1	6.0	7.3		
17. Capital transfers received	:	:	:	:	:	:	:	:	1.8	1.7	1.7	1.6	2.2	2.2		
18. Total resources	34.5	38.8	35.9	36.6	37.0	36.9	37.6	34.7	39.4	38.5	38.6	37.7	38.4	37.8		
19. Gross fixed capital formation	5.4	3.7	2.0	2.1	2.0	2.2	2.3	2.4	2.3	2.4	2.5	2.7	3.1	3.8		
20. Other capital expenditure	:	:	:	:	:	:	:	:	1.6	1.2	1.1	1.0	3.0	1.2		
21. Total expenditure	46.1	49.0	38.0	38.9	39.4	38.2	39.2	36.8	41.6	39.7	37.8	35.7	36.3	33.3		
22. Tax burden	31.1	34.9	33.5	34.0	34.4	34.4	35.4	32.9	35.1	35.0	34.2	33.7	33.2	32.4		
23. Net lending (+) or net borrowing (-)	- 11.6	- 10.2	- 2.2	- 2.3	- 2.4	- 2.3	- 1.6	- 2.1	- 2.2	- 0.2	0.7	2.1	2.1	4.5		

(1) The table is based on ESA95 definitions which do not necessarily correspond with the former definitions. The Totals are obtained in ESA95 as follows:  
Line 6 = line 1 + line 2 + line 3 + line 5.  
Line 7 = line 9 + line 10.  
Line 15 = total of lines 9 to 14.  
Line 16 = line 6 - line 15.  
Line 18 = line 6 + line 17.  
Line 21 = line 15 + line 19 + line 20.  
Line 23 = line 18 - line 21.

Source: Commission services.

**Table S.A.9. Resources and expenditure of general government (% of GDP)**

Italy	Former definitions										ESA 95 definitions ( 1)				
	1980	1985	1990	1991	1992	1993	1994	1995	1995	1996	1997	1998	1999	2000	
1. Taxes on production and imports	9.3	9.5	11.3	11.8	11.8	12.7	12.3	12.4	12.1	11.8	12.4	15.3	15.2	15.1	
2. Current taxes on income and wealth	9.7	13.0	14.3	14.4	14.6	16.0	14.8	14.5	14.8	15.4	16.1	14.4	15.2	14.6	
3. Social contributions	12.9	13.5	14.3	14.6	14.9	15.4	14.8	14.6	14.8	15.0	15.3	12.8	12.8	12.7	
4. Of which: actual social contributions	.	.	.	.	.	.	.	.	.	.	.	14.6	14.9	12.4	
5. Other current resources	2.4	2.9	2.9	3.0	3.3	3.6	3.6	3.7	3.1	3.2	3.2	3.2	3.3	3.0	
6. Total current resources	34.4	38.9	42.8	43.8	44.5	47.7	45.5	45.3	44.8	45.5	47.2	45.8	46.3	45.5	
7. Government consumption expenditure	15.0	16.6	17.4	17.4	17.5	17.5	17.0	15.9	17.9	18.1	18.2	17.9	18.1	18.0	
8. Of which: compensation of employees	11.1	11.8	12.6	12.6	12.5	12.4	11.9	11.3	11.2	11.5	11.6	10.7	10.7	10.5	
9. Collective consumption	.	.	.	.	.	.	.	.	7.3	7.3	7.2	7.2	7.2	7.2	
10. Social benefits in kind	.	.	.	.	.	.	.	.	10.6	10.8	11.0	10.8	10.8	10.8	
11. Social transfers other than in kind	14.5	17.3	18.3	18.4	19.5	19.7	19.7	19.1	16.7	16.9	17.3	17.0	17.2	16.7	
12. Interest payments	5.5	8.0	9.4	10.1	11.4	12.0	10.9	11.3	11.5	11.5	9.4	8.0	6.7	6.5	
13. Subsidies	3.5	3.4	2.5	2.6	2.3	2.7	2.4	1.9	1.5	1.5	1.2	1.3	1.2	1.2	
14. Other current expenditure	.	.	.	.	.	.	.	.	1.1	1.3	1.3	1.3	1.4	1.4	
15. Total current expenditure	39.0	45.9	48.5	49.5	51.6	53.1	51.0	49.1	48.6	49.2	47.4	45.6	44.7	43.8	
16. Gross savings	- 4.6	- 6.9	- 5.7	- 5.7	- 7.1	- 5.4	- 5.4	- 3.8	- 3.8	- 3.7	- 0.2	0.2	1.6	1.8	
17. Capital transfers received	.	.	.	.	.	.	.	.	0.9	0.4	1.0	0.7	0.5	0.4	
18. Total resources	34.4	38.9	42.8	43.8	44.5	47.7	45.5	45.3	45.8	46.1	48.4	46.8	47.1	46.1	
19. Gross fixed capital formation	3.2	3.7	3.3	3.2	3.0	2.6	2.3	2.2	2.1	2.2	2.2	2.4	2.5	2.4	
20. Other capital expenditure	.	.	.	.	.	.	.	.	2.5	1.6	1.3	1.4	1.4	0.1	
21. Total expenditure	43.0	51.5	53.8	53.8	54.0	57.1	54.6	52.9	53.4	53.2	51.1	49.6	48.9	46.5	
22. Tax burden	31.7	36.1	40.0	40.9	41.5	44.2	42.1	41.9	42.3	42.9	44.4	43.2	43.5	43.0	
23. Net lending (+) or net borrowing (-)	- 8.7	- 12.5	- 11.0	- 10.0	- 9.5	- 9.4	- 9.1	- 7.6	- 7.6	- 7.1	- 2.7	- 2.8	- 1.8	- 0.3	

(1) The table is based on ESA95 definitions which do not necessarily correspond with the former definitions. The Totals are obtained in ESA95 as follows:

- Line 6 = line 1 + line 2 + line 3 + line 5.
- Line 7 = line 9 + line 10.
- Line 15 = total of lines 9 to 14.
- Line 16 = line 6 - line 15.
- Line 18 = line 6 + line 17.
- Line 21 = line 15 + line 19 + line 20.
- Line 23 = line 18 - line 21.

Source: Commission services.

**Table S.A.10. Resources and expenditure of general government (% of GDP)**

	Former definitions										ESA 95 definitions (1)				
	1980	1985	1990	1991	1992	1993	1994	1995	1995	1996	1997	1998	1999	2000	
<b>Luxembourg</b>															
1. Taxes on production and imports	12.3	14.7	15.1	15.3	15.5	16.1	16.1	16.0	12.5	12.6	12.9	13.4	14.2	14.9	
2. Current taxes on income and wealth	15.5	17.3	:	:	:	:	:	:	:	18.4	18.3	17.5	16.5	16.1	
3. Social contributions	13.2	12.2	:	:	:	:	:	:	:	12.4	12.3	11.8	11.6	11.6	
4. Of which: actual social contributions	:	:	:	:	:	:	:	:	:	11.2	11.1	10.7	10.6	10.7	
5. Other current resources	6.2	5.6	:	:	:	:	:	:	:	5.5	5.4	5.3	4.8	4.3	
6. Total current resources	47.2	48.9	:	:	:	:	:	:	:	48.9	48.6	47.4	46.8	46.9	
7. Government consumption expenditure	14.3	13.5	12.7	12.6	12.4	12.3	11.8	12.5	18.2	18.8	17.9	17.2	17.3	16.6	
8. Of which: compensation of employees	10.0	9.6	:	:	:	:	:	:	9.6	9.6	9.3	9.1	8.7	8.1	
9. Collective consumption	:	:	:	:	:	:	:	:	8.5	8.5	8.3	7.7	7.4	7.2	
10. Social benefits in kind	:	:	:	:	:	:	:	:	9.7	10.3	9.6	9.5	9.9	9.4	
11. Social transfers other than in kind	21.4	20.5	:	:	:	:	:	:	16.5	16.4	15.7	15.3	15.1	14.3	
12. Interest payments	1.1	1.0	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	
13. Subsidies	2.9	3.0	3.0	3.1	2.9	2.8	2.8	2.0	1.8	2.0	1.8	1.9	1.6	1.6	
14. Other current expenditure	:	:	:	:	:	:	:	:	3.1	2.6	2.9	3.3	3.5	3.1	
15. Total current expenditure	40.2	38.9	:	:	:	:	:	:	39.8	40.2	38.6	38.1	37.8	35.8	
16. Gross savings	7.0	11.0	:	:	:	:	:	:	9.0	8.4	8.8	8.8	9.9	11.1	
17. Capital transfers received	:	:	:	:	:	:	:	:	0.2	0.2	0.3	0.2	0.2	0.2	
18. Total resources	47.2	49.9	:	:	:	:	:	:	48.3	47.9	47.0	46.4	47.3	46.5	
19. Gross fixed capital formation	6.4	3.9	4.5	4.7	5.1	5.1	4.2	4.4	4.5	4.7	4.2	4.6	4.3	4.4	
20. Other capital expenditure	:	:	:	:	:	:	:	:	1.5	1.3	1.2	1.1	1.2	1.6	
21. Total expenditure	47.7	43.7	:	:	:	:	:	:	45.1	45.4	43.4	43.2	42.6	41.2	
22. Tax burden	38.7	42.7	:	:	:	:	:	:	44.7	44.5	43.5	42.3	46.1	45.9	
23. Net lending (+) or net borrowing (-)	- 0.4	6.2	4.7	1.8	0.7	1.6	2.6	1.8	3.3	2.5	3.6	3.2	4.7	5.3	

(1) The table is based on ESA95 definitions which do not necessarily correspond with the former definitions. The Totals are obtained in ESA 95 as follows:

- Line 6 = line 1 + line 2 + line 3 + line 5.
- Line 7 = line 9 + line 10.
- Line 15 = total of lines 9 to 14.
- Line 16 = line 6 - line 15.
- Line 18 = line 6 + line 17.
- Line 21 = line 15 + line 19 + line 20.
- Line 23 = line 18 - line 21.

Source: Commission services.

**Table S.A.II. Resources and expenditure of general government (% of GDP)**

	Former definitions											ESA 95 definitions ( )				
	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000			
<b>The Netherlands</b>																
1. Taxes on production and imports	11.6	11.7	11.8	11.9	12.2	12.4	12.3	12.3	10.7	11.2	11.4	11.6	12.2			
2. Current taxes on income and wealth	15.1	12.2	14.9	16.2	15.3	16.1	13.4	12.5	12.4	12.9	12.4	12.1	12.2			
3. Social contributions	17.4	19.6	16.3	17.3	17.8	17.8	18.2	18.2	17.2	16.6	16.6	16.5	17.1			
4. Of which: actual social contributions	:	:	:	:	:	:	:	:	16.0	15.5	15.5	15.4	16.0			
5. Other current resources	6.3	8.7	4.9	5.2	4.8	4.6	4.0	3.7	6.0	5.8	5.5	5.0	4.7			
6. Total current resources	50.4	52.2	47.9	50.6	50.1	50.8	48.0	46.6	46.3	46.5	45.9	46.2	46.0			
7. Government consumption expenditure	16.7	15.1	14.0	13.9	14.1	14.2	13.8	13.8	24.0	23.1	22.9	22.8	22.6			
8. Of which: compensation of employees	12.3	10.6	9.3	9.2	9.4	9.6	9.2	9.2	10.8	10.4	10.2	10.2	10.0			
9. Collective consumption	:	:	:	:	:	:	:	:	11.6	11.3	11.0	10.8	10.7			
10. Social benefits in kind	:	:	:	:	:	:	:	:	12.5	11.9	11.9	11.9	12.0			
11. Social transfers other than in kind	25.3	26.3	26.1	26.3	26.7	26.9	25.8	25.1	15.3	14.8	13.9	13.0	12.5			
12. Interest payments	3.7	6.1	5.7	5.9	6.0	5.6	5.7	5.7	5.9	5.6	5.2	4.8	4.4			
13. Subsidies	2.9	3.4	2.9	3.1	3.1	2.9	2.5	1.8	1.1	1.2	1.5	1.5	1.6			
14. Other current expenditure	:	:	:	:	:	:	:	:	1.1	1.2	1.2	1.4	1.9			
15. Total current expenditure	49.1	51.4	49.5	50.3	51.0	51.2	49.0	47.7	47.4	45.9	44.7	43.4	42.0			
16. Gross savings	1.3	0.9	- 1.5	0.3	- 0.9	- 0.3	- 1.0	- 1.1	- 1.1	0.6	1.3	1.8	3.5			
17. Capital transfers received	:	:	:	:	:	:	:	:	0.3	0.6	0.4	0.4	0.5			
18. Total resources	50.4	52.2	47.9	50.6	50.1	50.8	48.0	46.6	47.3	47.8	47.1	46.4	47.2			
19. Gross fixed capital formation	3.2	2.2	1.9	2.1	2.0	2.0	2.0	1.9	3.0	3.1	2.9	3.0	3.2			
20. Other capital expenditure	:	:	:	:	:	:	:	:	0.4	- 0.1	- 0.2	- 0.1	- 0.7			
21. Total expenditure	54.4	55.7	52.8	53.4	53.8	53.9	51.6	50.4	51.4	49.6	48.2	47.1	46.5			
22. Tax burden	43.6	43.1	42.7	45.0	44.8	45.8	43.5	42.5	41.5	41.7	41.5	41.2	42.4			
23. Net lending (+) or net borrowing (-)	- 4.1	- 3.5	- 4.9	- 2.8	- 3.8	- 3.1	- 3.6	- 3.8	- 4.2	- 1.8	- 1.1	- 0.7	1.0			

(<sup>1</sup>) The table is based on ESA95 definitions which do not necessarily correspond with the former definitions. The Totals are obtained in ESA95 as follows:

- Line 6 = line 1 + line 2 + line 3 + line 5.
- Line 7 = line 9 + line 10.
- Line 15 = total of lines 9 to 14.
- Line 16 = line 6 - line 15.
- Line 18 = line 6 + line 17.
- Line 21 = line 15 + line 19 + line 20.
- Line 23 = line 18 - line 21.

Sources: Commission services.

Table S.A.1.2 Resources and expenditure of general government (% of GDP)

Portugal	Former definitions										ESA 95 definitions <sup>(1)</sup>									
	1980	1985	1990	1991	1992	1993	1994	1995	1995	1996	1997	1998	1989	2000						
1. Taxes on production and imports	12.4	13.8	13.1	13.0	13.8	13.0	13.4	13.6	14.3	14.4	14.2	14.6	15.0	14.8						
2. Current taxes on income and wealth	5.7	7.9	8.0	8.9	9.9	9.0	8.8	9.1	9.3	9.9	10.1	9.9	10.3	10.8						
3. Social contributions	8.1	8.7	10.2	10.6	11.2	11.8	11.5	11.7	11.0	11.0	11.1	11.4	11.5	11.9						
4. Of which actual social contributions	;	;	;	;	;	;	;	;	10.1	10.3	10.4	10.7	10.8	11.1						
5. Other current resources	2.0	2.7	2.9	3.1	3.6	3.1	2.6	2.8	3.9	4.1	3.8	3.8	3.5	4.3						
6. Total current resources	28.2	33.1	34.2	35.5	38.4	36.9	36.3	37.1	38.4	39.3	39.1	39.6	40.3	41.8						
7. Government consumption expenditure	13.5	14.2	15.2	16.8	16.9	17.5	17.2	17.2	18.7	19.0	19.1	19.1	19.7	20.6						
8. Of which compensation of employees	10.3	10.4	11.9	13.0	13.9	14.2	13.7	13.7	13.7	13.7	13.8	14.0	14.4	14.9						
9. Collective consumption	;	;	;	;	;	;	;	;	8.0	7.6	7.8	7.8	8.0	8.4						
10. Social benefits in kind	;	;	;	;	;	;	;	;	10.7	11.4	11.3	11.3	11.6	12.2						
11. Social transfers other than in kind	9.5	10.5	11.5	12.6	13.5	15.1	14.8	15.1	11.8	11.8	11.7	11.7	11.8	12.3						
12. Interest payments	2.6	7.5	7.9	7.7	7.0	6.1	6.1	6.2	6.2	5.4	4.2	3.5	3.2	3.2						
13. Subsidies	6.1	6.9	1.5	1.3	1.2	1.3	1.2	1.1	1.4	1.5	1.2	1.5	1.0	0.9						
14. Other current expenditure	;	;	;	;	;	;	;	;	1.6	1.9	2.0	2.1	2.3	2.5						
15. Total current expenditure	31.7	38.2	35.6	38.1	37.6	39.0	39.1	39.4	39.7	39.6	38.2	37.8	38.1	39.5						
16. Gross savings	- 3.5	- 6.1	- 1.4	- 2.5	0.8	- 2.1	- 2.8	- 2.3	- 1.3	- 0.2	0.9	1.8	2.2	2.3						
17. Capital transfers received	;	;	;	;	;	;	;	;	1.9	2.1	2.3	1.6	2.2	1.6						
18. Total resources	28.2	33.1	34.2	35.5	38.4	36.9	36.3	37.1	40.4	41.6	41.7	41.8	42.7	43.4						
19. Gross fixed capital formation	4.2	3.3	3.2	3.3	3.7	3.9	3.5	3.6	3.7	4.2	4.4	4.0	4.1	3.8						
20. Other capital expenditure	;	;	;	;	;	;	;	;	1.4	1.7	1.6	1.8	2.4	1.4						
21. Total expenditure	36.7	43.4	39.1	41.4	41.3	42.9	42.2	42.7	44.9	45.6	44.4	44.1	44.8	44.8						
22. Tax burden	25.2	28.9	31.9	33.1	35.6	34.5	34.7	35.0	34.5	35.3	35.4	35.8	36.8	37.5						
23. Net lending (+) or net borrowing (-)	- 8.5	- 10.3	- 5.0	- 5.9	- 2.9	- 6.0	- 5.9	- 5.6	- 4.6	- 4.0	- 2.7	- 2.3	- 2.1	- 1.4						

(<sup>1</sup>) The table is based on ESA95 definitions which do not necessarily correspond with the former definitions. The Totals are obtained in ESA95 as follows:

Line 6 = line 1 + line 2 + line 3 + line 5.  
Line 7 = line 9 + line 10.  
Line 15 = total of lines 9 to 14.  
Line 16 = line 6 - line 15.  
Line 18 = line 6 - line 17.  
Line 21 = line 15 + line 19 + line 20.  
Line 23 = line 18 - line 21.

Source: Commission services.

**Table S.A.13. Resources and expenditure of general government (% of GDP)**

Spain	Former definitions										ESA 95 definitions (1)				
	1980	1985	1990	1991	1992	1993	1994	1995	1995	1996	1997	1998	1999	2000	
1. Taxes on production and imports	6.3	9.1	10.3	10.3	10.8	10.1	10.6	10.3	10.2	10.2	10.5	11.1	11.7	11.6	
2. Current taxes on income and wealth	6.7	8.2	11.6	11.6	12.0	11.5	11.0	11.0	10.1	10.3	10.5	10.2	10.3	10.5	
3. Social contributions	12.7	12.7	12.9	13.2	14.0	14.3	14.0	13.1	13.0	13.2	13.1	13.1	13.1	13.4	
4. Of which: actual social contributions	.	.	.	.	.	.	.	.	12.0	12.2	12.2	12.2	12.2	12.5	
5. Other current resources	3.9	4.2	3.7	4.1	4.0	5.0	4.2	3.6	4.1	4.2	4.0	3.7	3.6	3.1	
6. Total current resources	29.6	34.2	38.4	39.2	40.9	40.9	39.8	38.0	37.4	37.8	38.1	36.2	36.6	38.6	
7. Government consumption expenditure	12.9	14.2	15.0	15.6	16.4	16.8	16.2	16.0	18.1	17.9	17.6	17.5	17.3	17.1	
8. Of which: compensation of employees	9.4	10.2	10.7	11.1	11.8	11.8	11.3	11.2	11.3	11.3	10.9	10.7	10.5	10.4	
9. Collective consumption	.	.	.	.	.	.	.	.	8.0	7.8	7.7	7.6	7.5	7.4	
10. Social benefits in kind	.	.	.	.	.	.	.	.	10.1	10.1	9.9	9.9	9.8	9.7	
11. Social transfers other than in kind	11.8	13.8	13.9	14.7	15.5	16.2	15.8	15.1	13.9	13.8	13.3	12.8	12.4	12.4	
12. Interest payments	0.4	1.9	3.9	3.7	4.3	5.0	4.7	5.3	5.2	5.3	4.8	4.3	3.6	3.3	
13. Subsidies	1.8	2.4	2.4	2.5	2.5	3.1	2.9	3.0	1.1	1.0	0.9	1.1	1.2	1.1	
14. Other current expenditure	.	.	.	.	.	.	.	.	0.9	1.0	1.1	1.2	1.3	1.3	
15. Total current expenditure	27.7	33.9	36.7	38.0	40.2	42.6	41.3	40.3	39.2	39.0	37.6	37.0	35.9	35.2	
16. Gross savings	0.5	0.3	1.7	1.2	0.7	- 1.7	- 1.5	- 2.3	- 1.8	1.2	0.4	1.2	2.8	3.4	
17. Capital transfers received	.	.	.	.	.	.	.	.	1.4	1.4	1.3	1.3	1.4	1.2	
18. Total resources	29.6	34.2	38.4	39.2	40.9	40.9	39.8	38.0	38.4	38.8	39.1	38.1	38.6	39.5	
19. Gross fixed capital formation	1.8	3.6	4.9	4.7	4.0	4.1	3.9	3.7	3.7	3.1	3.1	3.3	3.3	3.3	
20. Other capital expenditure	.	.	.	.	.	.	.	.	2.5	2.0	1.9	1.8	2.0	1.7	
21. Total expenditure	31.6	40.4	42.6	43.5	44.9	47.6	45.9	45.0	45.0	43.7	42.2	41.7	40.8	39.9	
22. Tax burden	26.1	30.6	35.4	35.7	37.5	36.5	36.1	35.0	34.0	34.4	34.8	35.1	35.7	36.2	
23. Net lending (+) or net borrowing (-)	- 2.5	- 6.2	- 4.2	- 4.3	- 4.0	- 6.7	- 6.1	- 7.0	- 6.6	- 4.9	- 3.2	- 2.6	- 1.2	- 0.3	

(1) The table is based on ESA95 definitions which do not necessarily correspond with the former definitions. The Totals are obtained in ESA95 as follows:

- Line 6 = line 1 + line 2 + line 3 + line 5.
- Line 7 = line 9 + line 10.
- Line 15 = total of lines 9 to 14.
- Line 16 = line 6 - line 15.
- Line 18 = line 6 + line 17.
- Line 21 = line 15 + line 19 + line 20.
- Line 23 = line 18 - line 21.

Source: Commission services.

**Table S.A.1.4. Resources and expenditure of general government (% of GDP)**

Sweden	Former definitions										ESA 95 definitions (1)																	
	1980	1985	1980	1981	1982	1983	1984	1985	1985	1986	1987	1988	1989	1990	1980	1985	1986	1987	1988	1989	1990							
1. Taxes on production and imports	13.0	15.9	16.6	17.1	15.7	15.1	14.3	13.8	13.7	14.3	14.8	15.3	16.9	14.7	13.0	15.9	16.6	17.1	15.7	15.1	14.3	13.8	13.7	14.3	14.8	15.3	16.9	14.7
2. Current taxes on income and wealth	20.7	20.2	22.6	19.2	19.8	20.1	20.3	20.8	20.7	21.6	21.7	22.4	22.2	22.5	20.7	20.2	22.6	19.2	19.8	20.1	20.3	20.8	20.7	21.6	21.7	22.4	22.2	22.5
3. Social contributions	14.7	13.5	15.0	14.9	14.3	13.9	13.8	14.2	14.2	14.7	15.0	15.0	13.7	16.4	14.2	13.5	15.0	14.9	14.3	13.9	13.8	14.2	14.2	14.7	15.0	15.0	13.7	16.4
4. Of which: actual social contributions	13.6	13.6	14.6	14.5	14.5	14.5	14.5	13.2	13.6	13.6	14.6	14.5	13.2	15.6	13.6	13.6	14.6	14.5	14.5	14.5	14.5	13.2	13.6	13.6	14.6	14.5	13.2	15.6
5. Other current resources	7.2	9.3	8.4	8.2	9.0	9.2	8.5	8.1	8.1	8.3	8.0	7.2	6.2	6.0	8.3	9.3	8.0	7.2	7.1	7.1	7.1	6.2	6.2	7.2	7.1	6.2	6.0	
6. Total current resources	55.6	59.0	62.7	59.5	58.8	58.2	57.0	56.9	56.5	56.5	59.1	59.7	59.1	59.5	56.5	59.0	62.7	59.1	58.8	58.2	57.0	56.9	56.5	59.1	59.7	59.1	59.5	
7. Government consumption expenditure	28.3	26.9	26.4	26.3	27.0	27.1	26.1	24.8	26.3	27.1	26.5	26.7	26.9	26.3	26.3	26.9	26.4	26.3	27.0	27.1	26.1	24.8	26.3	27.1	26.5	26.7	26.9	26.3
8. Of which: compensation of employees	20.0	18.2	18.1	18.3	18.7	18.5	17.6	16.7	17.3	17.8	17.4	16.8	16.5	16.7	17.3	18.2	18.1	18.3	18.7	18.5	17.6	16.7	17.3	17.8	17.4	16.8	16.5	16.7
9. Collective consumption	8.3	8.7	8.5	8.0	9.3	9.7	8.5	8.1	9.0	9.3	8.6	8.9	8.6	9.6	9.0	8.7	8.5	8.0	9.3	9.7	8.5	8.1	9.0	9.3	8.6	8.9	8.6	9.6
10. Social benefits in kind	17.4	18.1	19.2	20.6	22.7	24.4	24.1	22.5	21.3	20.3	19.6	19.3	18.9	18.4	21.3	18.1	19.2	20.6	22.7	24.4	24.1	22.5	21.3	20.3	19.6	19.3	18.9	18.4
11. Social transfers other than in kind	3.9	8.1	4.8	5.0	5.2	6.0	6.6	6.8	6.9	6.8	6.4	5.8	4.8	4.3	6.9	8.1	4.8	5.0	5.2	6.0	6.6	6.8	6.9	6.8	6.4	5.8	4.8	4.3
12. Interest payments	4.2	4.9	4.6	4.9	5.3	5.7	5.1	4.9	4.2	4.9	4.6	4.9	4.9	4.9	4.2	4.9	4.6	4.9	5.3	5.7	5.1	4.9	4.2	4.9	4.6	4.9	4.9	
13. Subsidies	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
14. Other current expenditure	54.9	59.0	56.3	58.1	62.0	65.1	63.6	61.4	60.3	59.3	57.1	56.2	54.5	53.1	60.3	59.0	56.3	58.1	62.0	65.1	63.6	61.4	60.3	59.3	57.1	56.2	54.5	53.1
15. Total current expenditure	0.7	- 0.1	6.3	1.4	- 3.3	- 6.9	- 6.6	- 4.5	0.2	0.2	0.2	0.2	0.2	0.2	- 3.9	- 0.1	6.3	1.4	- 3.3	- 6.9	- 6.6	- 4.5	0.2	0.2	0.2	0.2	0.2	0.2
16. Gross savings	55.6	59.0	62.7	59.5	58.8	58.2	57.0	56.9	60.0	62.2	61.6	62.9	62.1	62.4	60.0	59.0	62.7	59.5	58.8	58.2	57.0	56.9	60.0	62.2	61.6	62.9	62.1	62.4
17. Capital transfers received	4.1	3.0	2.3	2.2	2.6	1.0	2.9	2.8	3.4	3.0	2.7	2.7	2.8	2.5	3.4	3.0	2.3	2.2	2.6	1.0	2.9	2.8	3.4	3.0	2.7	2.7	2.8	2.5
19. Gross fixed capital formation	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
20. Other capital expenditure	59.5	62.7	58.6	60.6	66.3	70.1	66.9	64.4	67.6	65.3	63.1	61.0	60.3	58.4	67.6	62.7	58.6	60.6	66.3	70.1	66.9	64.4	67.6	65.3	63.1	61.0	60.3	58.4
21. Total expenditure	48.4	49.6	54.2	51.3	49.8	49.0	48.5	49.4	48.8	51.8	52.2	53.5	53.5	54.2	48.8	49.6	54.2	51.3	49.8	49.0	48.5	49.4	48.8	51.8	52.2	53.5	53.5	54.2
22. Tax burden	- 3.9	- 3.7	4.0	- 1.1	- 7.5	- 11.9	- 9.9	- 7.5	- 7.7	- 3.1	- 1.5	1.9	1.8	4.0	- 7.7	- 3.7	4.0	- 1.1	- 7.5	- 11.9	- 9.9	- 7.5	- 7.7	- 3.1	- 1.5	1.9	1.8	4.0
23. Net lending (+) or net borrowing (-)																												

(1) The table is based on ESA95 definitions which do not necessarily correspond with the former definitions. The Totals are obtained in ESA 95 as follows:

- Line 6 = line 1 + line 2 + line 3 + line 5.
- Line 7 = line 9 + line 10.
- Line 15 = total of lines 9 to 14.
- Line 16 = line 6 - line 15.
- Line 18 = line 6 + line 17.
- Line 21 = line 15 + line 19 + line 20.
- Line 23 = line 18 - line 21.

Source: Commission services.

Table S.A.1.6. Resources and expenditure of general government (% of GDP)

Euro area (1)	Former definitions										ESA 95 definitions (2)									
	1990	1985	1990	1991	1992	1993	1994	1995	1995	1995	1995	1995	1995	1997	1998	1998	2000			
1. Taxes on production and imports	12.3	12.6	12.7	12.8	12.7	12.9	13.2	13.0	13.0	13.0	12.5	12.6	12.9	13.5	13.8	13.6	13.6			
2. Current taxes on income and wealth	30.9	11.7	11.6	11.6	11.7	12.2	12.2	12.2	12.2	12.2	11.5	11.7	11.7	12.2	12.8	12.8	13.0			
3. Social contributions	16.0	16.5	16.5	16.6	17.2	17.3	17.6	17.6	17.6	17.6	17.1	17.2	17.2	16.5	16.5	16.3	16.3			
4. Of which: actual social contributions	..	..	..	..	..	..	..	..	..	..	16.1	16.5	16.4	15.4	15.3	15.2	15.2			
5. Other current resources	3.0	3.7	3.3	3.4	3.0	3.7	3.5	3.3	3.3	3.3	3.8	3.6	3.6	3.5	3.4	3.4	3.3			
6. Total current resources	42.2	44.9	44.4	44.9	45.6	45.8	48.1	45.8	45.8	45.8	45.3	48.1	48.3	48.0	48.0	48.5	48.2			
7. Government consumption expenditure	17.5	18.1	17.2	17.7	18.1	18.4	18.1	17.8	17.8	17.8	20.8	20.7	20.4	20.0	20.1	20.1	18.9			
8. Of which: compensation of employees	11.8	12.0	11.4	11.6	11.8	12.0	11.7	11.8	11.8	11.8	11.1	11.2	11.0	10.8	10.7	10.5	10.5			
9. Collective consumption	..	..	..	..	..	..	..	..	..	..	8.8	8.8	8.4	8.2	8.2	8.1	8.1			
10. Social benefits in kind	..	..	..	..	..	..	..	..	..	..	12.0	12.1	11.9	11.8	11.8	11.6	11.7			
11. Social transfers other than in kind	17.3	16.6	18.2	18.7	18.4	20.3	20.3	20.2	20.2	20.2	17.3	17.7	17.9	17.2	17.1	16.7	16.7			
12. Interest payments	2.8	4.5	4.8	4.9	5.4	5.5	5.3	5.2	5.2	5.2	3.5	3.0	3.0	3.0	3.0	3.0	4.0			
13. Subsidies	2.7	3.0	2.4	2.5	2.3	2.5	2.3	2.2	2.2	2.2	1.7	1.7	1.5	1.5	1.5	1.5	1.4			
14. Other current expenditure	..	..	..	..	..	..	..	..	..	..	1.4	1.4	1.4	1.5	1.5	1.5	1.7			
15. Total current expenditure	41.0	45.4	44.4	45.3	48.7	48.3	47.5	47.2	47.2	47.2	46.5	47.1	48.1	45.0	44.5	44.5	43.8			
16. Gross savings	1.1	- 0.5	- 0.1	- 0.4	- 1.1	- 1.7	- 1.4	- 1.4	- 1.4	- 1.4	- 1.2	- 0.8	0.2	1.0	2.0	2.0	2.5			
17. Capital transfers received	..	..	..	..	..	..	..	..	..	..	0.6	0.5	0.7	0.8	0.8	0.8	0.8			
18. Total resources	42.2	44.9	44.4	44.9	45.6	48.9	48.1	45.8	45.8	45.8	48.6	47.4	47.7	47.2	47.2	47.8	47.4			
19. Gross fixed capital formation	3.3	3.0	3.0	3.1	3.0	2.9	2.7	2.8	2.8	2.8	2.7	2.8	2.4	2.4	2.4	2.5	2.5			
20. Other capital expenditure	..	..	..	..	..	..	..	..	..	..	1.7	1.2	1.1	1.5	1.8	1.8	0.4			
21. Total expenditure	45.8	49.7	48.8	49.4	50.3	52.1	51.1	50.7	50.7	50.7	51.8	51.6	50.3	48.4	48.0	48.0	47.0			
22. Tax burden	38.4	41.5	41.4	41.8	42.3	43.1	42.9	42.9	42.9	42.9	42.3	43.1	43.4	43.1	43.1	43.7	43.5			
23. Net lending (+) or net borrowing (-)	- 3.4	- 4.8	- 4.2	- 4.5	- 4.7	- 5.5	- 5.0	- 4.8	- 4.8	- 4.8	- 5.0	- 4.2	- 2.8	- 2.1	- 1.2	- 1.2	0.4			

(1) Due to problems with availability of the data, Luxembourg data are not included.

(2) From 1991 including former East Germany.

(3) System is based on ESA95 definitions which does not necessarily correspond with the former definitions.

Line 6 = line 1 + line 2 + line 3 + line 5.

Line 7 = line 9 + line 10.

Line 15 = total of lines 8 to 14.

Line 16 = line 6 - line 15.

Line 18 = line 6 + line 17.

Line 21 = line 15 + line 19 + line 20.

Line 23 = line 18 - line 21.

Source: Commission services.



Table S.A.17. Resources and expenditure of general government (% of GDP)

EU-15 (*)	Former definitions										ESA 85 definitions (†)				
	1980	1985	1990	1991	1992	1993	1994	1995	1995	1996	1997	1998	1999	2000	
1. Taxes on production and imports	13.0	13.4	13.4	13.4	13.3	13.4	13.8	13.5	12.7	12.9	13.1	13.8	14.0	13.5	
2. Social security contributions and wealth	11.8	12.7	12.8	12.7	12.8	12.6	12.3	12.4	12.5	13.0	13.2	13.7	14.0	14.3	
3. Social contributions	14.0	14.7	14.5	14.8	15.2	15.7	15.7	15.8	15.7	15.9	15.6	14.7	14.6	13.4	
4. Other actual social contributions	;	;	;	;	;	;	;	;	14.5	14.7	14.5	13.8	13.5	;	
5. Other current resources	3.5	4.0	3.5	3.5	3.7	3.7	3.5	3.4	3.9	3.9	3.8	3.5	3.4	3.3	
6. Total current resources	42.3	44.8	44.2	44.4	44.8	45.4	45.1	45.1	44.8	45.6	45.8	45.5	46.0	45.8	
7. Government consumption expenditure	18.7	19.0	18.2	18.6	18.0	18.2	18.9	18.7	20.7	20.7	20.3	20.0	20.0	18.9	
8. Of which: compensation of employees	12.3	12.4	11.8	12.0	12.2	12.1	11.6	11.4	11.1	11.1	10.9	10.5	10.4	10.3	
9. Collective consumption	;	;	;	;	;	;	;	;	;	;	;	;	;	;	
10. Social benefits in kind	18.1	17.6	17.1	17.7	18.8	18.5	18.4	18.3	17.2	17.4	17.2	18.7	18.5	18.2	
11. Social transfers other than in kind	3.0	4.8	4.7	4.7	5.2	5.3	5.4	5.4	5.4	5.5	5.0	4.6	4.1	3.9	
12. Interest payments	2.8	2.9	2.3	2.4	2.3	2.4	2.3	2.2	1.6	1.8	1.4	1.4	1.4	1.3	
13. Subsidies	;	;	;	;	;	;	;	;	1.5	1.6	1.8	1.7	1.8	1.9	
14. Other current expenditure	;	;	;	;	;	;	;	;	46.4	46.8	46.4	44.3	43.7	43.0	
15. Total current expenditure	41.4	45.4	43.8	44.7	48.4	47.8	47.1	46.9	- 1.6	- 1.0	0.2	1.3	2.2	2.6	
16. Gross savings	;	;	;	;	;	;	;	;	0.8	0.5	0.8	0.8	0.7	;	
17. Capital transfers received	;	;	;	;	;	;	;	;	48.3	46.9	47.0	48.8	47.2	47.0	
18. Total resources	42.3	44.8	44.2	44.4	44.8	45.4	45.1	45.1	2.8	2.4	2.2	2.2	2.3	2.3	
19. Gross fixed capital formation	3.2	2.9	2.9	2.9	2.9	2.7	2.8	2.5	1.8	1.1	1.0	1.2	1.3	- 0.1	
20. Other capital expenditure	;	;	;	;	;	;	;	;	51.4	51.1	48.4	48.4	47.9	45.8	
21. Total expenditure	45.6	49.3	47.7	48.5	49.8	51.5	50.5	50.1	41.8	42.5	42.6	42.7	43.2	43.1	
22. Tax burden	38.7	40.7	40.8	40.9	41.1	41.7	41.6	41.8	- 5.2	- 4.2	- 2.4	- 1.5	- 0.6	1.2	
23. Net lending (+) or net borrowing (-)	- 3.4	- 4.5	- 3.5	- 4.1	- 5.0	- 6.0	- 5.4	- 5.0	;	;	;	;	;	;	

(\*) Due to problems with availability of the data, Luxembourg data are not included.

†) From 1991 including former East Germany.

‡) System is based on ESA95 definitions which does not necessarily correspond with the former definitions.

Line 6 = line 1 + line 2 + line 3 + line 5.

Line 7 = line 9 + line 10.

Line 15 = total of lines 9 to 14.

Line 16 = line 6 + line 15.

Line 18 = line 6 + line 17.

Line 21 = line 15 + line 19 + line 20.

Line 23 = line 18 - line 21.

Source: Commission services.

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