Partisan Preferences and Political Institutions: Explaining Fiscal Retrenchment in the European Union

Oliver Pamp

March14, 2006

Paper submitted to the annual meeting of the EPCS, Turku, Finland April 20-23 2006

Abstract

Driven by the desire to fulfil the Maastricht fiscal criteria and pressed by mounting debt burdens that have accumulated over the past 30 years, a majority of EU-15 countries attempted to reduce their budget deficits during the 1990s. Yet, these nations have exhibited remarkable differences in their ability to pursue such retrenchment policies. This paper endeavours to illuminate the political and institutional factors that can help explain those differing degrees of fiscal retrenchment in European Union countries for the time period 1990-2001. Several variants of the partisan approach and the veto players framework are elucidated and applied to the question of budgetary consolidation. These elaborations yield four working hypotheses which are empirically tested using a time-series cross-section data set of 14 EU countries. The results lend support to the notion that partisan preferences and institutional veto players interact to shape budgetary retrenchment in a rather counterintuitive way.

JEL–Classification: C23, D72, D78, H62

Keywords : Deficits, Fiscal Adjustment, Partisan Theory, Veto Players, Time-Series Cross-Section Models

Author:

Oliver Pamp
Doctoral Student and Senior Research Assistant
Jean Monnet Centre of Excellence
Free University Berlin
Ihnestr. 22
14195 Berlin
GERMANY
Tel.: +49 30 838 54231
Fax: +49 30 838 52357
Email: o.pamp@jmc-berlin.org

Please consider for Wicksell Prize competition. Age of the author: 27.

1. Introduction

Since the economic downturn in 2001, major policy debates in Europe have repeatedly revolved around the question of fiscal deficits and their containment. Several member countries of the European Union[1] have been repeatedly in breach of the provisions of the Stability and Growth Pact (SGP) which spawned not only domestic but also EU-wide discussions on the pros and cons of the pact. The SGP clarifies and enshrines the fiscal convergence criteria originally laid out in the Treaty of Maastricht (TEU) in 1992. It mandates that the fiscal deficit of every country participating in the European Monetary Union (EMU) shall not exceed 3% per year. Repeated breach of this stipulation can result in heavy fines of up to 0.5% of a country's GDP.

While public debates on the SGP usually focus on countries that have exceeded the deficit ceiling, it has to be pointed out that a great number of EU countries have been highly successful in reducing their deficits in the 1990s. For example, Finland and Great Britain suffered from budget deficits in excess of 7% of GDP in 1993, and both managed to turn these into surpluses by 1998. Other countries such as Germany or Portugal only moderately reduced their deficits in the middle of the 1990s and saw them rise again at the end of the decade. Hence, even though average deficits in the EU have decreased from over 6% of GDP in 1993 to almost zero in 2001, there is still a wide variety of outcomes. The existence of the Maastricht convergence criteria and the SGP alone cannot explain these different developments. Rather, instead of being an explanation in itself, the fiscal criteria of the TEU and SGP provide a common external constraint[2] on the fiscal policies of member states. In conjunction with the recession that hit Europe at the beginning of the 1990s and which led to burgeoning deficits, they provided a strong motivation for all governments to attempt fiscal consolidation.

Therefore, the EU countries in the run-up to the introduction of the Euro provide a unique framework for asking which political and institutional factors determine a country's ability to reduce its fiscal deficit. This is the overall question that motivates this paper. Specifically, since much of the literature shows that

[1] France, Germany, Portugal and, as it turned out recently, also Greece.

[2] Even though Denmark, Sweden and the UK are not members of the Eurozone and, thus, do not have to fear the sanctions of the SGP, they still do participate in the annual budgetary review procedure by the European Commission (EC) and would face (non-binding) recommendations by the EC if they were in breach of the SGP-provisions. Hence I assume similar constraints and motivations for these countries.

economic variables, like real growth or the unemployment rate, alone do not suffice to explain divergent deficit outcomes (e.g. Alesina and Perotti 1995; Franzese 2002a; De Wolff 1998; Woo 2003), this paper tries to illuminate which political and institutional factors may account for the observed differences.

Note that the focus here is exclusively on determinants of deficit reduction[3]. In particular, the implications of two approaches, the partisan theory and the veto-player approach, are discussed[4] and empirically tested using a time-series cross-section data (TSCS) set of 14 EU countries[5] for the time period 1990-2001. These analyses show that domestic political forces and institutional structures continue to play a decisive role in shaping budgetary outcomes despite the often heralded argument of policy convergence due to globalization.

The paper is organized as follows: Section 2 introduces several versions of the partisan theory and the veto players framework, relating them to the question of fiscal consolidation. The 3rd Section introduces the relevant definitions and variables. Then, section 4 proceeds to the empirical testing of the two theories, employing time-series cross-section analyses. Section 5 reviews the analysis carried out in this paper, sums up the results and draws some conclusions.

2. Political Economy Explanations for Retrenchment

2.1 Partisan Approaches

The partisan theory has been originally formulated by Douglass Hibbs (1977) and was extended later on to incorporate rational expectations (Alesina, Roubini and Cohen 1997). The model's point of departure is the observation that different socio-economic groups are differently affected by growth, unemployment and

[3] As has been shown before (Alesina and Perotti 1997; Alesina, Perotti and Tavares 1998; Alesina and Ardagna 1998), successful deficit reduction was mainly achieved by slashing government expenditure, not so much by raising revenues. That is why I also speak of fiscal retrenchment when talking about deficit reduction.

[4] There is also a rich theoretical and empirical literature that analyses the impact of budget institutions (that is, the procedural rules governing formulation, approval and implementation of the budget) on deficits. Even though the importance of such institutions is not disputed, they will not be analysed here. This approach has already received a rather extensive treatment in the literature. See Hallerberg and von Hagen (1997), Ferejohn and Krehbiel (1987), Weingast, Shepsle and Johnsen (1981). For a survey see Drazen (2000).

[5] Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, Sweden, UK. Luxembourg has been and throughout will be omitted, for it is the only EU country that has almost no government debt, high fiscal surpluses throughout the period under consideration and negative interest payments. Therefore, it is an extreme outlier that does not add to the analysis.

inflation. Hibbs (1977, p. 1468; 1987, p.87), presenting evidence for the U.S., shows that inflation actually benefits lower income groups and has an equalizing impact on income distribution. Unemployment, on the other hand, shifts income from the poorest two quintiles to the richest two quintiles. Hibbs (1977, p. 1470) also presents survey evidence which indicates that socio-economic groups indeed utter subjective preferences over inflation and unemployment that are broadly in line with their objective economic situations. As a result, low and medium wage earners prefer low unemployment (which is brought about by high economic growth) and accept higher inflation in return, whereas asset holders and people with above the average wages prefer low inflation paid for by higher unemployment.

Now, common sense holds it that in the political arena low and medium income earners are usually represented by left-wing parties, while upper-middle and upper classes are broadly represented by right-wing parties. Analysing cross-national evidence for 12 Western countries as well as time-series evidence for the U.S. and the UK, Hibbs (1977, p.1468) arrives at the conclusion "that the macroeconomic policies pursued by left- and right-wing governments are broadly in accordance with the objective economic interests and the subjective preferences of their class-defined core political constituencies."

In the partisan model the economy is characterized by an (old-fashioned) exploitable Phillips-curve relationship between inflation and unemployment.

$$y_t = \hat{y} + \pi_t - \pi_t^e \qquad (1)$$

Expectations are presumed to be adaptive such that $\pi_t^e = \pi_{t-1}$. Macroeconomic policies thus follow a simple logic: if a left party wins the election, then it will in line with the preferences of its constituency strive to lower the unemployment rate. The result will be stronger economic growth and higher inflation. If the right-wing party wins the next election, it will act in accordance with its voters' preferences for low inflation. The consequence will be a recession where unemployment grows and inflation falls. It is important to emphasize that Hibbs does not consider any shifts in the short-run Phillips-curve due to adjustments in expectations. Hence, in his view the short-run is long enough to last for the terms the same party is in office.

Whereas the original formulation by Hibbs assumed adaptive preferences, more recent revisions of the theory incorporating rational expectations have been proposed by Alesina, Roubini and Cohen (1997). In their approach, voting is

prospective based on a given set of information: $\pi_t^e = E(\pi_t \mid I_{t-1})$. Hence, voters not only anticipate the policies the respective parties would pursue once elected, but also the probability distribution that the left- or the right-wing party will win the election. Given these probabilities and the presumption that voters are rational and forward looking, the electorates' overall expected inflation for the time after the election is given by

$$\pi_t^e = p\pi^{L^*} + (1-p)\pi^{R^*} \qquad (2)$$

where p is the probability that L wins and accordingly (1-p) denotes the probability that R wins the election; π^{L^*} and π^{R^*} capture the two parties' inflation policies. Hence, voters take the average of both parties' policies weighted by their respective probabilities of winning as their expected inflation rate that will occur after the election. et, this is an average expectation. If party L wins, realised inflation will be higher than expected. Therefore, unemployment will be temporarily lower. Given rational expectations, however, voters will adjust wage and credit contracts in the next period to the higher inflation rate, thus the short-run Phillips curve will shift upwards bringing the economy back to the long-run equilibrium unemployment rate. Overall inflation will have risen though. The case of a right-wing electoral victory is reverse of that logic.

In such a rational model, partisan effects on growth and unemployment are only short-lived. Once expectations have adjusted, the only thing that distinguishes left- from right-wing parties is the level of inflation. Hence, the difference between the traditional Hibbs model and the rational expectations variant lies in the persistence of partisan effects, with the latter approach predicting a much shorter duration of post-electoral expansions and recessions. Empirical studies have not yet decided, however, which of the two approaches describes reality more accurately. While Alesina, Roubini and Cohen (1997, p. 108, 174) find evidence in favour of the rational model, Franzese (2002b, p. 401-405) is more sceptical, arguing that in most cases the traditional model can explain observed patterns equally well.

In principle, a government can use monetary and/or fiscal policy to implement its partisan goals regarding output, inflation and unemployment. As the standard Mundell-Fleming model predicts and as several authors have investigated empirically (Boix, 2000; Oatley 1999; Clark and Hallerberg 2000), in an open economy with free capital flows, the choice of the exchange rate regime becomes crucial in determining which policy instruments are still viable. Under

fixed exchange rates, fiscal policy, (and thus increasing and lowering deficits) is still effective in managing the economy while under floating exchange rates it is not. The reverse is true for monetary policy.

That governments try to take advantage of these opportunities has been empirically corroborated. Boix (2000, p. 66) presents evidence for a sample of OCED nations covering the period 1960-1993, which shows that under unrestricted capital mobility countries with fixed exchange rate regimes had on average significantly higher fiscal deficits than countries with a floating currency. There is also some tentative empirical evidence that governments dominated by the left run larger deficits under fixed exchange rate regimes than right-wing governments (Boix 2000, p. 66; Oatley 1999, p. 1014).

Therefore one can presume that partisan fiscal policy is possible even under perfect capital mobility, given that exchange rates are fixed[6]. From this and from the prior discussion about the two partisan models, we can conclude that different parties once elected not only have different preferences, but we can also assume that they have, at least theoretically, the fiscal policy means available to pursue their ends. Therefore, we would expect left governments to pursue a more expansionary fiscal policy, to run bigger fiscal deficits and to reduce deficits less than their right-wing counterparts. Thus, the first working hypothesis is:

H_1: *The higher the share of left-wing party seats in a government, the less likely is that government to engage in fiscal retrenchment.*

[6] This applies to most of the countries and the time period considered in this paper. In particular, the Eurozone can be considered such a fixed exchange rate regime. However, three countries in our sample do not take part in the common currency area: Denmark, whose currency is pegged to the Euro via the European Exchange rate Mechanism (ERM), using a fluctuation band of 2,25%, and the UK and Sweden which have free floating exchange rates. Moreover, before the creation of the Euro in 1999, almost all Eurozone members had their exchange rates pegged within the ERM. After the ERM crisis in 1992-1993, the fluctuation bands were widened from 2,25% to 15%, and Italy and the UK left the system (for a lengthy discussion see Tsoukalis 1997, p. 152-162). Yet, even with the wide fluctuation bands, the system could still be considered a fixed exchange rate regime, since "the nine countries which remained in the ERM plus Austria which joined in January 1995 and Finland in October 1996 (followed by Italy one month later), chose not to take advantage of the wider margins of fluctuation in their monetary policy" (Tsoukalis 1997, p. 160). Furthermore, even though the UK and Sweden have flexible exchange rates, independent fiscal policies are still possible if central banks accommodate the government policy by increasing the money supply. One needs to remember that the Bank of England became independent only in 1997, whereas the Swedish Riksbank has a comparably low degree of independence (Daniels, Nourzad and van Hoose 2004). Also, the fact that a policy proves ineffective may not prevent a government from trying it. Hence, we should also expect partisan fiscal policies in Sweden and the UK.

The reason is that even with an external constraint such as the SGP, the left's preference according to the partisan model is always to increase output as much as possible. The right-wing party, on the other hand, likes low inflation and is thus much more ready to retrench the budget. Note that we need not to distinguish between the traditional partisan model and the rational one because we are only concerned here with policy instruments, not with actual economic outcomes. Hence, the magnitude and persistence of the real economic effects of these fiscal policies are of no concern here.

An alternative partisan approach emphasizes the strategic role that debt may play in constraining a future government's latitude (Aghion and Bolton 1990; Alesina and Tabellini 1990; Milesi-Feretti and Spoalore 1994; Persson and Svensson 1989). The basic notion of this approach is that a right-wing government with rational foresight might expect electoral defeat. Given that it does not like the policies that a left-wing successor government could implement, it may choose to accumulate debt. This way it forces the future government to spend resources on servicing the debt instead of pursuing ideological goals such as stimulating the economy or increasing social spending. Persson and Svensson (1989, p. 341) emphasize that the logic of this argument is perfectly symmetric: "a 'stubborn' liberal would choose to borrow less if it knew if would be succeeded by a more conservative government." This way, the left government could lower debt servicing costs or even create additional funds if it leaves surpluses to the future government, thus increasing future government spending.[7]

As a result, this model yields the rather counterintuitive prediction that the right is more likely to run deficits, while the left is more prone to reduce them. It follows as a second hypothesis:

H2: *The higher the share of right-wing party seats in a government, the less likely is that government to engage in fiscal retrenchment.*

2.2 Veto Players Approaches

Having elucidated possible effects of partisan preferences, it is time to turn to the role of political institutions. The fundamental goal of the veto players approach (Tsebelis 1995; 2000) is to explain policy stability and policy change, employing

[7] Note that if the right uses these surpluses for tax cuts, then this is also in the interest of the left, since it means an expansionary fiscal policy that furthers the left-wing party's goals regarding growth an employment.

the tools and intuition of spatial models of voting. The focus lies on the decision-making process of political actors. Hence, this approach assumes policy oriented actors. Strategic interaction between them is largely neglected, however. In contrast to other approaches such as political business cycle models, this theory presumes therefore that policy makers care about implementing their desired policies, but not to win elections per se. Given a certain amount of information, this approach aims at enabling the researcher to predict specific legislative outcomes of the political process.

Veto players are all those actors that have the constitutionally assigned power to veto a policy proposal in the legislative process, may they be institutional (e.g. different chambers of parliament) or partisan (e.g. different parties in parliament or in government) in nature. Moreover, veto players can be individual (such as a president or a monolithic party controlling the parliament) or collective (such as a parliament or a government composed of several parties that have to determine their position by using some kind of decision rule). Other actors, like interest groups for instance, that have no formal veto power assigned to them by a country's constitution but do exhibit informal influence on the political process are excluded from the analysis.

The fundamental insight of this approach is that policy stability and policy change depend crucially on the size of the win set[8] and the core[9]. The bigger the size of the win set, the more feasible alternatives exist to the status quo, and consequently, the more likely is a policy change. On the other hand though, the bigger the size of the core, the more policy positions exist that cannot be changed, and hence the less likely is a policy change[10].

To give a brief illustration, consider Figure 1. It depicts a two-dimensional policy space (for two arbitrary issues) with four veto players, whose bliss points are indicated by A, B, C, and D. First, let's ignore D and only consider the other three actors. Given that the status quo is SQ1, the win set is the hatched area. All

[8] The win set of a given status quo z (written W(z)) contains all policy positions that are preferred by a majority (however defined) of actors in a pairwise voting procedure to the status quo.

[9]The core contains all policy positions that cannot be defeated employing a given decision-making rule. Note, that the core is only equal to the pareto set, if the employed decision-making procedure is unanimity (then, we speak of the unanimity core). Once, some other form of majority voting is used, the core is different from the pareto set. However, most of the time the unanimity core will be used given that the very concept of a veto player entails that he cannot be overruled.

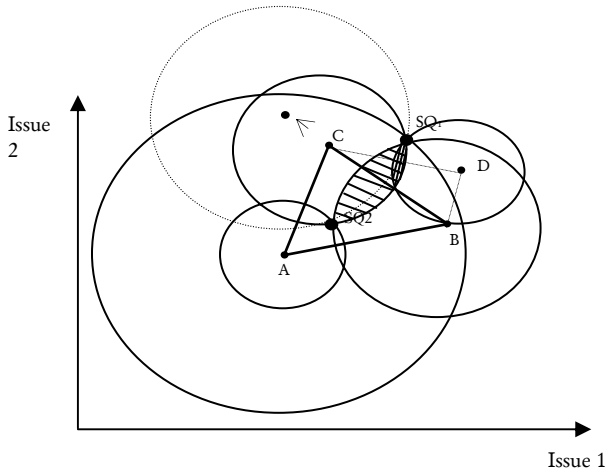
[10]Note, however, that the size of the win set and the core are "a necessary but not sufficient condition for proximity of the new policy with the status quo" (Tsebelis 2002, p.32) Hence, even though a large win set makes a policy far away from the status quo possible, it does not rule out that the new policy represents only an incremental change from the status quo.

points inside this region can beat SQ1 and can thus constitute a new policy. Therefore, policy change is possible. The triangle ABC represents the unanimity core that comprises all policy positions that cannot be changed. If SQ2 was the status quo, then there would be no win set, since the intersection of the three indifference curves yields no hatched area. In this case the win set is empty ($W(SQ2) = \emptyset$) and policy change is impossible.

If C moves up and to the left, that is, further away from A and B (as is indicated by the arrow), then the win set shrinks. The new indifference curve of C is the dotted one, and the win set has shrunk by about a third as this new indifference curve has moved upwards[11]. Therefore, policy stability increases with the ideological distance of the veto players.

Similarly, an increase in number of veto players also increases stability and hinders policy change. This effect can be illustrated by adding a fourth actor D in figure 1. Once we do not only consider A, B, and C but also take D into account, the win set again shrinks significantly. Now only those policy positions that lie within the cross-hatched area can beat SQ1. In addition, the unanimity core expands, as is indicated by the dotted lines, to comprise now the area ABCD. Hence, there are more policy positions that cannot be defeated by any other position.

Figure 1: Veto Players and Policy Change in a Two-dimensional Policy Space



Source: Own illustration.

[11] The unanimity core has also expanded. This could be seen if one extended the triangle to the new position of C. This is not done in the figure, in order not to complicate the picture even more.

As a result, policy stability and policy change are functions of the sizes of the core and the win set.[12] These are affected in turn by the ideological distance between veto players, their number and their internal cohesion. However, of these three variables, only the number of veto players can be easily operationalized in empirical studies, since so far there is no data available that measures internal cohesion of parties. With respect to ideological distance, there are some studies (Cusack 1997, 1999; Franzese 2002a) that try to measure this variable by creating indices that capture the "Centre of Gravity" of parties. Yet, even these measures rely on expert judgements that try to order parties on a left-right scale. Given that exact distances become crucial for this analysis, it is doubtful that experts can exactly locate parties' positions.[13] As a result, the number of veto players emerges as the only variable that can be readily observed by examining a country's constitution and the parties acting within the political system. Moreover, in his empirical analysis, Franzese (2002a, pp. 175-178) finds that once one controls for the number of veto players, their ideological distance becomes statistically insignificant. As a result, only the number of veto players will be henceforth considered as an explanatory variable.

Applying this framework to the question of fiscal retrenchment, we can conclude that *on average* we should expect that the likelihood of fiscal retrenchment decreases as the number of institutional veto players increases. Thus, the third hypothesis posits:

H3: *The higher the number of institutional veto players, the less likely is a country to engage in fiscal retrenchment, and the smaller is its deficit reduction.*

It is worthwhile to emphasize that this hypothesis does not imply that countries with a high number of veto players do necessarily have high deficits and debts. Theoretically, many veto players could lead to low deficits because huge spending increases or tax cuts are prevented by the small win set that is likely to exist in a system with many veto players. But one could also arrive at the opposite prediction: a government may be forced to make huge side-payments to other veto players in order to achieve its goals. This reasoning could lead one to expect that many veto players are associated with high deficits. However, all what is claimed

[12] Note that core and win set almost always behave equivalently, with the win set shrinking as the core expands and vice versa (Tsebelis 2002, p. 29).

[13] It is not disputed here, that one can easily distinguish parties concerning their overall ideology and policy goals. What seems highly dubious is to exactly locate their position in a n-dimensional policy space.

here is that an increasing number of veto players is associated with an increasing stability of the status quo (which is a budget deficit), and therefore makes fiscal retrenchment harder to achieve.

So far, we have considered the government a monolithic actor. However, very often the government is composed of more than one party. Thus, intra-governmental dynamics may have an impact on fiscal retrenchment. Starting with two seminal articles by Roubini and Sachs (1989a, b), a large empirical literature has emerged since the beginning of the 1990s, which examines the impact of government fractionalisation on deficits. Yet, the empirical findings have been mixed. Roubini and Sachs (1989a,b), who used an ordinal variable to distinguish between single- coalition- and minority governments, found that the higher the number of parties in government, the higher the deficits. Edin and Ohlsson (1991) insisted that this finding can be completely attributed to the effects of minority governments. Hence, only minority governments run particularly high deficits. Still other, more recent empirical analyses yielded no significant relationship between the number of government parties and fiscal deficits (de Haan and Sturm 1997; de Haan, Sturm and Beekhuis 1999; Sakamoto 2001). Also, most of these studies do not distinguish properly between levels of deficits and the process of fiscal retrenchment.

Deficit reduction has been explicitly analysed in a more theoretical literature that has also emerged at the beginning of the 1990s (Alesina and Drazen 1991; Spoalore 1993). These authors model intra-governmental negotiations between coalition partners over fiscal retrenchment as a "war of attrition"[14]. The basic notion is that every coalition party would like to shift the burden of fiscal adjustment onto the other parties' constituencies. As a consequence, every coalition member has an incentive to block a solution and tries to wait the others out. Thus, no fiscal retrenchment takes place, although everyone agrees that it is necessary. This situation is only resolved if one or several partners give in and bear a disproportionate burden of the costs.

Of course, the longer the coalition members wait to enact a retrenchment, the more the situation deteriorates and the higher are therefore the future costs of retrenchment. In addition, there are also political costs associated with fighting for a solution that favours ones own clientele. Now, every party will block a solution

[14] War of attrition models have been extensively used to describe conflict situations between labour unions and central banks (Backus and Driffill 1985a, b; Tabellini 1988), as well as between fiscal and monetary policy makers (Sargent 1986; Tabellini 1987).

as long as the marginal benefit from waiting is higher than the marginal cost of distortions associated with the accumulation of debt. The marginal benefit is defined by the probability that the opponent(s) will give in very soon times the higher utility that is derived from winning the war of attrition, which is the smaller retrenchment costs the winner has to pay compared to the loser(s). It is important to stress that each party only knows its own costs of living in a state of accelerating debt. If everyone knew each others' costs of waiting, then everybody could calculate each others' time until concession takes place, and the war of attrition would not take place, since the "loser" would know from the beginning that he is the loser and would hence immediately give in to save the costs of living in a distorted economy.

Within this framework, Alesina and Drazen (1991) derive a number of parameters that determine how long retrenchment is delayed in a political system. First of all, the more unequal the distribution of fiscal costs associated with deficit reduction, the longer the delay. The reason is that the benefit from waiting, as defined above, increases if the utility from being the "winner" is significantly larger than the utility derived from giving in. The authors interpret the degree of inequity in the distribution of costs as a proxy for political cohesion in a country. Therefore, they conclude that the more unequal this distribution is, the less cohesive is a society. Furthermore, consolidation will also be longer postponed, the lower the distortionary costs of accumulating debts are. Also, in applying a war of attrition model directly to coalition governments, Spoalore (1993) finds, that deficit reduction takes longer to be agreed on, the higher the number of coalition partners, whereas single-party governments react much quicker and more decisively. In the context of the model by Alesina and Drazen (1991), this is explained by the fact that a high number of parties increases the probability that there are at least two parties with high marginal benefits derived from waiting, being in a deadlock. This deadlock will only be resolved when all parties but one concedes, with the last party holding out being the winner. Moreover, the more parties there are, the higher is fractionalisation, and thus the more unequal is the societal distribution of the costs of retrenchment. As explicated above, this inequity leads, ceteris paribus, to a longer delay in deficit reduction. Note, that we can also expect consolidation to be smaller than is prescribed by standard tax-smoothing arguments because the parties may be tempted to retrench less in order to lower the burden the loser(s) have to bear in an attempt to induce the loser(s) to concede faster. As a result, we can formulate the final hypothesis:

H4: *The higher the number of parties that participate in government, the less likely a fiscal retrenchment will be.*

Modelling intra-governmental conflict over retrenchment as a war of attrition is pretty much in line with the veto players approach. Indeed, parties could be modelled in spatial terms as partisan veto players. However, the war of attrition model, in contrast to the veto players theory by Tsebelis, is dynamic. As time elapses and the cost of accumulating debts rises, actors start shifting their positions. Yet, employing a spatial approach shows that the losers may not need to surrender completely but only move towards the winner's bliss point in order to create a non-empty win-set. This stands in contrast to this model which leaves no room for political compromise, but rather assumes total surrender by the loser(s). As a result, both variants of the veto players approach are not mutually exclusive but rather complementary. The war of attrition model adds a dynamic element to the analysis, while the spatial veto players theorem is able to explain the occurrence of political compromise.

Of course, it seems plausible to assume that partisan and institutional effects are conditioning each other. Hence, we also test whether and how these two factors interact to shape fiscal adjustment outcomes. These interactive effects are tested with regard to the given hypotheses but not constitute a hypotheses of their own.

Before we proceed to the next section which empirically tests all hypotheses, we reiterate them in table 1.

Table 1: Hypotheses

Hypothesis	Theoretical explanation
H1: The higher the share of left-wing party seats in a government, the less likely is that government to engage in fiscal retrenchment.	traditional/rational partisan approach
H2: The higher the share of right-wing party seats in a government, the less likely is that government to engage in fiscal retrenchment.	partisan / debt as a strategic variable
H3: The higher the number of institutional veto players, the less likely is a country to engage in fiscal retrenchment, and the smaller is its deficit reduction.	veto players approach / spatial model
H4: The higher the number of parties that participate in government, the less likely is a fiscal retrenchment.	veto players approach / war of attrition model

3. Definition of Variables and Data

3.1 Definition and Composition of Retrenchment

Before we can proceed, it is necessary to point out how "retrenchment" is measured and defined in the following empirical analyses. Two indicators are of importance: First, "government outlays" is the annual expenditure of a country measured in per cent of GDP. Second, to measure the annual (general)[15] government fiscal deficit, i.e. the difference between revenues and expenditures, the "structural" ("cyclically-adjusted") deficit[16] is used.

[15] Using the general government deficit (as opposed to central government figures) provides a more complete picture, since it also includes sub-national deficits as well as deficits in social security funds. Hence, differences in welfare state arrangements and the constitutional structure (federal vs. unitary) are accounted for.

[16] This indicator estimates the fiscal deficit that would prevail if the economy was producing at its full-employment output. This way, the influence of the business cycle can be removed from the data, and revenue losses and expenditure hikes due to recessions are thus accounted for. One has to note, however, that this indicator is not without its problems. In order to calculate the structural deficit, one has to estimate the potential growth rate of an economy which is not directly observable and thus in its calculation very dependent on the assumptions made and the methodology employed (see de Brouwer 1998).

As a number of studies point out, for a retrenchment to be long lasting, i.e. one that is not reversed within a few years, the fiscal adjustment has to "rely mostly (or exclusively) on spending cuts (...), [whereas] short-lived adjustments rely mostly on revenue increases" (Alesina, Perotti and Tavares 1998, p. 200). Given these insights, a rather strict definition of what constitutes a lasting fiscal retrenchment in the EU countries between 1990 and 2001 will be employed. In doing so, a combination of both the structural deficit and government outlays will be used. The former is needed to control for business cycle movements, the latter is used to detect those consolidations that are exclusively based on increases in revenues. The first definition thus stipulates: *Only those instances in which a country reduced its structural deficit and/or its government outlays (keeping the other variable constant) for at least 5 years in a row shall count as a period of real fiscal retrenchment.* [17]

Applying this definition to our EU-14 data for the period 1990-2001 yields the results shown in table 2. The table indicates which countries underwent periods of retrenchment. Furthermore, the third column shows by how much the cyclically adjusted government balance has improved during the period of retrenchment, whereas column 4 depicts by how much government outlays were reduced. By definition, if the improvement in the structural balance is higher than the reduction in government outlays, then the difference between the two indicate an increase in government revenues. For instance, the fact that Belgium's and Italy's reductions in government expenditure were much lower then their increases in their government balances indicates that these two countries consolidated their budgets partly via measures that increased revenues. Conversely, a higher reduction in total outlays than in the overall deficit indicates decreasing government revenues.

As a control and robustness check, a second definition will be introduced which is related to the one used by Alesina and Ardagna (1998, p. 469). Here, we can speak of a fiscal retrenchment, if in one year a country reduced its cyclically adjusted deficit at least by 2% of GDP, or if it reduced its deficit by at least 1,5% of GDP in two consecutive years[18]. The results of this definition are shown in table 3.

[17] Of course, this kind of defininition rules out the possibility for opportunistic political business cycles (Nordhaus 1975; Rogoff 1990). Hence, their impact is not being tested here.
[18] The only difference is that Alesina and Ardagna (1998) use the cyclically adjusted *primary* balance.

Table 2: Periods of Fiscal Retrenchment; Definition I

Country	Period of Retrenchment	Change of the Cyclically Adjusted Government Balance (in % GDP)	Change in Total Government Outlays (in % GDP)
Belgium	1992-1998	+8,2	-0,4
Denmark	1994-2001	+5,1	-7,4
Finland	1996-2001	+4,7	-9,8
Ireland	1991-2000	+5,3	-12
Italy	1991-1999	+10,8	-7,2
Netherlands	1995-2000	+6,4	-11,1
Spain	1995-2001	+4,7	-5
Sweden	1995-2001	+10,4	-9,7
United Kingdom	1995-2000	+6,2	-5,2

Source: OECD, own calculations

As can be easily seen, the two tables exhibit some striking differences. The reason is that the second definition is both less and more strict at the same time. It is stricter because it demands a higher annual deficit reduction than definition I. Therefore, Ireland and Spain are no longer part of the table, since they lowered their deficits by smaller annual amounts. Another result of this stipulation is that in all countries the number of consecutive years of consolidation is now two at most. On the other hand, definition II is less strict in that it also counts fiscal retrenchments that lasted for only one or two years, and which could therefore have been reversed the next year. As a result, countries like Austria, Greece and Portugal now figure as successful cases of consolidation.

But still, Definition I seems superior to the second one. For one, the latter does rule out important cases like Ireland, which pursued a gradual approach to retrenchment which lasted throughout the 1990s. Yet, Ireland is a prime example of substantial deficit reduction. Indeed, this approach misses many years of gradual retrenchment in all countries. This seems particularly problematic because, as is visible from the data, most states actually pursued such a gradual approach over several years. Furthermore, definition II also considers very short cases, such as Austria and Portugal, whose efforts were quickly reversed in subsequent years. Therefore, they should not be counted as cases of successful budgetary

retrenchment. For all these reasons, emphasis will be put on the first definition, which seems more capable of accounting for the gradual character of budgetary consolidation observed in Europe.

Table 3: Periods of Fiscal Retrenchment; Definition II

Country	Period of Retrenchment	Change of the Cyclically Adjusted Government Balance (in % GDP)	Change in total Government Outlays (in % GDP)
Austria	1996-1997	+3	-2,7
Belgium	1993-1994	+4,5	+2,1
Denmark	1999	+2,1	-1,5
Finland	2000	+3,4	-3
Greece	1991	+4	-3,6
Greece	1994	+3,6	-2,1
Greece	1996-1998	+7,3	-3,8
Italy	1992-1993	+3,3	+1,5
Italy	1997	+4,2	-2,8
Netherlands	1991	+2,9	+0,5
Netherlands	1996	+2,2	-7,1
Portugal	1997	+3,8	+0,5
Sweden	1995-1996	+7,1	-4,9
Sweden	1998	+2,6	-2,5
Sweden	2001	+2	-0,3
United Kingdom	1997-1998	+3,9	-3,2

Source: OECD, own calculations

In sum, according to Definition I, nine out of fourteen EU countries were able to engage in lasting fiscal retrenchment during the 1990s and most did so by reducing expenditures. As has been shown before[19], this was mainly achieved by reducing social transfers and government consumption.

3.2. Data and Variables[20]

[19] See Alesina and Perotti 1997; Alesina and Ardagna 1998; Alesina, Perotti and Tavares 1998

[20] An overview of definitions and sources is also provided in the annex.

The TSCS data consists of 14 EU countries, observed during the time period from 1990-2001. The dependent variable is a dummy which assumes the value "1", if a given country engaged in fiscal retrenchment in a given year, while the dummy assumes the value "0" for all those instances that do not belong to a period of deficit reduction. For our two definitions, there are thus two dummies, "D1" and "D2". This is the most straightforward way to test for the factors that facilitate or inhibit retrenchment as it is defined in this paper.

To control for the economic determinants of fiscal retrenchment, a number of economic variables is employed. Following the empirical literature (Alesina, Roubini and Cohen 1997; de Haan and Sturm 1997; Franzese 2002a; Sakamoto 2001; Woo 2003), five economic controls are introduced[21]: structural general government balance of the previous year "$\Delta Balance_{t-1}$", real GDP growth "GDP", tax revenues in percent of GDP "TAX"; government expenditure as a percentage of GDP"OUTLAYS" and the overall debt level in percent of GDP "DEBT". Economic growth, government outlays and tax revenue capture the effects of recessions and booms on deficits. The debt level, on the other hand, gives an indication of the long term sustainability of government finances, whereas the lagged structural general government balance captures the short term budgetary pressure. Since EU-14 nations have a common trade regime and do not differ very much in their demographics, factors such as the old-age dependency ratio or trade openness used in part of the literature (Franzese 2002a; Woo 2003) are neglected. This is also warranted by the rather brief time span considered here, which is too short to reflect the impact of changing demographics on social expenditure.

To test for partisan effects on deficits, several variables are employed. First of all, GOVCOMP is a measure that indicates whether a given government is dominated by the left or the right. It ranges from 1 (for hegemony of the right) to 5 (indicating a left hegemony), while 3 indicates a stalemate. Furthermore, the respective share of left- and right wing parties in parliament is captured by "PLEFT" and "PRIGHT" [22].

Several variables are used to capture the effects of veto players on deficits. First of all, the additive indicator "POWER" measures the impact of the federal structure of a country, the number of parliamentary chambers, and the regime

[21] Other economic variables such as unemployment rate and long term interest rates were also tested. LR tests recommended their exclusion.

[22] Note that Centrist (Christian democratic) have been allocated to the right-wing parties (PRIGHT), which is not a trivial decision.

type (presidential or parliamentarian). The indicator ranges from 0 to 6, and increases with the concentration of power in a country. This means that the more veto players there are, the lower is this indicator's value. Hence, the highest value can be found in countries with a unitary structure, no president and a unicameral legislature. A value of "0", on the other hand, would be found in a country that has a pure presidential system, a federal structure and two chambers of parliament.[23] For technical reasons and to facilitate interpretation, the variable "POWER" is transformed into a dummy variable named "VETO", which assumes "0" if there are only few veto players ("POWER" >4,), and takes on the value "1" if there are many veto players ("POWER" ≤ 4). Second, in order to test hypothesis number 4, the variable "NOP", which denotes the number of parties in government, is included.

4. Testing the Hypotheses

In this section, the above derived hypotheses are empirically tested employing time-series cross-section (TSCS) analyses of a data set comprising 14 EU countries[24] for the period 1990-2001. In particular a logit analysis is being carried out, which will identify the factors that increase the probability of a successful retrenchment.

TSCS data represent repeated observations of a fixed number of units[25]. This offers a number of advantages to the researcher, since TSCS models increase the number of observations available, allow studying dynamic adjustment processes and offer the possibility to control for unit heterogeneity. However, estimations of TSCS data are far more problematic than pure cross-sectional ones. The reason is that pooled data sets commonly violate the assumptions about the error process. In particular, TSCS errors often exhibit panel heteroskedasticity, contemporaneous correlation and serial correlation. Because of these caveats and difficulties (see Beck and Katz 1995; Beck 2001; Plümper, Manow and Troeger 2003), estimation and specification issues will also be discussed briefly.

[23] Note that there is no such case in the sample employed here because a pure presidential system does not exist in any EU-14 country.
[24] Luxembourg is excluded.
[25] It is important to distinguish between panel data and TSCS. Panel data usually consist of a large number of sampled units observed only a few times, with the focus lying on making general inferences for a larger population, that is, units are interchangeable. In TSCS, units are smaller in number, fixed and observed over longer periods of time. Also, these specific units are of interest for themselves and are usually not merely a sample (Beck 2001, p. 273).

4.1 Specification and Estimation of the Binary Models

In this sub-section, the full TSCS data set will be analysed in order to find the variables that determined whether or not a country underwent a period of fiscal retrenchment, as it has been defined in 3.1. Therefore, a binary regression model will be estimated with the dependent variable being a dummy that simply denotes whether a country in a given year engaged in successful budgetary consolidation or not.

However, as mentioned above there are a number pitfalls when analysing TSCS data. To deal with the problem of panel heteroskedasticity, White robust standard errors (White 1980) are calculated. A more serious but often overlooked problem (Beck et.al. 1998) is possible temporal dependence in the observations. The Wooldridge test for autocorrelation (Wooldridge 2002) clearly indicates the presence of first-order autocorrelation. As a remedy, I follow the solution proposed by Beck et.al.(1998). They note that binary TSCS models are equivalent to grouped duration data models. As a result, they propose to include time dummies, which in this case are analogous to a baseline hazard function in the grouped duration case and which capture the time that has passed since the last event. A likelihood ratio test clearly confirms the need for the inclusion of these dummies.

The binary model itself is a logit model (i.e. ε is distributed logistically):

$$\Pr(D=1|X)=\frac{\exp(X)}{1+\exp(X)} \qquad (3)$$

where $\Pr(D=1|X)$ is the conditional probability of a lasting fiscal retrenchment D with $D=1$ if there is a lasting retrenchment in a given year and country, and $D=0$ if there is not. The conditional probability is given by

$$X = \beta_0 + \beta_1\Delta\text{Balance} + \beta_2 GDP_{i,t} + \beta_3 OUTLAYS_{i,t} + \beta_4 DEBT_{i,t} + \beta_5 TAX_{i,t} + \beta_6 GOVCOMP + \beta_7 NOP + \beta_8 VETO_{i,t} + \beta_9 PLEFT_{i,t} + \beta_{10} VETO_{i,t} * PLEFT_{i,t} + \gamma_t$$

$$i=1,\ldots,14; \qquad t=1,\ldots,12 \qquad (4)$$

The subscripts i and t denote the country and the year, while γ denotes the included time dummies. Most importantly, besides the above described variables there is also a multiplicative interaction term, which captures the assumption that partisan behaviour is conditional upon the institutional structure of the political

system. In other words, political parties and governments can only pursue their goals if the political system gives them the freedom to do so. As discussed before, a high number of veto players may inhibit partisan policies or may force actors to accept compromises.

The results of the estimations are presented in table 4. The results for the first definition (D1) of fiscal retrenchment are shown in the second and third column, while the findings for Definition II are explicated in column four and five. Of the economic variables, the one year lag of the cyclically adjusted balance is highly significant and negative across all specifications. This is what one would expect: higher fiscal deficits (negative balances) make retrenchment more likely. The positive sign and high significance of the TAX variable indicates that tax revenues are associated with budgetary adjustments. However, TAX may also be a proxy for the overall tax burden and could therefore suggest that increasing tax levels could increase the pressure on the government to engage in a retrenchment to make room for tax cuts. Equally significant is the impact of government outlays. Its negative sign is somewhat harder to interpret though.[26] GDP growth and the overall debt burden are only significant in the models that employ our first definition of retrenchment.[27] The positive sign for DEBT is what one would expect. The positive sign for the economic growth variable could mean two things: either governments act countercyclical or lasting consolidations are associated with higher growth rates. Both interpretations are plausible but precise causation cannot be established here.

Looking at the veto players variables, we observe that the number of government parties (NOP) is negative throughout. This lends credibility to the notion that the probability of a successful adjustment decreases with the number of government parties. However, the significances are much higher for our second (more demanding) definition of retrenchment, whereas the effect seems less pronounced for our first definition which also accounts for more gradual consolidations.

[26] One possible explanation would be, that the higher outlays are, the harder it is to roll them back, since ever more interests and voters get a transfer of some sort from the government and as a result oppose retrenchment.

[27] Note that the number of observations when PRIGHT is included is lower. Hence the ML estimation comes up with different coefficients.

Table 4: Logit Regression of the TSCS data

	Model 1 Def1	Model 2 Def1	Model 3 Def2	Model 4 Def2
ΔBalance $_{t-1}$	-1.140*** (0.324)	-1.214*** (0.386)	-1.728** (0.682)	-2.170*** (0.793)
GDP	0.600** (0.275)	0.569** (0.278)	0.244 (0.374)	-0.156 (0.332))
OUTLAYS	-0.858*** (0.235)	-1.055*** (0.350)	-0.840* (0.446)	-0.999* (0.536)
DEBT	0.039* (0.023)	0.082* (0.047)	0.0192 80.020)	0.038 (0.034)
TAX	1.314*** (0.336)	1.626*** (0.564)	1.199**(0.612)	1.358** (0.664)
GOVCOMP	-0.203 (0.383)	0.169 (0.332)	1.354** (0.682)	2.219**(0.988)
NOP	-0.476 (0.407)	-1.373*(0.806)	-1.589* (0.897)	-2.591** (1.166)
VETO	-13.358*** (4.970)	21.194** (10.339)	-1.490 (2.445)	6.209 (5.765)
dy/dx	-0.997*** (0.007)	0.993*** (0.003)	-0.005 (0.011)	0.016 (0.029)
PLEFT	-0.021 (0.044)		-0.022* (0.068)	
dy/dx	-0.005 (0.009)		-0.000 (0.000)	
PRIGHT		0.080 (0.073)		-0.206* (0.117)
dy/dx		0.011 (0.008)		0.000 (0.000)
VETO*PLEFT	0.289*** (0.111)		0.009 (0.064)	
dy/dx	0.062*** (0.023)		0.000 (0.000)	
VETO*PRIGHT		-0.424** (0.202)		-0.152 (0.100)
dy/dx		-0.059*** (0.020)		-0.000 (0.000)
N	155	132	155	132
LR	160.304***	141.326***	80.389***	67.401***
McFadden's Adj. R^2	0.607	0.597	0.295	0.251

Notes: TSCS logit regression coefficients with White standard errors in parentheses; dy/dx are marginal effects with standard errors in parentheses; time dummies are not shown;
***Significant at the 0.01 level, **Significant at the 0.05 level, *Significant at the 0.1 level
Source: own calculations.

Greatest interest is probably spawned by the interaction term and its constitutive parts, which can only be interpreted in a conditional way. Besides the

beta-coefficients, I also calculated marginal effects (dy/dx) and their standard errors. Again, the results seem to hinge on the definition employed. The interpretation of VETO is somewhat meaningless because the coefficient measures the impact for the hypothetical case that PLEFT (or PRIGHT) is zero which makes no sense theoretically and is never the case in the sample. On the other hand, when VETO is zero, that is, when there are only few veto players, an increase of the left's or right's strength in parliament seems not to affect the likelihood of a fiscal retrenchment.[28] However, as the marginal effects of the interaction term show for Models 1 and 2, once there are many veto players (VETO=1), an increase in left-wing legislators actually increases the probability of a fiscal adjustment. An increase of right-wing parliamentarians, on the other hand, decreases it. Hence, for our first definition, partisan behaviour is clearly conditional upon institutional structures. Once, power is dispersed parties start to behave in line with the strategic debt hypothesis of Persson and Svensson (1989). Explanations for these counterintuitive results are not straightforward and its discussion will be deferred to the concluding section.

This finding no longer holds when we look at Models 3 and 4 that employ the stricter definition[29]. Here, the interaction term remains insignificant. In contrast to the first two specifications, however, the overall ideological leaning of the government (GOVCOMP) becomes important. It strongly suggests that the more leftist the government is, the higher the probability of a successful retrenchment.

To further check the impact of GOVCOMP independently of institutional factors, a fixed effects model for both definitions was also estimated. The results can be found in Annex A. They corroborate the conclusion that in the case of definition 2, the ideology of the government matters and left-wing governments are more likely to engage in budgetary consolidation.[30]

[28] Note that when interpreting interactive terms and their constitutive variables, the marginal effects are more meaningful to look at than the coefficients (Brambor et.al. 2006)

[29] It is stricter in the sense that it demands higher annual improvements in the structural government balance.

[30] It is important to note that only in this case, where we excluded the institutional variables (which only slowly change within units or are even constant) was it possible to run a (conditional) fixed effects model and therefore to account for unit heterogeneity properly.

4.2. Results

In general, when we look at the results and compare them with our hypotheses, we find that the empirical world is much more complicated than the neat world of political economy models. One cannot avoid stating that the definition of a lasting retrenchment has an impact on the results. As discussed in section 3.1., Definition 1 stands for a more gradual approach and includes important cases, which is why it is somewhat privileged in the interpretation of the empirical findings. Clearly, Hypothesis 4 on the impact of the number of parties in government seems to be corroborated, although the findings are stronger for the second definition. Coming to the impact of institutional and partisan factors, we see that clear-cut answers are not possible. Rather, for our first definition of retrenchment, there seems to be a complicated interaction going on between partisan preferences and the institutional environment. The findings are somewhat counterintuitive but seem to suggest that when there are only few veto players, the political leaning of legislators does not seem to matter statistically. However, with many veto players present, left- and rightwing parties seem to behave in line with Hypothesis 2, which is based on the debt-as-strategic-variable argument. When a more demanding idea of fiscal adjustment is used as a dependent variable, these interaction effects disappear as does the role of ideology of the legislators. However, the political colour of the government now becomes important, strongly confirming Hypothesis 2. As a result, the classical partisan behaviour á la Hibbs is never observed. Institutional structures seem to shape the behaviour of partisan actors only when retrenchment is pursued for several years. In case of short and massive adjustments, institutional barriers seem to matter less.

5. Summary and Conclusions

This paper endeavoured to illuminate the political and institutional factors that can help explain the occurrence of lasting fiscal retrenchment in European Union countries for the time period 1990-2001. Applying the partisan perspective, it was hypothesized that the success of fiscal retrenchment depends on the ideological orientation of the political parties in power. A second set of hypotheses was derived from the veto players approach. They predicted that successful fiscal consolidation was a function of the number of insitutional veto players and the

size of the governing coalition. Moroever, it was presumed that partisan and insitutional factors should condition each other somehow.

In the empirical analyses, it could be concluded that the structural budget balance, the size of government outlays and the overall taxt level of a country were important econmic predictors of retrenchment in our EU sample. With respect to the institutional and partisan variables, results were more mixed. When defining retrenchment more in line with Alesina and Ardagna (1998), then we find strong evidence in favour of Hypothesis 2, indicating that right-wing governments run deficits for strategic reasons, while leftist governments reduce them. In the case of longer lasting gradual adjustment efforts (i.e. defintion 1), it was found that partisan behaviour hinges upon the way the political system concentrates decision-making power. With few veto players, i.e. a high power concentration, there seems to be no clear-cut partisan effect discernible. When there are many veto players, that is, when political power is dispersed among many actors that can veto each others' actions, partisan effects become very pronounced. In such a system, the left is more likely to engage in budgetary retrenchment whereas the right is much less inclined to do so, thus lending credibility to Hypothesis 2. As a result, the impact of insitituional factors cannot be explained in isolation, making Hypothesis 3 somewhat redundant.

What can explain these differences in partisan behaviour? One possible explanation might be that systems with many veto players exhibit more political competition on several levels. Hence, it does not suffice to win a simple majority in the lower house of parliament. Other branches of government must also be captured (e.g. upper house, presidency, federal states), which means parties must win more than a simple majority. This may lead them to follow strategies that appeal to voters on the other side of the political spectrum. As a result, right-wing parties will try to act less hawkish on the budget, whereas left-wing parties will try to appear fiscally prudent to convince conservative voters. Since all these election do not occur on the same day but are spread across time, this explanation would entail a longer term commitment to these kinds of policies.

Another story could run like this: fragmented political systems that disperse decision-making power may either induce parties to behave strategically in the way suggested by Persson and Svensson model; or, alternatively, systems with many veto players have been created in countries with very polarized parties that are prone to strategic debt behaviour. In this case, the political constitution

represents an (apparently futile) attempt to force parties into compromise by creating many intervening actors.

Which of these explanations hold cannot be analysed with the data at hand. Rather, it would be necessary to have more dis-aggregated data on party preferences. Just to give an example, the British Labour party and the French Communists are both subsumed under PLEFT here, yet their fiscal policy preferences are probably not very similar. Data on individual party positions regarding fiscal policy could not only help to better categorize them regarding their partisan affiliation but may also allow to calculate win-sets and cores for different countries which would dramatically improve our ability to explain fiscal policy behaviour across countries and time.

6. References

Aghion, P., and P. Bolton (1990):"Government Domestic Debt and the Risk of Default: A Political-Economic Model of the Strategic Role of Debt", in: R. Dornbusch and M. Draghi (eds.): *Public Debt Management: Theory and Practice*, Cambridge: Cambridge University Press.

Alesina, A., and S. Ardagna (1998): "Tales of Fiscal Adjustment", *Economic Policy,* Vol. 17*,* 488-545.

Alesina, A., and A. Drazen (1991): "Why Are Stabilizations Delayed?", *American Economic Review*, Vol. 81, No. 5, 1170-1180.

Alesina, A., N. Roubini, with G. Cohen (1997): *Political Cycles and the Macroeconomy*, Cambridge: MIT Press.

Alesina, A., and R. Perotti (1995): "The Political Economy of Budget Deficits", *IMF Staff Papers,* Vol.42, No.1, 1-31.

Alesina, A., and R. Perotti (1997): "Fiscal Adjustments in OECD Countries: Composition and Macroeconomic Effects", *IMF Staff Papers,* Vol.44, No.2, 210-239.

Alesina, A., R. Perotti, and J. Tavares (1998): "The Political Economy of Fiscal Adjustments", *Brookings Papers on Economic Activity,* Vol. 1988, Issue 1, 197-248.

Alesina, A., and G. Tabellini (1990): "A Positive Theory of Budget Deficits and Government Debt", *Review of Economic Studies*, Vol. 57, No. 3, 403-414.

Backus, D., and J. Driffill (1985a): "Rational Expectations and Policy Credibility after a Change of Regime", Review of Economic Studies, Vol. 52, 211-222.

Backus, D., and J. Driffill (1985b): "Inflation and Reputation", *American Economic Review*, Vol. 75, No. 3, 530-538.

Beck, N. (2001): "Time-Series-Cross-Section Data: What Have We Learned in the Past Few Years?", *Annual Review of Political Science*, Vol. 4, 271-293.

Beck, N., and J. Katz (1995): "What to Do and Not to Do With Time-Series Cross-Section Data", *American Political Science Review* Vol. 89, No.3, 634-647.

Beck, N., J. Katz, and R. Tucker (1998): "Taking Time Seriously: Time-Series-Cross-Section Analysis with a Binary Dependent Variable", *American Journal of Political Science,* Vol. 42, No. 4, 1260-1288.

Boix, C. (2000): "Partisan Governments, the International Economy, and Macroeconomic Policies in Advanced Nations, 1960-93", *World Politics,* Vol. 53, 38-73.

Brambor, T., W.R. Clark and M. Golder (2006): "Understanding Interaction Models: Improving Empirical Analyses", *Political Analysis*, Vol. 14, pp. 63-82.

Clark, W.R., and M. Hallerberg (2000): "Mobile Capital, Domestic Institutions and Electorally Induced Monetary and Fiscal Policy", *American Political Science Review*, Vol.94, 323-346.

Cusack, T.R. (1999): "Partisan Politics and Fiscal Policy", *Comparative Political Studies*, Vol. 32 No. 4, 464-486.

Daniels, J.P., F. Nourzad and D. van Hoose (2004): "Openness, Central Bank Independence, and the Sacrifice Ratio", Unpublished Manuscript.

De Brower, G. (1998): "Estimating Output Gaps", *Research Discussion Paper* 9809, Reserve Bank of Australia.

De Haan, J., and J.-E. Sturm (1997): "Political and Economic Determinants of OECD Budget Deficits and Government Expenditure: A Reinvestigation", *European Journal of Political Economy*, Vol. 13, 739-750.

De Haan, J., J.-E. Sturm, and G. Beekhuis (1999): " The Weak Government Thesis: Some New Evidence", *Public Choice*, 101, 163-176.

De Wolff, J. (1998): *The Political Economy of Fiscal Decisions*. Heidelberg: Physica-Verlag.

Drazen, A. (2000): *Political Economy in Macroeconomics*. Princeton: Princeton University Press.

Edin, P.-A., and H. Ohlsson (1991): "Political Determinants of Budget Deficits: Coalition Effects versus Minority Effects", *European Economic Review*, Vol. 35, No. 8, 1597-1603.

Franzese, R. J. (2002a): *Macroeconomic Policies of Developed Democracies*. Cambridge: Cambridge University Press.

Franzese, R. J. (2002b): "Electoral and Partisan Cycles in Economic and Policies and Outcomes", *Annual Review of Political Science*, Vol. 5, 369-421.

Hallerberg, M., and J. von Hagen (1997): "Electoral Institutions, Cabinet Negotiations, and Budget Deficits in the European Union. *NBER Working Paper*, No. 6341.

Hibbs, D. A. (1977): "Political Parties and Macroeconomic Policy", *American Political Science Review*, Vol. 71, No. 4, 1467-1487.

Hibbs, D. A. (1987): *The American Political Economy: Electoral Policy in Contemporary America.* Cambridge: Harvard University Press.

Milesi-Feretti, G.M., and E. Spoalore (1994): "How Cynical can an Incumbent be? Strategic Policy in a Model of Government Spending", *Journal of Public Economics Vol.* 55, 121-140.

Oatley, T. (1999): "How Constraining is Capital Mobility? The Partisan Hypothesis in an Open Economy", *American Journal of Political Science*, Vol. 43, no. 4, 1003-1027.

Nordhaus, W. (1975): "The Political Business Cycle", *Review of Economic Studies*, Vol. 42,No.2, 169-190.

Persson, T., and L. Svensson (1989): "Why a Stubborn Conservative would Run a Deficit: Policy with Time-Inconsistent Preferences, *Quarterly Journal of Economics*, Vol. 104, No. 2, 325-345.

Pierson, P. (1996): "The New Politics of the Welfare State", *World Politics*, Vol. 48, No. 2, 143-179.

Plümper, T., Manow, P. and V. Troeger (2003): "Pooled Data Analysis in the Comparative Political Economy of the Welfare State: A Note on Methodology and Theory", *Paper Presented at the ECPR Conference Marburg 2003.*

Rogoff, K. (1990): "Equilibrium Political Budget Cycles", *American Economic Review*, Vol. 80, No. 1, 21-36.

Roubini, N., and J. Sachs (1989a): "Political and Economic Determinants of Budget Deficits in the Industrial Democracies", *European Economic Review*, Vol. 33, No. 2, 903-933.

Roubini, N., and J. Sachs (1989b): "Government Spending and Budget Deficits in the Industrialized Countries", *Economic Policy*, Vol. 8, 99-132.

Sakamoto, T. (2001): "Effects of Government Characteristics on Fiscal Deficits in 18 OECD Countries, 1961-1994", *Comparative Political Studies*, Vol. 34 No. 5, 527-554.

Spoalore, E. (1993): "Policy Making and Economic Efficiency: Coalition Governments versus Majority Governments", Unpublished Manuscript.

Tabellini, G. (1987): "Central Bank Reputation and the Monetization of Deficits", *Economic Inquiry*, Vol. 25, 185-201.

Tabellini, G. (1988): "Centralized Wag Setting and Monetary Policy in a Reputational Equilibrium", *Journal of Money, Credit and Banking*, Vol. 20, 102-118.

Tsebelis, G. (1995): "Decision Making in Political Systems: Veto Players in Presidentialism, Parliamentarism, Multicameralism, and Multipartyism", *British Journal of Political Science*, Vol. 25, No. 3, 289-325.

Tsebelis, G. (2002): *Veto players. How Political Institutions Work.* Princeton: Princeton University Press.

Tsoukalis, L. (1997): *The New European Economy Revisited.* Oxford: Oxford University Press.

Weingast, B., K. Shepsle, and C. Johnsen (1981): "The Political Economy of Costs and Benefits", *Journal of Political Economy*, Vol. 89, No. 4, 642-664.

White, H. (1980): "A Heteroskedasticity-Consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity", *Econometrica* 48, 817—38

Woo, J. (2003): "Economic, Political, and Institutional Determinants of Public Deficits", *Journal of Public Economics*, Vol. 87, 387–426.

Wooldridge, J. M. (2002): *Econometric Analysis of Cross Section and Panel Data.Cambridge*. Massachusetts:The MIT Press.

Annex A

A 1: Fixed effects logit model, excluding institutional variables

	Model 1 D1	Model 2 D2
ΔBalance $_{t-1}$	-0.595*** (0.198)	-1.132*** (0.302)
GDP	0.778*** (0.254)	-0.065 (0.305)
OUTLAYS	-0.355**(0.160)	-0.601*** (0.220)
DEBT	0.019 (0.044)	0.093 (0.059)
TAX	-0.105 (0.306)	0.734*** (0.271)
GOVCOMP	0.432 (0.403)	1.263** (0.551)
N	78	112
LR	40.247***	39.273***
McFadden's Adj. R^2	0.334	0.346

Notes: TSCS conditional fixed effects logit regression, coefficients with standard errors in parentheses; ***Significant at the 0.01 level, **Significant at the 0.05 level, *Significant at the 0.1 level
Source: own calculations.

Annex B

Constitutional Structures of EU Countries

Number of Chambers		
TYPE OF SYSTEM	DESCRIPTION	COUNTRIES
Bicameral system	two chambers; approval of the second chamber is needed for certain issue areas	Germany
Weak bicameral system	two chambers; second chamber can object	Austria, Belgium, France, Ireland, Italy, Netherlands, Spain, UK
Unicameral system	only one chamber	Denmark, Finland, Greece, Portugal, Sweden
Regime		
TYPE OF SYSTEM	DESCRIPTION	COUNTRIES
Pure presidential	directly elected president; monistic executive with president at the top	
Semi-presidential	directly elected president; dualistic executive with prime minister being either dependent or independent from president	Finland, France, Portugal
Parliamentarian	monistic executive with prime minister	Austria, Belgium, Denmark, Germany, Greece, Ireland, Italy, Netherlands, Spain, Sweden, UK
Decentralization		
TYPE OF SYSTEM	DESCRIPTION	COUNTRIES
Federal system	sub-national regions have legislative competences	Austrian, Belgium, Germany, Italy, Spain
Unitary system	no legislative competences for sub-national regions	Denmark, Finland, France, Greece, Ireland, Netherlands, Portugal, Sweden, UK

Source: "Democratic Systems" data set. WZB.

Definition and Sources of Variables

<table>
<tr><th>Variable</th><th>Definition</th><th>Source</th></tr>
<tr><td>ΔBalance</td><td>Cyclically adjusted general government balance minus Cyclically adjusted general government balance of the previous year (in % GDP)</td><td>SourceOECD database</td></tr>
<tr><td>GDP</td><td>Annual growth the in real Gross Domestic Product (in %)</td><td>SourceOECD database</td></tr>
<tr><td>DEBT</td><td>Goss Government Debt (% GDP)</td><td>SourceOECD database</td></tr>
<tr><td>TAX</td><td>Total tax revenue (% GDP)</td><td>SourceOECD database</td></tr>
<tr><td>PLEFT</td><td>Share of social democratic and other left parties in parliament (in %)</td><td>Klaus Armingeon et. al., Comparative Political Data Set 1960-2001; own calculation</td></tr>
<tr><td>PRIGHT</td><td>Share of right-wing parties in parliament (in %)</td><td>Klaus Armingeon et. al., Comparative Political Data Set 1960-2001; own calculation</td></tr>
<tr><td>GOVCOMP</td><td><table><tr><td>1</td><td>Hegmony of right-wing parties</td></tr><tr><td>2</td><td>Dominace of right-wing parties</td></tr><tr><td>3</td><td>Stalemate between left and right</td></tr><tr><td>4</td><td>Dominance of left-wing parties</td></tr><tr><td>5</td><td>Hegemony of left-wing parties</td></tr></table></td><td>Klaus Armingeon et. al., Comparative Political Data Set 1960-2001; own adjustments</td></tr>
<tr><td>NOP</td><td>Number of parties in government</td><td>Thomas Cusack, Lutz Engelhardt, The PGL File Collection; European Journal of Political Research, various issues</td></tr>
<tr><td>POWER</td><td>Additive index called “Fuchs2p“ consisting of three components, that are each coded from 0-3, according to increasing power cocentration (and decreasing number of veto players):
1. Chamber System<table><tr><td>Bicameral system</td><td>two chambers; approval of the second chamber is needed for certain issue areas</td><td>0</td></tr><tr><td>Weak bicameral system</td><td>two chambers; second chamber can object</td><td>1</td></tr></table></td><td>“Democratic Systems“ data set. WZB.</td></tr>
</table>

<table>
<tr>
<td></td>
<td>
<table>
<tr><td>Unicameral system</td><td>only one chamber</td><td>2</td></tr>
</table>

2. Regime Type
<table>
<tr><td>Pure presidential</td><td>directly elected president; monistic executive with president at the top</td><td>0</td></tr>
<tr><td>Semi-presidential</td><td>directly elected president; dualistic executive with prime minister being either dependent or independent from president</td><td>1</td></tr>
<tr><td>Parliamentarian</td><td>monistic executive with prime minister</td><td>2</td></tr>
</table>

3. Federal-Unitary Index
<table>
<tr><td>Federal system, subsidiary in character</td><td>strong legislative competencies for sub-national regions</td><td>0</td></tr>
<tr><td>Federal system, unitary character</td><td>weak legislative competencies for sub-national regions</td><td>1</td></tr>
<tr><td>Unitary system</td><td>no legislative competences for sub-national regions</td><td>2</td></tr>
</table>
</td>
<td></td>
</tr>
<tr>
<td>VETO</td>
<td>High or low number of veto players
VETO = 1, if POWER ≤ 4
VETO = 0, if POWER > 4</td>
<td>Derived from the variable POWER (“Democratic Systems“ data set. WZB.)</td>
</tr>
</table>