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Political Fragmentation and Fiscal Outcomes

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ABSTRACT

In this paper we develop the analysis of the effects on political fragmentation on fiscal policy in a number of ways. We analyze three kinds of fragmentation: size and control, institutional and over time fragmentation. In doing so we introduce a number of new variables that allow us to look at this issue in a broader way. At the same time we have tackled some methodological problems that have affected previous analyses, using a panel of 19 OECD countries over 1975-1995. Overall we find relatively poor evidence in favor of size and over time fragmentation, and more relevance for institutional and control fragmentation.

JEL classification: E62, E63, H62.

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1. Introduction

Fiscal policy is not implemented in the *vacuum*. The actual choice of the instruments for financing the government activity, and more in general its size and the balance of fiscal policy, are shaped by political actors. The size of the government deficit and debt attained in the '80s cannot be explained in terms of the equilibrium approach to fiscal policy, which argues that the actual tax and expenditure policy is the outcome of intertemporal optimization from the government. This approach, which can be summarized by the tax-smoothing hypothesis, allows for deficit when government expenditure is temporarily higher than its normal level on the basis that changes in the tax rate are costly in terms of social welfare. This consideration, together with a methodological dissatisfaction toward the mainstream view of the benevolent, social welfare maximizing government, has caused a number of studies that highlight the role of political fragmentation in shaping the conduct of fiscal policy.

We use the label "political fragmentation" in a rather comprehensive way. Instead of narrowing it to the ideological side, we use it to describe a full range of issues in fragmentation, of which ideology is only one. Indeed, the aim of this work is to explore three aspects of fragmentation that we call: size, institutional and over time fragmentation. Size fragmentation applies to the number and the relative dimension of the subjects involved in the budget process. Institutional fragmentation is concerned with a number of issues starting from the system (presidential or parliamentarian) that selects the chief executive, to electoral rules and checks and balances among different constitutional players. This kind of fragmentation has its roots in the rules of the game and tend to be stable as long as they are infrequently changed, while size fragmentation is the outcome of relative and changing strength of political parties. Finally, we explore over time fragmentation to see whether a faster government turnover leads to short-sighted governments that are not committed to fiscal sustainability. In doing so we highlight some measurement issues that were not considered in previous studies. We use a new and valuable source of data, the Database of Political Institutions (Beck *et al.*, 2001) that has not yet been used to tackle this topic, and to expand the analysis to other indicators. The use of this database also allows us to address some of the methodological issues including those recently raised by Padovano and Venturi (2001) on the use of panel data to tackle this problem. With respect to other studies, we do not

address ideological issues such the orientation of governments and their ideological coherence, and the effects of explicit rules concerning the budget process between the government and the parliament.

The paper is organized as follows. The next section highlights some of the issues and the results concerning this literature. In section 3 we present our definitions of fragmentation and the variables through which we measure it. Section 4 provides the econometric specification, while in section 5 results for the government surplus and government expenditure are reported. Assuming the same model for outlays, revenue and government surplus, there is no need to report results for taxation, since it is the difference between public spending and the budget balance. The last section concludes.

2. Literature review

Roubini and Sachs (1989) argue that coalition members have different constituencies with possibly diverging interests. They face a prisoner's dilemma with respect to budget cuts: all the partners prefer comprehensive budget cuts with respect to the continuing large deficits, however each of them has an incentive to protect a particular part of the budget from cuts. The non-cooperative solution prevails over the cooperative one and therefore the budget does get not adjusted. In addition, each party may have a veto power threatening to break up the government. On the empirical side of their work, they considered 14 OECD countries from 1960 to 1985 and constructed an index of political cohesion.[1] The political variable is always significant and implies that the difference between a majority and a minority government is 1.5 percent points added to the budget deficit each year. The same idea has been interpreted as "wars of attrition" by Alesina and Drazen (1991). An immediate agreement on how to share the stabilization costs would make each member of the coalition better off relative to the same agreement reached with delay. This because in the meantime the economy is unstable and debt accumulation requires higher distortionary taxes to service it. Nonetheless, rational delay occurs because the proposed stabilization one party has to

[1] The index is equal to zero for one-party majority parliamentary government or presidential government with the same party in the majority in the executive and legislative branch; one for coalition parliamentary government with two partners or presidential government with different parties in control of the executive and legislative branch; two for parliamentary coalitions with three or more parties; three for minority parliamentary government.

bear a disproportionate share of the fiscal burden. In addition, the two groups are imperfectly informed about how costly is for the other to postpone the stabilization. Eventually, one party accepts to pay a larger share of the burden of the stabilization, but no party does so immediately, since each member of the coalition hopes that another gives in first. The optimal concession time for each party occurs when the marginal cost of waiting (i.e., the loss of utility for living in an unstable and distorted economy) equals the marginal benefit of waiting, given by the conditional probability that the other group will concede in the next instant multiplied by the difference in utility between paying the lower or the higher share of the fiscal burden.

Edin and Ohlsson (1991) criticize the use of the index of political cohesion on the argument that a multidimensional dummy places strong restrictions, in this case, the impact on budget of a minority government is three times higher than the impact of the a two-party government. Instead, they suggest using a dummy for each group. Only the dummy variable for minority government is significantly positive, suggesting that the effect of the political variable is entirely due to minority government having higher deficit. De Haan and Sturm (1994) do not agree with Roubini and Sachs on the coding of several governments, and when they replicate the test with their own government classification, they find no significant relationship between the political variable and public debt.[2] These and other findings have called for a better specification of the fragmentation variable both in terms of a clearer definition and more objective implementation.

A step in this direction is put forward by Kontopoulos and Perotti (1998). Firstly, they define fragmentation as the degree to which individual participants in the fiscal policy decision making internalize the cost of one dollar of aggregate expenditure. For instance, a group – and their institutional representative – may benefit from a piece of legislation that increases a specific expenditure, while the cost – in terms of taxes – is spread on the whole economy. Secondly, they note that previous literature has overlooked at what they call "size fragmentation" on the legislature side, whereas this

[2] De Haan and Sturm (1997) extend the sample of previous studies in terms of countries (21) and consider different years (1982-1992) and reject both the Roubini and Sachs and Edin and Ohlsson results. A similar result is found by de Haan *et al.* (1999) for 20 countries for the period 1979-1995, using various definitions of government debt. In addition they do not observe any significant difference between "stable" and "unstable" countries. However, they note that the number of parties in the government has a

kind of effects may be also driven by fragmentation in the government. Also the degree of procedural fragmentation plays a role, since it is different whether a minister sets the aggregate budget and subsequently the other ministers decide how to share it, or the bottom line of the budget is determined as the sum of the proposals of the spending ministers. Finally, they advocate for the use of variables that reduce the risk of individual judgment, being based on objective observation. For example, government fragmentation is defined as the number of spending ministers, while coalition fragmentation is defined as the number of parties in the coalition.

Volkerink and de Haan (2001) emphasize the role of political fragmentation of the government defined according two variables. The first one measures the ideological fragmentation that is based on the ideological complexion of the government. The second measure is based on the argument that each member of a coalition may be a potential veto player. Large ideological differences make compromising more difficult. Therefore, they compute the maximum distance between party code in a coalition. However, political fragmentation appears to influence neither the revenue nor the expenditure side of the budget, leaving the balance unaffected. They also find that the ideological orientation of the government matters, with left-wing governments tend to be less fiscally responsible than conservative governments.[3]

The effects of government fragmentation appear to be different according to the overall economic situation. When the economy is experiencing a sustained growth – as in the sixties – his impact is quite negligible, while in periods of slow growth, rising interest rates, and growing unemployment - when the need for an effective consolidation is higher - it is sizable (Kontopoulos and Perotti, 1998; Volkerink and de Haan, 2001). The detection of these periods is obtained dividing the time-span accordingly or by the interaction of the political variable with the change in growth (or unemployment).

Ashworth and Heyndels (2001) assume that governments have an ideal tax structure. When exogenous shocks lead the actual tax structure to diverge from this ideal, it is a matter of tax policy to bring the tax structure back in line with its ideal. The

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significant positive impact. Borrelli and Rayed (1995) find support for the weak government hypothesis only in the negative phases of the economic cycles.

[3] Similar results are found by Perotti and Kontopoulos (1998). However, Sturm and de Haan (1994), for European Union countries, do not find this effect.

hypothesis tested is that this process takes longer under more fragmented governments. To measure this persistence, they analyze the time path of differences in tax structures among countries using an index of tax heterogeneity and the convergence concepts and methodology of the economic growth literature, finding weak evidence to their hypothesis.

3. Issues in political fragmentation

In this study we are concerned we three kinds of political fragmentation: size, institutional and over time fragmentation. In all of them we introduce new features that have not been analyzed in previous works. We use new indicators that allow us to tackle different aspects of fragmentation, and other variables that permit to overcome some methodological problems that have been pointed out in previous works.

3.1 Size and control fragmentation

As seen before, size fragmentation may arise from several aspects of the budgeting process and the forces that confront on it. Usually it refers to the coalition who supports the government, both in terms of its size and shape and of its internal ideological coherence. It may refer to the whole parliament, government and opposition. It may also concern the government itself, whether one minister (namely the Finance Minister or the Prime Minister) has the power to set the overall size of the budget and its composition between outlays and revenue and then bargain with the other ministers to set their own budget in the light of the compatibility with the general objective set. In other situations the Finance Minister may have a low ability to set overall targets: the budgeting process becomes the collection of several self-interested proposals by single ministers that are mainly interested in increasing their own position with respect to specific groups at the expenses of the overall fiscal sustainability. As in Volkerink and de Haan (2001), the variable is defined as the total number of ministers in the government minus the ministers of finance and/or budget and the Prime Minister. It is assumed that the larger is the number of spending ministers (*NSM*), the more difficult is to coordinate their requests and therefore a negative effect is expected on the government surplus, while a positive one is expected on the expenditure side.

Previous studies have concentrated on the overall fractionalization of the parliament and/or of the government. This index is usually labeled as effective number of parties and is the inverse of the Herfindahl index. However, for a given coalition is not the same to confront an opposition made up by one party or more than one party. A limited number of opposition parties may find it easier to coordinate to contrast government proposals. If there is a large number of opposition parties, their interests may be divergent, and some of them may engage in bargaining with the coalition who support the government.[4] To consider this kind of fragmentation we use three indices: fractionalization of the government (*FRACG*), of the opposition (*FRACOPP*), and overall fractionalization (*FRACTOT*). As usual fractionalization is defined as the probability that picking at random two legislators they belong to different parties that respectively supporting the government, constitute the opposition parties, or form the parliament. The value ranges between 0 and 1, and usually for value greater then 0.5 we see a number of parties bigger than two and increasing as long as it approaches one. We expect that a large fractionalization have a negative effect on the budget surplus and a positive one on government expenditure.

As long as a given number of parties try to build a majority in the chamber(s), it may end up in bargaining with special interests parties. These parties usually do not have a comprehensive platform, but are built around a single issue. Among them we can consider religious parties, which aim at shaping the law according to their creed and to provide government support to religiously related institutions (e.g., funding for clergy and religious education). Rural parties stand for agricultural and peasants' interests and support government policies that favor those groups; nationalist parties that want to pursue a power policy mainly through military expenditure. Regional parties support specifically territorially defined interest at the expenses of other regions and of the interests of the whole country. These parties may be more concerned about their issues than the fiscal sustainability of their countries and may force expenditure and relief of taxation toward certain areas or sectors, therefore we expect a negative sign in estimation concerning government surplus, and a positive one with respect to

[4] A similar argument is used by Padovano and Venturi (2001). However, their empirical analysis is restricted to the Italian case.

government expenditure. We use a dummy variable (*COALSPEC*) that indicates whether any special interest parties belong to a coalition government.[5]

Another aspects of size fragmentation is captured by the variable *MAJ* that records number of seats held by the government coalition divided by total seats. The larger this majority, the easier for the government to put in place fiscal consolidation programs after a negative shock or tighter constraints to government expenditure. In addition, a strong majority is more able to resist to the pressure of interest groups.

We also consider a different kind of fragmentation that we call control fragmentation and is concerned with the control of the chamber(s) by the opposition, which has been overlooked in previous studies. If it has the majority in one of the chamber(s), the government has to engage in negotiations to pass its bills, and often has to amend them to secure the favor of (at least a part of) the opposition. This may result in a lower ability to counteract macroeconomic shocks and in a willingness to promote expenditure. Therefore, we can expect that the effect on the budget surplus is positive and the one on government spending is negative. The variables that indicate that one opposition party has the absolute majority of the chambers are *OPPMAJH* and *OPPMAJS*, for the house and the senate, respectively.[6] When the party of the chief executive has the absolute majority of both chambers, this is recorded by the variable *ALLHOUSE*. The expectation on this variable is negative on the government surplus, and positive on government expenditure. Although the two concepts may partially overlap, we do not consider this as institutional fragmentation. In this case the control over Houses is the result of the relative strength (size) of the parties in the government coalition and the opposition, while fragmentation among institutions is also the result of the constitutional and legal frameworks.

[5] In Beck *et al.* (2001) a problem arises with the definition of religious parties with Christian Democrats in Italy and Germany, which are coded as religious parties, even if one can reasonably argue that religious issues were not the main ones of these parties. To avoid this shortcoming we have not coded them as special interest parties. In addition, in the original dataset *COALSPEC* records whether the second and/or the third government party is a special interest one, while the variable *GOVSPEC* does the same for the first government party. For simplicity, the variable used here considers all the coalition members.

[6] Throughout the paper we interchangebly use the terms house and lower chamber, and senate and upper chamber.

3.2 Fragmentation among institutions

We consider fragmentation among institutions in a quite broad meaning. It includes measures of checks and balances among institutions, presidential or parliamentarian systems, and electoral rules as long as these laws are able to shape the rules of the games between fiscal players. Finally, among proportional representation systems, we distinguish between those who have closed lists and those who do not.

Beside the criticism reviewed in the previous Section, the Index of Political Cohesion does not distinguish countries according to the effectiveness of electoral checks on government decision makers. When electoral checks are few, executive control of the legislative apparatus is usually strong. The Index also does not take into account electoral rules that influence party control over members. Where party control is weak and the same party controls both the legislative and executive branches of a presidential government, this index would understate the level of checks and balances by coding the country as not having a divided government. Therefore, we use a new variable, *CHECKS*. It considers the number of veto players in a political system, adjusting for whether these veto players are independent from each other, their respective party affiliation, and the electoral rules. For presidential systems *CHECKS* [7] is the sum 1 (for the President), and the number of relevant legislative chambers. However, if there are closed lists and the President's party is the first government party, then the relevant legislative chambers are not counted. For parliamentary systems *CHECKS* is the sum 1 (for the Prime Minister) and the number of parties in the coalition. If there are closed lists and the Prime Minister's party is the first government party, then this sum is reduced by one.

Hallerberg and von Hagen (1999) provide a useful discussion of the effect of electoral rules on government deficit and debt. However their econometric analysis is only concerned with a kind of Roubini-Sachs measure of fragmentation and the position of the Finance Minister (or the Prime Minister) with respect to other members of the cabinet in the bargaining over the budget.[8]

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[7] In the original dataset all the countries that have a Legislative Index of Electoral Competitiveness higher than 4 receive one point in constructing *CHECKS1* plus those described above. Countries that score less than 4 obtain only one point. All the countries of our sample fulfill this threshold, therefore we have re-scaled our variable.

[8] The more parties are in government, the weaker is the Finance minister. Therefore in the Hallerberg and von Hagen (1999) analysis the two features tends to coincide.

Proportional representation systems tend to have a higher number of effective parties in parliament and are characterized by multiparty majority or either one- or multi-party minority governments. Lijphart (1984) reports that from 1945 through 1980 plurality system had in average 2.1 effective parties, while proportional representation systems had 3.8 effective parties. Hallerberg and von Hagen (1999) show that for a group of European countries during the period 1945-1990 there exists a high correlation between effective threshold and the number of parties, and the same relationship is found between the occurrence of one-party majority governments and higher effective thresholds. Finally, countries with plurality or proportional representation systems with low district magnitude are likely to have one-party majority governments, while proportional representation systems with high district magnitudes usually have either multiparty majority governments or minority governments.

When one has to operationalize electoral rules into an empirical framework, two main options are available. The first one is to use a dummy variable for a specific voting system (e.g., plurality). The other is to use the concept of "mean district magnitude", that is the average number of representatives elected in a single district. In the plurality system this number is equal to one since only the candidate who receive the majority of the votes is elected. In proportional systems the number varies according to the degree of proportionality in the system. For example, in Spain the mean district magnitude is 6.73 and the Socialist Party was able to get 52.6% of seats in the Congress of Deputies with a mere 44.3% of votes. In contrast, the Netherlands system is the most proportional since the entire country is a single district composed by 150 seats, and with less than 1% of votes a party can get a seat. Therefore this indicator allows for a richer description of the electoral rules than a dummy. We use the variables *MDMH* and *MDMS*, respectively for the House and for the Senate (if any). Another problem comes out from the existence of a threshold in proportional representation system, which sets a minimum requirement for votes to obtain a seat, and reduces fragmentation. This is captured by the variable *THRESH*,[9] which records the vote threshold for representation, if any.

We argue that in proportional representation systems we need to distinguish between those characterized by closed lists and those do not. In the former there is

[9] We have modified some entries for Italy since they mistakenly reported a 4% threshold in 1975-1993. Such a limit was imposed starting from elections in 1994. This measure cannot capture other threshold-like limits (e.g., fractions of the Hare quota) that are in place in some countries of our sample.

centralization in the decision of the candidates, which are elected depending on the votes received by their party and by the position occupied in the list. Member of Parliaments elected in this way have to please the chief executives of their parties to be candidate in the next election, and therefore stick to their directions. Closed lists may reduce the fragmentation in the research of consent that is typical of proportional systems. In contrast, when voters can choose between candidates in the same list there is another centrifugal force. Each candidate tries to obtain support of specific groups at the expense of the member of the same list, therefore he offers his support to requests for public expenditure programs requested by those groups and are in competition with other candidates to get their endorsement. Open lists strengthen fragmentation coming from proportional representation harming the budget balance and increasing government expenditure. *CL* is a dummy variable that is equal to one when there are closed lists and zero otherwise.

Different government systems have inherently different degrees of fragmentation. Presidential systems are centered on a directly elected president that has formal power on the government and even veto power on parliamentary decisions. In contrast, parliamentary systems rely on bargaining between parties, with the related delays in stabilization policies and capture from interest groups. The variable *SYSTEM* is a dummy variable that is equal to one for presidential systems and zero for parliamentary ones.

Finally, the constituency may be territorially defined. In several institutional systems members of the upper chamber are expression of states, regions or provinces. This creates a link that makes the representatives behave more as the agents of their own constituencies than of the "average" taxpayer. Therefore we expect a negative effect on the budget and a positive one on government expenditure for the variable *STCONST*, which is equal to one when senators have such a tie and zero otherwise.

3.3 Fragmentation over time

The effects of political and institutional fragmentation have been primarily analyzed in a static way, neglecting its over time characteristics. Two exceptions are represented by Grilli *et al.* (1991) and Hallerberg and von Hagen (1999) who find a negative correlation between government duration and debt accumulation. We use three

different measures for short-sighted fiscal policy. None of them is entirely satisfactory; still they may be able to capture different aspects of over time fragmentation. The first one is change in government (*CIG*) and is a dummy variable that takes value one when the chief of the government has changed with respect to the previous year and zero otherwise. This measure considers both changes occurred within a term and changes that takes place after elections. Changes recorded in this way concern the chief executive: he may be changed even if the majority coalition stays the same. Another measure is given by the variables *STABS* and *STABNS* since they consider the percentage of veto players dropping from government assuming that the Senate changes and does not change, respectively. Veto players are defined as follows: for presidential systems, the veto players are the President, the largest party in the legislature, and the largest party in the Senate. For parliamentary systems, veto players are defined as the Prime Minister and the three biggest coalition members. Because we are mainly concerned with changes taking place between one election and the next one, since they can be sign of a short-sighted government, we control for the effects of the elections using the variables *EXELEC*, which records whether is a particular year an executive election took place, and *LEGELEC* that has an unity value when legislative elections occur.[10] In some countries, in fact, these two elections are different. This happens in presidential systems and when there are mid-term elections that do not put under question the position of the executive, but still create a conflict during the electoral year between the government and the opposition to maximize the number of votes cast and than strengthening or weakening the executive. In terms of fiscal policy, these elections may cause flows of public spending toward some districts, in particular marginal ones.

Padovano and Venturi (2001, 18) maintain that "Measuring the government's expected life through *ex post* variables (…) is acceptable only if the constitution fixes the tenure length. Instead, when tenure length is variable, only an *ex ante* proxy of government expected life adheres to the logic of the theory. (…) Governments can predict their durability from their inner fragmentation and use the budget to extend their life as much as possible." The variable MULTPL records whether the chief executive

[10] However, a situation in which the turnover of governments is high may lead to elections take place before the constitutionally scheduled year. By the same token, a government may anticipate elections to take advantage of its strength among voters and gain an additional mandate. However, these situations are relatively rare.

can serve multiple terms, therefore we use this variable as an additional control when testing for over time fragmentation.[11]

4. Econometric specification

The general model we consider in the estimations, which is consistent with Barro (1979) and Keynesian models, is the following:

$$X_{i,t} = \beta_0 + \beta_1 X_{i,t-1} + \beta_2 CGDP_{i,t} + \beta_3 POL_{i,t} + v_{i,t}, \qquad (1)$$

where X is the fiscal variable of interest (either government surplus or government expenditure ratio to GDP), *CGDP* is the real GDP growth rate, *POL* is a vector of political variables, and v is the error term. Our specifications always include country- and time- dummies.[12] The sample consists of 19 OECD countries[13] for the period 1975-1995. Some considerations are needed on the estimation method. It is known that the OLS and the LSDV are inconsistent when a lagged value of the dependent variable is included in the right side of the equation. Typically, these estimations should be performed through the GMM and the IV procedures. Leaving aside the problem of finding reliable instruments, recent simulation studies (Bun and Kiviet, 1999 and Judson and Owen, 1999) have shown that for panel of the size of the one considered here the gain obtained using these more complex methods are very small compared with the LSDV. In addition, it has a lower mean square error compared with IV and GMM techniques and the bias is comparatively higher on the coefficient of the lagged variable rather than on the other coefficient, which are more important in our study. Therefore, we use the Least Square Dummy Variables method, correcting for the unbalanced data

[11] In parliamentary systems PMs, which represent the chief executive, do not face any term limits, therefore they always receive 0. In presidential in some cases systems Presidents have this kind of constraints.

[12] Macroeconomic shocks are likely to be highly correlated in this sample, therefore year dummies can parcel out the effect of these shocks if the latter are only partially captured by the macroeconomic variables we use as controls. Country-dummies allow disentangling the effect of unobservable variables (historical, cultural, and country-specific characteristics) that are correlated with political variables. Results for the significance of these dummies are not reported, but they are consistently jointly different from zero at the standard significance levels.

[13] Countries are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, United Kingdom and United States.

set. Table 1 reports summary statistics of all the variables considered in this work and table 2 shows the correlation matrix of political variables. There is a sizable risk of multicollinearity among these variables. Therefore, we use a few of them in each estimation to reduce it.

[Table 1 – Summary statistics]

[Table 2 – Political variables: correlation matrix]

We consider primary budget surplus and government expenditure net of interest because the government has not a strong power on the interest rates, which may be set by an independent central bank, as it has been increasingly the case for the countries of our sample in the considered time-span, or by the expectations in the capital market.[14] As Volkerink and de Haan (2001) we use data for the central government, since this measure is more consistent with the theory than general government data, though they include debt-servicing costs. Among the economic variables in eq. (1), other studies have considered different regressors. For example, Volkerink and de Haan (2001) use the change in real GDP growth rate and the change in the cost of debt service. Perotti and Kontopoulos (1999) use the change in unemployment and the inflation rate. Hallerberg and von Hagen (1999) use change in real GDP and change in unemployment. We have chosen the change in GDP growth rate over the change of unemployment because the two variables move in the same direction and a reduction in growth causes increase in government expenditure for unemployment benefits. Inflation has often been non-significant in our pilot estimations. Economic data are taken from the OECD National Accounts and Economic Outlook.

[14] However, the conduct of fiscal policy may influence the expectations of capital markets. Among previous studies, only Kontopoulos and Perotti (1998) and Perotti and Kontopoulos (1999) use primary government surplus and expenditures, even if in the former a is slightly different definition than the usual one is applied.

5. Results

In the following subsections we describe the result for the empirical model outlined in the previous section. Firstly we discuss findings for government surplus, then those for government expenditure. A general remark to make here is that the estimated constants are small and usually significant. This is evidence of absence of large multicollinearity that is typically detected when constants have very large values but are not significant.[15] We do not report estimations for jointly significance of time- and country-dummies. It suffices here to notice that they are consistently jointly different from zero at the standard significance levels.

5.1 Government surplus

Results for the relationship between government surplus and size fragmentation show the significance of the economic variable employed. In particular, the lagged value of the budget surplus indicates high stickiness in budget performance, and also GDP growth has a significantly positive impact on government surplus, as suggested by tax-smoothing models.

[Table 3 - Government surplus and size and control fragmentation]

Among the political variables, the number of spending ministers is consistently negative and significant across most specifications. This result confirms previous findings by Perotti and Kontopoulos (1998). Other commonly used political variables perform poorly. They usually have the expected sign, but are not significant. The new variable *FRACOPP* behaves in the same way always but once.[16] The three new variables introduced to test for control fragmentation show some interesting results. Control matters: if the opposition controls the House this is likely to have a positive effect of the budget balance. The opposite is true for the Senate. Not surprisingly, with these antecedents, when the government controls both chambers, the result is a tighter

[15] I owe this point to Vassilis Hajivassiliou.

[16] We have also re-estimated the same equations using the inverse of the Herfindahl index for the government and for the opposition instead of the relevant fractionalization indices. The results, available from the author upon request, are similar in terms of significance and in some cases do not show the expected sign.

discipline on the fiscal balance.[17] Another measure of fragmentation is given by *COALSPEC*. Although it has the expected negative sign, this variable is never significant. When *MAJ* and *ALLHOUSE* are considered together, the former is significantly different from zero at the 5% level, while the latter is not. This result can be interpreted claiming that the control of both Houses is relatively less important than the size of the majority. Apart from this, *MAJ* performs poorly, in line with findings by Volkerink and de Haan (2001), which find that the percentage of excess seats belonging to the ruling coalition enters significantly in the estimated equations only in the seventies. There are also other estimations that are worth mentioning, not displayed in Tab. 3. When we substitute a measure of overall party fractionalization (*FRACTOT*) to those of the government and the opposition, this variable in many cases is significant or borderline insignificant and the only result that changes is *ALLHOUSE*, which becomes significant at the 5% level.

In Tab. 4 we consider government surplus and institutional fragmentation. The index used to summarize this aspect does not perform well. It is negative but not significant. This result is not surprising since, as previously seen, most of the empirical work shows that direct indicators perform better than derivative ones.[18] Results for the electoral rules show some interesting features. They are usually highly significant, but the result for the upper chamber has the wrong sign.[19] However, when we introduce the variable *THRESH*, the Senate enters significantly with the right sign, the house mean district magnitude stays significant with the expected sign, and the threshold has a negative effect but is not significant. When dummies for the system and closed lists are added, we find the expected results. The estimates for these two variables are comparatively higher than those of the electoral rules. Finally, when the constituency of Senators is locally based, we obtain the expected negative effect on government surplus.

[17] As long as Senate is concerned, six countries are dropped from the sample: Denmark, Finland, New Zealand, Norway, Portugal, and Sweden.

[18] It is worth noting that the Database of Political Institutions supplies an additional "checks and balances" index, called *CHECKS2* in the original dataset, which is equal to *CHECKS* plus one for each veto player whose orientation is closer to the opposition than the government. In estimations not showed we find that *CHECKS2* is not significantly different from zero. Furthermore, due to their point estimates and variances (which are –0.00057 and 0.00062 respectively) we can claim that fragmentation shows some nonlinearity: the effect of, say, a third veto player is lower those of the second one. This point is made by Beck et al. (2000), but here we find very weak support to this since both coefficients are insignificant. The same holds true when testing for government expenditure.

[Table 4 - Government surplus and institutional fragmentation]

Finally, we turn on government surplus and over time fragmentation (tab. 5). Change in GDP is significant and enters with the expected sign. Results for change in government, positive and non-significant, stand in striking contrast with previous studies. Grilli *et al*. (1999) analyze 15 industrialized countries for the period 1970-1989. They consider two different indices: durability (the average number of years between one government change and the next), and stability (the average number of years between "significant" government changes). In the cross-section estimation on debt accumulation, the former is highly significant, while the latter not.[20] Hallerberg and von Hagen (1999) consider 15 European countries in the period 1981-1994 and analyze the effect of this political variable, together with others, on the change of gross debt level over GDP. This finding is confirmed even if we do not use any control variable in the estimation (not shown). Also *STABS* and *STABNS* are not significantly different from zero, giving farther support to the previous result.

An interesting feature concerns the variables we have introduced as controls. The constitutional possibility of seeking re-election significantly improves the commitment to a sound fiscal policy. Elections, both for the executive and the legislative bodies, cause a reduction in government surplus. We do not see these as contrasting results. *LEGEC* and *EXLEC* capture the behavior of the government in the electoral years when the incumbent government may use fiscal policy to please some members of its constituency, while *MULTIPL* captures a long-run behavior of the government with respect to fiscal discipline. A government may have an incentive in relaxing his policy in the electoral year, while in the previous ones it has been able to carefully manage the budget in a way that this change is only temporary and does not leave to itself a burden legacy. We interpret this result as evidence in favor of fragmentation having fiscal effects: a kind of fragmentation related to what we have defined as institutional one because it has its roots in the constitutional law that would mandate a change in government that harm the government balance.

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[19] In this case United Kingdom is also dropped because the House of Lords is not elective.

[20] When estimating the same relationship for primary budget deficit, the variable frequency is still significant for three out of four sub-periods (1950-1959, 1960-1969, 1970-1979), but not in 1980-1989. Our time-span overlap with the latter.

[Tab. 5 - Government surplus and over time fragmentation]

5.2 Government expenditure

The estimates for government expenditure and size fragmentation (table 6) are quite in line with those for the budget surplus. A sizable stickiness is confirmed, and a negative (anti-cyclical) relationship with GDP growth is found. The latter is weaker. The only political variable consistently significant is the number of spending ministers, while the other are never significant, with a very limited exception for *FRACG*. Once again this outcome is confirmed when we use the inverse of the Herfindahl index for both the government coalition and the opposition. However, two non-significant tendencies are worth noting. The first one involves the opposition fragmentation, which shows a negative impact on government expenditure. We claim that the more the opposition is fragmented, the less it is be able to bargain in favor of its interests with the government coalition. The second tendency involves the margin of majority and the control of both chambers: they are negative. We interpret this result in this way: as long as the government has the control of the legislature, it can implement its program at will without facing an effective opposition, therefore it can support all the groups that helped its election via government expenditure. The control of one of the chambers by the opposition has, this time, non-significant effects, while the presence of any special interests parties in the coalition supporting the government has again the expected sign but is not significantly different from zero.

[Tab. 6 - Government expenditure and size and control fragmentation]

Testing for institutional fragmentation and government expenditure shows again the strong relevance of the lagged value of government outlays and GDP growth (table 7). The index for government and institutional fragmentation is again not significant. In contrast, electoral rules appear to be quite important. The mean district size for the house and the senate enter significantly in all the estimations. The former has the opposite of the expected sign except when closed lists are included. Closed lists and

thresholds are effective in reducing government expenditure. The former, in particular, is larger than the latter and lowers the absolute value of the coefficients of mean district magnitude of both house and senate. In contrast to expectations, *STCONST* is significantly negative.

[Table 7 - Government expenditure and institutional fragmentation]

The effect of over time fragmentation on government expenditure is quite similar to those on the budget surplus. Change in government and stability (with and without the senate) never enter significantly, while the possibility of being re-elected tends to discipline the spending behavior of the government. In contrast, elections of both the executive and the legislative, which are used as control variables, increase government expenditure. Multiple terms, in contrast, tend to reduce government expenditure, which appears to be instrumental to the previous finding on the positive relationship between multiple terms and government surplus. Overall these results are strongly consistent to the ones found for government surplus.

[Tab. 8 - Government expenditure and over time fragmentation]

6. Conclusions

In this paper we have enriched the analysis of the effects on political fragmentation on fiscal policy. We have analyzed three kinds of fragmentation: size and control, institutional and over time fragmentation. In doing so we have introduced a number of new variables that allow us to look at this issue in a broader way. At the same time we have tackled some methodological problems that have affected previous results. Overall we find relatively poor evidence in favor of the effects of political fragmentation and more consistent evidence for the tax-smoothing model.

Size fragmentation results appear quite in line with previous ones: the only variable consistently significant is the number of spending ministers, putting the relevance of fragmentation more on the side of the government than on the legislature. In fact, fractionalization within the government and the opposition parties, and the

margin of majority enjoyed by the ruling coalition play a very marginal role. More important is the control of the relevant houses by either the government coalition or the opposition as far as budget surplus is concerned.

Again, we do not find that derivative indicators of fragmentation such as the checks and balances indices considered here have an explanatory power, a result that has been already highlighted by previous literature. At the same time we do find consistent evidence for the kind of fragmentation we call institutional, although its relevance is limited. A rising average number of representatives per district tend to harm the budget balance, while a presidential system and the existence of constraints to representation such as closed lists and thresholds counteract this tendency.

A puzzle occurs with regard to the effects of the features of the lower and the upper chamber. For example, if the former is controlled by the opposition we find that this reduces the budget surplus, while when this happens for the latter there is an increase in the budget surplus. Moreover, this contrasting result is observed and amplified for the electoral rules concerning the chambers. As long as the degree of proportionality increases, there is a detrimental effect on the budget surplus for the lower chamber and a positive one for the upper chamber, while government expenditure increases for the house and decreases for the senate. This contrasting result deserves further scrutiny. One possible reason may rely on asymmetry of powers between the two chambers. For example in the US tax bills may originate only from the House of Representatives, while expenditure bills may originate also from the Senate. The econometric specification used here assumes that the two chambers have same powers.

Some of our results are in contrast with previous findings in the literature. A remarkable result concerns over time fragmentation, where we do not find any evidence that a faster turnaround in government leads to a lacking of fiscal discipline and higher government expenditure. In addition, we introduce some control variables testing for over time fragmentation that allow us to disentangle some effects made by electoral years and availability of multiple terms in office. We find that an incumbent government tends to be fiscally responsible when facing the possibility of being re-elected, but that in the electoral year fiscal policy is less tight. While the latter result would be expected (more government expenditure may lead to more votes from some interest groups), the former in itself can be seen as evidence in favor of fragmentation.

In fact, a mandatory limit on the possibility of running for a re-election implies a disruption of possible long-term plans, forcing the turnover of governments. This point is not new. In the Federalist Paper no. 72 Alexander Hamilton (Hamilton *et al*., 1982: 367-368) argued that:

> Nothing appears more plausible at first sight, nor more ill founded upon close inspection, than a scheme (…) of continuing the chief magistrate in office for a certain time, and then excluding him from it. (…) One ill would be the diminution of the inducement of good behaviour. There are few men who would not feel much less zeal in the discharge of a duty, when they were conscious that the advantages of the station, with which it was connected, must be relinquished at a determinate period, than they were permitted to entertain the hope of *obtaining* by *meriting* a continuance of them. (…) Even the love of fame, the ruling passion of the noblest minds, which would prompt a man to plan and undertake extensive and arduous enterprises for the public benefit, requiring considerable time to mature and perfect them, if he could flatter himself with the prospect of being allowed to finish what he had begun, would on the contrary deter him from the undertaking, when he foresaw that he must quit the scene, before he could accomplish the work, and must commit that, together with his own reputation, to hands which might be unequal or unfriendly to the task. (Italics in the original)

Besley and Case (1995) used gubernatorial term limits in the US to test for a model of reputation building by politicians. With respect to the results relevant to our analysis, they find that an incumbent that cannot stand for reelection tends to set a higher level of per-capita taxes and government expenditure. Our results strengthen their findings. Their results do not take into account the possibility of competing for a higher office when the days as governor are numbered. Therefore some reputation building is still possible even if there is a binding limit. In our case this opportunity is virtually impossible since the chief executive we have considered here is usually the highest office in each country. However, parties survive to their top-ranking officers, therefore one could expect that the behavior of a chief executive facing a term limit is also influenced by the possibility that his party can win the next election, even if he is not taking the lead. Although interesting, we point out that this result is based on a few but consistent estimations. Further analysis seems needed to better understand its theoretical underpinnings and to empirically confirm this result.

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Table 1 – Descriptive statistics

	Mean	Std. dev.	Min	Max
SUR	-0.01	0.04	-0.13	0.11
GEXP	0.37	0.10	0.15	0.59
CGDP	0.02	0.02	-0.07	0.11
ALLHOUSE	0.17	0.34	0	1
CHECKS	3.62	1.52	1	14
CIG	0.26	0.44	0	1
CL	0.71	0.45	0	1
COALSPEC	0.37	0.48	0	1
GOVFRAC	0.25	0.27	0	0.81
MAJ	0.53	0.16	0	0.93
MDMH	3.72	3.80	1	13
MDMS	8.17	8.94	1	35
NSM	16.37	3.81	7	33
OPPFRAC	0.43	0.24	0	0.87
OPPMAJH	0.04	0.19	0	1
OPPMAJS	0.09	0.15	0	1
STABS	0.19	0.33	0	1
STABNS	0.17	0.30	0	1
STCONST	0.71	0.45	0	1
SYSTEM	0.08	0.27	0	1
MULTPL	0.99	0.09	0	1
THRESH	0.02	0.02	0	0.05
LEGELEC	0.31	0.46	0	1
EXELEC	0.03	0.18	0	1

Table 2 – Political variables: correlation matrix

	ALLHOUSE	CHECKS	CIG	CL	COALSPEC	GOVFRAC	MAJ	MDMH	MDMS	NSM	OPPFRAC
ALLHOUSE	1	0.329	0.289	0.172	0.128	0.731	0.147	0.794	-0.541	-0.705	0.727
CHECKS		1	-0.511	0.053	0.145	0.653	0.112	0.410	-0.218	-0.404	0.479
CIG			1	0.389	-0.313	-0.147	0.533	0.113	-0.479	-0.374	0.293
CL				1	0.221	0.329	0.171	0.318	0.278	0.067	0.171
COALSPEC					1	0.051	0.177	0.188	-0.231	-0.240	0.218
GOVFRAC						1	0.017	0.594	-0.483	-0.613	0.733
MAJ							1	0.121	-0.694	-0.606	0.464
MDH								1	-0.303	-0.521	0.654
MDS									1	-0.973	-0.846
NSM										1	0.211
OPPFRAC											1

	OPPMAJH	OPPMAJS	STABS	STABNS	STCONST	SYSTEM	MULTPL	THRESH	LEGELEC	EXELEC
ALLHOUSE	-0.673	-0.060	0.635	-0.830	0.211	-0.738	0.715	0.830	0.066	0.029
CHECKS	0.173	0.252	0.324	-0.433	0.437	0.443	0.432	0.445	-0.004	-0.078
CIG	0.136	-0.479	0.481	-0.302	0.189	-0.308	0.251	0.294	-0.309	-0.293
CL	0.022	0.017	0.182	0.085	0.053	0.125	0.178	0.472	0.022	0.031
COALSPEC	0.072	0.458	0.165	-0.348	0.523	-0.336	0.441	0.400	-0.080	-0.102
GOVFRAC	0.310	0.014	0.398	-0.562	0.427	-0.571	0.490	0.530	0.035	0.012
MAJ	-0.219	-0.268	0.117	-0.459	0.533	-0.461	0.484	0.502	-0.400	-0.430
MDMH	0.117	-0.084	0.455	-0.761	0.110	0.761	0.768	0.762	0.154	0.106
MDMS	0.023	0.005	0.682	0.823	0.361	0.835	-0.804	-0.695	0.313	0.339
OPPFRAC	0.064	0.015	0.485	-0.870	0.371	-0.882	0.842	0.880	-0.236	-0.286
OPPMAJH	1	0.117	0.328	-0.071	0.142	-0.032	0.278	0.177	0.092	0.122
OPPMAJS		1	0.371	-0.047	0.253	-0.054	0.185	0.131	0.171	0.136
STABS			1	0.124	0.178	0.048	0.721	0.533	0.082	0.211
STABNS				1	0.156	0.998	-0.929	0.131	0.178	0.136
STCONST					1	0.540	0.376	0.421	0.086	0.183
SYSTEM						1	-0.934	-0.977	0.352	0.410
MULTPL							1	0.987	0.089	-0.155
THRESH								1	-0.218	-0.282
LEGELEC									1	0.993
EXELEC										1

Table 3 - Government surplus and size and control fragmentation

	(1)	(2)	(3)	(4)	(5)	(6)
C	-0.0232***	-0.0244***	0.0068	0.0089*	0.0086	-0.0013***
	(0.0060)	(0.0058)	(0.0048)	(0.052)	(0.0064)	(0.0063)
SUR-1	0.8063***	0.8000***	0.8091***	0.7975***	0.8011***	0.8014***
	(0.0188)	(0.0230)	(0.0208)	(0.0218)	(0.0211)	(0.0277)
CGDP	0.2863***	0.2977***	0.1099	0.2200***	0.2232***	0.2802***
	(0.0535)	(0.0507)	(0.0838)	(0.0699)	(0.0674)	(0.0532)
NSM	-0.0013***	-0.0013***	-0.0012***	-0.0010***	-0.0010***	
	(0.0003)	(0.0004)	(0.0002)	(0.0002)	(0.0002)	
FRACG	-0.0105	-0.0142	0.0041	-0.0050		
	(0.0145)	(0.0143)	(0.0077)	(0.0096)		
FRACOPP		-0.0115*	0.0001	-0.0041	-0.0025	
		(0.0088)	(0.0031)	(0.0086)	(0.0083)	
MAJ	0.0192	0.0205				0.0123*
	(0.0140)	(0.0135)				(0.0069)
OPPMAJH			0.0043**			
			(0.0021)			
OPPMAJS			-0.0117***			
			(0.0038)			
ALLHOUSE				0.0053*		0.0036
				(0.0031)		(0.0022)
COALSPEC					-0.0011	-0.0038
					(0.0049)	(0.0052)
Adj-R^2	0.809	0.811	0.832	0.814	0.813	0.799
N	315	315	241	315	315	315

Figures in parentheses are heteroschedasticity consistent standard errors. *, **, *** denote, respectively, significance at the 10%, 5%, and 1% level.

Table 4 - Government surplus and institutional fragmentation

	(1)	(2)	(3)	(4)	(5)	(6)
C	-0.0146	-0.0295**	0.0317**	-0.0148**	-0.0180**	-0.0069
	(0.0101)	(0.0135)	(0.0135)	(0.0061)	(0.0064)	(0.0132)
SUR-1	0.8075***	0.7888***	0.7888***	0.8998***	0.7598***	0.8220***
	(0.0177)	(0.0510)	(0.0510)	(0.0178)	(0.0592)	(0.0228)
CGDP	0.2023***	0.0245	0.0245	-0.3083***	-0.0787	0.0904
	(0.0633)	(0.0729)	(0.0729)	(0.0634)	(0.0535)	(0.0696)
CHECKS1	-0.00034					
	(0.0010)					
MDMH		-0.0074***	-0.0074***	-0.0021***	-0.0102***	
		(0.0013)	(0.0013)	(0.0007)	(0.0017)	
MDMS		0.0033***	0.0033***	-0.0020***	0.0034***	
		(0.0005)	(0.0005)	(0.0004)	(0.0005)	
SYSTEM			0.0317***			
			(0.0053)			
THRESH				-0.2118		
				(0.1316)		
CL					0.0206***	
					(0.0034)	
STCONST						-0.0022*
						(0.0012)
Adj-R^2	0.805	0.849	0.849	0.975	0.888	0.815
N	364	193	193	127	137	266

Figures in parentheses are heteroschedasticity consistent standard errors. *, **, *** denote, respectively, significance at the 10%, 5%, and 1% level.

Tab. 5 - Government surplus and over time fragmentation

	(1)	(2)	(3)	(4)	(5)
C	-0.0218**	-0.0150**	-0.0201*	-0.0044	-0.0046
	(0.0089)	(0.0077)	(0.0085)	(0.0054)	(0.0054)
SUR-1	0.8084***	0.08110***	0.8059***	0.8207***	0.8199***
	(0.175)	(0.0172)	(0.0181)	(0.0144)	(0.0148)
CGDP	0.2045***	0.2166***	0.2122***	0.2158***	0.2185***
	(0.0620)	(0.0600)	(0.0626)	(0.0700)	(0.0696)
CIG	0.0031	0.0022	0.0027		
	(0.0025)	(0.0024)	(0.0026)		
STABS				0.0076	0.0078
				(0.0062)	(0.0061)
STABNS				-0.0057	-0.0061
				(0.0062)	(0.0061)
MULTPL	0.0061**		0.0084***		
	(0.0030)		(0.0030)		
EXLEC			-0.0082*		-0.0031
			(0.0047)		(0.0043)
LEGEC		-0.0050***			
		(0.0016)			
Adj-R^2	0.807	0.811	0.813	0.809	0.809
N	364	364	364	352	352

Figures in parentheses are heteroschedasticity consistent standard errors. *, **, *** denote, respectively, significance at the 10%, 5%, and 1% level.

Tab. 6 - Government expenditure and size and control fragmentation

	(1)	(2)	(3)	(4)	(5)	(6)
C	0.0476***	0.0611***	0.0611***	0.0212	0.532**	0.0483
	(0.0007)	(0.0211)	(0.0211)	(0.0270)	(0.0191)	(0.0213)
GEXP-1	0.8535***	0.08526***	0.8754***	0.8590***	0.8565***	0.8418***
	(0.0276)	(0.0275)	(0.0325)	(0.0267)	(0.0263)	(0.0290)
CGDP	-0.3783***	-0.3872***	-0.2001**	-0.3112***	-0.3132***	-0.3664***
	(0.0683)	(0.0702)	(0.0803)	(0.0747)	(0.0750)	(0.0664)
NSM	0.0011***	0.0011***	0.0010***	0.0010***	0.0010***	
	(0.0004)	(0.0004)	(0.0003)	(0.0003)	(0.0003)	
FRACG	0.0086	0.0113*	0.0032	0.0039		
	(0.0066)	(0.0067)	(0.0056)	(0.0051)		
FRACOPP		0.0077	-0.0067	-0.0034	-0.0025	
		(0.0066)	(0.0073)	(0.0077)	(0.0092)	
MAJ	-0.0124	-0.0130				-0.0048
	(0.0131)	(0.0130)				(0.0094)
OPPMAJH			0.0027			
			(0.0041)			
OPPMAJS			-0.0008			
			(0.0028)			
ALLHOUSE				-0.0013		-0.0013
				(0.0028)		(0.0031)
COALSPEC					0.0022	0.0034
					(0.0031)	(0.0032)
Adj-R^2	0.981	0-981	0.989	0.981	0.981	0.980
N	320	320	247	363	363	323

Figures in parentheses are heteroschedasticity consistent standard errors. *, **, *** denote, respectively, significance at the 10%, 5%, and 1% level.

Tab. 7 - Government expenditure and institutional fragmentation

	(1)	(2)	(3)	(4)	(5)	(6)
C	0.0476***	0.0611***	0.0612***	0.0212	0.0532**	0.0473**
	(0.0007)	(0.0211)	(0.0211)	(0.0270)	(0.0277)	(0.0213)
GEXP-1	0.8514***	0.8786***	0.8786***	0.9316***	0.8918***	0.8790***
	(0.0314)	(0.0393)	(0.0393)	(0.0286)	(0.0420)	(0.0330)
CGDP	-0.3059***	-0.1792***	-0.1792***	-0.1117***	-0.1567***	-0.2083***
	(0.0656)	(0.0526)	(0.0526)	(0.0634)	(0.0582)	(0.0607)
CHECKS1	0.00017					
	(0.00074)					
MDMH		0.0137***	0.0137***	-0.0023***	0.0160***	
		(0.0212)	(0.0019)	(0.0006)	(0.0025)	
MDMS		-0.0044***	-0.0044***	-0.0013*	-0.0045***	
		(0.0005)	(0.0005)	(0.0007)	(0.0005)	
SYSTEM			-0.0454***			
			(0.0068)			
THRESH				-0.2394***		
				(0.0910)		
CL					-0.0207***	
					(0.0052)	
STCONST						-0.0131***
						(0.0046)
Adj-R^2	0.980	0.989	0.989	0.981	0.985	0.988
N	373	196	196	127	137	273

Figures in parentheses are heteroschedasticity consistent standard errors. *, **, *** denote, respectively, significance at the 10%, 5%, and 1% level.

Table 8 - Government expenditure and over time fragmentation

	(1)	(2)	(3)	(4)	(5)
C	0.0521***	0.0473***	0.0538***	0.0425***	0.0429****
	(0.0144)	(0.0473)	(0.0142)	(0.0139)	(0.0139)
GEXP-1	0.8536***	0.8530***	0.8538***	0.8692***	0.8687***
	(0.0300)	(0.0294)	(0.0285)	(0.0254)	(0.0251)
CGDP	-0.3065***	-0.3121***	-0.3135***	0.3085***	-0.3118***
	(0.0660)	(0.0654)	(0.0676)	(0.0693)	(0.0700)
CIG	-0.0021	-0.0016	-0.0016		
	(0.0024)	(0.0024)	(0.0025)		
STABS				0.0065	0.0063
				(0.0078)	(0.0075)
STABNS				-0.0094	-0.0090
				(0.0094)	(0.0091)
MULTPL	-0.0046**		-0.0066***		
	(0.0021)		(0.0024)		
EXLEC			0.0073*		0.0035
			(0.0043)		(0.0038)
LEGEC		0.0026*			
		(0.0015)			
Adj-R^2	0.980	0.980	0.980	0.981	0.981
N	373	373	373	360	360

Figures in parentheses are heteroschedasticity consistent standard errors. *, **, *** denote, respectively, significance at the 10%, 5%, and 1% level.