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"Voting functions in the EU-15"

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Voting functions in the EU-15

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Abstract:

This paper examines if the European integration process, by transferring policy instruments to supra-national authorities, has affected voters' evaluations of governments' economic performance at electoral periods. The analysis is implemented on a panel of 15 EU countries, from 1970 to 2011. Results suggest that before the Maastricht Treaty, citizens held incumbents responsible for GDP growth, and for the evolution of inflation, particularly when measured relative to the EU average. After the Maastricht Treaty, only fiscal policy variables show up as statistically significant. The capacity to control the budget deficit appears as the main determinant of electoral results, especially during the current economic crisis.

Keywords: Vote functions, EU-15, economics, deficits.
JEL codes: H6, D72, E6, F02

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1. Introduction

An important question in political economy is how economic events affect voting behavior. Although there is a vast literature on the topic,[1] there is still a lively debate on how, and under which circumstances, economic performance has a greater effect on electoral results. The present paper intends to contribute to this literature by investigating whether the European integration process, by transferring policy instruments to supranational entities, and restricting the national government' ability to influence the economy, has conditioned citizens' assessments of political responsibility for economic outcomes. To the best of our knowledge, this topic has never been investigated.

Using election and economic data for thirteen Western European countries from 1960 to 1997, Chappell and Veiga (2000) assessed the relative performance of vote functions motivated by alternative economic paradigms, taking into account variations in the extent to which incumbent parties are held accountable for economic outcomes. They presumed that different macroeconomic theories can be thought of as a description of relevant feasibility constraints for policymaking. Therefore, performance assessments by voters of incumbent politicians should differ under differing perceptions about the correctness of alternative theories. Building on their work, the present paper focuses on the institutional changes that occurred in European countries in order to create the monetary union. It investigates which economic indicators have greater influence on the outcome of elections, using an enlarged and updated sample comprising the first 15 countries joining the European Union, and covering the period from 1970 until 2011. Did the European integration process change the way voters hold the government responsible for the behavior of different economic variables? Do their evaluations take into account deviations from the average performance of the EU? Is the budget deficit more relevant after the Maastricht Treaty than before? Did the current sovereign debt crisis have an impact on voters' judgments?

Does the electorate of countries currently under international financial assistance behave differently from that of the other countries? As far as we know, these questions remain unanswered in the literature. Furthermore, the current sovereign debt crisis that several European countries are facing, and the inability of European leaders to overcome it, renders the discussion on fiscal conservatism of voters (Peltzman, 1992) particularly important.

The remainder of the paper is organized as follows. The following section presents a review of the relevant literature. Section 3 describes the sources of data and the empirical model specification. Section 4 discusses the empirical results for the baseline models. Section 5 addresses the question of whether the Maastricht Treaty changed economic voting. In section 6 we analyze countries that are currently under financial assistance programs agreed with the IMF and the EU. The last section concludes.

2. Literature review

Although most scholars agree that economics matters for electoral outcomes (Paldam 1991), the relative effects are not equal across countries or time (Lewis-Beck 1988), and several arguments have been presented to explain such differences. Working on a sample of 17 democracies from 1948 to 1985, Paldam and Høst (1990) rejected the hypothesis that there is an international element in the vote. Their results indicate that electoral outcomes in different countries are not affected by international opinion swings to the right or to the left. Powell and Whitten (1993) argued that the partisan nature of the government, its electoral base, and the clarity of its political responsibility are fundamental to understand the effect of economic performance on voting. According to Pacek and Radcliff (1995), the level of the welfare state plays a major role in the relationship between economic conditions and the vote. They found that incumbents in countries with high levels of welfare spending are more insolated against the

business cycle. Chappell and Veiga (2000) advocate that voters' assessments of incumbents' performance depend on what is deemed feasible by voters, as well as to what is desirable. Since macroeconomic theories have implications for feasibility constraints, voters' perceptions about the correctiveness of alternative theories may influence their judgment of politicians' performance.

Brender and Drazen (2008), analyzed if voter behavior is different in new *versus* old democracies and in developed *versus* less developed countries. Working with a large panel of democracies, they concluded that higher growth rates of GDP *per capita* are associated with higher probabilities of re-election only in the less developed countries and in the new democracies. They also found that increases in the government's budget deficits do not help its reelection. Moreover, in developed countries with established democracies, they are punished at the polls. This result is in line with Alesina et al. (2012), who studied the electoral consequences of large fiscal adjustments in 19 OECD countries from 1975 to 2008. Their results indicate that governments which quickly reduce the budget deficit are not systematically voted out of office, and there is some evidence that fiscally loose governments tend to lose elections more often than average.

For studies focusing on single countries, there is mixed evidence on the effect of fiscal policy on electoral results at the national and sub-national levels. Examples of studies reporting evidence that voters are fiscally conservative are Peltzman (1992) for the US, Brender (2003) for Israel, and Drazen and Eslava (2010) for Columbia. However, other papers, such as Akhmedov and Zhuravskaya (2004) for Russia, Sakurai and Menezes-Filho (2008) for Brazil, Veiga and Veiga (2007) and Aidt, Veiga and Veiga (2011) for Portugal, and Jones *et al.* (2012) for Argentina found that opportunistic fiscal policies (Rogoff and Sibert 1988; Rogoff 1990) pay off in subsequent elections.

The reason to suppose that fiscal consolidations are penalized by voters is that they imply increases in tax revenue or decreases in expenditures that, according to Keynesian theory, will generate a temporary downturn in the economy. However, in economies where the size of governments is high, and especially in countries with persistent deficits and high public debt, citizens may perceive fiscal consolidations as necessary, in order to avoid inefficiencies in the public sector and the onset of debt crisis. If loose fiscal policy is considered harmful, the electorate will punish, rather than reward, such policy at the polls. Voters perceive that there is a limit to the common-poll resource and, if more outlays are demanded, the associated cost would not be transferred to other tax payers, but rather paid by them.

In the Western European context, there is an additional reason for governments not to be punished by restrictive fiscal policies. The signature of the Maastricht Treaty in 1992, which established the convergence criteria that countries needed to fulfill in order to join the monetary union, and later on the Stability and Growth Pact, gave governments an excuse for being fiscally conservative: the need to comply with supranational agreements that imposed limits to fiscal deficits and debt. The main purpose of the current paper is to investigate if the European integration process has changed citizens' assessment of governments' economic performance at the ballot box. Instead of estimating the probability of government terminations, as in Brender and Drazen (2008) or Alesina *et al.* (2012), we prefer to estimate vote functions. They are more sensitive to changes in popular support for incumbents, since governments can lose votes from one election to another but still be re-elected.

3. Data and empirical model specification

Our dataset covers the first 15 countries joining the EU, from 1970 to 2011. Data for the political variables was extracted from the World Bank's Database of Political Institutions – DPI (see Beck et

al. 2001). Unemployment rates, inflation rates, real GDP, and government net lending as percentage of GDP were obtained from the OECD's statistics. All variables are quarterly, except for government net lending, which has an annual frequency and was linearly interpolated to generate quarterly data. The use of quarterly data allows for a more precise test of electoral effects of economic conditions. It avoids the arbitrary decision of considering elections that occurred in the first part of year *t* as falling in the calendar of year *t-1*, as in Alesina *et al.* (2012). Information on election dates and the first quarter of data for the main economic variables is provided in Appendix Table A-1.

Descriptive statistics of the variables used in the empirical analysis are presented in Table 1. The least voted government in the sample was a single party government that ruled after the 1973 Danish election, with only 12.3% of the votes. Most governments in the sample are coalitions (63%) and have a majority of deputies in Parliament (75%). The average number of quarters since the last change in the party composition of the government is 19.91 (roughly 5 years), equal to the average time in office of the prime-minister. When time in office is measured by the number of quarters the main party stayed in office, the average increases to 41.81 quarters (over 10 years). Regarding the economic variables, the average net lending of government is negative of 2.9% of GDP, with the maximum deficit (-26%) registered in Ireland in 2011 and the maximum surplus (6.14% of GDP) occurred in Sweden in 1976. There has been a progressive reduction of inflation during the period considered, and the average annual growth rate of real GDP (from the same quarter of the previous year) was 2.48%.

[Table 1]

The baseline empirical model can be specified as follows:

$$V_{it} = \alpha Pol + \beta Eco + f_i + e_{it} \quad (1)$$

The dependent variable (V_{it}) is the percentage of votes obtained by the parties in government in country *i* and election *t*. Since several governments in the sample are coalitions of several parties, in alternative specifications we also use as dependent variable the percentage of votes obtained by the main incumbent party. The right-hand side of the equation includes a vector of political variables (*Pol*) and a vector of economic variables (*Eco*). f_i is the individual effect of country *i*, which captures country differences that remain stable over time, namely political institutions. α and β represent vectors of parameters to be estimated. And finally, e_{it} is the error term.

The vector of political variables takes into account the base support of the incumbent when elected (V_{it-1}), whether it is a coalition or not ($Coal_{it}$), if it is supported by a majority of deputies in the Parliament or not (Maj_{it}), and the number of quarters in power. Three alternative specifications were used to measure tenure: main party in office ($Quarters_{it}$), prime-minister in office ($Prime_{it}$) and the number of quarters since the last change in the party composition of government ($GovChange_{it}$). Governments with a larger base support are likely to obtain higher percentages of votes in the next election. A negative coefficient is expected for the dummy associated with coalitions due to conflicts among parties forming government. Time in office is likely to decrease incumbent's popularity, as promises presented before elections are not fulfilled, and scandals and decisions that hurt groups of the population accumulate. According to Paldam and Skott (1995), the cost of ruling may reflect a rational demand for change by voters who want to see new faces in office.

The economic performance of the countries is captured by unemployment rates ($Unemp_{it-1}$), changes in annual inflation rates ($Change\_Inf_{it}$), and annual real GDP growth rates (GDP_g_{it-1}). The fiscal regressor is the government's net lending as a percentage of GDP[2] ($Surplus_{it-1}$). All

variables were lagged one quarter because data is released with a lag by statistical bureaus, and may not be immediately perceived by citizens. Unemployment, inflation, and lower GDP growth rates are expected to decrease votes for the incumbent. As for the budget balance, we have no prior regarding to the sign of the estimated coefficient in the first years of the sample: a negative sign would suggest that citizens reward loose fiscal policies (deficits), while a positive sign indicates that voters are fiscally conservative. However, for the post-Maastricht Treaty period we expect this variable to be positively signed, due to the fiscal surveillance mechanisms created by European countries in order to achieve the economic and monetary union and, later on, to facilitate and maintain its stability. To test whether voters take into account the performance of other EU countries when evaluating their national government, the national economic variables were also measured as differences from the EU-15 average.

Because the dependent variable is bounded between 0 and 100 percent, but the independent variables are not, the estimated model may predict a percentage of votes that lies outside of the [0,100] boundaries. To overcome this problem, a logistic transformation of the dependent variable was implemented. The regression model takes the following form:

$$\log(V_{it}/100\text{-}V_{it}) = \delta Pol + \gamma Eco + f_i + \varepsilon_{it} \quad (2)$$

To obtain the marginal impact of an explanatory variable (x) on the dependent variable (Y), the estimated coefficient (β) needs to be transformed according to the following formula:

$$\delta Y/\ \delta x = \beta * Y * (1\text{-}Y/100). \quad (3)$$

4. Empirical results for the baseline models

The baseline empirical model was firstly estimated by fixed effects (FE), in order to take into account country differences that remain stable over time, namely political institutions.[3] Since the

number of voters varies considerably among the countries included in the sample, the model was also estimated by Weighted Least Squares (WLS). The FE model attributes the same weight to all observations, but 49 million citizens voted in the German election of 1998, while in the Luxemburg's balloting of 1984, the electorate was only of 174 thousand (these are the two extremes in the dataset). Although the voter's decision to support or not the incumbent parties is discrete, what is observed is the percentage of times this choice is made, which is continuous. Following McFadden (1981), this information can be interpreted as if it was produced by a representative voter repeatedly making this choice. Therefore, the estimation of equation (2) requires special treatment for the aggregate time-series cross-sectional nature of the data. The percentage of votes for the parties in government in a large country is an estimator of the population mean with lower variance than the percentage of votes for the incumbent parties in a smaller country. The variance of the error term (ε_{it}) is not constant, it decreases with the number of voters in country *i* and election *t* (N_{it}). Thus, to obtain a vote function of the representative voter in Europe, the model was estimated by WLS.[4]

Results for models using as dependent variable the logistic transformation of the percentage of votes obtained by all parties forming government are reported in table 2. All estimated coefficients show the expected signs. Voters reward GDP growth and positive budget balances,[5] and dislike increases in inflation and inflation above the EU average. This result for inflation is in line with Chappell and Veiga (2000), who also found European voters to be particularly sensitive to changes in inflation, especially when measured relative to the European average. When we use the WLS estimation procedure, the marginal impact of GDP growth on votes increases considerably, while the effect of inflation decreases. This suggests that the importance attributed to economic variables by voters living in larger countries differs from those living in smaller nations.[6]

[Table 2]

Regarding political variables, governments with a larger base support (percentage of votes in previous election) tend to receive more votes in the subsequent election. Coalition and majority governments receive larger percentages of votes than single party/minority governments. A possible explanation for a coalition government to behave better in subsequent elections is a transfer of votes from one member of the coalition to another, canceling out the aggregate effect. When using the WLS, there is evidence of erosion of government popularity as time in power increases. Three alternative specifications were used to measure tenure: main party in office ($Quarters_{it}$), prime-minister in office ($Prime_{it}$) and the number of quarters since the last change in the party composition of the government ($GovChange_{it}$). Only the results for the last specification are reported in the table, because this is the one that turned out to be statistically significant more frequently.

Because many governments in our sample (63%) are coalitions of parties, and the main party in office typically plays a key role in policy decisions, it is likely that voters regard it as more responsible for the evolution of the economy. Furthermore, in some occasions there were changes between elections in the party composition of coalition governments. To take these aspects into account, Table 3 presents estimation results for regressions using as dependent variable the logistic transformation of the percentage of votes obtained by the main party in office. For the economic variables, results are very similar to those presented in the previous table. Voters reward the main party in office for positive budget balances, increases in the GDP growth rate and reductions in inflation. When the economic variables are measured as differences from EU averages, there is evidence that voters dislike inflation above the EU average. There is strong

evidence of persistence of votes from one election to the next and of erosion of the main party's support as time in office accumulates. The dummies for majority and coalition governments turned out not to be statistically significant.

[Table 3]

5. The Maastricht Treaty's impact on economic voting

In this section, we explore whether changes in European institutions over time, particularly those associated with the Maastricht Treaty, changed the way voters judge incumbent governments. The Treaty was signed on 7 February 1992 by the members of the European Community in Maastricht, Netherlands, and came into force on November 1st, 1993. It defined the five convergence criteria that countries needed to comply with in order to move on to the third phase of European Monetary Union (EMU), and adopt the euro in 1999. The conditions that are closer to the economic variables used in our empirical analysis are the price stability criterion and the two criteria for public finance stability. The inflation criterion established that the country's inflation rate should be no more than 1.5 percentage points higher than the average inflation rate of the three best performing member states of the EU. The budgetary criteria set a limit to the public deficit and public debt to GDP of, respectively, 3% and 60%. After the treaty's signature, more information became available for voters regarding the economic situation of their country, and, particularly, on the performance of other candidate countries to EMU. It is likely that voters became more aware of the fiscal variables and more fiscally conservative, since the adoption of policies to consolidate the budget would be regarded as necessary to guarantee the country's qualification to the third stage of the European Monetary Union. The coming into force of the

Stability and Growth Pact in 1999 reinforced the fiscal monitoring of EU members by European Institutions. It is, therefore, plausible that voters' awareness of the fiscal performance of their countries continued later on. Furthermore, the integration process restricted national governments' policies to European goals and, with the creation of the single currency, monetary policy decision making was transferred to the European Central Bank.

To test if the Maastricht Treaty changed the way voters evaluate politicians' economic performance, two dummies for the periods before ($Before\_MT_{it}$) and after ($After\_MT_{it}$) the Maastricht Treaty (1994 onwards) were created.[7] These two dummies were interacted with each economic variable included in the empirical work. Results for the logistic transformation of the percentage of votes for the government are presented in Table 4.[8] There is evidence of a change in voters' attitudes due to the Maastricht Treaty. Before it, citizens rewarded increases in the GDP growth rate, reductions in inflation, and downside deviations of this variable from the EU average. After the Maastricht Treaty, fiscal variables became more important: among the economic variables, only the budget surplus and its deviations from the EU average are statistically significant. This suggests that voters became more fiscally conservative, which is in line with the results obtained by Brender and Drazen (2008) for developed countries with established democracies, and by Alesina *et al*. (2012) for OECD countries. The commitment to fulfill the Maastricht convergence criteria by incumbent parties and also by the opposition, led to a consensus on fiscal consolidation measures. Apparently, the electorate understood the advantages of adopting the euro and the need for fiscal consolidation. This is in accordance with Ferejohn (1986), who suggested that governments may justify the need to implement unpopular policies with external negative economic conditions or constraints outside their control. Therefore, even after the creation of the monetary union, national governments could blame European institutions and rules, namely the Stability and Growth Pact, for restrictive fiscal policies,

and thus avoid been punished at the ballot box. The transfer of policy instruments to supranational entities, particularly the European Central Bank (ECB), may also justify the loss of statistical significance of the variables associated with inflation and GDP growth. With monetary policy being conducted by the ECB, national governments have very limited power to influence prices. Another aspect that worth emphasizing is that, in our sample, average inflation before the Maastricht Treaty was 8.4%, while after it was substantially lower (2.2%). It is likely that voters attributed higher importance to changes in inflation before the Maastricht Treaty because its level was substantially higher than after the Treaty.

[Table 4]

The period analyzed (1970-2011) covers the most recent global financial crisis, which led to a substantial increase in budget deficits[9] and to sovereign debt crisis in several EU countries. It is likely that the crisis had an impact on voters' evaluations, increasing their concerns for public deficits. In order to test this hypothesis, a dummy for the 2008-2011 years was created, and interacted with the economic variables. Results for fixed effects estimations are shown in columns 3 and 6 of Table 4. As in columns 1 and 4, before the Maastricht Treaty voters held incumbents accountable for changes in inflation and GDP growth. However, for the post Maastricht Treaty period, it is now evident that the budget deficit only becomes relevant during the 2008-2011 period. Difficulties in obtaining external funding by several European governments, increases in sovereign debt interest rates, and fear of the consequences of insolvency of several EU members, led citizens to pay special attention to the public finances, and to punish incumbents for loose fiscal policy.

6. Are Greece, Ireland, Portugal, and Spain different?

This section investigates if the electorates of countries that are currently under financial assistance programs[10] react differently to economic outcomes and fiscal policy. Results presented in Table 5 are similar to those of Table 4. Before the Maastricht Treaty, voters punished incumbents for increases in inflation and for inflation above the EU average, and they rewarded GDP growth; after the Treaty, they focused their attention on fiscal policy, and showed dislike for deficits. However, two differences deserve to be highlighted. First, the magnitude of the estimated coefficients for the statistically significant variables is substantially higher than in similar regressions for the whole sample. This is not surprising if we take into account that average inflation and deficits in these countries were almost twice the sample averages (see appendix B). Second, in these four countries, voters held incumbents responsible for government net lending even before the Maastricht Treaty, favoring politicians who delivered lower deficits, and deficits below the EU average. These results may be justified by the fact that the average deficit before the Treaty in Greece, Ireland, Portugal, and Spain was 5.38% of GDP, much higher than for the overall sample (2.93%). Thus, high deficits were a more salient economic problem in these four countries than in the other eleven.

[Table 5]

Conclusions

The first conclusion to extract from this study is that the economy matters for electoral results. Governments that are able to deliver high GDP growth, price stability, and lower budget deficits are rewarded at the ballet box. The statistical significance of these variables is larger than in most of the previous studies of vote functions using panels of countries.

Secondly, the coming into force of the Maastricht Treaty, in which European countries established their commitment to create a monetary union, changed voters' evaluations of government economic performance. The need to comply with the convergence criteria to join the EMU, and later on the transfer of monetary policy to the ECB, insolated governments from the business cycle. While before the Treaty changes in inflation, deviations of national inflation from the EU-15 average, and GDP growth determined electoral results, after it, only the budget deficit is statistically significant. It is also possible that voters attribute greater importance to the economic variable that they perceive as being the main problem of the nation. While for the period 1970 to 1993, average inflation was 8.4%, for the subsequent period it has been much smaller (2.2%). More recently, the substantial rises in budget deficits and the current sovereign debt crisis that several European countries are facing increased the importance voters attribute to fiscal policy decision making.

Thirdly, empirical results for the sub-sample of countries currently under an international assistance program reveal that these countries' voters reacted more severely to economic variables, and that the budget deficit was a relevant variable in their electoral choices even before the Maastricht Treaty. These results reinforce our argument that citizens hold incumbents more responsible for the economic variables that they perceive as being problematic and which therefore, may have a stronger impact on their well-being.

[1] For surveys on economic voting see Nannestad and Paldam (1994), Paldam (2004), Brug *et al*. (2007), and Duch and Stevenson (2008).

[2] Although the cyclically adjusted primary budget balance would be more adequate to monitor the fiscal situation of the country, the budget balance is more easily followed by the general public.

[3] An F-test rejects the hypothesis of the country dummies being jointly insignificant. The results of a Hausman test reveal that the fixed effects model is preferable to a random effects model.

[4] For applications of this method see Dubin and Kalsow (1996), Aguiar-Conraria and Magalhães (2010), and Martins and Veiga (2011).

[5] Changes in the budget surplus were also tested but turned out not to be statistically significant.

[6] Unemployment rates, changes in unemployment and differences from EU averages were also tried in the regressions but rarely turned out as statistically significant. Furthermore, the number of observations for the unemployment rate is substantially smaller (see appendix A), thus reducing the number of degrees of freedom.

[7] For Austria, Finland and Sweden, the dummy for the after Maastricht period only starts assuming the value of one in 1995, when these countries joined the European Union.

[8] Results for the logistic transformation of the percentage of votes for the main party are very similar. They are available from the author upon request.

[9] In the sample (see Appendix B), the average for the deficit as percentage of GDP during the period 2008-2011 was 5.98%, much higher than the average for the overall sample (2.91%).

[10] Financial assistance to Spain currently involves only the banking system.

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Table 1. Descriptive statistics

Variable	No Obs.	Mean	Stand. Dev.	Min	Max
% Votes incumbent gov. (VG_{it})	173	44.43	10.37	6.85	72.62
% Votes incumbent gov. lag (VG_{it-1})	173	48.25	9.72	12.3	84.42
% Votes main party in gov. (VMP_{it})	173	32.55	9.86	6.85	51.03
% Votes main party in gov. lag (VMP_{it-1})	173	35.28	10.03	10.6	62
Coallition ($Coal_{it}$)	173	.63	.48	0	1
Majority of deputies in Parliament (Maj_{it})	173	.75	.44	0	1
Quarters in office - Main party ($Quarters_{it}$)	176	41.81	43.63	2	214
Quarters in office – Prime minister ($Prime_{it}$)	176	19.91	16.99	1	115
Quarters since the last change in the party composition of the government ($GovChange_{it}$)	176	19.91	14.70	2	76
National values					
Government Net Lending ($GovNetLend_{it}$)	158	-2.91	4.50	-26.07	6.14
Change in inflation ($Change\_inf_{it}$)	178	-.51	2.64	-12.18	7.91
Annual real GDP growth rate (GDP_g_{it})	179	2.48	2.90	-9.50	14.10
Difference from EU averages					
Government Net Lending	158	-.15	3.79	-19.53	8.42
Change in inflation	178	-.11	3.57	-9.38	13.62
Annual real GDP growth rate	178	-.06	1.93	-6.55	10.19

Sources: DPI (World Bank) and OECD Stat.

Table 2. Determinants of the percentage of votes for the Government

	National values				Differences from EU-15 averages	
	FE		WLS		FE	WLS
	Coeffs (t-stat)	Marginal effects	Coeffs (t-stat)	Marginal effects	Coeffs (t-stat)	Coeffs (t-stat)
V_{it-1}	0.594***	14,67	0.728***	17,96	0.591***	0.695***
	(6.89)		(9.04)		(6.23)	(8.59)
Maj_{it}	0.027	0,67	0.124**	3,05	0.021	0.121*
	(0.44)		(2.01)		(0.29)	(1.91)
$Coal_{it}$	0.123**	3,03	0.099*	2,45	0.144**	0.075
	(2.24)		(1.81)		(2.39)	(1.31)
$GovChange_{it}$	-0.003	-0,08	-0.003**	-0,07	-0.003	-0.003*
	(-1.75)		(-2.04)		(-1.53)	(-1.88)
$Surplus_{it-1}$	0.019**	0,47	0.012*	0,30	0.024*	0.002
	(2.534)		(1.88)		(2.10)	(0.29)
$Change\_inf_{it}$	-0.021***	-0,51	-0.004	-0,09	-0.015*	-0.017*
	(-3.33)		(-0.33)		(-1.92)	(-1.90)
GDP_g_{it-1}	0.016**	0,41	0.025**	0,61	0.007	0.019
	(2.86)		(2.36)		(0.58)	(1.18)
Constant	-0.211**	-5,21	-0.287***	-7,07	-0.238**	-0.275***
	(-2.87)		(-3.60)		(-2.87)	(-3.82)
Observations	154		154		154	154
Adj. R-squared	0.46		0.72		0.43	0.71
Countries	15		15		15	15

Notes: * Significant at the 10% level, ** significant at the 5% level, *** significant at the 1% level.
The coefficients for country dummies are not reported.

Table 3. Determinants of the percentage of votes for the main party in office

	National values				Differences from EU-15 averages	
	FE		WLS		FE	WLS
	Coeffs (t-stat)	Marginal effects	Coeffs (t-stat)	Marginal effects	Coeffs (t-stat)	Coeffs (t-stat)
V_{it-1}	0.759***	18,74	0.879***	21,71	0.740***	0.868***
	(9.43)		(12.70)		(8.49)	(12.12)
Maj_{it}	0.002	0,04	0.083	2,06	0.002	0.073
	(0.02)		(1.43)		(0.03)	(1.23)
$Coal_{it}$	-0.102	-2,53	-0.002	-0,06	-0.083	-0.039
	(-1.05)		(-0.04)		(-0.87)	(-0.62)
$GovChange_{it}$	-0.004***	-0,11	-0.002*	-0,06	-0.004**	-0.002
	(-3.28)		(-1.76)		(-2.73)	(-1.54)
$Surplus_{it-1}$	0.016*	0,40	0.015**	0,36	0.017	0.003
	(2.09)		(2.27)		(1.24)	(0.37)
$Change\_inf_{it}$	-0.023**	-0,58	-0.008	-0,20	-0.022**	-0.019**
	(-2.78)		(-0.74)		(-2.24)	(-2.17)
GDP_g_{it-1}	0.019**	0,49	0.019*	0,47	0.004	0.016
	(2.63)		(1.84)		(0.20)	(0.95)
Constant	-0.141	-3,50	-0.204**	-5,04	-0.175*	-0.205***
	(-1.63)		(-2.51)		(-1.83)	(-2.906)
Observations	154		154		154	154
Adj. R-squared	0.47		0.65		0.44	0.64
Countries	15		15		15	15

Notes: * Significant at the 10% level, ** significant at the 5% level, *** significant at the 1% level.
The coefficients for country dummies are not reported.

Table 4. Before and after the Maastricht Treaty (% of votes for the government)

	National values			Differences from EU-15 averages		
	FE	WLS	FE	FE	WLS	FE
Before the MT						
Before_MT$_{it}$*Surplus$_{it-1}$	0.009	0.01	0.008	0.007	-0.004	0.004
	(1.23)	(1.43)	(1.09)	(1.03)	(-0.40)	(0.57)
Before_MT$_{it}$ *Change_inf$_{it}$	-0.01**	-0.005	-0.01**	-0.02**	-0.02**	-0.02**
	(-2.64)	(-0.49)	(-2.29)	(-2.62)	(-2.28)	(-2.54)
Before_MT$_{it}$ *GDP_g$_{it-1}$	0.02**	0.02*	0.01*	-0.005	0.007	-0.006
	(2.40)	(1.84)	(2.03)	(-0.36)	(0.40)	(-0.39)
After the MT						
After_MT$_{it}$* Surplus$_{it-1}$	0.029***	0.02**	0.01	0.03***	0.02	0.01
	(4.30)	(2.05)	(0.75)	(3.28)	(1.02)	(0.80)
After_MT$_{it}$*Change_inf$_{it}$	-0.02	0.02	0.01	0.02	0.02	0.01
	(-1.10)	(0.87)	(0.50)	(0.74)	(0.77)	(0.41)
After_MT$_{it}$*GDP_g$_{it-1}$	0.006	0.01	0.003	0.007	0.03	0.01
	(0.68)	(0.80)	(0.25)	(0.36)	(1.02)	(0.60)
Crisis 2008-2011						
Crisis$_{it}$* Surplus$_{it-1}$			0.03**			0.03**
			(2.49)			(2.62)
Crisis$_{it}$*Change_inf$_{it}$			-0.01			0.05
			(-0.22)			(0.69)
Crisis$_{it}$*GDP_g$_{it-1}$			-0.01			-0.04
			(-0.37)			(-0.96)
Observations	154	154	154	154	154	154
Adj. R-squared	0.39	0.71	0.38	0.37	0.70	0.36
Countries	15	15	15	15	15	15

Notes: T-statistics are between parentheses.
* Significant at the 10% level, ** significant at the 5% level, *** significant at the 1% level.
The coefficients for country dummies are not reported.
The explanatory variables used in all specifications are the same as those reported in Table 2. For parsimony, only those associated with the interactions between the dummies for before and after the Maastricht Treaty and the economic variables are reported.

Table 5. Portugal, Ireland, Greece and Spain

	National values		Differences from EU-15 averages	
	FE	WLS	FE	WLS
Before the MT				
Before_MT$_{it}$*Surplus$_{it-1}$	0.09*	0.11**	-0.09*	-0.08
	(3.16)	(2.55)	(-2.59)	(-0.82)
Before_MT$_{it}$ *Change_inf$_{it}$	-0.05***	-0.07**	-0.032**	-0.02
	(-5.89)	(-2.43)	(-4.06)	(-0.55)
Before_MT$_{it}$ *GDP_g$_{it-1}$	0.06**	0.03	-0.03	-0.08
	(4.13)	(0.54)	(-0.38)	(-0.92)
After the MT				
After_MT$_{it}$* Surplus$_{it-1}$	0.04**	0.05**	0.05*	0.02
	(5.23)	(1.98)	(2.45)	(0.46)
After_MT$_{it}$*Change_inf$_{it}$	0.01	0.05	0.03	0.13
	(0.64)	(0.75)	(0.34)	(1.41)
After_MT$_{it}$*GDP_g$_{it-1}$	0.003	0.0009	-0.007	0.05
	(0.13)	(0.02)	(-0.15)	(0.54)
Observations	32	32	32	32
Adj. R-squared	0.13	0.82	0.09	0.80
Countries	4	4	4	4

Notes: T-statistics are between parentheses.
* Significant at the 10% level, ** significant at the 5% level, significant at the 1% level.
The coefficients for country dummies are not reported.
The explanatory variables used in all specifications are the same as those reported in Table 2. For parsimony, only those associated with the interactions between the dummies for before and after the Maastricht Treaty and the economic variables are reported.

Appendix A

Table A. Elections and first quarter of economic variables

Variables	GDP	Inf	Unemp	Gov Net Lend	Elections
Austria	1960q1	1960q1	1993q1	1970	1970, 1971, 1975, 1979, 1983, 1986, 1990, 1994, 1995, 1999, 2002, 2006, 2008
Belgium	1960q1	1960q1	1970q1	1970	1971, 1974, 1977, 1978, 1981, 1985, 1987, 1991, 1995, 1999, 2003, 2007, 2010
Denmark	1960q1	1967q1	1982q1	1971	1971, 1973, 1975, 1977, 1979, 1981, 1984, 1987, 1988, 1990, 1994, 1998, 2001, 2005, 2007, 2011
Finland	1960q1	1960q1	1964q1	1970	1970, 1972, 1975, 1979, 1983, 1987, 1991, 1995, 1999, 2003, 2007, 2011
France	1960q1	1960q1	1978q1	1978	1973, 1978, 1981, 1986, 1988, 1993, 1997, 2002, 2007
Germany	1960q1	1960q1	1992q1	1970*	1972, 1976, 1980, 1983, 1987, 1990, 1994, 1998, 2002, 2005, 2009
Greece	1960q1	1960q1	1998q2	1995	1974, 1977, 1981, 1985, 1993, 1996, 2000, 2004, 2007, 2009
Ireland	1960q1	1976q1	1982q1	1990	1973, 1977, 1981, 1982, 1987, 1989, 1992, 1997, 2002, 2007, 2011
Italy	1960q1	1960q1	1979q4	1970	1972, 1976, 1979, 1983, 1987, 1992, 1994, 1996, 2001, 2006, 2008
Luxemburg	1960q1	1960q1	1982q1	1990	1974, 1979, 1984, 1989, 1994, 1999, 2004, 2009
Netherlands	1960q1	1960q1	1970q1	1970	1971, 1972, 1977, 1981, 1982, 1986, 1989, 1994, 1998, 2002, 2003, 2006, 2010
Portugal	1960q1	1960q1	1983q1	1977	1979, 1980, 1983, 1985, 1987, 1991, 1995, 1999, 2002, 2005, 2009, 2011
Spain	1960q1	1960q1	1978q1	1970	1979, 1982, 1986, 1989, 1993, 1996, 2000, 2004, 2008, 2011
Sweden	1960q1	1960q1	1970q1	1970	1970, 1973, 1976, 1979, 1982, 1985, 1988, 1991, 1994, 1998, 2002, 2006, 2010
United Kingdom	1960q1	1960q1	1971q1	1970	1970, 1974, 1974, 1979, 1983, 1987, 1992, 1997, 2001, 2005, 2010

* For West Germany from 1970 to 1990.

Appendix B. Averages for economic variables by time periods.

Table B-1. Whole sample

	Overall (1970-2011)	Before the Maastricht Treaty (1970-1993)	After the Maastricht Treaty (1994-2011)	Recent crisis (2008-2011)
Government net lending	-2.91	-2.93	-2.89	-5.98
Inflation	5.84	8.43	2.21	2.15
Changes in inflation	-.51	-.76	-.16	.63
GDP growth	2.48	2.54	2.38	-.01

Table B-2. Portugal, Ireland, Greece and Spain

	Overall (1970-2011)	Before the Maastricht Treaty (1970-1993)	After the Maastricht Treaty (1994-2011)	Recent crisis (2008-2011)
Government net lending	-5.43	-5.38	-5.46	-10.68
Inflation	9.11	13.44	3.05	2.27
Changes in inflation	-1.50	-2.53	-.06	.86
GDP growth	2.56	2.41	2.77	-.42

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