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Mayors' Reelection Choice and the Economy: Evidence from Portugal

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Abstract

Using a data set that covers all Portuguese mainland municipalities for the period 1979-2005, this study performs an empirical analysis of the economic determinants of Mayors' choice to run for another term. The literature on the subject is mainly centered on the United States and, as far as we know, no papers are found addressing the economic factors of this choice.

Probit panel estimations show that local economic conditions matter more than the national or regional economic environment. The results also confirm that political variables are important and that they influence the likelihood of seeking reelection in the same way as they affect vote and popularity functions.

Keywords: Local elections; Reelection; Mayor; Economic conditions; Probit model.
JEL classification: D72; H79; C35.

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1. Introduction

This article investigates the determinants of Portuguese Mayors' decision to run for another term in office with a special emphasis on the impact of economic conditions. The literature on the influence of economic conditions on electoral results and on popularity of politicians is quite extensive. Since the seminal papers of Goodhart and Bhansali (1970), Kramer (1971) and Mueller (1970) numerous studies have showed that voters judge democratic governments by how well they manage the economy. Some general and encompassing surveys on this literature are presented by Lewis-Beck and Paldam (2000) and Paldam (2004). The Portuguese case – with particular interest for this study – has also been under the scope of some papers by Veiga and Veiga (2004, 2010). However, as far as we know, there are no papers focusing on the economic determinants of the choice of running for another term in office. Furthermore, the literature found on the subject is mainly centered on the United States (U.S.) and generally explores the dynamics of political ambition and politicians' career management.[1] This article tries to fill this gap in the literature by performing an empirical analysis of the choice of running for office in Portuguese local elections using an extensive data set that covers all mainland municipalities for the period 1979-2005.

The Portuguese case constitutes an excellent laboratory for this analysis for some reasons. First, election dates are fixed and defined exogenously from the perspective of local authorities. Second, all municipalities have elections on the same day. Third, there are no reelection institutional constrains because there is no legal limit on the number of terms

[1] See, for example, Black (1972) and Fox and Lawless (2005).

in office during the time span considered in this study.[2] Finally, local incumbents have a key influence in local policy and outcomes.

The results provided by this study are quite interesting. First, they show that local economic conditions matter more for Mayors' decision than national or regional economic environment. Second, they confirm the idea that Mayors try to influence the local economic environment and electoral outcomes by increasing expenditures before elections. Finally, the size of the municipality, the time in local government and the age of the Mayors were found to be relevant predictors of the decision to seek reelection.

The article is organized as follows. The Section 2 reviews the literature and discusses the reelection decision. Section 3 presents a short tour on some aspects of Portuguese local elections. Section 4 describes the model and dataset used. The panel data results are presented in section 5 and section 6 concludes.

2. Literature review and some aspects on the reelection decision

A rational choice perspective for the decision to run for office was presented by Schlesinger (1966). In his framework, potential candidates are more likely to seek office when political and structural conditions are favourable. Therefore, the development of one's political career is based on the maximization of the likelihood of attaining higher office or at least retaining a current position.

When seeking any elective position or deciding to run for higher office, politicians consider the number of open seats available, term limit requirements, levels of legislative professionalization, party support among constituents, among other factors. Broad

[2] In 2005 the Portuguese parliament issued a law limiting the number of terms to three. However, it will only have a real impact in the 2013 local elections as the count started for all Mayors in the 2005 elections.

empirical evidence studying political ambition, career management and the decision to run for higher office is found mainly for the U.S.[3]

This study analyses the Portuguese case where the democratic design is very different from the one found in the U.S. and uses a framework that links the decision to run for office with economic voting theories and empirical evidence. In the literature, personality effects are found to be relevant in explaining vote and popularity, indicating that different candidates provide different electoral outcomes.[4] However, we know from the political cycles' studies that politicians (or political parties) also tend to behave in ways that maximize their chances of winning elections.[5] Therefore, perceptions of electoral success affect their strategies, including the Mayor's choice between retirement or not. In Portugal, Mayors cannot be forced to retire by the party they represent. The ultimate decision is theirs, as they can seek reelection with or without party support. However, party preference for a new candidate should increase as the winning chances of the current Mayor decrease.

For the political career of politicians in office, not running may be viewed as better than losing, although this is not generally true for parties. The more likelihood a Mayor thinks he has of losing the forthcoming election, the higher will the probability of deciding not to run for another term be. Moreover, some studies that analyse U.S. congress members conclude that when the electoral margin decreases, member's probability of seeking reelection also decreases (Moore and Hibbing, 1998; Theriault, 1998). Although age and the prospect of a better position are examples of other potential explanatory factors, some of the variables typically included in vote studies may well be relevant in the reelection function. The number of consecutive terms in office may reduce the chances of reelection,

[3] See, among others, Black (1972), Kazee (1994), Goodliffe (2001), Stone and Maisel (2003) and Fox and Lawless (2005).

[4] See, for example, the seminal work of Frey and Schneider (1978) for the U.S. and Lanoue and Headrick (1994) for Great Britain.

[5] Nordhaus (1975) and Hibbs (1977).

as it has a negative impact on government vote shares. In particular, evidence of popularity erosion over time in office was already documented in a seminal paper by Mueller (1970).[6]

The economy is another dimension that affects incumbent's electoral fortune. For Portugal, Veiga and Veiga (2004, 2010) find evidence of a reward/punishment mechanism related to the economic performance. Due to the nature of their job, we should expect Mayors to have a solid knowledge of the economy and its mechanisms. Hence, good local economic performance should increase Mayor's general sense of efficacy as a candidate. This means that prior to voters' electoral judgment and keeping all other factors constant, more competent office holders should have an increased probability of seeking reelection. In our paper we test both national and local economic conditions, because results found in the voting literature that examines local elections are mixed regarding their importance. For example, Atkeson and Partin (1995), Hansen (1999), Squire and Fastnow (1994) highlight the importance of the regional economy, while Peltzman (1987), Kone and Winters (1993), Remmer and Gélineau (2003) and Belanger and Gélineau (2004) find evidence in favor of the importance of national, not subnational, economic conditions.

3. Brief characterization of Portuguese Municipal elections

On 25th April 1974 democracy was re-established in Portugal, ending a 48 years period of dictatorship. The phase of considerable political instability that followed (with 6 provisional governments) only ended in 1976 when a new Constitution was approved and the first legislative elections took place. The Constitution formally established the Portuguese Municipalities and in December of 1976 the first local elections were held. All

[6] Veiga and Veiga (2004, 2010) also report the existence of costs of ruling for Portuguese governments.

the following elections took place in December, except the last one, which was held in October 2009.[7]

In each municipality there is a Town/City Council and a Municipal Assembly. The first has the executive power: it elaborates and implements local policies. The second is a deliberative branch that approves the overall framework of local policies.

The members of the Town Council and a portion of the Municipal Assembly are elected directly by the voters registered in the municipality. The remaining seats in the Assembly are reserved to the presidents of the councils of the *Freguesias*[8] that belong to the municipality.

These three bodies of governance serve a four year term and local residents are called upon to vote for party or independent lists presented for each of them in the same day. The outcome is determined, directly or indirectly, by the D'Hondt method of transforming votes into mandates.

In Portuguese municipal elections the candidates running for Mayor assume a leading role in campaigns and they are at least as important as the party that supports them, meaning that different candidates may provide different electoral outcomes. The candidate that achieves the highest number of votes will be empowered as Mayor. Besides presiding the Town Council meetings, he has a key role in the municipal government: he assigns tasks to the other Town Council members, manages human resources, contracts authorization, licenses and, in accordance with the general policy framework, chooses which projects to implement and their timetable.

Portuguese local governments, being the Mayor the principal decision maker, are responsible for territory organization, social and economic development and are also in

[7] Election years were: 1979, 1982, 1985, 1989, 1993, 1997, 2001, and 2005.

[8] *Freguesias* are the lowest administrative unit in Portugal. The president and council members are elected directly by the voters living in the area. Each municipality is comprised of a variable number of *freguesias*.

charge of supplying local public goods such as water, transportation, housing, healthcare, education and culture.[9]

Their wide range of intervention makes them responsible for the well-being of the population that lives in the municipality. The fact that they are of substantial importance in local economic activity, potentially ties the municipal government's electoral fortune to the economic environment.

Until the 2005 Municipal elections, Mayors could run for another term without any legal limit on the number of the terms in office. Hence, some were in office since the first elections held in December 1976. This perpetuation of the time in office generated some discussions after the 2005 election that ultimately led to the imposition of a three term limit to every municipal office holder. Thus, the period between 1976 and 2005 represents an interesting and unique case for studying the reasons why Mayors run for another term in office.

4. Data and model specification

In order to analyse the Portuguese case, we collected data for the 278 mainland municipalities over the period 1979-2005, covering 8 electoral periods.

The dependent variable (*Recand*) is a variable that takes value 1 when a Mayor is running for another term in office. Several economic, political, and individual variables are used as regressors in this analysis. A complete description of all the variables employed in this study can be found in Table 1.

[Insert Table 1 around here]

[9] Law 159/99 of the Portuguese Republic defines the areas of intervention of Portuguese local governments.

The effects of the economic environment on the likelihood of a Mayor running for another term are controlled for at three levels: national, regional (NUTS III level) and local (Municipal level).[10] This disaggregation will permit to check whether they are giving more relevance to local than national or regional economic conditions or not. To characterize the national economic environment, we use the three variables that have received the greatest empirical attention in the vote literature: unemployment rate, inflation and GDP growth.[11] One should expect adverse economic conditions to have a negative impact on the decision of a Mayor run to another term. The unemployment rate was obtained from the OECD's Main Economic Indicators while the inflation rate and GDP were acquired from the IMF's International Financial Statistics.

At the regional level there is no data for inflation, and GDP *per capita* is used instead of national GDP. The GDP *per capita* (NUTS III) and the regional unemployment rate (NUTS III) were obtained from the Portuguese National Institute of Statistics (INE). The regional (NUTS III) unemployment rate was available only for 1991 and from 1999 onwards thus reducing time variability and the number of observations. To overcome this difficulty, we estimated a *proxy* of the unemployment rate for the remaining years of the 1990's using the multiple imputation algorithm developed by Honaker and King (2010).

At the local (or Municipal) level there are no time series data collected for GDP, inflation or unemployment rate, therefore, we use some *proxies* for the economic conditions. As a measure of municipal income, we use the Marktest's Purchasing Power Index (*PPI*) that reflects municipalities' wealth. Data on the number of employees in firms (*Employ*) and the average municipal wage (*Wages*) are also used. These variables were

[10] NUTS is a geocode standard for referencing the subdivisions of countries for statistical purposes, used within the European Union. In Portugal, a hierarchy of three NUTS levels is established. Continental Portugal correspond to a NUTS I region, which is subdivided into 5 NUTS II regions. These 5 regions are then subdivided into 28 sub regions (NUTS III), each one comprised of several municipalities.

[11] See Paldam (2004) for a survey on vote studies.

collected from the "*Quadros de Pessoal*" database of the Portuguese Ministry of Labour and Social Solidarity (MTSS)[12] and are available since 1985.

The municipal expenditures are another factor that can influence the reelection decision. To collect this effect we included in the model the variables total expenditures *per capita* (*TotExpd*) and capital expenditures per capita (*CapExpd*). As Veiga and Veiga (2007a) found strong evidence of political budgetary cycles in Portuguese municipalities, we expect that an increase in expenditures is likely to improve the chances of running for another term.

The dimension of the municipality can also be an issue to consider in Mayor's decision to re-run. Hence, we introduce as regressor the log of the local population (*LnPop*) to capture that effect.[13]

The model also includes a set of political variables and individual characteristics of the candidate that were obtained from the Technical Staff for Matters Concerning the Electoral Process (STAPE).[14] We include a measure for the number of consecutive terms in office (*TLGov*). Given the ample evidence of the costs of ruling found in the voting literature, we expect a negative sign for the coefficient on *TLGov*. To control for past electoral support and as an indicator of good governance conditions, we include a dummy for local majority governments (*MajGov*). Another political indicator used is *SGov*: a dummy variable equaling 1 when a local government is controlled by the party that holds power at the national level. Mayors with political ties to the ruling national party may not run for another term, simply because they can be offered a better position in the national government or parliament. Also, their probability to seek reelection may decrease if the

[12] This is a yearly mandatory employment survey that covers almost all privately owned firms employing paid labour in Portugal (public servants and own employment are not included).

[13] Data on Municipal accounts and population were obtained from the local authority's (*Direcção Geral das Autarquias Locais - DGAL*) annual publication called *Finanças Municipais* (Municipal Finances).

[14] The data for the dependent variable (*Recand*) were also obtained through this source.

popularity of the national government is low, as there may be some spillover effects that decrease their chances of reelection.

To capture individual characteristics we introduce four variables: Age, Gender (*Male*), education (*Degree*) and residency in the municipality. Data on these variables is only available from 1997 onwards. Hence, they are only included in some of the estimations because of their reduced time span.

Descriptive statistics for all variables used in this study are reported in Table 2.

[Insert Table 2 around here]

As the dependent variable used in this analysis is binary, the model chosen to estimate the coefficients of interest is a probit model. This model describes the probability of an event occurring given certain conditionings. In particular, it will be used to explain the probability of a Mayor running for another term in office, given certain determinants (**x**). Mathematically, this model can be represented as follows:[15]

$$\text{Prob}(recand = 1 \mid \mathbf{x}) = \Phi(\mathbf{x}'\boldsymbol{\beta}), \qquad \textbf{(1)}$$

where $\boldsymbol{\beta}$ is the vector of parameters to be estimated and $\Phi(\mathbf{x}'\boldsymbol{\beta})$ is the normal cumulative distribution function. The vector of parameters $\boldsymbol{\beta}$ reflects the impact of changes in **x** on the probability of a Mayor running for another term.

As the probit model is estimated for a panel of municipalities over several elections, a panel data analysis should be considered. The application of binary models to panel data analysis is straightforward. The structural model for a panel data can be written as follows:

$$\begin{aligned} &y_{it}^{*} = \mathbf{x}_{it}'\boldsymbol{\beta} + \varepsilon_{it}, \quad i = 1,...,n,\ t = 1,...,T_i, \\ &recand_{it} = 1 \text{ if } y_{it}^{*} > 0, \text{ and } 0 \text{ otherwise.} \end{aligned} \qquad \textbf{(2)}$$

[15] For details on this binary choice model see, for example, Greene (2008, Ch. 23).

In this case, y^* is an unobserved outcome and ε_{it} is an error term. Regarding the assumptions made over the error term, we can have: (i) a random effects model, where $\varepsilon_{it} = \upsilon_{it} + u_i$ and υ_{it} and u_i are independent random variables, u_i has mean 0 and variance equal to σ_u^2 and υ_{it} is normally distributed with mean 0 and variance $\sigma_\upsilon^2 = 1$; (ii) a fixed effects model, where $\varepsilon_{it} = \upsilon_{it} + \alpha_i d_{it}$ and d_{it} is a dummy variable that takes the value 1 for individual i in period t, and 0 otherwise; (iii) or a model with no individual or random effects (pooling).

The selection of the best estimation procedure was made based on the usual Wald test for fixed effects and an LR test for random effects. Fixed effects and random effects were always rejected in the regressions considered in this study.[16] Therefore, we decided to estimate a simple pooled probit, where the presence of heteroscedasticity and autocorrelation is controlled for using robust standard errors.

5. Empirical results

The results from the estimation of the pooled probit model are presented in Tables 3 and 4. Table 3 reports the results where national and regional economic variables are used. Alongside with NUTS III economic variables, we introduce the capital expenditures of the municipality in order to control for local economic activity. No local variable was used when testing for national economic effects to avoid a substantial loss of observations. Table 4 considers estimations with local economic variables only.[17] In order to determine the relevant time horizon of Mayors, we expressed the economic variables in two different ways: first, as percentage changes from the previous year; and second, as average

[16] The results of those tests are available upon request.

[17] In this study, we test national, regional and local economic conditions, because, as mentioned in Section 2, results found in the voting literature are mixed regarding their importance.

percentage annual changes over the entire term (since the previous election year).[18] It is reasonable to assume that Mayors have a good knowledge of the economy and are sophisticated decision makers, therefore it is expectable that they do not focus their attention exclusively on the recent past. However, the assumption of myopic behaviour is coherent with the objective of winning elections. Mayors may restrict their analyses of the economy to the short run in their decision process simply because they assume voters are myopic. Veiga and Veiga (2004, 2010) find a dominance of retrospective and myopic characteristics in the Portuguese electorate.

For each variable presented in tables 3 and 4, it is shown the estimated coefficients and the respective average marginal effects. The *z*-statistics for both the estimated coefficients and respective average marginal effects are presented in parentheses and the degree of statistical significance is signalled with asterisks. The number of observations, log-likelihood, Schwarz Bayesian Information Criterion (SBIC) and McFadden's Pseudo-R^2 are reported at the foot of the table.

Analysing the results at the national and regional level reported in Table 3, we find that both the national and the regional economic environment are not very relevant for the Mayors' decision to seek reelection. As they do not control these major levels of macroeconomic policy, theoretically those should not affect their chances of reelection. However, we found that the short run national inflation rate has some impact on the decision: the higher the national inflation rate is, the lower is the likelihood of Mayors running for another term. We think that this may be related to some degree of potential accountability. The national inflation is generally taken as a benchmark for price increases in some public goods that are provided by the municipality, such as public transportation, healthcare, education and water. Even though circumstances beyond the Mayor's control

[18] See Veiga and Veiga (2010) for a similar approach on the study of the impact of local and national economic conditions on legislative election results.

may force him to raise the prices of local public goods the decision is ultimately his. Additionally voters may attribute these higher prices to direct policy decisions emanating from the local government, thus affecting the Mayor's chances of reelection.

[Insert Table 3 around here]

We should notice that there is only one economic variable that has a significant impact on Mayor's decision: local capital expenditures. When capital expenditures increase, the probability to run for another term in office also increases. By increasing expenditures, the Mayor is somehow giving a sign of his/her intention of seeking reelection, since he/she is trying to improve local economic conditions in order to increase his/her chances of being reelected. This result corroborates Veiga and Veiga's (2007b) findings for Portugal showing the existence of a political payoff to opportunist spending at the local level.

The size of the municipality and political variables are also found to be relevant in explaining Mayor's decision. There is some evidence that the likelihood of a Mayor running for another term is higher in municipalities with more population, maybe because this gives them more visibility and power. Moreover, their wages are indexed to the number of voters.

The results show that when a Mayor belongs to the party that leads the national government, the likelihood to run for another term in office decreases. One possible explanation might be that this scenario increases the probability of being offered a better position in the national government. However, we suspect that the negative effect is more related to a mechanism of political accountability. Being affiliated with the national government may expose the Mayor to *spillover* effects coming from the party's popularity.

The number of consecutive terms in office also affects the dependent variable greatly. For each additional term, the likelihood of running for another term decreases about 2 percentage points. Nevertheless, if the Mayor's party has a majoritarian position in the Town Council, the probability of running for another term in office increases about 6 to 8.5 percentage points. This means that if they have a strong electoral support and good conditions to govern, the likelihood of running for another term increases significantly. These two results are well in line with the findings on the related literature: Mueller (1970), Moore and Hibbing (1998), Theriault (1998) and Veiga and Veiga (2004, 2010).

Table 4 presents the results for the estimations strictly with local variables. Due to the lack of data at the local level for the economic variables presented in Table 3, we use some *proxies* for the Municipal economic conditions, like the Purchasing Power Index, wages and employment. Contrary to the evidence obtained in the national and especially in the regional regressions, the local economic environment seems to matter for the Mayor's decision. This means that only the economic variables over which the Mayor exerts some control are important. An improvement in the Municipal Purchasing Power Index is relevant for the Mayor's decision. An increase in Municipal real wages is also statistically significant but only when we consider an overall assessment of the entire term. These results seem to indicate that adverse local economic conditions reduce the likelihood of seeking reelection, probably because they decrease the Mayor's chances of winning.

Similarly to the national and regional unemployment rate, the effects of municipal employment on the likelihood of a Mayor running for another term in office are not relevant.

[Insert Table 4 around here]

An important conclusion of this analysis is that the national economic environment is less important for Mayor's decision than the local economic conditions. Mayors may look at national inflation, but we found no evidence regarding the national GDP or unemployment. They are more concerned with Municipal income, which was here proxied by the purchasing power and wages. Therefore, the expectation that improvements in municipal economy help the local government to get more votes generates an incentive for the Mayor to take part in the elections.

At the same time, he/she also tries to influence the local economic environment by increasing expenditures before elections. In that sense, our results show that total expenditures and capital expenditures are important factors: an increase in these variables increases the likelihood of running for another term. In fact, increases in expenditures make clearer the Mayor's intention of running again for office, because improvements in the municipal economy generated by more expenditure (especially capital expenditures) may improve the Mayor's electoral support, therefore, increasing his odds at the ballots[19].

Regarding the political variables included before in the national and regional estimations, only the coefficient on the time in local government remains highly significant and with the expected sign. This can be due to the loss of a significant number of observations, which affects the power of the tests.[20] Moreover, the coefficient on the population variable for the importance of the municipality is only marginally significant, but it remains with the expected sign.

The individual characteristics were included here to control directly for personal specificities of the Mayor that could affect his/her decision of running for another term.

[19] Due to potential problems of endogeneity related to municipal budgetary variables we estimated an IV-Probit with proper instruments, but post estimation tests did not reject the exogeneity hypothesis.

[20] We also included the percentage of votes in the previous election in the regressions instead of (and with) *MajGov*. There were no significant changes found in the estimations. Furthermore, the coefficient on that variable generally proved to be statistically insignificant.

Only the age of the candidate is found to be relevant: for each year of age, the probability of re-running decreases about 0.7 percentage points. This makes sense, since we expect that older Mayors will have a lower propensity to run for another term. We also tested the hypothesis of a *U*-shaped relationship between the dependent variable and age but found no empirical support for this specification.

Regarding gender, degree and residence, no significant evidence was found. We should point out that the capital expenditures were included in both regressions with and without personal characteristics, and that we have found no significant differences between the results.

We also estimated a conditional logit model controlling for fixed effects and a probit model assuming random effects, but the results were quite similar not affecting the conclusions of this study.[21] As mentioned above, the tests to select the best estimation procedure always rejected fixed and random effects.

6. Conclusions

This paper investigates the determinants of Portuguese Mayors' decision to run for another term in office with a special emphasis on the impact of economic conditions. The literature on the influence of economic conditions on electoral results is quite extensive, but no papers are found on the economic determinants of the choice of running for another term in office. This study tries to fill this gap in the literature by performing an empirical analysis of the choice of re-running for office in Portuguese local elections.

Estimating a panel probit model over a data set that covers all Portuguese mainland municipalities for the period 1979-2005, we reached important conclusions that may represent interesting contributions to the understanding of how democracy works. A first

[21] Those results are available upon request.

and important conclusion of this analysis is the fact that the local economic conditions matter more for the Mayor's decision to seek reelection than the national or regional economic environment. Although the national inflation is found to be significant, this may be due to the particular effects it has on the local economy.

The expectation that improvements in municipal economy help the local government to get more votes generates an incentive for Mayors to seek reelection. Moreover, our results also show that they may be influencing the local economic environment by increasing expenditures before elections, which helps them to get more electoral support for the next election.

We found evidence that Mayors' relevant economic time horizon is not restricted to the recent past. Our analysis shows that, although Mayors tend to put a significant weight on short run economic conditions, they also look at the average local economic performance over term. Therefore, Mayors tend to be more sophisticated decision makers than the myopic Portuguese voters reported by Veiga and Veiga (2010).

We found political variables to be especially important predictors. We used a set of political variables traditionally included in vote studies. The results confirm their importance and that they affect the likelihood of seeking reelection in the same way they impact vote and popularity functions. This reinforces the notion that reelection choices are significantly related with the expectations regarding electoral results.

As to the variables that are used to capture the personal characteristics, only the Mayor's age proved to be statistically significant. Concerning the significant negative effect of both age and time in local government on the likelihood of a Mayor seeking reelection, we have reasons to suspect for the presence of positive duration dependence in Mayor's incumbency. This appears to be the case, because our study seems to indicate that the likelihood of a Mayor leaving the office tends to increase over time. However, a more

careful assessment of this conjecture needs to be done employing a proper duration analysis.

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Tables

Table 1. Description of the variables

Variables	Description
Dependent variable	
Recand	Dummy variable that takes value 1 when a Mayor runs for another term, and 0 otherwise.
Independent variables	
- National	
ΔUR	Percentage change in the national unemployment rate^{+}
GDP	Real GDP growth rate^{+}
Inflation	National inflation rate (percentage change in CPI)$^{+}$
- Regional	
ΔUR	Percentage change in the regional (NUTS) unemployment rate^{+}
GDP_pc	Real regional (NUTS) GDP *per capita* (thousands Euros)$^{+}$
- Local	
ΔPPI	Change in the Municipal Purchasing Power Index (in percentage)$^{+}$
$\Delta Wages$	Change in Municipal real wages (in percentage)$^{+}$
$\Delta Employ$	Change in Municipal employment (in percentage)$^{+}$
TotExpd	Real total expenditure *per capita* (Municipal – in thousands of Euros)
CapExpd	Real capital expenditure *per capita* (Municipal – in thousands of Euros)
- Control	
LnPop	Logarithm of the population living in each Portuguese municipality
SGov	Dummy variable that takes value 1 if the local and national governments are of the same party, and 0 otherwise
TLGov	Time in local government, i.e. number of terms in office
MajGov	Dummy variable that takes value 1 if the Mayor's party has a majority
Age	Age of the Mayor running for another term
Male	Dummy variable that takes value 1 if the Mayor is male, and 0 otherwise
Degree	Dummy variable that takes value 1 if the Mayor has a university degree, and 0 otherwise
Residence	Dummy variable that takes value 1 if the Mayor lives in the municipality where he or she was elected, and 0 otherwise

Sources: *Sources*: Main Economic Indicators (OECD); IMF International Financial Statistics (IMF); Portuguese National Institute of Statistics (INE); Marktest; *Finanças Municipais* (Municipal Finances - DGAL); *Quadros de Pessoal* (database of the Portuguese Ministry of Labour); Technical Staff for Matters Concerning the Electoral Process (STAPE).

Notes: $^{+}$ percentage change from the previous year and average percentage change over term.

Table 2. Descriptive Statistics

Variables	Obs.	Mean	S.D.	Min.	Max.
Dependent variable					
Recand	2115	0.80	0.40	0	1
Independent variables					
- National					
Δ*UR* (annual)	2224	3.46	12.56	-11.47	31.39
Δ*UR* (term)	1946	1.30	10.03	-13.14	17.01
GDP (annual)	2224	2.76	2.53	-2.04	6.44
GDP (term)	1946	2.64	1.85	0.25	6.11
Inflation (annual)	2224	11.74	8.56	2.16	23.54
Inflation (term)	1946	10.70	7.95	2.87	24.54
- Regional					
Δ*UR* (annual)	1112	0.51	1.01	-2.67	2.83
Δ*UR* (term)	834	1.35	3.62	-9.02	7.26
GDP_pc (annual)	1112	8.77	2.76	4.23	20.17
GDP_pc (term)	1112	8.50	2.67	4.16	19.89
- Local					
Δ*PPI* (annual)	828	4.61	7.30	-30.00	69.17
Δ*PPI* (term)	825	2.28	2.89	-13.84	21.23
Δ*Wages* (annual)	1381	0.46	5.17	-41.11	21.24
Δ*Wages* (term)	1378	2.13	2.48	-8.20	11.09
Δ*Employ* (annual)	1351	8.39	15.44	-52.21	148.76
Δ*Employ* (term)	1348	5.74	6.89	-11.97	57.62
TotExpd	2118	469.60	326.12	23.43	2315.27
CapExpd	2118	248.38	181.69	16.37	1589.33
- Control					
LnPop	2206	9.84	1.01	7.50	13.60
SGov	2223	0.42	0.49	0	1
TLGov	2203	2.80	1.92	1	8
MajGov	2223	0.75	0.43	0	1
Age	795	51.63	7.33	31	76
Male	805	0.96	0.19	0	1
Degree	825	0.50	0.50	0	1
Residence	801	0.91	0.28	0	1

Sources: See Table 1.

Table 3. Regressions with national and regional variables: Pooled probit

	Percentage changes from the previous year				Average percentage changes over term			
	National		Regional		National		Regional	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
ΔUR	-0.0013		0.0507		0.0022		0.0155	
	(-0.49)		(1.15)		(0.66)		(1.11)	
	-0.0004		0.0133		0.0006		0.0040	
	(-0.49)		(1.15)		(0.66)		(1.11)	
GDP		-0.0164				-0.0284		
		(-1.19)				(-1.59)		
		-0.0045				-0.0073		
		(-1.19)				(-1.59)		
GDP_pc				0.0090				0.0104
				(0.49)				(0.55)
				0.0024				0.0027
				(0.49)				(0.55)
Inflation	-0.0116**	-0.0093**			0.0020	0.0005		
	(-2.55)	(-2.02)			(0.45)	(0.10)		
	-0.0032**	-0.0025**			0.0005	0.0001		
	(-2.56)	(-2.03)			(0.45)	(0.10)		
CapExpd			0.0012***	0.0011***			0.0013***	0.0011***
			(3.52)	(3.27)			(3.30)	(3.25)
			0.0003***	0.0003***			0.0003***	0.0003***
			(3.59)	(3.31)			(3.36)	(3.29)
LnPop	-0.0400	-0.0397	0.1328**	0.1169**	-0.0341	-0.0347	0.1000	0.1151**
	(-1.27)	(-1.25)	(2.33)	(2.02)	(-1.05)	(-1.07)	(1.42)	(1.98)
	-0.0109	-0.0108	0.0349**	0.0308**	-0.0088	-0.0089	0.0256	0.0303**
	(-1.27)	(-1.25)	(2.36)	(2.04)	(-1.05)	(-1.06)	(1.43)	(1.99)
SGov	-0.1615**	-0.1571**	-0.1802*	-0.1708*	-0.1982***	-0.1950***	-0.1715	-0.1704*
	(-2.48)	(-2.45)	(-1.95)	(-1.83)	(-2.71)	(-2.67)	(-1.58)	(-1.83)
	-0.0441**	-0.0429**	-0.0474**	-0.0450*	-0.0510***	-0.0500***	-0.0438	-0.0449*
	(-2.50)	(-2.47)	(-1.97)	(-1.85)	(-2.75)	(-2.71)	(-1.60)	(-1.85)
TLGov	-0.0650***	-0.0656***	-0.0971***	-0.0977***	-0.0781***	-0.0799***	-0.0785***	-0.0977***
	(-3.64)	(-3.68)	(-5.20)	(-5.19)	(-4.39)	(-4.48)	(-3.70)	(-5.20)
	-0.0177***	-0.0179***	-0.0255***	-0.0257***	-0.0201***	-0.0205***	-0.0201***	-0.0257***
	(-3.69)	(-3.73)	(-5.40)	(-5.40)	(-4.48)	(-4.57)	(-3.81)	(-5.41)
MajGov	0.3252***	0.3257***	0.2315**	0.2382**	0.3358***	0.3330***	0.1286	0.2386**
	(4.70)	(4.72)	(2.15)	(2.25)	(4.38)	(4.36)	(0.93)	(2.25)
	0.0888***	0.0889***	0.0609**	0.0627**	0.0862***	0.0854***	0.0329	0.0628**
	(4.77)	(4.78)	(2.16)	(2.26)	(4.41)	(4.39)	(0.93)	(2.27)
Constant	1.3991***	1.4100***	-0.5614	-0.4390	1.3057***	1.4135***	-0.2627	-0.4286
	(4.14)	(4.19)	(-0.90)	(-0.72)	(3.76)	(3.99)	(-0.33)	(-0.70)
No. Obs.	2,115	2,115	1,103	1,103	1,872	1,872	828	1,103
LogL	-1032	-1032	-519.3	-519.9	-863.3	-862.4	-379.6	-519.8
SBIC	2118	2117	1088	1089	1779	1778	806.3	1089
Pseudo-R^2	0.0193	0.0200	0.0380	0.0370	0.0234	0.0244	0.0347	0.0370

Notes: For sources, see Table 1. Robust *z*-statistics for both the estimated coefficients and respective average marginal effects are in parentheses. Significance level at which the null hypothesis is rejected: ***, 1%; **, 5%; and *, 10%. SBIC =2[-LogL+(*k*/2)ln*N*], where *k* is the number of regressors and *N* is the number of observations. McFadden's or Pseudo-R^2=1-logL/logL_0, where logL_0 is the log-likelihood computed with only a constant term.

Table 4. Regressions with local variables: Pooled probit

	% changes from the previous year			Average % changes over term		
	(1)	(2)	(3)	(4)	(5)	(6)
Δ*PPI*	0.0215***	0.0209***	0.0216***	0.0385*	0.0369*	0.0362*
	(2.61)	(2.63)	(2.68)	(1.89)	(1.84)	(1.71)
	0.0054***	0.0052***	0.0054***	0.0097*	0.0092*	0.0091*
	(2.61)	(2.63)	(2.68)	(1.90)	(1.85)	(1.72)
Δ*Wages*		-0.0115			0.0529*	
		(-0.84)			(1.68)	
		-0.0029			0.0132*	
		(-0.84)			(1.69)	
Δ*Employ*			0.0013			-0.0039
			(0.39)			(-0.45)
			0.0003			-0.0010
			(0.39)			(-0.45)
TotExpd	0.0008***			0.0008***		
	(2.98)			(2.78)		
	0.0002***			0.0002***		
	(3.04)			(2.85)		
CapExpd		0.0014***	0.0013***		0.0014***	0.0013***
		(3.30)	(3.24)		(3.26)	(3.22)
		0.0003***	0.0003***		0.0003***	0.0003***
		(3.35)	(3.28)		(3.32)	(3.26)
LnPop	0.1483*	0.1332*	0.1260*	0.1622*	0.1307*	0.1313*
	(1.77)	(1.88)	(1.75)	(1.80)	(1.71)	(1.74)
	0.0371*	0.0332*	0.0314*	0.0407*	0.0327*	0.0329*
	(1.79)	(1.88)	(1.76)	(1.82)	(1.73)	(1.75)
SGov	-0.1579	-0.1753	-0.1893*	-0.1644	-0.1864*	-0.1988*
	(-1.43)	(-1.57)	(-1.67)	(-1.50)	(-1.67)	(-1.77)
	-0.0395	-0.0437	-0.0471*	-0.0413	-0.0466*	-0.0498*
	(-1.44)	(-1.58)	(-1.69)	(-1.51)	(-1.69)	(-1.79)
TLGov	-0.0595***	-0.0577***	-0.0590***	-0.0571**	-0.0585***	-0.0578**
	(-2.63)	(-2.58)	(-2.59)	(-2.50)	(-2.57)	(-2.52)
	-0.0149***	-0.0144***	-0.0147***	-0.0143**	-0.0146***	-0.0145***
	(-2.68)	(-2.61)	(-2.63)	(-2.54)	(-2.63)	(-2.57)
MajGov	0.1597	0.1297	0.1427	0.1271	0.1171	0.1270
	(1.09)	(0.89)	(0.98)	(0.87)	(0.80)	(0.85)
	0.0399	0.0323	0.0355	0.0319	0.0293	0.0318
	(1.09)	(0.90)	(0.98)	(0.87)	(0.80)	(0.85)
Age	-0.0293***	-0.0295***	-0.0271***	-0.0278***	-0.0280***	-0.0257***
	(-3.77)	(-3.80)	(-3.35)	(-3.58)	(-3.60)	(-3.21)
	-0.0073***	-0.0074***	-0.0067***	-0.0070***	-0.0070***	-0.0064***
	(-3.79)	(-3.82)	(-3.35)	(-3.61)	(-3.63)	(-3.22)
Male	-0.3969	-0.3883	-0.4046	-0.4085	-0.4206	-0.4096
	(-1.21)	(-1.20)	(-1.23)	(-1.26)	(-1.28)	(-1.26)
	-0.0992	-0.0969	-0.1007	-0.1026	-0.1051	-0.1025
	(-1.21)	(-1.20)	(-1.23)	(-1.26)	(-1.28)	(-1.26)
Degree	0.0965	0.1007	0.1092	0.0881	0.0974	0.1032
	(0.86)	(0.90)	(0.95)	(0.79)	(0.88)	(0.91)
	0.0241	0.0251	0.0272	0.0221	0.0243	0.0258
	(0.86)	(0.89)	(0.95)	(0.79)	(0.88)	(0.91)
Residence	-0.0657	-0.0518	-0.0790	-0.0430	-0.0252	-0.0573
	(-0.33)	(-0.26)	(-0.39)	(-0.22)	(-0.13)	(-0.29)
	-0.0164	-0.0129	-0.0197	-0.0108	-0.0063	-0.0143
	(-0.333)	(-0.26)	(-0.39)	(-0.22)	(-0.13)	(-0.29)
Constant	0.9002	1.1645	1.1259	0.7181	1.0717	1.0682
	(0.81)	(1.21)	(1.15)	(0.61)	(1.06)	(1.106)
No. Obs.	795	795	778	792	792	775
LogL	-356.6	-355.9	-347.5	-356.4	-354.8	-347.8
SBIC	786.6	791.9	774.8	786.2	789.7	775.4
Pseudo-R^2	0.0632	0.0650	0.0640	0.0585	0.0626	0.0577

Notes: See Table 3. Robust *z*-statistics for the estimated coefficients and average marginal effects are in parentheses. Significance level at which the null hypothesis is rejected: ***, 1%; **, 5%; and *, 10%.

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