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Determinants of the assignment of E.U. funds to Portuguese municipalities

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Abstract

The paper examines the determinants of the assignment of EU funds to Portuguese municipalities using a large and unexplored dataset covering all (278) mainland municipalities over fifteen years. Empirical results reveal that besides normative objectives, the national government also takes into account political motivations in the distribution of funds to municipalities. Grants increase during local election years, more funds are transferred to municipalities where the government party had higher percentages of votes, and where there are more swing voters.

Keywords: Fiscal federalism, political economy, local governments, EU funds, Portugal.
JEL codes: D72, H72, R58

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1. Introduction

The main objective of the paper is to analyze the impact of political factors on the distribution of European Union (EU) transfers to Portuguese municipalities.[1] Portugal joined the European Community in 1986, and started receiving European funds through the European Regional Policy. Access to European funds had a significant impact on Portuguese municipalities. They enlarged local governments' resources, allowing for an improvement of local infra-structure and for an expansion of the scope of municipalities' activities. More attention was given to the organization of territory and to the establishment of relationships with foreign entities. EU funds represented between 5% and 12% of municipalities' revenues during the period under analysis (1992 to 2006).

The Portuguese central government negotiates with the European authorities over funding levels and sets the framework for distributing funds across municipalities. Although the normative goals of these funds, as suggested by the theory on fiscal federalism,[2] are to promote efficiency in the production of local public goods and equity among regions, they may be subject to political influences that prevent them from fully achieving these objectives. The grant giver may distribute more funds in pre electoral years in order to increase its chances of re-election, as suggested by the literature on pork barrel politics (Ferejohn, 1974) and political business cycles (Rogoff and Sibert, 1988; Rogoff, 1990). It is also possible that recipient municipal governments exert more pressure to receive funds during local election periods. According to the literature on tactical redistribution, the grant giver may target localities with more swing voters in the allocation of funds (Lindbeck and

[1] In mainland Portugal there are only two levels of public administration, the central government and municipalities. Only the archipelagos of the Azores and Madeira have the status of autonomous regions.

[2] See Oates (1999) for a survey on fiscal federalism.

Weibull, 1987, and 1993) but may favour his supporters if he is risk-averse (Cox and McCubbins, 1986). Later on, Dixit and Londregan (1996) developed a model where parties favour their core support group when they are more effective in delivering favours to them, but woo the group that is most willing to switch their vote in response for economic favours if they are equally effective in delivering transfers to any group. Parties may also compromise their own ideology, by adjusting their platforms and pork-barrel components of policy, to attract swing voters (Dixit and Londregan, 1998).

Several studies have analyzed the political determinants of the distribution of intergovernmental grants but, as far as we know, tests have never been performed using data on EU funds. Case (2001) examined the impact of political competition on block grants from federal to sub-federal governments in Albania, and found that more assistance was allocated to swing communes (local government units) and to those that might be pivotal to winning a majority of seats in Parliament. Using data from a temporary program that distributed "ecological" grants from the Swedish central government to municipalities, Dahlberg and Johansson (2002) reported strong support for the hypothesis that the incumbent government (socialist) purchased votes by investing in those municipalities where there are a lot of swing voters, but not where it has more supporters. Also for the Swedish case, Johansson (2003) reported evidence that municipalities with a high number of swing voters receive a higher proportion of intergovernmental grants. On the contrary, Ansolabehere and Snyder (2006) analyzing the effects of party control of state government on the distribution of intergovernmental transfers across counties in the U.S., found that the governing parties skew the distribution of funds in favour of areas that provide them with the strongest electoral support, and little or no support for the swing voter model. Hanes (2007) using observations for temporary grants in Sweden, over three electoral periods, concluded

that under Socialist governments (1985 and 1988) municipalities with a high share of Socialist voters were more likely to apply for grants, and to receive them; while this was not the case under the 1982 Conservative government. Using Spanish data, Solé-Ollé and Sorribas-Navarro (2008) found that partisan alignment has a sizeable positive effect on the amount of grants received by municipalities.

The impact of political factors in the distribution of intergovernmental grants in Portugal, as the country matured from a young to an established democracy, was examined by Veiga and Pinho (2007).[3] Their results indicate that in the early years of democracy (1979-1988), grants were allocated tactically across municipalities that is, municipalities ruled by mayors that belonged to the Prime Minister's party, and with more swing voters were favoured in the distribution process. Howevere, these phenomena are not visible in the established democracy period. Regarding opportunistic effects, they found that increases in the amount of grants transferred to municipalities during municipal and legislative election years are larger in the second period of the sample (1989-2002), than in the first one.

The present paper focuses on the political economy of the allocation of EU funds to Portuguese municipalities. To our knowledge, this kind of analysis has never been performed either for Portugal or any other EU country. The empirical research is implemented on an extensive panel covering all mainland municipalities (278), from 1992 to 2006.[4] This rich data set contains information on municipal accounts, demographic and socio-economic data regarding the local jurisdictions, and election data for local and central

[3] Also for the Portuguese case but using data for a single year (1989), Pereira (1996) concluded that the regressivity of per capita lump-sum intergovernmental grants towards community size is due to the structure of the lobbying activities of local governments, and not to hypothetical economies of scale in the production of local public goods.

[4] Municipalities of the autonomous regions of Azores and Madeira were excluded from the analysis because they are subject to specific rules concerning EU funds. The status of ultra-peripheral regions allows them to have access to more funds than mainland municipalities.

governments. Portugal is also an interesting case because access to EU funds allowed for a substantial increase of local governments' financial resources. Furthermore, municipal election dates are set exogenously from the perspective of local governments. They occur in all municipalities at the same time and, during the period under analysis, they were always at the end of the year.

The paper is organized as follows. The next section presents a discussion of the Portuguese institutional structure and section 3 describes the dataset. The empirical strategy is explained in section 4 and the empirical results are presented subsequently. Finally, conclusions are reported in section 6.

2. Portuguese institutional framework

There are two levels of sub-national governments in Portugal: the autonomous regions and municipalities.[5] Regional governments exist only in the archipelagos of Madeira and Azores, that is, for mainland Portugal, only the municipal level applies.

The first local elections after the reestablishment of democracy in 1974 took place in December 1976. After 1976 elections were held every three years until 1985 and every four years after that. The representative branches of municipal governments are the Town Council and the Municipal Assembly. The members of the Town Council are elected directly by voters registered in the municipality, who vote for party or independent lists. Following the election, the candidate at the top of the list receiving the most votes becomes the mayor; he is the president of the Town Council and has a prominent role in executive tasks.

[5] There are 308 municipalities in Portugal, and there is also an infra-municipal level composed of 4259 counties (*freguesias*).

For a description of local governments in Portugal see Silva (2008).

There has been a progressive expansion of the activities of municipalities over time. During the first years of democracy, local governments were mainly concerned with the development of infrastructure, including facilities for sewage and for water and electricity distribution. In 1984, Decree-Law 77/84 established a wide variety of responsibilities for municipalities in terms of investment. These included sewage, water and energy, transportation and communication, education, culture, leisure and sports, and health. After joining the European Economic Community in 1986, local governments' financial resources were substantially increased through funds coming from the European Regional Policy. The expansion of funds further widened local governments' concerns to other areas, including cultural activities and land use planning. It also promoted the establishment of relationships between local governments and foreign entities, namely with the Spanish regions, and participation in pan-European associations, such as the Conference of European Peripheral Maritime Regions, and especially its Atlantic Arc Commission. By the end of the 1990's, there were new extensions of municipal activities (Law n. 159/99) to promote cultural activities, environmental protection, social security, tourism, urban rehabilitation, and attraction of private investment. Finally, in 2007, a new local finance law was approved expanding municipal responsibilities, particularly in education, health, social services and fighting drug addiction.

Municipalities have budgetary autonomy, but they depend heavily on transfers from the national budget and on EU funds. As can be seen in Table 1, the two main sources of revenue of local governments are transfers from the central government (participation in national tax revenues) and local taxes. The former represents around one third of municipalities' revenues, while the importance of the latter has been increasing over time (from 26% in 1992 to 36% in 2006). European Funds for municipalities represented 12% of their revenues in 1992 but their relative importance decreased, particularly in the last

decade.[6] Local governments do not receive funds directly from the European Commission, but through a management authority of the program, appointed by the central government. It is up to the national government to negotiate with the European authorities the amount of funds to be allocated to the country, through the submission of development plans.

<Table 1>

European funds for Portugal have primarily been allocated through various phases of the Community Support Framework (CSF). The first CSF was set for the 1989-93 period, the second for 1994-99, the third for 2000-06, and the current one for 2007-13. These have been developed under the European Regional Policy, whose objective is to reduce asymmetries among European Union's regions, in order to increase social and economic cohesion within its borders.[7] Instrumental for this purpose are the transfers to national and sub-national levels, particularly the Cohesion Fund and the Structural Funds. They account for about one third of the overall budget of the European Union and have, for the period under analysis, three main objectives. Objective 1 is to promote the development and structural adjustment of regions whose development is lagging behind, more specifically, those whose gross domestic product is below 75% of the Community average. Objective 2 aims to revitalise all areas facing structural difficulties, whether industrial, rural, urban or dependent on fisheries. Objective 3 is to support the adaptation and modernization of education, training and employment policies and systems in regions not eligible under objective 1. The four structural funds are the European Regional Development Fund, the European Social Fund, the European Agricultural Guidance and Guarantee Fund, and the Financial Instrument for Fisheries Guidance. There are also specific European Union

[6] European funds only appear in a separate item of municipal accounts from 1992 onwards. Previously, they were reported in the item *Other transfers*.

[7] The European Union currently comprises 27 countries, encompassing 271 NUTS II regions.

programs, called community initiatives, which seek joint solutions for particular problems, usually in regions eligible for economic and social cohesion objectives. During the period under analysis, all Portuguese regions were eligible under objective 1, funded by the four structural funds[8] and the cohesion fund.

The selection of projects to be financed with European funds is made by national and regional authorities that are led by members of government or appointed by it. The organizational model for the assessment and monitoring of all CSF operational programs was first defined by Decree-Law 121-B/90, and amended several times over the years. All the information was finally revised and assembled by Decree-Law 54-A/2000 that defines the organic structure for the management, follow up, evaluation and control of CSF III and EU structural interventions for Portugal.

Because there are no regional governments in Portugal, central authorities decide over the distribution of funds to municipalities. Despite politically neutral official program goals, political influences may distort the decision process.[9] Rent-seeking activities, particularly with re-election purposes, may appear both at the central and local levels. When negotiating with the European authorities, the National Government may try to obtain a higher quota of the funds, not only to promote regional development, but also to use as a political tool. Local authorities may lobby the central government to extract more funds,[10] especially in local election years, in order to signal competence to their constituents.

3. The dataset

[8] The Lisbon region received only transitional support in 2000-2006, given that it was no longer eligible to receive objective 1 funds.

[9] See Ruivo (2004) for anecdotal evidence.

[10] The National Association of Municipalities, for example, is an organization created as a pressure group for supporting municipalities' interests.

The dataset used in the paper covers all municipalities in mainland Portugal (278), from 1992 to 2006. It contains information on municipal accounts, demography, socio-economic characteristics and elections for local and national governments. Table 2 reports descriptive statistics of the variables used in the empirical work.

<Table 2>

Data on municipal accounts were obtained from the *Direcção Geral das Autoridades Locais* (the General Management of Municipalities) annual publication called *Finanças Municipais* (Municipal Finances), and demographic data from the Portuguese Institute of Statistics (Census and Regional Statistical Yearbooks). The amount of national taxes and personal income taxes (IRS) collected in each municipality was obtained from the Marktest's *Sales Index* database. GDP per capita for the NUTS 3 (Nomenclature of Territorial Units for Statistics) regions was extracted from the Eurostat's webpage, and the consumer price index from the IMF's *International Financial Statistics*. The source of political data is the National Electoral Commission and the Technical Staff for Matters Concerning the Electoral Process (*STAPE*), of the Internal Affairs Ministry.

4. Empirical strategy

Our dependent variable is real EU funds *per capita* received by municipality *i* in year *t* (EU_Funds_{it}). It is measured in real terms, to control for price increases over time, and defined *per capita* in order to take into account size differences among municipalities. Several political variables characterizing central and local governments, as well as demographic, economic, and social indicators of the municipalities are used as explanatory variables. Lagged values of the dependent variable are included to take into account the autoregressive component of the series. Since the period under analysis (1992-2006) covers several Community Support Frameworks (CSF), a dummy variable for the CSF III

(2000-06) was included to capture specific features of this framework. Subsequent regressions will also be estimated separating the sample for observations within the CSF II (1994-99) and the CSF III. A time trend (*Trend*) is used to control for time-effects that may affect the distribution of EU funds equally across all municipalities.

The following variables are included to test for political influences on the distribution of EU funds to municipalities:

- *Legislative Election*$_{it}$ is a dummy variable equal to one in legislative election years, and zero otherwise. This variable tests for pork barrel policies using grants. In order to woo the electorate, the central government may increase grants transferred to municipalities. Thus, a positive coefficient is expected.

- *Local Election Year*$_{i,t}$ is a dummy variable that takes the value of one in municipal election years, and zero otherwise. It tests for increases in EU grants during municipal election years. Veiga and Veiga (2007) have found that, in pre-electoral periods, Portuguese mayors increase expenditures, particularly on items that are highly visible to the electorate, in order to enhance their chances of re-election.[11] If local politicians pressure the central government to obtain more funds to woo the electorate, the coefficient associated with this variable should be positive.

- *Years mayor in office*$_{it}$ is the number of years a mayor has been in office.[12] It tests the hypothesis that mayors who stay in office longer have better knowledge of the distribution process and are, therefore, more able to extract funds from the distributing agency. A positive coefficient is expected.

- *Same Party*$_{it}$ is a dummy variable that takes the value one when the mayor and the prime-minister belong to the same political party. Since this variable tests the Cox and

[11] Baleiras and Costa (2004) also find evidence of political business cycles for Portuguese municipalities.

[12] There were no term limits during the period under analysis.

McCubbins's (1986) hypothesis that the grant giver favours his supporters in the allocation of funds, a positive coefficient is expected.

- *Gov % Votes Previous Election*$_{it}$ measures the percentage of votes received in the municipality by the party in the central government in the previous legislative election. Under the Cox and McCubbins's (1986) hypothesis, a positive coefficient is also expected for the coefficient associated with this variable.

- *Abs Dif Votes Previous Election*$_{it}$ is the absolute value of the difference in vote shares in each municipality between the main party in the central government and its main opponent, in the last legislative election. This variable is used as a proxy for the number of swing voters;[13] it allows us to test whether the distribution agency targets or not municipalities with many undecided voters (Lindbeck and Weibull, 1987; and Dixit and Londregan, 1998). A negative coefficient would be consistent with this hypothesis.

In order to take local population's needs and the wealth of the municipality into account, several variables described below were also considered. They are all lagged one year, because data are not immediately reported and available to policymakers.

- *Population*$_{it-1}$ represents the number of inhabitants in a municipality, in thousands, in the previous year. If there are economies of scale in the provision of local public goods, *per capita* grants are expected to decrease with communities' size (a negative coefficient).

- *Illiteracy rate*$_{it-1}$ is the percentage of illiterates in the municipality's population, in the previous year. This is a proxy for the municipality's level of development. Given that a major objective of EU funds is to reduce disparities among regions, a positive sign is expected for the coefficient associated with this variable.

[13] No survey election data covering all municipalities and the whole period analyzed is available for Portugal.

- *National_taxes*$_{it-1}$ is the national taxes *per capita* collected in the municipality, in the previous year. This variable is a proxy for the municipality's wealth, and therefore, a negative sign is expected for the coefficient associated with it, if grants are distributed to reduce disparities. However, since projects funded by the EU require co-funding with local resources, a positive sign is also plausible for the coefficient associated with this variable.

The empirical model can be described by the following equation:

$$y_{i,t} = \sum_{j=1}^{p} \alpha_j y_{i,t-j} + \mathbf{X}_{i,t}^{'}\boldsymbol{\beta} + \nu_i + \varepsilon_{i,t} \qquad i = 1,...,N \quad t = 1,...,T \qquad (1)$$

where, y_{it} is the dependent variable, p is the number of lags of the dependent variable, $\mathbf{X}_{i,t}^{'}$ is a vector of explanatory variables, α and $\boldsymbol{\beta}$ are vectors of parameters to estimate, ν_i is the individual effect of municipality i, and $\varepsilon_{i,t}$ is the error term.

The model could be estimated using the Ordinary Least Squares method, assuming the municipal specific effects as fixed or random. However, in a linear dynamic panel model, when the sample shows a clear dominance of the number of individuals over time periods, this procedure generates inconsistent estimates of the model's parameters, given that the lagged value of the dependent variable is correlated with the error term. This is the case of the panel dataset under analysis, which includes 278 municipalities and 15 years of observations. Arellano and Bond (1991) have developed a Generalized Method of Moments (GMM) estimator to overcome the problems mentioned above. Since there is persistence in the series, the extended version of the GMM estimator for dynamic datasets proposed by Blundell and Bond (1998), the system-GMM estimator, will be used in the empirical work.

5. Empirical Results

Estimation results for the model described in the previous section, using the system-GMM method for linear dynamic panel data models,[14] are shown in Table 3. T-statistics are presented between parentheses and the degree of statistical significance is signalled with asterisks. The number of observations and municipalities, the results of the autocorrelation tests, and the p-value of the Hansen test for the validity of the over-identifying restrictions are reported at the bottom of the table.

<Table 3>

Column 1 presents the results for the baseline model. The first lag of the dependent variable is statistically significant, suggesting that there is persistence in the amount of EU funds received by municipalities.[15] The estimated coefficient associated with the trend variable is statistically significant and positive, indicating that there has been an annual increase of EU grants of approximately 0.85 Euros *per capita*. The dummy for the third Community Support Framework is highly statistically significant, revealing that grants received during CSFIII were significantly higher than in the previous frameworks. As anticipated, there is a negative relationship between grants per capita and the number of inhabitants, suggesting that grants are distributed under the hypothesis of the existence of economies of scale in the production of local public goods. The coefficient associated with the illiteracy rate is highly statistically significant and positive, suggesting that more grants are attributed to less socially developed communities. The amount of taxes collected in the municipality, used to proxy municipal income does not seem to influence the allocation process.

Regarding political influences in the amount of grants transferred, there is clear evidence of a significant increase (around 19 Euros *per capita*) during local election years,

[14] The two-step results, using robust standard errors corrected for finite samples, are presented.
[15] The choice of the number of lags to include was based on their statistical significance and on the need to avoid second order autocorrelation of the residuals.

an increase of 51% relative to the sample mean (38.08 Euros). Furthermore, the percentage of votes received in the municipality by the parties in central government is statistically significant, suggesting that the government favours its supporters. The results show no evidence that funding is higher in legislative election years. This is not surprising given that during the period under analysis two of the four elections took place at the beginning of the year (March 2002 and February 2005), and well before elections would have been mandated.[16] Funding does not depend on the years of experience of the mayor, or on party similarity of the mayor and the prime minister. The variable used to proxy swing voters (*Abs Dif Votes Previous Election*), although negatively signed as expected, is not statistically significant.

In order to take into account that incumbent governments did not complete their terms before the 2002 and 2005 elections, the dummy variable *Legislative Election Year* was replaced in column 2 by the dummy *Legislative Election Year (1995 & 1999)*, which only takes the value of one in 1995 and 1999. Since the latter dummy is highly statistically significant, there is clear evidence of opportunistic manipulation of grants in the legislative election years of 1995 and 1999. The remaining results reported in column 2 are very similar to those of column 1. The exception is that the variable used to proxy the number of indecisive voters in the municipality (*Abs Dif Votes Previous Election*) is now marginally statistically significant, suggesting that municipalities received more grants when the party in office had won by a narrower margin in the prceding election.

In column 3, the dummy variable for the local election years was interacted with the dummies that, respectively, indicate party similarity and absence of party similarity between the mayor and the Prime-Minister. This modification of the model permits a test of the

[16] The 2002 election was precipited by the resignation of government on December 2001, due to the poor results obtained by the ruling Socialist party in the municipal elections. The 2005 election resulted from the dismissal of the government by the President of the Republic.

hypothesis that mayors belonging to the prime-minister's party are favoured in local election years. Both estimated coefficients are positive, and statistically significant, but a Wald test does not allow the rejection of the hypothesis that they are equal. The same interaction was formed with the dummy for the 1995 and 1999 legislative election years, in column 4. Again, a Wald test does not allow the rejection of the hypothesis that the coefficients estimated for the interactions are equal.

The estimations whose results are reported in Table 4 include other variables that proxy municipal wealth, besides the *per capita* amount of national taxes collected in the municipality, and exclude two variables that were not statistically significant in the estimations of Table 3: *Years Mayor in Office* and *Same Party*.[17] Column 1 reports the results of the estimation of the models of column 2 of Table 3 when the two variables referred to above are excluded. In column 2, *National Taxes* was replaced by the real *per capita Personal Income Taxes* collected in the municipality,[18] which turned out to be statistically significant, and positively signed. This result suggests that more grants are attributed to wealthier municipalities and, therefore, that grants do not primarily target the reduction of economic disparities among municipalities. An explanation for this result is that wealthier and more dynamic municipalities apply more for funds, and have more resources available to co-fund the EU supported projects. To better test this hypothesis, we added to the model (see column 3) the two main sources of revenues for municipalities: the real *per capita* amount of unconditional grants received in the previous year ($Transfers\_Unc\_Gov_{it-1}$), and the real *per capita* amount of local taxes collected in the previous year ($Municipal\ Taxes_{it-1}$). Results indicate that there is a positive relationship between transfers received through participation in national taxes and EU funds, confirming that municipalities with

[17] These variables are never statistically significant when included in the estimations of Table 4. Furthermore, Wald tests allow for their exclusion.
[18] The correlation between this variable and total taxes is 0.7.

more resources available for co-funding receive more EU funds. In fact, if we exclude *Personal Income Taxes* $_{it-1}$ from the regression (column 4), *Municipal Taxes* also shows up as statistically significant, reinforcing this conclusion.

<Table 4>

It is possible that these results are driven by the Lisbon region, the wealthiest and most dynamic of the Portuguese regions. In order to account for this possibility, we excluded the municipalities of the *Lisbon and Tagus Valley* region from the sample in the estimations of columns 5 and 6. Since the results obtained are essentially the same as those reported in columns 2 and 4 (for the entire sample), results do not seem to be driven by the Lisbon and Tagus Valley region.

The next step of the empirical analysis was to estimate the model of column 4 of Table 4 for each of the five NUTS II regions of continental Portugal. The results are presented in Table 5. Consistent with the results shown in previous tables, there is clear evidence of an increase in grant transfers in local election years. The only exception is the *Algarve* region, for which the coefficient of the dummy for the local election year is not statistically significant. But, it should be noted that the estimation for *Algarve* has a much smaller number of observations than those for the other regions, which also helps explain why only the lagged dependent variable is statistically significant. The evidence for increases in transfers in legislative election years is weaker, as the dummy for the 1995 and 1999 elections is only statistically significant for the regions of *Centre* and *Lisbon and Tagus Valley*. Furthermore, there is only evidence that governments favour their supporters and target swing voters for municipalities belonging to the Alentejo's region. Regarding the normative determinants of EU funds, unconditional transfers received by municipalities seem to exert a positive influence in the North, Centre, and Lisbon and Tagus valley regions.

<Table 5>

The last empirical exercise performed, which is reported in Table 6, was to estimate the same model for the different Community Support Frameworks (CSF). This was also a way of checking whether or not results change across time. Column 1 reports the results obtained when the sample is restricted to the first two CSFs. In fact, since data on transfers of EU funds start only in 1992, the sample used in the estimation of column 1 covers the period 1992-1999. The results clearly show that grant transfers to municipalities increase in local election years, and there is also support for the hypothesis that governments target both the municipalities where they have largest support and where there are more swing voters. Finally, there is no evidence that transfers increase in legislative election years. Virtually identical results are obtained when the sample is restricted to the period under CSF II, 1994-1999 (see column 2).

<Table 6>

The results obtained for CSF III (2000-2006) are reported in column 3. Again, they are supportive of the hypothesis that grant transfers increase in local election years. In fact, the estimated coefficient is much larger than in columns 1 and 2, indicating that the opportunistic manipulation of grant transfers was larger in the period 2000-2006 than in previous years.[19] The results concerning legislative elections are exactly the opposite, as the estimated coefficient for *Legislative Election Year* is negative and statistically significant. This means that transfers of EU funds to municipalities where smaller in the election years of 2002 and 2005 than in the non-election years of the period covered by the CSF III. As mentioned above, these years' legislative elections happened in the beginning of the year (February and March) and after the fall of the respective governments prior to the end of

[19] This result is consistent with the findings of Veiga and Pinho (2007), who show that the opportunistic manipulation of total grants transferred to Portuguese municipalities is greater in the later years of their sample.

their terms. Since the premature ends of the mandates were not anticipated, there was no room for opportunistic manipulation of EU funds transferred to municipalities.

The results for this period (2000-2006) also indicate that governments targeted the municipalities where they enjoyed larger support,[20] but did not target municipalities with more swing voters.

6. Conclusions

The entrance of Portugal to the European Community in 1986 allowed local governments to benefit from EU funds. These transfers significantly increased their revenues, contributing to an expansion of their areas of intervention and to an improvement of local comunnnities welfare. This paper intends to unveil the impact of political factors in the allocation of European Union funds to Portuguese local governments, on a panel covering all mainland municipalities over 15 years. Econometric results reveal that the amount of EU funds *per capita* transferred to local governments increases significantly during local balloting years, suggesting that local governments' lobbying efforts to have more resources for electoral purposes are satisfied by the grant giver. Furthermore, funds also seem to be used strategically by the central government to win elections. There is evidence of grant increases for the two legislative election years (1995 and 1999) prior to which the incumbent governments stayed in office during their entire terms, and that the distribution is skewed towards municipalities with more swing voters and where the parties in central government have a stronger political support.

These results corroborate Veiga and Pinho's (2007) conclusion that, even when democracy was well established in the country, opportunistic effects in the distribution of

[20] It is worth noting that, although the estimated coefficient for *Gov %Votes Previous Election* is larger than in the previous columns, it is only marginally statistically significant.

general intergovernmental transfers in Portugal were strong, particularly during periods of political stability when incumbents could plan and implement electoral policies. However, they contradict Veiga and Pinho's (2007) finding that tactical manipulation of general grants is only present during the early years of democracy (1979-88). For European Union funds, there is evidence of tactical redistribution over the entire period covered in the paper (1992 to 2006), although for the third Community Support Framework results are weaker. Given the importance of European Union funds to local governments and the normative objectives that underly their attribution to the country, more transparency in the distribution process would be desirable. Research for other countries would also be desirable in oder to determine if this is a commum feature.

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Table 1. Main sources of municipalities' revenue

Year	Tax Revenue		Rates, property revenue, sales of goods and services		Participation in national tax revenues		EU funds		Other transfers		Financial liabilities		Other revenue		Total revenue	
	10^6 €	%	10^6 €	%	10^6 €	%	10^6 €	%	10^6 €	%	10^6 €	%	10^6 €	%	10^6 €	%
1991	580,0	26	325,2	15	787,2	35			381,8	17	118,2	5	43,9	2	2236,3	100
1992	693,3	26	417,9	16	895,1	33	310,6	12	142,1	5	151,3	6	64,0	2	2674,4	100
1993	733,0	26	433,1	15	967,4	34	289,9	10	183,0	6	193,4	7	46,7	2	2846,6	100
1994	776,1	27	448,4	16	988,1	34	245,9	9	155,6	5	216,0	8	46,4	2	2876,6	100
1995	909,5	29	494,5	16	1089,6	35	236,3	8	154,3	5	146,5	5	72,5	2	3103,2	100
1996	987,3	28	546,4	16	1211,9	34	327,8	9	147,2	4	178,2	5	120,7	3	3519,5	100
1997	1090,3	26	635,5	15	1262,8	30	410,9	10	218,9	5	342,9	8	201,8	5	4162,9	100
1998	1335,1	29	627,3	14	1353,7	30	394,9	9	233,0	5	427,3	9	167,5	4	4538,6	100
1999	1613,6	32	740,1	14	1494,6	29	419,9	8	332,5	6	380,2	7	139,1	3	5120,0	100
2000	1725,7	32	752,2	14	1636,9	30	308,1	6	330,8	6	470,5	9	150,9	3	5375,1	100
2001	1805,9	28	817,7	13	1858,4	29	547,9	8	324,0	5	804,5	12	304,0	5	6462,3	100
2002	1945,0	28	799,2	11	2074,0	30	497,4	7	442,4	6	1089,9	16	131,8	2	6979,9	100
2003	2033,9	31	740,4	11	2359,5	36	470,3	7	178,1	3	526,0	8	202,4	3	6510,6	100
2004	2253,4	33	776,2	11	2469,2	36	373,0	5	233,9	3	418,6	6	266,7	4	6791,0	100
2005	2402,0	34	927,6	13	2544,0	36	382,7	5	239,5	3	345,0	5	317,5	4	7158,3	100
2006	2482,7	36	866,2	12	2565,3	37	341,2	5	168,7	2	278,0	4	279,9	4	6982,0	100

Source: D.G.A.L. (1991-2006), *Finanças Municipais.*

Note: Before 1992, EU funds were included in *Other Transfers*.

Table 2: Descriptive Statistics

Variables	N.Obs.	Average	Standard Deviation	Minimum	Maximum
EUTransfers	4150	38.08	61.96	0	814.65
Political variables:					
Legislative Election Year	4146	.27	.44	0	1
Local Election Year	4146	.27	.44	0	1
Same Party	4149	.41	.49	0	1
Years Mayor in Office	4140	8.19	6.02	1	30
Gov % Votes Previous Election	4140	47.00	12.81	12.91	83.80
Abs. Difference Votes Previous Election	4140	22.25	15.59	.02	76.71
Control Variables:					
Trend	4170	8	4.32	1	15
CSFIII	4170	.47	.50	0	1
Population in thousand	4150	35.10	57.41	1.77	648.26
Illiteracy rate	4150	14.19	5.90	3.68	36.83
National taxes	4149	78.65	78.78	7.10	735.70
Unconditional Transfers	4150	299.40	209.75	0	1475.14
Municipal Taxes	4148	359.75	521.86	10.32	9509.42
Personal Income Taxes	4150	121.59	140.75	0	2135.78

Sources: DGAL, INE, STAPE, EUROSTAT, and IMF.

Note: The EU transfers, GDP, and taxes are always expressed in Euros *per capita* (at 2000 prices).

Table 3: EU transfers to Municipalities (GMM)

	(1)	(2)	(3)	(4)
EU Transf (-1)	.45 (16.19)***	.46 (16.45)***	.46 (16.87)***	.46 (16.80)***
Trend	.85 (2.27)**	.60 (1.66)*	.62 (1.72)*	.63 (1.79)*
CSF III	28.19 (7.17)***	32.40 (8.75)***	33.02 (9.65)***	32.48 (9.43)***
Population(-1)	-.06 (-3.18)***	-.06 (-2.93)***	-.06 (-2.95)***	-.06 (-3.04)***
Illiteracy rate(-1)	1.44 (6.20)***	1.44 (5.91)***	1.48 (7.26)***	1.48 (7.30)***
National_taxes (-1)	.001 (.59)	.001 (.53)	.001 (.50)	.001 (.41)
Legislative Election Year	.40 (.20)			
Legislative Election Year (1995 & 1999)		7.63 (6.40)***	7.84 (6.52)***	
Local Election Year	19.53 (9.89)***	20.82 (10.02)***		20.85 (10.57)***
Years Mayor in Office	-.13 (-.97)	-.14 (-1.04)		
Same Party	2.44 (1.06)	2.44 (1.07)		
Gov %Votes Previous election	.24 (2.01)**	.22 (2.17)**	.25 (2.41)**	.25 (2.58)**
Abs Dif Votes Previous Election	-.16 (-1.62)	-.13 (-1.65)*	-.13 (-1.60)	-.14 (-1.78)
Local El. Year*Same Party			20.06 (6.56)***	
Local El. Year*Diff. Party			21.67 (7.31)***	
Leg.El.Year(1995&1999) * Same Party				8.72 (5.39)***
Leg.El.Year(1995&1999) * Diff. Party				6.86 (5.38)***
m1	-6.63***	-6.63***	-6.65***	-6.63***
m2	.36	.90	.91	.91
Hansen Test (p-value)	.95	.92	.88	.92
No. Observations	3853	3853	3853	3853
No. Municipalities	278	278	278	278

Sources: DGAL, STAPE, OECD and INE.

Notes:
- T-statistics are between parentheses. Significance level for which the null hypothesis is rejected: **, 1%, and *, 5%.
- Two-step results using robust standard errors corrected for finite samples for estimations of system-GMM linear models for panel data (which combine the equations in first-differences with the equations in levels).
- m1 and m2 are tests for first-order and second-order serial correlation in the first-differenced residuals, asymptotically distributed as N(0,1) under the null of no serial correlation. Hansen is a test for the validity of the over-identifying restrictions for the GMM estimators, asymptotically χ^2. P-value is reported.

Table 4: EU transfers to Municipalities – Additional Results

	(1)	(2)	(3)	(4)	(5)	(6)
	All municipalities				Without the Lisbon and Tagus Valley region	
EU Transf (-1)	.46 (16.90)***	.45 (16.69)***	.37 (13.91)***	.37 (13.77)***	.46 (14.98)***	.38 (12.43)***
Trend	.62 (1.80)*	.72 (2.15)**	-.90 (-2.16)**	-.93 (-2.25)**	.85 (2.28)**	-.89 (-1.90)*
CSF III	33.10 (9.44)***	32.13 (9.81)***	32.41 (9.92)***	32.83 (9.58)***	31.77 (8.72)***	33.87 (9.08)***
Population(-1)	-.06 (-2.96)***	-.08 (-3.74)***	-.05 (-4.27)***	-.05 (-3.96)***	-.11 (-4.38)***	-.06 (-3.14)***
Illiteracy rate(-1)	1.45 (6.89)***	1.49 (7.86)***	-.36 (-1.30)	-.35 (-1.18)	1.46 (6.50)***	-.24 (-.83)
National Taxes (-1)	.001 (.42)					
Personal Income Taxes (-1)		.01 (2.24)**	.005 (1.04)		.02 (1.81)*	
Transfers_Unc_Gov (-1)			.09 (7.43)***	.09 (6.96)***		.08 (6.37)***
Municipal Taxes (-1)			.02 (1.67)*	.02 (2.04)**		.03 (2.26)**
Legislative Election Year (1995 & 1999)	7.50 (6.34)***	7.52 (6.43)***	7.43 (6.55)***	7.52 (6.39)***	6.73 (5.67)***	6.78 (5.69)***
Local Election Year	20.61 (10.79)***	20.62 (10.35)***	19.66 (10.08)***	19.73 (9.94)***	20.55 (11.22)***	20.41 (10.40)***
Gov %Votes Previous election	.24 (2.39)**	.29 (2.82)***	.29 (2.69)***	.28 (2.73)***	.27 (2.33)***	.25 (2.20)***
Abs Dif Votes Previous Election	-.13 (-1.75)*	-.15 (-1.99)**	-.17 (-2.14)**	-.16 (-2.25)***	-.14 (-1.54)	-.13 (-1.79)*
m1	-6.62***	-6.62***	-6.61***	-6.59***	-6.35***	-6.33***
m2	.90	.89	.37	.38	1.20	.77
Hansen Test (p-value)	.94	.91	.88	.85	.98	.90
No. Observations	3853	3853	3865	3853	3152	3152
No. Municipalities	278	278	278	278	227	227

Sources: DGAL, STAPE, OECD and INE.

Notes: - T-statistics are between parentheses. Significance level for which the null hypothesis is rejected: **, 1%, and *, 5%.

- Two-step results using robust standard errors corrected for finite samples for estimations of system-GMM linear models for panel data (which combine the equations in first-differences with the equations in levels).
- m1 and m2 are tests for first-order and second-order serial correlation in the first-differenced residuals, asymptotically distributed as N(0,1) under the null of no serial correlation. Hansen is a test for the validity of the over-identifying restrictions for the GMM estimators, asymptotically χ^2. P-value is reported.

Table 5: Results for the NUTS II Regions

	(1)	(2)	(3)	(4)	(5)
	North	**Centre**	**Lisbon and Tagus valley**	**Alentejo**	**Algarve**
EU Transf (-1)	.36 (7.82)***	.70 (5.24)***	.27 (5.77)***	.31 (5.02)***	.31 (2.15)**
EU Transf (-2)		.02 (.23)			
Trend	-.70 (-1.14)	-2.954 (-5.98)***	-.48 (-.90)	2.85 (2.38)**	1.71 (.06)
CSF III	17.88 (3.28)***	28.87 (5.68)***	25.68 (2.95)***	33.34 (4.47)***	-200.3 (-.41)
Population(-1)	-.04 (-1.57)	.04 (1.45)	-.01 (-.68)	-.37 (-1.35)	-2.02 (-.51)
Illiteracy rate(-1)	.42 (.95)	-.63 (-1.82)*	-.84 (-1.54)	.24 (.22)	-17.15 (-.35)
Transfers_Unc_Gov (-1)	.07 (4.21)***	.07 (3.18)***	.161 (3.45)***	.03 (1.51)	.36 (.44)
Municipal Taxes (-1)	.03 (1.07)	-.02 (-.61)	-.04 (-.93)	-.12 (-1.22)	-.11 (-.61)
Legislative Election Year (1995 & 1999)	1.60 (.70)	7.36 (3.45)***	8.35 (3.27)***	3.83 (1.12)	-575.5 (-.36)
Local Election Year	19.14 (6.73)***	22.24 (6.57)***	14.75 (2.74)***	25.37 (4.69)***	36.41 (.99)
Gov %Votes Previous election	-.19 (-.93)	.001 (.006)	.48 (1.45)	1.05 (3.62)***	2.10 (.59)
Abs Dif Votes Previous Election	-.20 (-1.11)	-.07 (-.79)	-.28 (-1.20)	-.47 (-1.36)***	2.34 (1.00)
m1	-4.20***	-3.63***	-2.33***	-2.99***	-.39
m2	.03	1.66	-.97	-.18	-.12
Hansen Test (p-value)	.99	.99	.99	.99	.99
No. Observations	1178	1014	701	658	224
No. Municipalities	86	78	51	47	16

Sources: DGAL, STAPE, OECD and INE.

Notes:
- T-statistics are between parentheses. Significance level for which the null hypothesis is rejected: **, 1%, and *, 5%.
- Two-step results using robust standard errors corrected for finite samples for estimations of system-GMM linear models for panel data (which combine the equations in first-differences with the equations in levels).
- m1 and m2 are tests for first-order and second-order serial correlation in the first-differenced residuals, asymptotically distributed as N(0,1) under the null of no serial correlation. Hansen is a test for the validity of the over-identifying restrictions for the GMM estimators, asymptotically χ^2. P-value is reported.

Tabela formatada

Table 6: Results for the Community Support Frameworks

	(1)	(2)	(3)
	CSF I & II	**CSF II**	**CSF III**
	1992-1999	**1994-1999**	**2000-2006**
EU Transf (-1)	.60 (13.10)***	.58 (10.80)***	.41 (14.29)***
Trend	.39 (3.20)***	.39 (3.57)***	-1.75 (-2.50)**
Population(-1)	-.01 (-1.37)	-.01 (-4.02)***	-.07 (-2.68)***
Illiteracy rate(-1)	.09 (1.00)	.08 (1.01)	.02 (.02)
Transfers_Unc_Gov (-1)	.02 (3.66)***	.01 (2.75)***	.09 (5.69)***
Municipal Taxes (-1)	.01 (1.49)	.01 (1.07)	.03 (1.26)
Legislative Election Year	-.05 (-.08)	.06 (.09)	-13.52 (-3.99)***
Local Election Year	2.53 (3.47)***	2.98 (3.53)***	40.79 (9.56)***
Gov %Votes Previous election	.19 (4.46)***	.16 (2.97)***	.37 (1.92)*
Abs Dif Votes Previous Election	-.15 (-4.11)***	-.13 (-2.69)***	-.004 (-.04)
m1	-5.53***	-5.43***	-6.19***
m2	.26	.26	.34
Hansen Test (p-value)	.76	.79	.83
No. Observations	1925	1650	1928
No. Municipalities	275	275	278

Sources: DGAL, STAPE, OECD and INE.

Notes: - T-statistics are between parentheses. Significance level for which the null hypothesis is rejected: **, 1%, and *, 5%.

- Two-step results using robust standard errors corrected for finite samples for estimations of system-GMM linear models for panel data (which combine the equations in first-differences with the equations in levels).
- m1 and m2 are tests for first-order and second-order serial correlation in the first-differenced residuals, asymptotically distributed as N(0,1) under the null of no serial correlation. Hansen is a test for the validity of the over-identifying restrictions for the GMM estimators, asymptotically χ^2. P-value is reported.

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