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**A Economia Política das Transferências Intergovernamentais:
Evidência Empírica para Portugal**

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RESUMEN (MÁXIMO: 150 PALABRAS)

O artigo analisa o impacto de factores políticos na distribuição das transferências do Governo para os municípios portuguesas e se este se alterou à medida que a democracia portuguesa se foi consolidando. É utilizada uma extensa e detalhada base de dados que cobre todos os municípios de Portugal continental, de 1979 a 2002.

Os resultados empíricos revelam que os factores políticos condicionam a distribuição das transferências e que a sua influência se alterou ao longo do tempo. Enquanto manipulações políticas na afectação das transferências entre os municípios parecem existir apenas nos primeiros anos da democracia portuguesa, os aumentos das transferências em anos eleitorais são maiores na segunda metade do período temporal analisado. É argumentado que este último efeito se deve a uma alteração no ambiente político e à falta de informação dos eleitores sobre o processo de distribuição das transferências entre diferentes níveis de governo em Portugal.

The Political Economy of Intergovernmental Grants:

Evidence from Portugal

by

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Abstract:

We evaluate the impact of political forces in the allocation of intergovernmental grants in Portugal, as it matured from a young to an established democracy. We use a large and unexplored dataset covering all mainland municipalities from 1979 to 2002. Empirical results show that political variables condition the granting system, and that their importance changed over time. While political manipulation in the distribution of grants among municipalities seems to exist only in the early years of democracy, opportunistic effects are stronger in the latter years of the sample. We argue that the latter effect is due to a change in the political environment and to a lack of information on intergovernmental grants by voters.

JEL classification: H77, H59, D72
Keywords: grants, intergovernmental relations, political economy, Portugal

1. Introduction

Working with a large cross-section of countries, Brender and Drazen (2005) argued that empirical evidence of a political budget cycle exists but that result is driven by a group of "new democracies" (Portugal, Greece, Spain and Turkey). Since democracy was reestablished in Portugal in 1974, the country has evolved from a "new" to an "established" democracy, which makes it an appropriate laboratory for further investigation of Brender and Drazen's findings. Furthermore, Akhmedov and Zhuravskaya (2004), analyzing political budget cycles in Russia after its transition to democracy, have found that the magnitude of the cycles decreased over time. While Russia is a decade-old democracy, young by all standards, democracy was reestablished in Portugal thirty years ago, allowing us to analyze a substantially longer time horizon and to observe a transition from a new to an established democracy.

In this article we evaluate the influence of political forces on the allocation of intergovernmental grants in Portugal, using a large, detailed, and unexplored dataset covering all mainland municipalities from 1979 to 2002. The institutional structure of local governments and the policy instruments available are identical for all localities in Portugal, making this panel preferable to one composed of several countries, or states, with different institutions and policy instruments, like the one used by Brender and Drazen (2005). The study of intergovernmental grants is very relevant because transfers from the central government represent the main source of funding of municipalities[1].

The paper is structured as follows. Section 2 briefly reviews the relevant literature. Section 3 describes the institutional framework in which the flow of intergovernmental grants from the central to municipal governments is determined. Sections 4 and 5 describe the dataset and the baseline empirical model,

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[1] Since there are no states or administrative regions in mainland Portugal, municipalities are the highest ranking authorities below the national government.

respectively. Section 6 presents the empirical results and, finally, section 7 concludes the paper.

2. The literature

The theory of fiscal federalism[2] provides a normative framework for the assignment of functions to different levels of the public sector, as well as for the achievement of a balance between responsibilities and resources of each governmental level. Different levels of government typically have access to tax and debt instruments, but there is another important way to allocate funds among different levels of the public sector: intergovernmental grants. The normative approach to such grants assumes that the central government is mainly motivated by efficiency and equity goals, seeking the maximization of the general welfare of the population. In this context, the settlement of grants is mainly supported by formulas, which use indicators of the needs of the population and of local fiscal capacity.

The economics literature has also provided some positive explanations for the allocation of intergovernmental grants. Among these, approaches that emphasize the importance of political factors deserve particular attention. In this view, the policies conducted by the central government are determined, at least partly, by its attempt to promote its own interests and by lobbying activities.

When choosing among alternative policies, a government will adopt the one that maximizes its utility, which might simply depend upon the probability of reelection. In this context, the economics literature has analyzed the allocation of intergovernmental grants as a strategic tool of central governments aimed at re-

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

election. This is in accordance with the literature on rational political business cycles and "pork-barrel" politics[3].

Previous empirical research has investigated a number of hypotheses related to the political forces that affect the amount and distribution of intergovernmental grants. Worthington and Dollery (1998) tested whether the aggregate amount of resources diverted to local jurisdictions differs in national electoral years, and other research has investigated a series of hypotheses related to the political forces that affect the distribution of grants across municipalities. First, researchers have tested whether central governments reward their supporters, who are more likely to distribute "pork" and engage in political patronage, or their opponents, whom they might wish to "buy off" (Gist and Hill, 1984; Alperovich, 1984; Bungey *et al*., 1991; Grossman, 1994; Pereira, 1996; Worthington and Dollery, 1998). Second, others have investigated whether jurisdictions with a larger or smaller representation at the national parliament are treated differently, either because they have larger population and, therefore, more political capital available (votes), or, because they have a smaller population, and therefore potential for a larger increase in *per capita* grant benefits (Wright, 1974; Bungey *et al*., 1991; Grossman, 1994; Worthington and Dollery, 1998; Porto and Sanguinetti, 2001). Third, it is possible that jurisdictions with more competitive races for the national government or with more swing voters receive a higher proportion of intergovernmental grants, other things equal (Wright, 1974; Bungey *et al*., 1991; Case, 2001; Johansson, 2003). Finally, others have tested whether jurisdictions where the party in the national government received a higher proportion of votes in legislative elections receive more resources (grants) because they are considered "pivotal" to win a majority of seats in the national parliament (Case, 2001).

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[3] According to rational opportunistic business cycles models, such as those presented in Rogoff and Sibert (1988) and Rogoff (1990), incumbents relax fiscal policy before balloting periods to increase their reelection chances. See Drazen (2000: 327-331) for an explanation of "pork-barrel" politics.

Deviations from normative considerations in the allocation of grants may also result from lobbying activities. First, local politicians may pressure the central government to transfer a larger amount of resources during local election years in order to have more funds available for campaigning (Worthington and Dollery, 1998). Second, the design of grant distribution formulae is subject to political pressures since it results from negotiations between central and local governments (Grossman, 1994; Pereira, 1996). Third, interest groups, such as public employees and unions, may lobby for benefits in the distribution of grants that are not formula-determined (Grossman, 1994; Bork and Owings, 2003; Lowry and Potoski, 2004; Feld and Schaltegger, 2005). Fourth, the costs borne by local governments in lobbying the central government may vary according to the geographical and "political" distance from the central government capital (Bork and Owings, 2003). Fifth, fiscal referenda may restrict the impact of interest groups in the determination of intergovernmental grants (Feld and Schaltegger, 2005).

With the exception of Bungey *et al.* (1991), all the above-mentioned studies present evidence that politics matter in the intergovernmental grants allocation process. To our knowledge, there is only one article, Pereira (1996), that investigates the determinants of intergovernmental grants in Portugal using a political-economic approach. In this paper we try to shed some additional light on the influence of political forces in the Portuguese granting system. We enlarge Pereira's analysis by investigating additional hypotheses and by using a larger dataset, both in cross-sectional and temporal dimensions.

Portugal is also an interesting case study because it is a relatively young democracy, and to date most of the research has focused on established democracies. Recently, Brender and Drazen (2005), working with a large cross-section of countries, presented evidence that political budget cycles exist, but the result is driven by the experience of a group of "new democracies", where Portugal was included. They argued that fiscal manipulation may work better in "new" than

in "established" democracies because voters may be inexperienced with electoral politics or may have less information available to evaluate the fiscal manipulation. Brender (2003) and Akhmedov and Zhurasvskaya (2004) found evidence consistent with this view for Israel and Russia respectively. Since the first democratic elections (both legislative and municipal) took place in 1976, and our dataset starts in 1979 we have an excellent laboratory to test whether the impact of political forces in the grant allocation process changed as democracy matured in the country.

3. The Portuguese political and institutional framework

After almost fifty years of dictatorship, democracy was re-established in Portugal following the April 25th, 1974 revolution. From 1974 to 1987, several governments ruled, but none succeeded in staying in office for an entire four-year term. In the 1987 elections, after two years in office as a minority government, a single party - the People's Democratic Party / Social Democratic Party (PPD/PSD) - won a majority of parliamentary seats for the first time since the re-establishment of democracy. It repeated as a majority government in the subsequent balloting held in 1991. At the end of 1995, the party in office changed again: the socialist party (PS) won the elections and stayed in office until 2002. After that, the country was ruled by a coalition formed by PPD/PSD and Democratic and Social Center / People's Party (CDS/PP). Following a Presidential dismissal of the government, elections were called for February 2005. The country is currently run by the PS, which has a comfortable overall majority of seats in the National Assembly. See table 1 for a description of parties in office since the 1979.

[Table 1]

The first Portuguese municipal elections were held in 1976 and since then eight ballotings have taken place. Until 1985, municipal elections occurred every three years, and after that municipal governments' terms were extended to four

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years. Elections have always taken place in December, with the exception of the most recent one, which occurred in October 2005[4].

The Portuguese Constitution of 1976, the Local Power Law (Law n. 79/77, October 25) and the first Local Finance Law (Law n. 1/79, January 2) brought new responsibilities and more power to municipalities, allowing for local finance reform through the consolidation of the financial decentralization. However, tax collection has been mainly a central government task and transfers from the central government represent the most important source of funding for Portuguese municipalities. Municipalities receive both conditional and unconditional grants. Conditional grants provide more control for the central government and less discretion for municipalities than unconditional grants. Conditional grants from the central government to municipalities are usually governed by contracts and specific program requirements[5]. The European Union's funds are a special case of conditional grants. They are allocated to each municipality by a central government agency that must follow the EU guidelines in the selection of the projects to be financed.

For unconditional grants, the discretion of the grant giver is more limited since, in the Portuguese case, these grants are determined by a fiscal rule and are formula-based transfers. According to the Portuguese Constitution, municipalities have the right to share national fiscal revenues. Table 2 summarizes the changes that occurred in the allocation criteria of unconditional grants.

[Table 2]

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[4] Municipal elections took place at December 12, 1976; December 16, 1979; December 12, 1982; December 15, 1985; December 17, 1989; December 12, 1993; December 14, 1997; December 16, 2001; and October 9, 2005.
[5] The first Local Finance Law mentioned the possibility of conditional financial help from the central government to municipalities in case of public disaster or unusual circumstances. The Law n. 1/87 considered the possibility of technical and financial cooperation between the central government and municipalities aiming at the promotion of regional and local development. In 1998, a new Local Finance Law was enacted allowing for help from the central government if regional development was at stake or if there was an urgent need for funds that could not be provided by the municipality. The regulatory framework for conditional financial help is established by the central government in the form of decree-laws (legislation issued by the government by permission from the Parliament).

We now proceed by reviewing changes in the legislation since 1979 defining the total amount of funds to be transferred to municipalities. Law n. 1/79 required that total unconditional grants to municipalities constitute no less than 18% of the amount allocated to capital and current expenditures in the National Budget. Therefore, the total amount of grants, though constrained by law, was not completely formula-driven; it was published each year in the National Budget Law. Grants resulted from the municipalities' right to share tax revenues collected at the central level (artº 5º.b) and other revenues (artº 5º.c). The 1987 Local Finance Law changed the way the total amount of unconditional grants was determined by establishing that it should be annually adjusted on the basis of the expected change in the value-added tax (VAT) revenue[6], as expressed in the National Budget. Since this rule relied on expectations, there was still room for electoral politics to influence the total amount of grants.

In 1998, a new law was approved (Law n. 42/98) that created the Municipal General Fund (*Fundo Geral Municipal*, FGM) and the Municipal Cohesion Fund (*Fundo de Coesão Municipal*, FCM)[7]. The total amount of these funds was set as a proportion (30.5%: 24% for FGM and 6.5% for FCM) of the actual tax revenues generated two years before by income taxes and the value-added tax. This represents an important change from the previous local finance law that based the determination of the total amount of unconditional grants on expected tax collections. The National Budget Law of 2001 created a new fund to complement the FGM and the FCM: the Municipal Basis Fund (*Fundo de Base Municipal*, FBM), which allocates an equal amount of resources per municipality[8]. The total amount of these funds still represents 30.5% of the actual tax revenues generated two years

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[6] Unconditional Grants$_t$ = Unconditional Grants$_{t-1}$*(VAT$_t$/VAT$_{t-1}$).

[7] The FGM was created to provide municipalities with adequate financial resources for the execution of their tasks, as a function of their levels of operation and investment. The FCM intends to promote horizontal balance, that is, to reduce inequity among local jurisdictions. This fund is only transferred to municipalities that have a development index below the national average.

[8] As can be seen from table 2, previous local finance laws already assigned an equal amount of funds to all municipalities but not as an autonomous fund.

before by the income taxes, and the value-added tax, but the proportions for component funds are now 20.5% for FGM, 5.5% for FCM, and 4.5% for FBM.

4. The dataset

We use as our laboratory a large and unexplored dataset containing information on all Portuguese mainland municipalities (278) from 1979 to 2002[9]. Data on total transfers from the central government to the local authorities and municipalities' area were obtained from the *Direcção Geral das Autarquias Locais*'s annual report called *Finanças Municipais* (*Municipal Finances*). This report exists from 1979 to 1983 and from 1986 to 2002. For the two missing years, data were obtained directly from the municipalities' official accounts. For these two years the dataset is incomplete: we have 175 observations for 1984 and 180 for 1985. Data on non-formula grants were obtained from the same sources but is available for a shorter span: from 1984 to 2002.

Data on total population and population by age groups in each municipality were obtained from the Portuguese National Statistics Office (*Instituto Nacional de Estatística – INE*) Census operations that took place in 1981, 1991 and 2001. For the remaining years data on total population were collected from INE's *Estimates of Resident Population*. Data on population by age groups were obtained by assuming a constant growth rate for the period 1979-1989, on the basis of the 1970 and 1981' Census operations; for the rest of the period, annual data was acquired from the INE's *Estimates of Resident Population*. Gross Domestic Product and consumer price indexes were acquired from the International Monetary Fund's *International Financial Statistics*.

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[9] Overseas municipalities, belonging to the autonomous regions of Azores and Madeira were excluded from the analysis since there is an intermediate level (the regional government) between them and the central government, they benefit from the status of ultraperiferic regions in terms of EU funds, and the inhabitants of islands may have specific needs.
Regarding the Portuguese geographical organization, one should mention that during the period analyzed four municipalities were created: Amadora, in 1979, and Odivelas, Trofa and Vizela, in 1998.

Political data, namely election dates and municipal and legislative electoral results, were obtained from the National Electoral Commission (*Comissão Nacional de Eleições*) and from the Technical Staff for Matters Concerning the Electoral Process (*Secretariado Técnico dos Assuntos para o Processo Eleitoral - STAPE*) of the Internal Affairs Ministry.

5. The baseline empirical model

In this section we empirically investigate the politico-economic aspects of the grant allocation process. We model real *per capita* grants to municipalities ($GRANT_{it}$) as a function of (1) lags of the dependent variable since grant programs are likely to persist over a number of years, as are the political and normative factors that impact upon such grants; (2) a vector of variables related to the public choice idea that policymakers take into account their personal political interests in the grant allocation process (PUB_CHOICE_{it}); and, (3) a vector of control variables associated with the normative approach, that views the grant giver as a social welfare maximizer ($NORM_{it}$).

The dependent variable, $GRANT_{it}$, is defined in *per capita* terms in order to take into account size differences among municipalities and avoid heteroskedasticity problems. It is measured in 1995 euros to control for price increases over time. We first consider the total amount of grants transferred to municipalities and then investigate those that are not formula-determined[10].

The first vector of variables (PUB_CHOICE_{it}) consists of political variables that allow us to test if grant givers are self-motivated and if local incumbents' pressures influence the granting process. The following variables were considered:

- MUN_ELECT$_{it}$: dummy variable equal to one in municipal election years, and to zero in the other years. We hypothesize that mayors lobby the central

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[10] Levin-Lin-Chu and Im-Pesaran-Shin panel unit root tests reject the hypothesis that total grants and non-formula grants are non-stationary.

government in order to receive a larger amount of funds during municipal election years, so that more resources are available for vote-enhancing expenditures[11]. Grants allow for an expansion of vote-generating expenditures without a need for additional vote-losing taxation. A positive sign is expected for the coefficient associated with this variable.

- LEG_ELECT_{it}: dummy variable equal to one in legislative election years, and to zero in the remaining years. It is our belief that, in order to increase its popularity, the central government is likely to transfer a larger amount of funds to municipalities in legislative election years. However, if we follow the Worthington and Dollery (1998: 306) argument that the returns from purchasing political capital by increasing transfers to local jurisdictions may be off-set by direct returns to central government politicians resulting from increases in national public expenditures, a negative coefficient should be expected.

- $SAME\_PARTY_{it}$: dummy variable that takes the value of one when the mayor and the prime-minister belong to the same political party. This variable allows us to test if similarity of party affiliation between local and central politicians influences the amount of grants transferred to a municipality. We have no prior for the sign of the estimated coefficient associated with this variable. The central government may try to reward its supporters, under the hypothesis that they are likely to deliver more political support (votes) in exchange for grants, or it may try to buy off its opponents[12].

- $YEARS\_IN\_OFFICE_{it}$: number of years that a mayor has been in office[13]. Since mayors' expertise and knowledge of the granting process is likely to increase

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[11] Recall that during the period analyzed municipal elections in Portugal always took place in December.
[12] In Portugal, the number of deputies of the National Assembly elected by each electoral circle is determined according to the respective share of the national population. In mainland Portugal, there are eighteen electoral circles. Since electoral circles do not coincide with municipalities, our data does not allow us to test whether jurisdictions with a larger representation at the national parliament are treated differently in the allocation of grants.
[13] There are no term limits in Portugal.

with time in office, we expect their ability to extract funds from the central government to increase with the number of years in office. Therefore, a positive coefficient is expected for the estimated coefficient associated with this variable.

The second group of explanatory variables ($NORM_{it}$) consists of demographic and economic variables that allow us to test if the granting process strives for improvements of social welfare. These variables proxy the macroeconomic situation of the country, and capture differences in local population needs. The following variables are included in this vector:

- $POPULATION_{it-1}$ and $POPULATION\_SQ_{it-1}$: represent, respectively, the municipalities' population (in thousands) and population squared, both measured in the previous year. The existence of economies of scale in the provision of services by local governments constitutes a rationale for *per capita* grants to decrease with communities' size. Since larger jurisdictions can provide identical public service levels with lower taxes, the central government should transfer fewer resources to them in order to promote horizontal equity. However, some authors have criticized this argument based on the idea that local public goods may have "privateness" characteristics[14].

- $\%POP\_UNDER15_{it-1}$ and $\%POP\_OVER65_{it-1}$: percentage of the population under 15 and over 65 years old in the previous year. The estimated coefficients associated with these variables are expected to be positive because these groups of the population demand specific services typically provided by local authorities, such as elementary education and facilities for the elderly.

- GDP_{it-1}: *per capita* GDP at 1995 prices. The macroeconomic performance of the country conditions tax revenues collected by the central government and, consequently, the amount of funds transferred to municipalities. A positive sign is expected for the estimated coefficient associated with this variable.

In this vector, all variables are lagged one year because it takes some time for demographic and economic data to be released and for policymakers to take them into account in the grants allocation process. Table 3 presents descriptive statistics for all variables used in the empirical work.

[Table 3]

The baseline empirical model is described in equation (1), where t represents the year, i the municipality, p the number of lags of the dependent variable included in the model[15], α_j is a parameter to be estimated, $\boldsymbol{\beta}$ and γ are vectors of parameters to be estimated, υ_i is the individual effect of municipality i, and ε_{it} is the error term:

$$GRANT_{it} = \sum_{j=1}^{p} \alpha_j \, GRANT_{i,t-j} + PUB\_CHOICE'_{it}\,\boldsymbol{\beta} + NORM'_{it}\,\gamma + \upsilon_i + \varepsilon_{it}$$

$$i = 1 \ldots, N; \; t = 1,\ldots,T \qquad (1)$$

The model described above could be estimated assuming municipalities' individual effects as fixed or random. However, the lagged value of the dependent variable would be correlated with the error term, ε_{it}, even if the latter was not serially correlated, leading to inconsistent model estimates. This would occur because there is a clear dominance of cross sections (N=275)[16] over time periods (T=24) in our sample.

Arellano and Bond (1991) developed a Generalized Method of Moments (GMM) estimator to solve these problems. By first differencing equation (1) individual effects (υ_i) are removed and the resulting equation becomes estimable by instrumental variables:

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[14] For a discussion on this issue see Pereira (1996).

[15] The optimal number of lags was determined according to their statistical significance and the absence of auto-correlation.

[16] When taking lags and first-differences, the observations for the three municipalities created in 1998 (Odivelas, Trofa and Vizela) are dropped, leading to a panel of 275 municipalities and 24 years of observations.

$$\Delta GRANT_{it} = \Delta \sum_{j=1}^{p} \alpha_j \, GRANT_{i,t\text{-}j} + \Delta PUB\_CHOICE'_{it} \, \beta + \Delta NORM'_{it} \, \gamma + \Delta \varepsilon_{it}$$

$$i = 1 \dots, N; \quad t = 1, \dots, T \qquad (2)$$

The valid instruments are levels of the dependent variable, lagged two or more periods; levels of the endogenous variables, lagged two or more periods; levels of the pre-determined variables, lagged one or more periods; and the levels of the exogenous variables, current or lagged or, simply, the first differences of the exogenous variables. More moment conditions are available if we assume that the explanatory variables are uncorrelated with the individual effects. In this case, the first lags of these variables can be used as instruments in the levels equation. When the dependent variable and/or the independent variables are persistent, lagged differences of the dependent variable may also be valid instruments for the levels equations. Blundell and Bond (1998) show that this extended GMM estimator is preferable to that of Arellano and Bond (1991)[17] in this particular case.

6. Empirical results

In this section we describe the results of our empirical analysis. We start by investigating the total amount of grants received by municipalities (expressed in real and *per capita* terms) and, then, we proceed to study grants that are not determined by formulae (also in real *per capita* terms). Finally, we test if political effects changed over time, as the country evolved from a new to an established democracy. All equations were estimated by the method system-GMM for linear dynamic panel data models. The variable measuring the number of years mayors have been in office was treated as an endogenous variable because transfers from the central government represent an important source of funding for local governments, and spending decisions are likely to have an impact on electoral results. In equations for total grants, the instruments used for the lagged

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dependent variable and the endogenous variable (number of years in office) were

levels of these variables lagged 2 to 5 periods in the equation in first differences[18],

and once lagged first differences in the equation in levels. For non-formula grants

equations the same instruments were used, but it was necessary to add levels

lagged 6 to 8 periods of the dependent and the endogenous variable in order to

have valid Sargan tests. Tables 4 to 6 report the two-step results using robust

standard errors corrected for finite samples[19].

Total grants

Column 1 of table 4 shows estimates of our "baseline" model for total grants

that includes all variables described in the previous section. Several findings are

immediately evident. First, the statistical significance of lagged grants suggests that

they are subject to considerable inertia[20]. Second, of the four variables considered

in the political vector, three turned out to be statistically significant. As predicted by

the literature on political business cycles and "pork-barrel" politics hypothesis,

grants increase during election years. It is important to recall that only after the

local finance law of 1998, the total amount of unconditional grants started to be

determined by a formula based on actual tax revenues collected two years before.

Before that it was based on expectations for the tax revenues or set as a

percentage of the National Budget expenditures. Therefore, the central government

could easily manipulate the total amount of the "pork" to be distributed. Results

indicate that, for all else equal, total grants *per capita* increase by 8.68 1995 euros

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[17] Since there is some persistence of transfers and of some independent variables, it is appropriate to estimate this system-GMM. Furthermore, difference Sargan tests indicate that, for our data, the system-GMM is preferable to the GMM that only includes the first-differenced equations.

[18] Smaller numbers of lagged levels in the equations in first differences generally lead to the rejection of the validity of the over-identifying restrictions (p-values of the Sargan test below 0.1). All equations were also estimated including all available instruments, and results were essentially the same. Although there is a gain in efficiency when all available instruments are used, there is a loss of power, since we get weak instruments in the long lags.

[19] Although it is more common to present the one-step results because the two-step standard errors are generally biased downwards, that problem does not apply to our case, since the econometric software *PcGive 10.4* uses the finite-sample correction suggested by Windmeijer (2005). Thus, we present the two-step results, as these are consistent in the presence of heteroskedasticity.

in municipal election years, a relative increase (compared to the sample mean) of 3.6%. This is in accordance with our prior that mayors' lobby to receive more grants during balloting years in order to have more funds available for electoral campaigns and vote-enhancing expenditures[21]. During legislative election years total grants *per capita* also increase by 10.85 euros, an increase of 4.5 %. As suggested by the "pork-barrel" politics, the decision maker (central government) increases the amount of grants distributed to local governments to improve its popularity, and therefore, its likelihood of reelection. Furthermore, the data suggests that the longer a mayor has been in office, the larger the amount of grants received by his municipality. This may reflect a mayor's accumulation of knowledge on how the Portuguese granting system works, and consequently, a stronger ability to extract a larger share of the distributed funds from the grant giver. Our estimates also indicate that municipalities run by mayors that belong to the prime-minister's party are not favored in the grant distribution process.

[Table 4]

Third, regarding the variables related to the normative approach to transfers, results indicate that grants *per capita* decline as the size of the community increases, until the population reaches about 450 thousand inhabitants. As expected, grants *per capita* increase with the percentage of individuals under 15 and over 65 years old, suggesting that more funds are transferred to satisfy the specific needs of these two groups of the population. GDP *per capita*, included to capture the macroeconomic performance of the country, also has the expected sign and is highly statistically significant.

Given the finding that grant funding rises in election years, we decided to investigate whether or not these increases are more pronounced towards

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[20] 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.
[21] Veiga and Veiga's (2004) empirical results reveal Portuguese mayors' opportunistic behaviour, who increase, in pre-electoral periods, expenditure items highly visible to the electorate, such as investment expenditures on overpasses, streets and complementary works, and rural roads.

municipalities led by mayors that belong to the prime-minister's party. For legislative elections, our prior was that increases would be stronger for municipalities ruled by politicians of the central government's political party, since they are more likely to engage in political patronage that increases the probabilities of reelection of the former. In order to test this hypothesis, we interacted the dummy variables for the municipal (MUN_ELECT) and legislative (LEG_ELECT) election years with the dummies SAME_PARTY and DIF_PARTY (1-SAME_PARTY). Results presented in column 2 reveal that, for municipal elections, both interactions are statistically significant and that the coefficient for "same-party" mayors is smaller than that for "different-party" mayors. However, a Wald test does not allow us to reject the hypothesis of equal coefficients between the two interaction variables. For legislative elections, the interaction variables were highly statistically significant, but the coefficient associated with same-party governments is now larger and statistically different from that for different-party governments. The coefficient for the same-party municipalities is almost twice that for different-party municipalities. In this case, a Wald test allows us to reject the hypothesis of equal coefficients for the two interaction variables.

Finally we tested if increases in transfers are also visible in the year preceding an election. Results, presented in column 3, reveal that this occurs for both municipal and legislative elections. Since some investments may take several months to be finished and become visible by voters, it is not surprising that transfers start increasing in the year before an election.

Non-formula grants

Taking into account that a significant amount of transfers to municipalities are distributed according to a formula-based fiscal rule (recall table 2), we continued our empirical analysis by investigating non-formula grants. As already mentioned, the time span of available data is smaller: 1984 to 2002.

[Table 5]

Evidence reported in table 5 confirms our prior that non-formula grants are more subject to political influences. The percentage increase in non-formula grants during electoral years is now of 14.1% for municipal elections, and of 4.7% for legislative elections – in both cases a higher increase than for total grants. The relative impact of an additional year a mayor has been in office is also larger (0.6% for total grants, 1.1% for non-formula grants). Despite having more discretionary power over this type of transfers the central government does not seem to discriminate across municipalities according to the mayors' party affiliation. The dummy variable SAME_PARTY turned out not to be statistically significant, as in the case for total grants. Concerning the vector of normative variables, results reveal that estimated coefficients for POPULATION, POPULATION_SQ, %POP_OVER65, and GDP were signed as before and continued to be statistically significant. We can therefore conclude that the central government takes into account the specific needs of the municipalities, as well as the macroeconomic situation of the country, when allocating grant funds.

To test the robustness of the conclusion that over the entire term, partisanship has not influenced the grants' distribution process, we added to our baseline model a variable measuring the percentage of votes the party in the central government had in the previous legislative electoral balloting, in the municipality. As can be seen in column 2, this variable turned out not to be statistically significant. An alternative variable, expressing the number of votes (in thousands) for the party in the national government, also turned out not to be statistically significant (column 3).

As done for total grants, we interacted the dummy variables for the electoral years with the dummies SAME_PARTY and DIF_PARTY. Results reported in column 4 of table 5 are essentially the same as before. We can, therefore, conclude that party similarity between local and central governments only seems to be a relevant

issue during legislative election years. Unlike total grants, non-formula grants do not start increasing in the year preceding an election (column 5).

Political effects over time

Following Brender and Drazen's (2005) finding that in a large sample of countries the political budget cycle was driven by the group of "new democracies", where Portugal was included, we decided to investigate whether the impact of political factors changed from the early years of democracy to the latter ones. Taking into account that before 1987 none of the governments managed to stay in office for the entire term (recall table 1) and that after that three governments completed their mandates, two of them with the support of a majority of deputies in Parliament, we adopted the 1987 election as our breaking point. That is, we classify the period from 1974 to 1987 as "new democracy"[22] and after that as "established democracy". We then interacted all of the political variables with dummies for these two periods (NEW_DEM and ESTAB_DEM). We report the results only for total grants (table 6), since for non-formula grants the sample starts only in 1984, and there are many missing values in 1984 and 1985, so that little of the "new democracy" period is covered.

[Table 6]

Regarding party similarity between the mayor and the prime-minister, and the experience accumulated by mayors in office, results indicate that they were only influential in the early years of democracy. This result is in line with Brender and Drazen (2005), since it may result from the lower transparency in the grants distribution process during the early years of democracy, and voters', as well as competing political parties' inexperience with electoral politics.

However, contrary to Brender and Drazen's (2005) finding in a panel of countries, data for Portugal suggests that opportunistic effects in grants were much

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smaller in the early years of democracy than afterwards[23]. This result is not surprising if we take into account the political environment and the lack of transparency in intergovernmental grants. During the "new democracy" period, six legislative elections took place and none of the parties achieved an overall majority of votes. It was a period of high political instability when the uncertainty about the timing of elections turned it difficult for the incumbent party to plan and implement electoral policies. Furthermore, as time goes by learning about the democratic system is not restricted to voters. Politicians also acquire greater experience and their ability to implement electoral policies may rise. It is also worth mentioning Alt and Lassen's (2005) result that, conditioning on the degree of fiscal policy transparency, electoral cycles exist in advanced industrialized economies. Portuguese democracy has matured over the last thirty years, elections are free and there is freedom of press, but intergovernmental grants, given their specificity, are still an obscure topic for most Portuguese voters. Therefore, it is appealing for incumbents to manipulate them in order to improve reelection prospects.

7. Conclusions

Portugal is an excellent laboratory to test Brender and Drazen's (2005) finding, on a panel of countries, that political budget cycles are phenomena of new democracies. Democracy was re-established in Portugal in 1974, allowing us to observe a transition from a new to an established democracy. Using an unexplored and detailed sample consisting of all Portuguese mainland municipalities, for the 1979 to 2002 period, we investigate the impact of political factors in the allocation of intergovernmental grants and whether they have changed over time.

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[22] During this period there were six legislative elections (see table 1).
[23] Wald tests allow us to reject the hypothesis of equal coefficients in all cases. To test the robustness' of these results we divided the panel into two sub samples, according to the periods considered. Estimation results confirm that grant increases in electoral years are stronger during the 1988-2002 period.

Our results present strong evidence that political factors exert an important role in this distribution process, particularly for non-formula grants, and that their relative importance has changed from the early years of democracy to the latter ones. During the early years of democracy, municipalities ruled by mayors that belonged to the prime-minister's party were favoured in the distribution process and more experienced mayors were able to extract larger amounts of grants to their municipalities. These phenomena are no longer visible in the established democracy period. However, increases in the amount of grants transferred to municipalities during municipal and legislative election years are larger in the second period of the sample (1988-2002), than in the first one (1979-1987).

The reduction of partisan effects in the allocation of grants, and of the ability of mayors who stayed longer in office to extract more grants, goes in the expected direction. That is, as democracy matured governments' political manipulations when distributing the total amount of the "pie" among municipalities diminished. However, opportunist effects increased over time. This result may be associated with politicians' acquisition of knowledge about electoral politics, and to the reduction of political instability. In the later years of the sample, strong single party governments managed to stay in office during their entire terms. Opportunism is more attractive for a single-party government than for a coalition government, and the ability of a strong single party-government to implement electoral policies is also larger. Regarding voters, this result suggests that the transfer of resources between different levels of governments is still an obscure topic, making it difficult for them to see through the electoral policies and punish opportunistic incumbents at elections. This is an issue that deserves further attention in order to implement measures that enhance voters' knowledge about intergovernmental grants, reduce the scope of strategic behaviour by incumbent politicians, and the losses in welfare they may generate.

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Table 1: **Legislative elections and parties in government**

Dates of elections	Winning party	Share in Parliament	Prime Minister	Form of government
April 25, 1976	PS	43%	Mário Soares	One party, minority
-	-	-	Mota Pinto	Pres. appointment (1978-79)
-	-	-	M. L. Pintassilgo	Pres. appointment (1979-80)
December 2, 1979	AD	51.2%	Sá Carneiro	Coalition (PSD+CDS+PPM), majority
October 5, 1980	AD	53.6%	Pinto Balsemão	Coalition (PSD+CDS+PPM), majority
April 25, 1983	PS	40.4%	Mário Soares	Coalition (PS+PSD), majority
October 6, 1985	PPD/PSD	35.2%	Cavaco Silva	One party, minority
July 19, 1987	PPD/PSD	59.2%	Cavaco Silva	One party, majority
October 6, 1991	PPD/PSD	58.7%	Cavaco Silva	One party, majority
October 1, 1995	PS	48.7%	António Guterres	One party, minority
October 10, 1999	PS	50.0%	António Guterres	One party, minority
March 17, 2002	PPD/PSD	45.7%	Durão Barroso[a]	Coalition (PSD+CDS/PP), majority
February 20, 2005	PS	52.6%	José Sócrates	One party, majority

Source: National Elections Commission.

Notes: PPD/PSD - People's Democratic Party / Social Democratic Party; PS - Socialist Party; CDS/PP - Democratic and Social Center / People's Party; PPM - Monarchic People's Party; AD = PSD + CDS + PPM.
(a) In July 2004 Durão Barroso resigned and a new government, also a coalition of PSD and CDS/PP was formed under the leadership of Santana Lopes.

Table 2: Allocation criteria of unconditional grants to municipalities

	Law n. 1/79		Decree-law n. 98/84	Law n. 1/87	National Budget Law 1992	Law n. 42/98		National Budget Law 2001		
	artº 5º.b)	artº 5º.c)				FGM	FCM	FGM	FCM	FBM
Population	50%	35%	45%	45%	-	-	-	-		-
Population/Nights spend in tourism facilities	-	-	-	-	40%	35%	-	40%		-
Area	10%	15%	10%	10%	15%	30% (a)	-	30%		-
Per capita direct taxes	40%	-	15%	10%	-	-	-	10%		-
Single Income Tax	-	-	-	-	-	10%	-	-	-	-
Fiscal need index	-	-	-	-	5%	-	-	-		-
Number of *freguesias* (b)	-	15%	5%	5%	5%	15%	-	15%		-
Road Network	-	(c)	-	10%	10%	-	-	-		-
Number of dwellings	-	-	-	5%	-	-	-	-		-
Accessibility index	-	-	-	(d)	5%	-	-	-		-
Needs index	-	35%	20%	-	-	-	-	-		-
Socio-economic development index	-	-	-	5%	-	-	-	-		-
Population under 15 years old	-	-	-	-	5%	5%	-	5%		-
Development index (e)	-	-	-	-	-	-	100%	-	100%	-
Equal amount to all municipalities	-	-	5%	10%	15%	5%	-	-		100%
	100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Diário da República.

Notes: (a) weighted by a factor related to altimetry; (b) *freguesias* are subdivisions of municipalities; (c) included in the needs index; (d) included in the socio-economic development index; (e) allocated only to municipalities with an index below the national average.

Table 3: **Descriptive statistics**

Variables	N.Obs.	Average	Standard Deviation	Minimum	Maximum
Grants:					
Total grants (1979-2002)	6 125	239.4	165.6	14.8	1 384.9
Non-formula grants (1984-2002)	4 483	72.5	71.3	0.0	804.2
Political variables:					
Municipal election year	6 889	0.3	0.5	0	1
Same party	6 877	0.4	0.5	0	1
Years in office	6 870	6.4	4.9	1	27
Legislative election year	6 888	0.4	0.5	0	1
Demographic-economic					
Population (thousands)	6 893	34.7	59.9	1.9	808.0
Population squared	6 893	4 794.0	31 599.0	3.4	652 928.6
% Population under 15 years-old	6 888	19.0	4.7	7.5	36.6
% Population over 65 years-old	6 888	17.5	5.9	5.4	41.7
GDP *per capita* at 1995 prices	6 889	6 994.5	2 090.7	4 072.2	10 053.1

Sources: DGAL, INE, IMF and STAPE.

Note: All types of grants are expressed in euros (at 1995 prices) *per capita*. Data for grants goes from 1979 to 2002, for the remaining variables from 1979 to 2003.

Table 4: **Estimation results for total grants (1979-2002)**

	(1)	(2)	(3)
GRANT(-1)	.76 (24.0)***	.76 (24.6)***	.75 (23.2)***
MUN_ELECT	8.68 (4.78)***		17.85 (6.97)***
MUN_ELECT*SAME_PARTY		5.57 (2.19)**	
MUN_ELECT*DIF_PARTY		11.40 (4.15)***	
PREVIOUS_MUN_ELECT			16.81 (5.95)***
LEG_ELECT	10.85 (7.53)***		25.15 (8.11)***
LEG_ELECT*SAME_PARTY		14.00 (6.15)***	
LEG_ELECT*DIF_PARTY		8.11 (3.71)***	
PREVIOUS_LEG_ELECT			10.71 (3.82)***
SAME_PARTY	2.32 (1.04)	1.99 (.72)	2.42 (1.08)
YEARS_IN_OFFICE	1.46 (2.72)***	1.50 (2.79)**	1.66 (2.96)***
POPULATION(-1)	-.18 (-2.08)**	-.18 (-2.09)***	-.20 (-2.08)**
POPULATION_SQ(-1)	.0002 (1.67)*	.0002 (1.69)*	.0002 (1.67)*
%_POP_UNDER15(-1)	2.60 (3.30)***	2.58 (3.36)***	2.47 (3.03)***
%_POP_OVER65(-1)	6.32 (6.48)***	6.20 (6.51)***	6.43 (6.42)***
GDP(-1)	.01 (8.02)***	.01 (8.09)***	.01 (8.00)***
m1	-8.08	-8.14	-8.04
m2	.59	.57	.63
Sargan (p-value)	.13	.19	.12
No. Observations	5 995	5 995	5 995
No. Municipalities	275	275	275

Notes:- Estimations of system-GMM linear models for panel data (which combine the equations in first-differences with the equation in levels), using the econometric software *PcGive 10.4*;
- two-step results using robust standard errors corrected for finite samples;
- T-statistics are between parentheses. Significance level for which the null hypothesis is rejected: ***, 1%; **, 5%; and *, 10%.
- 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.
- Sargan is a test for the validity of the over-identifying restrictions for the GMM estimators, asymptotically distributed as χ^2. P-value is reported.

Table 5: Estimation results for non-formula grants (1984-2002)

	(1)	(2)	(3)	(4)	(5)
GRANT(-1)	.30	.30	.30	.30	.30
	(8.92)***	(8.94)***	(9.05)***	(9.00)***	(8.91)***
MUN_ELECT	10.24	10.23	10.25		12.41
	(6.42)***	(6.17)***	(6.29)***		(4.90)***
MUN_ELECT*SAME_PARTY				8.79	
				(3.23)***	
MUN_ELECT*DIF_PARTY				11.20	
				(4.91)***	
PREVIOUS_MUN_ELECT					3.87
					(1.14)
LEG_ELECT	3.41	3.41	3.27		6.01
	(2.31)**	(2.30)**	(2.23)**		(1.77)*
LEG_ELECT*SAME_PARTY				4.76	
				(2.02)**	
LEG_ELECT*DIF_PARTY				2.36	
				(1.13)	
PREVIOUS_LEG_ELECT					2.33
					(.65)
SAME_PARTY	2.01	2.02	2.02	2.07	2.18
	(.94)	(.95)	(.94)	(.84)	(1.02)
YEARS_IN_OFFICE	.82	.81	.85	.82	.73
	(2.29)**	(2.26)**	(2.25)**	(2.31)**	(1.95)*
%VOTES_GOV		-.12			
		(-.04)			
THOUSAND_VOTES_GOV			-.12		
			(-1.07)		
POPULATION(-1)	-.18	-.18	-.14	-.18	-.19
	(-2.50)**	(-2.57)***	(-1.78)*	(-2.54)***	(-2.64)***
POPULATION_SQ(-1)	.0002	.0002	.0002	.0002	.0002
	(1.69)*	(1.74)*	(1.66)*	(1.72)*	(1.78)*
%POP_UNDER15(-1)	.32	.32	.71	.30	-.07
	(.40)	(.40)	(.77)	(.37)	(-.09)
%POP_OVER65(-1)	2.98	2.97	3.20	2.95	2.75
	(4.04)***	(4.05)***	(4.15)***	(4.04)***	(3.66)***
GDP(-1)	.01	.01	.01	.01	.01
	(8.37)***	(8.33)***	(8.15)***	(8.40)***	(7.86)***
m1	-7.15	-7.15	-7.17	-7.17	-7.11
m2	-.80	-.79	-.77	-.80	-.76
Sargan (p-value)	.15	.15	.15	.17	.16
No. Observations	4 732	4 732	4 732	4 732	4 732
No. Municipalities	275	275	275	275	275

Notes: - Estimations of system-GMM linear models for panel data (which combine the equations in first-differences with the equation in levels), using the econometric software *PcGive 10.4*;
- Two-step results using robust standard errors corrected for finite samples;
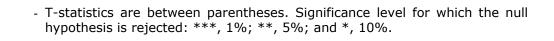
- T-statistics are between parentheses. Significance level for which the null hypothesis is rejected: ***, 1%; **, 5%; and *, 10%.

Table 6: **Total grants: new versus (1979-1987) established democracy (1988-2002)**

MUN_ELECT_NEW_DEM	-4.85
	(-2.46)**
MUN_ELECT_ESTAB_DEM	16.86
	(6.42)***
LEG_ELECT_NEW_DEM	4.85
	(2.87)**
LEG_ELECT_ESTAB_DEM	14.23
	(5.69)***
SAME_PARTY_NEW_DEM	9.81
	(4.13)***
SAME_PARTY_ESTAB_DEM	-.86
	(-.32)
YEARS_IN_OFFICE_NEW_DEM	3.04
	(4.48)***
YEARS_IN_OFFICE_ESTAB_DEM	.74
	(1.54)
m1	-8.12
m2	.42
Sargan (p-value)	.81
No. Observations	5 995
No. Municipalities	275

Notes: - Estimations of system-GMM linear models for panel data (which combine the equations in first-differences with the equation in levels), using the econometric software *PcGive 10.4*;
- two-step results using robust standard errors corrected for finite samples;
- T-statistics are between parentheses. Significance level for which the null hypothesis is rejected: ***, 1%; **, 5%; and *, 10%.