Partisan Influence on Local Public Policy: an Empirical Test of Portuguese Municipalities

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Second Draft - June 16, 2003

NEAPP Série IV(3)

* An early version of this paper was presented to the Department of Government and International Studies (GINT) of the University of South Carolina, U.S. I am grateful to the Fundação para a Ciência e Tecnologia for financial support while on leave at University of South Carolina. Thanks are also due to Steven Hays for helpful comments.
Abstract

This paper compares two models to explain the effects of party politics on Portuguese local government expenditures. The demand model (in this case the mean voter) fails empirically in the fact that public expenditures are not responsive to the tax share price supported by the mean voter. This model assumes that party competition is implicitly reflected in the fact that parties must satisfy the preferences of public expenditures of the aggregate voters. If the model fails, so does the idea that policy is just a means to win elections and be in power. The second model explicitly tests party effects and is adjusted to the specific features of the Portuguese local government structure, mainly its financial constraints on central grants and taxation. Controlling for the needs and resources, the model supports a slight effect of a right-leaning ideology and a sympathetic central government (affinity between ruling party in local and the party central government).
Introduction

The effects of political party behavior on the public policy of local governments has been the object of a significant amount of studies. Among other effects, the ideological position (left-right) and competition are the features of parties that deserve the most attention in these studies. Theoretically, these variables are assumed to influence the policies of local governments by affecting its output, which is measured by the total amount or by the per capita expenditures.

These types of empirical studies have been based on different theoretical conceptualizations (mainly two), although all of them can be considered as public choice models of local government (Boyne, 1998). On the one hand, there are the demand models, in which local expenditure in the community is the most preferred by the median (or the mean) voter. Party competition leads parties to implement the preferred level of expenditure, as explained by the Downsian median voter theorem. In these models, party effects are assumed to be inherent in the competition to assure the maximization of the number of voters. Typically, economists are the producers of these models. On the other hand, there are empirical studies that adjust to the particular characteristics of different local governments. These models are ideological models, because they assume that parties are not only responsive to the preferences of electors. They also have preferences over certain policies and try to adopt them. I refer to them as ‘party effects models’ as opposed to demand models. These studies first appeared in UK
local government because it is organized in a different way from local government in the US. Political variables are explicitly included in models that specifically control for the particular needs and resources of each local government. These two groups of models are rooted in distinct bases, but they share an important feature, that is, the role of party competition in affecting public policy. Nevertheless, that role is very different.

In this paper, I test these two alternative theoretical models in Portuguese local governments, a country where these kinds of studies are almost nonexistent. Portugal has a system of local government much more similar to the rest of the European countries, especially with respect to its fiscal dependence on central government. This lack of financial autonomy challenges the demand models of local expenditures, because it strongly constrains the voters choice and the supply of really different alternatives by local governments. In the next section, I summarize the most relevant literature about party effects on local government performance. Demand models and party effects models are reviewed separately. In the section that follows, I describe the organization of Portuguese local government, which is the object of this study. Forms of government, financial autonomy, and party politics are emphasized in that description. Afterwards, I test the two main models used in the literature and I conclude that demand models fail empirically because they are not adequate to explain Portuguese local government expenditures. Afterwards, I show that the output studies that explicitly account for
party effects and control needs and resources are much more adequate for this purpose.

**Political Competition, Party Effects, and Local Government Policy Variation**

There are two contrasting models on party influence on local public policy. On the one hand, there is the Downsian inspired models (Downs, 1957), which emphasize the role of party competition in the convergence of policy platforms in order to capture a pivotal - median or mean – voter (Romer and Rosenthal, 1979). The median voter theorem leads to the nonexistence of policy values other than that of winning elections. On the other hand, the ideological model emphasizes that parties have preferred policies and that party competition is the means to gain votes (Wittman, 1973). In this model, parties tend to be more unresponsive to the electorate because they are interested in their favored policy. There is a place for party competition in both, however in different ways. Regardless, both models have been widely used and tested to explain party politics.

**Demand Models of Political Competition**

The central hypothesis of the Downsian model is that “political parties in a democracy formulate policy strictly as a means of gaining votes” (Downs, 1957: 137). In this model, political parties are almost completely responsive to the preferences of voters, particularly the voter with the median income in the distribution of incomes. Political parties competing for votes seek the ideological
position that reflects the preferences of the median voter, thus maximizing votes. This consequence of the model is known as the median voter model (Mueller, 1996).

The model and the theorem have been the object of a significant amount of empirical tests, mainly at the local level of government. Some authors, mainly economists, call this the "public choice approach" (Mueller, 1996). Empirically, the model assumes that "public fiscal behavior is taken to reflect the wishes of the voter with the mean income" (Turnbull and Djoundourian, 1994: 223). Two of the first very influential studies of this kind were conducted by Barr and Davis (1966) and Bergstrom and Goodman (1973). The latter, entitled "Private Demand for Public Goods" (Bergstrom and Goodman, 1973) pose the question as the median voter demanding his/her preferred level of public expenditure. The typical demand equation for the median voter is (Mueller, 1996: 190):

\[ \ln G_m = b_0 + b_1 t_m + b_2 \ln Y_m + b_3 \ln Z + u_m \]

Because it is a typical demand model, the crucial variables are the price and the income of the consumer. In this equation, \( G \) is the level of government expenditures, that is, the good (public) to be demanded by the median voter. The price of the good is \( t_m \), measured as the price of the tax share of the median income voter. \( Y_m \) is the median income of the voter in the community. Finally, \( Z \) is a vector of socioeconomic variables reflecting the tastes of the voter.

The Downsian demand model has restrictions at the theoretical and empirical level. The theoretical limitation is that the model in its original version (Hotelling,
1929) and in Downs’ (1957) version applies to two-party competition. Thus, we expect to have better results in local governments with two-party competition. The empirical limitations have much to do with this. Too many times, the model has been tested without proposing an alternative model (Farnham, 1986, 1987, 1990). When it is proposed, the alternative is almost always the mean voter, rather than the median voter (Pommerhene, 1978; Boyne, 1987; Turnbull and Djoundourian, 1994). When using the mean voter, the result is that “policies reflect the aggregate demand” (Boyne, 1987: 203) of the electorate. Empirically, the mean voter is very analogous to the median voter. The difference resides in the fact that in the regression equations, average values are used instead of median voter values. The empirical tests of the median voter model against mean voter have not shown the first to be consistently better (Pommerhene, 1978; Boyne, 1987; Turnbull and Djoundourian, 1994). Boyne concludes that “the evidence provides little support for the median voter hypothesis” (1987: 201).

With respect to the characteristics of the political system in the community, the median voter has not been shown to be consistently better. Boyne concludes that in the metropolitan communities of England, “there is no evidence that two-party systems facilitate the impact of median voter interests on tax policies” (Boyne, 1987: 213). In non-metropolitan local governments, “the mean voter is superior in single and multi-party systems; but the median voter model provides better results than the mean voter in two-party systems” (ib.). Thus, the median voter is only better, if it is better, in two-party systems.
Another characteristic of the political system tested in these kinds of models is the comparison of direct vs. representative democracies. In a study about Swiss municipalities, Pommerehne (1978) found that in direct democracy systems, the median voter model is better than the mean voter model. But in representative democracies, the median model is not significantly better.

Therefore, the empirical tests of the median voter model have shown it to be better only in two-party systems and direct democracies. Portuguese local government are multi-party systems with representative democracy. Thus, this means that it is not worse to use the mean voter model to test the demand model of local expenditures.

**Ideological Model**

According to the ideological model of political competition in local government, political parties have preferences over policies that they try to maximize. The central hypothesis is “that political parties are solely interested in policy and that winning the election is just a means to that end” (Wittman, 1973: 490). It is easy to see that their model is the complete opposite of the Downsian model. In the Downsian model, elections are a mechanism the public has to choose leaders, where in the ideological model, elections are a mechanism to choose among different policies (Boyne, 1998). While in the Downsian model policy is the means to win elections and to have power, in the ideological model it is
precisely the opposite. Thus, the role of competition is different and so is the influence of party effects.

I show the mode in which the Downsian model has been deductively elaborated in the demand and rational voter model. This model leads to empirically testable hypothesis, in this case, the equation of demand of public goods (expenditures). In contrast, there is no similar formal deduction of the ideological model. Nevertheless, it is argued that “any models should be devised from substantive knowledge of the policy [political system] area under consideration” (Boyne, 1985: 508). One of those substantive issues that must be considered is the autonomy of local governments to implement their most preferred policies. Without autonomy, it is not relevant to talk about the ideological model.

Despite the nonexistence of a standard universal model, almost all of the empirical tests use local expenditures, either the total or per capita amount, as the dependent variable (local public policy). This is the reason why this type of studies is called “output studies” by some authors (Boyne, 1985). Broadly speaking, one can assume two main groups of influences on local public policies. The first effects are the party variables that one can test (party effects). The second effects are the environmental variables that characterize the particular situation under analysis. In this sense, the general model of empirical output studies is:
Usually, the environmental variables are referred to as the needs of the local community for a particular level of spending and the resources available to meet such needs (Boyne, 1990, 1996, 1998; Page et al. 1990). Page et al. (1990) use some needs variables, such as the age structure of the population, social class composition of the population, and population change. Nevertheless, there is a “huge variety of possibilities” (ibidem: 51). The resources variables are almost always diverse forms of local taxes (mostly property taxes) and central grants. In Portugal, central grants are many times designed to equally distribute resources in the country. This means that grants are also an indicator (although indirect) of the local needs.

**Portuguese Local Government Structure, Finance, and Political Parties**

In Portugal, the most important institution of local government is the municipality (‘município’). Each municipality has authority over an area called a county (‘concelho’). All the counties cover all the territory. In this sense, each municipality is very similar to American countries. There is no local government structure similar to either American cities, towns or townships, or districts. Each

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1 There are 275 municipalities in ‘Continental Portugal’, 19 in Azores Islands, and 11 in Madeira Islands. Continental Portugal is the territory part of the country that belongs to what is
county is also divided into a number of parishes (‘freguesias’), which is a level of local government within the municipality. However, parishes are very small (around 4,000 in number) and do not have financial and administrative resources that are relevant to the description of the true local government. Moreover, there is no regional level of government. Therefore, the municipality is the only important form of local government.

The existence of municipalities is a constitutional statement, thus means that they are central government creatures. The central government also approves legislation on general guidelines concerning attributions of the local institution. This means that all municipalities have the same general limits on their political and policy activity.

The form of government defined by central government is also the same in all the municipalities. There is an executive body (‘camara municipal’) with 5, 7, 9, or 11 members according to the size of the municipality. There is multi-party proportional election system for this body. The body itself elects its president (camara’s president) which is can be seen as a strong mayor. It is important to stress that the camara may or may not have a majority of one party. Since the decisions are dichotomous, if a party (the party of the president) has the majority, it

known as Continental Europe, without the Islands. Portugal includes two sets of islands (Azores and Madeira) in the Atlantic Ocean.

2 Because they are larger than the others, Lisbon and Porto have 17 and 15 members in the camara municipal, respectively.
can govern by implementing its own policies. If there is no majority, the president’s party needs to gain support from minority parties, so the probability of more discussion and bargaining is much higher.

The second governing body in municipality is the legislative body (‘assembleia municipal’), whose importance is overshadowed by the executive body. Although there are separate elections for the legislative body, the ‘assembleia’ tends to reflect the same issue positions as the executive bodies. Thus, they tend to approve the issues that the executive hands them.

With regards to local party politics there are some important issues to note. In first place, there are four main parties, represented at the national and local level. Following the Left-Right ideological spectrum, they are the following:

- Extreme Left -- PCP (Portuguese Communist Party)
- Left – PS (Socialist Party)
- Right – PSD (Social Democratic Party)
- Extreme Right – CDS (Democratic Social Center)

The two middle parties are the biggest ones, which gain about 80-85% of the votes and they account for at least two thirds of the camara’s presidents. Typically, two or three parties are represented in the executive body of 5 to 9 members. This means that the political party competition at local level can vary significantly.

The financial resources of municipalities are composed by central (lump sum) grants. They account for a minimum of 50% and the maximum of 65% of the
revenues. The other resources are mainly local taxes, but these are very limited. This financial structure a of strong limitation of municipalities’ autonomy in public policy flexibility (Pereira, 1991). This is, in my opinion, the most important reason why demand models are not adequate to explain Portuguese local government policy. They fail the empirical test presented, as the next section clearly suggests.

**Party Effects on Portuguese Local Governments**

In this part, I develop a specific model to test the effects of party politics on the public policies of Portuguese municipalities. In a model that considers party effects, consistent with the ideological model explained above, policy-makers have desired policies that result from their ideology, party competition, structure of the political system, etc. Assuming that this is relevant, as the literature suggests (Boyne, 1996, 1998; Page et al., 1990; Bosh and Suarez-Pandiello, 1995), my basic assumption is that the effects do exist.

*Assumption*

Party politics have effects on global local public policies, as measured by expenditures.

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3 These grants, called FEF (Financial Equilibrium Fund) are designed to attenuate the disequilibria among municipalities. For these reasons, it is a very strong indicator of the needs of each municipality.
Given this assumption, the important question becomes: What effects exist and how should we test them? One of the political questions most often studied empirically, for which evidence is found, is the idea that liberal or left-leaning policymakers tend to prefer more social and welfare spending. This is the ideological effect, in which right-leaning governments tend to spend less on average (Boyne, 1998; Bosh and Suarez-Pandiello, 1995). Thus, my first testable hypothesis on party effects is based on the literature and assumes the relevance of ideology in the level of public expenditures.

**Testable Hypothesis 1:**
*Right-leaning parties tend to spend less than leftist ones.*

The second important issue is that in a multi-party system, the competition among local parties can be higher or lower, and this can have important policy consequences. A party with a majority in the council has the conditions to dominate it, and, in this way, has strong governing power. In the absence of a majority, that is, when the level of competition is great, “political negotiation, interchange of votes or ‘logrolling’ positively affects the growth of public expenditure” (Bosh and Suarez-Pandiello, 1995: 41). My second hypothesis also follows from the literature (Boyne 1996, 1998).

**Testable Hypothesis 2:**
*A higher level of competition implies more bargaining among parties, thereby implying more spending.*
Another issue in Portuguese local government is to know whether the ruling party (the party of the president) have some benefit from a sympathetic national government. By this, I mean the case where the party in the central government coincides with the ruling party in the local government. This argument is many times used in Portuguese political activity. Therefore, I test a third hypothesis:

**Testable Hypothesis 3:**

*A sympathetic national government creates conditions for more resources and, therefore, local governments tend to spend more.*

These three hypotheses are tested in a cross-sectional regression model similar to the output studies in the literature. The dependent variable is local expenditures per capita, $\text{Exppc}$. Local expenditures is the most widely used indicator of public policy behavior of governments.

The key independent variables are three, one for each of the relations I hypothesized. The first is **Right**, is a dummy variable which takes the value 1 for the parties on the Right and 0 for those on the Left. The expected sign is negative because right-leaning parties are expected to spend less (Hypothesis 1). The second variable is **Compet**. This variable is an indicator of competition in each locality. Among the many possible variables used in the literature, I measure competition as the ratio, council seats / seats of the first party. This indicator is higher the greater the competition. If the ruling party is very strong, the indicator is close to 1. When this indicator has the value of 2, it represents the threshold of having or not a majority in the council. The expected sign is positive, according to
Hypothesis 2. The third variable is **Central**, another dummy that takes the value 1 if the ruling party is the same as the party in national government. According to Hypothesis 3, I expect a positive sign.

The model must also control for the needs and resources of the community, so that the local government may pursue its policy options. As in other European local government systems, the Portuguese system is very dependent on the central grants. Thus, this is the most important resource variable. The second source of resources in Portugal is local direct taxes. The needs are represented by a set of four socioeconomic variables. Certainly, the most important function of the Portuguese local government is public housing, planning, and infrastructure projects. Because of this, the first needs variable is the urbanization rate. The other three are the unemployment rate, the elementary school population, and the proportion of people aged under 25 and more than 64 (Page et al., 1990). The following table summarizes all the independent variables.

[Table 2 about here]

Functionally, the model is defined in per capita values, as is usual in this type of studies:

\[
\text{Exppc}_i = \beta_0 + \beta_1 \text{Right}_i + \beta_2 \text{Central}_i + \beta_3 \text{Compet}_i + \beta_4 \text{Grantpc}_i + \beta_5 \text{Taxpc}_i + \\
\beta_6 \text{Urbanr}_i + \beta_7 \text{Unempr}_i + \beta_8 \text{Element}_i + \beta_9 \text{Demog}_i + \varepsilon_i
\]
### Table 2 – Independent Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Expected Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right</td>
<td>Dummy variable, coded 1 if right ruling party and 0 if otherwise</td>
<td>Negative</td>
</tr>
<tr>
<td>Compet</td>
<td>Indicator of competition measured as the N° of seats Council / N° of seats larger party</td>
<td>Positive</td>
</tr>
<tr>
<td>Central</td>
<td>Dummy variable, coded 1 if same party as the party in central government and 0 if otherwise</td>
<td>Positive</td>
</tr>
<tr>
<td>Grantspc</td>
<td>Central grants measured in thousands of escudos</td>
<td>Positive</td>
</tr>
<tr>
<td>Taxpc</td>
<td>Direct taxes in the community measured in thousands of escudos</td>
<td>Positive</td>
</tr>
<tr>
<td>Urbanr</td>
<td>Urbanization rate measured as a percentage</td>
<td>Negative</td>
</tr>
<tr>
<td>Unempr</td>
<td>Unemployment rate measured as a percentage</td>
<td>Negative</td>
</tr>
<tr>
<td>Element</td>
<td>The number of persons with elementary school</td>
<td>Positive</td>
</tr>
<tr>
<td>Demog</td>
<td>The number of persons aged under 25 and more than 64</td>
<td>Uncertain</td>
</tr>
</tbody>
</table>
The criteria for supporting the party effects on local policy expenditures should be the standard criteria, which implies two things: statistical significance and the right sign. Table 3 reports the results.

### Table 3 – Party Effects Model
**Estimates by OLS (robust White standard errors)**

<table>
<thead>
<tr>
<th>Estimate</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.8290E-02</td>
<td>(1.21889)</td>
<td></td>
</tr>
<tr>
<td>Right</td>
<td>-0.88433E-02**</td>
<td>(-3.22969)</td>
<td></td>
</tr>
<tr>
<td>Central</td>
<td>0.64550E-02**</td>
<td>(2.55878)</td>
<td></td>
</tr>
<tr>
<td>Compet</td>
<td>-0.76800E-03</td>
<td>(-0.29357)</td>
<td></td>
</tr>
<tr>
<td>Grantpc</td>
<td>1.64095**</td>
<td>(16.4006)</td>
<td></td>
</tr>
<tr>
<td>Taxpc</td>
<td>2.35762**</td>
<td>(10.4386)</td>
<td></td>
</tr>
<tr>
<td>Urbanr</td>
<td>0.9800E-04*</td>
<td>(1.92973)</td>
<td></td>
</tr>
<tr>
<td>Unempr</td>
<td>-0.1113E-02**</td>
<td>(-2.73141)</td>
<td></td>
</tr>
<tr>
<td>Element</td>
<td>0.2308E-06**</td>
<td>(2.1298)</td>
<td></td>
</tr>
<tr>
<td>Demog</td>
<td>-0.3301E-06**</td>
<td>(-3.5458)</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.788848</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.781677</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S_e</td>
<td>0.01708</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:**
- Estimators are heteroscedastic consistent;
- The values in parentheses are t-statistics.
- * statistically significant for one-tail test.
- ** statistically significant for two-tail test.
Data

The data set I use is drawn from the 275 municipalities in Continental Portugal\(^4\). The data pertain to the year 1993, which is the last year available for the information required. All of the variables concerning local government were obtained from the book, *Administração Local em Números*. These variables are: expenditures, FEF (central grants), number of electors, direct taxes, and some dichotomous variables. The variable income was obtained from *Data Bank of Ministry of Qualification and Employment*. The population, unemployment rate, and the educational and demographic variables were taken from Portuguese Census 1991\(^5\). Population density is from the Markest Sales Index (1994).

\[
\log\text{Exp}_i = \beta_0 + \beta_1 \log\text{inc}_i + \beta_2 \log\text{taxpr}_i + \beta_3 \log\text{pop}_i + \Sigma \delta_i S_i + \varepsilon_i
\]

This is the widely used demand model of local expenditures (log-linear or constant elasticity). Like all other demand models of public goods, the dependent variable (*\log\text{Exp}*\) is the total expenditure of local government *i* in year of analysis, 1993. *\log\text{inc}* is the log of the average income of the mean voter in the municipality *i*. Because this variable represents the income elasticity, I theoretically expect \(\beta_1 > 0\). *\log\text{taxpr}* is the log of the tax price share of the mean voter. Like Boyne (1987),

\(^4\) I exclude the 30 municipalities of the Azores and Madeira Islands.
\(^5\) The reason for using the 1991 data is because it is the most recent available information.
I compute this variable as the ratio of direct taxes to the number of voters. This reflects the mean voter elasticity price. Obviously, in a demand model, the price varies inversely to the quantity demanded. Therefore, I expect a negative sign, that is, $\beta_2 < 0$. Logpop is the log of the population and its inclusion is merely to control for the population. $\beta_3$ is expected to be positive.

In order to account for the tastes of the population among the municipalities, I add a vector $\delta S_i$ of socio-economic variables. This specification first appeared in the literature of local government expenditures with Bergstrom and Goodman (1973). I include four: the amount of people unemployed, the number of persons with a high school degree, persons aged 19 and younger and 64 and older, and, finally, the population density.$^6$

The variation in the dimension of the Portuguese municipalities is high, which leads one to suspect the existence of heteroscedasticity. Because of this, I perform a White test. The results strongly favor the rejection of homoscedastic errors. As recommended, I estimate the models using the White standard errors or robust standard errors. The results of the regressions are shown in Table 1.

$\text{MMMMMMMM}$

$^6$ Bergstrom and Goodman (1973) include seven variables: population change, employment residential ratio, percentage owner occupied, percentage of nonwhite, density, percentage population with age more than 65, and percentage living in the same house.
The following model tests the political party influence on local expenditures, and is based on the theoretical framework of Farnham (1987, 1990).

Equation 1

\[
\log \text{Exp} = \beta_0 + \beta_1 \log \text{inc}_i + \beta_2 \log \text{taxpr}_i + \beta_3 \log \text{pop}_i + \beta_4 \text{central}_i + \beta_5 \text{right}_i + \\
\beta_6 \text{major}_i + \sum \delta_i S_i + \varepsilon_i
\]

This is the largely used demand (log-linear or constant elasticity) model of local expenditures. \text{Loginc} is the log of the average income of the mean voter in a municipality. Because this variable represents the income elasticity, theoretically I expect \( \beta_1 > 0 \). \text{Logtaxpr} is the log of tax price share of the mean voter. Like Boyne (1987), I compute this variable as the ratio of direct taxes to the number of voters. This reflects the mean voter elasticity price, therefore I expect a negative sign, \( \beta_2 < 0 \). \text{Logpop} is the log of the population and its inclusion is self evident. That is, without people there would no justification for expenditures, so \( \beta_3 \) is expected to be positive.

The first of the political party influence variables, \text{Central}, is a dummy that takes the value of 1 if the president’s party of the municipality is the same as the party in office in the central government. Because an important proportion of revenues of local governments originates from central grants, I hypothesize that this leads to greater expenditures -- \( \beta_4 > 0 \). Another dummy variable is \text{Right}, which
takes the value of 1 if the governing party has a right-leaning ideology. I test the hypothesis, associated with the conservative ideas regarding budget equilibrium, that the rightist parties tend to have less expenditures than leftist parties. These latter parties are usually more sensitive to social and welfare policies, therefore I expect $\beta_5$ to have a negative effect. The third party influence that I test is Major, a dummy variable that takes value of 1 if the local government is composed of a majority of single party (the president’s party). The reason is that in these cases, the major party can govern alone without bargaining about budget or other policies. This is the hypothesis widely accepted in public choice theory, which asserts that wherever bargaining and commitments are needed expenditures will grow. So, I expect $\beta_6 > 0$.

In order to reflect the tastes of population among municipalities, I add a vector $\delta S$ of socio-economic variables. This specification appeared for the first time in the literature of local government expenditures with Bergstrom and Goodman (1973). It includes seven variables. However, I include only four: the amount of people unemployed, the number of persons with high school degree, persons aged 19 and d younger and 64 and older, and, finally, the population density.

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7 In Portugal this is easy to see. There are four important parties, two right and two left parties. The others has no aspirations to win seats.
Equation 2

\[ \log \text{Exp} = \beta_0 + \beta_1 \log \text{inc}_i + \beta_2 \log \text{taxpr}_i + \beta_3 \log \text{pop}_i + \sum \delta_i S_i + \epsilon_i \]

The second equation is standard in this kind of model, since Bergstrom and Goodman (1973). The idea is to test the influence of the presence political party variables.

Equation 3

\[ \log \text{Exp} = \beta_0 + \beta_1 \log \text{inc}_i + \beta_2 \log \text{taxpr}_i + \beta_3 \log \text{pop}_i + \beta_3 \text{centra}_l_i + \beta_5 \text{right}_i + \beta_6 \text{major}_i + \epsilon_i \]

This equation is similar to equation 1 without the socio-economic vector. Again, I intend to test for changes in the coefficient of the variables.

Equation 4

\[ \log \text{Exp} = \beta_0 + \beta_1 \log \text{inc}_i + \beta_2 \log \text{taxpr}_i + \beta_3 \log \text{pop}_i + \beta_4 \text{centra}_l_i + \beta_5 \text{right}_i + \beta_6 \text{major}_i + \sum \delta_i S_i + \beta_7 \text{grnsh}_i + \epsilon_i \]

Equation 4 follows the model of Turnbull and Djoundourian (1994), which includes the average share of central grants \( \text{grnsh}_i \). Like the authors, I compute this variable as central grants divided by the number of electors.
III - Empirical Results and Discussion

The results of the regressions are shown in Table 1.

Table 1 - Estimates by OLS (White standard errors robust)

<table>
<thead>
<tr>
<th></th>
<th>Equation 1</th>
<th>Equation 2</th>
<th>Equation 3</th>
<th>Equation 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Constant</strong></td>
<td>0.239</td>
<td>0.34</td>
<td>0.178</td>
<td>0.131</td>
</tr>
<tr>
<td></td>
<td>(0.276)</td>
<td>(0.399)</td>
<td>(0.214)</td>
<td>(0.179)</td>
</tr>
<tr>
<td><strong>Loginc</strong></td>
<td>0.441</td>
<td>0.419</td>
<td>0.465</td>
<td>0.409</td>
</tr>
<tr>
<td></td>
<td>(3.25)**</td>
<td>(3.161)**</td>
<td>(3.359)**</td>
<td>(3.531)**</td>
</tr>
<tr>
<td><strong>Logtaxpr</strong></td>
<td>0.236</td>
<td>0.233</td>
<td>0.222</td>
<td>0.251</td>
</tr>
<tr>
<td></td>
<td>(6.709)**</td>
<td>(6.579)**</td>
<td>(6.64)**</td>
<td>(8.341)**</td>
</tr>
<tr>
<td><strong>Logpop</strong></td>
<td>0.621</td>
<td>0.669</td>
<td>0.603</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>(2.376)*</td>
<td>(2.579)</td>
<td>(25.013)**</td>
<td>(4.718)**</td>
</tr>
<tr>
<td><strong>Central</strong></td>
<td>0.174</td>
<td>0.208</td>
<td>0.191</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.924)**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Right</strong></td>
<td>-0.165</td>
<td>-0.209</td>
<td>-0.196</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-2.666)**</td>
<td>(-4.612)**</td>
<td>(-4.10)**</td>
<td></td>
</tr>
<tr>
<td><strong>Major</strong></td>
<td>0.076</td>
<td>0.072</td>
<td>0.047</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.974)*</td>
<td>(1.811)</td>
<td>(1.48)</td>
<td></td>
</tr>
<tr>
<td><strong>Logpden</strong></td>
<td>0.104</td>
<td>-0.111</td>
<td></td>
<td>0.012</td>
</tr>
<tr>
<td></td>
<td>(-4.278)**</td>
<td>(-4.858)**</td>
<td></td>
<td>(0.449)</td>
</tr>
<tr>
<td><strong>Logdem</strong></td>
<td>0.013</td>
<td>-0.034</td>
<td></td>
<td>0.099</td>
</tr>
<tr>
<td></td>
<td>(0.057)</td>
<td>(-0.144)</td>
<td></td>
<td>(-0.535)</td>
</tr>
<tr>
<td><strong>Logun</strong></td>
<td>-0.083</td>
<td>-0.073</td>
<td></td>
<td>-0.082</td>
</tr>
<tr>
<td></td>
<td>(-2.351)*</td>
<td>(-2.155)*</td>
<td></td>
<td>(-2.491)*</td>
</tr>
<tr>
<td><strong>Logsch</strong></td>
<td>0.121</td>
<td>0.114</td>
<td>0.133</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.442)*</td>
<td>(2.321)*</td>
<td></td>
<td>(3.115)**</td>
</tr>
<tr>
<td><strong>Grntsh</strong></td>
<td></td>
<td></td>
<td></td>
<td>0.865</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(6.972)**</td>
</tr>
<tr>
<td><strong>R^2</strong></td>
<td>0.8938</td>
<td>0.8904</td>
<td>0.8814</td>
<td>0.9203</td>
</tr>
<tr>
<td><strong>Adjusted R^2</strong></td>
<td>0.8898</td>
<td>0.8875</td>
<td>0.8787</td>
<td>0.9169</td>
</tr>
<tr>
<td><strong>Stand Error Reg</strong></td>
<td>0.267</td>
<td>0.300</td>
<td>0.27</td>
<td>0.232</td>
</tr>
<tr>
<td><strong>F (zero slopes)</strong></td>
<td>222.244</td>
<td>309.879</td>
<td>331.897</td>
<td>275.980</td>
</tr>
<tr>
<td><strong>White het. Test</strong></td>
<td>128.028</td>
<td>108.289</td>
<td>62.175</td>
<td>175.088</td>
</tr>
</tbody>
</table>

**NOTE:**
- Estimators are heteroscedastic consistent;
- The values in parentheses are t-statistics.
* statistically significant at 90% significance level; ** at 95%.

In general, all regressions have quite similar results, but the first one reveals more efficient coefficients. These are almost always statistically significant, but with elasticities less than one in absolute value.
The political party influence variables are significant, showing the expected signs, however, the magnitude of the influence on local expenditures is low. The coincidence of the local government president’s party with central government party tends to increase the expenditures from about 0.17% to 0.20%. Having a right-leaning ideology is also significant, with a decreasing effect on the expenditures, although the result shown an inelastic magnitude. The relevance of having a majority in the local government is very weak. The coefficients are very low and only in the first equation are they significant at 90%. In the fourth equation, the elasticity of the shares of the central grants is tested. The significant coefficient is, as with all the others, inelastic. However, it has a higher intensity than the others, which means that local expenditures tend to increase in almost the same proportion as per capita central grants.

With regard to the classical variables, present in all equations, the results show that local expenditures are income and price inelastic, with significant coefficients. This is consistent with previous empirical results in which “the demand for state-local government services is, in most cases, price and income inelastic” (Fisher, 1996: 95). Income elasticity is around 0.40 and 0.47, which is a value similar to the results found in most studies (Farnham, 1990; Turnbull and Djoundourian, 1994).

The surprising finding has to do with the sign of the price elasticity coefficient. All previous studies generate a negative sign, in consonance with the assumption of local services as ordinary public goods. However, my results always show a
statistically significant positive relationship between price and local expenditures.
The elasticities remain constant in the four equations, ranging from 0.22 to 0.25.

Globally, all of the regressions have a good fit, an adjusted $R^2$ of about 88% and 91%, which is higher than previous results. The regressions are statistically significant, as the F-statistics show.

**Discussion**

Overall, the party effects (ideological) model shows better statistical results than the mean voter demand model and, more important, is theoretically more consistent.

Statistically, the model obtains a very good fit, 78% of the variation of local expenditures per capita is explained by the model. The coefficient of the **Right** variable is significant and has the expected sign, which means that, on average, right-leaning parties tend to spend less. Thus, this is in consonance with Hypothesis 1 and also with the results usually found in the literature (Boyne, 1998). The coefficient of the **Cent** variable is also significant and has the expected sign, which means that governing party in the municipality with a sympathetic central government tends to spend more. In both cases, the coefficients are small in magnitude, which is not surprising because the model works with expenditures per capita. The third key variable concerning party effects, **Compet**, has an insignificant coefficient, meaning that as far as I can tell, there is no effect of the
level of competition on public policy; this result is also similar to those found in the existing studies.

With respect to the control variables, needs and resources, they are generally significant. The variables concerning the resources of the local government (central grants and local taxes) are very significant and have the expected positive sign. Obviously, this is not surprising because local governments are very dependent on the resource constraints, mainly on the central grants. Local governments in Portugal are strongly responsive to the resources available but not to the preferences of the mean or median voter. “Taxes represent the extractive capacity of government rather than a cost mechanism” (Schneider, 1989: 55-56). The same of line of reason is applied to central grants. This point is the most crucial difference between the two models tested here. The wrong sign on the price-share coefficient, seen in the mean voter demand model, means that the Portuguese public expenditures level is not like a cost mechanism. The extractive capacity of local governments and its financial constraints are strongly reflected in the highly significant and potent resources coefficient.

**Conclusion**

This paper compares two models that explain the effects of party politics on local government public expenditures, the mean voter demand model and the party effects (ideological model). Specifically, these two models are applied to Portuguese case. The standard mean voter demand model, inspired in public
choice theory, empirically fails in the fact that public expenditures are not responsive to the tax share price supported by the mean voter. This model assumes that party competition is implicitly reflected in the fact that parties must satisfy the voter’s preferences of public expenditures of the reference voter. Because the model fails, so does the Downsian idea that policy is just a means to win elections and stay in power.

The second model, contrary to the first, explicitly tests party effects and is adjusted to the specific features of the Portuguese local government structure, mainly its financial constraints on central grants and taxation. Controlling for the needs and resources of Portuguese communities, the model provides a support for a slight effect of a right-leaning ideology and also of a sympathetic national government. No less important, the dependence on local resources is strongly supported.

The specific model of Portuguese local government can be improved in different ways. The first is to analyze the different patterns of party effects in different arenas of public policy. The classification among redistributive, developmental, and allocative arenas can be starting point Peterson (1981). A second possible improvement is to analyze the issue of party competition in a more sophisticated model. There are models that distinguish between additive (the only effects considered here) and mediative effects (Boyne, 1996, 1998). The third way is to test the issue of volatility of party dominance, which implies the use of time-series data on elections and expenditures. Portuguese local governments are still a
rich ground for empirical research that can be further explored carefully. This paper is, therefore, a starting point.

**Bibliography**


