Local Government Expenditures in Belgium: Do Political Distinctions Matter?*

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ABSTRACT

The purpose of this paper is to test whether public spending by local communities in Belgium is influenced by local politics. Unlike previous studies which are briefly surveyed, we test alternative models of the local budgetary decision, and systematically favour the one which includes political variables. In spite of this deliberate bias, political factors influence neither the level nor the structure of local public spending in Belgium. This may imply little differentiation among parties at the local level, rather than institutional constraints.

Does the economic situation have an influence on political choices? Do politicians use their power to force economic decisions along a certain path? In other words, do political parties do more than just *propose* different economic policies? These are some of the questions that arise when dealing with the relation between politics and economics.

A great deal of attention has been paid to the first question, which is generally treated in a macroeconomic context and at the aggregate level within the framework of so-called election or popularity functions. The outcome of presidential or legislative elections or the popularity of political parties or leaders is explained in terms of past and present economic performances.[1] The second question is much more difficult to answer using nationwide data. It is not easy to dissociate the impact on economic policies of the political power of a specific party from that of the economic conditions prevailing when this party is in government, since there can be only one party (or coalition of parties) ruling at a time.[2] Local governments offer a better opportunity to study this effect, since conflicting economic policies can be

conducted by local authorities belonging to different parties within the same institutional context and at the same moment in time.

In this article we are concerned with the second question. More specifically, we examine whether public spending by local communities in Belgium is influenced by local politics. The result of such a study can be meant either to measure the impact of politics on local budgets, or to test whether political parties show some differentiation at the local level. Indeed, most economic decisions at this level are linked to financial decisions. If it could be demonstrated that the political profile of a local government has no influence on its financial behaviour, there would be grounds for speculating about the utility and significance of local politics and elections.

We shall first survey briefly previous work on the problem in Belgium and elsewhere, and point out a certain number of shortcomings. Next, we develop a straightforward method, based on analysis of covariance, which can be used to test whether the political profile of the ruling majority is relevant in local budgets. These ideas are then applied to the Belgian case, from which we try to draw some tentative conclusions.

1. A BRIEF REVIEW OF EXISTING STUDIES

A prominent conclusion of any survey of the literature must be the large diversity and apparent inconsistency of results. In some studies, politics do not seem to play any role at all. Local expenditures, it was concluded, do not depend on political factors. In other cases the influence of political variables was found to be weak or counter-intuitive, as in Italy where, according to Fried (1971), towns headed by left-wing parties spent less than others. Finally, there are studies which conclude that political factors are the most important in determining the pattern of local expenditure.

Clearly this is partly due to the diversity of countries studied, the sample, variables and statistical methodology used. But one should bear in mind the intrinsic difficulties of this kind of study. First, in many countries there is very little difference at the local level between left and right, especially where there are coalition governments, which is often the case in Belgium and Germany, as opposed to Italy, France, the United Kingdom and the United States. Second, in centralized countries like France and Belgium, local authorities have much less freedom than Swiss municipalities or American local governments. Third, these studies are usually based on cross-section observations of local governments, with the drawback that observed expenditures may be the consequence of earlier long- or medium-term commitments made by previous administrations. Finally, in some statistically superficial studies, conclusions are drawn on the basis of simple correlations. In Belgium, for instance, 'left-wing' municipalities spend 47% of their budget on welfare and education and only 12% on road building and repairs, while these proportions are 37% and 17% respectively in 'right-wing' municipalities, from which a certain number of conclusions can and have been made. We shall see later that this effect is purely apparent, and due to other factors not included in this simplistic model.

This review of the literature is not at all concerned with the huge number of studies aimed at explaining the level and the distribution of local public expenditures. On that subject Danziger (1978) provides an excellent discussion and testing of the predominant alternative explanations. Rather, we want to survey those studies which try to assess whether political variables do exert an independent impact on

local governments' budgetary appropriation, when added or compared to socio-economic variables.

In the United States, this literature was initiated in the pivotal article by Dawson and Robinson (1963), who examine the relationship between interparty competition and local welfare expenditures. They find that interparty competition is indeed related to welfare policies, but apparently this relationship vanishes when socio-economic variables are introduced. Subsequent research by Dye (1966) and Hofferbert (1966) has tended to confirm Dawson and Robinson's initial findings. However, some more positive results have also appeared in the literature. Sharkansky (1967a; 1967b), Sharkansky and Hofferbert (1971), and Fry and Winters (1970), for example, all suggest that political variables do, in some instances, exert an independent impact, even though socioeconomic variables still dominate the explanation of policy outcomes.

Results are also contradictory for the United Kingdom. While Alt (1971), Ashford *et al.* (1976), Boaden and Alford (1969) conclude with some influence for politics, Oliver and Stanyer (1969–70) reject the hypothesis. Similar 'inconclusive' conclusions are obtained for France by Ducros (1966) and Kobielski (1974; 1978); for Italy by Fried (1971); and for Germany, Austria and Switzerland by Fried (1974; 1976). By contrast, Milch (1974) obtains positive results for France. His conclusions, however, are based on observations of only two politically opposed French towns.

For Belgium finally, the most interesting studies are those by Aiken and Depré (1974) and Aiken and Bacharach (1977). The first is based on the 196 local communes of more than 10,000 inhabitants in 1968. The authors find that ideology and competition between parties are of some significance in Flanders, but not in Wallonia. The second study is based on the same data as the first analysis, as well as on interviews with civil servants in forty-four communes. Aiken and Bacharach test the relationship between 'bureaucracy', measured by the number of local civil servants, and several political indicators: party competition and position of the ruling party or coalition on a left–right scale. They conclude, interestingly enough, that in left-wing communes the number of civil servants is larger than elsewhere. This seems to be the consequence of more public intervention, whereas in 'right-wing' towns more 'public' services are organized by private corporations. Aiken and Bacharach themselves are surprised by their findings.

2. METHODOLOGY AND THE CHOICE OF MODEL

Most of the conclusions of the papers surveyed are, we think, drawn without examining alternative models and correctly testing which alternative best fits the data. A first step is to make explicit the structure and possible causalities; a second will be to derive a testing procedure. In the somewhat different context of the influence of party competition on local expenditures – stronger competition is assumed to lead to higher expenditures – Cnudde and McCrone (1969) examine three different possibilities for modelling relations between political and economic variables; these are adapted to our case here.

Let P be a vector of political variables, E to represent a vector of environmental variables, and B the budget appropriation to be explained. The three following

models are possible. In the first one, there is a strict causal hierarchy: economic environment influences political factors, which in turn explain budgetary decisions:

$$P = f(E) \qquad B = g_1(P) \tag{1}$$

In a second model, one is led to think that both political and budgetary factors are conditioned by economic environment only: political variables do not influence budgets:

$$P = f(E) \qquad B = g_2(E) \tag{2}$$

Finally, in a third representation, local expenditures are related to political factors as well as economic infrastructure:

$$P = f(E) \qquad B = g_3(P,E) \tag{3}$$

We can illustrate these theoretical formulations by the example of the decision on social expenditures in a working-class commune, where the Socialist party forms the government. The three models assume that workers would elect Socialists rather than Conservatives: Model (1) implies that Socialists would orient social expenditures in a certain direction; Model (2) states that, whatever the ruling party, expenditures on social matters would be the same, since they are conditioned only by economic environment; in Model (3) finally, both the Socialist majority and economic characteristics of the commune act simultaneously upon social expenditures. If one thinks that political distinctions at the local level are the only relevant factor, then clearly Model (1) is the most satisfactory, whereas Model (2) rejects the assumption. Model (3) is in between but still accepts the hypothesis of political distinctions.

The second problem is to test which model describes best and/or with most parsimony the real world. Almost all researchers compare simple or partial correlation coefficients to evaluate relative importance of socioeconomic and political variables. Thus, for example, Cnudde and McCrone (1969) used multiple regression. But, incredibly enough, as Lewis-Beck (1977, 559) remarks, 'the strategy has generally been to compute the magnitudes of the coefficients of the socio-economic and political variables in their relation with the policy variable, on this basis making a judgement about which are more important'. Lewis-Beck suggests using path analysis and computing the 'effect' coefficients. Consider for instance the linear model

$$P = \beta_{11}E \qquad + u_1$$
$$B = \beta_{21}E + \beta_{22}P + u_2$$

where u_1 and u_2 are errors, and the β_{ij} are standardized regressions coefficients[3] which are not influenced by measurement scales. The total 'effect' of E on B is then $\beta_{21} + \beta_{11}\beta_{22}$ which is to be compared to β_{22}, the effect of P on B. It seems to us that Lewis-Beck falls into the same trap as others: indeed, in computing effects, no account is taken of whether contributions of either E or P in the two equations are significantly different from zero.

We simply propose to use analysis of variance and covariance, and the testing of *joint* hypotheses on several coefficients. To this we now briefly turn. Only the second equation of each model is of interest here; if we neglect the simultaneity problem

appearing in Model (3), a simple way of discriminating between the three models is the following:

(a) estimate the parameters of equations

$$B = g_1(P) \qquad B = g_2(E) \qquad B = g_3(E,P).$$

(b) test the hypothesis that $B=g_3(E,P)$ is significantly 'better' than $B=g_1(P)$. If not, accept $B=g_1(P)$.

(c) test the hypothesis that $B=g_2(E)$ is significantly 'worse' than $B=g_3(E,P)$. If not, accept $B=g_2(E)$, if so, accept $B=g_3(E,P)$.

For further reference, let us renumber the models as follows:

Model (1): $B=g_1(P)$
Model (2): $B=g_2(E)$
Model (3): $B=g_3(E,P)$

The political variables P are dummy variables (P_i takes the value 1 if party i is ruling, 0 otherwise). If we suppose that $g_3(.)$ is linear, Model (3) can be written (in the case of say, two parties indexed by 1 and 2)

$$\begin{aligned} B_1 &= E_1\gamma + \delta_1 + u_1 \\ B_2 &= B_2\gamma + \delta_2 + u_2 \end{aligned} \qquad (4)$$

where γ and $\delta_i (i = 1, 2)$ are parameters and $u_i (i = 1, 2)$ errors. It is, however, easy to observe that Model (4) is a special case of Model (5).

$$\begin{aligned} B_1 &= E_1\gamma_1 + \delta_1 + u_1 \\ B_2 &= E_2\gamma_2 + \delta_2 + u_2 \end{aligned} \qquad (5)$$

Whereas in Model (4) the effect of economic variables on B is the same ($\gamma_1 = \gamma_2 = \gamma$) for both parties, and only the intercepts δ_1 and δ_2 differ, in Model (5) both the economic effect γ_i and intercepts δ_i can differ. If both Models (4) *and* (5) are rejected in favour of Model (2), then it is very likely that neither the intercepts nor *any* of the slopes will differ across political parties.[4] In each case, the tests are carried out by comparing a computed F_c variable to a tabulated value. The null hypothesis that two models do not differ significantly – and hence that the more parsimonious representation will be retained – is accepted if the computed F_c is smaller than the tabulated value, at a certain confidence level.[5]

3. THE BELGIAN CASE

Before proceeding it is necessary to describe briefly the context in which this study has been conducted. Local governments in Belgium enjoy a considerable amount of autonomy in their expenditures. They may provide a wide range of services for their constituents. However, for most of their revenues, they are at the mercy of the central government. Communes and cities are governed by a mayor, several aldermen and a city council, elected every six years. From among its members, the city council elects by majority vote the aldermen and the mayor who have executive authority over the administrative bureaucracy.

The Belgian political system revolves around two basic cleavages: language and ideology. Languages divide the country into two main regions: Wallonia and Flanders, plus the capital district of Brussels which is supposedly bilingual. As a consequence of a recent resurgence of the linguistic controversy, Belgium is slowly moving towards a federal system with relatively autonomous Walloon and Flemish regions. Our sample dates back to 1975, that is before this institutional evolution really began. As for the ideological cleavage, political life revolves around three main parties: Socialist, Catholic Social and Liberal. The first two are often opposed to the latter on socioeconomic issues. However, on the important issue of confessional schools, Liberals and Socialists are opposed to the Catholic Social party.

The analysis has been performed on total local expenditure and on six disaggregated categories, representing some 90% of the budget: education, welfare, public health, local roads, justice and police, and administration. The sample covers expenditures *per capita* in the 115 communes with more than 15,000 inhabitants in 1975.

In this article, we follow the tradition of testing the relative importance of a number of political and socioeconomic variables which *a priori* seem to have some relevance in explaining budgetary outcomes. Behind this procedure, one can invoke a theoretical model. For example, we could assume that the local policymaker maximizes some social utility function, subject to the constraint that tax revenue must be equal to total expenditure, and that the need and the cost of providing public services depend on environmental and political factors (see e.g. Jurion, 1980). From the first-order conditions for such a maximum, one obtains precisely the type of linear equations which are tested in our and other papers.

The following explanatory variables were available and tried out:

(a) political variables:
  (a1) political inclination of the ruling majority: left, centre or right.[6] These are dummy variables, based on the latest election prior to 1975 (i.e. 1970).
  (a2) stability of the ruling majority: very stable, stable, unstable.[7] These too are dummy variables.
  (a3) the relative strength of the ruling majority.
(b) social environment variables:
  (b1) three dummy variables distinguish the three Belgian regions: Flanders, Brussels and Wallonia.
  (b2) degree of urbanization: the Belgian Bureau of Statistics classifies communes into seven classes, according to the intensity of urbanization.[8] Since we deal only with the large communes, and decided not to include the five 'centres of large towns', we were left with five classes of which only three had more than ten observations. We thus constructed four dummy variables corresponding to four classes.
  (b3) population in 1975.
  (b4) percentage of inhabitants less than fifteen years old.
  (b5) percentage of inhabitants older than sixty.
  (b6) percentage of foreigners in total population.
  (b7) area in square miles.

TABLE I. Regression results. Model B = $g_3(E,P)$

	Region		Polit. affil.		Small urban centres	Total population	Taxation ratio	Transfers	Other variable[2]	Constant	R^2
	Flanders	Wallonia	Left Wing	Centre							
1. Total spending	-2.240 (0.651)	-0.946* (0.780)	0.334* (0.621)	0.679* (0.571)	3.381 (0.698)	-6.916 (2.542)	0.208 (0.021)	3.092 (0.805)		4.929 (1.179)	0.804
2. Education	-1.563 (0.372)	-0.658* (0.429)	-0.512* (0.340)	-0.606* (0.309)	1.415 (0.377)	1.269* (1.404)	0.068 (0.011)	0.067* (0.447)	-4.632* (3.568)	3.291 (0.959)	0.703
3. Welfare	-0.674 (0.141)	0.650 (0.165)	-0.036* (0.132)	-0.016* (0.120)	0.186* (0.147)	-0.668* (0.549)	0.021 (0.004)	0.237* (0.175)	3.257 (1.327)	0.282* (0.368)	0.609
4. Public Health	0.501 (0.182)	0.525 (0.219)	0.096* (0.174)	0.227* (0.160)	0.329* (0.195)	-0.531* (0.712)	0.030 (0.006)	0.470 (0.225)		-0.219* (0.330)	0.478
5. Local roads	0.551 (0.151)	0.504 (0.175)	0.128* (0.143)	0.256 (0.128)	0.096* (0.153)	-1.251 (0.561)	0.004* (0.004)	0.219* (0.177)	0.708 (0.219)	0.934 (0.260)	0.394
6. Justice – Police	-0.321 (0.092)	-0.377 (0.106)	0.100* (0.084)	0.171 (0.079)	0.248 (0.093)	-1.847 (0.338)	0.021 (0.003)	0.710 (0.107)	0.002* (0.004)	0.571 (0.163)	0.780
7. Administration	-0.824 (0.180)	-0.553 (0.216)	0.245 (0.172)	0.182* (0.158)	0.299* (0.193)	-0.298* (0.703)	0.045 (0.006)	0.182* (0.222)		0.636* (0.326)	0.639

[1] Standard deviations are given between brackets, under the coefficients. An asterisk indicates that the coefficient is *not* significantly different from zero at the usual 5% probability level.

[2] This other variable is (b4) for education; (b5) for welfare expenditures; (b7) for local roads and (b6) for justice and police.

(c) economic variables:
   (c1) *per capita* income.
   (c2) transfers from the central government.
   (c3) the ratio of local taxes to income.

Some preliminary analyses led to a first selection of variables included in all equations, on the basis that they were significant at least in some cases; none of the other variables came out significantly in any of the preliminary tests. The variables we retained were: (a1), (b1), 2 of the 4 dummies of (b2), (b3), (c2) and (c3). In some specific cases, we also used (b4) to (b7).

Table I presents the regression results for the most general model $B = g_3 (P, E)$, in which both socioeconomic and political factors are supposed to influence the spending decision. Note that since an intercept is included in the equations, one regional dummy (Brussels), one political dummy (right-wing coalitions) and one urbanization dummy ('other types') had to be discarded to avoid singularity of the

TABLE II. Comparison between 'political' models. Values of the F test[1]

	Comparison between models			
	(1) and (4)	(1) and (5)	(2) and (4)	(2) and (5)
1. Total	61.5	25.9	0.8	2.3
2. Education	26.4	10.6	1.9	1.7
3. Welfare	19.4	11.1	0.0	3.1
4. Public Health	14.2	6.5	1.2	1.8
5. Local roads	8.3	3.3	2.3	1.1
6. Justice – Police	47.1	16.5	2.5	1.2
7. Administration	27.3	12.0	1.1	2.1

[1] Large values of the F test indicate that the models are significantly different; columns 1 and 2 show that $B = g_1(P)$ is a significantly worse representation than $B = g_3(E,P)$, while columns 3 and 4 show that $B = g_2(E)$ is not significantly worse than $B = g_3(E,P)$.

moments' matrix. A few remarks can already be made. First, in all cases except one, political affiliation is irrelevant (at the 5% probability level); second, in six cases, the taxation ratio is highly significant, which suggests that communes exerting[9] greater fiscal pressure on their inhabitants seem to spend more; third, we can note the very significant contribution of regional variables; fourth, income does not significantly affect spending.

In Table II we reproduce the values of F_c for the two tests described earlier. In the first column we deal with the comparison between the purely political Model (1) and the mixed Model (3) in its forms (4) and (5). The values of F_c show that in all seven cases the mixed model does significantly better than the purely political one (at the 1% probability level). In the second column the F_c result from the comparison of the socioeconomic Model (2) with the mixed Model (3) in its forms (4) and (5). The result favours the socioeconomic model in six cases (at the 5% probability level[10]); expenditure on welfare is the only case in which the mixed model in form (5) is preferred.

We also examined whether this conclusion in favour of socioeconomic instead of political determinants in explaining local expenses similarly holds in each of the three Belgian regions we considered. It may be – and actually is – argued that politicians behave differently across regions. The same conclusions emerged. In all cases and in

the three regions, the mixed model dominates the purely political one. And, except in one case (public health in Wallonia), the socioeconomic model dominates the mixed model.

Is the Belgian economic system too centralized to leave local budgetary decisions with local authorities? If this were true, a regional analysis of local expenditures would lead to the same conclusion of strong similarities of patterns across regions. We performed such an analysis by comparing the following three models

$B = g_1(R)$ (purely regional model)
$B = g_2(E)$ (socioeconomic model)
$B = g_3(E,R)$ (mixed model)

where R stands for the vector of regional variables (i.e. the regional dummies). The results appear in Table III. Both the purely regional model and the socioeconomic model are rejected at the 5% probability level. This suggests that budgetary decisions depend on economic factors, but there are significant regional differences, leading one to think that centralization is not that tight.

TABLE III. Comparison between 'regional' models. Values of the F test[1]

	Comparison between	
	$B = g_1(R)$ and $B = g_3(E,R)$	$B = g_2(E)$ and $B = g_3(E,R)$
1. Total	36.9	7.5
2. Education	15.8	12.9
3. Welfare	8.8	11.9
4. Public Health	10.8	3.5
5. Local roads	3.1	5.9
6. Justice – Police	30.7	9.6
7. Administration	12.7	10.5

[1] Large values of the F test indicate that the models are significantly different: this is always the case here.

4. CONCLUSION

The foregoing analysis has been addressed to the question of whether or not an important aspect of the local political system exercises any independent influence on local public expenditures. To do so, we have tested the comparative impact of socioeconomic and political variables on the expenditures of over one hundred Belgian local governments. Using a statistical technique which we believe to be an improvement upon those employed by previous studies on this subject, we are led to conclude reluctantly that the political inclination of the ruling majority does not contribute towards explaining local public expenditure decisions.

We are indeed disappointed to conclude in such a way, since this means either that Belgian local governments are subject to external constraints of such a magnitude that only a trivial range of budgetary decisions are left to their discretion, or that the competition among political parties one witnesses at the eve of elections is just an allurement. In any case, this is a bad point for democracy.

NOTES

1 See Frey (1978) for an extensive list of references for the United States, the United Kingdom and Germany. See also Lafay (1980) for France; Paldam and Schneider (1980) for Denmark; Boute and Ginsburgh (1977) for Belgium.

2 See e.g. the inconclusive results in Frey and Schneider, 981.

3 See e.g. Goldberger, 1964, 981.

4 To make sure that all slopes are different, one should carry out tests on all possible combinations, which is cumbersome, and probably not very useful.

5 Details can be found in e.g. Scheffé (1959); Fisher (1970).

6 Socialists ruling alone were considered as 'left'; Socialists in a coalition with others to their right were termed 'centre'; all others are called 'right' (there is no commune with a Communist administration).

7 'Very stable' if the coalition emerging after the 1970 election was the same as that ruling before; 'stable' if some parties of the pre-1970 election were again ruling after 1970; 'unstable' for other cases.

8 See 'Typologie des Communes d'après le Degré d'Urbanisation au 31.12.1970', *Bulletin de l'INS* (1977), 141–72.

9 It may be argued that local taxation is an instrument of local policy, and hence hides the effect of political differences in our model, as is the case in the U.K. (see Ashford *et al.*, 1976). Actually, local governments have almost no freedom in fixing the *tax rates*; this does not mean that the ratio (c3) does not differ between rich and poor communes, since a large share of local taxes is proportional to taxes collected by the central government.

10 At the 1% probability level, the mixed model is rejected in all the seven cases.

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