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Constituency Size and the Growth of Public Expenditures: The Case of the United Kingdom

The legislature is close to the center of the reasons that government size differs across place and circumstances and changes over time, and it is time that explanations of such matters woke up to this fact [CRAIN *et al.* 1985, p. 314].

Abstract – The growth of government has long been a core issue of public economics with a vast array of hypotheses offered and empirical investigations conducted. One key element of this quest, with respect to democratic governments, has been the size of the legislature which is seen increasing, decreasing, or neutral with respect to the growth of government. We argue that the inconclusive empirical results are the result of a misspecification and that instead of legislature size, it is constituency size that matters and that the larger the constituency size, the more government grows because of poorer representation. We test this hypothesis using the case of the United Kingdom over the 20th century and find that constituency size is positively related to the growth of government.

Keywords – Opportunistic politicians, local taxation, term limits, yardstick competition

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1. – Introduction

The growth of government is possibly the most vexing question of public finance. Since the downfall of communism there has been little debate that

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excessive government spending causes problems in the economy, but there is little consensus about what causes government to grow, how to prevent government from growing beyond efficient levels, or even exactly what set of problems excessive government spending causes. This lack of consensus is certainly not from a lack of research effort. Hundreds of articles and numerous books have investigated the question of government spending growth and now there are even several publications that have reviewed and cataloged the competing theories and evidence, again without a consensus emerging¹.

One latent explanation for government spending is constituency size, which is simply the number of constituents represented by each member of the legislature. Constituency size is known to affect how legislators represent their constituents and is an important determinant of the outcome of the legislative process. Thornton – Ulrich [1999] have shown that constituency size is a statistically significant determinant of the level of state government spending in the US. States *with* a larger constituency size had higher levels of spending. This indicates that the problem of excessive government spending emerges over time as the result of population increases which are not correspondingly matched by increases in the number of representatives. Larger constituency size may result in poorer representation of constituent interests because the legislator becomes less able to represent those interests *and* because they are less constrained by their constituents.

The relationship between constituency size and the growth of government spending over time is examined here with empirical tests on the experience in the United Kingdom. Using time series data, we address this question using traditional empirical techniques for assessing causality, thereby answering directly the question of whether or not constituency size *causes* increased government expenditures (to the extent in which such claims are possible in the limited sense of granger causality). This approach is different than the typical cross-sectional and quasi-panel data empirical assessment of this issue².

Our results consistently indicate that constituency size is positively related to the growth of government spending in the UK, despite alternative formulations of the variables and the use of different sample periods. This finding suggests that constituency size is an important determinant of the growth of government in democratic states. While this result does not entirely displace other perspectives on the growth of government, it does help to significantly refine the theory of government growth, shining new light on such

¹ See for example Moser [1999] and Kapeluck [2001].

² Even when panel data is available, earlier studies usually do not consider the time series properties of the data and, in some cases, average the data over time periods.

contributions as Peacock – Wiseman [1961] and Wagner's Law. In addition to improving our understanding of the growth of government, the simplicity of constituency size as a policy-relevant variable enhances its chances of being implemented in both unicameral and bicameral states, both as a curative for and preventative against the problem of excessive government spending.

2. – *Legislature size vs. constituency size*

Stigler [1976] first asked how the size of legislature affected the quality of citizen representation in government, hypothesizing that the question could be analyzed with reference to economic processes and suggested that the answer would be determined by interest groups. Since Stigler's early contribution, a significant body of scholarship on this issue has developed. While perhaps oversimplifying, the debate over legislature size and government spending can be summarized by two rival hypotheses. First, the law of $1/n$ holds that government spending rises as legislature size increases. This positive relationship is presumed to exist because as legislature size increases there are more mouths feeding from the same trough. Weingast – Shepsle – Johnson [1981] describe this theory as the neoclassical theory of legislature size and government spending.

An alternative to the neoclassical hypothesis is the public choice hypothesis which holds that government spending rises as constituency size per legislator increases. A larger legislature size means that each legislator has a smaller more homogeneous constituency and that voters can more efficiently monitor the behavior of their representatives. This hypothesis is dubbed the public choice view because it better conforms to the foundational works in the public choice literature. The empirical support for the rival hypotheses has been mixed and, over time, the theoretical arguments amended and qualified. Crain [1979] responded to Stigler's analysis and found that the impact of legislature size (number of legislators) on legislative output was indeterminate because the greater production costs of assembling a majority coalition in larger legislatures could be offset, or not, by increased specialization in the committee system. McCormick – Tollison [1981] theorized that larger legislatures would make the production of legislation more costly, but their statistical findings were weak. Shughart – Tollison [1986] found that larger legislatures increased the production of legislative bills, but not spending. GILLIGAN – MATSUSAKA [1995] found that larger legislatures actually increased state government spending; again, however, their empirical results were marginal and could be accounted for by bicameralism. GILLIGAN – MATSUSAKA [2001, pp. 79-80] reexamined the impact of legislature size in

the US over the 20th century and found that legislature size was positively related to spending, but they found some of their own results «surprising», «fragile», «not obviously consistent», and that larger legislatures *actually* «reduced state expenditures and increase local expenditures».

Bradbury – Crain [2001] found mixed support on legislature size in their cross country investigation and a positive relationship between the size of unicameral legislatures and government spending. Their findings were very sensitive to model specification, with sign changes on important and statistically significant variables. Ricciuti [2003] found that legislature size outperformed constituency size in a comparison of a panel of OECD countries. Using panel data, Fiorino – Ricciuti [2007] only found support for legislature size in their study of Italian regions. Thus the hypothesis that larger legislators cause increased government spending, dubbed the law of $1/n$ and the neoclassical hypothesis by Weingast – Shepsle – Johnson [1981] has been widely tested, but with limited empirical support³.

The alternative hypothesis, the constituency size hypothesis, or public choice hypothesis, argues that larger legislatures actually lead to relatively less government spending because each legislator represents a smaller and more homogeneous constituency and that voters are better able to monitor their legislator. The constituency size hypothesis rests on the bedrock of public choice theory. Buchanan – Tullock [1965, p. 112] found that the «expected costs of organizing decisions, *under any given rule*, will be less in the smaller unit than in the larger»⁴. Olson [1965, p. 28] also examined the impact of the size of the decision-making group and likewise concluded «clearly then groups with larger numbers of members will generally perform less efficiently than groups with smaller numbers of members»⁵. Both of these landmarks in public choice theory demonstrate that the cost of organizing a winning coalition increases exponentially with the size of the decision-making group and therefore support the hypothesis that smaller constituency size (*i.e.* larger legislature size) would restrain the growth of government and that larger constituency size and smaller legislature size would promote the growth of government spending.

Breton's [1974] theory of full-line supply in representative democracies also supports the constituency size hypothesis. He argues that politicians of-

³ What is clear from the existing econometric models of government spending and legislature size is they often are very sensitive to specification, and very particular assumptions are used regarding the time series properties of the data. For example, results from earlier studies are often sensitive to the inclusion or exclusion of fixed effects, suggesting the empirical results are being driven by cross sectional variation and leaving open the question of inadequate controls.

⁴ On this point see Buchanan – Tullock [1965, p. 112, emphasis in the original].

⁵ On this point see Olson [1965, p. 28].

fer voters not a single position, but an entire menu of policy options. Here politicians engage in implicit logrolling in the sense that they put together a winning coalition of issues for voters. The larger the constituency size the more politicians are able to engage in this implicit logrolling and this would result in larger government.

There is also the issue of voter heterogeneity that backs the constituency size hypothesis. The more heterogeneous the voters of a district are, the more likely representatives are willing to vote for a wider variety of spending bills. The smaller the constituency size of districts the more homogeneous they tend to be, while heterogeneity tends to increase as district population increases. Therefore small constituency size would tend to dampen government spending if it has the predicted effect on heterogeneity. When Crain [1999, p. 675] examined the role of diversity within districts and their resulting fiscal bias, the evidence « emphasize[d] the conditional nature of the 'law of $1/n$ ' »⁶. Dye [1961] found that larger and more heterogeneous constituencies resulted in representatives supporting a wider variety of interest groups. Altshuler [1970] and the new reform tradition recognize that smaller constituency size results in better communication and representation of constituency interests which might explain Hansen – Palfrey – Rosenthal's [2004] finding that increased constituency size resulted in a lower voter turnout. Finally, Amacher – Boyes [1979] found that heterogeneity did allow representatives to act more independently and that heterogeneity had a more significant impact than constituency size although the two variables are correlated⁷.

More concretely, Thornton – Ulrich [1999] found that constituency size was positively correlated with government spending across US states. This would suggest that increases in legislature size would suppress government spending over time. In addition, Pettersson-Lidbom [2004] and Primo – Snyder [2005] have found evidence for a reverse law of $1/n$ (larger legislatures led to lower spending) which overturns Weingast – Shepsle – Johnsen [1981] law of $1/n$ and supports the argument for constituency size. The effect of expanding the voting franchise on increased government spending also supports the constituency size hypothesis in the sense that expanding the franchise increases the number of voters per representative⁸.

In sum, there are therefore two basic competing hypotheses regarding the

⁶ See Crain [1999, p. 675].

⁷ One might also include the issue of polity size in support for the constituency size argument. Scholars dating back to Aristotle have thought that small polity size results in better participation and representation and that a large variety of problems develop as polity size increases.

⁸ See on this point Husted – Kenny [1997].

relationship between the size of legislatures and government spending. The hypothesis based on the law of $1/n$ and claims that the larger the legislature the greater the spending because more mouths will be feeding from the trough and is characterized by Weingast – Shepsle – Johnsen [1981] as neo-classical. The alternative hypothesis argues that the larger the legislature the more restrained government spending will be due to the increased costs of coalition building and decreased voter monitoring cost and this could be dubbed the public choice approach. This hypothesis is related to the constituency size argument because democracies do not often or radically change the size of their legislatures, so that as population increases at a steady pace, the constituency size per legislator increases. Both hypotheses have received some empirical support, but most of this support has been weak or questionable. A resolution to this question is of great practical interest because the size of the legislature is a policy variable that could either be used to help solve or exacerbate the problem of the growth of government spending.

3. – *The case for the UK experience*

In an effort to expand the empirical analysis of this important issue, here we examine the case of a single unicameral legislature in a time series analysis rather than comparing different national legislatures in a cross-section format, the latter being the typical empirical format⁹. We examine a unicameral government because most studies have shown that bicameralism has a significant deterrent to government spending and that it can either create or muffle the statistical significance of legislature size variables¹⁰. For example, Gilligan – Matsusaka [2001] found that the size of the Senate was positively related to spending and the House was negatively related to spending. This they regarded as some support for the ‘law of $1/n$ ’, but looked at differently, it is evidence of the negative effect of bicameralism on spending. A bigger House relative to the Senate strengthens bicameralism, while as the Senate gets larger relative to the House they become more similar and as Bradbury – Crain [2001, p. 322] noted «as [the bargaining parameter] approaches one, the bicameral result grows closer to the unicameral spending

⁹ Data limitations prevent a direct test of the two hypotheses.

¹⁰ See Bradbury – Crain [2002] on the significance of bicameralism.

¹¹ Their findings were very sensitive to model specification, with sign changes on important and statistically significant variables. The unicameral legislatures that were included in their study were generally from small, undeveloped or developing nations and at least one legislature (with the second highest level of spending) is reported as several times larger than its actual size.

outcome». They examined unicameral legislatures in a cross-section analysis and found some support for the 'law of 1/n' hypothesis. However, their results were weak and their data was questionable¹¹. Most importantly, the countries that they examined were generally undeveloped, developing, and/or small.

With the UK we have a nation that is highly developed, stable and relatively homogeneous, especially given that our data begins after Ireland became independent in 1922. Our starting point also occurs after women were given the right to vote and hold public office in 1918 and after the fiscal power of the House of Lords had been virtually eliminated in 1911. The Redistribution Act of 1918 adopted the principle of equal constituency sizes so that all the important changes in the British electoral system that might impact constituency size are in place by 1922 and remain relatively unchanged to the present. The time span of this study ends in 1998 when Scotland achieved home rule.

The United Kingdom has long served as a primary laboratory for economists, including the subject of the growth of government. Adam Smith [1776] used it as his case study to determine the source of the wealth of nations. Hayek [1944] used the UK to explain the nature and evolution of socialism, while Peacock – Wiseman [1961] based their landmark study of the growth of government expenditures on the UK experience. It certainly is the case that government spending in the UK has grown over the last century with government expenditures and taxation increasing from about 10% of GDP to highs exceeding 40%. Government employment (as a percentage of the workforce) likewise increased by over 300%¹².

This investigation is a time series analysis of the impact of constituency size on government spending within a single country. The comparative size of government spending *across* governments is an interesting and important question in its own right, but the growth of government spending *over time* within a country is perhaps the most vexing problem of public finance. The growth of government spending seems to be a common feature of democratic government and is generally seen as a cause of the decline of nations and an obstacle to economic growth. Using a time-series approach we are able to examine the data over a time frame that is several times the length of previous studies and can apply (non)causality statistical techniques. We can also apply statistical tests to get a better feel for the time series properties of the data, and these findings may help improve model specification when using panel data. Further, the cross-section studies of legislature size involve

¹² See Middleton [1996, pp. 94-5, 99, 107]. On the UK's poor economic performance during this period see Crafts [2002].

few if any changes in legislature size so that the slight variation in legislative size within countries limits the reliability of these parameter estimates¹³ whereas our study involves a half a dozen changes in legislature size as well as a good deal of variation in both population and government spending within a single country.

This analysis builds on the path-breaking work of Peacock – Wiseman [1961] who forever downgraded the role that permanent factors play in the process of government growth. They examined the factors suggested by Wagner's law, such as population, technological progress, and urbanization, but found that individually or cumulatively, the characteristics of economic progress are not the inevitable cause of government growth but are only causally associated with it. They found that political factors are the primary reasons for changes in the size of government. In their model, spending depended on revenue and revenue was influenced or controlled through the ballot box, or by the use of whatever other media exist for citizens to bring pressure to bear upon their government. They showed that during the intervals between key events, there was a tendency for the central government to grow, which they named the *concentration effect*. We incorporate the concentration effect, recast as constituency size. We interpret the widespread weak empirical support for Wagner's law as a function of the role that economic progress plays on population which in turn impacts constituency size.

4. – *Empirical test*

The following empirical test investigates a causal relationship between constituency size (S) and government expenditures (E) using annual data for the United Kingdom covering the period 1923 through 1998. In alternate regressions, we also evaluate the post-war period from 1946 through 1998.

The expenditure variable takes two forms. First, the variable E_G is government expenditures as a percentage of real Gross Domestic Product (GDP) and, second, the variable E_p measures real government expenditures on a per-capita basis. Expenditure data is from Mitchell [1992, 2003]. Population statistics, GDP and the GDP-deflator data (used to convert nominal to real government spending) are provided by Economic History Services¹⁴. The number of representatives in Parliament is provided by Craig [1989]¹⁵. The com-

¹³ See on this point Bradbury – Crain [p. 316].

¹⁴ see <http://eh.net>.

¹⁵ This data was confirmed and updated by Sarah Rushbook of the House of Commons Information Service March 26, 2007.

plete dataset consists of 76 observations on each series (years 1923 through 1998). All series are expressed in natural log form.

Our hypothesis is that the growth in government spending is driven, in part, by constituency size. Or, put simply, we are interested in whether or not constituency size causes government spending. According to Granger [1969] and Sims [1972], the causal relationship between two variables can be determined by examining the way the series move with respect to each other over time. We adopt the standard econometric approach to evaluate whether constituency size Granger-causes government expenditures. Of course, our analysis is limited to causality in the Granger sense; it is well known that we cannot test for causality *per se*.

A. Unit Root Tests

As indicated by the discussion above, Granger causality requires the series to be stationary. Thus, we start by applying the Augmented Dickey Fuller (ADF) test to evaluate the presence of a unit root in each series y_t . Since our data spans a war and includes structural shifts in the count of members of Parliament, the standard unit root test needs some modification. Following Perron [1989], our ADF tests take the general form

$$\Delta y_t = a_0 + a_1 y_{t-1} + a_2 \Delta y_t + \sum_{i=4}^m a_i D_i + \varepsilon_t \quad [1]$$

where t is a time trend and the dummy variables D_i account for the impact of World War II and structural shifts (also see Enders, 2004, p. 205). The test for a unit root involves the constraint $a_1 = 0$. In choosing the specific formulation of Equation [1] we rely on the testing strategy of Dolado *et al.* [1990], which is summarized by Enders [2004, p. 183]. Specifically, if the null is not rejected, we may be able to simplify the model, thereby improving the power of the test and, in some cases, test the null hypothesis using the standard normal rather than the non-standard Dickey-Fuller critical values¹⁶.

For the E series, we include four dummy variables in the ADF regression. Variable D_1 equals 1 for year 1940 and D_2 equals 1 for years beginning in 1940 (and 0 otherwise); Variable D_3 equals 1 for year 1946 and D_4 equals 1

¹⁶ If Equation [1] represents the true data generating process, then the t-statistic on a_1 can be compared to the critical value from the standard normal distribution.

for years beginning in 1946 (and 0 otherwise). The year 1940 represents the start of World War II, which formally ended in 1945, so that year 1946 represents the post-war period. With these four dummy variables in the regression, we find that E_G and E_P are both trend stationary (we reject the null that $a_1 = 0$)¹⁷. Based on this information, we create the filtered E series,

$$E'_t = E_t - (b_0 + b_1t)$$

and use the stationary E' as a replacement for E in all the (non)causality regressions.

The ADF regression for the series S includes 15 dummy variables, all but of one which indicate a structural shift related to a change in the number of members of Parliament. There are seven changes in membership over the sample period (years 1945, 1950, 1955, 1974, 1983, 1992, and 1997). For each change, we include a dummy variable for the year of the change and a dummy variable for all years after the change (14 dummy variables). Visual inspection of the data also led us to include a dummy variable for year 1946, the year after the end of the war. Following the sequence of steps outlined in Enders [2004, p. 213], we found S to be stationary without a trend or drift¹⁸. Since it is stationary without a trend, we do not replace S with a trend-filtered series.

B. Estimated Model

The Granger-Sims causality model includes the following two equations:

$$E'_t = \sum_{i=1}^p \alpha_i E'_{t-i} + \sum_{i=1}^p \beta_i S_{t-i} + \sum_{i=1}^d \gamma_i D_t + \nu_t \quad [2a]$$

$$S_t = \sum_{i=1}^p \lambda_i E'_{t-i} + \sum_{i=1}^p \theta_i S_{t-i} + \sum_{i=1}^d \pi_i D_t + \nu_t \quad [2b]$$

¹⁷ The full Equation [1] is used for the test. The robust t-statistics for the null hypothesis that $a_1 = 0$ are (E_G , -4.7), (E_P , -4.6), both of which are statistically significant at the 5% level (with critical value of -3.5). For the post-war period, the test statistics are (E_G , -7.8) and (E_P , -7.9), both of which are statistically significant at the 5% level (with critical value of -3.6).

¹⁸ Equation [1] is tested down to $\Delta y_t = a_1 y_{t-1} + e_t$. The robust t-statistic for the null of $a_1 = 0$ is -9.73, with a critical value of -1.95. The critical values for the joint tests required for each move from the general to the specific model (are extrapolated from Enders [2004, p. 440]). For the post-war period, the model is again tested down to this simple form. The test statistic is -4.8 with a critical value of -1.95.

where the n and u are white noise disturbance terms and the D_t are d dummy variables to account for World War II and structural shifts¹⁹. Since both series are stationary, the data is in levels rather than first-differences. As for the choice of the number of lags p , we employ standard procedure and choose the p that renders the smallest Akaike Information Criteria (AIC) across potential lag lengths equal to or less than 4 lags²⁰. This approach indicates $p = 2$ when using E_G and $p = 1$ when using E_p . The results are summarized for both lag lengths to evaluate the robustness of the findings.

5. – Results

The results of the Granger-Sims causality tests are summarized in Table 1, and include summary statistics for $p = 1$ and $p = 2$. Whether government expenditures are expressed as a percentage of GDP (E_G) or in per capita terms (E_p), the Granger-Sims F-test allows us to reject in all cases that null hy-

Table 1. – Summary of Granger-Sims (Non)Causality Tests

Dep. Variable	$E'(-1)$	$E'(-2)$	$S(-1)$	$S(-2)$	Granger-Sims F-Test	AIC
E'_G	0.273		0.801		3.53**	-2.264
S	-0.006		1.001		1.71	-7.895
E'_G	0.307	-0.073	-1.411	2.277	2.55**	-2.259
S	-0.009	0.004	1.039	-0.035	0.96	-7.856
E'_p	0.272		1.139		6.91*	-2.266
S	-0.004		1.001		1.11	-7.895
E'_p	0.338	-0.102	-0.914	2.167	4.41*	-2.279
S	-0.008	0.004	1.048	-0.043	0.77	-7.856

Statistically significance: (*, 5%); (**, 10%)

¹⁹ There are 10 dummy variables in the VAR that are consistent with those used for the ADF tests. We have seven dummy variables for the changes in Parliament size (the variables equal 1 for years including and after 1945, 1950, 1955, 1974, 1983, 1992, and 1997). To account for the war, we have three dummy variables (years 1940 through 1945, 1946 through 1950, and 1946 through 1947). The same dummy variables are used for all regressions. The Correlogram and Lagrange-Multiplier test indicate the residuals are approximately white noise.

²⁰ Since the AIC depends, in part, on the number of observations, we compare the alternative lag structures using the same sample [ENDERS, 2004, p. 69]. The maximum number of lags is based on the calculations $T^{1/3}$, where T is the number of observations [ENDERS, 2004, p. 358]. The AIC is computed for the system of two equations.

pothesis that constituency size (S) does not cause expenditures at the 10% level or better. For $p = 1$, the critical F-statistics ($df = 1, 62$) at the 10%, 5%, and 1% level are 2.79, 4.00, and 7.06, and for $p = 2$ the critical F-statistics ($df = 2, 59$) are 2.39, 3.15, and 4.13.

With expenditures expressed as a percentage of GDP (E_G), the null hypothesis of non-causality is rejected at the 10% level for both $p = 1$ ($F = 3.53$) and $p = 2$ ($F = 2.55$), the latter being the AIC chosen lag length by a small margin. Statistical significance is much improved with the per-capita formulation of expenditures, with the statistical significance of the test allowing rejection of the null hypothesis of non-causality at about the 1% for both lag structures ($F = 6.91$ and 4.41), with an AIC chosen lag length of $p = 1$. Importantly, in no case do we reject the null hypothesis that constituency size *does not cause* government expenditures at the 10% level or better.

From the estimated coefficients, it is apparent that the effect of constituency size on spending is positive. This positive effect is most apparent in the cases where $p = 1$, but can also be shown to be positive when $p = 2$. An approximation is given by $\Delta y_t = a_1 \Delta y_{t-1} + a_2 (\Delta y_{t-1} + \Delta \Delta y)$, which is clearly positive since $\Delta \Delta y$ is very small in the sample. Thus, our econometric analysis supports the public choice explanation for the growth in government spending.

In an effort to evaluate the robustness of our findings, we also apply the statistical procedure using only data following World War II (after year 1945). This alternate sample is 30% smaller than the full sample (53 compared to 76 years); we should expect a reduction in the power of our statistical tests. Nevertheless, we believe it is worthwhile to evaluate the results when excluding the effects on our data of this significant historical event.

In Table 2, we summarize the results for the post-war period. The findings from the unit root tests were the same, with the E series being trend stationary and the S series stationary without trend or drift. Thus, the same estimation methodology is employed for the post-war period. The AIC indicates an optimal lag length of $p = 1$ for both sets of equations, so we limit the table to those results²¹. For this smaller sample, the critical F-statistics ($df = 1, 43$) at the 10%, 5%, and 1% level are 2.83, 4.07, and 7.26. A review of Table 2 confirms that the null of non-causality from constituency size to spending is rejected at about the 10% level or better. For the GDP normalized series E_G , the null hypothesis is rejected at the 10.1% level. The null hypothesis for the population-normalized series E_p is rejected again at near the 1% level ($\text{prob} = 0.013$). Thus, even with reduced power in the more limit-

²¹ We were unable to reject the null hypothesis of no causality for the E_G series with two lags. For the per-capita data, the null was easily rejected.

Table 2 – Summary of Granger-Sims (Non)Causality Tests (Post World War II)

Dep. Variable	$E'(-1)$	$S(-1)$	Granger-Sims F-Test	AIC
E'_G	0.503	0.600	2.80***	-2.890
S_G	-0.009	0.949	1.01	-7.383
E'_P	0.494	0.891	6.72*	-2.984
S_P	-0.007	0.95	10.50	-7.371

Statistically significance: (*, 5%); (***, 11%)

ed sample of the post-war period, our findings are consistent with the theory that increases in constituency size causes increases in government spending.

6. – Conclusion

The size of the legislature has long been thought to be an important determinant of government spending. The neoclassical perspective, under the rubric of the law of $1/n$, supports the notion that bigger legislatures cause higher levels of spending. In contrast, the public choice perspective holds that smaller constituency size restricts government spending.

We provide additional empirical evidence on this controversy by examining a single unicameral legislature using a time-series analysis of UK data. Our results suggest that increases in constituency size Granger-causes government expenditures, thereby lending support to the public choice theory. A possible resolution with the neoclassical perspective can be seen in Shughart – Tollison [1986]. They found that larger legislatures produced more bills, including private bills, but less spending. Given that private bills are usually passed unanimously and provide very low cost benefits to voters and that, according to Peltzman [1992], voters want their representative to spend less money; larger legislatures provide voters with better government from both the public choice and neoclassical perspectives.

This result suggests that the tendencies for legislature size to remain relatively stable while population increases over time combines to increase constituency size and, consequently, government spending. Constitutional and legislative changes to balance changes in population with changes in the size of legislatures may therefore attenuate rises in government spending.

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