

**The Effective Constituency in (Re)Distributive Politics:**  
**Alternative Bases of Democratic Representation, Geographic *versus* Partisan**

*Robert J. Franzese, Jr.*

Associate Professor of Political Science  
The University of Michigan, Ann Arbor  
franzese@umich.edu  
<http://www-personal.umich.edu/~franzese>

with

*Irfan Nooruddin*<sup>1</sup>

Assistant Professor of Political Science  
The Ohio State University  
irfan.nooruddin@polisci.sbs.ohio-state.edu

*Working Paper Series, Juan March Institute, Madrid, 2004*

**Abstract:** Theorists have long argued that democratic policymakers respond to political pressures from their constituents. Although empirical work generally supports that broad contention, heterogeneity prevails both in theoretical work and empirically across country-times over exactly what comprises the constituency to which policymakers respond. We propose conceiving the potential bases of democratic representation as a continuum from the interests of the policymaker's geographic constituency, her electoral district, *d*, to those of her party's supporters, her partisan constituency, *p*. The *effective constituency*, *c*, to which democratic policymakers respond would then be some convex combination of these partisan and geographic extremes, with the partisan weight summarized by the degree to which parties are able to act as strategic units and receive their electoral support as units, *i.e.*, of party unity, *u*. That is, heuristically, we conceptualize  $c = u \cdot p + (1 - u) \cdot d$ . Re-examination of the familiar Weingast-Shepsle-Johnsen (*WSJ*) model of distributive politics and pork-barrel spending (*the law of 1/n*) motivates the analysis and undergirds empirical evaluation of our conception of the *effective constituency*. Postwar histories of public spending and distributive politics in developed democracies seem not to support a pure-electoral-district *WSJ* model, but postwar public spending in the United States, where data best-suited to evaluate the argument exist, does support a *WSJ* model *as modified to reflect our conception of the effective constituency*. We conclude with some ideas for extending the basic *effective constituency* notion beyond partisan and geographic bases of representation and for incorporating more explicitly and directly into empirical specification of public-policy models certain theoretical propositions that purport to explain aspects of the political-economic institutional, structural, and strategic context, such as the degree of party unity, that shape how policymakers allocate their efforts across public-good, redistributive, distributive, and rent-seeking activities. We consider several such arguments relating political-economic institutional, structural, and strategic contexts to the degree of party unity and of geographic *versus* partisan representation, and thereby to policymakers' weight on each type of policy activity, and show how to embed and test such arguments within estimable empirical models of public spending using the *effective constituency* concept.

---

<sup>1</sup> We equally co-authored most of the material through Section IV inclusive. We intend that joint material for its own submission for publication, separate from the materials in Section V and passages preceding and foreshadowing Section V. This broader and "extension" work presages Franzese's next book project. We thank Chris Achen, Andrea Bassanini, Carles Boix, Steve Casper, John Ferejohn, Holly Goerdel, Peter Hall, Rick Hall, John Huber, Eric Juenke, Ken Kollman, Margaret Levi, Karen Long, Skip Lupia, José Maravall, Ken Meier, Eric Reinhardt, Ken Shepsle, Rob van Houweling, and Anne Wren for helpful discussions, comments, criticisms, and/or suggestions, in some cases offered without realizing or expecting we might use some benign remark in this way.

## **The Effective Constituency in (Re)Distributive Politics: Alternative Bases of Democratic Representation, Geographic *versus* Partisan**

**Abstract:** Theorists have long argued that democratic policymakers respond to political pressures from their constituents. Although empirical work generally supports that broad contention, heterogeneity prevails both in theoretical work and empirically across country-times over exactly what comprises the constituency to which policymakers respond. We propose conceiving the potential bases of democratic representation as a continuum from the interests of the policymaker's geographic constituency, her electoral district,  $d$ , to those of her party's supporters, her partisan constituency,  $p$ . The *effective constituency*,  $c$ , to which democratic policymakers respond would then be some convex combination of these partisan and geographic extremes, with the partisan weight summarized by the degree to which parties are able to act as strategic units and receive their electoral support as units, *i.e.*, of party unity,  $u$ . That is, heuristically, we conceptualize  $c = u \cdot p + (1 - u) \cdot d$ . Re-examination of the familiar Weingast-Shepsle-Johnsen (*WSJ*) model of distributive politics and pork-barrel spending (*the law of 1/n*) motivates the analysis and undergirds empirical evaluation of our conception of the *effective constituency*. Postwar histories of public spending and distributive politics in developed democracies seem not to support a pure-electoral-district *WSJ* model, but postwar public spending in the United States, where data best-suited to evaluate the argument exist, does support a *WSJ* model *as modified to reflect our conception of the effective constituency*. We conclude with some ideas for extending the basic *effective constituency* notion beyond partisan and geographic bases of representation and for incorporating more explicitly and directly into empirical specification of public-policy models certain theoretical propositions that purport to explain aspects of the political-economic institutional, structural, and strategic context, such as the degree of party unity, that shape how policymakers allocate their efforts across public-good, redistributive, distributive, and rent-seeking activities. We consider several such arguments relating political-economic institutional, structural, and strategic contexts to the degree of party unity and of geographic *versus* partisan representation, and thereby to policymakers' weight on each type of policy activity, and show how to embed and test such arguments within estimable empirical models of public spending using the *effective constituency* concept.

### **I. INTRODUCTION:**

Although we begin our analysis from a highly empirically motivated and somewhat narrowly focused theoretical reconsideration, the topic may be construed far more broadly. At the broadest level, we aim to provide some purchase on the question of whom democratically elected policymakers see themselves as, and, more critically, behave as if they are, representing. That is, we seek more precise theoretical and empirical understanding of the *constituency*, a concept, we argue, which manifests differently across representative democracies.

Discussion of the positively operative or normatively optimal bases of representation has long interested a wide variety of political scholars with a great diversity of views. Pitkin, for example, notes: “[W]riters disagree on the appropriate role or conduct for a representative: should he act on

his own judgment of what is in the national interest, or should he be a faithful servant of his constituency's will?" (1969: p. 7) Notice that Pitkin means *constituency* as the electoral district in contrast to a broader constituency of "the national interest." Edmund Burke's (1774) speech to the electors of Bristol as they sent him to Parliament showed similar awareness of this duality of representation:

[T]he happiness and glory of a representative is to live in the strictest union, the closest correspondence, and the most unreserved communication with his constituents. Their wishes ought to have great weight with him; their opinion, high respect; their business, unremitting attention. It is his duty to sacrifice his repose, his pleasures, his satisfactions, to theirs; and above all, ever, and in all cases, to prefer their interest to his own (32).

Later in the same speech, however, Burke continues:

Parliament is not a *congress* of ambassadors from different and hostile interests; which interests each must maintain, as an agent and advocate, against other agents and advocates; but parliament is a *deliberative* assembly of *one* nation, with *one* interest, that of the whole; where, not local purposes, not local prejudices, ought to guide, but the general good, resulting from the general reason of the whole. You choose a member indeed; but when you have chosen him, he is not a member of Bristol, but he is a member of *parliament* (33).

Our contribution at this philosophical level is decidedly modest. We merely suggest the empirical and theoretical utility of viewing the range of potential bases of representation as some continuum extending from pure representation of interests defined by the electoral district, *d*, or *geographic representation*, to pure representation of the set of interests supporting the party, *p*, or *partisan representation*. In defining the latter extreme, notice, we have already made two implicit assumptions. First, we imply that the broadest interest a representative might serve would reflect a partisan (i.e., still partial) conception of the national interest. Second, we also assume (for now<sup>2</sup>) that partisan representation subsumes interest, ideology, and identity-group representation. Conceiving the possibilities thus, the question becomes what determines the relative weight of these polar modes of representation in any particular political system. On this point, we acknowledge and discuss the potential impact of several factors, including district- and national-level electoral competitiveness, partisan polarization, and various other features of electoral and party systems, but focus for now on

---

<sup>2</sup> In future work we hope to offer theoretically-informed empirical specifications (see below) that could model effective constituencies with four end-points reflecting national, party, social-identity group, or district interests.

the degree to which parties are able to act as strategic units and receive electoral support as units, i.e., of *party unity*,  $u$ , as a useful summary statistic. We develop this argument further below, but, granting it for introductory purposes, it implies that the *effective constituency*,  $c$ , to which a policymaker responds is some convex combination of her electoral district and her party with the relative partisan weight increasing in party unity, *for example*:<sup>3</sup>  $c = u \cdot p + (1 - u) \cdot d$ .

This *effective-constituency* conceptualization arises from our attempts to explore the comparative empirical predictions of the Weingast-Shepsle-Johnsen (1981: *WSJ*) model of distributive politics and pork-barrel spending (i.e., *the law of 1/n*), and its implications are perhaps most clearly seen in that specific theoretical and substantive context. *WSJ* demonstrate that, under certain conditions reviewed below, overemphasis of distributive politics, in general, and pork-barrel overspending, in particular, increase with the number of constituencies. *WSJ* do not, however, distinguish *electoral districts* from *constituencies*, and they define *distributive politics* and *pork-barrel spending* very narrowly, creating two mutually reinforcing problems for the comparative empiricist. First, data matching the precision with which the theory distinguishes pork-barrel/distributive from other spending/politics do not exist. Indeed, all politics and spending likely reflect some (varying) degree of distribution, redistribution, public-good provision, and rent seeking. Second, policymakers will likely exhibit varying responsiveness across different democratic settings to their *electoral districts* relative to myriad other potential *constituencies* they might serve. Moreover, these two issues are inseparable because the definition of distributive spending hinges on identification of the politically-relevant constituencies, and, conversely, the number of relevant constituencies depends on the policy at issue. To escape this dilemma, we suggest broader conceptions both of distributive spending and of the constituencies policy-relevant thereto. From there, extending *WSJ*'s logic is exceedingly

---

<sup>3</sup> The *for example* is important: theory does not necessarily specify that the convex combination is a simple linear-weighted-average; the suggested empirical methods can easily incorporate other combinatorial forms.

straightforward yet offers considerable gains in empirical “testability” and theoretical insight.

We structure the paper to make these points thus. Part II briefly reviews the simplest *WSJ* model of distributive politics and pork-barrel spending. cursory consideration of comparative work on distributive politics and of postwar-average public-spending in developed democracies then suffices to suggest strongly that the narrow definitions of distributive pork-barrel politics and policies and of *constituencies* as *districts* produce empirically inaccurate and theoretically problematic predictions. Part III offers our proposed solution and discusses several complementary, alternative, or simply additional considerations. Part IV explains how to use the US postwar history of public-spending and politics to evaluate our argument, conducts the analysis, and discusses results. Part V concludes by returning to the broader issues of representation mentioned above, considering extensions of the basic *effective-constituencies* concept beyond partisan and geographic bases of representation, and showing how to embed within estimable empirical models of public policies theoretical models of the political-economic institutional, structural, and strategic conditions that determine the relative weight of geographic, partisan, and other effective bases of representation and thereby policymakers’ relative allocation of effort across public-good, redistributive, distributive, and rent-seeking activities.

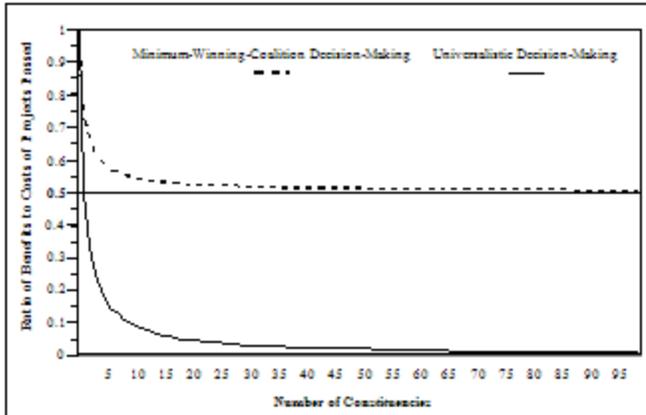
## **II. “THE POLITICAL ECONOMY OF COSTS AND BENEFITS” REVIEWED AND RECONSIDERED**

*WSJ* ask why representative legislatures routinely pass budgets that manifestly over-emphasize distributive, or *pork-barrel* spending, projects. Their answer stresses the division of democratic politics into electoral districts, noting that democratic representation everywhere is based on “a districting mechanism that divides the economy into  $n$  disjoint political units called districts” (p. 643), and defining “*distributive policy* [as] a political decision that concentrates benefits in a specific geographic constituency and finances expenditures through generalized taxation” (p. 644). They thus

isolate geographic location as the distinguishing characteristic of distributive policies and politics: “Programs and projects are geographically targeted, geographically fashioned, and may be independently varied” (p. 644). Given these definitions, and assuming legislators follow some log-rolling or universalistic norm, *WSJ* demonstrate that overemphasis on distributive policies, i.e., overspending on pork-barrel projects, is an increasing function of the number of electoral districts.

To be precise, first, index the  $n$  electoral districts  $i \in [1..n]$ . Then, assume benefits,  $B$ , of any particular pork-barrel project concentrate in district  $i$  (for analytic clarity: entirely so) and increase with the size or cost of the project,  $B_i = f(C)$ , which, with diminishing returns, gives  $f' > 0$  and  $f'' < 0$  as usual. By definition of a distributive policy, the costs accrue more uniformly across all  $n$  districts (for analytic clarity: entirely so):  $C_i = C/n$ . The individual district then faces a utility-maximization problem,  $\text{Max}_c f(C) - C/n$ , for which the solution is simply  $f'(C) = 1/n$ . The optimal project-size from the individual district’s view thus increases in the number of districts.

If legislatures decide democratically, without log-rolling, universalist norms, or side-payments, then all pork-barrel projects lose legislative votes  $(n-1)$  to  $1$  because only receiving districts derive net benefits,  $f(C) - C/n$ , while others only pay costs,  $C/n$ . *WSJ* argue, contrarily, that legislators could adopt a universalistic norm where all legislators vote for distributive bills (“I’ll vote for yours; you vote for mine”), implying the legislature passes the district-by-district optimal, leaving pork-barrel spending proportional to the number of districts. Riker (1962) shows, however, that optimal coalition-building strategies in majority-rule legislatures involve side-payments sufficient to induce bare-majority support (*minimum-winning coalitions*) for distributive projects, meaning  $(n-1)/2$  other legislators must receive  $C/n + \epsilon$ , which also implies overemphasis on pork proportional to the number of districts, albeit more marginally so. Specifically, under universalism, all projects with  $B > C/n$  pass, whereas under majority-rule with side-payments, only projects with  $B > [(n+1)/2n] \cdot C$  pass.



**Figure 1:** Benefits required to pass distributive projects by universalism or minimum winning coalition decline with the number of constituencies.

Later scholarship, though, deduced several reasons super-majoritarianism may indeed govern legislative decision-making. Shepsle and Weingast (1981), e.g., note that, given uncertainty over membership of minimum-winning coalitions, legislators prefer super-majorities to insure against their omission.

Luebbert (1986) and Strom (1990) argue similarly regarding parliamentary government formation that, with uncertainty over legislative support, which, e.g., secret balloting or lack of party discipline may induce, coalition builders would seek super majorities. Others stress that legislative procedures affect optimal-coalition size. Carruba and Volden (2000) show that, in fact, all coalitions from minimum-winning to universal may form depending on amendment openness and other procedural rules. For example, Baron (1991) finds universalism on distributive bills unlikely yet over-provision still prevails to a degree mitigated by procedural openness. Similarly, McCarty (2000) and Bradbury and Cain (2001) argue that, respectively, presidents or second chambers dampen without eliminating the  $1/n$  effect by—we infer—adding a legislative step in which veto or amendment may occur.

To these considerations, we would add that, if voters are rationally ignorant,  $C/n$  may be too small for non-receiving-district voters to notice even while receiving-district voters readily appreciate their much larger net benefit,  $f(C) - C/n$ . Thus, with rationally ignorant voters, legislators could more easily forge universalist log-rolls or other super-majoritarian agreements to support each other's pork-barrel requests *via* some cooperative solution to their iterated-prisoners-dilemma game. Such cooperation is especially likely because legislators number relatively few, have relatively

homogenous interests in this regard, and interact repeatedly and indefinitely (Axelrod 1984). Furthermore, voters' rational ignorance also facilitates the side-payment arrangements that forge super-majorities behind distributive policies because legislators will demand smaller payments to support others' distributive proposals the greater is their voters' ignorance. In the limit, rational ignorance revives universalist scenarios wherein distributive projects maximize pork-barrel benefits district-by-district. Moreover, the total size of distributive inefficiencies or side-payment excesses about which voters may rationally remain ignorant also rises with the number of districts over which such costs distribute. Thus, distributive politics generally and pork-barrel spending specifically increase with the number of districts, more strongly so as legislative behavior tends more universalistic and less minimum-winning, which tendency, in turn, heightens as rational ignorance, winning-coalition uncertainty, or legislative-rule closure to amendment or veto rises.

The logic is elegant, intuitive, and profound; unfortunately, the comparative evidence, which **Figure 2** illustrates summarily, does not correspond. The top row plots two measures of public spending, general-government final-consumption and current-disbursement as shares of GDP in 1985, against 1945-85 average numbers of electoral districts in 20 OECD countries.<sup>4</sup> The bottom row does likewise with two revenue measures, general-government current-receipts and total-taxes. The *WSJ* law of  $1/n$  predicts a positive relationship between spending (taxes) and numbers of districts clearly not revealed in **Figure 2**.<sup>5</sup> Adding basic economic controls of unemployment, trade openness, aggregate wealth or growth, to these bivariate regressions makes no substantive difference, and more

---

<sup>4</sup> Lane et al. (1991) provides the data. General government includes all levels of government and public agencies with separate accounting (e.g., social security); using central-government data makes no substantive difference. For effectively bicameral countries, we average numbers of districts (total, all tiers) in each house. For unicameral countries, we use numbers of districts in the primary house (total, all tiers). We consider the US, Japan, Germany, Italy, Belgium, Netherlands, Switzerland, and Australia effectively bicameral for these purposes. The substance of these results, however, seemed independent of how we treated second chambers and of minor permutations in the set of countries considered bicameral. Alternative approaches to multiple-tier systems also altered little.

<sup>5</sup> Omitting the UK or otherwise transforming the highly skewed ED (e.g.,  $\ln(ED)$ ), does not help. In fact, as one can discern visually, as one trims countries from the large-ED end of the sample, these relationships become more *negative*.

sophisticated empirical research elsewhere likewise finds little support. Franzese (2002: ch. 2-3), e.g., finds little or no significant relationship between numbers of districts and transfers or debt in postwar samples of developed democracies, and he controls for many other economic and political variables and pays some attention to complications in counting electoral districts given multiple-tier systems, bicameralism, varying district-size, etc. In sum, evidence from comparative public fiscal-activity does not support a simplistic application of *WSJ's* model of electoral-district-based distributive politics.

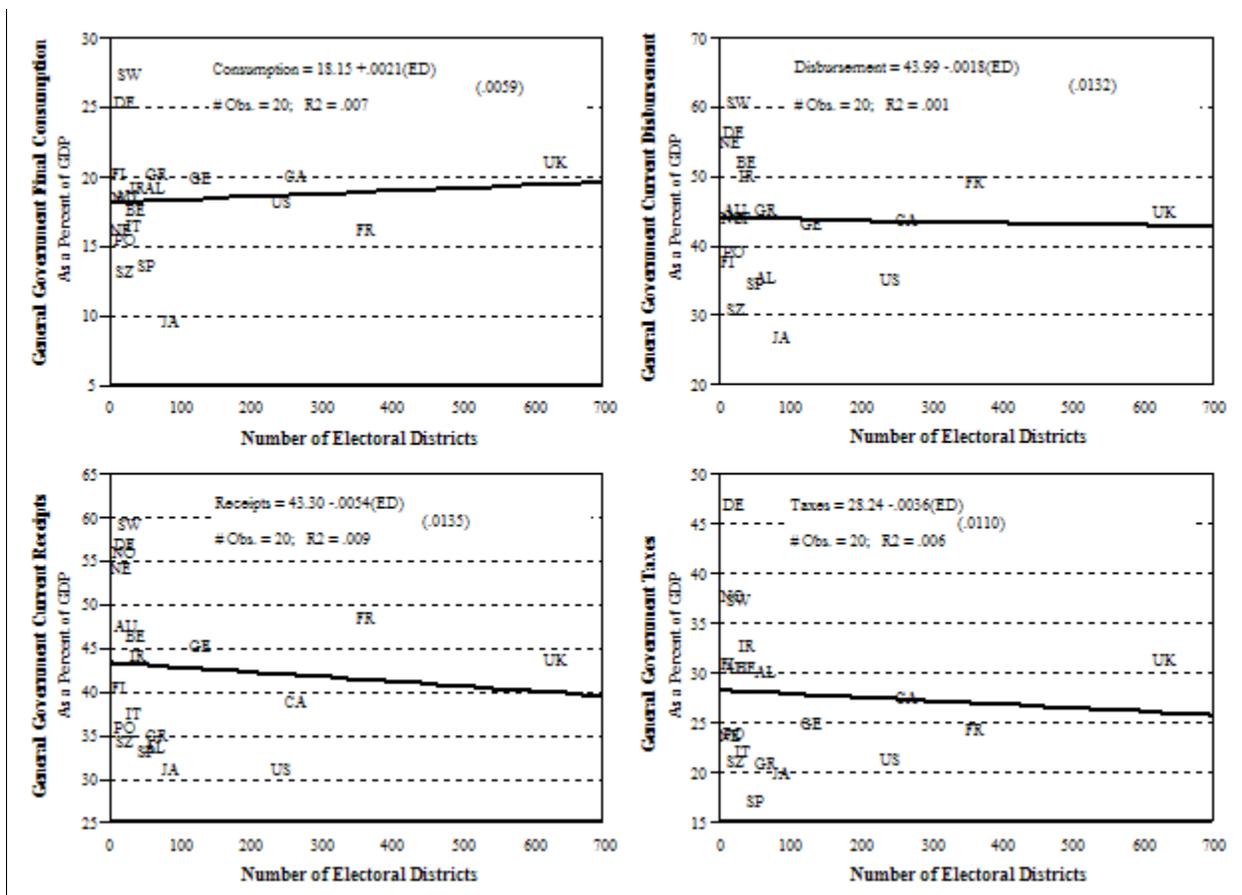


Figure 2: Bivariate Relationships between the Size of Government and the Number of Electoral Districts

Consider, furthermore, the model's implications for the relative prominence of distributive politics in different democracies. For example, the UK House of Commons has **651** electoral districts, the US House of Representatives has **435**, and Italy's *Camera dei Deputati* had (until the

1994 electoral-law changes) 32 in its first tier. The *1/n* logic suggests that the UK should exhibit distributive, i.e., district-focused, politics most prominently, followed closely by the US, and more distantly by Italy. Students of comparative developed-democratic politics would generally agree to the contrary that the actual ranking is probably the US, followed closely or possibly preceded by Italy, with the UK a distant last. Regarding the UK, Rose (1986) states unequivocally:

...the role of constituency [i.e., district] representation...is of little importance to government. MPs can devote time to looking after the concerns of individual constituents[... and] this relationship can flatter an MP who is a small fish in a big pond at Westminster[... b]ut an MP cannot gain government favors for his constituency by trading his vote in return for local benefits; *the whip* [i.e., the party], *not constituency interest, determines an MP's vote* (pp. 100-1; emphasis added).

Contrarily, party-organized and -directed *patronage* and *clientelism*, complicated theoretical concepts that include strong distributive-politics and pork-barrel aspects *inter alia*, were long-acknowledged central features of Italian democracy (see, e.g., Banfield 1958; and Powell, Silverman, Graziano, and Schneider *et al.* in Schmidt *et al.* 1977). Spotts and Wieser (1986), speaking of parliament's legislative role in Italy, clarify the extent to which MP's local-service pervades the legislative agenda (*n.b.*, local civil-service jobs are the preferred currency of clientelistic payments in Italy):

...the Chamber and Senate have produced a flood of legislation that generally well surpasses the output of other Western European parliaments and the US Congress[, b]ut the product tends to be narrow in scope, clientelistic in nature, and fragmented in its treatment of national problems. The great majority of these...*leggine*, "little laws" [were] devoted to bettering the condition of government employees. Fully 37% of the legislative proposals between 1963 and 1972, e.g., concerned [various] civil service [...compensation and job conditions] (110-1).

In the US, meanwhile, district-oriented politics certainly plays a much larger role than in the UK and perhaps even than in Italy, though also perhaps less "clientelistically" so.<sup>6</sup>

Thus, discrepancy between theory and comparative evidence is wide and seems not to derive from deficient methodology or controls.<sup>7</sup> Contrarily, Gilligan and Matsusaka (1995, 2001) find

---

<sup>6</sup> The contributions to Bogdanor (1985) contain more case-studies that may be relevant. In future work, we hope to use these for a broader comparative-empirical study of the nature of representation and distributive politics.

<sup>7</sup> Recently, however, Bradbury and Crain (2001) report some cross-sectional evidence for a bicameralism-dampened *law of 1/n* as per their hypothesis (see above).

support in comparing US states; Levitt and Snyder (1995) find indirect support in the pattern by spending category of partisan effects on the district distribution of US spending; Lee (1998, 2000) finds US Senate malapportionment to affect distributive politics consistently with the *law of 1/n*; Alvarez and Saving (1997) find that US Representatives do derive electoral benefits from spending in their districts; and Bickers and Stein (1996) find that US district spending increases with challenger quality. In our view, these conflicting results do not suggest that the *1/n* logic only applies in the US; rather, they highlight an important substantive problematic that *WSJ* and many others (e.g., Burke) ignore: namely, conflation of the theoretical *constituency* with the empirical *electoral district*.

### III. “THE EFFECTIVE NUMBER OF CONSTITUENCIES” CONCEPT

*WSJ*'s *law of 1/n* equates the physical boundaries of electoral districts with the conceptual borders of constituencies. We suggest that one instead conceive the number of constituencies in a political system as lying on a continuum with only one of its endpoints, that corresponding to pure geographic representation, at the number of electoral districts. Representative policymakers certainly may see themselves as representing and so act legislatively in the interests of their electoral districts, implying identity of *constituencies* and *districts*. At the other extreme, however, they may view themselves and act legislatively as representatives of the entire nation—as, e.g., presidents often claim—implying that only one *constituency*, the nation, exists. More realistically, executives or legislators may be pure partisan actors, representing the interests and ideologies of their party's supporters, which equates *effective constituencies* and governing parties in number. Thus, the US case could have any number of *effective constituencies* from **1**, if presidents fully control policy and solely represent the entire nation or, more realistically, if partisan presidents and legislators of one party share policy-control, or **2**, if president and legislators act as purely partisan representatives in

divided government, to **435**, if Congress completely controlled policy and each congressperson solely represented her own district.<sup>8</sup> Another example: the UK has **651** electoral districts and **2** parties, *Tories* and *Labour* (ignoring small parties). Assuming each party represents some distinct group of people, the UK has minimally **2** constituencies, *Tory*- and *Labour*-supporters, of which government usually reflects only **1**. Conversely, if the voters in each individual MP's district define the constituency, the UK has maximally **651** constituencies. Where along this range lies the *effective number of constituencies* that will be represented in government policy is a function, we assert, of the degree of party unity in the UK.

To clarify the intuition behind this assertion, imagine varying the degree of party unity in the UK. The more apt is a unitary-actor characterization of the parties, the more an individual MP's legislative behavior is given by her party label.<sup>9</sup> This being so, voters will also choose party-labels more than individual MPs. Therefore, individual MPs neither act as independent legislative actors nor have much to gain by abandoning party unity to make some localistic appeal in their electoral districts. Partisan constituencies come to the fore. Conversely, the party label becomes less meaningful as the independence of MPs as legislative actors increases. Absent meaningful policy-labels, both as electoral draws and as prescriptions for legislative behavior, individual MPs' electoral districts become more relevant to them and constituency service (including distributive projects) becomes more important to them and their supporters. Thus, the **651** electoral-district constituencies become more dominant.

Therefore, the UK's *effective number of constituencies* lies between **651** and **1**, with the extremes reflecting perfect party-disunity (i.e., legislative and electoral irrelevance of party label) and perfect party-unity (i.e., legislative and electoral irrelevance of any individual MP or district characteristics).

---

<sup>8</sup> To complete the example, if the Senate completely controlled policy and each Senator acted solely as a representative of her district, there would be 50 *effective constituencies*.

<sup>9</sup> We use party unity as an empirical summary statistic here, so we need not assume it or endogenize it theoretically.

More fully, *effective constituencies* lie on a continuum from pure partisan- to pure geographic-representation, therefore a convex combination of the numbers of governing parties,  $p$ , and electoral districts,  $d$ , gives the *effective number of constituencies*,  $c$ , in a political system, and the relative weight of  $p$  increases with the degree of party unity,  $u$ , characterizing that system. We adopt the simplest possible convex-combination, a linear weighted-average:  $c = u \cdot p + (1 - u) \cdot d$  with  $u \in [0..1]$

Therefore, given any two countries with nearly equal numbers of parties and electoral districts, more (fewer) effective constituencies exist in the system with lesser (greater) party-unity. Thus, distributive politics may be much more prominent in the US than UK, despite their roughly equal numbers of governing parties ( $1-2$ ) and electoral districts ( $435-651$ ), because British parties exhibit far greater party unity, making the UK's *effective number of constituencies* radically lower.

Applying our conceptualization to the  $1/n$  logic of distributive politics and pork-barrel spending is exceedingly straightforward. First, redefine distributive policies as those that concentrate benefits within a single *effective constituency* but spread costs more evenly across all constituencies. Then, “distributive overemphasis and pork-barrel overspending” so defined increase with the number of *effective constituencies* rather than *districts*. A trivial corollary is important to the empirics evaluating this re-conceptualization below: holding constant the numbers of parties and of electoral districts, distributive politics and spending decrease with party unity. Before proceeding, however, we conduct several further thought-experiments to illustrate how *effective numbers of constituencies* depend on considerations beyond numbers of electoral districts and governing parties and degrees of party unity.

Consider, for instance, two hypothetical UK's, each with  $2$  parties,  $651$  electoral districts, and the same degree of party unity. These two UKs, however, differ in the ideological distance between their  $2$  parties. For concreteness, think of party ideologies on a single left-right dimension; in one of

these UKs, the left and right parties are closer together than in the other. We expect the UK with the more-distinct party-ideologies to appeal less to the pork-barrel precisely because electoral competition in that UK will be more ideological. In the polarized UK, representatives and candidates compete to considerable degree on ideological-partisan bases as members of two opposing teams. In the UK with little ideological distance between parties, conversely, electoral competition has less ideological content. There being no broader “team” on which to base competition, distributive politics comes forward in the UK with less partisan-polarization, so it will exhibit relatively more distributive spending. The Irish party system may exemplify a case of such relative absence of ideological conflict between the parties (on economic dimensions) fostering greater emphasis on distributive politics.<sup>10</sup>

Electoral competitiveness of the districts may also enter. Imagine two other hypothetical UK’s, each with 2 parties, 651 districts, and the same degrees of party unity and of partisan ideological polarization. One UK, however, has 651 *competitive* electoral districts while the other has 651 *uncompetitive* districts. I.e., all districts in the competitive UK have either *Labour* or *Tory* expecting a 51% to 49% victory; in the uncompetitive UK’s districts, either *Tory* or *Labour* expects a 100% to 0% victory. If voters reward pork-barrel district projects with votes, both parties will have greater incentives to allow their candidates to promise, and their MP’s to deliver, district projects and services in the more competitive UK. Moreover, in the district-competitive UK, distributive overemphasis increases with national-level competitiveness also because winning a marginal district is more critical. Thus, distributive politics and pork-barrel spending increase with electoral competitiveness.<sup>11</sup>

Notice the similarity of the role of partisan polarization and electoral non-competitiveness in

---

<sup>10</sup> We thank Anne Wren for describing the Irish case to us in these terms.

<sup>11</sup> We thank Andrea Bassanini and Carles Boix for emphasizing this case to us.

dampening distributive-policy incentives to the role of party unity,  $u$ , in the *effective constituencies* defined above:  $c = u \cdot p + (1 - u) \cdot d$ . As party unity, partisan ideological-proximity, and/or electoral competitiveness decline, electoral districts weigh more in determining *effective constituencies*. One could, therefore, replace the constant  $u$  in this heuristic model with a function reflecting the factors that push democratically elected policymaking to represent more their partisan than their geographic constituencies. These factors would include party unity (or, alternatively, some set of conditions that induce it) but also partisan polarization,  $\rho$ , and electoral competitiveness,  $e$ . The new heuristic would be  $c = f(u, \rho, e) \cdot p + \{1 - f(u, \rho, e)\} \cdot d$   $0 \leq f(\cdot) \leq 1$   $\partial f / \partial u > 0$   $\partial f / \partial \rho > 0$   $\partial f / \partial e < 0$ ,<sup>12</sup>

We return to this extension of the conceptualization in the conclusion and future research.

Because all of these hypothetical UK's conduct pure single-member-simple-plurality elections, the distributive overemphasis that electoral competitiveness heightens is geographical in nature. In systems with larger district-magnitudes, electoral competitiveness would likewise foster distributive overemphasis, but *constituencies* would likely have less geographic than partisan base. Thus, using the extended heuristic above,  $\partial f / \partial e$  should be conditional on the electoral system  $\partial f / \partial e > 0$  in larger-magnitude systems and  $\partial f / \partial e < 0$  in smaller (see also Long 2002).<sup>13</sup> The discussion above suggests national-level electoral-competitiveness enters  $f(\cdot)$  similarly.

In sum, we are suggesting most fully that (a) the degree to which parties are able to act as units should determine the capacity of democratic policymakers to *budgeteer*, (b) national and district-level electoral competitiveness should determine the magnitude of their incentives to *budgeteer*, and (c) party-system polarization, electoral-system and district magnitude, and the degree to which parties receive their electoral support as units should determine the nature of the *budgeteering*, the relative shares of partisan-redistributive and geographic-distributive policies, that they will pursue.

<sup>12</sup> To ensure  $0 \leq f(\cdot) \leq 1$ ,  $f(\cdot)$  could be the logit (i.e.,  $[1 + e^{-XB}]^{-1}$ ) or probit (i.e.,  $\text{cum}\Phi(XB)$ ); normal:

<sup>13</sup> Long (2002) derives a similar conclusion focusing on representative incentives to distribute benefits more or less broadly within their electoral district.

We do not dispute the validity of these complicating considerations—indeed we will repeat them more formally and completely in the conclusion—but reserve them for future research. In this paper, we concentrate on the effect of different levels of party unity on representation and spending.

#### **IV. PRELIMINARY EMPIRICAL EXPLORATION: US FISCAL POLICY & PARTY UNITY, 1956-94**

To evaluate our base concept, we need data on amounts of distributive activity, degrees of party unity, and numbers of electoral districts and governing parties. Two difficulties emerge immediately.

First, unavailability of comparable measures of party unity across many countries makes cross-sectional or pooled cross-sectional-time-serial analysis difficult. (Future work may utilize cross-US-state data effectively or apply nonlinear techniques as discussed below.) Few countries appear to have the necessary legislative-vote records to produce direct measures of legislative voting-unity. For fewer still have scholars compiled such measures, almost exclusively in the US.<sup>14</sup> However, whereas numbers of US electoral districts hardly changed postwar, providing almost no leverage to test the pure-electoral-district *WSJ* model directly with aggregate US data, and whereas governing-party numbers also held relatively constant, party unity varied sufficiently *and measurably* across time (see, e.g., Cox and McCubbins 1993) to yield empirical leverage on our *effective-constituency* concept.<sup>15</sup> Thus, our conceptualization offers a practical “testability” benefit at least. Even so, using just one country severely limits empirical leverage (*degrees of freedom*) because dependent variables (taxation and expenditure components) are annual, and they and certain controls are unavailable until 1956.

Second, we must decide whether and how to distinguish distributive from other categories of spending and whether to measure such activity as a share of GDP or of total public activity. Having defined distributive policies broadly as those that spread costs across while concentrating benefits

---

<sup>14</sup> We have since heard, and intend to pursue in the future, rumors of comparable data in other English-speaking nations.

<sup>15</sup> We thank John Ferejohn for thus suggesting US historical data as a test-bed for our ideas.

within particular *constituencies*, not necessarily in particular *electoral districts*, all but the most universal of public goods may apply. Accordingly, one measure of distributive spending is simply government final-consumption expenditure. However, some spending-types are harder to target to as specifically as others, so we still want to retain some emphasis on distributive as opposed to redistributive spending or, in Persson and Tabellini's (2000) useful terminology, *special-interest* from *general-interest politics*. Thus, our other spending measure of spending is non-transfers spending. The relative weakness of these measures as appropriate dependent variables for empirical evaluation of our theoretical arguments implies that we must view the results as highly preliminary indeed.

The model's emphasis on overspending might as easily suggest a focus on the share of the budget or of GDP spent on distributive projects. Rather than decide, we use final consumption *and* non-transfers spending as shares of GDP *and* of total spending<sup>16</sup> simultaneously, thus mildly alleviating the limited-degrees-of-freedom problem. By *jointly* estimating a set of four equations, each regressing a spending measure on several controls and a variable capturing our conception of the *effective number of constituencies*, we gain leverage. Even if we apply no cross-equation restrictions on estimated coefficients, residual correlation across regressions offers information that can increase the efficiency of estimation. Accordingly, we propose to estimate a system of four seemingly unrelated regression-equations (SURE)<sup>17</sup> in which the dependent variables are federal-government final-consumption-expenditure as shares of (i) GDP and of (ii) federal-government expenditures, and federal-government non-transfers spending as shares (iii) of GDP and of (iv) federal-government

---

<sup>16</sup> We emphasize that we consider this empirical evaluation highly preliminary. In future work, we hope to leverage Levitt and Snyder's (1995) idea of using cross-district variation in disbursement to identify "porkier" budgetary categories and Hird's (1991) approach to estimating the *over-* (i.e., inefficient) spending.

<sup>17</sup> The Beck-Katz (1995, 1998) criticism of the Parks procedure for estimating equations from pooled time-series-cross-section data applies here also; we will effectively have 4 time-series equations estimated in parallel. However, with 4 equations and 39 observations each, T here is almost 10 times the equivalent to N. Thus, feasible generalized least squares, in this case SURE, should provide *bona fide*, not misleading, smaller standard-errors.

expenditures. All data are annual and taken from the University of Michigan's *Research Seminar in Quantitative Economics*.

Next we consider the strong serial correlation of these dependent variables and the possibility of unit roots. For each variable, first-order correlation far exceeds 0.9, so, given the sample size, none rejects unit-root tests. An error-correction format (Beck 1992) therefore seems appropriate, and, in our models, the format accommodates serial correlation and eases unit-root concerns adequately. Error-correction models regress changes in the dependent variable on (i) its lagged level plus any lagged changes the data suggest are necessary to model serial correlation, (ii) lagged levels of each independent variable theory suggests as a potential cointegrating factor, and (iii) any changes in the independent variable theory suggests. In this format, coefficients on *changes* represent *momentum-like* relationships between independent-variable *changes* and dependent-variable *changes*; coefficients on lagged *levels* represent *equilibrium-like* relationships between *levels* of the independent and dependent variables. In the usual dynamic-equation fashion, both propagate through the dependent variable over time as the estimated coefficients on lagged dependent-variable levels and changes dictate. Having no strong priors on the momentum or equilibrium nature of the spending effects of our theoretical and control variables, we enter all variables in contemporaneous differences and in lagged levels.

Finally, we need an appropriate set of controls. Obviously, public spending will respond to economic conditions regardless of constituency conditions fostering distributive politics. Thus, we control for real-GDP-*per-capita* growth and levels (*Y*: from *Penn World Tables v. 5.6*), unemployment rates (*UE*: from *OECD sources*<sup>18</sup>), and CPI inflation rates (*CPI*: from *IMF sources*<sup>19</sup>).

---

<sup>18</sup> "OECD sources" means *OECD National Accounts, Volume II: Detailed Tables*, diskette version (1996), *OECD Economic Outlook and Reference Supplement #62*, diskette version (1998), and the hardcopy versions thereof and of *OECD Labor Force Statistics* (various issues).

<sup>19</sup> "IMF sources" means *IMF International Financial Statistics*, CD-ROM version (June 1996), supplemented by hardcopy where necessary and possible.

Similarly, spending may respond to government ideology (Hibbs 1977) and/or to the incentive to manipulate the economy for pre-electoral purposes (Tufte 1978), so we also include a pre-electoral indicator (*ELE*)<sup>20</sup> and a control for the left-right partisan “center-of-gravity” of the US government (*CoG*).<sup>21</sup>

In error-correction form, then, each seemingly-unrelated-regression equation (SURE) reads:

$$\begin{aligned} \Delta(GS_{i,t}) = & \beta_0 + \beta_1 \Delta(GS_{i,t-1}) + \beta_2 GS_{i,t-1} + \beta_3 \Delta(\Delta(Y_t)) + \beta_4 \Delta(Y_{t-1}) + \beta_5 Y_{t-2} \\ & + \beta_6 \Delta(CPI_t) + \beta_7 CPI_{t-1} + \beta_8 \Delta(UE_t) + \beta_9 UE_{t-1} + \beta_{10} \Delta(CoG_t) + \beta_{11} CoG_{t-1} \\ & + \beta_{12} \Delta(ELE_t) + \beta_{13} ELE_{t-1} + \beta_{14} \Delta(ENoC_t) + \beta_{15} ENoC_{t-1} + \varepsilon_{t-1} \end{aligned} \quad (1)$$

where subscripts  $t$  and  $i$  indicate year and equation.  $GS_i$  is the measure of spending used in equation  $i$  and  $ENoC$  is our measure of the *effective number of constituencies* in the US that year. That measure is the core of our empirical exercise, and we expect, following our augmented *WSJ* model, that its coefficients will be positive in each equation. By measuring the *effective number of constituencies* before and outside estimation of the empirical model, we set the null hypothesis as that this measure relates (positively) to spending and as alternative merely that it does not. A more direct and revealing test would allow the data to adjudicate whether numbers of governmental parties and of electoral districts affect spending in the manner hypothesized, *i.e.*, in a convex combination with weight a function of party unity, against a stronger alternative that these factors might affect spending linearly additively or not at all (as, *e.g.*, Franzese 1999, 2002, 2003 do in monetary-policy

<sup>20</sup> For simplicity, we consider the president and each house  $1/3$  the government, and only  $1/3$  of the Senate faces election each congressional election-year. Thus, house and presidential elections rate  $1/3$ , and senate elections  $(1/3) * (1/3) = (1/9)$ . Finally, all elections are assumed to occur November 7, so the indicator in the election year is  $ELE = [(1/3) * P + (1/3) * H + (1/9) * S] * [311/365]$  where  $P(H,S) = 1$  if there is a presidential (House, Senate) election that year, and  $311/365$  is the proportion of the year past by election-day. The year prior to an election thus equals  $[(1/3) * P + (1/3) * H + (1/9) * S] * [1 - M/12 + (d/D)/12]$ . This produces a pre-electoral indicator that cycles  $[.0491, .2843, .1145, .6633]$ , with the last being the presidential-election year.

<sup>21</sup> The partisanship data use “expert” codings of the left-right positioning of parties available from Appendix B to Laver and Schofield (1990) to measure the partisan position of the average government member. A left-right code for each party is obtained by rescaling the several source indices for all countries from  $0 \equiv \text{extreme-left}$  to  $10 \equiv \text{extreme-right}$  and then averaging available indices for each party. The Democrats are  $4.8213$  and Republicans  $7.61$  in this scale. These party scores are then used to calculate the government’s partisan position as the average of the party positions of the government’s members. The US government’s position is assumed to be  $1/3$  the President’s,  $1/3$  the average Senator’s, and  $1/3$  the average Representative’s. Years in which more than one government held office are coded as the weighted average of those governments’ partisan position, each government weighted by the proportion of the year it holds office.

contexts). However, as noted, US electoral-district numbers do not vary and governmental parties numbers hardly vary in our sample, rendering such more-direct and -powerful empirical evaluation of our argument impossible: another key reason we view these results as highly preliminary.

As argued, the *effective constituency* to which a particular representative responds is some convex combination of her legislatively exhibited allegiance to her party and to residents of her electoral district. Thus, for an individual representative, the effective constituency is given by  $c = u \cdot p + (1 - u) \cdot d$ , where  $u$  measures her party loyalty,  $p$  represents her partisan and  $d$  her electoral-district constituency. Generalizing from here to the *effective number of constituencies* represented by many legislators, i.e., summing over all representatives, the formula remains unchanged, except that  $p$  becomes the number of parties and  $d$  that of electoral districts in the political system. Specifically for the US case, our measure of the *effective number of constituencies*,  $ENoC$ , is therefore given by:

$$ENoC = 0.5 \cdot [U_{HD} \cdot 1 + (1 - U_{HD}) \cdot N_d^h + U_{HR} \cdot 1 + (1 - U_{HR}) \cdot N_r^h] + 0.5 \cdot [U_{SD} \cdot 1 + (1 - U_{SD}) \cdot \frac{N_i^s}{2} + U_{SR} \cdot 1 + (1 - U_{SR}) \cdot \frac{N_i^r}{2}] \quad (2)$$

where  $U_{JK}$  = party unity amongst House or Senate ( $J=H,S$ ) Democrats or Republicans ( $K=D,R$ )<sup>22</sup> and  $N_k^j$  is the number of House or Senate Democrats or Republicans. The formula assumes the House and Senate equally important in policymaking and that the president's effective number of constituencies is fixed and so may be ignored.<sup>23</sup> Thus, the numbers of constituencies in the House and Senate average to produce the effective number in the US political system. We can modify these simplifying assumptions if that proves theoretically or empirically necessary.

<sup>22</sup> We use the party unity scores calculated and published by *The CQ Almanac*. Accordingly, *party unity* is measured as “the percentage of *Party Unity Votes* on which a representative voted ‘yea’ or ‘nay’ in *agreement* with a majority of her party,” where a *Party Unity Vote* is a vote in the Senate or House that splits the parties, a majority of voting Democrats opposing a majority of voting Republicans.

<sup>23</sup> Although senators number two *per* state, each delegation represents only one constituency (i.e., the state), so the number of senators for each party divided by two is the number of constituencies represented. In future work, presidents may enter  $ENoC$  by weighted-averaging (2) with another term representing the number of presidential constituencies (to be determined) and a weight given by the policy efficacy of the president.

We thus divide US *effective constituencies* into 4 sets: effective House Republican and Democratic and Senate Republican and Democratic constituencies. For each legislator, the level of party unity serves to weigh the degree to which her district- or her partisan-constituents' interests govern her behavior. Therefore, the higher the party unity, the fewer the constituencies because legislators appeal more to broadly-based ideological constituencies along party lines than to localistic interests of their electoral district. Conversely, leaders that use pork-barrel projects for their own individual district are, *ipso facto*, less responsive to their partisan and more responsive to their geographic constituency.

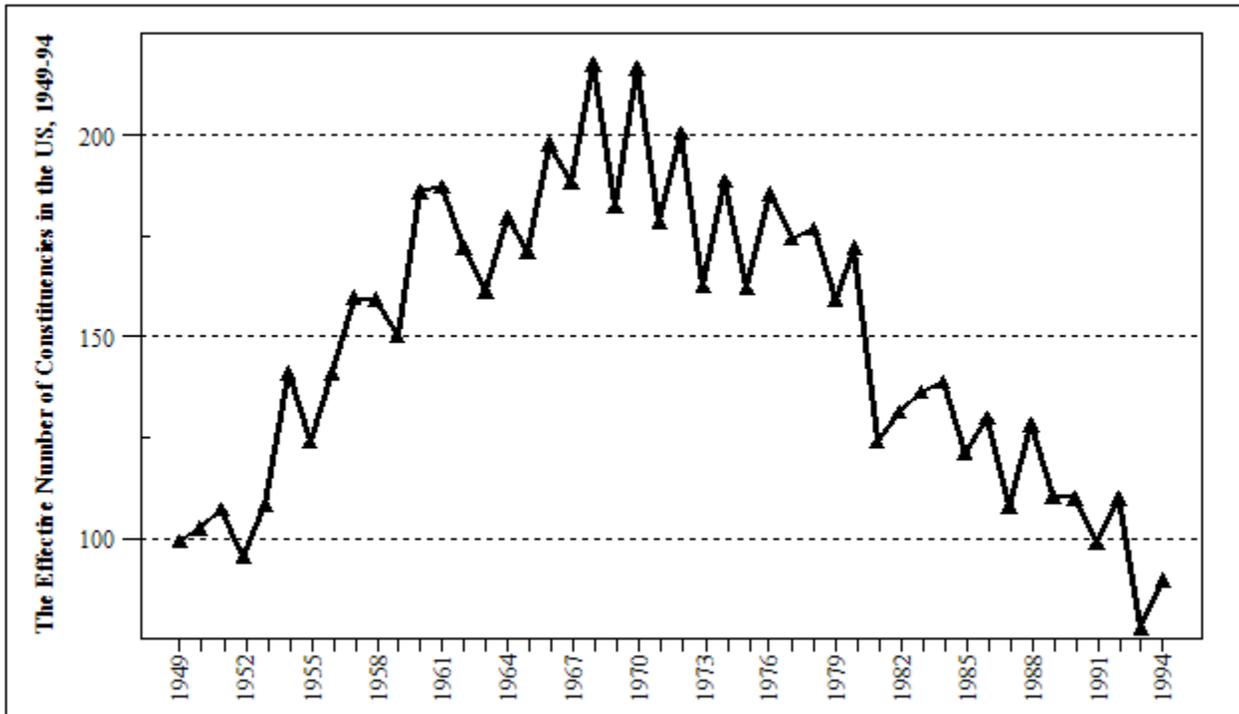


Figure 3: The Effective Number of Constituencies in the United States from 1949-1994.

Figure 3 plots the resulting series, *ENoC*, revealing a notable upward-then-downward trend. The numbers of parties and electoral districts barely change in this period, so the pattern reflects a decline then rise in legislative party-unity. Peak party-disunity and so peak effective-constituency numbers occur in the mid-to-late 1960s, and both return to 1950 levels by 1990. If our re-conceptualized *WSJ* model is correct, distributive politics and spending should similarly rise then decline.

**Table 1: Government Spending in the US 1956-94**

DEP. VAR. —>	Model 1	Model 2	Model 3	Model 4
INDEP. VAR. ↓	$\Delta$ (FC/TS)	$\Delta$ (FC/GDP)	$\Delta$ (NT/TS)	$\Delta$ (NT/GDP)
Constant	<b>-0.322</b> (.129) <sup>.014</sup>	<b>+0.472</b> (.188) <sup>.014</sup>	<b>+1.484</b> (.810) <sup>.070</sup>	<b>+1.925</b> (.434) <sup>.000</sup>
$\Delta$ DepVar <sub>t-1</sub>	<b>+0.039</b> (.115) <sup>.733</sup>	<b>+0.248</b> (.090) <sup>.007</sup>	<b>+0.196</b> (.076) <sup>.012</sup>	<b>+0.157</b> (.061) <sup>.011</sup>
DepVar <sub>t-1</sub>	<b>-0.207</b> (.076) <sup>.733</sup>	<b>-0.382</b> (.091) <sup>.0001</sup>	<b>-0.133</b> (.080) <sup>.101</sup>	<b>-0.371</b> (.076) <sup>.000</sup>
$\Delta$ GDPpc Growth	<b>-0.089</b> (.183) <sup>.631</sup>	<b>-0.758</b> (.200) <sup>.0003</sup>	<b>-1.962</b> (.667) <sup>.004</sup>	<b>-1.091</b> (.317) <sup>.0009</sup>
GDPpc Growth <sub>t-1</sub>	<b>-0.067</b> (.215) <sup>.756</sup>	<b>-0.804</b> (.236) <sup>.001</sup>	<b>-1.800</b> (.789) <sup>.025</sup>	<b>-1.280</b> (.377) <sup>.001</sup>
GDPpc <sub>t-2</sub>	<b>+0.054</b> (.014) <sup>.0005</sup>	<b>-0.036</b> (.017) <sup>.047</sup>	<b>-0.160</b> (.082) <sup>.053</sup>	<b>-0.189</b> (.043) <sup>.0000</sup>
$\Delta$ CPI Inflation	<b>-8.53e<sup>-4</sup></b> (.001) <sup>.463</sup>	<b>-0.003</b> (.001) <sup>.023</sup>	<b>-0.011</b> (.004) <sup>.009</sup>	<b>-0.006</b> (.002) <sup>.003</sup>
CPI Inflation <sub>t-1</sub>	<b>-6.93e<sup>-4</sup></b> (.001) <sup>.545</sup>	<b>-0.003</b> (.001) <sup>.010</sup>	<b>-0.004</b> (.004) <sup>.323</sup>	<b>-0.005</b> (.002) <sup>.011</sup>
$\Delta$ Unemployment	<b>-1.84e<sup>-3</sup></b> (.004) <sup>.664</sup>	<b>-0.009</b> (.004) <sup>.046</sup>	<b>-0.059</b> (.016) <sup>.0003</sup>	<b>-0.029</b> (.007) <sup>.0001</sup>
Unemployment <sub>t-1</sub>	<b>-2.67e<sup>-3</sup></b> (.002) <sup>.158</sup>	<b>-1.23e<sup>-4</sup></b> (.002) <sup>.955</sup>	<b>+0.004</b> (.008) <sup>.639</sup>	<b>-0.006</b> (.004) <sup>.142</sup>
$\Delta$ Partisan CoG	<b>+1.10e<sup>-3</sup></b> (.005) <sup>.823</sup>	<b>+0.009</b> (.006) <sup>.105</sup>	<b>+0.022</b> (.019) <sup>.268</sup>	<b>+0.011</b> (.009) <sup>.220</sup>
Partisan CoG <sub>t-1</sub>	<b>-4.73e<sup>-3</sup></b> (.004) <sup>.214</sup>	<b>-0.004</b> (.004) <sup>.400</sup>	<b>-0.004</b> (.012) <sup>.736</sup>	<b>-0.007</b> (.006) <sup>.263</sup>
$\Delta$ Pre-Election-Year Indicator	<b>+0.014</b> (.009) <sup>.124</sup>	<b>-0.008</b> (.010) <sup>.402</sup>	<b>-0.042</b> (.034) <sup>.220</sup>	<b>-0.018</b> (.016) <sup>.272</sup>
Pre-Election-Year Indicator <sub>t-1</sub>	<b>+0.025</b> (.015) <sup>.103</sup>	<b>-0.006</b> (.016) <sup>.719</sup>	<b>-0.051</b> (.054) <sup>.348</sup>	<b>-0.025</b> (.026) <sup>.339</sup>
$\Delta$ Effective Number of Constituencies	<b>+6.55e<sup>-5</sup></b> (.0001) <sup>.544</sup>	<b>+2.80e<sup>-4</sup></b> (.0001) <sup>.020</sup>	<b>+4.86e<sup>-4</sup></b> (.0004) <sup>.224</sup>	<b>+1.85e<sup>-4</sup></b> (.0002) <sup>.330</sup>
Effective Number of Constituencies <sub>t-1</sub>	<b>+1.91e<sup>-4</sup></b> (.0001) <sup>.068</sup>	<b>+3.54e<sup>-4</sup></b> (.0001) <sup>.003</sup>	<b>+7.73e<sup>-4</sup></b> (.0004) <sup>.048</sup>	<b>+3.21e<sup>-4</sup></b> (.0002) <sup>.069</sup>
Adj. R <sup>2</sup> (Std. Err.)	<b>.0527 (.0103)</b>	<b>.3299 (.0115)</b>	<b>.3789 (.0383)</b>	<b>.2736 (.0183)</b>
Durbin-Watson	<b>2.2586</b>	<b>1.3577</b>	<b>1.722</b>	<b>1.4041</b>

NOTES: Equations estimated by seemingly unrelated regressions (SURE) in E-Views ©QMS version 2.0. Each has 39 observations and 16 independent variables. Coefficients in **bold**, and standard errors in *(italics)* with p-levels from 2-sided t-tests <sup>superscripted</sup>.

**Table 1: Joint Hypothesis Tests of the Significance of ENoC**

Null Hypothesis	Equation						
	1	2	3	4	1 & 2	3 & 4	All
$\beta_{14}=\beta_{15}=0$	p ≈ .181	p ≈ .003	p ≈ .115	p ≈ .172	p ≈ .003	p ≈ .353	p ≈ .0003

**Table 1** summarizes the estimation results. In all equations, the coefficients on changes and levels of *ENoC* are positive, as hypothesized, and the level/equilibrium relationship is significant at minimally the  $p < 0.06$  level. The change/momentum and level/equilibrium effects both obtain high significance in the final-consumption-as-a-share-of-GDP equation. **Table 2** presents Wald joint-

hypothesis tests of the significance of both variables in each equation and across pairs of and across all equations. These joint significances are somewhat less impressive, but the effects are still nearly significant in each equation; they are strongly significant in model 2, in models 1 and 2 as a pair, and in all models as a set. However, the pair of coefficients are not significant in models 3 and 4 as a pair. Thus, the *effective number of constituencies* clearly relates positively to US federal-government final-consumption-spending as a share of GDP (*FC-GDP*); some, but less robust, evidence of positive relationships with final consumption as a share of total expenditures and with non-transfers spending as a share of either GDP or total expenditures also emerge.

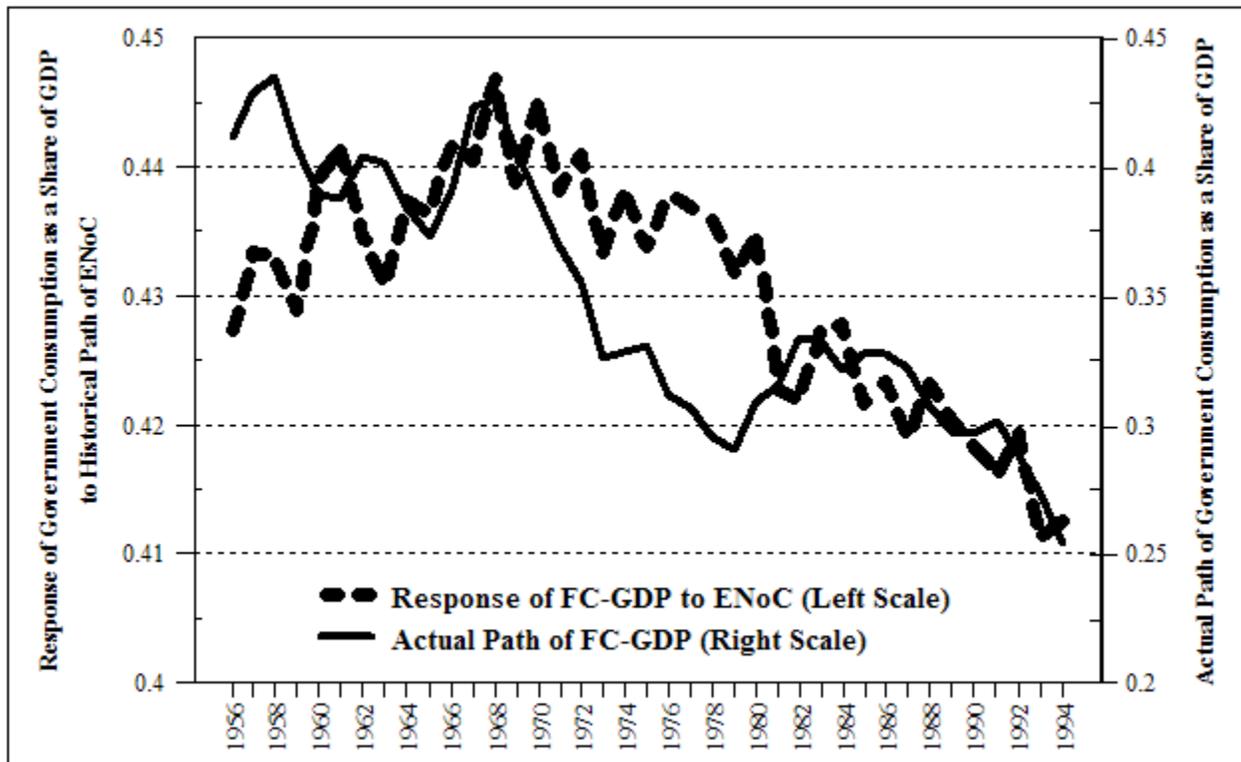


Figure 4: Estimated Response of FC-GDP to the Actual Path of ENoC in the from 1956-94.

Let us analyze substantively the magnitude of the estimated relationship from model 2, which relates *ENoC* to *FC-GDP*. Figure 4 plots the estimated response of *FC-GDP* (federal-government final-consumption as a share of GDP) to the actual path of the US *effective number of constituencies* 1956-94. The simulation assumes *FC-GDP* was in long-run equilibrium at its 1955 level of 42.4%

of GDP and that all other variables remain constant. The actual path of *FC-GDP* is plotted on the same graph against the right axis for comparison. Generally, the estimated response tracks the peaks and troughs of government consumption quite well, and the downward trend since about 1966 seems to have coincided with a rise in legislative party-unity over that time and the corresponding rise in the number of effective constituencies. However, the right and left scales differ considerably, so the magnitude of the estimated effects are only about **25%** those of the actual government-consumption path. That is, very crudely, changes in the effective number of constituencies over that period may account for about *1/4* of the developments since 1955 in federal-government final-consumption.

#### **V. CONCLUSIONS: EXTENDING THE *EFFECTIVE CONSTITUENCIES* CONCEPT**

### **[Here Commences: Franzese, *Effective Representation and Authority Allocation in (Re)Distributive Politics* (Title Preliminary)]**

While we view the evidence above as far more suggestive than conclusive, our conceptualization of the *effective number of constituencies* seems, at the least, to have provided a means to test the *WSJ* model for the US case. The evidence from the postwar history of US fiscal policy seems to support the argument and suggests that as much as a quarter of the rising-then-falling path of US federal-government final-consumption might be attributable to a parallel path in the *effective number of constituencies*, which, in turn, stemmed from a mirror-image decline then rise in legislative party-unity. However, the argument and evidence above also suggest that the *effective-constituencies* concept in general and, more narrowly, the argument relating it to distributive politics and pork-barrel spending might be usefully extended in several theoretically interesting and important ways. The following considerations are additional to the extensions already mentioned in Section III.

First, we conceptualized the *effective constituency* to which policymakers respond as a simple continuum from geographic representation of electoral districts at most disaggregated to partisan

representation of the sets of interests supporting political parties at most aggregated. One may alternatively conceive the endeavor as our attempt to describe the dimensions of the possible bases of democratic representation. From that broader view, we have spanned partisan and geographic bases but may have omitted others such as functional, identity, interest, or social-cleavage representation. We suspect our partisan endpoint covers many of these; *i.e.*, we view *partisan* representatives as serving the set of interests that support their party, which may subsume interest and social groups. The sufficiency of a unidimensional continuum, though, is an empirical matter. Representatives may, *e.g.*, represent certain industrial interests in a way that cross-sects rather than reflects their partisan affiliations. For example, much comparative-politics research has suggested that *corporatist* bases of representation pervade many developed democracies (*e.g.*, Berger 1984; Lijphart 1974, 1975, 1977, 1984; see Gallagher *et al.* 1995: ch. 14 and Lane and Ersson 1994: ch. 7 for textbook review).

Our convex-combination approach remains useful in testing such propositions—*e.g.*, that industrial sectors act as bases of representation distinct from partisanship and geography. In that case, we would advise first estimating the *effective number of industries* ( $i$ ) in the political economy using some standard approach: *e.g.*,  $i = \left( \sum_j z_j^2 \right)^{-1}$  where  $z_j$  is the  $j^{\text{th}}$  industry's share of employment or output. Then, the *effective number of constituencies*,  $c$ , would be given, as before, by some convex combination of the numbers of parties,  $p$ , of electoral districts,  $d$ , and, now, also of industrial sectors,  $i$ . Again, a linear weighted-average would be simplest, but party unity,  $u$ , no longer suffices to give the weight. Substantively, one possibility would be to adopt some measure of the degree of corporatist representation,  $cr$ , in a society from that literature; our concept of the *effective constituency*,  $c$ , then extends naturally:  $c = cr \cdot i + (1 - cr) \cdot [u \cdot p + (1 - u) \cdot d]$  would be to estimate a country-by-country constrained nonlinear least-squares regression of some

distributive-activity measure on *effective numbers of constituencies* entered thus:

$$Y = \dots + \beta \cdot [a \cdot i + b \cdot p + (1 - a - b) \cdot d] + \dots \quad \beta$$

. Then,  $\beta$  is the estimated impact of *constituencies* on  $Y$  and  $a$ ,  $b$ , and  $1-a-b$  are the estimated degrees of corporatist, partisan, and geographic representation, respectively, in that country.<sup>24</sup> Also,  $b/(1-a)$  is the estimated degree of party unity in the country assuming the causal role attributed to party unity here is correct. This approach effectively assumes the degrees to which representation operates in various forms and of party unity (i.e.,  $a$ ,  $b$ , and  $1-a-b$ ) are some country-specific constants to be estimated. Alternatively, one could model  $a$  and  $b$  theoretically as suggested above. Such a project remains for future research, but the discussion hopefully amply illustrates the potential for usefully extending the *effective constituency* concept.

The argument and evidence here suggest further considerations related to *effective constituencies* generally and to the political economy of (re)distributive politics and policy particularly. In Part III, we argued lesser partisan-polarization and greater district- and national-level electoral-competitiveness may affect the relative prominence of distributive politics and spending in a way that depends on the electoral system and its district magnitude. We began to suggest there how one might model such propositions empirically. We now elaborate these arguments and their appropriate embodiment in an empirical-model specification somewhat, stressing aggregate-level electoral-competitiveness, characteristics of the electoral system (see, *e.g.*, Carey and Shugart 1995), and the number and relative importance of various levels of government (national, regional, local, etc.).

Holding constant the number of parties and of electoral districts, and the degrees of party unity, polarization, and district-level electoral-competitiveness; national-level competitiveness likely spurs (re)distributive spending (depending on the electoral system) also. Consider, again, two hypothetical

---

<sup>24</sup> Just as one could replace the one linear weight in the two-bases-of-representation case with logit or probit functions to confine those weights to the unit interval, one could replace the pair of weights in this three-bases case with the corresponding multinomial logit or probit function to confine those weights to the unit simplex.

UK's, alike in all the above respects; assume specifically that the partisan competitors expect a 55-45 split in the next election in each electoral district. In one UK, though, all the 55-45 splits favor Labour, and, in the other UK, half favor Labour and half Tory. The marginal value to the incumbent party of district projects is much greater in the second UK, swinging a few districts being much more critical, and so we should expect greater distributive politics and spending there. The logic is a simple extension of Tufte (1978) and follows directly from Schultz's demonstration of a similar effect—namely that pre-electoral manipulation of transfer payments occurs only to the degree the coming election is expected to be close—in the actual UK (1995). Empirical exploration of this hypothesis, relating it specifically to distributive politics and spending, awaits future research.

Furthermore, Carey and Shugart (1995) summarize the incentives deriving from the electoral system for representatives to cultivate a personal vote, which here would imply greater emphasis on district-oriented distributive politics, by four aspects of the system: (i) party-leader control over the ballot, (ii) vote pooling, (iii) type and number of multiple votes, and (iv) district magnitude.<sup>25</sup> Once again, one can model  $u$  in our *effective-constituency* concept to reflect these arguments directly (see above), and we intend to do so in the future as we extend this project comparatively.

Far from disputing such complicating considerations, we now outline them more formally and completely as intended future research. This paper studied the effects of party unity on representation and spending. However, the broader and far more ambitious project toward which this piece is a first step aims to merge insights from current *macro-political-economics* (as, e.g., compiled in Drazen 2001, Persson and Tabellini 2001, and Grossman and Helpman 2002) with those of *modern comparative democratic theory* (as, e.g., cited throughout this section) to generate theoretical propositions regarding the relative weight in politics and public-policymaking of public-good provision (security, clean air, *etc.*), broadly targeted redistribution (welfare, health, *etc.*), narrowly

---

<sup>25</sup> On the last, see also Long (2002) and the above.

targeted distribution (*pork*), and rent seeking (corruption, graft, stealing). Although we expect the arguments will apply to relative weights in politics and public-policymaking quite generally, almost certainly our primary empirical insights into, and likely our clearest theoretical illustrations of, the shares of public-policy activities in these four spheres will derive from government-budget component-size and composition.

Regarding this *comparative democratic political economy of budgeteering*, we have begun to outline more fully<sup>26</sup> the following view: (i) that the degree to which parties are able to act as strategic units (*strategic party-unity*) should determine the *capacity* of democratic policymakers to *budgeteer*, i.e., to manipulate the budget for political (electoral and partisan) purposes, (ii) that national and district-level electoral competitiveness should determine the *magnitude* of their incentives to *budgeteer*, and (iii) party-system polarization, electoral-system and district magnitude, and the degree to which parties receive their electoral support as units (*representational party-unity*) should determine the *nature* of the *budgeteering* that serves policymakers' goals of gaining and retaining power and of producing their desired policies and outcomes. The combination of capacity and incentive size and nature, therefore, should determine the degree and character of the *budgeteering*—i.e., the relative shares of public-good, partisan-redistributive, geographic-distributive, and rent-seeking activities reflected in public policies—observed across countries over time. Moreover, we believe we can now leverage theory heavily enough to specify an estimable non-linear empirical model of these processes.

Focusing on the relative partisan-redistributive *versus* geographic-distributive character of public policy, our general theory, which adds the *effective constituency* concept to *WSJ's law of 1/n*, offers the empirical model of absolute and/or relative amount of (re)distributive spending, *y*:

---

<sup>26</sup> Almost *most fully*, but we have not yet incorporated the sort of suggestions coming next that refer to how policymaking authority is allocated across different sets of democratic policymakers and their appointees

$$y = \dots + f(u, \rho, e) \cdot d + \{1 - f(u, \rho, e)\} \cdot p + \dots \quad (3)$$

with  $f(\cdot)$ , the relative emphasis on geographic representation and distributive policy depending on strategic and representational aspects of party unity,  $u$ , party-system polarization,  $\rho$ , and electoral imperatives (described below),  $e$ . (Ellipses indicate controls and stochastic components.) In particular, party strategic-unity,  $u_s$ , which determines the *capacity* to budgeteer, should interact with electoral imperatives,  $e$ , party-system polarization,  $\rho$ , and representational party unity,  $u_r$ , which determine the *magnitude and the nature of the incentives* to budgeteer, to determine the relative emphasis in  $y$  of geographic representation and distributive policy, which specifies  $f(\cdot)$  somewhat more explicitly:

$$f(u, \rho, e) = \Phi(\beta_{u_s} u_s + \beta_{\rho} \rho + \beta_e e + \beta_{u_r} u_r + \beta_{u_s e} u_s \cdot e + \beta_{u_s \rho} u_s \cdot \rho + \beta_{u_s u_r} u_s \cdot u_r + \beta_{\rho e} \rho \cdot e + \beta_{\rho u_r} \rho \cdot u_r + \beta_{e u_r} e \cdot u_r) \quad (4)$$

where  $f(\cdot)$ , being a weight, is bound 0-1, which we could assure empirically by specifying it as a logit or cumulative-normal function,  $\Phi(\cdot)$ . Although a linear-interactive specification of  $\Phi(\cdot)$ 's argument assumes the effects of  $u_s$ ,  $e$ ,  $\rho$ , and  $u_r$  depend on each other but not on combinations of each other, the model remains highly interactive and thus, likely, empirically very difficult to estimate. However, our theory suggests more specifically that strategic party-unity,  $u_s$ , determines a *capacity* to *budgeteer*, which suggests that the data may agree that we can constrain  $u_s$  to modify proportionally the impact of the other factors, which determine the *magnitude* and *nature* of the *budgeteering incentive*:

$$f(u, \rho, e) = \Phi\left\{\beta_{u_s1} u_s + (\beta_{\rho} \rho + \beta_e e + \beta_{u_r} u_r) + \beta_{u_s2} u_s \cdot (\beta_{\rho} \rho + \beta_e e + \beta_{u_r} u_r)\right\} \quad (5)$$

which would greatly reduce the estimation demands of this part of the model. The term that recurs in parentheses reflects our model of the magnitude and nature of the incentive to budgeteer. Our theory argues that the strategic (incumbent) party-unity should determine the degree to which the government can act effectively upon that incentive, and  $\hat{\beta}_{u_s2}$  will estimate this degree. In principle  $\hat{\beta}_{u_s1}$

should be zero because the *capacity to budgeteer* is irrelevant if there is no incentive. If the data allow this constraint also, we would have:

$$f(u, \rho, e) = \Phi \left\{ (\beta_\rho \rho + \beta_e e + \beta_u u) + \beta_{ue} u \cdot (\beta_\rho \rho + \beta_e e + \beta_u u) \right\} \quad (6)$$

Next, we unpack the *electoral imperative*,  $e$ , which affects both the magnitude and the nature of *budgeteering* incentives. Policymakers seek some combination of goals: to retain office and to fulfill their policy and outcome objectives. As discussed below, part of the *electoral imperative* involves the relation between aspects of the electoral system and the *nature of budgeteering incentives*, *i.e.*, issues surrounding how the electoral system shapes *how* policymakers might use the budget to pursue these goals. First, though, recall that, as argued, the *magnitude* of policymakers' *budgeteering incentives* depend on the degree of district-level electoral competitiveness,  $ec_d$ , and national-level governmental competitiveness,  $gc_n$ , that they expect. When they expect more competitive districts (*i.e.*, higher  $ec_d$ ), any given degree of *budgeteering* will buy greater increases in their expected probabilities of winning more seats and therefore of attaining greater policy and outcome influence. Likewise, the policy-and-outcome impact of winning a few seats increases with national-level governmental competitiveness (higher  $gc_n$ ); therefore, for any given  $ec_d$ , greater  $gc_n$  sharpens these incentives more and *vice versa*, giving an interactive model of *budgeteering* incentive magnitude, *bim*:

$$bim = \beta_{ec} ec_d + \beta_{gc} gc_n + \beta_{egc} ec_d \cdot gc_n \quad (7)$$

Pushing harder on the theory, notice that, whereas the effect of governmental competitiveness should be zero when district-level competitiveness is zero because policymakers could not *budgeteer* any more seats regardless of their greater desire to do so, the effect of district-level competitiveness need not be zero even when national governmental competitiveness is zero because *budgeteering* could win a few more seats and so pursue policymakers' office-retention if not the policy or outcome goals.

Again, if the data agree, this would allow constraining  $\hat{\beta}_{gc}$  to zero, reducing estimation demands and giving:

$$bim = \beta_{ec} ec_d + \beta_{egc} ec_d \cdot gc_d \quad (8)$$

The *capacity* to react to *budgeteering* incentives,  $\hat{\beta}_{u_i} u_i$ , and the *magnitude* of those incentives, *bim*, should jointly (*i.e.*, multiplicatively) determine the degree of policy response. The *nature* of these incentives, *i.e.*, *how* policymakers will respond to the incentives, in our argument so far is a function electoral system, *es*, party-system polarization,  $\rho$ , and representational party-unity,  $u_r$ . This gives:

$$f(u, \rho, e) = \Phi \left\{ \hat{\beta}_{u_i} \cdot [\beta_{ec} ec_d + \beta_{egc} ec_d \cdot gc_d] + (\beta_{\rho} \rho + \beta_{es} es + \beta_{u_r} u_r) + \hat{\beta}_{u_i} u_i \cdot [\beta_{ec} ec_d + \beta_{egc} ec_d \cdot gc_d] \cdot (\beta_{\rho} \rho + \beta_{es} es + \beta_{u_r} u_r) \right\} \quad (9)$$

Conversely to a point made above,  $\hat{\beta}_{u_i}$  should be zero because the *incentive* to *budgeteer* is irrelevant if there is no *capacity*. If the data support this constraint also, that would leave:

$$f(u, \rho, e) = \Phi \left\{ (\beta_{\rho} \rho + \beta_{es} es + \beta_{u_r} u_r) + \beta_{u_i} u_i \cdot [\beta_{ec} ec_d + \beta_{egc} ec_d \cdot gc_d] \cdot (\beta_{\rho} \rho + \beta_{es} es + \beta_{u_r} u_r) \right\} \quad (10)$$

The term in parentheses is our model of the relative geographic-distributive as opposed to partisan-redistributive *nature* of policymakers' *budgeteering incentives*; the term in brackets is our model of the *magnitude* of these incentives, and  $\hat{\beta}_{u_i} u_i$  is our model of their *capacity* to respond strategically to these incentives.<sup>27</sup> Analogous to previous points, the *nature* of the incentives is irrelevant absent *capacity* or *incentive* to react to them, so perhaps the data will allow us to drop the first term, leaving this model of the weight on geographic-distributive policy relative to partisan-redistributive policy, *i.e.*, on  $d$ , the number of electoral districts, relative to  $p$ , the number of governing parties in shaping the relative mix of these constituencies effectively represented in the budget:

$$f(u, \rho, e) = \Phi \left\{ \beta_{u_i} u_i \cdot [\beta_{ec} ec_d + \beta_{egc} ec_d \cdot gc_d] \cdot (\beta_{\rho} \rho + \beta_{es} es + \beta_{u_r} u_r) \right\} \quad (11)$$

At this point, we can only offer some ideas about how we might, in the future, operationalize, *i.e.*, conceptualize and model further or measure directly, the independent variable-terms of this

<sup>27</sup> Each of these, we should say, are our models *so far*; this being a preliminary sketch of our intentions, and the data not having spoken yet, we reserve the option of extending or otherwise modifying each.

model. Regarding how the electoral system shapes the *nature* of the incentive to *budgeteer*, this should depend primarily on the district magnitude,  $DM$ , in particular, with geographic representation and the manner in which policymakers win by assembling majorities of districts increasing proportionately as district magnitude decreases, suggesting the following, which can be measured directly, as an appropriate characterization of the electoral system for present purposes:

$$es = DM^{-1} \quad (12)$$

Party-system polarization,  $\rho$ , too, can be measured directly, perhaps using data from the Comparative Manifestos Project (Klingemann *et al.* XXXX). Representational party-unity,  $u_r$ , recall, refers to the degree to which candidates (incumbents in particular) compete for and receive votes as a party unit, *i.e.*, by virtue of partisan reputation. This suggests that a sufficient measure would be the coefficient on party-label in an appropriately specified vote-choice equation, which may be obtainable from the Comparative Study of Electoral Systems data. Expected national-level governmental competitiveness,  $gc_n$ , in turn, increases (likely increasingly) as the incumbent-parties' control of policy approaches 50%. Easiest to conceptualize in a pure parliamentary system, this could be operationalized thus:

$$gc_n = \{E(GovtSeatShare) - 0.5\}^{-2} \quad (13)$$

Perhaps a simple ARIMA seat-forecast model might suffice to represent expectations formation here. Similarly, but *much* more tediously, district-level electoral competitiveness,  $ec_d$ , would refer to how close the average competitor in the average party was to gaining representation in a district. For single-member districts, one could apply the previous equation by analogy, replacing the expected government-seat-share with expected (two-party) vote-share, but the concept is more complicated in multi-member districts. There, we would suggest considering, first, how close the average competing party is to gaining another seat, which would be the remainder of the expected vote-share

divided by the district magnitude,  $DM$ , minus  $\frac{1}{2}$ , i.e., essentially, how close to the threshold is the party, then, dampening that measure of competitiveness for *one more* seat according to the share of the seats at stake in the district that one represents, i.e., multiplying by  $DM^l$ . This gives:

$$ec_d = \frac{1}{DM} \sum_j \left\{ remainder \left[ \frac{E(VoteShare_j)}{DM} \right] - \frac{1}{2} \right\}^{-2} \quad (14)$$

Again, we hope a simple ARIMA seat-forecast model will suffice to represent expectations formation.

Finally, consider how we might gauge the degree of party strategic-unity, which determines the *capacity* of policymakers to respond effectively to *budgeteering incentives* whose *magnitude* and *nature* is characterized as modeled and operationalized above. In the first parts of this paper, we used parties' legislative voting unity as a summary statistic for party unity. However, this direct measure is, first, inappropriate in the present context because the strategically effective legislative voting behavior from a party's view may not be to vote with unity. That is, the degree of legislative voting-unity need not reflect the degree to which parties can act how the party as a unit would find optimal. Moreover, second, measures of legislative voting-unity are not practically available in many democracies over much time and, indeed, are inherently unavailable in some over extended periods (such as in Italy, where legislative votes were secret and unrecorded until a 198X legal change). Our approach will be to replace the terms  $u_s$  with an estimable model of strategic party unity:<sup>28</sup>

$$u_s = h(\cdot) \quad (15)$$

For example, Carey and Shugart (1995) argue that party-leadership control over campaign funds, backbencher careers, and the ballot itself (who gets to run, in what districts or where on lists), as well

---

<sup>28</sup> Rather than, or in addition to, the coefficient-from-a-vote-choice-model approach mentioned above, we may also attempt to offer a theoretical model of representational party unity,  $u_r$ . However, empirical (and theoretical and logical) leverage on such an attempt would rest very heavily on the degree to which the models of  $u_s$  and  $u_r$  differ theoretically and empirically.

as various forms of vote pooling, types and numbers of multiple votes, *etc.*,<sup>29,30</sup> shape, in their terms, the incentives for representatives to cultivate a personal vote. In our terms, such factors relate more directly to the degree to which the party can act strategically in its unitary interest. Empirical measures of some of these institutional features of parties and electoral systems are available (*e.g.*, Katz and Mair XXXX, Lijphart XXXX). Embedding them in the proposed, estimable empirical model has the side benefits of (a) offering a measure of a concept,  $u_s$ , that is at least practically difficult and in some cases, and perhaps all cases, inherently unmeasurable, and (b) offering a test, albeit an indirect one, of comparative-democratic theories of the conditions that contribute to this perhaps unmeasurable, but theoretically important, concept. Of course, these side benefits will accrue correctly only to the degree the models from which they derive, *i.e.*, the model of policymaking ( $y=...$ ) and those of strategic (and representational) party unity  $u_s=h(\cdot)$  (and  $u_r=k(\cdot)$ ) are empirically accurate, distinct, powerful.<sup>31</sup>

---

<sup>29</sup> The latter set of factors relate to intra-party competition primarily and, therefore, may perhaps relate more directly to  $u_r$  should the attempt at distinct models of  $u_s$  and  $u_r$  be made.

<sup>30</sup> The other factors that may determine the degree of strategic party-unity may include some variables, such as district magnitude and governmental competitiveness, that enter the overall model elsewhere. We have not decided yet whether including such factors in the embedded model of strategic party-unity is beneficial and feasible.

<sup>31</sup> Virtually all of the arguments and discussion in both parts of this paper relate to representational aspects of democratic politics: how political-economic institutions, structure, and strategic conditions shape the effective representation in public policymaking of geographically or ideologically defined interests. Another part of the broader project, or perhaps a second broad project following it, will study how the allocation of policymaking authority across these representative and their appointees shapes policies and outcomes. Consider, for example, the number and relative importance of various levels of government. In a federal system, *e.g.*, two considerations suggest that decentralization of fiscal decision-making to local governments might mitigate the tendency toward distributive overspending that *WSJ* hypothesized. First, especially if federalism includes transfer of some fiscal authority to sub-national governments, decentralized decision-making may reduce the effective fiscal authorities' ability to externalize the costs of their locally desired spending to larger, aggregate decision-making units (see, *e.g.*, Del Rossi and Inman 1999, Jones and Sanguinetti 2000). At the regional level, the ability to concentrate benefits relative to costs diminishes simply because regions are both smaller geographically and less diverse in the interests they encompass. Second, decentralized fiscal-decision-making may induce a "race to the bottom" as localities compete for investment by lowering taxes (Peterson 1990). *I.e.*, whatever the impact of decentralized fiscal-decision-making on the *I/n* problem, it also introduces a coordination problem among regions that operates toward reducing distributive overspending. However, by reifying region and geography politically, federalism might also raise the salience of local relative to national concerns among the electorate and so among policymakers, which suggests larger pork barrels. Finally, even in unitary systems, one can distinguish between stronger unitary-states where few political decisions occur at the local level and weaker ones where much political activity is local, including some cases considerable revenue-generation. One might well expect the relative weight of distributive politics and, thereby, distributive spending to rise the weaker the central state in this respect. These considerations, and the question of how they interact, remain open issues, but ones again that may be addressed using our theoretical and (proposed) empirical strategy.

Some questions demand answers even at this highly preliminary stage in project development before proceeding. Does what stands to be gained theoretically, empirically, and/or substantively from this project warrant the complexity of the model being constructed? If so, can we compartmentalize that complexity into understandable theoretical components that will travel to other contexts beyond pork-barrel and redistributive spending? That the model we are constructing may offer even a first stage in the development of a single, unified theory of comparative democratic political economy of *budgeteering*, i.e., of the relative shares of public-good provision, redistribution, distribution, and rent seeking in public policymaking seems promise enough to us to warrant further effort. The possibilities to gauge through this approach previously unmeasurable key concepts and to test them alone, even if accomplished only indirectly and conditional upon other theoretical propositions, seem worth some effort. We also believe the conceptualization we are constructing around the model, once compartmentalized to the connected models of policymaking capacity, incentive-magnitude, and incentive nature, is manageable (*i.e.*, comprehensible) and portable across substantive context. Indeed, the book that the second part of the paper presages will construct the broad model through chapters compartmentalized in just this way.

We offer, lastly, a quick glance at some relevant empirics below that suggest empirical leverage may exist and the substantive findings may prove interesting and important. That, too, is crucial even at this stage early stage because, while Franzese (1999, 2002, 2003) found strong empirical leverage for and much theoretical and substantive fruit from econometric models of this sort in monetary policies and outcomes, nothing guarantees any empirical success from such models applied in this different way in so different a context. Our exploratory empirical analysis uses annual, 1962-95, budgetary data from 19 OECD democracies—US, Japan, Germany, France, Italy, UK, Canada, Austria, Belgium, Denmark, Finland, Greece, Ireland, Netherlands, Norway, Portugal, Sweden,

Australia, and New Zealand—giving 566 usable observations. We model, in error-correction format, with country indicators, *Social Benefits and Other Transfers* ( $SB_o$ ), as a reasonably defensible measure of redistributive spending, and *Property Income Paid by Government* ( $PIPG$ ), as a perhaps defensible proxy for distributive spending,<sup>32</sup> each as a share of GDP. These data are from *OECD National Accounts: Volume II, Detailed Tables (2002 online edition)*. The independent variables (all taken from and described in Franzese 2002) include controls for temporal dynamics; government-party polarization and its product with the lagged dependent variable (*veto actors*: see Franzese 2002, ch. 3); government partisanship ( $CoG$ ); election-year indicators ( $ELE$ ); unemployment ( $UE$ ); real GDP growth ( $dY$ ) and levels ( $Y$ : Wagner’s Law); terms of trade ( $ToT$ ), trade openness ( $OPEN$ ), and their product; income inequality ( $RW$ ); and percent of the population aged 65 or older ( $POP65o$ ). The independent variables of interest are the number of governmental parties,  $NoP$ , and the number of electoral districts, natural logged, adjusted district spatial size,  $NED$ . Table 3 gives the key results.

<i>Independent Vars.</i> →	<i>NoP</i>	<i>NED</i>
<i>Dependent Vars.</i> ↓	<b>Full Sample</b>	
<i>Social Benefits (Redist.)</i>	+0.001251 (.000471)	-.001272 (.001313)
<i>Property Inc. Paid (Dist.)</i>	NA	NA
	<b>Strong Geographic Representation/District Emphasis Countries: US, Jap, Fra, UK, Can, IR, Austral, NZ</b>	
<i>Social Benefits (Redist.)</i>	+0.001190 (.000980)	+0.001608 (.002901)
<i>Property Inc. Paid (Dist.)</i>	+8.09e <sup>-5</sup> (.000577)	+0.001577 (.001702)
	<b>Strong Interest Representation/Partisan Emphasis Countries: Ger, Ita, Aus, Bel, Den, Fin, Gre, Neth, Nor, Por, Swe</b>	
<i>Social Benefits (Redist.)</i>	+0.001372 (.000592)	-.002718 (.001552)
<i>Property Inc. Paid (Dist.)</i>	+0.000280 (.000518)	+6.73e <sup>-5</sup> (.000602)

Among democracies whose electoral systems and other aspects tend to foster (our read, considering

<sup>32</sup>  $PIPG$  includes government-debt interest, which, as an indicator of distributive spending, perhaps it should exclude, which is possible.

factors discussed above) geographic representation, the number of districts is positive but insignificant in predicting social benefits and other transfers (redistributive spending), whereas that number is negative and approaches significance among countries whose political systems foster more interest representation. Meanwhile, the number of governmental parties has positive and significant effect on social-benefits/transfers spending in interest-representation countries, but only insignificantly positive effects in geographic-representation countries. Conversely, the number of governing parties has no effect at all on property income paid by government in geographic/district-representation countries while it *may* (highly insignificant, though) have some positive effect in partisan/interest-representation countries. Essentially the opposite holds regarding the number of electoral districts: it may have positive effect, perhaps appreciably so, in geographic/district-representation countries while it more certainly has quite-near zero effect in partisan/interest-representation countries. Although these are certainly not the empirical specifications in mind ultimately for evaluating our theory, this pattern of coefficient magnitude and significance bodes well for the potential of those more-sophisticated specifications.

## V. CONCLUSION

One advantage of our *effective-constituency* concept lies in expanding the theoretical and empirical scope of the *WSJ* logic of  $1/n$  in distributive politics and spending, as shown in the first part of our paper. Beyond that, however, we believe the theoretical and empirical potential of the *effective-constituency* concept extends well beyond this preliminary exposition and evidence to set an interesting, and what we hope is a fruitful, agenda for future research described in the second part.

## REFERENCES

- Achen, C.H. 1978. "Measuring Representation," *American Journal of Political Science*, 22(3): 475-510.
- Alesina, A. and D. Rodrik. 1994. "Distributive Politics and Economic Growth," *Quarterly Journal of Economics*, 109(2): 465-90.
- Alesina, Alberto, Nouriel Roubini, with Gerald D. Cohen. 1997. *Political Cycles and the Macroeconomy*. Cambridge: The MIT Press.
- Bailey, M. and D.W. Brady. 1998. "Heterogeneity and Representation: The Senate and Free Trade," *American Journal of Political Science*, 42 (2, April), pp. 524-44.
- Banfield, E.C. 1958. *The Moral Basis of a Backward Society*. Chicago: Free Press.
- Burke, E. 1896 [1774]. "To the Electors of Bristol." In *Selections from Edmund Burke*, B. Perry, ed. New York: Henry Holt and Company: 26-35.
- Cameron, D. 1978. "The Expansion of the Public Economy: A Comparative Analysis," *American Political Science Review*, 72: 1243-61.
- Castles, F. (ed.) 1982. *The Impact of Parties*. London: Sage.
- Cox, G. and M.D. McCubbins. 1993. *Legislative Leviathan: Party Government in the House*. Berkeley: University of California Press.
- Franzese, R.J. 1999. "Partially Independent Central Banks, Politically Responsive Governments, and Inflation," *American Journal of Political Science*...
- Franzese, R.J. 2002. *Macroeconomic Policies of Developed Democracies*. Cambridge: Cambridge University Press.
- Franzese, R.J. 2003. "Multiple Hands on the Wheel: Empirically Modeling Partial Delegation and Shared Monetary-Policy Control in the Open and Institutionalized Economy." In review.
- Hibbs, D. 1977. "Political Parties and Macroeconomic Policy," *American Political Science Review*, 71: 1467-87.
- Jackson, J.E. and D. King. 1989. "Public Goods, Private Interests, and Representation," *American Political Science Review*, 83(4): 1143-64.
- Korpi, W. 1980. "Social Policy and Distributional Conflict in the Capitalist Democracies," *West European Politics*, 3.
- Krehbiel, K. 1993. "Where's the Party?" *British Journal of Political Science*, 23(2): 235-66.
- Lane, J-E., D. McKay, and K. Newton. 1991. *Political Data Handbook: OECD Countries*, New York: Oxford UP.
- Luebbert, G. *Comparative Democracy: Policy Making and Governing Coalitions in Europe and Israel*. New York: Columbia UP.
- Mackie, T. and R. Rose. 1991. *The International Almanac of Electoral History*. DC: Congressional Quarterly.
- Miller, W.E., and D. Stokes. 1963. "Constituency Influence in Congress," *American Political Science*

*Review*, 57(1):45-56.

- Peterson, P. E. 1990. *Welfare Magnets: A New Case for a National Standard*. Washington, D.C.: Brookings Institution.
- Pitkin, H.F. 1969. "The Concept of Representation." In *Representation*, H. Pitkin, ed. New York: Atherton Press: 1-23.
- Riker, W. 1962. *The Theory of Political Coalitions*. New Haven: Yale University Press
- Rivers, D. and K. Krehbiel. 1990. "Sophisticated Voting in the House: A Reconsideration," *The Journal of Politics*, 52(2): 548-578.
- Rose, R. 1986. *Politics in England: Persistence and Change*. Boston: Little, Brown, and Company.
- Schmidt, S.W., J.C. Scott, C. Lande, and L. Guasti, eds. 1977. *Friends, Followers, and Factions: A Reader in Political Clientelism*. Berkeley: University of California Press.
- Schultz, K. 1995. "The Politics of the Political Business Cycle," *British Journal of Political Science*, 25(1):79-100.
- Sharpe, L.J. 1988. "The Growth and Decentralization of the Modern Democratic State," *European Journal of Political Research* 16:365-80.
- Southwick, Jr., L. 1997. "Local Government Spending and At-Large Versus District Representation: Do Wards Result in More 'Pork'?" *Economics and Politics*, 9 (2):173-203.
- Spotts, F. and T. Weiser. 1986. *Italy: A Difficult Democracy*. Cambridge: Cambridge UP.
- Stein, R.M. and K.N. Bickers. 1995. *Perpetuating the Pork Barrel: Policy Subsystems and American Democracy*. Cambridge University Press.
- Strom, K. 1990. *Minority Government and Majority Rule*. Cambridge: Cambridge UP.
- Tufte, E. 1978. *Political Control of the Economy*. Princeton: Princeton UP.
- Weingast, B.R., K.A. Shepsle, and C. Johnsen. 1981. "The Political Economy of Benefits and Costs: A Neoclassical Approach to Distributive Politics," *Journal of Political Economy*, 89(41):642-64.
- Weissberg, R. 1978. "Collective versus Dyadic Representation in Congress," *American Political Science Review*, 72(2):536-47.
- Zuckerman, A.S. 1989. "Bases of Political Cohesion: Applying and Reconstructing Crumbling Theories," *Comparative Politics*, 21(2):473-95.