Capture and Governance at Local and National Levels

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The literature on public choice and political economy is characterized by numerous theoretical analyses of capture of the democratic process by special-interest groups. It is surprising, therefore, that this literature rarely addresses the question of relative capture at central and local levels of government. Yet there are some common presumptions on this matter in the general realm of public discussion, going back to Alexander Hamilton, James Madison, and John Jay (1787 [1937 pp. 62–70]) in the *Federalist Papers* (No. 10). This view is that the lower the level of government, the greater is the extent of capture by vested interests, and the less protected minorities and the poor tend to be. In the United States, this has been quite common in the discussion of the need for federal intervention in the protection of minorities in the Civil Rights years, or of the putative regressive consequences of the movement in favor of "states' rights." It is central to discussions of decentralized mechanisms of "community targeting" in developing countries, in which responsibility for composition and delivery of public services and identification of local beneficiaries is transferred to local governments. If the conventional presumption is correct, the advantage of decentralizing delivery mechanisms to local governments with access to superior local information would be compromised by greater capture of these programs by local elites. The case for such forms of decentralization would then depend on the resulting trade-off between these two effects.[1]

Despite the importance of this issue, not much systematic research appears to have been devoted to assessing the relative susceptibility of national and local governments to interest-group capture.[2] Here we describe a model of two-party electoral competition with "probabilistic" voting behavior and lobbying by special-interest groups based on David Baron (1994) and Gene Grossman and Elhanan Helpman (1996) that helps identify determinants of relative capture at different levels of government.[3] These include relative levels of voter awareness and interest-group cohesiveness, electoral uncertainty, electoral competition, heterogeneity of districts with respect to inequality, and the electoral system. While some of these uphold the traditional Madisonian presumption, others are likely to create a tendency for lower capture at the local level, so the net effect is theoretically ambiguous. This suggests that the extent of relative capture may be context-specific and needs to be assessed empirically.

I. The Model

We briefly set out the features of our extension of the Baron-Grossman-Helpman model. There are n districts each with an identical number of voters, divided into three classes: poor (p), middle-income (m) and rich (r). Districts differ in demographic composition across the three classes: the proportion of the population of

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[1] Jonathan Conning and Michael Kevane (1999) describe numerous community targeting mechanisms that have been adopted in developing countries. Bardhan (1996) provides an overview of the relevant range of considerations in evaluating these mechanisms, while Paul Seabright (1996) and Bardhan and Mookherjee (1998) present related theoretical models.

[2] Emmanuela Galasso and Martin Ravallion (1999) study targeting failures in a schooling program in Bangladesh and find that these failures were less severe at the local level. Recent voter surveys in India also provide data concerning levels of voter trust in different levels of government, as described in Subrata Mitra (1996), which do not provide evidence in favor of greater capture at the local level.

[3] Further details of this model are available in our working paper (Bardhan and Mookherjee, 1999).

district i are denoted by β_p^i, β_m^i, and $\beta_r^i = 1 - \beta_p^i - \beta_m^i$, respectively. A fraction α_c of voters in class c is *informed*, or politically aware, and vote for different parties partly on the basis of the levels of welfare they expect to achieve under their respective policies. Political awareness is closely related to socioeconomic position and education level, so $\alpha_r \geq \alpha_m > \alpha_p$.[4] An increase in the fraction of the population that is poor will accordingly imply a lower fraction of informed voters in the population as a whole. This will also be the result of increased inequality in general if political awareness is a "concave" function of economic position, in the sense that $\alpha_r - \alpha_m \leq \alpha_m - \alpha_p$.[5]

The welfare level of any member of class $c = p, m, r$ is a function $U_c(\pi)$ of policy π. There are two parties, denoted A and B, selecting policy platforms π^A, π^B, respectively. Informed voter j in district i votes for party A if

$$(1) \quad U_{c(j)}(\pi^A) - U_{c(j)}(\pi^B) + a + a_i + \varepsilon_{ij} \geq 0$$

where $c(j)$ denotes the class that voter j belongs to. Voter loyalty to party A is the sum of three independent random components: a nationwide preference a, a zero-mean district-specific preference a_i, and a voter-specific preference ε_{ij} which is uniformly distributed within each district on the range $[-1/2f, 1/2f]$, where $f > 0$ is small. Uninformed voters are swayed by campaign spending C_i^A, C_i^B of the two parties: an uninformed voter j will vote for party A as long as

$$(2) \quad h[C_i^A - C_i^B] + a + a_i + \varepsilon_{ij} \geq 0$$

where $h > 0$ is an exogenous parameter.

In the Downsian tradition, parties announce policies prior to the election and are assumed to commit credibly to these once elected. There is a single organized lobby, composed only of the rich.[6] An exogenous fraction ℓ of the set of rich citizens in the district actively contribute financially to the lobby, while the remaining members of this class free-ride on the contributors. The lobby contributes to the campaign finances of the two parties, conditional on their policy platforms. Given these contribution strategies, each party selects a policy to maximize its probability of winning the election.

Consider first an election to a local government in a given district i. Standard arguments can be employed to show that party k has a dominant strategy to maximize the objective function $V^i(\pi^k, C_i^k) \equiv W_I^i(\pi^k) + \chi_i C_i^k$, where $W_I^i(\pi^k)$ denotes the average welfare of informed voters,

$$\beta_p^i \alpha_p U_p(\pi^k) + \beta_m^i \alpha_m U_m(\pi^k) + \beta_r^i \alpha_r U_r(\pi^k) \qquad k = A,B$$

and χ_i denotes $h\{1 - \beta_r^i \alpha_r - \beta_m^i \alpha_m - \beta_p^i \alpha_p\}$, the effectiveness of campaign spending in winning voter support. Moreover, the equilibrium policy choice π^k of party $k = A, B$ maximizes

$$(3) \quad V^{ik} \equiv \beta_p^i \alpha_p U_p(\pi^k) + \beta_m^i \alpha_m U_m(\pi^k) + \beta_r^i \{\alpha_r + \ell \chi_i G_i^k\} U_r(\pi^k)$$

treating G_i^k, the equilibrium probability of party k winning, as parametrically given.

The implicit welfare weights in expression (3) neatly summarize the effects of the political system. In the case where all voters are informed, $\alpha_c = 1$, all c; $\chi_i = 0$; and (3) reduces to the expression for average (utilitarian) welfare. Policy biases arise from the existence of uninformed voters. Specifically, the model identifies a number of determinants of capture:

(i) *Lack of effective electoral competition*, resulting from loyalty biases in favor of one party, represented by a higher win probability for the favored party;
(ii) *Electoral uncertainty*, represented by the variability of voter loyalties (i.e., the riskiness of the swing factor $a + a_i$), which also affects the equilibrium win probability;

[4] Michael Delli Carpini and Scott Keeter (1996 Ch. 4) present significant empirical evidence in support of this assumption for the United States.

[5] This assumption is also consistent with the results reported in Delli Carpini and Keeter (1996 [table 4.9 and figs. 4.1 and 4.2]).

[6] Steven Rosenstone and John Hansen (1993 table 8-2) present evidence that the propensity to contribute money, attend meetings, and work on campaigns increases sharply with family income in the United States between 1952 and 1988.

(iii) *Interest-group cohesiveness,* represented by ℓ, the fraction of the class of rich citizens who contribute to their lobby;

(iv) *Average level of political awareness,* represented by the parameter χ_i, which is increasing in the fraction of uninformed voters in the district; and

(v) *Disparity in awareness levels across classes,* represented by the fractions of voters α_c in different classes who are informed.

The last two factors explain why capture increases with illiteracy, poverty, and inequality.

Turn now to electoral competition at the level of the national government. Suppose that the policy space is the same as at the local level. Moreover, assume that owing to reasons of horizontal equity, or to the lack of suitable information regarding differences across districts, national governments are constrained to select the same policy across all districts (i.e., $\pi_i^k = \pi^k$, all i). With decentralization to local governments, this constraint no longer operates, allowing greater "flexibility" with respect to local conditions.

In a majoritarian system of national elections, party objectives turn out to be simple aggregate versions of their objectives in local elections, under certain supplementary assumptions. These include either a single nationwide voting district or election of representatives from each district on a "first-past-the-post" system to a national assembly, with the party gaining a majority in the assembly forming the national government. Specifically, in the latter case suppose that there is a finite number of *types* of districts $i = 1, 2,...,$ where different districts of the same type are *ex ante* homogenous with respect to party loyalties: loyalty toward party A in district d of type i is given by $a + a_i + a_d$, where a_d has an independently and identically distributed uniform distribution on the range $[-1/2m, 1/2m]$. Then, with a large enough number of districts within each type to permit application of the law of large numbers, the overall fraction of all assembly seats won by party A equals $\frac{1}{2} + m[a + \Sigma_i \gamma_i a_i + \Sigma_i \gamma_i \{V^{iA} - V^{iB}\}]$, where γ_i denotes the fraction of districts of type i in the country. The objective of party k will be to maximize $\bar{V}^k \equiv \Sigma_i \gamma_i V^{ik}$, which aggregates its objective in local elections across the districts. A characterization of equilibrium policy platforms analogous to that at the local level can then be derived, thus allowing comparisons of the extent of policy biases at the two levels.

Such simple expressions do not obtain in other electoral systems at the national level, such as proportional representation, or power-sharing between multiple parties as manifested in coalition governments or separation of powers between executive and legislative branches. The consequences of this will be noted below in Section III.

II. Basic Results

We first provide a benchmark case under which the outcomes of national and local elections exactly coincide. Suppose that (i) all districts are *ex ante* as well as *ex post* identical; in particular, they have the same socioeconomic composition, and the swings in different districts are perfectly correlated; (ii) national elections are majoritarian; (iii) the same proportion of voters in any given class are informed in local and national elections; and (iv) the rich are equally well-organized at the national and local levels. Then the outcome of local and (majoritarian) national elections will exactly coincide, in terms of policy platforms, campaign spending, and winning probabilities. This result follows directly from expressions obtained above for the objectives of the parties in elections at the two levels.

Now suppose that assumptions (iii) and (iv) are modified: voters are better informed at the national level (owing to greater media attention), or the rich are less well-organized at the national level (owing to greater size and heterogeneity of the group, or larger communication and coordination costs). Then, assuming conditions (i) and (ii) continue to hold, there will be more capture at the local level. In particular, the dropping of assumption (iv) echoes exactly the Madisonian argument. In order to identify other determinants of relative capture, we therefore subsequently assume that (iii) and (iv) hold.

Consider, for instance, possible differences in the nature of electoral competition at national and local elections. Suppose that two parties contest both national and local elections, and independent district-specific swings may exist but are drawn from the same distribution across all districts. Moreover, the districts have the

same socioeconomic composition, so they are *ex ante* homogenous. The existence of district-specific swings implies that electoral uncertainty is greater at the local level in the sense of a mean-preserving increase in spread of the swing factor. Under a regularity condition on its distribution (satisfied by a wide class of distributions, including uniform and normal distributions), this turns out to imply less capture of the dominant party at the local level. The essential reason is that the dominant party A is less likely to win at the local level, reducing the incentive of the lobby to contribute to its campaign funds.

The preceding result relies on the assumption that the districts are *ex ante* homogeneous in all respects. Suppose instead that there are two types of districts, with sharply opposing party loyalties. Voters in the first type of district exhibit a marked preference for party A, while those in the second type favor B strongly. Local elections within these two types of districts will result in very uneven competition, with the contest being heavily weighted in favor of the locally favored party. The level of capture of local government will be high in both districts. If at the national level there are equal numbers of the two types of districts, the electoral competition will be substantially more even, and the outcome less certain. Then there will be less capture at the national level.

Another source of differential capture may be differences in the number of competing parties at the national and local levels. This may result from higher political stakes in national elections, or from interdistrict disparities in the strengths of different parties. It is frequently the case that local elections involve a contest between two parties, but different party pairs compete in different districts, with all parties competing at the national level. In such contexts, examples can be constructed where there is greater capture at the local level, resulting again from the stronger incentive of the lobby to contribute to campaign funds of the locally favored party.

III. Extensions

We return now to a two-party system at both levels, but where districts vary with respect to inequality. This tends to increase capture in high-inequality districts, owing to the higher fraction of uninformed voters in such districts, creating disparities in the effectiveness of campaign funds across districts. These disparities also imply that in a national election parties will bias the allocation of campaign spending in favor of high-inequality districts. Given a per-district campaign budget of C^k in the national election, party k's electoral strategy consists of a platform π^k and an allocation of campaign spending across districts C_i^k to maximize $\sum_i \gamma_i [W_1^i(\pi^k) + \chi_i C_i^k]$, subject to the budget constraint $\sum_i \gamma_i C_i^k \leq C^k$. Parties will concentrate their entire spending on district type h with the greatest inequality: $C_h^k = (1/\gamma_h)C^k$, and zero in all other districts. The additional premium placed on the interests of the rich in expression (3) as a result of lobbying will be χ_h at the national level, compared with χ_i at the local level. In this case capture at the national level equals the highest level of capture across all local governments. The intuitive reason is that, in a national campaign, the fungibility of election funds implies that they can be deployed more effectively than in local elections. This raises the value of campaign finance in a national election, allowing lobbies to purchase influence at a "cheaper" price. This conclusion is modified in the case of diminishing returns (in terms of support of uninformed voters) to campaign spending. In that case parties spend a larger fraction (rather than all) of their funds in districts with high inequality. The net outcome is that the national government is captured less than local governments in the highest-inequality districts, but more than local governments in the low-inequality districts. In this more realistic scenario, decentralization will tend to raise capture in high-inequality districts and lower it in low-inequality districts.

Finally, consider the implications of non-majoritarian national elections, in a setting with homogenous districts. Suppose the two parties share power in a coalition national government based on their relative strengths in the national assembly, with every district electing one representative to the legislature on the basis of majority voting. Assume that the policy space is an interval of the real line, and the actual policy that emerges in the coalition national government is a convex combination of the policy platforms of the two parties, with weights equal to relative strengths of

the two parties in the legislature. In addition suppose that each class has a single-peaked, strictly concave utility function over the policy space, and the ideal points p_c of the three classes $c = \text{p, m, r}$ are ordered: $p_r < p_m < p_p$, as in the case of a welfare program financed by income or property taxes. In this case, equilibrium policy platforms diverge more at the national level than at the local level, but the resulting policy of the national government is less subject to capture by the rich than the majority of local governments, where the dominant party wins. Similar to the case of heterogenous inequality, the level of capture at the national level is intermediate between the range of levels of capture of different local governments.

IV. Conclusion

In summary, the relative proneness to capture of local governments depends on a multitude of diverse factors. Some of these provide support to the Madisonian presumption in favor of greater capture at the local level, such as greater cohesiveness of interest groups and higher levels of voter ignorance at the local level. But we also identify a number of other determinants of capture which pull in different directions. These include the relative extent of electoral competition, electoral uncertainty, and the value of campaign funds in local vis-à-vis national elections. Other relevant factors include heterogeneity among local districts with respect to intra-district inequality, and different electoral systems at the two levels. The contrasting roles of these diverse factors suggest that the extent of relative capture at the local level may well turn out to be context- and system-specific. This creates the need for empirical research to identify the nature of relative capture in any given setting, in order to appraise the potential pitfalls of decentralization. We hope that our analysis will provide a useful framework for such empirical work.

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