The Shifting Political Economy of Redistribution in the Indian Federation

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Preliminary Draft
September 17, 2004

Paper prepared for the Annual Meeting of the
International Society for New Institutional Economics
Tucson, AZ
September 30-October 3, 2004

In the ideal world of welfare economics, grants from central to state and local governments serve to enhance social welfare by internalizing externalities and combating inter-regional income inequality. In the imperfect world of political economy, intergovernmental grants are tools used by career-oriented public officials to pursue political agendas. The recent literature on the distribution of intergovernmental grants mirrors Voltaire's famous response to Leibniz, pointing out that we live in far from the most efficient of all worlds. Grants rarely resemble the prescriptions of fiscal federalism textbooks. When revenue is generated through general taxation and distributed through democratic procedures to localities that correspond to electoral districts, the temptation to use grants to reward supporters, persuade new ones, or assemble winning legislative coalitions is often irresistible. The efficient provision of collective goods like infrastructure and goals like poverty reduction emerge, if at all, as mere by-products of the game of distributive politics.

This insight is the inspiration for an emerging political economy literature that focuses squarely on political rather than efficiency-oriented explanations for the geographic distribution of intergovernmental grants within countries. One approach assumes a winner-take-all, two-party system and theorizes about the incentives of a unitary incumbent executive with firm control over the budget. Depending upon the assumptions built into theoretical models, incumbents reward regions that have provided support in the past (Cox and McCubbins 1986), attempt to "punish" localities that vote for the opposition (Parikh and Weingast 2003), or to target districts with a large concentration of "swing" voters (Lindbeck and Weibull 1987, 1993; Dixit and Londregan

1996, 1998). A related approach considers the partisanship of the recipient jurisdictions (Dasgupta, Dhillon, and Dutta 2001, Khemani 2003), focusing on the central executive's incentives to claim full credit for centrally-funded projects. An alternative approach drops the assumption of a unitary executive and views the distribution of grants as the outcome of legislative bargaining between the executive and legislature, or between members of a coalition government (e.g. Baron and Ferejohn 1989, Rodden and Arretche 2004).

The empirical studies spawned by this literature have taken the tone of "horseraces" between competing theories (Ansolabehere and Snyder 2002, Dahlberg and Johansson 2002, Rao and Singh 2000, Dasgupta, Dhillon, and Dutta 2001). This approach seems to imply that universal truths about distributive politics can be gleaned from studying a single country over a relatively short time period. Yet given the strong role played by starting assumptions in generating theoretical results and the vastly different institutional structures in place in democracies around the world, it is not surprising that the emerging empirical literature is producing dissonant results. On the whole, it is not yet clear that the nascent political economy literature is better able to explain the distribution of intergovernmental grants than the normative literature that preceded it.

In order to aggregate into a useful body of knowledge, the next step in this literature is to link theories of distributive politics more firmly with specific institutional incentive structures across countries. For instance, theories based on legislative bargaining might explain more cross-state variation in presidential systems with weak party discipline or in parliamentary systems with frequent coalition government, while theories positing a strategic unitary executive might be more appropriate in British-style Westminster systems.

Perhaps an even better approach, given the difficulties of making valid cross-country comparisons of this sort, is to examine one country that has gone through profound changes over time. The starting point for this paper is the observation that the nature of legislative and electoral politics has changed dramatically in India since independence. For most of the period from 1952 to 1989, the Indian National Congress was a dominant party with an overwhelming majority –typically 2/3 or more of the seats—in the national legislature, the *Lok Sabha* (House of the People). Since 1989, however, India has been governed by a succession of multi-party governments and since 1996 neither of the two major parties, the BJP or Congress, has been able to win more than 34% of seats directly. Pre-election alliances and post-election deals with as many as 20 other regional parties (i.e. parties whose strength is in one or two states) have therefore become necessary to win and hold power.[1] In the most recent May 2004 election for instance the Congress won only 27% of seats directly (41% with its pre-election allies) and the BJP 25% (35% including its allies). As the largest party, the Congress was then asked by the President to try to form a government, which it was able to do by cutting various deals with smaller parties such as Bihar's RJD and the Communists to give it the extra 10% of the vote it needed for a stable majority.[2]

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[1] Such regional parties include the DMK and AIADMK in the state of Tamil Nadu (a state that has 39 seats in the Lok Sabha), the Telegu Desam Party in Andhra Pradesh (42 seats), the Trinamool Congress in West Bengal (42 seats), the SAD in Punjab (13 seats) BJD in Orissa (21 seats), the RJD in Bihar (40 seats), and the Samajwadi Party and Bahujan Samaj Party in Uttar Pradesh (80 seats). The Communists claim national status but are strong only in the three states of Tripura (which has only 2 seats in parliament), Kerala (20 seats) and West Bengal.

[2] For details on the 2004 results see the CSDS study on "How India Voted," *The Hindu* Thursday May 20, 2004.

The central proposition of this paper is that this shift in the basic structure of Indian politics –from dominant party to coalition bargaining—is also associated with a shift in patterns of distributive politics. More specifically, we argue that theories assuming a strategic unitary executive are well suited to explain the incentives facing Congress Party ministers during the era of Congress dominance, but the period of coalition governments since 1996 is best addressed with theories of legislative bargaining.

This is not the first empirical study of distributive politics in India. Previous papers (Dasgupta, Dhillon and Dutta 2001, Rao and Singh 2000, Khemani 2003) have addressed this issue, but since they do not include data for the last decade, they treat the issue of coalition governments—the Janata coalition in the 1970s and the Congress coalition of the early 1990s— as annoyances. In contrast, this paper includes data up to 2003 and asserts that the basic game of distributive politics has changed. Our results for the period of Congress dominance before the 1990s are broadly consistent with earlier studies, with some caveats owing to what we believe is a more appropriate data set. However, since 1996, though the number of observations is small and our analysis remains incomplete, we find quantitative and qualitative evidence of coalition bargaining driving distributive politics.

The first section reviews the relevant theoretical literature, focusing on observable implications. The second section tailors these theories to the Indian context, arguing that the assumptions of two contrasting approaches are appropriate for different periods of recent Indian political history. The third section presents the empirical analysis, the fourth section discusses the findings and links them to qualitative evidence, and the final section discusses implications and offers conclusions.

I. The political economy of pork

UNITARY EXECUTIVES

The emerging empirical literature on the distribution of intergovernmental transfers draws on a broader theory literature that links the positions of office-seeking candidates, voters' preferences, and the provision of broad-based versus "pork-barrel" expenditures. This literature differentiates between "ideological" or "identity" issues— like the appropriate role of government in conducting broad redistribution or risk-sharing, gun control or abortion, even religion and ethnicity—and the provision of targeted, tactical redistribution to specific groups. Candidates seek support by offering a mix of positions on ideological or identity issues and direct attempts to bestow patronage or pecuniary benefits on specific groups in exchange for their support. Theories with clear predictions about the latter type of "distributive politics" are attractive to empirical scholars interested in explaining the distribution of intergovernmental grants from higher to lower-level governments. Intergovernmental grants are resources raised by the central government through general taxation, and when the central executive maintains discretion over geographic distribution of these resources, they can be used to bolster the reelection chances of incumbents.

The central preoccupation in this literature is a framework with two competing parties or candidates and a notion that they divide their constituencies into essentially three groups: core supporters, enemies, and swing voters. Core supporters are not necessarily drawn to the candidate's ideological position. Rather, the candidate has developed an advantage, perhaps through past investment, in swaying the voters of the core group with particularistic benefits (e.g. the Chicago political machine in the early 20th century and its Irish supporters). Enemies are groups in which the other party or candidate has developed a similar advantage. Swing voters have developed lasting connections to neither party, and might be for rent in any election (e.g. farmers in many countries). The impetus for much of this literature is the observation that politicians sometimes appear to "take care of their own"—as in big-city American machine politics in the first half of the 20th century—and in other contexts they appear to target redistributive benefits at "swing voters" rather than core supporters.

The starting point is a model presented by Cox and McCubbins (1986), where candidates compete by promising direct redistributions of welfare among the various groups in their constituency. The central insight is that candidates' attitudes toward risk affect the type of coalition they attempt to build, and hence the nature of distributive politics. Risk-averse incumbents tend to invest most heavily in their closest supporters, and as a result, a stable "machine" can emerge. In a scenario where candidates must accept risk, the model has no clean prediction differentiating core and swing voters, arguing merely that the core constituency of the opposition will be disfavored.

Dixit and Londregan (1996), building on an insight from Lindbeck and Weibull (1987), introduce ideological or identity-based "affinities" for parties, and view voters as willing to compromise their party affinities in exchange for particularistic benefits. Swing groups, in this model, are those with a large number of political moderates who are indifferent between the ideological positions of the parties and have not developed traditional loyalties, and hence are more likely to change their votes based on particularistic benefits. Whether candidates face incentives to favor "core supporters" or "swing groups" depends on whether the parties have developed special skills or abilities in catering to specific groups. If not, both parties will aggressively court the swing groups. But if parties have developed advantages in the technology of catering to the needs of specific communities, they will face incentives to target these communities, leading to something like the Cox & McCubbins "machine" distribution.

Recent empirical papers on intergovernmental grants have glossed over some of the subtlety in these models and simply attribute to Cox and McCubbins (1986) the prediction that "core supporters" of incumbents will always benefit disproportionately, and to Dixit and Londregan (1996) or Lindbeck and Weibull (1987) the "swing group" hypothesis. Yet the Cox and McCubbins "machine" result hinges on risk-aversion, which is rather difficult to quantify. Moreover, in the Dixit and Londregan (1996) model, the difference between the "swing" and "core support" prediction is a question of whether politicians have developed special knowledge of a specific community through past interaction. For empirical researchers this introduces a rather perplexing circularity: in effect, candidates have incentives to favor core supporters if they have made past investments in creating such a group.

In short, the theory literature provides very little guidance about the real world conditions under which incumbents should be expected to favor core supporters or swing groups. Moreover, the notion of "core support" is very difficult to measure. Nevertheless, recent empirical papers attempt to test these models using data on the geographic distribution of intergovernmental transfers across districts, pitting variables capturing the strength of support for the incumbent in each district in the past—a rather poor proxy for designating a district as a "core supporter," against variables capturing either the closeness of recent elections or the concentration of ideological moderates in the district—conceived as proxies for "swing districts." The emerging empirical literature provides spotty evidence in favor of one proposition or the other (cites).

A clearer proposition has emerged about the partisanship of subnational governments. Dasgupta, Dhillon and Dutta (2001) and Khemani (2003) present models that focus on a problem that arises when the recipient district is actually a semi-autonomous, separately elected entity with some discretion over how resources from the central government are spent. Whether the central government has incentives to target swing states or core support states, its incentives are to avoid transfers to states where the opposition party controls the government, and hence can move the resources to its core supporters or claim credit among swing voters. Focusing largely on the period of Congress dominance in India, these papers discover that other things equal, states sharing the partisan affiliation of the central government receive larger transfers.

LEGISLATIVE BARGAINING AND COALITIONS

A common thread running through the applications of each of these theoretical perspectives is the assumption that the central government is a unitary actor with firm control over the budget. Each implicitly assumes that the executive is unencumbered by the need to obtain the approval of members of the legislature, and can target transfers according to his or her tactical needs. Yet this is rarely the case in practice. Often the executive is beholden to a support coalition in the legislature. Even in a Westminster-style system with single member districts, a two-party system, and a firm majority for one party, the needs of back-benchers cannot be completely ignored. More importantly, in a two-party presidential system with weak party discipline like the United States, the chief executive must often struggle to put together a voting coalition, even among co-partisans. In a multi-party presidential system like Brazil, the challenge of assembling and holding together a stable voting coalition is even more challenging. In these contexts, pork-barrel expenditure projects and access to patronage can be extremely useful for the chief executive. Thus the empirical expectation is that the chief executive favors members of her legislative coalition (Rodden and Arretche 2004). Intergovernmental grants can be the glue that holds the coalition together.

More relevant for this paper is the possibility of multi-party coalitions in the context of parliamentary democracy. One party is charged with the task of forming a legislative coalition, and the distribution of particularistic benefits is an important way of attracting parties to the coalition and holding it together (Baron and Ferejohn 1989). If the parties have different geographic bases of support, this can have important implications for the distribution of discretionary intergovernmental grants. Pivotal parties with the ability to bring down the coalition and relatively few reservations about doing so are especially well positioned to extract transfers.

For the most part, the role of coalition-building in the legislature has been ignored in the burgeoning literature on the distribution of grants, which focuses primarily on contrasting core support and swing regions. Yet there is a literature on the allocation of portfolios and offices in the context of coalition governments that may have useful, unexplored implications for the allocation of grants. The basic idea is that a formateur proposes a coalition, and attracts coalition members by offering them valuable portfolios.[3] One can easily extend this approach to the allocation of valuable discretionary funds that each party can use to bolster its reelection chances. Gamson (1961) and a host of additional studies (e.g. Schofield and Laver 1985, Warwick and Druckman 2001) support the notion that parties seeking to form a coalition government would each demand a share of portfolios proportional to the amount of resources—seats in the assembly—they bring to the table. Yet Baron and Ferejohn (1989) present a model in which the formateur is able to secure a larger share than the other coalition members. Another view is that a party's payoff should be greater when it can pivot between more alternative minimum winning coalitions (Schofield 1976, Ansolabehere et al. 2004).

Our suspicion is that legislative bargaining is often critical—perhaps even when the executive's party controls the legislature, but almost certainly in the context of coalition government, especially when the coalition partners have regional bases of support. In any event, the existing theory literature does not allow empirical scholars to approach data with the notion of testing one universal political economy theory of grant distribution against another. Rather, empirical hypotheses must be tailored to the institutional environment of each country. Moreover, the remainder of this paper argues that the driving forces behind distributive politics can change within one country over time.

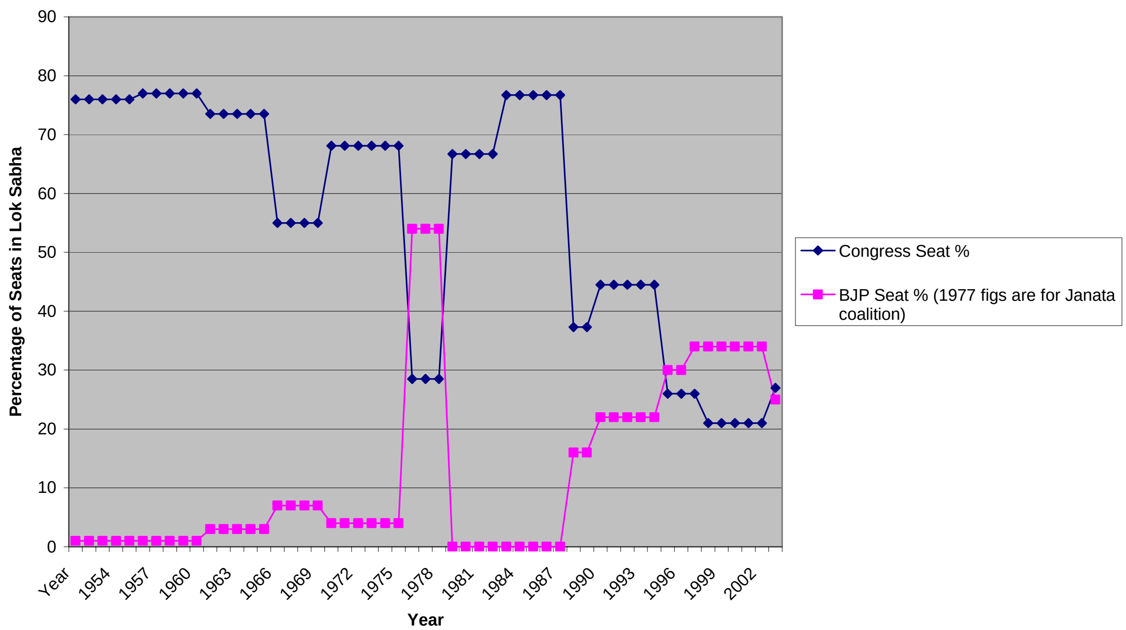
II. Changing Incentives for Fiscal Transfers in India

[3] For literature reviews, see Ansolabehere et al. 2004, Carroll, Cox, and Pachon (2004).

The central proposition of this paper is that India has rapidly shifted from a system that was virtually a classic case for either the “machine” or “swing-state” models described above, to an ideal case for the legislative bargaining framework. For much of Indian history since independence, a dominant party presided over a disciplined legislature supermajority and wielded considerable discretion over the geographic distribution of federal largesse. Yet in recent years, a dominant Congress party has been replaced by fractious coalitions in which small parties with distinctive regional support bases prop up larger parties in rather explicit attempts to extract resources. Rather than using resources to further its own reelection chances, we hypothesize that cabinet ministers must expend valuable resources to hold their coalitions together.

For the three decades prior to 1989 India was clearly a “dominant party system.” As we can see in Figure 1, which shows the percentage of seats controlled by the Congress (and BJP) from 1952-2004, from 1952-1989 Congress dominated parliament from 1952-1989, typically controlling 65% or more of the seats in parliament. There were only two exceptions to this dominance. First, in the late 1960s, there was a serious split in the Congress Party between Jawaharlal Nehru’s daughter Indira and more established party figures which created a real divide between the Congress government at the Center (controlled by Mrs. Gandhi) and the Congress government in many states. The second exception to Congress dominance was the 1977-1979 Janata coalition; an unstable and heterogenous group of parties that won a hastily called election after Indira Gandhi lifted her 18 months of emergency rule in 1977.

Figure 1.
From Congress Dominance to Permanent Coalitions: Congress versus BJP share of seats in the Lok Sabha 1952-2004

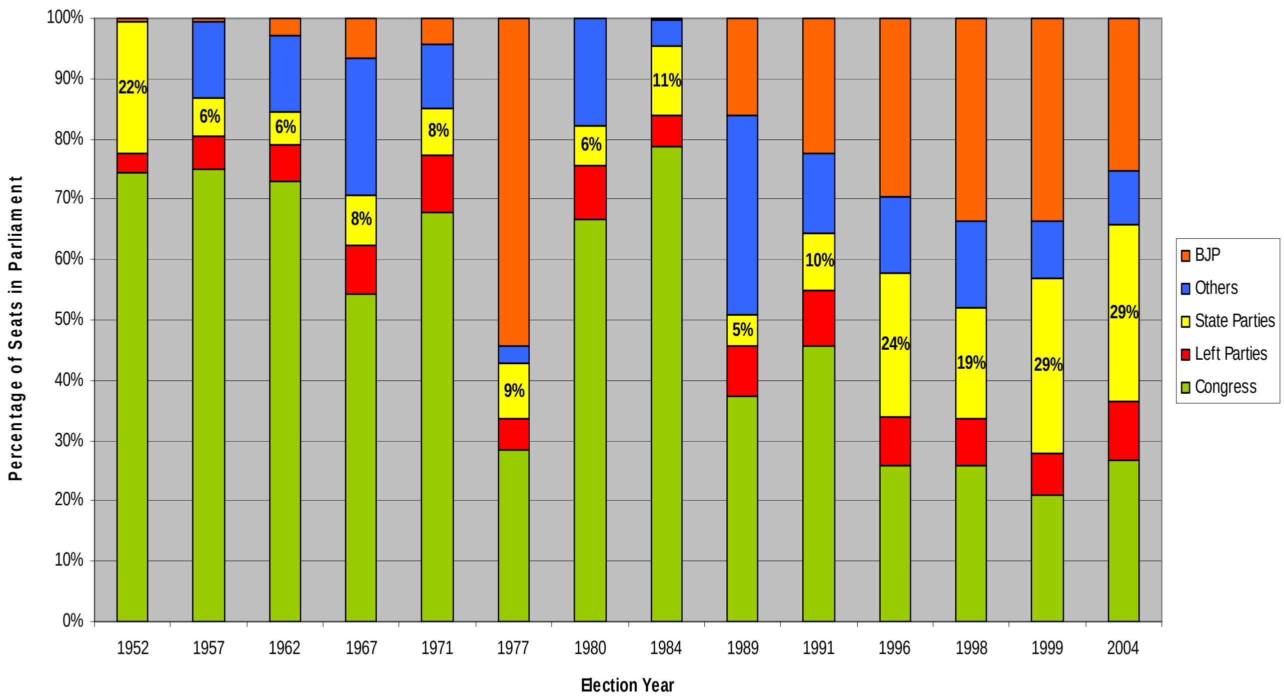


The 1990s clearly saw a shift in this dominant-party system, though the scale of the shift was not apparent to many in the early 1990s (including Congress leaders) because the party had managed to get close to a majority (45%) in the 1991 general elections. In fact in negotiations for the 1991 coalition Congress preferred to ally with several small parties whose members could be bought off one by one with side payments than make deals with larger parties who would have demanded more for their states or their party's policy agenda in return for their support. The four Jharkhand Mukti Morcha MPs who unexpectedly supported the Congress during a crucial 1993 vote of confidence, for instance, were paid off by the then Home Minister Buta Singh with a bribe of Rs.8.7 crores ($2.175 million).[4]

[4] Singh and former Prime Minister Narasimha Rao were convicted of bribery in October 2000. Estimates of the total size of the bribe vary. "Govers and Takers," *Frontline*, April 15-May 8, 1998.

Two main points differentiate the post-1996 system from the one that preceded it. First, as we pointed out above, the two major parties, Congress and the BJP, are each clearly unable to win an election without pre-election alliances and often hastily cobbled together post-election election alliances as well. Neither party has been able to win more than 34% of the total seats in the Lok Sabha since 1991. Second, there has been a fundamental shift in the kind of non-Congress parties that now win a large number of seats in the national parliament New Delhi. In the past these parties, such as the Swatantra Party and the Socialists in the 1950s and 1960s and the Janata Party in the 1970s and 1980s, had all-India policies and aspirations. Now however, the main alternatives to Congress and the BJP are very strong regional parties that have a base in one or perhaps two states (See Figure 2).

Figure 2: Party Balance in the Indian Parliament 1952-2004



The share of seats in parliament controlled by such regional parties rose to 33% of the total in 1999 compared to only 7.2% in 1977.[5] Most of these regional party leaders are perfectly willing to switch alliances from the BJP-led coalition to the Congress-led coalition if they feel it will advantage their party and their state.

There are obvious fiscal implications of this shift from a Congress-dominant system to the coalition bargains of the 1990s and early 2000s. In the Congress dominant system Chief Ministers and Congress delegations were continually pressing New Delhi for new federal projects, new federal schemes and ad hoc grants to help them oil their patronage machines. Especially after regional parties began to have more success in winning state assembly elections after 1967, there were repeated claims by opposition parties that Congress was using its control of the center to channel resources to those states where it was either dominant or where it was competitive (i.e. a swing state). The large number of programs initiated after Indira Gandhi's overwhelming victory in the 1971 elections are a classic example. As part of her party's broader campaign to "abolish poverty" (her slogan in the 1971 election campaign) she created a large number of Centrally Sponsored Schemes (CSS) to channel central government resources directly to key segments of the electorate. These programs –such as the Accelerated Rural and Urban Water Supply Programs begun in 1972-73, the Rural Land Guarantee Employment Program (1971), the Small Farmers' Development Agency (1971) and the Marginal Farmers and Agricultural Laborers Programme (1971) eventually came to represent the major portion of the Indian state's development spending. In addition to these schemes, other programs were also begun which were alleged to be targeted at particular states, regions and social groups

[5] John Echeverri-Gent, "Political Economy of India's Fiscal and Financial Reform," Stanford University, Center for Research on Economic Development and Policy Reform, August 2001, p.3.

whose support Congress wished to reward or secure. Examples would include the central sugar price support programs initiated by Congress in the 1970s, which benefited key groups of farmers in Maharashtra, which produces over a third of the national sugar crop, and Uttar Pradesh which produces 25% of the national crop (and has 85 seats in parliament, the largest of any state).

In recent years the discretionary funds created by Congress have fallen into the hands of others. We hypothesize that they are now part of an emerging game of legislative bargaining between the formateur party and coalition members. Like portfolio allocations, grants can be used to attract and retain coalition partners. The simplest hypothesis, flowing from "Gamson's Law" (1961), is that parties in the coalition will be rewarded proportionally to their share of the seats, which suggests that states contributing more seats to the coalition will receive proportionally larger transfers. An alternative hypothesis (to be tested in the next draft), perhaps with firmer theoretical foundations, is that parties are rewarded by the formateur based on their bargaining weights (Ansolabehere et al. 2004). Moreover, the logic of Baron and Ferejohn (1989) suggests that the formateur—looking down the game tree—knows that it can get coalition members to agree to coalitions in which it takes more than the share that would be predicted either by bargaining weights or seat share alone.

Yet some aspects of the proposal-based bargaining models may not be well suited to the question at hand—above all the notion of random recognition of the formateur and the one-shot nature of the game. In India, the largest party is the formateur, and if it fails to form a stable coalition, the second-largest party is most likely to be asked to form an alternative coalition. Reasonable models based on this starting point might still lead to distribution based on bargaining weights and leave the formatuer with an advantage in the allocation of portfolios. But ex post—say one year into the coalition—the BJP must be concerned that if a critical party leaves, Congress will be asked to form an alternative coalition (or vice versa). Thus just as small parties in Israel are able to extract a great deal on their most salient issues while supporting the larger parties on left-right issues, perhaps junior coalition partners in India are able to extract pork-barrel expenditures while supporting the larger parties on ideological or other "position" issues. It may be less costly for the majority party to pay off junior coalition partners than run the risk of losing the perquisites of office. Thus we can envision a logic whereby the formateur actually receives *less* in the realm of distributive politics than the junior coalition partners.

Moreover, we suspect that pork-barrel expenditures are particularly important in propping up minority governments. It is unclear why a party that receives no ministries would agree to support the coalition in the legislature unless it was receiving discretionary expenditures. Since such parties can credibly threaten to withhold votes at any time, we suspect that states with large contingents belonging to outside supporters of minority governments will do particularly well in the game of distributive politics.

III. Empirical Analysis

We have collected data on intergovernmental grants and loans received by each state from 1957 to 2003. Unlike previous studies, we have obtained data for all India's states rather than just for the 15 so-called "major states" (out of 28 states) that account for over 90% of the federation's population. Often the smaller states are excluded on the grounds that they are unimportant or because most of them are so called "special category states" that receive especially generous fiscal treatment from the Indian government (Khemani: 2003: 16).[6] We include special category states here however because parties from small states are often vital in coalition formation, and if our model is correct we would therefore still expect to see discretionary federal spending disproportionately directed to these states in return for their support of the coalition.[7]

Our goal is to focus in particular on grants that are open to political manipulation. Fortunately the Reserve Bank of India, as part of its series of monthly reports, includes detailed disaggregate data on various types of grants received by each state each year. Rao and Singh (2001) argue that statutory transfers and grants for state plan schemes should be viewed as largely beyond the reach of political manipulation, while grants for central plan schemes and centrally sponsored schemes are directly controlled by the central government's ministries. Thus our key dependent variable is the sum of the latter two types of grants, expressed as the log of inflation-adjusted (1995 Rupees) per capita. Breakdowns by grant type are unavailable for Sikkim and Delhi, which are dropped from the analysis. Since loans from the central government to states may also be open to political manipulation, we also discuss regressions using real loans per capita as the dependent variable, as well as regressions using total grants per capita. While less open to political discretion, the advantage of the latter variables is that they are available all the

[6] These special category states comprise less than 10% of the Indian population but receive 30% of general transfers. While the cost of most of the 185 "centrally sponsored schemes" run by the Indian government (at a cost of $4.13 billion in 1999-2000) is split 75/25 between the center and the states, the center funds 100% of the cost of such programs in special category states.

[7] There is evidence to suggest that the creation of special category states is now also endogenous to patterns of political competition, with the center approving the creation of 3 new states in 2000 where it a) believed it or its allies would do well electorally in the new state (Jharkhand, Uttaranchal) or that removed strong opposition areas from states where the center's chances would correspondingly increase (Chhatisgarh).

way from 1957 to the present, while the more precise breakdowns are only available since 1972. The dependent variables are only available for fiscal years (March 1 to April 30). Thus all of the political, demographic, and other control variables below have been generated from a monthly data set that was collapsed into fiscal years.

Congress Dominance

Our key proposition is that the driving force of distributive politics in India has shifted over time. Thus we estimate separate models for periods of Congress dominance and periods of coalition government. We classify the following Lok Sabhas as demonstrating Congress dominance: 1, 2 and 3 (1952-1967), 5 (1971-1977), 7 and 8 (1980-1989). In other words, Congress dominance extends from independence to November 1989, with the exception of the fourth Lok Sabha (March 1969 to March 1971), when Congress temporarily split into two competing factions, and the Janata coalition from 1977 to 1979. Yet the results presented below examine a smaller slice of Congress dominance since discretionary grants can only be calculated since 1972. Theories favored in the literature thus far, where a unitary executive has full discretion over the budget, are reasonably well suited for explaining the geographic distribution of resources during Lok Sabhas when Congress had large majorities. With the exception of the contentious fourth Lok Sabha (1967-71), when governing alone Congress has never presided over fewer than 65 percent of the seats. Thus disgruntled backbenchers have been poorly positioned to extract resources from the executive by threatening to withhold key votes.

As described above, there are good reasons to suspect that Congress set up something like the kind of "machine" envisioned by Cox and McCubbins (1986) or Dixit and Londregan (1996) when it took power after independence. Investments were made in creating patronage networks and relationships between Congress and supporters based on particularistic goods. These investments started to bear fruit and stable support networks were built, more successfully in some states than others. After achieving success with this strategy, it made sense to continue investing in core supporters. At this point our rather poor proxy for core support states is simply the share of the state's Lok Sabha delegation controlled by Congress.[8] In the next draft we will calculate the average Congress vote share for each state over several recent federal and state elections.

Yet as pointed out above, there are a variety of plausible conditions under which incumbents might also face incentives to invest in swing states. We are struggling to come up with a good way to identify swing states. In a future draft we intend to use a combination of recent state and federal election results in the state, or perhaps even some public opinion data if possible, but for the moment we use the absolute difference between the share of each state's legislative delegation controlled by Congress and 50 percent. A smaller value means that the state is closer to a 50/50 division between Congress and its foes.

To test the argument that the governing party wishes to avoid allowing opposition chief ministers to spend and claim credit for centrally-allocated funds, we have created a

[8] Source of data on votes and seats: original election returns published by the Election Commission of India. These are superior to the more widely used published tables in Butler (1996), because there seem to be many mistakes in that source. For example for the 1971 election Butler wrongly lists the Congress total of seats in Rajasthan as 4 (it's 14) and Assam as 3 (it's 13. Since we have collapsed a monthly data set into fiscal years, the values of all political variables for years in which the values change because of elections, cabinet shuffles, no confidence votes, etc., are averages of the two values, weighted by the percent of the fiscal year in which each applied.

dummy variable for whether the state Chief minister shares the party affiliation of the central government.

Our control variables include the log of real state domestic product per capita, the percent of the state population that resides in urban areas, a dummy for whether the state was under "president's rule" (emergency central rule), and a dummy for whether the state is a so-called "special category" state.[9] In order to control for unmeasured sources of cross-state variations in need, asymmetric weather shocks, etc., we include state fixed effects. Moreover, we also include a panel of year dummies in order to account for systemic factors that may be unique to each legislative period, or macroeconomic shocks affecting the entire nation. We present OLS models with panel-corrected standard errors using levels on the left-hand side and including a lagged dependent variable in Table 1, though relatively similar results can be obtained with other methods of dealing with autocorrelation (discussed in greater detail below).

[9] Under the Indian Constitution's Article 356, the Center can impose emergency President's Rule on a state if it is not being governed in accordance with the constitution, or if no stable government can be formed. The President of India and the *Lok Sabha* must approve the imposition of central rule within two months, and central rule must then be renewed every six months up to a maximum of three years. In some cases (e.g. Punjab and Assam in the 1980s and Kashmir in the 1990s) President's rule has been imposed on a state for this maximum period. Unlike in previous studies, we introduce a dummy to capture these periods of emergency central rule, during which the center controls the state budget and administration.

Table 1: Real Discretionary Transfers per Capita (Log), Periods of Congress Dominance

	Coefficient	Panel-corrected standard error	
Lag real discretionary grants per capita (log)	0.12	(0.03)	***
Real GSP per capita (log)	0.09	(0.24)	
Urbanization	0.89	(1.38)	
Special category	1.25	(0.18)	
President's rule	-0.04	(0.08)	
Congress seats as share of state delegation	0.19	(0.07)	***
Congress chief minister	0.09	(0.03)	***
Distance of state delegation from 50 percent Congress	-0.99	(0.26)	***
Constant	-7.32	(1.66)	
Observations	251		
Number of states	22		
R square	0.96		

*** p<.01

Coefficients for state and year dummies not shown

The results are quite consistent with the strategic incentives described above, though there is no clear distinction between the "core support" and "swing state" models. Discretionary resources are apparently targeted at states where Congress has the strongest support,[10] but also at states that are relatively evenly divided between Congress and opposition parties (a negative coefficient implies that greater distance from 50 percent is

[10] Similar results are also obtained if Congress seats from each state are divided by the total size of the legislature or the total number of Congress seats.

associated with smaller transfers). The only clear losers are states that are dominated by opposition parties.[11] Furthermore, in keeping with previous empirical studies, we also find that states controlled by Congress Chief Ministers receive more discretionary grants than states controlled by the opposition.

We have undertaken a variety of robustness tests. Similar results are obtained if Huber/White/Sandwich robust standard errors are used, or the dependent variable is transformed into first differences, and roughly similar results are obtained if we drop the lagged dependent variable and run a Prais-Winsten regression. In keeping with previous empirical papers on India, we have also dropped the "special category" states, and obtained similar results on the smaller dataset. Following the logic of Dasgupta et al. (2001) and Khemani (2003), we have also interacted the "Congress chief minister" variable with the "swing state" variable, but in contrast to these studies, our results suggest that swing states are favored regardless of the partisanship of the state chief minister.[12]

We have also estimated models using total grants covering the same (post 1971) time period used above. Moreover, if we drop the state GSP variable, which is not available for the 1950s and 60s, we can estimate models using total grants that include a longer time series of Congress dominance starting in 1957. In each of these regressions, similar results are obtained for the "swing state" and "state chief minister" variables, but perhaps surprisingly, the variables that attempt to capture "core Congress support" do not

[11] We have also experimented with regressions that replace the continuous variables capturing Congress strength with a simple dummy for states where Congress received less than 25 percent of the seats. The coefficient on this variable is always negative and highly significant.

[12] We have also experimented with other control variables dealing with state size and representation that are highly correlated with the "special category" dummy variable: total legislative seats per capita, total population, and the size of the state's LS delegation relative to the total number of seats.

approach statistical significance. Finally, we have estimated a variety of models for the Congress dominance period using real per capita loans as the dependent variable, and none of the political variables achieves significance.

Coalition Governments

Coalition governments have been in place in the following Lok Sabhas: 6 (1977-1979), 9 (1990), 10 (1991-1996), 11 (1996-1998), 12 (1998), and 13 (1999-2003). For reasons described above, we are especially interested in the era of explicitly regional coalitions (since 1996). Our hypothesis is that the tactical interests of the Prime Minister's party no longer dominate distributive politics, since the need to hold together a legislative coalition has become the overriding concern. We expect that core support states of the prime minister's party, closely divided states that might be important electoral targets in the next election, and states with chief ministers belonging to the party of the national chief minister have lost their traditional advantages. Rather, states with powerful bargaining positions in fractious coalitions are positioned to extract the most discretionary benefits. Rather than including some variable based on the total seats from each state in the coalition, we break this down into separate variables capturing the seats (as a share of total coalition seats) belonging to the chief minister's party and junior coalition partners in order to capture possible formatuer effects. In addition, we include a variable for the number of seats from the state that belong to parties that are formally outside the coalition but prop it up by agreeing to support certain legislation. The other variables are the same as above, though for these cases the "swing state" variable is calculated as the absolute difference between the coalition's seat share in the state and 50 percent. Moreover, we have also created a dummy variable that takes on the value 1 if the party of *any* member of a state coalition, regardless of whether it is the Chief Minister's party, is represented in the national coalition.[13] We use the same estimation technique as above. In a model that pools all instances of coalition government (results not shown), none of the political variables approaches significance. Yet if we drop the brief Janata coalition in the late 1970s and the Congress coalition of 1991-1996, which was in many respects similar to a single-party government, we are left with the recent era of regional coalitions.

The results of a model using the same estimation technique as above for the post-1995 period are presented in Table 2. In neither this estimation nor any of the alternatives does the "swing state" variable approach significance, though it was highly significant throughout the period of Congress dominance. Yet as before, states with chief ministers sharing the partisan affiliation of the prime minister are favored. Quite frankly, we are flummoxed by the negative coefficient on the other dummy variable capturing co-partisanship between levels.[14]

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[13] We believe our variable to be a better indicator of political affiliation than the measure constructed by Khemani (2003), which determines center-state affiliation by state Chief Minister Affiliation rather than by whether any state coalition party is represented in the ruling central coalition. Khemani used Butler (1996) to determine state partisanship: we used dozens of studies of state coalitions and governments, which allowed us to track the many cases where the underlying composition of a coalition government changed (due to defections, splits, etc.) even when the Chief Minister remained the same.

[14] If we can assume that representatives of the largest party in the coalition have discretion over allocations and they are motivated to avoid credit-claiming by other parties, perhaps it makes sense to discriminate even against states where junior coalition members (at the central level) are in power. Perhaps we should create a different variable that addresses whether the chief minister in the state is a member of a federal-level junior coalition partner.

Table 2: Real Discretionary Transfers per Capita (Log), Coalition governments since 1996

	Coefficient	Panel-corrected standard error	
Lag real discretionary grants per capita (log)	0.13	(0.14)	
Real GSP per capita (log)	-0.95	(0.75)	
Urbanization	-8.42	(2.75)	***
Special catetory	-1.13	(0.77)	
President's rule	-0.10	(0.19)	
Seats belonging to Prime Minster's party/total coalition seats	-1.07	(1.80)	
Seats belonging to a junior coalition party/total coalition seats	1.97	(0.51)	***
Seats belonging to a party providing outside support/total seats in legislature	6.09	(3.38)	**
Chief minister sharing party affiliation of prime minister	0.22	(0.08)	***
At least one party in common between state and national coalition	-0.12	(0.04)	***
Distance of state coalition delegation from 50 percent	-0.11	(0.40)	
Constant	-9.83	(5.75)	
Observations	175		
Number of states	23		
R square	0.88		

*** p<.01, ** p<.05
Coefficients for state and year dummies not shown

The most interesting results relate to legislative bargaining. The states that make up the Prime Minister's partisan support base in the legislature do not receive larger transfers per capita. Instead, the states in which the pivotal coalition-forming parties partners are based receive disproportionate allocations. The same is true of the states that have relatively large numbers of legislators belonging to parties that are supporting the coalition from the outside. Both of these groups—especially the outside supporters—can make credible threats to bring down the coalition.[15]

These results have been subjected to the same robustness tests described above, and again, very similar results are obtained using a variety of different estimation techniques, dropping special category states, and introducing alternative control variables. Though for this time period, none of the political variables achieves statistical significance for models using total grants or loans per capita as dependent variables.

IV. Discussion

Qualitative evidence supports our finding that a legislative bargaining model helps explain fiscal transfers in the post 1996 period: coalition partners openly bragged about their ability to extract funds from New Delhi while the BJP's own members openly bemoaned the fact that they were having to pay too much to support the regional parties and keep the coalition together. Leaders of the regional parties in the BJP-National Democratic Alliance (NDA) coalition, such as Prakash Singh Badal from Punjab and C.B. Naidu from Andhra Pradesh (whose TDP was the single most important coalition

[15] In the next draft we will examine each state's share of bargaining weights. We will also test for differences between parties that were members of pre-election coalitions and parties that were added during the coalition bargaining process.

partner, with 29 seats) openly campaigned on their promises to extract as much as they could from the center using the threat of bringing down the government as leverage.[16] Naidu for instance recognized that he was losing popularity among the state's hard pressed farmers in 2001 and told them that he would bring the NDA down unless it sanctioned large scale drought relief for the state (it did, hundreds of millions of dollars).[17] At other times regional party leaders such as Naidu and Badal talked to the press about their doubts as to whether they would remain part of the coalition unless the center helped them on some key issue. There is good evidence to suggest that most of these actual or implicit threats worked. In contrast to the period of Congress dominance, when central ministers were often unavailable to meet regional leaders, in the post-1996 period regional leaders like Naidu could go to New Delhi and expect to have around a dozen interviews with the heads of major ministries who actually controlled the purse-strings, and expect to come out of most of these meetings with something to take back home to their voters.[18] In 2003 for instance Punjab's BJP-allied Chief Minister got emergency central transfers of $76 million to help his state's rice and wheat farmers (an

[16] This was even more true in the short-lived 1998-1999 BJP led coalition. Shortly after the coalition was formed, the Indian press reported on a meeting at which "The vulnerability of the Government, in view of the strident demands from some of the coalition partners, emboldened other small parties to make their own demands, including huge monetary demands, at the meeting. Haryana Chief Minister Bansi Lal, whose Haryana Vikas Party has just one member in the Lok Sabha, wanted the Centre to waive loans to the State amounting to Rs.2,500 crores [$543 million], as had been done for Punjab by the United Front Government; he said that Haryana too had to cope with the consequences of insurgency in Punjab. Punjab Chief Minister Prakash Singh Badal sought an increase in border area allocations. Naveen Patnaik of Biju Janata Dal wanted more funds allocated for Orissa." "Coordination Challenges," *Frontline* 15, 14, July 17-28 1998.

[17] Naidu told farmers who were demanding more aid that "For the cause of the farmers, we have even threatened to withdraw support to the NDA government." T. Lakshmipathi, "Andhra Pradesh," *Frontline* 18, 2, Jan 20-Feb 02, 2001.

[18] Coalition partners also secured other benefits not measured with our data: key ministries for their party members, approval for Reserve Bank of India and Government of India help with their chronic deficit financing, and central approval for World Bank and other IFI loans. See "CM back from Delhi with his bags full," *Times of India*, September 3, 2001.

important electoral constituency for his party) by boosting central procurement prices.[19] On an August 2002 trip to the capital Naidu pressed a variety of demands and came back with firm promises from the Agriculture ministry for drought relief, as well as central promises to consider favorably his other requests.[20] In 2001, worried about his support among farmers, Naidu forced the Food Corporation of India to spend Rs.1000 crore ($217 million) to buy rice from his state at above market prices.[21] Contrast the treatment of NDA-affiliated Andhra Pradesh from 1998-2000 with opposition-dominated Bihar. Bihar has a larger population and much greater levels of poverty than Andhra, but Andhra received $763 million in "additional central assistance for externally aided projects in state plans" while Bihar got a paltry $67 million. In terms of overall grants from the center Andhra Pradesh received $2.1 billion from 1998-2000, the largest total of any state, while Bihar got $880 million.[22]

Our finding that the BJP controlled states were not over-compensated but the coalition partners' states were is also supported by BJP politicians' complaints from 1998-2004 that the BJP leadership was short-changing its own party members in order to pay off allies and hold its coalition together.

The fact that most of the coalition-years since 1996 have been years in which the BJP coalition was in office may make it seem as if this post-1996 bargaining-redistributive model is just a story about the BJP and its allies. The recent July 2004 Congress coalition's budget suggests that this is not the case, however, and that there

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[19] Praveen Swami, "Punjab," *Frontline* 18, 2, Jan 20-Feb 02, 2001. This was not done for opposition affiliated Bihar, which made similar demands for emergency aid at the same time as Punjab.
[20] "Naidu seeks drought relief," *The* Hindu, 8/29/2002. See also "CM back from Delhi with his bags full," *Times of India*, September 3, 2001.
[21] "End of the Road," *NewsInsight*, May 21, 2001. India uses two non-western units of measurement, a *crore* (10 million) and a *lakh* (100,000) in almost all of its financial documents.
[22] Mohan Guruswamy, "Reality and Perception," *Seminar* 539, 2004.

really has been a more general shift in coalition politics in India, in which regional parties are able to extract massive resources from the center in return for participating in coalitions, while opposition states are punished. In the July 2004 debate over the new Congress-led coalition's budget, there were several complaints from opposition parties that, because their states had not voted for the Congress coalition, they were receiving nothing from the new anti-poverty programs despite being more "deserving" in terms of absolute levels of poverty, which were the nominal criterion for disbursements. An opposition MP from Orissa, a state that supported the BJP-NDA in the 2004 elections, complained that in the July 2004 budget debate that, though his state was in absolute terms just as badly off as Bihar, Bihar had received a special allotment for Rs.3000 crores ($652 million) in government anti-poverty programs while his state received nothing. The discriminatory treatment, he was sure was because Bihar's dominant party, the RJD, was a major coalition partner in the Congress-led government while his own state had voted solidly for the BJP-led coalition. "Because of the influences that are at play in this Government, Orissa has not got anything. Orissa does not have even representation in the Cabinet."[23] Another opposition MP from Tamil Nadu complained that one major anti-poverty program, the "Backward States Grants Commission," had been founded "only to allocate more funds to some states ruled by coalition partners." and went on to complain that "This is a clear violation of the Constitution."[24]

[23] Uncorrected parliamentary debates on the 2004 budget (Upper House) for 20th July 2004. http://rajyasabha.nic.in/rsdebate/deb_ndx/202/20072004/3to4.htm
[24] R. Kamaraj (AIADMK) MP from Tamil Nadu, during July 20, 2004 Rajya Sabha debate on the Budget. http://rajyasabha.nic.in/rsdebate/synopsis/202/20072004.htm

V. Conclusions

This paper has presented quantitative and qualitative evidence suggesting that India's shift from single-party dominance to fractious regional coalition governments has ushered in a new logic to distributive politics. When firmly in control of the executive and legislature, the Indian National Congress appears to have targeted resources at its supporters and attempted to influence closely contested states, while directing resources away from states where the legislative delegation or state government were controlled by its enemies. Yet more recently, in the era of multi-party coalitions including regional parties, members of the executive no longer have this luxury. Discretionary resources must be used as glue to hold together fractious coalitions. We characterize the new brand of Indian coalition as rather explicit attempts, as modeled by Baron and Ferejohn (1989) and others, by *formateur* parties to attract and retain coalition partners by offering them expenditure projects.

Yet these two patterns of distributive politics may not be as distinct as they seem. Either way, it appears that states who vote for parties that make their way into government receive more than states who vote for parties that end up in the opposition. Yet our study points to an important change in the relationship between pork-barrel politics and electoral politics. In the period of Congress dominance, voting against Congress endangered one's chances of receiving roads and schools. Appealing to the Dixit-Londregan trade-off, it appears that strong opposition to Congress was concentrated in localities where voters had sufficiently strong preferences on position issues—especially ideology, ethnicity, language, and regional pride—that they were willing to sacrifice some expenditures. Others with similar but less strongly held preferences may have voted for Congress in order to preserve valued expenditure projects.

Yet after 1989 voters no longer must make this trade-off. They can vote for parties espousing an aggressive regional, ethnic, or linguistic agenda and stand a reasonable chance of that party gaining access to discretionary expenditures. Even very small parties competing in only one state can make a pre-election alliance with other such parties from other states, where each party is able to tailor its message and slogans to local audiences while maintaining a chance at valuable ministries and expenditure projects. As a result, Congress' fall from dominance in the game of distributive politics seems to have ushered in an "ethnicization" of politics.

In fact, an interesting avenue for future research is to examine whether a similar pattern has emerged in other former British colonies with ethnically heterogeneous populations. From Trinidad to Botswana to India, the immediate post-independence period seems to be characterized by a dominant party that is able to attract votes across ethnic lines through the judicious distribution of pork. Once its monopoly falls apart—often through a rift in the party or a corruption scandal—other latent issues must no longer be traded off against schools, roads, and bridges. As a result, political entrepreneurs have opportunities to mobilize voters around ethnic, linguistic, and regional divisions.

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