Gerrymandering Decentralization:
Political Selection of Grants-Financed Local Jurisdictions

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Abstract

Decentralization of anti-poverty programs in the developing world is described by many policy-makers as a means to greater accountability and better governance. This paper examines such decentralization as the outcome of endogenous policy choice by central politicians under electoral pressure. Politicians decentralize beneficiary selection of spending programs, financed by grants, to enable local targeting of pivotal voters to win elections. Local government spending is allocated to private transfers to poor swing voters in exchange for their vote. Decentralization in this model fuels vote-buying, patronage, or pork-barrel politics, and comes at the expense of spending on broad public goods. There is anecdotal evidence on local politics in several large countries that is consistent with this theory.

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1. Introduction

Decentralization to rural local governments is viewed as a significant institutional reform to address political agency problems in developing countries, particularly of government responsiveness to poor citizens (World Bank, various; Bardhan, 2002).[1] In highly influential analyses of the promises and pitfalls of decentralization in this regard, Bardhan and Mookherjee (2000, 2005, 2006a) identified "capture" by local elites in unequal societies as a risk, and inspired a number of empirical research projects to assess the benefit incidence of local public spending on poor and rich households, and to explore its covariates (Araujo et al, 2008; Bardhan and Mookherjee, 2006; Galasso and Ravallion, 2005; Mansuri and Rao, 2004). This paper examines decentralization from an alternate perspective, as an endogenous political choice by central decision-makers to enable the targeting of benefits to selected constituents, at the expense of broad public goods. In this model, when local governments target their spending to poor citizens, such local targeting enables central or regional political parties to buy votes and win elections even as they reduce allocations to broad public goods. The tension in the model is therefore between clientelist or patronage politics versus the broad public interest—clientelist transfers may indeed be targeted to the poor, but only to some of them, at the expense of broad public goods for all the poor.

The theoretical framework in this paper is derived from the literature on political determinants of fiscal policy, where political parties consist of organized interest groups that derive benefits from club goods targeted to their group (Alesina and Perotti, 1995; Persson and Tabellini, 2000; Persson et al, 2007). Within this framework of central political economy, the paper extends the idea of unorganized "swing" voters of Khemani and Wane (2008), who are not only indifferent to political parties (as in most characterization of swing voters) but more importantly, who cannot be reliably targeted through party machines (as in Cox and McCubbins, 1986; and Dixit and Londregan,

[1] Governments in developing countries pursuing decentralization reforms also describe these as designed to promote greater participation of poor citizens in public decision-making, and to strengthen citizen ability to exact accountability from their public agents (cite Bolivia *Ley de Participacion Popular*, India's Panchayati Raj Act, etc.).

1998).[2] Central political parties can increase their share of the swing vote only through greater provision of universal public goods. This assumption is adjusted to a model of endogenous decentralization by allowing the targeting of swing voters in local elections—local politicians can identify those swing voters who would reliably vote for them (and their party) in exchange for a targeted benefit.[3]

Decentralization arises as a policy choice of the central political agent due to this difference in political mobilization capacity at central versus local levels, and in the absence of heterogeneous preferences. We show that politicians will select decentralization of spending financed by grants, not local taxation, and local governments will spend their grants on targeted transfers to poor swing voters in exchange for their vote. Grants will be tactically distributed across local governments by the central political incumbent, with localities where the opposition party affiliates are in power being starved for funds. With decentralization, the central political incumbent will allocate fewer resources to broad public goods than if it had not decentralized. Grants to politically affiliated local governments will increase when the central political incumbent faces more demanding swing voters. This creates for another type of "swing voter's curse", in which greater demands by them for public goods is thwarted through greater decentralized vote buying. Decentralization policies are therefore determined in this model by politicians to facilitate vote mobilization for their political party to win office, akin to gerrymandering districts in electoral politics.

The fiscal characteristics of decentralization derived here is in fact increasingly common in many developing countries. Large amounts of public resources for anti-poverty programs are being provided as grants to rural local governments who have the authority to select beneficiaries of local projects (Ravallion, 1999; Alderman, 2002; Mansuri and Rao, 2004; Bardhan and Mookherjee, 2005, 2006b). In several decentralized

[2] Khemani and Wane (2008) show that in the presence of these unorganized swing voters, single party governments will tax and spend more than coalitions of multiple political parties, which is a contrary conclusion to much of the literature on political bargaining between multiple interest groups. Their results derive because coalitions can win elections more cheaply by providing targeted benefits to the core constituents of the parties in the coalition, instead of wooing more demanding swing votes to win as a single-party.

[3] Alternately, local politicians are able to enforce the vote for their political party of a swing voter who has received a private transfer.

countries in Africa, South and East Asia, more than 90 percent of local government expenditures are financed by grants from higher tiers (Choudhuri, 2006; World Bank, various). Even this number reflects some urban jurisdictions that do raise significant resources from own revenues, while the vast majority of rural jurisdictions to whom spending has been decentralized do so almost entirely out of grants received from higher tiers. Additionally, studies in a range of countries as diverse as Albania, Brazil, India, Mexico, Peru, the Philippines, Sweden, and the United States, find evidence that higher tiers of governments strategically distribute grants across local jurisdictions to favor their political supporters (reviews in Boex and Martinez-Vazquez, 2005; and Khemani, 2006).

There is some available evidence, mostly anecdotal, from a range of countries, including Brazil, India, Pakistan, and the Philippines, on the salience of vote-buying, patronage, and violence in local elections. In our model, and in this anecdotal evidence, the capture of public resources for private benefits need not be restricted to the elite; even poor and traditionally disadvantaged voters demand private goods from local politicians (such as jobs, subsidies, cash and in-kind transfers) instead of broad public goods (such as quality health and education).

Indeed, the results in our model are driven by the assumption that marginal swing voters strictly prefer, and organized interest groups weakly prefer, private targeted transfers instead of broad public goods. Lizzeri and Persico (2004) use completely opposite assumptions, of the increasing value of the public good, to explain the extension of suffrage by English elites in the mid-late 1800s. They argue and provide some evidence that in England, the increase in the value of urban public goods following the industrial revolution (public health infrastructure such as sewerage, waterworks and paved roads), led to a majority of the franchised elite pushing for reforms to extend the suffrage so that political parties would have stronger incentives to deliver these public goods. They show that following suffrage reforms, spending by municipal corporations on public health infrastructure increased substantially, while spending on welfare transfers to the poor was reduced. That is, a diametrically different conclusion than that provided here of local spending on targeted transfers.

In modeling decentralization as an endogenous political institution, this paper differs from traditional theories of the benefits of decentralization predicated upon the natural existence of local jurisdictions with intra-community common preferences and inter-community heterogeneity (Tiebout, 1956; Oates, 1972). In more recent political agency models, even in the absence of heterogenous preferences across jurisdictions decentralization may be beneficial by increasing efficiency of governments through access to better local information, and by increasing accountability to citizens through greater participation and monitoring at local levels (Bardhan, 2002).

However, there are surprisingly few formal models of the political choice to decentralize powers and resources to lower level jurisdictions. Available models of endogenous decentralization, to the best of the authors' knowledge, are all consistent with the original insight of Oates (1972) that decentralization arises from regional heterogeneity of preferences. Oberholzer-Gee and Strumpf (2002) model state legislative decision-making for decentralization to districts within a state, and obtain as an equilibrium greater likelihood of decentralization in those states where there is greater heterogeneity of preferences across districts (on the policy issue being considered for decentralization, in this case liquor licensing in the USA). Cremer and Palfrey (1996), Lockwood (2004), and Redoano and Scharf (2004) examine the role of decision-making rules, national referenda versus legislative voting, majority and unanimity rules, in the selection of the degree of centralization, with preferences for decentralization distributed regionally.

There is other work exploring decentralization to local governments as a political strategy, focusing on incentives of national politicians to bypass regional governments that pose a political threat. Dickovick (2007) analyzes decentralization to municipalities in Peru, Brazil and South Africa as a strategy adopted by national politicians to weaken intermediate levels of government. O'Neill (2003) argues that political parties devolve greater resources when support for them is more secure in local than in national elections, citing evidence from Bolivia, Colombia, Ecuador, Peru, and Venezuela. However, these works do not draw specific implications for the characteristics of decentralization and ensuing local politics as derived here. Finally, there are several descriptions in the literature of decentralization as a political tool to accommodate ethnic or regional conflict within countries, but most of these relate to the creation of larger province-type jurisdictions, with significant local autonomy, and not to the creation of fiscal authority at the level of villages or towns, the tier directly addressed in this paper (Panizza, 1999).

The theory offered in this paper of the political selection of jurisdiction boundaries has policy implications for international development assistance. Several technical assistance and lending programs focus on addressing vertical and horizontal fiscal "imbalances", spring-boarding from the observation that new local governments are not devolved "sufficient" grants to fulfill the expenditure responsibilities assigned to them. This paper suggests that when jurisdiction boundaries are deliberately chosen to keep them grants-dependent for political targeting, focusing policy simply on increasing grants to existing jurisdictions for greater local spending can exacerbate patronage politics. It can fuel people's evaluation of local governments on the basis of funding and projects that can be garnered from above, at the expense of inter and intra-jurisdiction competition on the basis of competency to deliver broad public goods with scarce resources. Instead, the political analysis suggests strengthening other strategies that focus on identifying institutional and governance interventions to undercut patronage incentives and enable voters to mobilize to demand broad public services.

The next section provides the model for the choice of decentralization of public spending to local jurisdictions, financed by grants, to serve electoral objectives. Section 3 discusses some evidence on decentralization experiences in select countries and regions that are consistent with the theory. Section 4 discusses the implications of the theory for international development assistance and explores the potential of local governance interventions to overcome local patronage politics. Section 5 concludes.

2. Model

We begin by characterizing the central political and fiscal system as one where political power is exercised through spending programs that provide targeted benefits to organized interest groups, at the expense of broad public goods.

The Economy. We consider a population with 3 groups indexed by j. The welfare of group j's member is given by:

$$W^j(c,g) = c^j + H(g) \qquad (1)$$

W( ) is an increasing and concave function, c^j is private consumption, and g is a general public good. Two of these groups are economic elites, controlling different economic resources, paying income taxes, and organized into political interest groups (political parties) to access targeted benefits from public spending which contributes to their private consumption. The fourth group is poor, with income normalized to zero (and hence does not pay taxes), is not organized into a political group and therefore does not receive private transfers. Let the 2 elite groups organized into political parties be designated as P_1, and P_2, and the third group of unorganized voters be designated as the swing voters S. [4] The size of each group is denoted by μ^j, for $j = P_1, P_2, S$.

For $j \notin S$, $c^j = y^j - \tau + f^j$. That is, the consumption of members of political parties consists of their disposable income, the difference between initial income y^j and the income tax τ, plus a private transfer f^j targeted towards group members from public resources. For $j \in S$, $y^S \equiv 0$, and $f^S \equiv 0$, and therefore $W^s = H(g)$. That is, members of the unorganized swing group do not have any income, cannot be taxed, cannot be targeted, and receive welfare only from universal public goods.

Raising taxes is costly for the government. It may need to allocate resources for enforcing the payment of taxes and prevent tax evasion for instance. We assume that when the government imposes an amount τ in taxes it only collects $\theta(\tau)*\tau$ i.e. the cost associated with this level of taxation is $(1-\theta(\tau))*\tau$. The inefficiency of the tax system is captured by $\theta(\tau)$ which has the following usual properties for an inverted-U Laffer curve for tax revenues: $0 \le \theta(\tau) \le 1$, $\theta'(\tau) < 0$, and $\theta''(\tau) < 0$ for $0 \le \tau \le y^j, \forall j$. The tax rate

[4] As we will show in greater detail below, our characterization of this group as swing voters is consistent with several different characterizations in the literature of what it means to be "swing". First, swing voters in our model are indifferent between voting for or against an incumbent government, based upon comparing the benefits of economic policy against a reservation utility (as in Persson et al; 2006). Second, swing voters in our model are not ideologically attached to political parties, and vote only the basis of evaluating general public policies of incumbent governments (as in Lindbeck and Weibull, 1987; Dixit and Londregan, 1995, 1996; and much of the political science literature). Third, some models define swing voters as those whose ballot ultimately determine the outcome of elections (as in Feddersen and Pesendorfer, 1996), which also happens in the equilibrium in our model.

at which revenues are maximized is given by $\tau = \tau^{\max}$. Correspondingly, the maximum amount of public good that can be provided in this economy is given by $g^{\max} = \tau^{\max}$.

The general public good g and the targeted income transfers f^j are financed one-to-one with tax revenues, and satisfy non-negativity constraints $g \geq 0$ and $f^j \geq 0 \;\forall\; j$. The government budget constraint is therefore given by:

$$\sum_{j \notin S} \mu^j \cdot f^j + g \leq R(\tau) \qquad (2)$$

where $R(\tau) = \tau \cdot \theta(\tau) \cdot \sum_{j \notin S} \mu^j$ is the government's tax revenue when the tax rate is τ.

The politics. The two political parties P_1, and P_2 compete during elections to win a majority of votes, and choose the policy vector $p = [\tau, g, f^j]$. Any member of the political parties, μ^j for $j = P_1, P_2$ can be a candidate. The political party that wins office chooses policies to maximize the welfare of its members (core constituents) subject to a re-election constraint (to be derived below), in addition to the budget constraint specified in equation (2) above. The objective function of party *j* in government is given by:

$$\max_{\{\tau, g, f^j\}} \mu^j [y^j - \tau + f^j + H(g)] + B \qquad (3)$$

B represents the exogenous rents or benefits from holding office, which are shared equally among all members of the party. Note that swing voters and opposition party supporters do not enter the government's objective function. Any transfers to them would be determined by their role in the re-election constraint to be derived below. Political parties in this model are therefore both partisan and opportunistic. They cater to the interests of their core constituents once in office, but also choose policies to try to win elections and gain office.

The core-supporters μ^j of political party *j*, always vote for the party to which they are attached, consistent with the party's objective of maximizing the welfare of its supporters subject to re-election and budget constraints. The unorganized or swing voters cast their ballot for the incumbent government if their welfare under government policy, $H(g)$, is higher than or equal to a reservation utility parameter ω; otherwise they vote for the opposition. The swing voters' reservation utility parameter ω is distributed on the support $[\underline{\omega},\overline{\omega}]$, with density f and cumulative F which are common knowledge.[5]

When the incumbent implements the policy $p=[\tau, g, f^{j}]$ it can expect to receive $\mu^{S} F(H(g))$ of swing voters' ballots. The remaining swing voters $\mu^{S}(1-F(H(g)))$ will punish the incumbent and vote for the opposition. The incumbent government party $j \in G$ therefore receives $\mu^{G}+\mu^{S} F(H(g))$ of the votes. The reelection constraint is given by:

$$F(H(g)) > \frac{\mu^{S}-\Delta\mu^{G}}{2\mu^{S}} = \lambda \quad \text{or} \quad H(g) \geq F^{-1}(\lambda) \qquad (4)$$

Where $\Delta\mu^{G}=(\mu^{G}-\mu^{-G})$ is the difference in size of the core constituents of the two political parties. λ is the *minimum swing votes* the incumbent government needs to win re-election.

The political distortion. In the absence of political considerations, the utilitarian social planner would solve:

$$\max_{\{\tau, g, f^{j}\}_{j\in G}} H(g)+\sum_{j\notin S} \mu^{j} \cdot [y^{j}-\tau+f^{j}]$$

subject to

$$\sum_{j\notin S} \mu^{j} f^{j}+g \leq R(\tau)=\tau \cdot \theta(\tau) \cdot \sum_{j\notin S} \mu^{j},\ g \geq 0,\ f^{j} \geq 0 \ \ \forall j, \text{ and } 0 \leq \tau \leq y.$$

The solution to this optimization problem is familiar, given by: $H'(g^{*})=\left(\partial[\theta(\tau)\cdot\tau]/\partial\tau\right)^{-1}=1$, $R(\tau^{*})=g^{*}$, and $f^{j*}=0$, $\forall j$. The level of public goods supplied in the utilitarian optimum equates marginal social benefit of the public good to its marginal social cost of production. The utilitarian government raises just enough taxes to finance the production of the public good, spending nothing on targeted transfers to organized interest groups.

When political considerations are taken into account, the incumbent political party will deviate from this optimum and provide targeted transfers to its core

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[5] We assume that $\underline{\omega} \geq 0$ i.e. the swing voters expect to be at least as well off as under laissez-faire with no taxation and no public good provision.

constituents. The extent to which it is able to capture public benefits for its core supporters depends upon its prospects for gaining public office which in turn depends upon how demanding swing voters are, or the function *F(ω)* chosen by nature.[6]

We now derive the *preferred* levels of the tax, the public good, and targeted transfer of an incumbent political party, denoted by τ^{*G}, g^{*G}, f^{*G} respectively, or the policy package incumbents would implement if their re-election constraint were ignored or not binding. A government's optimization of the welfare of its core constituents consists of a two-step procedure. First, it chooses the tax rate that maximizes the disposable income of its constituents to whom all tax proceeds are redistributed:

$$\max_{\{\tau\}_{j\in G}} y^j - \tau + \alpha \cdot \theta(\tau)\tau \text{, where } \alpha^G = \sum_{j\notin S} \mu^j \Big/ \mu^G .$$

The first order condition for the above maximization, where τ^{*G} denotes the preferred tax rate, satisfies $\alpha^G \cdot [\theta'(\tau^{*G}) \cdot \tau^{*G} + \theta(\tau^{*G})] = 1$ or $R'(\tau^{*G}) = \mu^G$.

Second, the government chooses that optimal level of the public good that would be financed by its constituents alone, equating the marginal benefit and costs of the public good accruing only to its constituents, or $H'(g^{*G}) = 1/\mu^G$.

Finally, it redistributes the total tax revenue, net of public good spending, amongst its constituents, giving no specific transfers to the members of the opposition party. The government's constituents thus receive $f^{j^{*G}} \equiv f^{*G} = [R(\tau^{*G}) - g^{*G}]/\mu^G$ as specific transfer, which gives them a consumption level of $c^{j^{*G}} = y - \tau^{*G} + f^{*G},\ j \in G$. The other groups not represented in the government do not receive any transfer i.e. $f^{*j\notin G} \equiv 0$, and have a final consumption of $c^{*j\notin G} = y - \tau^{*G}$.[7]

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[6] In our model, if voters could cooperate and choose the distribution of reservation utilities (as in Persson et al. , 2000) they will set it in a way to extract the maximum amount of public good from whatever government is in place. This assumption is, however, unrealistic since it requires a high level of information. It is also inconsistent with our modeling of swing voters as unorganized, and therefore unable to coordinate. We instead consider atomistic voters who cannot communicate or cooperate. Each swing voter will then independently set her reservation utility or will be assigned one by nature.

[7] We assume throughout the paper that $R(\tau^{*G}) > g^{*G}\ \forall j$. This assumption means that the preferred tax rate of the government generates at least enough revenue to pay for its preferred level of public good. This assumption puts an upper bound on the inefficiency of taxation. If we do not impose it, the government's

The incumbent government can choose its preferred policy package when its preferred level of public good is sufficient to win the minimum swing votes needed for electoral victory, or $F(H(g^{*G})) \geq \lambda$. It would also choose this when re-election is entirely out of reach, which happens when the minimum swing votes required for victory is greater than the number of swing votes the government can receive at the maximum level of public goods, or $F(H(g^{\max})) < \lambda$. In this case, governments anticipate defeat in an upcoming election, become Leviathans and implement predatory policies.[8]

Incumbent government's constrained choice under re-election. Suppose that the distribution of reservation utilities is such that $F(H(g^{*G})) < \lambda < F(H(g^{\max}))$. The government will then increase the public good it provides just up to the point where it meets the reelection constraint. The constrained optimal amount of public good for a government seeking re-election is therefore given by $\hat{g}^{*G} = Max\{g^{*G}; \hat{\mathrm{g}}^{\mathrm{G}}\}$ where $F(H(\hat{g}^{G})) = \lambda$.

The government will attempt to finance the provision of additional public goods, over and above its preferred level, by diverting tax revenues collected through its preferred rate τ^{*G} from transfers targeted to its constituents. If τ^{*G} generates enough revenue to finance the public good then it is the rate the government will choose. However, if τ^{*G} falls short of the revenue needed to finance the public good necessary for reelection, the tax rate will be increased to $\hat{\tau}^{G}$ which is just necessary to finance the public good i.e. $R(\hat{\tau}^{G}) = \hat{g}^{G}$. The optimal tax rate for a government seeking re-election is thus given by: $\hat{\tau}^{*G} = Max\{\tau^{*G}, \hat{\tau}^{G}\}$. Following the algebra through, the government will transfer $\hat{f}^{j^{*G}} \equiv \hat{f}^{*G} = [R(\hat{\tau}^{*G}) - \hat{g}^{*G}] / \mu^{G}$ to its constituents.

Decentralization under local political mobilization. Now, into this central political economy we introduce *n* localities where some swing votes can be purchased with targeted transfers in local elections. Apart from this distinction, local politics is identical to central politics in that core constituents of political parties always vote for

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optimal tax rate does not change but the amount of public good provided becomes $g^{*G} = Max\{H'^{-1}(1/\mu^{G}), R(\tau^{*G})\}$ which may entail some rationing.

[8] Having access to the policy option of decentralization, as we model further below, would help to avoid this extreme outcome.

their party, swing voters decide their vote on the basis of reservation utilities, and local political candidates aim to maximize the benefits of the members of the political party to which they belong. [9] We first solve the simplest model where there is no heterogeneity in voter distribution across these localities.

- Consider the following form of decentralization—1) announcement of the decentralization of local grants, $D^n \in (0, R(\tau))$, determined for each locality at the discretion of the central government for poverty alleviation programs for which the beneficiaries will be identified by locally elected governments; 2) local elections occur to select the candidate who will subsequently determine f^{nj}, $j \in 1,2$ and p^{nj}, $j \in S$; only members of organized interest groups, $\mu^j, j \in 1,2$ stand for elections; the outcome of the first local elections is determined by a coin toss; 3) the locally elected government receives D^n, and allocates it to f^{nj} and p^{nj} to maximize utility of core supporters subject to its budget and re-election constraint.

- First, under decentralization, in equilibrium $D^n{}_{n \notin G} = 0$ for those localities where the opposition party wins elections. Note also that tax decentralization will never be an option because it would lead to loss of central incumbent control over the revenues collected by opposition party local governments.

- To determine grants to the localities where its party affiliates win office, the central incumbent party goes through the following exercise—it first chooses it's unconstrained (by re-election) most preferred tax rate and public good level; it then estimates how many swing votes it can get with its preferred level of public goods, and how many more it needs to win re-election. If it has sufficient swing votes at its preferred policy, there is no benefit from decentralization.

- If the swing votes are not sufficient, $F(H(g^{*G})) < \lambda$, the central politician could provide grants $D^* = \sum_{n \in G} D^n = [F^{-1}(\lambda) - H(g^{*G})]$ to its affiliated localities to buy votes through direct transfers to those swing voters, μ^{*s},whose reservation utility is given by

[9] We are exploring the implications of allowing even unorganized swing voters to stand for local electoral office, and changing the objective of any local political candidate to maximizing his own utility subject to re-election and budget constraints.

$F^{-1}(\lambda) \geq \omega^* > H(g^{*G})$. These swing voters cast their vote in the next elections (both local and central) in favor of the party of the local incumbent who provides them with transfers $p^s = \dfrac{[F^{-1}(\lambda) - H(g^{*G})]}{\mu^{*s}}$.[10]

- Assuming sufficient revenues, the central politician would continue to keep the tax rate at τ^{*G}, provide g^{*G}, but would reduce the targeted transfers to its constituents to $(f^{*G} - D^{*G})$.[11]
- Alternately, the central politician could increase the public good to $\hat{g}$ to win re-election, such that $H(\hat{g}) = F^{-1}(\lambda)$.
- Loss in core constituent utility from re-allocating some of own transfers to buy swing votes: $D^* = [F^{-1}(\lambda) - H(g^{*G})]$ (5)
- Loss in core constituent utility from increasing to $\hat{g}$ for re-election:

$(\hat{g} - g^{*G}) - [H(\hat{g}) - H(g^{*G})]$ (6)

Under the assumption that an individual's marginal utility from private consumption is greater than marginal utility from the public good around $c^s = 0$, it is more efficient for the central politician to buy the required swing votes through grants to local government transfers that provide some swing voters with private consumption, than through increasing the amount of the public good. Under the further assumption that:

$$\frac{\partial W^G(c^{*G}, g^{*G})}{\partial c} \geq \frac{\partial W^G(c^{*G}, g^{*G})}{\partial g},$$

that is, the ruling party's core constituents weakly prefer to increase their private transfers rather than the public good, the central politician would prefer to decentralize grants $D^n{}_{n \in G} = [F^{-1}(\lambda) - H(g^{*G})]$ to its affiliated local governments to win re-election

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[10] We assume at this point that the number of localities n^G is sufficient to contain the μ^{*s} swing voters.

[11] It can be shown that if $R(\tau^{*G}) \geq \hat{g}$, then $f^{*G} \geq D^{*G}$. That is, as long as revenues are sufficient for the central politician to increase the level of the public good to win the minimum swing votes, but keep its preferred tax rate fixed, it can also win the same amount of swing votes through local targeting of private transfers.

through the targeting of some swing voters, rather than to increase its provision of the public good.

What would the local politicians belonging to the group μ^G do upon receiving grants D^n? Since their objective is the same as the incumbent political party *G*, to maximize the utility of core constituents subject to a re-election constraint, they will spend the entire grant on $p^{ns} = D^n$, and set $f^{nj} = 0$.

If $f^{*G} = R(\tau^{*G}) - g^{*G} < F^{-1}(\lambda) - H(g^{*G}) = D^{*G}$, then the tax rate will be increased to τ^{**G} which is just necessary to finance the preferred level of public good and the grant to local governments needed for re-election, i.e. $R(\tau^{**G}) = g^{*G} + D^{*G}$. It can be shown that $\tau^{**G} \leq \hat{\tau}$, the re-election constrained tax rate under the centralized regime is higher than the constrained tax rate under decentralization.

Proposition 1: If decentralization occurs, it would take the form of grants $D^* = \begin{cases} D^n > 0, \forall n \in G \\ 0, \forall n \notin G \end{cases}$, and the recipient local governments would spend it on private transfers $p^{*s} = D^*$ to swing voters residing within their jurisdictions.

Proposition 2: For the same level of swing voter demands, central provision of public goods and central taxes are weakly lower if the central government decentralizes than if it does not.

Comparing the equilibrium with and without decentralization shows that although the benefit incidence of local government spending on targeted programs is more pro-poor than that of central spending on targeted programs, decentralization in fact enables the central politician to capture a larger share of public resources for rents for its core constituents.

The results also yield a new type of "swing voter's curse" than is available in the literature (Robinson and Torvik, 2009; Feddersen and Pesendorfer, 1996). The more demanding swing voters become for broad public good, the less likely they are to receive their preferred levels because central politicians would use the means of vote buying in local elections to divide the strength of swing voters and win elections at lower levels of taxes and public goods.

We are now extending the model to allow for heterogeneity in distribution of groups across localities, and to allow for other interest groups to emerge at local levels. This might lead to results on the fragmentation of jurisdictions—depending on how groups are distributed geographically, the central politician might choose to further sub-divide existing local jurisdictions into smaller units where votes are easier or cheaper to purchase.

3. Evidence on characteristics of local jurisdictions

This section provides evidence from several countries around the world of characteristics of local jurisdictions that is consistent with the implications of a theory of gerrymandered decentralization explored above. The purpose here is to show that the proposed theory has empirical or practical relevance, rather than to formally test predictions.

Table 1 provides some data on characteristics of local jurisdictions in selected countries. These countries have been selected on the basis of available reports on the nature of decentralization to local jurisdictions. There is little systematic data available on fiscal characteristics of local jurisdictions such as villages, municipalities, and districts. The main source of comparable cross-country data employed in the literature on sub-national finance is the Government Finance Statistics (GFS) database compiled by the International Monetary Fund (IMF); but although this provides reasonably reliable estimates of finances of states, regions, or provinces, it is widely acknowledged as not reliable for measuring finances of the lower level jurisdictions which are the focus of this paper.

For this paper, detailed reports on local government finances were located for several large countries spread across four major regions of the world. There is clear evidence from three large countries, India, Indonesia, and Nigeria, where responsibility for public service delivery is being increasingly decentralized to local governments, that such decentralized spending is financed by fiscal grants from higher tiers. The average share of own-source revenue in the total revenues managed by local jurisdictions in these three countries is less than or barely equal to 10 percent. This average in fact masks even higher dependence on grants by the majority of local jurisdictions in these countries. In Nigeria, for example, a detailed survey of local government finances in the rural state of Kogi finds that own revenues are only 1-2 percent of total revenues managed by rural local governments (Khemani, 2006a). In another country included in Table 1, the Philippines, although the average share of own-revenues is 14 percent, the share in the median municipality is 10 percent, and more than a quarter raise less than 5 percent of their total income from local sources.

Municipalities in Peru, the country with the highest share of own revenues among those included in Table 1, have been characterized by some analysts as having no discretion over local rate setting and tax collection, and effectively being fully financed by central grants (Ahmad and Garcia-Escribano, 2006).[12] Even this relatively high share of own revenues, at 27 percent, is comparable to the very lowest of such shares among OECD countries. Ambrosanio and Bordignon (2006) provide statistics on the share of grants in local government revenues in the 20 OECD countries, which shows that only 3 countries had a grants share greater than 55 percent—Ireland at 76 percent, and the Netherlands and UK at 70 percent. This OECD experience shows that even in the face of theoretical arguments in favor of grants financed decentralization, in which taxes can be collected more efficiently at national levels and then distributed to sub-nationals as grants, grants dependence is not in the realm of 80 or 90 percent of local revenues as in the countries listed in Table 1. Within the developing world, countries in the Latin American region appear to have a smaller share of municipal spending financed by grants, but even these are higher than in most OECD countries. In Brazil and Mexico grants constitute 67 and 64 percent of municipal revenues (Burki et al, 1999).

Grants dependence in these countries appears to go hand in hand with small size of local jurisdictions (in terms of population and area), and re-drawing of jurisdiction boundaries or growth in number of jurisdictions over time. Although the average

[12] Some have argued that Peru should not be considered a decentralized country at all. Indeed, prior to 2002 spending by municipalities hardly accounted for a significant share of government spending. However, since 2002, the share of municipal spending has risen to 13 percent and is expected to increase further. For the purposes of this paper, the issue of interest is that even as the country moves towards greater decentralization of spending, it chooses national grants to finance it.

population size of local jurisdictions is higher in Latin America than in Europe, this average appears to be masking large disparities across jurisdictions. Burki et al (1999) find that the vast majority of municipalities in the region have fewer than 15,000 residents. Burki et al (1999) also report shrinking in jurisdiction size, with the number of *municipios* in Brazil increasing from 3000 to nearly 5000 in the fifteen years following the return to democracy in the country. In Venezuela, they report the number of *municipios* increasing from 202 to 330 within a decade. In a presidential address in Nigeria in 2003, then President Obasanjo indicated that state governments in the country were in the process of creating more than 500 new local governments, a 65 percent increase over the existing 774 listed in the country's 1999 Constitution.[13]

In a review of international evidence on the distribution of grants across jurisdictions, Boex and Martinez-Vazquez (2005) find an inverse relation between jurisdiction size and per-capita grants, that is, smaller jurisdictions tend to receive larger grants per capita across a range of countries. This pattern is consistent with the theory of gerrymandered decentralization offered here, and resonates with recent lessons from field experience. Examples have been provided in the Philippines of re-drawing of boundaries of municipalities and *barangays* (villages), or conversion of *barangays* into municipalities, to enable local political families to gain access to grants from higher tiers of government.[14] Burki et al (1999) have also observed that demand for the creation of new jurisdictions is driven by the system of intergovernmental grants in many countries. Local requests for new jurisdictions typically have to be passed by the national or provincial legislatures, and the theory of gerrymandered decentralization is consistent with national authorities granting these requests to facilitate vote buying.

Although in many of the countries discussed thus far, a large chunk of grants distribution across local jurisdictions is determined by criteria set out in national constitutions, or a legal decree governing decentralization, there is evidence of significant political manipulation in targeting grants on the basis of local electoral characteristics. Reviews of international evidence are provided in Boex and Martinez-Vazquez (2005)

[13] Google search result on a national broadcast by President Olusegun Obasanjo in Abuja, Nigeria, on June 18, 2003, titled "On the Issue of the Review of the Structure of Governance in Nigeria".

[14] Descriptions provided to the author during field visits to municipalities in the Philippines in October 2008. No documentation of such changes has been accessible to date.

and Khemani (2006b). Another striking feature in several countries is the provision of specific spending programs to local jurisdictions by higher-tier politicians, separate from and outside of the regular channels of intergovernmental grants. India, the Philippines, and Kenya have recently launched programs that are generally termed “constituency development funds” (CDFs) which allow individual national or state legislators to provide funds for local public infrastructure investment.

Most, if not all, of the literature on inter-governmental fiscal and political relations in the Philippines emphasizes the importance of congressional, gubernatorial, and even presidential pork-barrel projects for city and municipal politics. De Dios (2007) and Rocamora (2008) argue that one of the two main pillars of local political contests in the Philippines is the generation of funds and projects from higher tier governments.[15] In on-going field work in the Philippines, in every municipality visited, respondents describe the importance of political affiliation of local mayors to provincial governors and national congressman in attracting spending programs to their jurisdiction (Khemani and Matsuda, 2008).

In India, resources are transferred to local governments largely in the form of “schemes” for poverty alleviation, and the primary decentralized local responsibility is that of identifying beneficiaries. Such decentralization has been viewed in the literature as good policy design, in the face of solid evidence of informational advantages of local governments in appropriately identifying the poor or those that have faced particularly negative economic shocks (Alderman, 2002). However, the arguments in this paper imply that such schemes-based decentralization might lead to clinetelist local politics.

Analysis of perverse political incentives at local levels in India has focused overwhelmingly on the risk of “capture” of public resources by local elite for their own benefit, systematically excluding poor and disadvantaged people (Bardhan and Mookherjee, 2000, 2002; Baland and Platteau, 1999). The alternate hypothesis posited here is that even if such specified “elite capture” is not salient, and poor and disadvantaged groups are politically mobilized, their incentives are to demand short-term private benefits from local governments charged with beneficiary selection for poverty

[15] The other being the control of illegal economic activity such as gambling and smuggling.

alleviation schemes. Indeed, in reviewing received evidence on political participation in developing countries, and contributing new evidence from the state of West Bengal in India, Bardhan et al (2007) conclude that there is little evidence of political marginalization or political exclusion of weaker socio-economic groups. That is, even if social and economic exclusions persist, under universal suffrage and competitive electoral conditions it would appear that the socially marginal cannot be prevented from becoming politically active.[16]

The existence of historical institutions of social inequality in India makes it a setting from which much evidence has been garnered on relative "capture" by local governments. We review this evidence below to argue that it is equally consistent with political mobilization of disadvantaged groups to demand private goods targeted to members of their "group", at the expense of broad public goods from which all group members would benefit.

Besley et al (2004) focus on analyzing distribution of access to poverty alleviation schemes, a BPL (Below Poverty Line) card, by village governments (*panchayats*) in India. They find that legally identified disadvantaged groups, households belonging to the scheduled castes and tribes (SC/STs), are more likely to receive a BPL card and/or targeted home improvement schemes (toilets, drinking water, electricity, repairs) when the elected position of head of the village government, the *Gram Pradhan*, is reserved for members of SC/ST groups.

They also find that a second institutional feature of decentralization in India—the requirement of village-wide meetings, the *Gram Sabhas*, to deliberate upon allocations of public funds reaching local governments—enables targeting of public benefits to disadvantaged groups. Specifically, they find that if a village is the kind of village that holds a *Gram Sabha*, then disadvantaged households are more likely to participate in it than are advantaged households, and they are simultaneously more likely to receive BPL cards.

[16] The only groups with low participation identified by Bardhan et al (2007) are immigrants, women, and those with low education, not low caste groups or low income/wealth groups.

It is important to note that the impact of political reservations and *Gram Sabhas* is *additional* to overall targeting of BPL cards to disadvantaged households. That is, in general, in all villages a household that is SC/ST, or landless, or poor along other measurable dimensions, is more likely to receive a BPL card than upper caste or richer households, and they are even more likely to be thus targeted when a village has political reservations and holds Gram Sabhas.

Besley et al (2004) interpret this as evidence of appropriate targeting of disadvantaged groups when political decentralization is accompanied by institutional mechanism (political reservations, *Gram Sabhas*) to combat entrenched inequalities. However, this evidence is equally consistent with the arguments in this paper that schemes-based or grants-financed local governments would emphasize the delivery of targeted private benefits to citizens. Bardhan et al (2007) contribute recent evidence from the state of West Bengal in India that voters cite short-term private benefits received from their local governments as most important for their voting decision and support of incumbents, as opposed to longer-term policy initiatives taken by incumbents to promote general public goods.

Some evidence on incentives of politicians representing disadvantaged groups to exert effort on public service delivery to their constituents is provided by Keefer and Khemani (2009) who examine a CDF in India (mentioned above)—the Member of Parliament Local Area Development Scheme. This scheme entitles every member of the national parliament, elected from single-member constituencies, to substantial resources to spend on local public infrastructure in their districts. They find that dominant incumbents from districts that are reserved for SC/STs, that is, SC/ST politicians who have been elected for several consecutive terms, spend 14 percentage points *less* of their entitlement than other politicians. In short, dominant incumbents from reserved districts are not dominant because they exert great effort in providing public infrastructure to their constituents. Their dominance likely comes from other kinds of private identity-based services.

Foster and Rosenzweig (2001) also provide evidence consistent with Bardhan et al's argument that voters place greater emphasis in local elections in India on short-term gains from public spending. They focus on 3 categories of public goods which together account for 73 percent of the activities of village governments in their sample in India—roads, irrigation, and schools. They find that villages with democratically elected governments are more likely to provide more of all three public goods, but the largest effect is for irrigation, as calculated at the sample average, which is the service most likely to benefit the rural elite. However, in villages with a very high proportion of landless (much above the sample average) public investment shifts from irrigation to road construction (rather than education, which is unaffected by proportion landless), which suggests that capture by elites can be ameliorated when the numerical strength of the poor increases, but in a manner that might not be the most efficient for extending benefits to the poor. Roads built by village governments primarily benefit the poor, but largely by raising their (short-term) wages, as local road construction and improvement initiatives in India serve as employment programs for the landless poor. Education, which one expects to have the most profound effect on poverty over the medium and long-term, seems least affected by decentralization.

New evidence from India specifically on decentralization of education services further illustrates this point (Banerjee et al, 2007). A central plank of public policy for improving primary education services in India is the participation of Village Education Committees (VECs) which were created in the 1990s, consisting of the head of the elected village government, parents, and public school teachers. In a survey of 280 villages in India's most populous and educationally challenged state, Uttar Pradesh, in March 2005, at least 10 years after the formal creation of this agency, Banerjee et al (2006) find that parents do not know that a VEC exists, sometimes even when they are supposed to be members of it; VEC members are unaware of even key roles they are empowered to play in education services; public participation in improving education is negligible, and correspondingly, people's ranking of education on a list of village priorities is low. Large numbers of children in the villages have not acquired basic competency in reading, writing, and arithmetic. Yet, parents, teachers, and VEC members seem not to be fully aware of the scale of the problem, and seem not to have given much thought to the role of public agencies in improving outcomes. That is, school failures coexist with local apathy to improving it through local public action.

Between September and December 2005, an Indian NGO, Pratham, intervened in 195 of the 280 villages surveyed with different types of information and advocacy campaigns that communicated to village citizens the status of learning among their children, and the potential role that VECs and local governments could play in improving learning. The basic format of the interventions was to organize a village meeting on education, with the attendance of the head of the local village government and the head teacher of the village public school, the key members of the VEC, from whom the village community is urged to ask and receive basic information about local agencies in primary education. The issue raised most frequently in the village meetings, and about which people were most animated, was a government scholarship program intended to provide cash assistance to students from SC/ST groups. SC/ST parents complained that they were not getting these scholarships, whilst teachers complained that parents inappropriately enroll under-age children, that can't and don't attend school, just to lay claim to the scholarships. The second issue that attracted attention was a new government mid-day meal program. Actual learning levels attracted the least attention, and the facilitators had a difficult time steering the conversation away from scholarships and school meals to the broader issue of learning.

Follow-up surveys were undertaken in the same 280 villages in March 2006, 3-6 months after the information campaigns were implemented, and the most surprising fact emerging is that the campaigns did not lead to any substantial improvement in citizens' lack of knowledge of VECs. Less than 10 percent of citizens are aware of the VECs both before and after the interventions. We also find no effect on public school performance. This contrasts with a dramatic increase in private efforts to improve learning of lagging children in response to information provided—local youth volunteered to hold additional classes outside school, parents of illiterate children in particular chose to participate in these classes, and consequently the children made great strides towards literacy. However, we don't even have anecdotal evidence that these local volunteers were assisted in their efforts by local government structures—neither the village government head, nor the village public school teacher, nor any member of the VEC. Indeed, according to anecdotes provided by Pratham's facilitators in the field, the public school teacher and the *Pradhan* in some villages felt threatened by the volunteer activities and attention drawn to learning failures in public schools.

4. Implications for international development assistance

Much of the reforms being pursued by donors in support of decentralization consist of providing greater revenues or transfers, and building capacity of local governments through training in technical issues such as public financial management. Our arguments suggest that these reforms on their own are unlikely to be efficient or effective in delivering improved public services for actual development outcomes. Greater funds devolved to local governments are more likely to go towards clientelist transfers rather than improvement of public goods. Capacity building can be a waste when local politicians have no incentives to develop technocratic skills for better service delivery.

One of the governance strategies being pursued in international development assistance to improve the impact of decentralization is termed community-driven development (CDD) in which communities are mobilized to identify their preferred projects and to participate in their implementation. The hypothesized governance impact of this strategy is greater social cohesion, and enhanced ability of citizens to demand and receive better public goods performance from their governments. Another is conditional cash transfers (CCT) where households are mandated to access public health and/or education services in order to receive cash transfers. The governance impact of this strategy is hypothesized to be an increase in citizen demand for public health and education services which in turn strengthens political incentives to improve the quality of these broad public goods. Although there are several evaluations planned, underway, or completed, on the impact of CDD and CCT programs on their directly targeted outcomes, such as project quality and beneficiary household-level welfare outcomes, none are designed sufficiently rigorously to assess their impact on governance or local political incentives (to the best of the author's knowledge).[17] This is a serious gap in the policy research literature that should be addressed.

Another governance intervention which has not been widely experimented with, that may be used in concert with CDD and CCT interventions or alone, is to promote yardstick competition on service delivery performance by regularly and systematically providing independent, credible, and objective information to citizens and public officials about relative performance across jurisdictions. Part of the problem of clientelist local politics might be lack of independent data and expert analysis available to civil society to judge relative performance across local jurisdictions. New empirical methodologies can be used to fill this gap by measuring service delivery outcomes that are representative at the level of local jurisdictions in feasible and cost effective ways. Once measured, the outcomes can be compiled as "municipal report cards" and disseminated to promote yardstick competition over performance improvements.

Brazil provides some examples of successful experiences with this type of governance intervention. Tendler (1997) describes how the politics of patronage in municipal governments in the state of Ceara in Brazil was tackled head-on through massive information campaigns by a state government that took office in 1987. The state government flooded radio airwaves with messages about how infant and child mortality could be drastically reduced through particular programs of municipal governments, thus bringing political pressure to bear upon the mayors to actually deliver basic health services. The state also created a new class of public health workers through a publicized recruitment effort that conveyed information to communities about the valuable role the workers could play in improving public health through community-wide effort. In only a few years coverage of measles and polio vaccination in Ceara tripled to 90 percent of the child population, and infant deaths fell from 102 to 65 per thousand births. The campaigns' success has been attributed to bringing a remarkable turnaround in the

[17] Labonne and Chase (2008) make an attempt to assess impact of a CDD project on local governance in the Philippines, but do not appear to have useful governance outcome variables. The variable on which they do find impact—number of village meetings organized by local officials, and household participation in these meetings—is a requirement for a village to access the CDD project, and hence automatically expected to be higher in CDD villages because of the nature of program implementation.

politics of the state—from clientelist and patronage-based to service-oriented (Tendler, 1997).

More recently, Brazil has been the source of another innovative experiment in reducing local political rent-seeking by generating and providing credible information to citizens. In May 2003 the national government of Brazil launched an anti-corruption program based on the random auditing of municipal government expenditures by an independent public agency, and then publicly releasing audit findings on the internet and to media sources.[18] New evidence from more than 600 municipalities covered by the audit suggests that the disclosure of information significantly and substantially reduced the re-election rates of mayors who were found to be corrupt (Ferraz and Finan, 2006). Furthermore, this impact was significantly more pronounced in municipalities with greater access to radio stations.

5. Conclusion

This paper has examined a theory of decentralization as a political choice of national or provincial leaders to combat growing demands of swing voters for broad public goods, and to continue targeting private benefits to organized interest groups. Decentralization to new local jurisdictions enables national and/or provincial politicians to buy votes from some swing voters while continuing to provide targeted benefits to their core constituents and to under-provide broad public goods. Local governments in this model are financed entirely by grants, and spend it on targeted transfers to poor voters in exchange for their vote. Politicians therefore select decentralization institutions in this model to further their electoral objectives, akin to the phenomenon of gerrymandering districts.

The paper provides examples from several large countries of the developing world of decentralization to small local jurisdictions, financed almost entirely by grants or spending programs received from higher tiers of government, as evidence of the empirical relevance of its theory. It also reviews evidence of the importance of

[18] In Portuguese, this program is called *Programa de Fiscaliza¸c˜ao a partir de Sorteios P´ublicos*, details of which is available from the following website: www.presidencia.gov.br/cgu.

clientelism in local politics, in these same countries where grants finance small local jurisdictions, which further supports the conclusions derived under a theory of gerrymandered decentralization.

The aim of this analysis is to strike a note of caution for well-intentioned reformers who are attempting to implement participatory local government in political economy contexts that are inimical to organization of citizens for the broad public interest. By bringing to the fore the tension between citizen mobilization for private or group-targeted benefits versus the greater public interest, this work hopes to vitalize interest in experimenting with other types of complementary governance interventions designed to overcome political constraints to broad public goods.

References

Ahmad, E. and M. Garcia-Escribano. 2006. “Fiscal Decentralization and Public Sub-national Financial Management in Peru, IMF Working Paper, WP/06/120, IMF, Washington DC

Alderman, H. 2002. “Do local officials know something we don’t? Decentralization of targeted transfers in Albania,” Journal of Public Economics, 83: 375-404

Baland, Jean Marie and Jean-Philippe Platteau, 1999. The Ambiguous Impact of Inequality on Local Resource Management.” *World Development* 27(5): 773-88

Banerjee, A., R. Banerji, E. Duflo, R. Glennerster, S, Khemani, 2007. “Pitfalls of Participatory Programs: Evidence from a randomized evaluation in education in India”, Policy Research Working Paper Series, WPS 4584, Development Research Group, The World Bank, Washington DC

Bardhan, P., S. Mitra, D. Mookherjee, and A. Sarkar, 2007. “Local Democracy in Rural West Bengal: Political Participation and Targeting of Public Services”, Working Paper, UC-Berkeley, Department of Economics

Bardhan, Pranab, and Dilip Mookherjee, 2005. “Decentralizing antipoverty program delivery in developing countries”, *Journal of Public Economics*, 89: 675-704

Bardhan, Pranab, and Dilip Mookherjee, 2000. “Capture and Governance at Local and National Levels.” *American Economic Review*, 90(2): 135-39

Besley, Timothy, Rohini Pande, Lupin Rahman, and Vijayendra Rao, 2004. “The Politics of Public Good Provision: Evidence from Indian Local Governments.” *Journal of the European Economic Association*, April-May 2004

Besley, T. and A. Case. 1995. “Incumbent Behavior: Vote-Seeking, Tax-Setting, and Yardstick Competition”, *American Economic Review,* 85(1): 25-45

Boex, J. and J. Martinez-Vazquez. 2005. “The determinants of the incidence of international grants: a survey of the international experience”, Working Paper 05-

09, Andrew Young School of Policy Studies, Georgia State University, Atlanta, Georgia

Breton, A. 1996. *Competitive Governments: An Economic Theory of Politics and Public Finance*, Cambridge: Cambridge University Press

Burki, Shaid Javed, Guillermo Perry, and William Dillinger 1999. *Beyond the Center: Decentralizing the State*. World Bank: Washington, D.C.

Chaudhuri, S. 2006. "What difference does a constitutional amendment make? The 1994 Panchayati Raj Act and the attempt to revitalize rural local government in India", in P. Bardhan and D. Mookherjee (Eds.), *Decentralization and Local Governance in Developing Countries: A Comparative Perspective*, MIT Press, Cambridge, MA

Cremer, J. and T. Palfrey. 1996. "In or out? Centralization by majority vote", *European Economic Review*, 40, pp. 43-60.

Foster, A. and M. Rosenzweig 2001. "Democratization, Decentralization, and the Distribution of Local Public Goods in a Poor Rural Economy." Working Paper, Brown University, http://adfdell.pstc.brown.edu/papers/democ.pdf.

Keefer, P. and S. Khemani, 2009. "When do legislators pass on "pork"? The Role of Political Parties in Determining Legislator Effort," *American Political Science Review*, 103(1): 99-112.

Khemani, S. and W. Wane. 2008. "Populist Fiscal Policy", Policy Research Working Paper No. 4762, Development Research Group, The World Bank, Washington DC

Khemani, S. 2006a. "Local Government Accountability for Health Service Delivery in Nigeria", *Journal of African Economies*, June 2006, 15(2): 285-312

Khemani, S. 2006b. "The Political Economy of Fiscal Equalization Transfers." In *Fiscal Capacity Equalization and Intergovernmental Transfers*, Edited by Roy Bahl, Jorge Martinez and Robert Searle, Springer Publications, New York, NY

Lizzeri, A. and N. Persico, 2004. “Why did the elites extend the suffrage? Democracy and the scope of government, with an application to Britain’s “Age of Reform”, *Quarterly Journal of Economics*, May, 707-765.

Lockwood, B. 2004. “Decentralization via federal and unitary referenda”, *Journal of Public Economic Theory*, 6, pp. 313-337.

Oates. W. 1972. *Fiscal Federalism*, New York: Harcourt-Brace

Oberholzer-Gee, F. and K. S. Strumpf. 2002. “Endogenous Policy Decentralization: Testing the central tenet of economic federalism”, *Journal of Political Economy,* 110, pp. 1-36

Panizza, U. 1999. “On the determinants of fiscal centralization: theory and evidence”, *Journal of Public Economics*, 74: 97-140

Persson, Torsten and Guido Tabellini 2000. *Political Economics: Explaining Public Policy*. Cambridge, MA: The MIT Press

Ravallion, M. 1999. “Monitoring targeting performance when decentralized allocations to the poor are unobserved,” Working Paper No. 2080, Development Research Group, The World Bank

Redoano, M. and K. Scharf. 2004. “The political economy of policy centralization: direct versus representative democracy”, *Journal of Public Economics*, 88, pp. 799-817.

Tendler, J. 1997. *Good Government in the Tropics,* Johns Hopkins University Press, Baltimore, MD

Tiebout, C. M. 1956. “A pure theory of local expenditures”, *Journal of Political Economy,* 65(5): 416-24

World Bank. 2008. *Spending for Development: Making the Most of Indonesia’s New Opportunities, Indonesia Public Expenditure Review*, The World Bank, Washington DC

World Bank. 2003. *Restoring Fiscal Discipline for Poverty Reduction in Peru: A Public Expenditure Review*, The World Bank, Washington DC

Table 1:
Local Government Characteristics in Selected Countries

	Local Jurisdictions	Share of Local Own-Revenues in Total Revenues
India	~500 districts, ~6000 blocks, >230,000 villages (Rural Local Bodies)	3.7% [a]
Indonesia	440 Districts and Cities	8.8% [b]
Nigeria	>770 Local Government Authorities	10% [c]
Peru	~1700 district municipalities	27% [d]
The Philippines	~1500 municipalities	14% [e]

a. *Source: Choudhuri (2006)*
b. *Source: World Bank (2008)*
c. *Source: Author's own calculations from data provided by Central Bank of Nigeria, 1999*
d. *Source: World Bank (2003), excluding the municipal area of the capital city Lima*
e. *Source: Author's own calculations for municipalities from data provided by the Bureau of Local Government Finances, 2001-2005*