14.770: Introduction to Political Economy
Lectures 6 and 7: Electoral Politics Gone Wrong

Daron Acemoglu

MIT

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Introduction

- In these two lectures, we will see why real-world elections might deviate from the implications of our simple theories even more than the tests in the previous two lectures indicate.
- These challenges are, at some level, much more to the essence of electoral politics.
- They are:
  - Lobbying: the fact that organized groups can influence parties directly or indirectly.
  - Vote buying: the possibility that organized groups can directly by votes from legislators. (This does also relate to political agency and other aspects of representative democracy we will discuss into lectures).
  - Clientelism and coercion: how voters can be influenced to vote in ways that are not directly in their interests.
  - Populism: how extreme or nonsustainable policies may result.

Lobbying

- We start with a simple model of lobbying due to Grossman and Helpman (1994).
- The advantage of this setup is that it links to our simplest model of electoral politics — where parties choose policies ex ante — and also to our analysis of probabilistic voting.
- Imagine that there are G groups of agents, with the same economic preferences.
- The utility of an agent in group g, when the policy that is implemented is given by the vector $p \in \mathcal{P} \subset \mathbb{R}^K$, is equal to

$$U^g(p) - \gamma^g(p)$$

- Appier $U^g(p)$ is the usual indirect utility function, and $\gamma^g(p)$ is the per-person lobbying contribution from group g.
- We will allow these contributions to be a function of the policy implemented by the politician, and to emphasize this, it is written with p as an explicit argument.

Lobbying (continued)

- Following Grossman and Helpman, let us assume that there is a politician in power, and he has a utility function of the form

$$V(p) \equiv \sum_{g=1}^{G} \alpha^g \gamma^g(p) + a \sum_{g=1}^{G} \alpha^g U^g(p) \tag{1}$$

- α^g is the share of group g in the population.
- a determines how much the politician cares about aggregate welfare. When $a = 0$, he only cares about money, and when $a \longrightarrow \infty$, he acts as a utilitarian social planner.
- One reason why politicians might care about aggregate welfare is because of electoral politics (for example, they may receive rents or utility from being in power as in the last subsection and their vote share might depend on the welfare of each group).

Lobbying (continued)

- Now consider the problem of an individual j in group g.
- By contributing some money, he might be able to sway the politician to adopt a policy more favorable to his group, but standard free rider problem.
- Therefore, only *organized* groups can contribute.
- Suppose that out of the G groups of agents, $G' < G$ are organized as lobbies, and can collect money among their members in order to further the interests of the group.
- The remaining $G - G'$ are unorganized, and will make no contributions. Without loss of any generality, let us rank the groups such that groups $g = 1, ..., G'$ to be the organized ones.

Lobbying (continued)

- The lobbying game takes the following form:
  - every organized lobby g simultaneously offers a schedule $\gamma^g(p) \geq 0$ which denotes the payments they would make to the politician when policy $p \in \mathcal{P}$ is adopted.
  - after observing the schedules, the politician chooses p.
- Notice the important assumption here that contributions to politicians (campaign contributions or bribes) can be conditioned on the actual policy that's implemented by the politicians.
- This assumption may be a good approximation to reality in some situations, but in others, lobbies might simply have to make up-front contributions and hope that these help the parties that are expected to implement policies favorable to them get elected.
- This is a potentially complex game, since lobbies are choosing functions (rather than real numbers or vectors).
- Nevertheless, the equilibrium of this lobbying game takes a relatively simple form.

Lobbying Equilibrium

Theorem

In the lobbying game described above, contribution functions for groups $g = 1, 2...J$, $\{\hat{\gamma}^g(\cdot)\}_{g=1,2..J}$ *and policy* p^* *constitute a SPE if:*

1. $\hat{\gamma}^g(\cdot)$ *is feasible in the sense that* $0 \leq \hat{\gamma}^g(p) \leq U^g(p)$.
2. *The politician chooses the policy that maximizes its welfare, that is,*

$$p^* \in \arg\max_p \left(\sum_{g=1}^{G'} \alpha^g \hat{\gamma}^g(p) + a \sum_{g=1}^{G} \alpha^g U^g(p) \right).$$

3. *There are no profitable deviations for any lobby,* $g = 1, 2, .., G'$, *that is,*

$$\begin{aligned} p^* \in \arg\max_p \{ & \alpha^g \left(U^g(p) - \hat{\gamma}^g(p) \right) \\ & + \sum_{g'=1}^{G'} \alpha^{g'} \hat{\gamma}^{g'}(p) + a \sum_{g'=1}^{G} \alpha^{g'} U^{g'}(p) \}. \end{aligned} \tag{2}$$

Lobbying Equilibrium (continued)

Theorem

4. There exists a policy p^g for every lobby $g = 1, 2, .., G'$ such that

$$p^g \in \arg\max_p \left(\sum_{g'=1}^{G'} \alpha^{g'} \hat{\gamma}^{g'}(p) + a \sum_{g'=1}^{G} \alpha^{g'} U^{g'}(p) \right)$$

and satisfies $\hat{\gamma}^g(p^g) = 0$. That is, the contribution function of each lobby is such that there exists a policy that makes no contributions to the politician, and gives her the same utility.

Sketch Proof

- These results follow using an analysis similar to the menu options of Bernheim and Whinston (1986).
- Conditions 1 and 2 are easy to understand.
- No group would ever offer a contribution schedule that does not satisfy Condition 1.
- Condition 2 has to hold, since the politician chooses the policy.
- If Condition 3 did not hold, then the lobby could change its contribution schedule slightly and improve its welfare, as we show next.

Sketch Proof (continued)

- Suppose condition 3 does not hold for lobby $g = 1$, and instead of p^*, some $\hat{p}$ maximizes (2).
- Denote the difference in the values of (2) evaluated at these two vectors by $\Delta > 0$.
- Consider the following contribution schedule for lobby $g = 1$:

$$\begin{aligned}\tilde{\gamma}^1(p) &= \frac{1}{\alpha^1}\Big[\sum_{g=1}^{G'} \alpha^g \hat{\gamma}^g(p^*) + a\sum_{g=1}^{G} \alpha^g U^g(p^*) \\ &\quad - \sum_{g=2}^{G'} \alpha^g \hat{\gamma}^g(p) - a\sum_{g=1}^{G} \alpha^g U^g(p) + \varepsilon c^1(p)\Big]\end{aligned}$$

  where $c^1(p)$ is an arbitrary function that reaches its maximum at $p = \hat{p}$.
- Following this contribution offer by lobby 1, the politician would choose $p = \hat{p}$ for any $\varepsilon > 0$.

Sketch Proof (continued)

- To see that this choices optimal for the politician, note that by part (1), the politician would choose policy $\tilde{p}$ that maximizes

$$\alpha^1 \tilde{\gamma}^1(p) + \sum_{g=2}^{G'} \alpha^g \hat{\gamma}^g(p) + a \sum_{g=1}^{G} \alpha^g U^g(p)$$

$$= \sum_{g=1}^{G'} \alpha^g \hat{\gamma}^g(p^*) + a \sum_{g=1}^{G} \alpha^g U^g(p^*) + \varepsilon c^1(p).$$

- Since for any $\varepsilon > 0$ this expression is maximized by $\hat{p}$, the politician would choose $\hat{p}$.
- The change in the welfare of lobby 1 as a result of changing its strategy is $\Delta - \varepsilon c^1(\hat{p})$.
- Since $\Delta > 0$, for small enough ε, the lobby gains from this change, showing that the original allocation could not have been an equilibrium.

Sketch Proof (continued)

- Finally, condition 4 ensures that the lobby is not making a payment to the politician above the minimum that is required.
- Suppose this condition were not true for some lobby, say lobby 1. Then lobby 1 could reduce its contribution function by a constant — from $\gamma^1(p)$ to $\gamma^1(p) - \varepsilon$. Since the shift down by a constant does not change marginal incentives for the politician, for ε sufficiently small, the politician would still choose the same policy. But since $\varepsilon > 0$, lobby 1 would increase its payoff.

Differentiable Contribution Functions

- Next suppose that these contribution functions are differentiable.
- Then, it has to be the case that for every policy choice, p^k, within the vector p^*, we must have from the first-order condition of the politician that

$$\sum_{g=1}^{G'} \alpha^g \frac{\partial \hat{\gamma}^g\left(p^*\right)}{\partial p^k} + a \sum_{g=1}^{G} \alpha^g \frac{\partial U^g\left(p^*\right)}{\partial p^k} = 0 \text{ for all } k = 1, 2, .., K$$

- From the first-order condition of each lobby that

$$\alpha^g \left(\frac{\partial \hat{\gamma}^g\left(p^*\right)}{\partial p^k} - \frac{\partial U^g\left(p^*\right)}{\partial p^k} \right) + \sum_{g'=1}^{G} \alpha^g \frac{\partial \hat{\gamma}^{g'}\left(p^*\right)}{\partial p^k} +$$

$$a \sum_{g'=1}^{G} \alpha^g \frac{\partial U^{g'}\left(p^*\right)}{\partial p^k} = 0$$

for all $k = 1, 2, .., K$ and $g = 1, 2, .., G'$.

Differentiable Contribution Functions (continued)

- Combining these two first-order conditions, we obtain

$$\frac{\partial \hat{\gamma}^g\left(p^*\right)}{\partial p^k} = \frac{\partial U^g\left(p^*\right)}{\partial p^k} \tag{3}$$

  for all $k = 1, 2, .., K$ and $g = 1, 2, .., G'$.

- Intuitively, at the margin each lobby is willing to pay for a change in policy exactly as much as this policy will bring them in terms of marginal return.
- But then this implies that the equilibrium can be characterized as

$$p^* \in \arg\max_p \left(\sum_{j=1}^{G'} \alpha^g U^g\left(p\right) + a \sum_{j=1}^{G} \alpha^g U^g\left(p\right) \right).$$

Differentiable Contribution Functions (continued)

- Consequently, there is an interesting parallel between the lobbying equilibrium and the pure strategy equilibria of probablilistic voting models analyzed before.
- Like the latter, the lobbying equilibrium can also be represented as a solution to the maximization of a weighted social welfare function, with individuals in unorganized groups getting a weight of a and those in organized group receiving a weight of $1 + a$. Intuitively, $1/a$ measures how much money matters in politics, and the more money matters, the more weight groups that can lobby receive.
- As $a \longrightarrow \infty$, we converge to the utilitarian social welfare function.

Lobbying and Distributional Conflict

- Consider a simple setting with two groups, rich and poor.
- Suppose that the rich are organized and the poor are not.
- Without lobbying, social welfare maximization would typically involve redistribution from the rich to the poor.
- But with lobbying, the weight of the rich in the induced social welfare function increases, and we may end up with no redistribution.

Campaign Contributions

- An alternative conception of what organized groups do: campaign contributions used for affecting equilibrium election outcomes.
- Consider a probabilistic voting model with campaign contributions.
- Let contributions to party P be where

$$C_P = \sum_g O^g \alpha^g C_P^g$$

- O^g is an indicator variable for whether group g is organized or not, C_P^g is contribution per member, and α^g denotes the size of group g.
- The effect of contributions is introduced as affecting the balance of different politicians. In particular, suppose as before that individuals in a group will vote for

$$U^i(p_A) - U^i(p_B) - \delta \geq \sigma^i,$$

where δ is an aggregate random valance variable affecting all voters.

Campaign Contributions (continued)

- Assume that
$$\delta = \tilde{\delta} + \eta \times (C_B - C_A),$$
so campaign spending influences this valance parameter. The parameter η measures the effectiveness of campaign spending.
- With usual arguments, the indifferent voter in group J is defined by the threshold
$$\sigma^g = U^g(p_A) - U^g(p_B) + \eta(C_A - C_B) - \tilde{\delta}.$$
- In addition, assume that all groups are symmetric, and have σ^g distributed uniformly over
$$\left[-\frac{1}{2\phi}, \frac{1}{2\phi}\right].$$
- Suppose also that the parameter $\tilde{\delta}$ has a uniform distribution on
$$\left[-\frac{1}{2\psi}, \frac{1}{2\psi}\right].$$

Campaign Contributions (continued)

- This implies that the probability of party A winning the election is

$$\Pr[A] = \frac{1}{2} + \psi\left[U(p_A) - U(p_B) + \eta(C_A - C_B)\right]$$

where

$$U(p_P) = \sum_g \alpha^g U^g(p_P)$$

is a measure of average preferences.

- A utilitarian social planner would have simply maximized this.
- Moreover, given the symmetry of all the groups, we know from our above analysis that probabilistic voting would have also maximized this. (Symmetry of all groups is adopted to highlight that any deviation from utilitarian social welfare function is due to the effects of lobbying).

Campaign Contributions (continued)

- We continue to assume that the only objective of the parties is to come to power.
- The question is how lobbying changes this. To understand this, let us look at the objective function of lobbies.
- Assume that the lobby for group J has the objective function:

$$\Pr[A]\, U^g(p_A) + (1 - \Pr[A])\, U^g(p_B) - \frac{1}{2}\left((C_A^g)^2 + (C_B^g)^2\right),$$

  which means that they don't care about which party comes to power, only about the implemented policy. And there are convex costs of contributing to each party.
- The exact timing of events is as follows:
  - The two parties simultaneously choose their platforms, p_A and p_B;
  - Lobbies, observing the platforms, decide how much to give to each party.
  - Voters observe their own σ's and vote.

Campaign Contributions (continued)

- The important assumption here is that voters are essentially myopic, in the sense that they can be swayed by campaign contributions.
- This implies the following complementary slackness conditions for campaign contributions (for all groups that are organized)

$$\eta\psi\alpha^g \left[U^g(p_A) - U^g(p_B)\right] - C_A^g \leq 0,$$

and

$$-\eta\psi\alpha^g \left[U^g(p_A) - U^g(p_B)\right] - C_B^g \leq 0,$$

which exploits the fact that $\partial p_A / \partial C_A^g = \eta\psi\alpha^g$ and takes into account that we may be at a corner solution.

Campaign Contributions (continued)

- The equilibrium involves

$$\begin{aligned} C_A^g &= \max\left[0, \psi\eta\alpha^g\left(U^g\left(p_A\right) - U^g\left(p_B\right)\right)\right] \\ C_B^g &= -\min\left[0, \psi\eta\alpha^g\left(U^g\left(p_A\right) - U^g\left(p_B\right)\right)\right]. \end{aligned} \tag{4}$$

- In other words, despite the convexity of the contribution schedules, each lobby only contributes to one party; in particular, it contributes to the party that has a platform that gives its members greater utility.

Campaign Contributions (continued)

- Now consider the first stage of the game where each party chooses their platform.
- Since parties only care about coming to power, party A will maximize:

$$\psi\left[U(p_A)-U(p_B)+\eta\times\sum_g\left(\begin{array}{c}\max\left[0,\psi\eta\alpha^g\left(U^g(p_A)-U^g(p_B)\right)\right]+\\ \min\left[0,\psi\eta\alpha^g\left(U^g(p_A)-U^g(p_B)\right)\right]\end{array}\right)\right.$$

- Party B will try to minimize this object.
- It is clear that this is a concave problem, so the parties will again adopt symmetric platforms.
- This has a very important implication: **in equilibrium lobbies will make no contribution** (from (4)); but they still influence policy with the threat of campaigning against the party that deviates from a particular equilibrium platform!

Campaign Contributions (continued)

- In the symmetric equilibrium, the first-order conditions become

$$\sum_g \alpha^g \left[\psi + O^g \alpha^g (\psi\eta)^2\right] \nabla U^g(p_A) = 0.$$

- Thus equilibrium again maximizes a weighted utility function.

$$\sum_g \alpha^g \left[1 + O^g \alpha^g \psi\eta^2\right] U^g(p_A).$$

- When no group is organized, i.e., $O^g = 0$ for all g, this is equivalent to the maximization of utilitarian social welfare (the assumption that $\phi^g = \phi$ this of course important for this).
- Otherwise, organized groups will get more weight, and interestingly larger groups will get more weight, because they can generate greater campaign contributions.
- The additional weight that organized groups receive will also be a function of η, the effectiveness of lobbies.
- But importantly, lobbies make no spending. So influence is cheap.

A Simple Model of Vote Buying

- Consider a model due to Groseclose and Snyder (1996).
- There are two lobbies, acting sequentially.
- Suppose, for example, lobby A wants to change the status quo, lobby B wants to preserve it. This forces lobby A to make the first offer in order to get out of the status quo.
- But in fact there will still be a status quo bias because of a major second-mover advantage.

Advantages of Supermajorities

- We will see that sequential vote buying will have a tendency to generate a supermajority.
- This is particularly interesting in the context of legislatures (e.g., rollcall votes), where typically legislation is not passed with a minimum majority but with a supermajority.

Intuition for supermajority:

- If lobby A buys bare majority, lobby B just has to buy back one guy. This is profitable for lobby B unless lobby A pays **each** voter lobby B's **entire** value.
- If lobby A buys one extra voter, lobby B has to buy back two guys. Then lobby A only has to pay each voter **half** of lobby B's value.
- Supermajorities are more robust, and therefore can be **cheaper** in total than bare majorities: pay more guys, but pay each one a lot less.

Model

- Status quo x, lobby A wants to change to y.
- Voter (or legislator) i has utility $v(i) = u_i(x) - u_i(y)$ for x over y.
- Lobby A has value w_A for y over x,
  lobby B has value w_B for x over y.
- Lobby A first offers each legislator a payment $b(i)$ if votes for y.
- Lobby B then offers each legislator a payment $g(i)$ if votes for x.
- Voting in undominated strategies.
- Policy determined by majority rule (assume #voters n is odd).

Lobby A's Problem

- In equilibrium, lobby A either buys cheapest (super)majority that lobby B can't profitably overturn, or gives up and doesn't pay anything.
- What's lobby A's cheapest stable supermajority?
- Lobby B will attack cheapest members of lobby A's majority.
- $\Longrightarrow$ lobby A must minimize total cost subject to cheapest majority for lobby B costing $\geq w_B$.
- Consequently, lobby A must equalize the utility of all voters it bribes — otherwise it will allow some voters to be cheaply bought back by lobby B.
- We next study this problem in greater detail when all voters are homogeneous.

Equilibrium

- Suppose $v(i) = v > 0$ for all i for simplicity.
- If lobby A buy m extra voters, it must pay all bribed voters

$$b = v + w_B / (1 + m).$$

- Therefore, lobby A's optimization problem is

$$\min_m \left(v + \frac{w_B}{1+m} \right) \left(\frac{n+1}{2} + m \right)$$

- Solution:

$$m^* = \sqrt{\frac{n-1}{2} \frac{w_B}{v}} - 1$$

and lobby A offers each one of $\frac{n+1}{2} + m^*$ voters

$$b^* = v + \frac{w_B}{1+m^*}.$$

Equilibrium (continued)

- Unique equilibrium:
  - If $w_A > \left(v + \frac{w_B}{1+m^*}\right)\left(\frac{n+1}{2} + m^*\right)$, then lobby A offers each one of $\frac{n+1}{2} + m^*$ voters and amount of $b^* = v + \frac{w_B}{1+m^*}$, and it wins and implements the reform.
  - If $w_A < \left(v + \frac{w_B}{1+m^*}\right)\left(\frac{n+1}{2} + m^*\right)$, then lobby A makes no further and there is no reform.
- The second-mover advantage (or status quo bias) is obvious — $w_A > w_B + nv$ is not sufficient for reform.
- What happens if $n \longrightarrow \infty$? Then $m^*/n \longrightarrow 0$. Then we approach minimal winning coalition.
- Take next the special case where $v \longrightarrow 0$, then

$$m^* = \sqrt{\frac{n-1}{2}\frac{w_B}{v}} - 1 \longrightarrow \infty$$

so that lobby A bribes everybody.

Equilibrium in General

- When we consider a general $v(i)$ function, the structure of the equilibrium is similar.
- In particular, the same limiting results apply.

Why the Assumptions?

- Let's instead consider the other important assumptions here.
  1. What happens if the two lobbies make offers at the same time?
     - No pure-strategy equilibrium. Why not?
  2. What happens if the two lobbies can make sequential offers until both are happy to fold.

What Do Lobbyists Do in Practice?

- What do lobbies do in practice?
- One view is that they advice and provide information to legislators.
- Casual empiricism suggests, instead, that they are much more pernicious than that.
- Blanes-i-Vidal, Draca and Fons-Rosen (2012) document that they exploit the revolving door and their connections to politicians.

Lobbying Revenue and Connected Senators

- Lobbying revenue strongly predicted by such connections

(2)

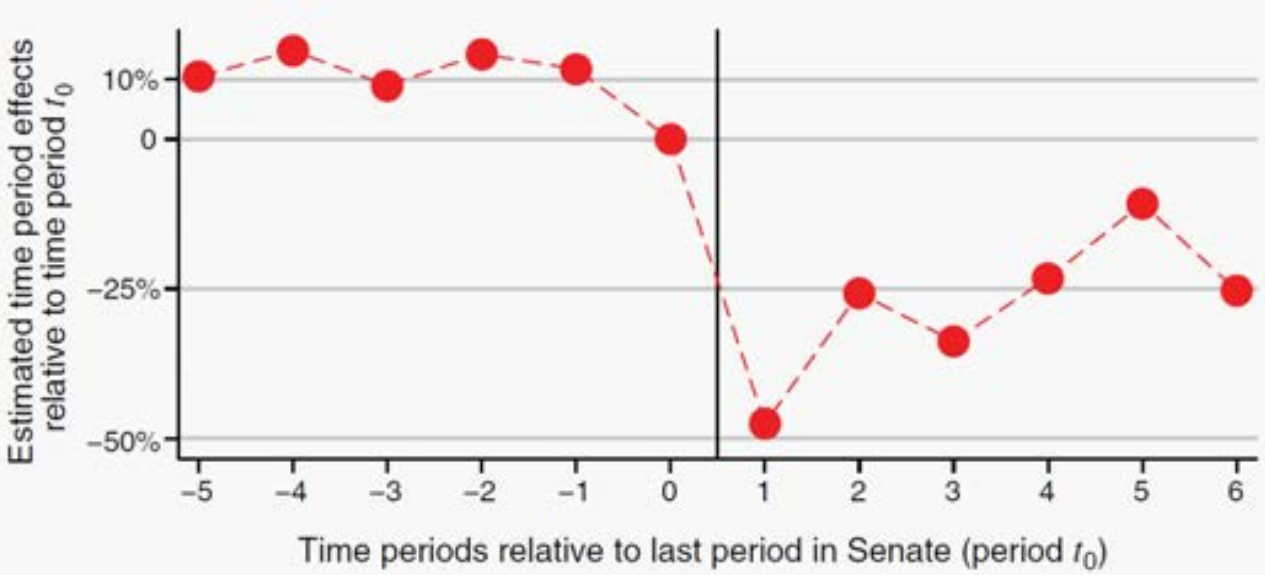


FIGURE 3. TIMING EFFECTS

Notes: Figure 3 displays the estimated time period effects leading up to and following the transition (exit from Senate) period from equation (2) in Section III. Each period comprises six months. The left-hand side is lobbyist (log) revenue as in Table 2. The sample includes all lobbyists with at least four observed periods before a transition and at least two periods after. Right-hand side variables include individual lobbyist dummies and party-chamber time dummies, as well as estimated period effects. Every estimated effect is relative to period t_0—the last period in which a senator is still serving in Congress. Since period t_0 is the omitted group, there is no estimated effect for this group. We, however, display an "effect" of 0 at t_0 to aid visual analysis.

Regression Estimates

TABLE 2—AVERAGE EFFECTS OF REVOLVING DOOR CONNECTIONS ON LOBBYING REVENUE

	Dependent variable: (log) revenue per lobbyist			
	(1)	Plus party (2)	Plus chamber (3)	Plus experience (4)
Number of senators:	0.23***	0.23***	0.21***	0.24***
	(0.07)	(0.07)	(0.07)	(0.07)
Number of representatives	0.09*	0.07	0.08	0.10*
	(0.05)	(0.05)	(0.05)	(0.05)
Individual dummies	Yes	Yes	Yes	Yes
Time	Yes	No	No	No
Time × party	No	Yes	No	No
Time × party × chamber	No	No	Yes	Yes
Lobbyist experience	No	No	No	Yes
Individuals	1,113	1,113	1,113	1,113
Observations	10,418	10,418	10,418	10,418

Notes: This table presents the average effects of political connections on ex-staffers lobbying revenue. The dependent variable is the log of the revenue generated from all the clients that an individual lobbyist serves in a time (semester) period. The two main independent variables are the number of senators and representatives that an individual lobbyist worked for previous to entering the lobbying industry *and are serving in Congress in that time period*. All regressions use a sample containing ex-staffers-turned-lobbyists and include both individual lobbyist dummies and time effects (i.e., semester dummies). Column 2 allows for different time effects for lobbyists connected to politicians in different parties (i.e., Democrats versus Republicans). Columns 3 and 4 allow for different time effects for lobbyists connected to politicians in different party/chamber combinations (i.e., Democrats in the Senate, etc.). Column 4 includes lobbyist experience (i.e., number of periods that a lobbyist appears in the sample) in quadratic form. Standard errors are clustered by lobbyist.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

Clientelism and Patronage Politics

- Another reason why democracy may not reduce inequality is clientelism and patronage politics.
- Patronage has many meanings, but in our context, by clientelism, we mean the practice of providing specific services, public goods or even payments to those who vote for a party or candidate.
- In particular, with clientelism, democratic competition leads to each party catering to the needs of a narrow group through inefficient transfers or policies.
- Particularly common in Africa after independence:

> *"African leaders typically used state resources to co-opt different ethnic elites to maintain political stability. The clientelism that resulted was not redistributive and generally benefited only a relatively small proportion of the citizenry" (van de Walle, 2003).*

Ideas on Clientelism

- Clientelism may result from "repeated game interactions": if the particular village doesn't vote for a particular politician, they won't get transfers in the future.
- But in practice, clientelism seems to be related to political middlemen and networks (e.g., Finan and Schechter, 2012).
- It might be very effective in buying turnout (rather than buying votes) (e.g., Nichter, 2008).
- Clientelism is most straightforward when it takes the form of "vote buying" or even "vote coercion" (e.g., Baland and Robinson, 2008).
- But even with secret ballots, "reciprocity"-type concerns me support clientelism (e.g., Finan and Schechter, 2012).
- Why is clientelism different than usual electoral politics? Why is it inefficient? Here let us focus on a simple model based on a paper by Lizzeri and Persico (though much simplified).

Modeling Clientelism

- Let us use a version of probabilistic voting.
- Suppose that parties A and B which aim to maximize their vote share.
- Citizens divided into groups $i \in \{0, 1, .., N\}$. Each group i is of size n_i, normalize for simplicity to $1/N$.
- Each individual has utility given by

$$(1 - \tau) y_i + g_i + \alpha \Gamma (G),$$

where τ is a tax rate, y_i is the income of group i, g_i is the group-specific public good or transfer directed to this group, and G is a general public good (α parameterizing its efficiency).

- We assume that Γ is strictly concave and satisfies the Inada conditions.

Utilitarian Benchmark

- The government budget constraint is

$$G + \frac{1}{N}\sum_{i=0}^{N} g_i \leq \frac{1}{N}\left(\tau - C\left(\tau\right)\right)\sum_{i=0}^{N} y_i,$$

where $C\left(\tau\right)$, which is increasing and concave, captures the costs of taxation.

Utilitarian Benchmark

- Let us start with utilitarian benchmark (with equal weight from all groups).
- This is a solution to maximizing

$$\frac{1}{N}\sum_{i=0}^{N}\left(\left(1-\tau\right)y_i+g_i\right)+\alpha\Gamma\left(G\right)$$

subject to the government budget constraint.

- Denoting the Lagrange multiplier on the government resources by λ, the complementary slackness conditions are:

$$\begin{aligned}\alpha\Gamma'(G) &= \lambda\\ 1 &\leq \lambda\\ \bar{y} &= \lambda\bar{y}\left(1-C\left(\tau\right)\right).\end{aligned}$$

- Inspection shows that if α is greater than some α^*, then the conditions for group specific transfers will be all slack, and all redistribution will be through the public good.

Political Game

- Individuals vote for party A if it provides them a utility benefit greater than x, where x is drawn from the distribution H_i with density h_i.
- Parties simultaneously choose platforms $(\tau, G, g_1, ..., g_N)$ that satisfy the government budget constraint to maximize their vote shares.
- Assuming no corner solution, the vote share of party A can be written as:

$$S_A = \sum_{i=0}^{N} H_i \left[\left(1-\tau^A\right) y_i + g_i^A + \alpha\Gamma\left(G^A\right) - \left(\left(1-\tau^B\right) y_i + g_i^B + \alpha\Gamma\left(G^B\right) \right) \right]$$

Political Equilibrium

- Under usual conditions, a symmetric political equilibrium will exist and will satisfy the first-order conditions

$$\begin{aligned} \alpha\Gamma'(G) &= \frac{\lambda'}{\sum_{i=0}^{N} h_i(0)} \\ h_i(0) &\leq \lambda' \\ \bar{y} &= \frac{\lambda'}{\sum_{i=0}^{N} h_i(0)} \bar{y}(1 - C(\tau)). \end{aligned}$$

- Now suppose that $h_i(0)$ is very high for some group (i.e., they are very responsive transfers). Then relative to the utilitarian benchmark, this will lead to equality for the group-specific transfer for that group.
- This will also increase λ' above λ, which will have two implications:
  1. There will be underinvestment in the general public good.
  2. Taxes will increase (because government resources are now more valuable to the party seeking to increase its vote share).

More Generally

- More generally, if the utility function is also concave in group-specific transfers, several groups will receive such transfers, and even more underinvestment in the general public good will result.
- Interpretation : vote seeking will bias policies away from general public goods to those that can be targeted to the most responsive groups, even if this is inefficient.

Clientelism and Democracy

- What's the relationship between clientelism and democracy?
  - Clearly, it is democratic competition of sorts that is at the root of the type of clientelism outlined here.
  - But Lizzeri and Persico (2004) show that an extension of the franchise can reduce clientelism— because it increases the importance of the general-purpose public goods rather than group-specific public goods. This is in fact the basis of their alternative theory of democratization in 19th century Britain.
  - If so, the solution to clientelism might be to strengthen rather than rein in democracy.

Clientelism in Indian Villages

- Anderson, François and Kotwal (2011) provides a possible example of captured democracy, rural governance institutions (Gram Panchayats) in Maharashtra India.
- Elections are free, with very limited fraud and coercion, and typically lead to high representation.
- Citizens also appear to believe that the democratic process works.
- However, land-owning elite from the leading caste, Marathas, dominate politics both directly and indirectly, and this often has the effect of undermining redistributive policies and also poverty alleviation programs.

A Failing Democracy

- Villagers are generally dissatisfied with the performance of rural governance institutions, and there is general recognition that power is in the hands of upper caste members and landowners.
- Empirical work by Anderson et al. shows that Maratha elites dominate politics in places where they are more numerous (in part because of block caste voting and the greater social cohesion) but also in places where they own more land.
- In such elite-dominated villages, wages are lower (even though productivity on agricultural lands and profits are higher).
- Anderson et al. suggest that this pattern reflects patron-client relations in Maharashtra villages, empowering the elite. We next turn to a brief discussion of clan to listen.

The Effects of Elite Domination

- Maratha domination (MLD) has a negative effect in villages with small fraction of Marathas (low MPROP):

TABLE 2—ESTIMATIONS OF GP MEASURES

Dependent variable:	Coefficient (β_1) *MLD*	Coefficient (β_2) *MPROP*	Coefficient (β_3) *MLD · MPROP*	Coefficient ($\beta_1 + \beta_3$)	Observations
Maratha Pradhan	0.43 (0.15)***	1.21 (0.24)***	−0.51 (0.28)*	−0.08 (0.18)	290
Programs (household data)					
All programs (1)	−1.01 (0.36)***	−1.19 (0.57)**	1.84 (0.72)***	0.83 (0.49)*	8,140
BPL programs (1)	−0.42 (0.12)***	−0.37 (0.21)*	0.81 (0.27)***	0.39 (0.18)**	8,140
EGS (1)	−0.10 (0.04)***	0.02 (0.08)	0.19 (0.10)**	0.09 (0.07)	8,140
Income programs (1)	−0.98 (0.33)***	−1.11 (0.54)**	1.84 (0.68)***	0.87 (0.46)*	8,140
Non-income programs (1)	−0.03 (0.04)	−0.08 (0.07)	−0.004 (0.08)	−0.04 (0.05)	8,140
Programs (village data)					
All programs (2)	−0.94 (0.37)***	−1.04 (0.57)*	1.44 (0.75)**	0.49 (0.50)	291
BPL programs (2)	−0.40 (0.13)***	−0.35 (0.21)*	0.69 (0.28)***	0.29 (0.18)	291
EGS (2)	−0.08 (0.04)**	0.02 (0.09)	0.18 (0.11)*	0.10 (0.08)	291
Income programs (2)	−0.92 (0.34)***	−1.00 (0.54)*	1.53 (0.70)**	0.61 (0.47)	291
Non-income programs (2)	−0.02 (0.04)	−0.04 (0.07)	−0.09 (0.09)	−0.11 (0.06)*	291
Revenue (1)	−157.4 (86.2)*	−173.5 (237.1)	122.8 (231.5)	−34.6 (200.5)	220
Revenue (2)	−10.4 (5.4)**	−16.0 (8.0)**	25.4 (10.7)**	14.9 (5.8)**	307
Expenditure	−10.0 (5.2)**	−15.2 (7.9)**	27.2 (10.5)**	14.2 (5.7)**	307
BDO meetings	−2.37 (1.04)**	1.46 (3.92)	0.15 (4.03)	−2.22 (3.45)	290
MP meetings	−3.04 (1.54)**	−2.05 (2.49)	3.28 (1.92)*	0.25 (1.46)	290
DC meetings	−2.04 (0.87)**	−3.96 (1.77)**	3.32 (1.67)**	1.29 (1.02)	290
Meetings (AES)	−2.48 (1.06)**	−1.51 (1.85)	2.25 (2.13)	−0.23 (1.53)	290

Notes: All estimations include village-level controls (latitude, longitude, elevation, presence of river/canal, distance to natural water sources, distance to railways and national roads, soil quality measures, rainfall levels, proportion of the population that is SC/ST, total village population, and whether the GP is reserved) and regional fixed effects. Robust standard errors are in parentheses. Acronyms used are: Maratha land dominated (MLD); Maratha population proportion (MPROP); below poverty line (BPL); employment guarantee scheme (EGS); block development officer (BDO); district collector (DC); member of parliament (MP); and average effect size (AES). Revenue (1) refers to data collected from the balance sheets (covers last 24 months) submitted by the GPs (obtained using RTI Act). Revenue (2) and Expenditure are annual per capita values from the 2001 village census. Information on programs (programs (1); BPL programs (1); EGS (1); income programs (1); non-income programs) are reported from household-level data, and regression disturbance terms are clustered at the village level for these estimations and household level controls are also included (education, land ownership, and caste identity). Programs (2); BPL programs (2); EGS (2); income programs (2); and non-income programs (2) are variables which aggregate this household-level information up to the village level. Estimations are ordinary least squares (OLS) except EGS (1), which is a probit estimation, where the reported coefficients are the partial derivates of the predicted probability. Meetings (AES) is the estimated average effect size of the three variables: BDO meetings, DC meetings, and MP meetings.

***Significant at the 1 percent level.

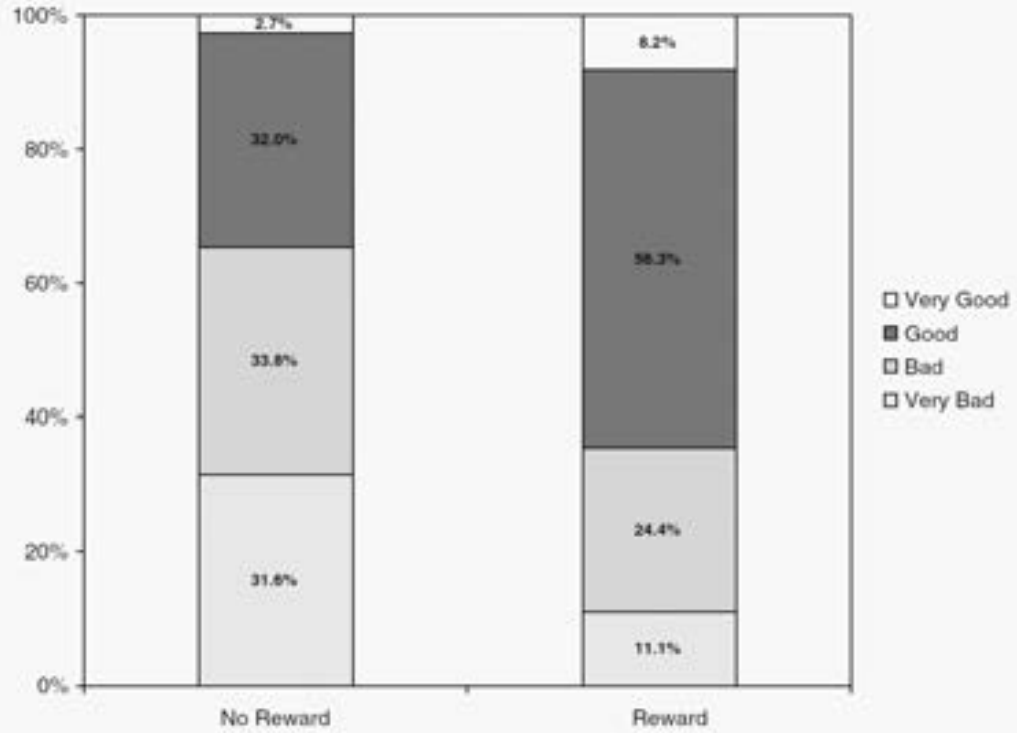
**Significant at the 5 percent level.

*Significant at the 10 percent level.

Clientelism in Argentina

- Nichter (2008) argues that the main role of patronage and machine politics in Argentina is to encourage turnout.

FIGURE 2. Opinion of Peronists among Recipients and Nonrecipients of Rewards



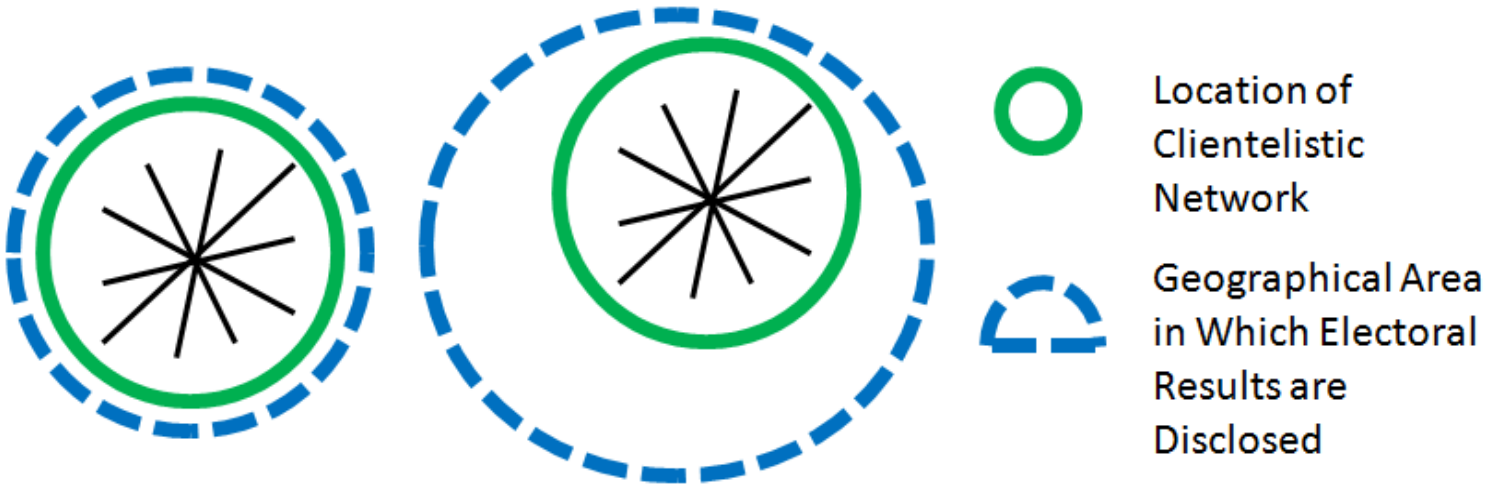
Note: This figure is a corrected version of Figure 3 in Stokes 2005, 324. Rewards reflect particularistic benefits received during the 2001 electoral campaign by Stokes's survey respondents. Individuals coded as receiving rewards if answering "Yes" to this question: "Did you receive goods distributed by a party in the last campaign?" The most frequent reward was food; other rewards frequently mentioned included building materials, mattresses, and clothing (Stokes, 321).

Clientelism Networks in Mexico

- Larreguy (2013): the role of clientelistic networks in Mexico.
- In Mexico, such networks seem to have been important for the last 70 years for the support for PRI.
  - Particularly important in *ejidos* and *comunidades agrarias* controlled by the PRI.
- These networks will be particularly powerful when:
  - they have the resources and the power to fund political brokers and reward voters, and
  - they have the ability to monitor vote behavior and particularly, the performance of political brokers.

Empirical Strategy

- Suppose that PRI uses electoral data to monitor the performance of the brokers that control their networks.
- Exploit the fact that parties face a mismatch between
  - the level at which brokers operates their networks, and
  - the level at which electoral data they can use to monitor brokers is disclosed.



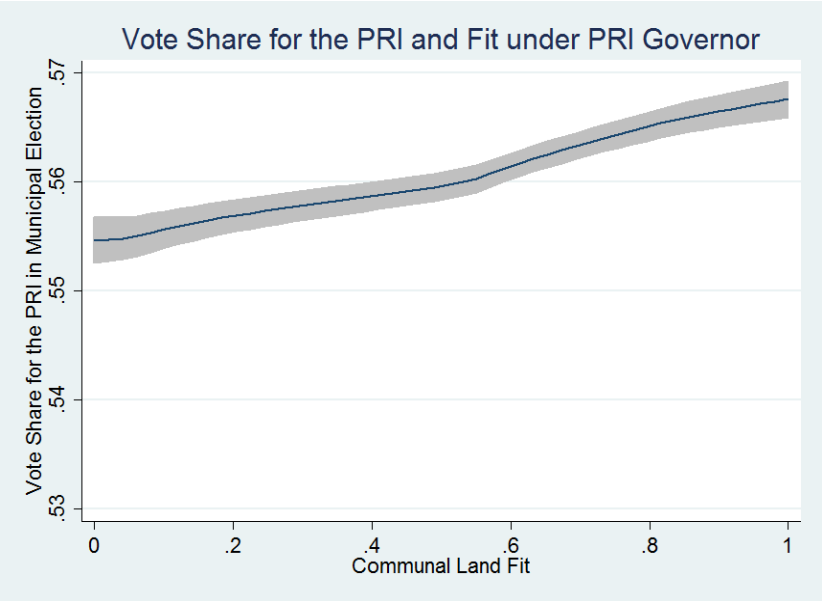
Empirical Model

$$y_{emst} = \beta_0 + \beta_1 \cdot I_{st}^{PRI} + \beta_2 \cdot fit_{ems} + \beta_3 \cdot I_{st}^{PRI} \cdot fit_{ems} + \varepsilon_{emst}$$

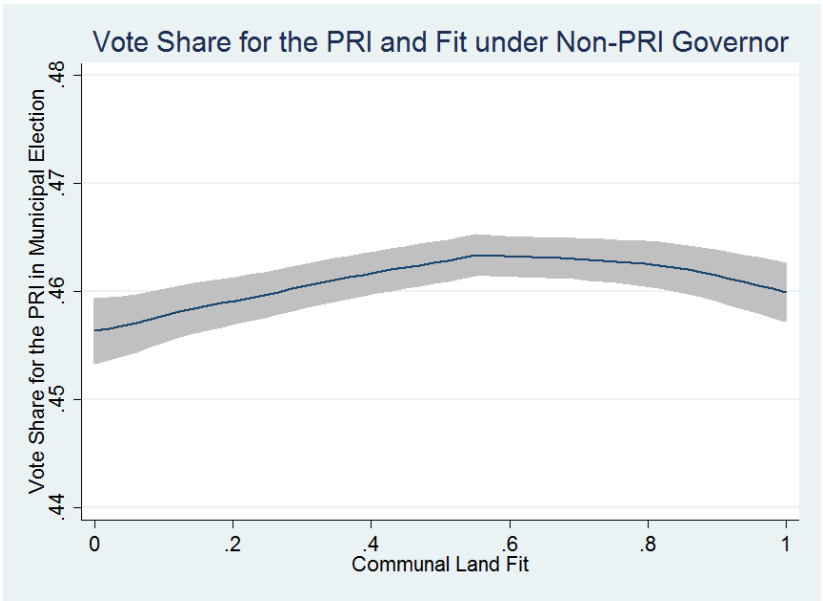
- y_{mst} : vote share for the PRI in communal land c municipality m in state s in year t.
- I_{st}^{PRI} : dummy variable that indicates whether the PRI controls the state government at the time of the election—*resource effect*
- fit_{ems} : *fit* of communal land to the electoral district, measuring mismatch—*monitoring effect.*
- ε_{emst} : error term.

Results

Under PRI Control

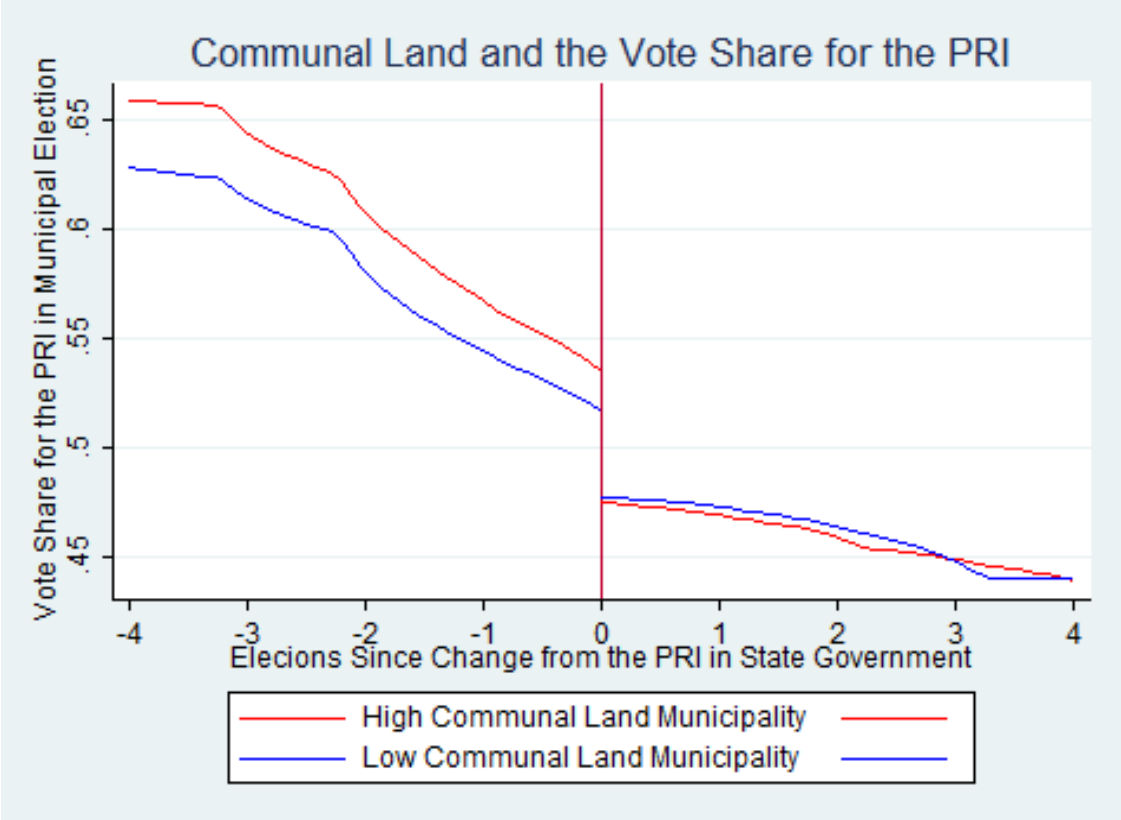


Under Non PRI Control



Courtesy of Horacio A. Larreguy. Used with permission.

Results (continued)



- Vote Share for the PRI (y axis) and Election Since Change from the PRI in State Government (x axis).

Courtesy of Horacio A. Larreguy. Used with permission.

Outcome Results

- Greater power of PRI networks associated with more success for PRI in controlled by PRI governors.
- But also worse public good outcomes.

Coercion

- Even more pernicious than vote buying and clientelism would be direct coercion.
- Sometimes the line between coercion and vote buying are blurred (traditional networks are good for threats of coercion also).
- An interesting setting is studied by Baland and Robinson (2008), who argued that Chilean landowners before the introduction of the secret ballot were able to coerce their tenants into voting for right-wing parties.
- This changed after the introduction of the secret ballot in 1958.

The Effects of the Secret Ballot

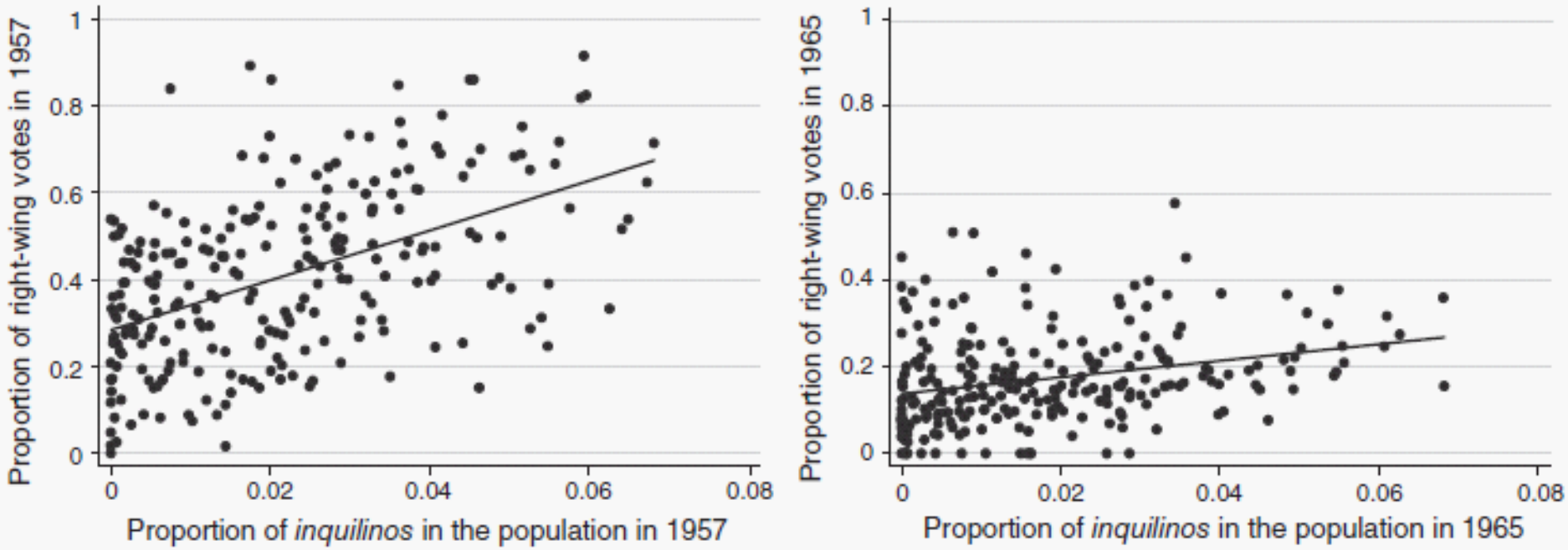


FIGURE 1. RIGHT-WING VOTES AND THE RATIO OF *INQUILINOS* TO REGISTERED VOTERS IN 1957 AND 1965
(Scatter plot and simple regression line)

Not so Different in the United States

- Machine politics in the United States is not so different.
- Especially before civil service reforms, public sector jobs were under the control of mayors, state legislatures and governors.
- In the same way that landowners may use their control of land to influence the voting patterns of their tenants, machine politics may involve the use of patronage jobs at the state level to influence voting.
- This is studied by Folke, Hirano and Snyder (2011) using a differences-in-differences design (with a touch of close election comparison).
- The empirical strategy is to look at the effects of control of state lower house on future election outcomes differentially by states that have or have not undergone civil service reforms (which took place between 1880 and 1980).

Results

- Coefficient on patronage (no civil service reform), controlling for majority in the lower house for the party in power. Estimates suggest as much as 28% more votes due to patronage.

TABLE 1. Patronage and Election Outcomes 1885–1995

Specification and Sample	Dependent Variable: Leg Cntrl Next 8 Yrs	SW Wins Next 8 Yrs	Leg Cntrl Next 4 Yrs	SW Wins Next 4 Yrs	# Obs.
Linear controls, no FE Full sample	0.219 (0.073)	0.214 (0.052)	0.181 (0.056)	0.232 (0.054)	974
Full controls, no FE Full sample	0.433 (0.126)	0.242 (0.097)	0.414 (0.123)	0.233 (0.097)	974
Full controls, state and year FE Full sample	0.552 (0.149)	0.213 (0.119)	0.462 (0.155)	0.133 (0.115)	974
No controls, no FE Lower house margin ≤ 8	0.165 (0.055)	0.158 (0.039)	0.159 (0.061)	0.176 (0.043)	267
No controls, no FE Lower house margin ≤ 6	0.232 (0.064)	0.173 (0.047)	0.192 (0.071)	0.179 (0.052)	190
No controls, no FE Lower house margin ≤ 4	0.283 (0.079)	0.176 (0.058)	0.311 (0.084)	0.212 (0.063)	122
No controls, no FE Lower house margin ≤ 2	0.326 (0.124)	0.247 (0.080)	0.352 (0.130)	0.234 (0.091)	53

Notes: Each column presents estimates of the coefficient on the Patronage variable with the dependent variable listed at the top of each column. Rows (1)–(3) present estimates of β_1 from equation (1) including both close and non-close elections. Rows (4)–(7) present estimates of the coefficient on the Patronage variable focusing on close elections. The estimates in row (1) include the Margin variable and the Margin variable interacted with the Patronage variable. Rows (2) and (3) include a third-order polynomial of the Margin variable as well as its interaction with the Patronage variable. Row (3) also includes state and year fixe deffects. Robust standard errors are in parentheses. In rows (1)–(3) the standard errors are clustered by state.

What is Populism?

- Typical "left-wing" populism associated with various policies:
  - Budget deficits, mandatory wage increases, price controls, overvalued exchange rates, expropriation of foreign investors / large businesses.
- Costly to businesses, but also costly to the population at large.
- Dornbush and Edwards (1991):

> *"Populist regimes have historically tried to deal with income inequality problems through the use of overly expansive macroeconomic policies. These policies, which have relied on deficit financing, generalized controls, and a disregard for basic economic equilibria, have almost unavoidably resulted in major macroeconomic crises that have ended up hurting the poorer segments of society."*

- These are rather different from the current "right-wing" populist wave, which is often based on nationalist/anti-immigrant rhetoric and policies.

Populism vs. Median Voter

- Are these policies what the "median voter" wants?
- Perhaps, but Dornbusch and Edwards's definition and the fact that middle classes and lower middle classes suffer on their populist policies suggests may be not.
- The fact that populist policies are often to the left of the "median voter" cannot be explained solely by personal biases of the populist politician.
    - such biased politician would fail to be reelected.

Populism and Popularity

- Most populist regimes are "popular," at least for quite a while.
- Popularity of populist regimes even allows leaders to violate constitutional norms:
  - most of Latin American postwar leaders post term-limited (often by one term), but many violated the rules.
  - this should not be the case if they are known to involve highly inefficient policies
- Also interestingly, many of the populist politicians or parties, at least in Latin America, often end up choosing policies consistent with the interests of traditional elites
  - E.g.: PRI in Mexico, the policies of traditional parties in Venezuela and Ecuador, Fujimori's reign in Peru, Menem in Argentina.

Possible Definition

- Populism = policy to the left of median voter's ideal policy but still popular
- Why would this be the case?
- One-dimensional policy space
- Two points of attraction for politician
  - median voter's preferences
  - elite's preferences, excercised through bribes
  - (personal preferences if partisan)
- Normally, policy should lie between median voter's and elite's ideal points.
- But there are informational reasons for policy to be to the left of the median voter— i.e., populist.

A Political Theory

- Major concern of the median voter under weak institutions: a politician is secretly biased to the right or being disproportionately influenced by the elite (e.g., through bribery, corruption or lobbying).
- Relevant for the Latin American context.
- Politicians will move to the left to signal that they are not closet right-wingers or in the pockets of the traditional elites.
- Then: moderate politicians will necessarily adopt populist policies and even right-wingers (or corrupt politicians) may adopt such policies.
- Intuition: it is the threat of excessive elite influence under weaker institutions that leads to populist policies.

Policy Space and Voters

- One-dimensional policy space
- Two periods, 1 and 2
- Two groups of voters
  - majority (poor), with bliss point $\gamma^p = 0$
  - minority (elite), with bliss point $\gamma^r = r > 0$
  - results identical if there is a distribution of preferences with median at $\gamma = 0$
- Voters care about policy only
  - Person with bliss point γ gets utility

$$u(x_1, x_2) = -\sum_{t=1}^{2} (x_t - \gamma)^2$$

    from policies x_1 and x_2 in periods 1 and 2
- Elections are decided by median voter who is poor

Politicians

- Politicians' utility in each period depends on:
  - policy
  $$v = -\alpha (x - \gamma)^2 \quad \dots$$
  - office
  $$\dots \quad + W \mathbf{I}_{\{\text{in office}\}} \quad \dots$$
  - bribes
  $$\dots \quad + B$$
- Two types of politicians
  - share μ has $\gamma = 0$ ("**moderate**")
  - share $1 - \mu$ has $\gamma = r$ ("**right-winger**")
- We start with $B = 0$

Timing

1. Politician chooses first-period policy $x_1 \in \mathbb{R}$.
2. Population gets a noisy signal $s = x_1 + z$.
3. Median voter decides whether to replace the current politician with a random one drawn from the pool.
4. In the second period, the politician (the incumbent or the new one) chooses policy $x_2 \in \mathbb{R}$.
5. Everyone learns the realizations of both policies and gets payoffs.

Noisy Signal

- Noise z has a distribution with support on $(-\infty, +\infty)$ with c.d.f. $F(z)$ and p.d.f. $f(z)$.
- Density $f(z)$ is assumed to be an even (i.e., symmetric around 0) function, which is everywhere differentiable and satisfies $f'(z) < 0$ for $z > 0$.
  - the density function f is single-peaked
- Noise z is sufficiently high and well-behaved:

$$\left|f'(z)\right| < \frac{1}{\frac{r^2}{2} + \frac{W}{2\alpha}} \text{ for all } z.$$

  - implies $\Pr\left(|z| > \frac{r}{4}\right) > \frac{1}{4}$
  - implies $f(0) < \frac{2}{r}$
  - holds for $\mathcal{N}\left(0, \sigma^2\right)$ if σ^2 is sufficiently high, i.e., $\sigma^2 > \frac{\frac{r^2}{2} + \frac{W}{2\alpha}}{\sqrt{2\pi e}}$.

Equilibrium Concept

Period 2

- Perfect Bayesian equilibrium in pure strategies

- In period 2:
  - moderate politician chooses $x_2 = 0$
  - right-wing politician chooses $x_2 = r$
- Median voter prefers to have moderate politician in period 2
  - incumbent reelected if and only if his posterior that he is moderate is at least μ

Period 1: Elections

- Suppose that in equilibrium:
  - moderate politicians choose $x_1 = a$
  - right-wing politicians choose $x_1 = b > a$ (proved in the paper that this is always the case).
- For median voter who gets signal s, posterior probability that politician is moderate equals

$$\hat{\mu} = \frac{\mu f(s-a)}{\mu f(s-a) + (1-\mu) f(s-b)}$$

  - It exceeds μ if and only if

$$s < \frac{a+b}{2}$$

- The probability of reelection if policy is x equals

$$\pi(x) = F\left(\frac{a+b}{2} - x\right)$$

Period 1: Policy Choices

- Moderate politician maximizes

$$\max_x -\alpha x^2 + W\pi(x) - (1-\mu)\alpha r^2 (1-\pi(x))$$

  - he loses αr^2 in period 2 only if right-wing politician comes to power
  - FOC must hold at $x = a$:

$$-2\alpha a - \left(W + (1-\mu)\alpha r^2\right) f\left(\frac{b-a}{2}\right) = 0$$

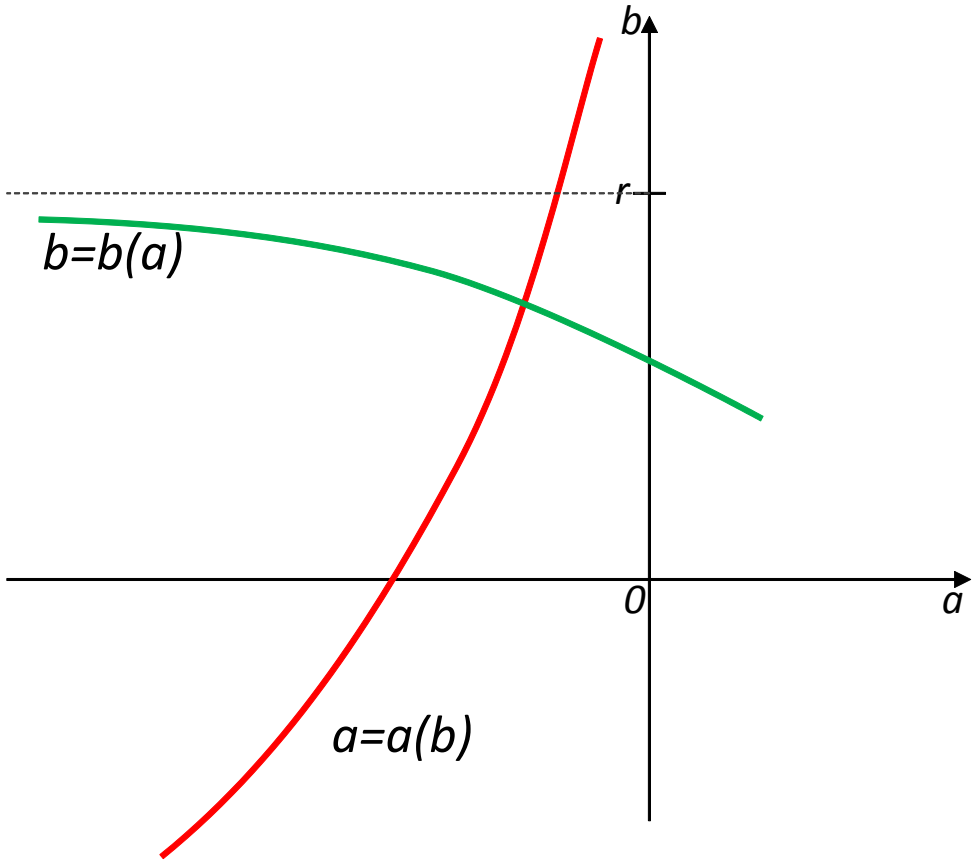
- Right-wing politician maximizes

$$\max_x -\alpha (x-r)^2 + W\pi(x) - \mu\alpha r^2 (1-\pi(x))$$

  - FOC at $x = b$:

$$-2\alpha (b-r) - \left(W + \mu\alpha r^2\right) f\left(\frac{b-a}{2}\right) = 0$$

Equilibrium



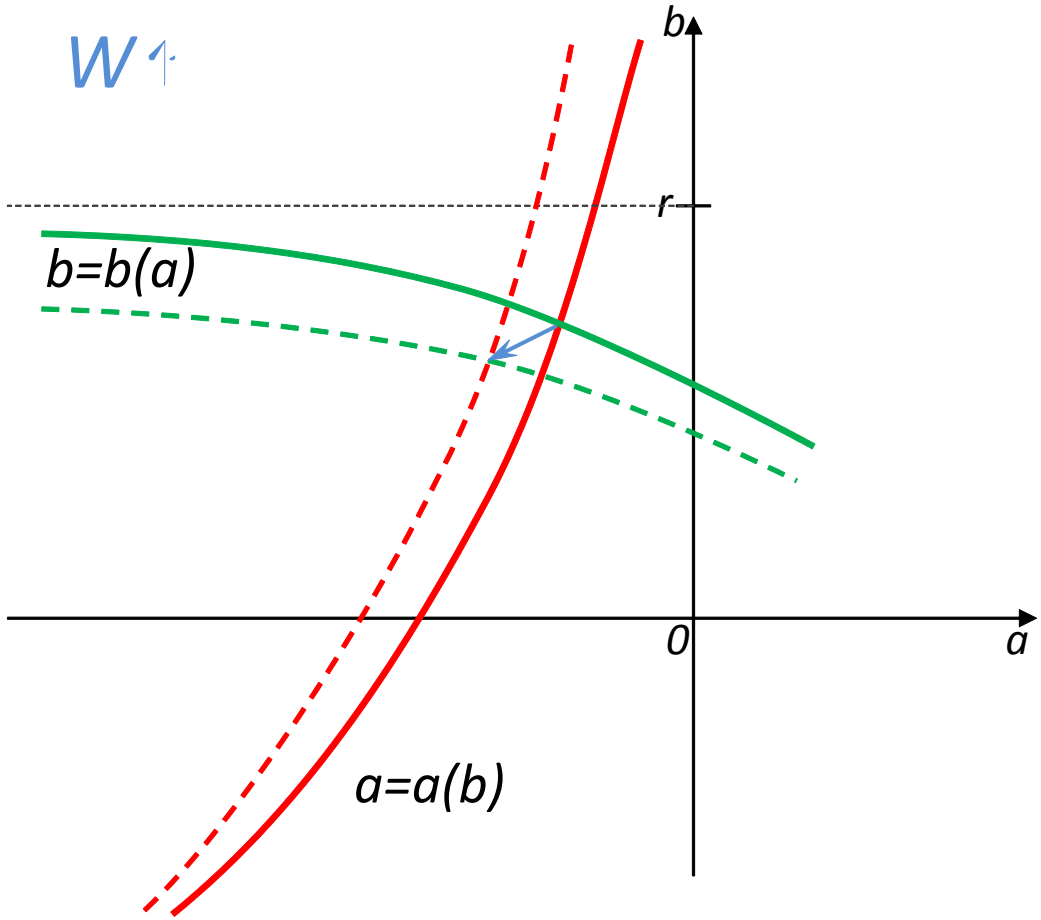
- Intuition for shapes: related to effects of policies on likelihood ratios.

Solution

- In equilibrium, $a < 0$
  - moving from $x_1 = 0$ to $x_1 < 0$ causes second-order loss
  - but first-order gain due to higher chance of reelection
- $b < r$ for the same reason
- This moves a left even further

- For moderate politicians: a right-wing alternative necessitates populist bias!
- This would be true even if $W = 0$
  - reelection is valuable as it allows to influence second-period policy

Comparative Statics



Comparative Statics (continued)

- Populist bias is stronger if
  - W is higher (i.e., politicians value being in office more)
  - α is lower (i.e., changing political positions is relatively costless for politicians)
  - μ is lower (i.e., moderate politicians are rarer)
- This holds even if W increases or α decreases for only one type of politician
  - e.g., higher W for pro-elite politicians makes them move left
  - and then pro-poor politicians move left as well

Comparative Statics (continued)

- Also, under additional conditions on distribution F, populist bias is stronger if:
  - r is greater (i.e., greater polarization).
  - two competing effects:
    1. benefits from reelection to both types of politicians is greater, which leads to more signaling;
    2. cost of signaling is also higher to right-wingers.
    Additional conditions ensure that the first effect dominates.
- Populist bias would be weaker if elitist politicians could commit to $b = r$

Populism of Right-Wing Politicians

- If $W = 0$, then $0 < b < r$
  - $x_1 < 0$, $x_2 = r$ is dominated even by $x_1 = r$, $x_2 = 0$
  - hence switching to $x_1 = r$ is better even if it guaranteed losing elections
- If $W > 0$, then $b < 0$ is possible
  - if office is very valuable per se, *all* politicians will be populists!
- What lessons does this model have for the current wave of "right-wing" populism?

14.770 Introduction to Political Economy

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