Competitive Proposals of Policies by Lobbies*

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Abstract

We consider a policymaker who must choose between the status quo and proposals made by lobbyists. Each lobbyist aims to maximize the tariff accorded his industry, but realizes that if he proposes too high a tariff, the policymaker may choose the proposal offered by another lobbyist which incorporates a lower tariff. The equilibrium has a positive probability that the policymaker who aims to maximize social welfare adopts a tariff higher than the one he prefers.

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1 Introduction

A large literature examines the influence of lobbies (or of special-interest groups) on policy. One important approach considers implicit or explicit bribery: the special interest offers money in return for the policy it favors. The seminal work in this approach is Grossman and Helpman (1994), who show that organized special interest groups get tariff protection or export subsidies, whereas diffused interests do not. A second important approach (Baron (1989)) considers the access enjoyed by a lobby, with influence arising from the private information the lobby provides the policymaker.

This paper examines a third mechanism: lobbies propose the policies among which the policymaker must choose. We thus depart from the common assumption that a policymaker can adopt any policy he wishes. We instead suppose that drafting policy is costly and difficult. This is especially likely in state legislatures, where legislators control few resources, relying on the executive branch or even on lobbyists to draft the legislation on which they vote.[1] At times of crisis, which demand quick action, a policymaker may rely even more heavily on policies previously developed by others. The influence of special interests on drafting policy has also generated political heat. For example, in 2004 the United States Supreme Court heard a suit demanding that Vice President Cheney disclose the names of the individuals he had consulted when drafting energy policy. In May 2004, the Environmental Protection Agency approved an air pollution regulation that could save the wood products industry hundreds of millions of dollars, relying on a risk assessment generated by a chemical industry-funded think tank, and a novel legal approach recommended by a timber industry lawyer.[2] Neely (1982, p. 80), a former West Virginia legislator, writes that because of tremendous demands on legislators' time and resources,

> It is not possible to initiate programs; the most we can expect for legislators is to react to programs ... [P]aid lobbyists on all sides bang out the compromises and refine legislation long before

[1] For instance, the American Society for the Prevention of Cruelty to Animals (ASPCA) cites the achievements of Ledy VanKavage, Director of the ASPCA's Midwest Government Affairs and Public Policy, who got the Companion Animal Hoarder Bill signed into law in Illinois in August 2001. See http://www.animaland.org/asp/career/index.asp.

[2] Alan C. Miller and Tom Hamburger "EPA Relied on Industry for Plywood Plant Pollution Rule," Los Angeles *Times*, May 21, 2004, electronic edition.

> a legislator is required to take a position on it. The development of comprehensive, politically acceptable legislative packages requires scores of man-years of work, and no single legislator or even group of legislators has resources like that at their disposal. It is the business of paid lobbyists to bring to legislators proposed packages of legislation from which to work ...

Similarly, in their exhaustive study of tariff legislation in the 1950s, Bauer, Pool, and Dexter (1963) find that lobbyists largely served as "adjuncts to staff," as "service bureaus" to legislators.

To say that special interests draft policies among which the policymaker chooses does not make the special interests all powerful. For competition among special interests can lead them to draft proposals which will appeal to the policymaker, as we show below.

We can interpret our analysis in a different way: rather than a lobby proposing policies, it provides useful information to a policymaker, but demands favors in return. For example, a labor union representing steel workers may inform a congressman about the preferences of its workers on health care or abortion, but will provide such information only if the congressman supports a tariff on steel. We thus turn around the view that lobbies seek access to congressmen, with the idea that congressmen seek access to lobbyists.[3]

2 Literature

2.1 Agenda setting

We build on earlier papers which study agenda setting. Agenda setting within legislatures is modeled by Baron and Ferejohn (1989), Baron (1989), and Harrington (1990). They assume that any legislator can make a proposal,

[3]Several papers examine the informational benefits to a politician who grants access. The information can concern the importance of the problem a legislator is considering (Hansen (1991), Smith (1995)), the effectiveness of policy (Krehbiel (1991), Smith (1995)), and the electoral consequences of different policies (Kingdon (1984), Hansen (1991), Austen-Smith (1993), Rasmussen (1993), and Lohmann (1995)). Esteban and Ray (2004) extend these models by considering a government aiming to maximize efficiency but uncertain about the best policy; the confounding effects of vociferous lobbying by both the most productive and the richest groups leave government unsure about which groups to favor, and so may lead it to enact inefficient policies.

but that proposals are considered in a random order. In proposing and voting on policies a legislator must thus compare the benefits from the proposal to the status quo, and to a future proposal. They also assume, as we do, that legislation, once adopted by majority vote, cannot be amended—the legislative session ends.

Our examination also relates to the analysis by Gilligan and Krehbiel (1987), who show how legislators can benefit from the closed rule rather than the open rule for proposals made by a committee. The inability of the floor to amend proposals made by a committee gives committee members the incentive to expend the effort to become informed, yielding better policies. We follow them in supposing that the legislators who vote on a policy cannot amend a policy proposed to them.

Several authors consider the incentives for introducing legislation. Kingdon (1984) presents interview data on who proposes policies. In a study of the Cuban missile crisis, Allison (1971) shows that the ability to make proposals can give the proposer much influence. Banks and Gasmi (1986) inquire into the policies members of a committee or legislature will propose.

Competition among lobbyists in proposing policies is studied by Epstein and Nitzan (2004) and by Munster (2005). They show conditions under which a lobby will propose moderate policies with the aim of reducing the other lobby's efforts.

2.2 Costs to legislator of drafting policy

Empirical research suggests that a legislator may face a high opportunity cost in drafting or proposing policy, and that the incentives for spending time on policy may be especially weak when drafting legislation is a public good for legislators who favor the policy. In particular, an important opportunity cost of a legislator's time consists of foregone opportunities for constituency service. Surveys find that a fourth of the American public considers constituency service to be a congressman's most important activity (Cain, Ferejohn, and Fiorina (1987), p. 39). One congressional aide (cited in Cain, Ferejohn, and Fiorina (1987), p. 79) expressed the representative's duties as follows:

> You're elected to be a legislator, but casework and projects keep you elected. People in the district expect you to represent them

> in their dealings with the bureaucracy. Our prime responsibility is to see them and attend to their problems.

Johannes (1984) also offers evidence that voters demand constituency service and district-oriented effort. He cites (p. 188), for instance, a CBS-New York *Times* poll finding that more people believe it important for a congressman to help constituents deal with the bureaucracy than to work in Congress on bills of national interest. Fiorina (1977, 1981) finds that a voter is more likely to vote for an incumbent congressman the more satisfied he is with the congressman's service to individual constituents, such as interventions with the Social Security Administration to deliver a delayed check. Yiannakis (1981) also finds that persons who received good casework are more inclined to vote for the incumbent.

These costs of drafting policy can affect the policies a legislator proposes, by inducing him to propose policies which are supported by a large majority of legislators (Glazer and McMillan (1992)), or by proposing policies which other legislators would later not want to amend (Glazer and McMillan (1990)).

3 Assumptions

3.1 Policy proposals

Consider a policymaker who can choose among policy packages presented to him; he cannot amend any package. A policy package is described by three variables. The first variable refers to a policy which directly affects no special interest, but which concerns a legislator; we call this policy a "public issue." For simplicity, this policy (π) is binary: either the status quo is maintained, or else the policy proposed has a fixed value, which the policymaker prefers to the status quo. We indicate the (bad) status quo by B, and the (good) alternative by G. Examples of good alternatives are a modification of patent law to induce innovation in the biotechnology industry, funding of the Department of Agriculture to combat mad cow disease, or the organization of auctions for governmental allocations of the radio spectrum. The remaining two elements of a package are the tariffs, t_1 and t_2 on goods 1 and 2. Thus, policy is indicated by the vector (π, t_1, t_2). The status quo, which will continue unless the policymaker adopts a proposal for change, is (B, t_1^0, t_2^0).

3.2 Policymaker

The policymaker's utility is $U(\pi, t_1, t_2)$, with $U(G, t_1, t_2) > U(B, t_1, t_2)$: he prefers G over B. We can make general assumptions about how utility varies with t_1 and t_2; what is essential to our results is that the industry prefers a tariff higher than what the policymaker wants. To highlight the effects, and to simplify the analysis, we assume that the policymaker's utility declines with the tariff: $\partial U/\partial t_1 < 0$ and $\partial U/\partial t_2 < 0$. Also for simplicity, we suppose that the status quo is $(B, 0, 0)$. Lastly, tariffs enter symmetrically into the policymaker's utility function: $U(\pi, x, y) = U(\pi, y, x)$. Though this assumption is not essential for any of the qualitative results, it simplifies the analysis.

Define t_1^m as the value of t_1 satisfying $U(G, t_1^m, 0) = U(B, 0, 0)$; define t_2^m analogously. Thus, t_1^m is the maximum tariff on good 1 which the policymaker would accept in return for having G instead of B.

The policymaker, say the decisive legislator, cannot propose a policy, but can only choose between policy packages presented to him, or else reject all proposals, thereby maintaining the status quo. The essential results, however, would also hold if the legislator could propose a policy, but because he is less informed than the lobby, or can devote less effort to drafting a policy, the policy he proposes is inferior to the one a lobbyist may propose. Thus, suppose that at a cost c the legislator can draft a policy $(g, 0, 0)$, with $g < G$. Then the legislator will prefer a policy the lobby proposes if $U(G, t_1^m, 0) > U(g, 0, 0) - c$.

3.3 Lobbies

We consider two special-interest groups, or lobbies. Lobby i represents industry i, which favors a tariff on good i. Each lobby can propose one policy package, (π, t_1, t_2). Proposing a policy package costs a lobby c. The lobbies choose the policies simultaneously. The utility of lobby i from tariff t_i is simply t_i. For convenience we shall speak of the lobby as simultaneously offering a policy proposal and a tariff, and of the policymaker as simultaneously choosing policy and a tariff. But we would have the same results if instead lobbies and policymakers had implicit contracts—a policymaker who is indebted to a lobby for drafting policy later grants the favored industry a tariff.

4 Equilibrium

Each lobby first decides what package, if any, to propose. The policymaker then maximizes his utility, choosing either the status quo, the package proposed by lobby 1 (if any), or the package proposed by lobby 2 (if any). We consider symmetric Nash equilibria among symmetric lobbyists.

4.1 Characteristics of equilibrium

Our assumptions immediately yield several implications about the proposals a lobby would make. First, any proposal by a lobby will specify $\pi = G$, and no tariff on the other good. The lobby thereby maximizes the policymaker's utility for any given tariff on its own good, and so makes its proposal more attractive to the policymaker.

Second, in any Nash equilibrium a lobby proposes a policy with positive probability. For if, say, lobby 1 proposed nothing, lobby 2 could propose $(G, 0, t_2^m)$, which the policymaker would adopt. If $t_2^m > c$, this would increase the lobby's utility over the status quo.

Third, in the Nash equilibrium each lobby uses mixed strategies in offering a proposal and in setting its content. To see why no equilibrium can have pure strategies, suppose lobby i always proposed a known tariff t_i. If the two tariff proposals differed, then the lobby proposing a lower tariff would always win, and the other lobby would always incur a loss of c. And if $t_1 = t_2$, so that each gets its proposal adopted with non-infinitesimal probability, then any one lobby would undercut the other lobby's proposal by an infinitesimal amount, ensure that its package is adopted, and so increase its utility.

To determine the equilibrium, we consider a strategy of the following form. A lobby proposes a positive tariff with probability m. If it does propose a positive tariff, then the probability density function for its proposal is positive for all values of t lying in some interval (t_L, t_H); we call the corresponding probability distribution function $F(t)$.

If $m > 0$, then a lobby's must enjoy the same expected utility when it proposes a package as when it does not, namely zero. That is, for any tariff t that a lobby proposes in (t_L, t_H),

$$-c + t(1 - m) + tm(1 - F(t)) = 0, \tag{1}$$

so that

$$F(t) = (t - c)/(mt). \tag{2}$$

A lobby which proposes t_L has its proposal adopted for sure, but its expected utility must be zero. Therefore

$$t_L = c. \tag{3}$$

To find the highest tariff a lobby might propose, t_H, note that this proposed tariff will be adopted only if the other lobby proposed nothing, and if the policymaker will support it over the status quo. In equilibrium, therefore,

$$t_H = t^m. \tag{4}$$

The remaining unknown is the value of m, or the probability that a lobby proposes a positive tariff. We determine its value from the condition that $F(t_H) = 1$, or

$$F(t^m) = (t^m - c)/(mt^m) = 1, \tag{5}$$

so that

$$m = \frac{t^m - c}{t^m}. \tag{6}$$

In short, we have

Proposition 1 In equilibrium, each lobby drafts a bill with probability $(t^m - c)/t^m$, where t^m satisfies $U(G, t^m, 0) = U(B, 0, 0)$. The policy it proposes on the public issue is G. The tariff, t, is drawn from the probability distribution function $F(t) = (t-c)/(mt)$. The legislator adopts the proposal with the lowest tariff. If no lobby proposes a policy, the status quo remains in effect.

4.2 Implications

The equilibrium has several plausible features. Sometimes government imposes a tariff, though it realizes the inefficiency, and though it does not intend to benefit the industry at the expense of the public. This result contrasts with a result by Grossman and Helpman (1994) who show that a policymaker provides protection because he values the contributions he gets from the lobby. In contrast, our model has an industry getting protection while spending little or nothing on campaign contributions, and without promising payments if its favored policy is adopted. Moreover, empirical tests of the Grossman–Helpman (1994) model find that the policymaker little values contributions. For instance, Goldberg and Maggi (1999) show that in the U.S.

the policymaker's utility function places seventy times as much weight on social welfare as on contributions.[4] In our model, the policymaker maximizes welfare and does not value contributions *per se*, but nevertheless protects organized industries. Organized industries (that is industries with the ability and connections to propose policies) get protection, whereas unorganized industries do not. But some organized industries get no protection.

4.3 Multiple issues

We considered a lobby which cares only about one issue, tariff protection for itself. The model can be extended. For instance, the steel lobby may ask for a tariff, and in addition for less stringent environment regulations and laxer labor laws. We indicate these additional policy proposals by p. So suppose now that the policy package proposed by lobby i is (π, t_i, p_i). If the policymaker adopts this proposal, his utility is $U(\pi, t_i, p_i)$. For sufficiently low values of t_i and p_i he prefers this package over the status quo: $U(G, t_i, p_i) > U(B, 0, 0)$ .The utility of lobby i is $t_i + p_i$. The reasoning from above implies that no equilibrium in pure strategies exists, but that an equilibrium in mixed strategies exists. It is straightforward to verify that, with a minor modification, the results that applied with one public policy apply to multiple public policies.[5]

4.4 Multiple tariffs

One conclusion of the model may appear implausible: government grants tariff protection only to the industry which proposed the lowest tariff, rather than granting protection to multiple industries. But that conclusion held only because we supposed both lobbies could propose changes on the public issue.

Suppose instead that in addition to the tariffs, policy can be set on $N > 1$ public issues. We can make different assumptions about the ability of different lobbies to propose changes on different public issues.

[4] Mitra et al. (2002) reach similar conclusions in their study of Turkey.

[5] A lobby now propose a package with probability m. If it does propose a package, then the probability density function for its proposal is positive for all values of $t + p$ lying on some interval (p_L, p_H); we call the corresponding probability distribution function $F(p)$, which corresponds to the probability density $F(t)$ in (2) above.

One assumption is that each lobby can propose a package that deals with all public issues. The equilibrium would then resemble the one described above: with positive probability less than one each lobby proposes policy G on each public issue, it proposes tariff protection for itself (with the level following a non-degenerate probability density function), and no tariff for other industries. The policymaker then adopts that package, if any, which offers G on the public issues and the lowest tariff. Here again, only one industry will enjoy a tariff.

The results differ if a lobby is constrained in the policies it can propose on public issues. This can arise if the lobbies differ in expertise or credibility on different public issues, or if a lobby faces increasing marginal cost of proposing policies. For simplicity, suppose each lobby can propose G on only one public issue, and that each lobby believes that with probability $1/N$ the other lobby will propose a policy on the same public issue. The policymaker, however, would prefer to change the status quo on several public issues. Since he can only implement packages proposed by a lobby, to address multiple issues he may have to adopt multiple tariffs proposed by different lobbies.

More explicitly, let policy on public issue j be π_j, for $j = 1, 2, ...N$. The status quo is B for each of the N public issues. Let π_{ij} indicate that lobby i proposes policy G on public issue j. The policy package proposed by lobby i is now given by (π_{ij}, t_1, t_2). The policymaker's utility is $U(\pi_1...\pi_N, t_1, t_2)$. We assume, as in the model above, that the policymaker's utility declines with any tariff. We assume further that the policymaker's disutility from a tariff on good i increases with the tariff on good j, or that $\partial^2 U/\partial t_i \partial t_j 0$. Lastly, the utility of lobby i from the adoption of a tariff on good i is t_i.

It is straightforward to verify, as in our discussion of the simpler model, several characteristics of the equilibrium. First, a proposal by a lobby will specify $\pi = G$ on the public issue it can address, a positive tariff on its own good, and a zero tariff on the other good.

Second, in a Nash equilibrium each lobby proposes proposes a policy with positive probability. For if one lobby, say lobby 1, proposed nothing, lobby 2 could propose $(G_i, 0, t_2^m)$, which the government would adopt.

Third, the Nash equilibrium has each lobby use mixed strategies in offering a proposal and in setting the content of the proposal. For with some positive probability, both lobbies will propose policy G on the same public issue, and the policymaker would then adopt the package proposed by the lobby that proposes a lower tariff. Were strategies pure, then any one lobby would benefit by proposing a tariff infinitesimally lower than that proposed

by the other lobby.

The equilibrium strategies will have the form described before. A lobby proposes a positive tariff with probability m. If it does propose a positive tariff, then the probability density function for its proposal is positive for all values of t lying on some interval (t_L, t_H); we call the corresponding probability distribution function $F(t)$.

If $m > 0$, then a lobby which makes no proposal has zero utility, and so the expected utility of a lobby which makes a proposal is also zero. That is, for any tariff t that a lobby proposes in (t_L, t_H),

$$-c + t(1-m) + tm(1-F(t))[1/N + (1-1/N)] = 0. \tag{7}$$

The first term in the square brackets above, $1/N$, is the probability that both lobbies propose a policy on a given public issue. The second term, $(1-1/N)$, is the probability that the two lobbies propose policies on different public issues. This yields an expression for $F(t)$:

$$F(t) = \frac{t-c}{mt}. \tag{8}$$

Note that (8) is identical to (2). It is straightforward to verify that the solutions for t_L, t_H, and consequently, m will be the same as the solutions we obtained when a lobby could address only one public issue. The implication of the results, however, differs. Both lobbies propose a positive tariff with probability m, but propose G on different issues with probability $(1-1/N)$. In equilibrium, with positive probability an industry is granted protection, and with positive probability the status quo on multiple issues is changed.

5 Conclusion

We considered influence activity arising from the interaction between competing lobbies (which propose policy packages) and a policymaker. Our results show that a policymaker may protect industries even if he realizes the inefficiency and even if he places no value on campaign contributions or money. When the two lobbies compete for protection, each proposing policy on the same public issue, with some probability the lobby proposing the lowest tariff will get protection and some organized industries will get no protection. When lobbies can propose policies on different public issues, the equilibrium will have multiple tariffs.

References

[1] Allison, Graham T. (1971) *Essence Of Decision; Explaining The Cuban Missile Crisis*. Boston: Little, Brown.

[2] Austen-Smith, David (1993) "Information and influence: Lobbying for agendas and votes." *American Journal of Political Science*, 37: 799-833.

[3] Banks, Jeffrey S. and Farid Gasmi (1986) "Endogenous agenda formation in three person committees." *Social Choice and Welfare*, 4: 133-152.

[4] Baron, David P. (1989) "A noncooperative theory of legislative coalitions." *American Journal of Political Science*, 33(4): 1048-1084.

[5] Baron, David P. and John A. Ferejohn (1989) "Bargaining in legislatures." *American Political Science Review*, 83(4): 1181-1206.

[6] Bauer, Raymond A., Ithiel de Sola Pool, and Lewis A. Dexter (1963) *American Business and Public Policy: The Politics of Foreign Trade*. New York: Atherton Press.

[7] Cain, Bruce, John Ferejohn, and Moe Fiorina (1987) *The Personal Vote*. Cambridge, MA: Harvard University Press.

[8] Epstein, Gil S. and Shmuel Nitzan (2004) "Strategic restraint in contests." *European Economic Review*, 48(1): 201-210.

[9] Esteban, Joan and Debraj Ray (2004) "Inequality, lobbying and resource allocation." Working paper, Institut d'Analisi Economica, Campus UAB, Balterra Spain.

[10] Fiorina, Moe (1977) *Congress: The Keystone of the Washington Establishment*. New Haven: Yale University Press.

[11] Fiorina, Moe (1981)"Some problems in studying the effects of resource allocation in congressional elections." *American Journal of Political Science*, 25(3): 543-567.

[12] Gilligan, Thomas W. and Keith Krehbiel (1987) "Collective decisionmaking and standing committees: An informational rationale for restrictive amendment procedures." *Journal of Law Economics and Organization*, 32: 287-335.

[13] Glazer, Amihai and Henry McMillan (1990) "Optimal coalition size when making proposals is costly." *Social Choice and Welfare*, 7(4): 369-380.

[14] Glazer, Amihai and Henry McMillan (1992) "Amend the old or address the new: Broad-based legislation when proposing policies is costly." *Public Choice*, 74: 43-58.

[15] Goldberg, Pinelopi Koujianou, and Giovanni Maggi (1999) "Protection for sale: An empirical investigation." *American Economic Review*, 89: 1135–1155.

[16] Grossman, Gene and Elhanan Helpman (1994) "Protection for sale." *American Economic Review*, 84: 833–850.

[17] Hansen, John Mark (1991) *Gaining Access: Congress and the Farm Lobby, 1919-81*. Chicago: University of Chicago Press.

[18] Harrington, Joseph E. (1990) "The power of the proposal maker in a model of endogenous agenda formation." *Public Choice*, 64(1): 1-20.

[19] Johannes, John R. (1984) *To Serve the People: Congress and Constituency Service*. Lincoln, NE: University of Nebraska Press.

[20] Kingdon, John (1984) *Agendas, Alternatives, and Public Policies*. Boston: Little Brown.

[21] Krehbiel, Keith (1991) *Information and Legislative Organization*. Ann Arbor: University of Michigan Press.

[22] Lohmann, Susanne (1995) "Information, access, and contributions: A signaling model of lobbying." *Public Choice* 85: 267-284.

[23] Munster, Johannes (2005) "Lobbying contests with endogenous policy proposals." Discussion Paper No. SP II 2005-11, Wissenschaftszentrum Berlin.

[24] Neely, Richard. (1982) *Why Courts Don't Work*. New York: McGraw-Hill.

[25] Mitra, Devashish, Dimitrios D. Thomakos, and Mehmet Ali Ulubasoglu (2002) " 'Protection for sale' in a developing country: Democracy vs. dictatorship." *Review of Economics and Statistics*, 84(3): 497-508.

[26] Rasmussen, Eric (1993) "Lobbying when the decisionmaker can acquire independent information." *Public Choice*, 77: 899-913.

[27] Smith, Richard A. (1995) "Interest group influence in the U.S. Congress." *Legislative Studies Quarterly*, 20: 89-139.

[28] Yiannakis, Diana (1981)"The grateful electorates: Casework and congressional elections." *American Journal of Political Science*, 25(3): 568-580.