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***JUDICIAL LOBBYING: THE POLITICS OF LABOR LAW  
CONSTITUTIONAL INTERPRETATION. Argentina 1935-1998***

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Abstract: This paper links the theory of interest groups influence over the legislature with that of congressional control over the judiciary. We develop a model in which (i) Court's rulings can be reversed by Congress, and (ii) an Interest Group is privately informed about the realization of a variable affecting legislators' preferences. Lobbying by the Interest Group can be informative to legislators provided equilibrium policy is responsive to the information disclosed. Since the rulings of an unconstrained court are unaffected by the state of nature, this can only happen if the Court is constrained by Congress. As a result, while the pro-interest group tendency of judicial decisions increases with the level of lobbying, lobbying falls the more divided Congress is on the relevant issues. We apply this framework to Supreme Court labor decisions in Argentina, and find results consistent with the predictions of the theory.

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## **1. Introduction**

The theoretical literature on interest group influence on politicians puts the emphasis on the link between campaign contributions, lobbying, and legislative outcomes (Denzau and Munger 1986; Snyder 1990, 1991; Baron 1994). The empirical evidence, however, provides only weak support for this connection (Ansolabehere, de Figueiredo and Snyder 2002),<sup>1</sup> although it seems to suggest a much stronger relation between legislators' ideology, constituent interests and voting (Peltzman 1984; Kalt and Zupan 1984; Kau and Rubin 1979). The thrust of this paper is that the impact of lobbying (and campaign contributions) has to be analyzed not in the votes of the legislature, but rather in the actions of the Courts and the agencies, where most of policy making in modern societies is done.

The influence of the Supreme Court over policy making is undisputed. Although most judiciaries are isolated from direct public approval,<sup>2</sup> they are not immune from elected politicians' influence. Indeed, in most democracies, judicial decisions are not the last word. Congress can normally reverse the Court's statutory rulings with a simple majority, although overruling constitutional rulings normally requires a higher level of political consensus. Congress can, furthermore, affect the Court's incentives more directly by imposing sanctions such as impeachment or Court enlargements (Gely and Spiller 1992), and in other countries by not reappointing them.<sup>3</sup>

The Court, then, can be effectively constrained in its decisions by the majorities in government. This is the essence of the so-called, "separation of powers" literature.<sup>4</sup> A major result of this literature is that Courts follow public opinion, but do so via the impact that changes in public opinion have on the composition of the legislature, and thus, on the set of equilibrium judicial decisions.

In this paper we link the theory of interest groups influence over the legislature with that of congressional control over the judiciary. In particular, we explore the influence of interest

groups on equilibrium policy outcomes by analyzing how lobbying influences legislators' positions on issues of relevance to the interest group, in turn affecting judicial decision-making, and thus public policy. Since in equilibrium, judicial decisions are reversal-proof,<sup>5</sup> there is very little observable action by the legislature, although there is plenty of action by interest groups and the Court. Thus, under our model there will be no strong link between observable legislative outcomes and interest group activities. Instead the strong link will be found among interest group activities, legislators' preferences and judicial behavior.<sup>6</sup>

In this paper we analyze lobbying. The main purpose of lobbying is to transmit information that will move politicians' preferences towards the interest group's preferred policy outcomes. *Informational* lobbying (as opposed to simply *vote buying*) is the focus of this paper. In our model, an interest group has private information regarding the realization of a variable affecting voters' – and hence legislators' preferences. The interest group also has access to a *technology* allowing it to produce *messages* at a cost, which we assume is decreasing in how favorable the underlying state is for the interest group. Thus, if in equilibrium policy is responsive to the interest group's actions, it is both possible and optimal for the interest group to choose a level of lobbying that properly signals its private *information*.

Policy outcomes, however, are the result of the interaction between the legislature and the court, whose payoff is not directly affected by the state of nature. As in standard separation of power models, the Court is constrained by a potential congressional override, and will (optimally) choose a policy that Congress will not reverse. The set of rulings that would not be reversed by Congress (the set of *stable* policies), however, is shaped by the information legislators possess about the underlying state of nature. If the Court is generically unconstrained to vote according to its policy preferences, policy outcomes will not be responsive to new information about the state of nature. In this case, then, there is no return to interest group lobbying, and hence, in equilibrium, no lobbying will take place. If, in contrast, the information provided by the interest group either relaxes an active constraint for a “pro-interest group Court” or tightens a constraint

for an “anti-interest group Court”, equilibrium policy becomes responsive to lobbying, and there will be lobbying in equilibrium.

In our unique equilibrium, the interest group’s strategic choice of lobbying efforts (i.e., information transmission) leads to the same policy outcomes that would prevail if members of Congress were fully informed about the underlying state of nature (e.g., voters’ preferences). In this equilibrium, the pro-interest group tendency of judicial decisions increases with the level of interest group activity and with the pro-interest group political preferences of the legislators. Furthermore, the level of interest group lobbying efforts falls the more divided Congress is on the relevant issues. In other words, lobbying decreases with the size of the set of stable policies.

We apply this framework to Supreme Court labor decisions in Argentina. Thus, we develop the model with union behavior in mind. Through the acquired organizational capability, the union can generate strikes and public demonstrations to inform legislators about the median voter’s stance with respect to labor legislation.<sup>7,8</sup> In this context, the assumption that the cost of lobbying is decreasing in the state of nature has the intuitive interpretation that organizing large public demonstrations is more costly the less intensely voters oppose anti-labor legislation.

We test the model’s predictions using data on labor cases decided by Argentina’s Supreme Court on Constitutional grounds between 1935 and 1998. The empirical results are consistent with the predictions of the theory. As suggested by the separation of powers literature, the probability of a pro-labor ruling by the Court increases with a more pro-labor Congressional composition. More specifically related to our model, we find that the probability of a pro-labor ruling increases with the level of lobbying by the union (measured by strike intensity). In particular, a one standard deviation increase in the number of strikes (from the sample average) increases the probability of a pro-labor ruling by approximately 11%. While the effect of strikes upon court rulings could potentially be due to factors other than the ones considered here, we find strong evidence in support of the signaling model. Specifically, we find that, as predicted by the theory, the level of strikes is decreasing in the size of the stable set of policies in Congress. Thus,

our results are consistent with the view that lobbying affects policies indirectly: by affecting the perceived preferences of Congress it affects the constraints faced by the Court, and hence its decisions. Extending this framework to the constraints on administrative agencies' behavior is straightforward.

## **2. The model**

### **2.a. Description**

There are two individual players, the Court and the union, and a Congress populated by a continuum of legislators, indexed by  $\beta \in B$ . The proportion of legislators with index less than  $\beta$  is given by the cumulative distribution function  $G(\beta)$ . Policy space is  $X = [0, 1]$ , and players have Euclidean preferences over policies in  $X$ , represented by utility functions  $v^i: R_+ \rightarrow R$ , evaluating distances  $|x - z^i|$  between a policy  $x$  and the ideal policy of player  $i$ ,  $z^i$ . These functions are assumed to be decreasing, concave, and differentiable. The union's ideal policy is at the right extreme of the policy space,  $z^U = 1$ , and the Court's ideal policy is an arbitrary  $z^J \in X$ .

Legislators are assumed to care about the location of the median voter  $\theta$  in the policy space,  $\theta \in X$ . Specifically, individual  $\beta$ 's ideal point in state  $\theta$  is  $z(\theta|\beta) \equiv z(\theta) + \beta$ , where the function  $z(\cdot)$  is differentiable, increasing and concave. The approval of new legislation requires the votes of a majority  $m \in [1/2, 1]$  of members of Congress against the status quo.<sup>9</sup> We say that a status quo is "stable" in Congress if there exists no alternative policy that would beat it in a binary choice, and denote by  $S(m)$  the set of stable policies given majority rule  $m$ .<sup>10</sup>

Both legislators and the Court are uninformed about the realization of  $\theta$ , and given information  $I$ , have common beliefs represented by the cumulative distribution function  $F(\cdot | I)$ .<sup>11</sup> In contrast, the union is perfectly informed about the realization of  $\theta$ , and can potentially credibly transmit this information through its lobbying, which takes here the form of strikes and public demonstrations ("fight" for simplicity). In particular, the union can organize an observable level

“ $a$ ” of demonstrations bearing a cost  $C(a, \theta)$ .  $C(a, \theta)$  is differentiable, increasing and convex in  $a$ , with  $C(0, \cdot) = 0$  and  $C_{a\theta} > 0$ . Thus, union activities are more expensive when citizens do not support it.<sup>12</sup> The timing of the game is as follows: (i)  $\theta$  is realized and privately observed by the union; (ii) the union decides a publicly observable level of fight intensity  $a$ ; and (iii) the Court chooses a ruling  $x^j$  in the set of stable policies in Congress,  $S(m)$ .<sup>13</sup>

An equilibrium consists of a strategy for the union, mapping “types”  $\theta$  to levels  $a$  of strike intensity, a strategy for the Court, mapping observations of strike intensity  $a$  to “stable” rulings  $x^j$ , and beliefs  $F(\cdot|a)$  by the Court and legislators given their observation of  $a$ , such that strategies are optimal given beliefs, and updated beliefs follow Bayes’ rule (see Appendix A for a formal statement).<sup>14</sup>

## **2.b. “Stable” Policies**

We first characterize  $S(m|\gamma)$ , the set of stable policies with majority rule  $m$  given  $\gamma$ . Denote by  $x^*(\beta|\gamma)$  the (unique) policy that maximizes the expected utility of legislator  $\beta$  conditional on the observed level of lobbying,  $\gamma$ . Also, let  $\beta_L(m) \equiv G^{-1}(1-m)$  and  $\beta_H(m) \equiv G^{-1}(m)$ . That is,  $\beta_L(2/3)$  is a legislator who is more anti-labor than exactly two thirds of the chamber, and  $\beta_H(2/3)$  is a legislator who is more pro-labor than exactly two thirds of the chamber. Then it is easy to see that  $S(m|\gamma) = [x^*(\beta_L(m)|\gamma), x^*(\beta_H(m)|\gamma)]$ . That is,  $\beta_L(m)$  is the critical legislator for a pro-labor coalition, in the sense that any policy  $x$  to the left of her preferred policy would be replaced by a more pro-labor policy. Similarly,  $\beta_H(m)$  is the critical legislator for an anti-labor coalition.

Note that clearly  $\beta_L(m) \leq \beta_H(m)$ , and  $\beta_L(m) = \beta_H(m)$  only with simple majority rule, in which case  $S(m|\gamma)$  collapses to the preferred policy of the median voter in Congress, and the Court has no policy making power. It follows that for  $m > 1/2$ , the set of possible Court’s ideal policies that would be stable given  $\gamma$  has positive measure. The Court will select its ideal policy unless it is

constrained either for being “extremely” pro-labor or anti-labor in relation to the relevant players in Congress.<sup>15</sup>

### **2.c. The Symmetric Information Benchmark**

We next characterize, as a benchmark, the symmetric information equilibrium. Note, first, that with symmetric information the union derives no benefit from organizing public demonstrations. Thus, the level of strikes is zero for all  $\theta$ . Consider now the Court. For any  $\theta$ , we have  $S(\theta)=[z(\theta|\beta_L), z(\theta|\beta_H)]$ . Since  $z(\theta|\beta)$  is a strictly increasing function of  $\theta$ , a higher value of  $\theta$  makes both critical legislators’ ideal policy more pro-labor. But then a Court with a fixed policy preference  $z^J$  may become a “pro-labor” Court for a Congress observing a low realization  $\theta'$  ( $z^J > z(\theta'|\beta_H)$ ), or an “anti-labor” Court for a Congress observing a high realization  $\theta''$  ( $z^J < z(\theta''|\beta_L)$ ). We thus have the following result, the proof of which is immediate:

**Proposition 1.** *Suppose that the realization of  $\theta$  is public information. For any  $z^J \in X$ , and congressional composition  $G(\cdot)$ , (i)  $\gamma(\theta)=0$  for all  $\theta$ , and (ii) there exist  $\theta_0, \theta_1 \in [0, 1]$ ,  $\theta_0 \leq \theta_1$ , such that:*

$$x^J(\theta) = \begin{cases} z(\theta|\beta_H) & \text{if } \theta \leq \theta_0 \\ z^J & \text{if } \theta_0 \leq \theta \leq \theta_1 \\ z(\theta|\beta_L) & \text{if } \theta \geq \theta_1 \end{cases}$$

*Specifically,  $\theta_0(z^J, \beta_H) = 0$  for  $z^J < z(0|\beta_H)$ ,  $\theta_0(z^J, \beta_H) = 1$  for  $z^J > z(1|\beta_H)$ , and  $\theta_0(z^J, \beta_H) = (z^J)^{-1}(z^J|\beta_H)$  otherwise. Similarly, define  $\theta_1(z^J, \beta_L)$  substituting  $\beta_L$  for  $\beta_H$ .*

<Figure 1>

Figure 1 depicts in bold the Court’s equilibrium rulings as a function of the state of nature  $\theta$ . The two parallel lines in the figure represent the preferences of the critical legislators as a function of

the state,  $z(\theta|\beta_L)$  and  $z(\theta|\beta_H)$ . Thus, for each  $\theta$ , the stable set of policies  $S(\theta)$  is the segment between these lines, the interval  $[z(\theta|\beta_L), z(\theta|\beta_H)]$  in the vertical axis. If for some  $\theta$  the Court's ideal point  $z^J$  is in  $S(\theta)$ , the Court will be able to rule according to its preferred policy, facing no effective constraint. In the example depicted in the figure, this occurs for all states between the (interior) points  $\theta_0$  and  $\theta_1$ . In this region therefore the Court's equilibrium ruling is represented by the flat portion of the bold line.

For  $\theta < \theta_0$ , however,  $S(\theta)$  is entirely below  $z^J$ . This means that if it was common knowledge among legislators that public sentiment is strongly "anti-labor", the ideal point of the Court would not survive the "challenge" of a more anti-labor legislation. The best choice for the Court in such states is therefore to enact the most "pro-labor" *stable* ruling; i.e.,  $z(\theta|\beta_H)$ . Thus, for  $\theta < \theta_0$ , the bold line representing Court's equilibrium rulings coincides with  $z(\theta|\beta_H)$ . Similarly, for  $\theta > \theta_1$ ,  $S(\theta)$  is entirely *above*  $z^J$ . In this subset of states Congress is too "pro-labor" compared to the Court, and thus the best choice for the Court in such states is to enact the most "anti-labor" *stable* ruling; i.e.,  $z(\theta|\beta_L)$ .

The Court is thus effectively constrained by Congress in the set  $\Phi = \{\theta: \theta \leq \theta_0 \text{ or } \theta \geq \theta_1\}$ . Conversely, the Court is independent to vote according to its ideal point for *every* realization of voters' preferences when  $\Phi$  is empty. As it can be seen in figure 1, this happens if only if  $z(I|\beta_L) < z^J < z(\theta|\beta_H)$ . Note that, as in Gely and Spiller (1990), this condition is more likely to be satisfied when the two critical legislators (for a pro and anti-labor coalition) are far apart ( $\beta_L \ll \beta_H$ ). This condition is also more likely to hold if legislators are not too responsive to public opinion ( $z(\theta)$  is relatively flat). That is, "Judicial independence" increases with dissent in Congress and indirect isolation from the public. Otherwise, the Court is effectively constrained for a set of voters' preferences and  $x^J(\theta)$  responds monotonically to  $\theta$  across  $\Phi$ .



## **2.d. Informative Lobbying**

The previous analysis showed that when the Court is constrained for some (publicly known) preferences of the median voter, an increase in  $\theta$  induces a more pro-labor ruling, and thus, a more pro-labor policy outcome in equilibrium. Consider now the situation in which unions are better informed about  $\theta$ .

Suppose, first, that the level of strikes can transmit information about the preferences of the median voter; i.e., that the observation of a higher level of strikes induces both legislators and the Court to believe that the median voter in the population is more pro-labor than a lower level of union activity. Then the set of stable policies in Congress would change with the observed level of strikes. Just as in the symmetric information case, if this change either relaxes an active constraint for a “pro-labor Court”, or tightens a constraint for an “anti-labor Court”, then the Court’s optimal response will vary with the observed level of strikes. Thus, equilibrium policies will vary with the level of strikes. In turn, the responsiveness of policy outcomes to the level of strikes rewards the costly informative signaling by the union, making the behavior of the union and the Court mutually consistent. In the next proposition, we establish that there exists an equilibrium in which union’s choices transmit enough information to politicians so as to lead to the policy prevailing with complete information. We show, furthermore, that this is the unique equilibrium satisfying criterion D1 (table 4 in the appendix provides a detailed characterization of equilibrium strategies).

*Definition 1.* We say that an equilibrium strategy  $\gamma(\theta)$  for the union is “effectively fully informative” if the observation of an action  $a$  on the equilibrium path ( $a \in \gamma([0,1])$ ) allows the Court to (and only to) completely separate types across  $\Phi$  and distinguish between types in  $\Phi$  and  $[\theta_0, \theta_1]$ .

**Proposition 2.** *In the unique DI equilibrium,*

- (i) *Union’s equilibrium strategy  $\gamma(\theta)$  is effectively fully informative; i.e., it is strictly increasing in  $\Phi$  and constant in  $[\theta_0, \theta_l]$ ;*
- (ii) *Court’s equilibrium strategy  $x^j(a)$  is (strictly) increasing in  $a$  and satisfies  $x^j(\gamma(\theta))=x^j(\theta)$  for every  $\theta$ , where  $x^j(\theta)$  is given in proposition 1. See figure 2*

<Figure 2>

That is, in equilibrium the level of strikes will reflect the preferences of the median voter up to the extent that this information can influence a binding constraint for the Court.<sup>16</sup> Furthermore, there is a complete separating equilibrium only when the Court is constrained for every realization of public preferences. That is, only when the Court’s ideal policy is “extremely” anti-labor (i.e.,  $z^j < z(\theta|\beta_L)$ ), or “extremely pro-labor” (i.e.,  $z^j > z(\theta|\beta_H)$ ) by Proposition 1 standards.

Figure 2 illustrates with an example the results in Proposition 2. The upper panel (Figure 2.a.) plots the mappings from states to equilibrium court rulings and strikes. The result that strikes are effectively fully informative in equilibrium implies that Court rulings mapping to the state is equivalent to the complete information behavior illustrated in Figure 1. Figure 2.a. adds to Figure 1 the representation of equilibrium strikes as a function of the state  $\theta$ . The union’s strategy is strictly increasing in the subset of the state space in which equilibrium policy is responsive to the state,  $\Phi$ , and flat in the interval  $[\theta_0, \theta_l]$ . For every realization of the state  $\theta$ , the mappings in Figure 2.a. provide a pair of strikes and court ruling. The lower panel (Figure 2.b) plots all pairs obtained in this manner, illustrating the Court’s equilibrium strategy  $x^j(a)$  for a given court preference.

**2.e. Equilibrium Response to Changes in Congress’ Composition.**

We can now study the effects of changes in Congress composition on the expected level of strikes and pro-labor rulings. Note that for our purposes changes in Congress composition are relevant only to the extent that they affect the boundaries of the stable set of policies in Congress,  $z(\theta|\beta_L)$

and  $z(\theta|\beta_H)$ . Furthermore, while a change in Congress composition might generally lead to changes in both these upper and lower bounds, it will be useful (both theoretically and empirically) to analyze the effect of changes in the upper and lower bounds upon equilibrium outcomes independently.

Consider thus a pro-labor change in  $\beta_L$  (say an increase from  $\beta_L^0$  to  $\beta_L^1$ ), keeping  $\beta_H^0$  constant. It is easy to see that unless the Court is unconstrained for all possible voters' preferences both prior and following the change in congress composition (that is,  $\Phi(\beta_L^0, \beta_H^0)$  and  $\Phi(\beta_L^1, \beta_H^0)$  are empty), this change reduces  $\theta_l$  and does not change  $\theta_o$ , resulting in a higher expected level of pro-labor rulings and strikes. The reason is that "anti-labor" courts would be constrained more often (for a bigger set of values of  $\theta$ ). Similarly, consider now a pro-labor change in  $\beta_H$  (say an increase from  $\beta_H^0$  to  $\beta_H^1$ ), keeping  $\beta_L^0$  constant. Unless the Court is unconstrained for all possible voters' preferences both prior and following the change in congress composition, this change reduces  $\theta_o$  and does not change  $\theta_l$ . As before, this implies a higher expected level of pro-labor rulings. Now, however, the higher expected level of pro-labor rulings is due to "pro-labor" courts being constrained less often. Thus, the pro-labor change in  $\beta_H$  leads to a lower expected level of strikes. We have thus shown the following result:

**Proposition 3.** *If  $\beta_L^0 < \beta_L^1$ , then  $E[x^j(\theta)|(\beta_L^1, \beta_H^0)] \geq E[x^j(\theta)|(\beta_L^0, \beta_H^0)]$  and  $E[\gamma(\theta)|(\beta_L^1, \beta_H^0)] \geq E[\gamma(\theta)|(\beta_L^0, \beta_H^0)]$ . Furthermore, the inequalities are strict when  $\Phi(\beta_L^1, \beta_H^0)$  is nonempty. Similarly, if  $\beta_H^0 < \beta_H^1$ , then  $E[x^j(\theta)|(\beta_L^0, \beta_H^1)] \geq E[x^j(\theta)|(\beta_L^0, \beta_H^0)]$  and  $E[\gamma(\theta)|(\beta_L^0, \beta_H^1)] \leq E[\gamma(\theta)|(\beta_L^0, \beta_H^0)]$ . Furthermore, the inequalities are strict if  $\Phi(\beta_L^0, \beta_H^0)$  is nonempty.*

Note that according to proposition 3, the expected level of strikes increases with  $\theta_l$  and decreases with  $\theta_o$ . This directly implies the following result:

*Corollary.* *A mean preserving increase in the size of the set of stable policies in Congress reduces the expected level of strikes in equilibrium.*

Proposition 3 also has direct implications over the response of equilibrium outcomes to changes in Court's preferences. First, it is clear from the previous analysis that the expected level of pro-labor rulings will increase following a pro-labor change in the court's preferences unless the Court is constrained for every realization of  $\theta$  both preceding and following this change. The change in the expected level of strikes is nevertheless ambiguous. This should come as no surprise, however, since for this purpose, increasing  $z'$  with  $\beta_L$  and  $\beta_H$  given is qualitatively similar as simultaneously reducing both  $\beta_L$  and  $\beta_H$  taking  $z'$  as given, and we know from proposition 3 that  $\beta_L$  and  $\beta_H$  have opposite effects on the expected level of strikes.<sup>17</sup>

## ***2.f. Empirical Implications***

The model has direct and empirically refutable implications. The first two implications are unique to this model. First, Proposition 2 states that in equilibrium the level of “pro-labor” judicial decisions is increasing in the extent of union political activity. Thus, we should observe more “pro-labor” decisions when facing a higher level of union strikes. Second, as the corollary to proposition 3 points out, we expect the level of strikes to be decreasing in the amplitude of the set of stable policies in Congress. The model has a weaker empirical implication regarding the relation between strikes and court's preferences, since we find that the expected level of strikes is non-monotonic in the degree of alignment between the court's and the union's preferences.<sup>18</sup>

Our model also has more standard separation of powers empirical implications. As in most separation of powers models, Proposition 3 implies that the equilibrium level of “pro-labor” judicial decisions depends on the political composition of congress (Spiller and Gely 1994; Bergara, Richman and Spiller 2002). In equilibrium, a more “pro-labor” congress will trigger more “pro-labor” decisions. Thus, our model provides unique, as well, as standard empirical

implications concerning separation of power models. The unique implications are the direct tests of the signaling value of interest groups lobbying, or, as in our case, of union's strikes and public demonstrations..

Section 3 tests the model's predictions in Argentina's labor law constitutional interpretation. Section 3.a. describes the data; the measures for the political environment, preferences and decisions of the court and union activities. Section 3.b. describes the empirical methodology, and Section 3.c. presents the results.

### ***3. An Application to Argentina's Labor Law Constitutional Interpretation.***

#### ***3.a. The Data***

*Political Environment.* We are interested in four features of the political environment. First, we want to measure the extent of pro-labor or anti-labor preferences of the various politicians. Since the Argentine Congress has very few roll-calls, we cannot use that type of data to identify legislators' preferences. Instead, we exploit the fact that Argentina is a strong presidential system, with two dominant political parties (McGuire 1995; Manzetti 1993; Jones 2002). Traditionally one of the dominant parties has been a pro-labor and the other an anti-labor party. Thus, our approach to measure the extent of pro-labor composition of the House and Senate involves the following four steps:

First, identify whether the President is pro- or anti-labor. We assume that the President is either pro- or against-labor, not somewhere in between. Second, following the discussion in Section 2, we simulate the distribution of the President's party contingency in the House and the Senate assuming a certain level of party discipline (strong party discipline will mean that the President's party contingency is identical to the President, zero party discipline will mean that its party contingency is evenly distributed between pro- and anti-labor positions). Third, apply the same approach to the opposition party. Fourth, for each level of party discipline, identify,

according to the model, the set of stable policies in Congress, as the maximum and minimum pivotal players in each house. We use those measures as the key political preference variables.

We start, then, by classifying Argentina's Presidents between 1935 and 1997 as pro-labor or anti-labor.<sup>19</sup> To do this, we focus on the constituency with the support of which the different presidents and their parties have been elected - or otherwise made their way to - office. We do this informally, following to the greater extent possible the "stylized facts" presented by previous studies. Presidents Farrel, Peron, and all Presidents who governed representing the *Partido Peronista* (Campora, Lastiri, and Martinez in 1973- 1976, Menem between 1989 and 1999) were classified as pro-labor. President Frondizi (1958-1962) did not represent the Peronist Party but was also classified as pro-labor.<sup>20</sup> The remaining Presidents (mainly military dictators and democratic presidents representing the UCR Party) were classified as anti-labor.

Taking this classification as given, we provide alternative computations of the "critical" legislators in Congress. Given the impossibility of estimating the preferences of individual legislators in Argentina, we use parties' representation in Congress to estimate the aggregate distribution of preferences  $G(\beta)$ . That is, we will assume that Congress' composition is given by  $G(\beta; \omega) = \sum \omega_k G_k(\beta)$ , where  $\omega_k$  is party  $k$ 's proportion of seats in Congress, and  $G_k(\cdot)$  is the distribution of ideal points of party  $k$  members.<sup>21</sup>

Our next step is thus to provide an estimate of the  $G_k(\cdot)$  distributions for parties in Argentina. To do this, we take the following approach. Parties in the opposition are assumed to have the opposite stance in the labor policy space than the elected President. Thus, in any Congress there is a pro-labor and an anti-labor "party".<sup>22</sup> For both the anti-labor and the pro-labor party, we assume that the proportion of party members with ideal policy closer to the extreme anti-labor and pro-labor policies, respectively (0 and 1) is given by a  $Beta(\alpha, 1)$  distribution with support in  $[0,1]$ , say  $BT_\alpha(\cdot)$ ,  $\alpha$  taking values in  $(0,1)$ . This allows us to approximate varying degrees of party discipline as the parameter  $\alpha$  changes from close to 0 -

relatively strong party discipline - to close to 1 - relatively weak party discipline. Then  $G_{AL}(\beta)$  is given by  $BT_{\alpha}(\beta)$ , while  $G_{PL}(\beta)$  is given by  $[1 - BT_{\alpha}(1-\beta)]$ . The probability that a random legislator has ideal policy less than  $\beta$  is then given by  $G_t(\beta) = \omega_{AL,t} BT_{\alpha}(\beta) + (1-\omega_{AL,t})[1 - BT_{\alpha}(1-\beta)]$ , where  $\omega_{AL,t}$  is the proportion of seats of the anti-labor party in Congress in period  $t$ .

Once the distribution of legislators in Congress has been computed in this way, it is then possible to compute the location in the policy space of the critical legislators in each chamber for any given majority voting rule  $m$ . Until 1994, Argentina's Constitution allowed Congress to enlarge the Supreme Court by a simple law. Hence, we argue that the stable set of policies is given by the interval defined by the ideal policies of the medians of the House and Senate. We denote by NR-LOW and NR-HIGH the anti-labor and pro-labor extremes of the set of stable policies. In addition, we define the variable NR-AVG as the average between these two extreme points, and NR-LENGTH as the distance between them.<sup>23</sup> The final variable reflecting the political environment is the categorical variable DICTATOR, taking the value 1 in military governments.

*Court's Preferences:* Until 1994, the appointment of a Justice to Argentina's Supreme Court required the approval by simple majority in the Senate of a candidate nominated by the President. Taking this procedure into consideration, we use the midpoint between the ideal point of the appointing President and the median voter of the Senate, given by the function  $G(\beta)$ ,<sup>24</sup> at the time of appointment as a simple estimate of the policy preference of each Justice. As with these variables, then, this measure of preferences increases the more pro-labor a Justice is. The "preference" of the Court in each period, COURTPREF, is then taken to be the policy preference of the Court's median judge.

*Supreme Court Cases:* We use labor and social security cases that reached and were decided by the Supreme Court in Argentina between 1935 and 1998. Following Iaryczower et al 2002, we limit the pool of cases, considering only the cases published *in extenso* in La Ley, the main judicial publication in Argentina.<sup>25</sup> Following Molinelli 1999, to distinguish between important and unimportant cases, our data-set includes only those cases which fulfill three conditions: (1) the case involves the constitutionality of government norms,<sup>26</sup> (2) the Court actually decided for or against the constitutionality of the challenged norm,<sup>27</sup> and (3) the case was published *in extenso* in "La Ley". We label a Court ruling as *pro-labor (anti-labor)* when it (i) upholds a government norm during a *pro-labor (anti-labor)* presidency or (ii) challenges a government norm during an *anti-labor (pro-labor)* presidency. The categorical variable "PRO-LABOR RULING" takes the value 1 if the Court ruling is "pro-labor" and 0 if the ruling is "anti-labor".

*Strikes:* To measure the extent of the union's "Fight", we use the number of strikes per year, STRIKES, for which we gathered strikes data from 1935 from various sources.<sup>28</sup> Figure 3 shows a drastic increase in the number of strikes following the military coup that deposed President Juan D. Perón, and the creation of the Peronist Movement. As Iaryczower et al 2002 already showed, the first administration of President Perón marked a defining moment in the relation of the polity to the judiciary. Figure 3 also shows, what many have already mentioned (e.g., McGuire 1997), that it also marked a defining moment in the organization of the labor movement, and in the extent of use of strikes. The categorical variable POSTPERON captures this break. Table 1 provides sample information.<sup>29</sup>

<Figure 3>

<Table 1; Sample Information>



### **3.b. Empirical Methodology**

According to the model laid out in Section 2, changes in congress' composition shifting the lower and upper bounds of the stable set of policies— those not subject to a reversal by Congress – will affect Court's behavior provided the Court is indeed constrained by the political environment. Furthermore, as indicated by proposition 2, Court's pro-labor rulings are increasing in the observed level of strikes. The equilibrium level of strikes is in itself a response to the observed political environment and the relative positioning of the Court in the (labor) policy space. It is not, however, a function of actual rulings by the Court, which according to the model only happen after the level of strikes is observed.

Thus, the model to be estimated is a *triangular system* of two equations. Specifically, in the first equation, pro-labor rulings (PRO-LABOR RULING) are assumed to be a function of Court's preferences (COURTPREF), the lower and upper boundaries of the set of stable policies (NR-LOW and NR-HIGH, respectively) and the level of strikes (STRIKES).<sup>30</sup> In addition, we distinguish between democratic and military governments introducing the categorical variable DICTATOR, and we control by the structural change following the Presidency of Peron by introducing the categorical variable POSTPERON. The second equation models the number of strikes (STRIKES) as a function of the mean (NR-AVG) and amplitude (NR-LENGTH) of the set of stable rulings, as well as of the location of the Court's preferences in the policy space (COURTPREF).<sup>31</sup> As in the previous equation, we introduce the controls POSTPERON and DICTATOR, but here we also include the level of growth of GDP (GROWTH), as we expect labor issues to raise more in periods of slow or negative growth.

Furthermore, if the variance-covariance matrix of a triangular system is also diagonal, then the system of equations is a *fully recursive system*. In this case, the disturbances are uncorrelated and the system can be consistently and efficiently estimated using equation-by-equation ordinary least squares (see Greene 2000, p 678). Our first step thus is to test the

hypothesis that the variance-covariance matrix is diagonal (see Breusch and Pagan 1980 for a test). We find that the diagonal matrix hypothesis cannot be rejected, so estimation of the system equation-by-equation is indeed appropriate.<sup>32</sup>

It should be noted, however, that OLS estimates can be improved upon. Since PRO-LABOR RULINGS is a categorical variable, we can use a logit model to estimate the conditional probability of a pro-labor ruling. Since the data for the number of strikes is only available in annual form, the estimation of Supreme Court decisions uses the number of strikes in the year in which the Supreme Court decided the case. Given this constraint, and the fact that we can estimate the STRIKES equation separately, we averaged the values of the remaining variables through each year, and estimated the STRIKES equation using annual data.

### ***3.c. Empirical Results***

Table 2 presents the OLS estimation and test of diagonal matrix. Table 3 presents the estimation of the logit equation for the Court's decisions and the OLS for the STRIKES equation. As in Table 2, we estimate the same system specification for ten different degrees of party discipline (different values of  $\alpha$  in the distribution of legislators within each party). Each column thus represents the results obtained with the given level of  $\alpha$ , and columns are ordered in decreasing level of party cohesion from left to right.<sup>33</sup>

<Table 2>

<Table 3>

The results presented in Table 3 are consistent with the predictions of the model. As in separation of power models, the probability of a pro-labor ruling increases when the pro-labor parties augment their representation in Congress, moving the stable set of rulings towards labor's ideal policy. Specifically, increases in the upper bound of the stable set of rulings affect positively the probability of a pro-labor ruling for low and moderate degrees of party discipline. Changes in the lower bound are statistically significant only for very high degrees of party discipline.<sup>34</sup> The

probability of a pro-labor ruling by the Court increases the more pro-labor the Court is, but the coefficient is not statistically different than zero.

Moving towards the more unique implications of our model, we find that, consistent with Proposition 2, pro-labor rulings increase with the level of strikes. This result is robust for all implicit levels of party cohesion, both in terms of statistical significance and stability of the estimated coefficient. Specifically, setting initially the value of the variables at their sample average, a one standard deviation increase in the number of strikes (152.6 in the case based sample) increases the probability of a pro-labor ruling by 10.2% to 11.8%, depending on the level of  $\alpha$  (the minimum is registered for  $\alpha=0.1$  – cohesive parties - and the maximum for  $\alpha= 0.9$  – non-cohesive parties). Additionally, pro-labor rulings increase during dictatorships. Taking into consideration that all dictatorships following Peron are classified as anti-labor governments, this is the same effect found by Iaryczower et al 2002 regarding the higher propensity of Courts to challenge military rather than democratic governments.<sup>35</sup> Finally, we find that the probability of a pro-labor ruling decreases after the presidency of Peron.<sup>36</sup>

The variables in the “strikes equation” are highly statistically significant for all possible levels of party discipline. The results provide strong evidence supporting the implications of the model. According to Proposition 3 (and its corollary), we expect the level of strikes to vary inversely with the size of the stable set (the “pooling” area). This is in fact supported by the evidence, as indicated by the negative coefficient of the NR-LENGTH variable.<sup>37</sup> Furthermore, the Tables 2 and 3 show that unions were less combative during military governments, and that (as Figure 4 anticipated) the organization of the labor movement since Peron resulted in a higher capacity of unions to “fight”.

Finally, we find that the level of strikes decreases the more pro-labor the court is.. This effect is highly significant. A one standard deviation increase in the pro-labor preferences of the Court (equivalent to increase it by 80%) reduces by slightly more than half the number of strikes. This result is consistent with our model if, on average, the Court is against-unions. Table 1

shows, for the various values of party cohesion, that on average the Court is slightly anti-union. Thus, as in Figure 2, for slightly anti-union Courts, the marginal effect of an increase in the pro-union preference of the Court is to reduce the level of strikes.

#### **4. Conclusions**

This paper provides the first theoretical development and empirical application of a model of interest group/court/legislature interaction. We develop a model where the interest group has better information about the support it has in the population for its policies. Legislators and justices may infer from the lobbying efforts of the interest group (in our case, from the strikes and public demonstrations of the unions) such support. The inference provides the interest group (unions) with incentives to lobby (strike), as such lobbying shifts the ideal point of the legislatures in the interest group policy space towards the ideal policy of the interest group. Such shift will, on average, increase the probability of a more pro-interest group decision by the Court. In our model all the observable action is between the interest group and the Court. Legislators are fundamental, but they take, in equilibrium, no action. Thus, our model may provide a solution to the puzzle of why campaign contributions (lobbying) do not seem to have an impact on policy. We claim that such impact exist, it just is not observable on legislation.

Our empirical results for unions/court/congress interaction in Argentina are consistent with this description. Argentine Courts tend to side more with unions the more the unions strike. Unions, in turn, strike more when facing a more unified Congress, and a less pro-labor Court. It is in these situations that unions' lobbying makes Congress more pro-labor, forcing a not so pro-labor Court into taking more pro-union decisions.

Our paper, then, suggests that analyses of lobbying should, as the pioneer work of de Figueiredo and Tiller 2001 and de Figueiredo and de Figueiredo 2002, pay closer attention to the actual nature of the policy making process, and in particular, to the interaction of the bureaucracy, the courts and the legislature.

## Appendix

*Definition B.1.* An **equilibrium**  $\Gamma = \{\gamma(\cdot), x^J(\cdot), F(\cdot|a)\}$  is (i) a strategy for the union,  $\gamma : \Theta \rightarrow R_+$ , mapping “types”  $\theta$  to levels  $a$  of fight intensity, (ii) a strategy for the Court,  $x^J : R_+ \rightarrow X$ , mapping observations of fight intensity  $a$  to rulings  $x \in X$ , and (iii) beliefs  $F(\cdot|a)$  by the Court and the legislators satisfying:

$$(a) \gamma(\theta) \in \arg \max_{a \in R_+} U(a, x^J(a), \theta) \quad \forall \theta \in \Theta,$$

$$(b) x^J(a) \in \arg \max_{x \in X} \{u^J(x) : x \in S(m|a)\} \quad \forall a \in R_+,$$

(c) If  $a \in \gamma(\Theta)$ ,  $F(\cdot|a)$  is determined from  $F(\cdot)$  and  $\gamma(\cdot)$  using Bayes' rule.

Part (a) requires sequential rationality for the union; part (b) requires sequential rationality for the Court with the added requirement that given beliefs  $F(\cdot|a)$ , Court's ruling be “stable” in the sense specified above. Finally, part (c) requires consistency of beliefs. That is, an equilibrium of this model is a sequential equilibrium  $\Gamma = \{\gamma(\cdot), x^J(\cdot), F(\cdot|a)\}$  in which Court's best response is constrained to be “stable”.

*Definition B.2 (Ramey 1996)* Fix a sequential equilibrium  $\Gamma$ , and let union's payoff in  $\Gamma$  be  $U(\theta) \equiv U(\gamma(\theta), x^J(\gamma(\theta)), \theta)$ . Fix an off-the-equilibrium-path action  $a$  by the union; i.e.,  $a \notin \gamma([0,1])$ , and suppose there is a nonempty set  $\Theta' \subset X$  such that: for all  $\theta \notin \Theta'$  there exists  $\theta' \in \Theta'$  such that  $U(a, x, \theta) \geq U(\theta)$  implies  $U(a, x, \theta') > U(\theta')$ . Then the equilibrium is said to violate criterion D1 unless it is the case that the support of  $F(\theta|a)$  is included in  $\Theta'$ .<sup>38</sup> A sequential equilibrium is a D1 equilibrium if it does not violate criterion D1 for any  $a \notin \gamma([0,1])$

In other words, criterion D1 says that following the observation of an off equilibrium path signal  $a$ , the uninformed agents' beliefs ought to place zero posterior weight on a type  $\theta$  whenever there is another type  $\theta'$  that has a stronger incentive to deviate from the equilibrium, in the sense that type  $\theta'$  would strictly prefer to deviate for any response  $x$  that would give type  $\theta$  a weak incentive to deviate (Ramey 1996).

*Proof of Proposition 2.* We first construct a proposed equilibrium. After showing that it is indeed an equilibrium, we show it is the unique D1 equilibrium. Consider the strategies described in Table 4.

<Table 4>

First note that  $\gamma(\cdot)$  is weakly increasing, and, in particular,  $\gamma(\cdot)$  is strictly increasing in  $\Phi$  when this set is nonempty, and flat in  $[\theta_0, \theta_1]$  when this set is nonempty. Hence Court's beliefs after observing an action  $a$  such that  $\gamma^{-1}(a) \in \Phi$  must satisfy, by Bayes' rule,  $f(\theta|a)=1$  for  $\theta=\gamma^{-1}(a)$ , and  $f(\theta|a) = 0$  for  $\theta \neq \gamma^{-1}(a)$ . Similarly, for actions  $a$  such that the inverse image set  $\Gamma^{-1}(a) = [\theta_0, \theta_1]$ , we have  $f(\theta|a) = f(\theta) / [F(\theta_1)-F(\theta_0)]$  if  $\theta \in [\theta_0, \theta_1]$ ,  $f(\theta|a) = 0$  otherwise. Let then Court's equilibrium strategy be given by  $x^J(a) = x^J(\gamma^{-1}(a))$  for  $a$  s.t.  $\gamma^{-1}(a) \in \Phi$ , and  $x^J(a) = z^J$  for  $a$  s.t.  $\Gamma^{-1}(a) = [\theta_0, \theta_1]$ . By construction, these beliefs are satisfied by Bayes' rule. Furthermore, it follows directly from Proposition 1 that the Court's proposed strategy is a best response given these beliefs and  $\gamma(\theta)$ . It remains to show the optimality of union's strategy given  $f(\cdot|a)$  and  $x^J(\cdot)$ .

Suppose first that  $\theta_0 > 0$ , and consider a  $\theta$ -type union,  $\theta \leq \theta_0$ . Then this  $\theta$ -union does not have an incentive to misrepresent its type across  $[0, \theta_0]$  - i.e., to play  $\gamma^0(\theta')$  for  $\theta' \neq \theta$ ,  $\theta' \in [0, \theta_0]$  - if and only if  $\theta$  is a solution to the problem

$$\text{Max}_{\hat{\theta} \in [0, \theta_0]} U(\hat{\theta}, \theta) = U(\gamma^0(\hat{\theta}), z(\hat{\theta} | \beta_H), \theta) = u(z(\hat{\theta} | \beta_H)) - C(\gamma^0(\hat{\theta}), \theta).$$

The first order necessary condition then directly implies

$$\frac{\partial \gamma^0(\theta)}{\partial \theta} = \left[ \frac{\partial u(z(\theta|\beta_H)/\partial x}{\partial C(\gamma(\theta),\theta)/\partial \gamma} \right] \frac{\partial z(\theta|\beta_H)}{\partial \theta} \quad \text{for } \theta \in [0, \theta_0).$$

The second order condition, assuring that truth telling is incentive compatible for  $\theta \in [0, \theta_0)$  across  $[0, \theta_0]$ , follows from the single crossing property. For suppose not. Then there exists  $\theta' \in [0, \theta_0]$  such that  $U(\theta', \theta) > U(\theta, \theta)$ , or equivalently,

$$\int_{\theta}^{\theta'} U_q(q, \theta) d\theta = \int_{\theta}^{\theta'} u_q(z(q|\beta_H)) \left[ \frac{\partial z(q|\beta_H)}{\partial q} - \frac{C_\gamma(q, \theta)}{u_q(z(q|\beta_H))} \frac{\partial \gamma^0(q)}{\partial q} \right] dq > 0$$

And from the single crossing property, for all  $z > \theta$ ,  $-\frac{C_\gamma(q, q)}{u_q(z(q|\beta_H))} > -\frac{C_\gamma(q, \theta)}{u_q(z(q|\beta_H))}$

Thus,

$$\int_{\theta}^{\theta'} u_q(z(q|\beta_H)) \left[ \frac{\partial z(q|\beta_H)}{\partial q} - \frac{C_\gamma(q, q)}{u_q(z(q|\beta_H))} \frac{\partial \gamma^0(q)}{\partial q} \right] dq > 0$$

contradicting the FOC.

An identical argument (substituting  $[0, \theta_0]$  by  $[\theta_1, 1]$ ,  $\gamma^0$  by  $\gamma^1$ , and  $\beta_H$  by  $\beta_L$ ) shows that if  $\theta_1 < 1$ , a  $\theta$ -type union,  $\theta \geq \theta_1$ , does not have an incentive to play  $\gamma^1(\theta'')$  for  $\theta'' \neq \theta$ ,  $\theta'' \in [\theta_1, 1]$ . Furthermore, it follows from the previous argument that a type  $\theta < \theta_0$  does not have an incentive to play  $\gamma^p = \gamma^0(\theta_0)$ ; i.e., every type  $\theta \in [0, \theta_0)$  prefers  $(\gamma^0(\theta), z(\theta|\beta_H))$  to  $(\gamma^0(\theta_0), z(\theta_0|\beta_H)) = (\gamma^p, z^j)$ . Similarly, when  $\theta_1 \in (0, 1)$ , there is no type  $\theta > \theta_1$  with an incentive to play  $\gamma^p = \gamma^1(\theta_1)$ .

We continue by showing that when  $0 < \theta_0 < \theta_1 < 1$ , no type in  $\theta \in [0, \theta_0]$  has an incentive to play  $\gamma(\theta')$  for  $\theta' \in [\theta_1, 1]$  (and the opposite). That is, we want to show that  $u(z(\theta|\beta_H)) - C(\gamma^0(\theta), \theta) \geq u(z(\theta'|\beta_L)) - C(\gamma^1(\theta'), \theta)$  for  $\theta \leq \theta_0$ ,  $\theta' \geq \theta_1$ . Since  $\theta \leq \theta_0$  prefers  $(\gamma_0(\theta), z(\theta|\beta_H))$  to  $(\gamma^p, z^j) = (\gamma^1(\theta_1), z(\theta_1|\beta_L))$ , we have:

$$u(z(\theta|\beta_H)) - C(\gamma^0(\theta), \theta) \geq u(z(\theta_1|\beta_L)) - C(\gamma^1(\theta_1), \theta) \quad \text{for } \theta \leq \theta_0 \quad (1)$$

Also, we know that  $\theta'' \geq \theta_1$  prefers  $(\gamma^1(\theta''), z(\theta''|\beta_L))$  to  $(\gamma^1(\theta'), z(\theta'|\beta_L))$  for  $\theta' \geq \theta_1$ ,  $\theta'' \neq \theta'$ ,  $\theta'' \geq \theta_1$ . In particular, with  $\theta'' = \theta_1$ , this implies:

$$u(z(\theta_1|\beta_L)) - C(\gamma^1(\theta_1), \theta_1) \geq u(z(\theta'|\beta_L)) - C(\gamma^1(\theta'), \theta_1) \text{ for } \theta' > \theta_1 \quad (2)$$

Now by (2), for  $\theta \leq \theta_1$ ,

$$u(z(\theta'|\beta_L)) - u(z(\theta_1|\beta_L)) \leq \int_{\gamma^1(\theta_1)}^{\gamma^1(\theta')} \frac{\partial C(\gamma, \theta_1) d\gamma}{\partial \gamma} \leq \int_{\gamma^1(\theta_1)}^{\gamma^1(\theta')} \frac{\partial C(\gamma, \theta) d\gamma}{\partial \gamma}$$

$$\text{So that } u(z(\theta'|\beta_L)) - C(\gamma^1(\theta'), \theta) \leq u(z(\theta_1|\beta_L)) - C(\gamma^1(\theta_1), \theta) \text{ for } \theta \leq \theta_1 \leq \theta' \quad (3)$$

That is, any type  $\theta$  less than  $\theta_1$  prefers  $(z(\theta_1|\beta_L), \gamma^1(\theta_1))$  to  $(z(\theta'|\beta_L), \gamma^1(\theta'))$  for  $\theta' \geq \theta_1$ .

But then (1) and (3) imply that for  $\theta \leq \theta_0$ , and  $\theta' \geq \theta_1$ , we have  $u(z(\theta'|\beta_H)) - C(\gamma^0(\theta), \theta) \geq u(z(\theta'|\beta_L)) - C(\gamma^1(\theta'), \theta)$ . Finally, (3) implies that every type in the pool prefers the pool than to act as  $\theta' \geq \theta_1$ . A similar argument establishes that when  $0 < \theta_0 < \theta_1 < 1$ , no type in  $\theta \in [\theta_1, 1]$  has an incentive to play  $\gamma(\theta')$  for  $\theta' \in [0, \theta_0]$ , and that no type in the pool prefers to act as  $\theta' \leq \theta_0$ .

We now argue that  $\gamma(0) = 0$ . For suppose not; that is, suppose  $\gamma(0) = \underline{a} > 0$ , and consider a deviation by type  $\theta=0$  to action  $a = 0$ . In every possible case, equilibrium policy following the observation of fight level  $\underline{a} = \min \gamma([0, 1])$  results in the complete information policy corresponding to the lower type in the distribution; i.e.,  $x^j(\underline{a}) = x^j(\theta=0)$ . But after a deviation, uninformed agents will respond with strategies that are optimal given some beliefs with support in  $[0, 1]$ . Then policy following a deviation cannot possibly be worst for the union than equilibrium policy. Hence, the deviation is profitable for type 0, since it reduces costs but can't adversely affect outcomes. It is also easy to see that  $\gamma$  can have no discontinuities at  $\gamma^0(\theta_0)$  for in this case there would exist a  $\theta$  s.t.  $\theta < \theta_0$ ,  $\theta_0 - \theta < \varepsilon$  for which a deviation to  $\sup \{\gamma^0(\theta) : \theta < \theta_0\}$  would result in no policy loss, but would imply a downward jump in costs. Similarly, it can be shown that when  $\theta_1 < 1$ ,  $\gamma^1(\theta_1) = \gamma^0(\theta_0)$  when  $\theta_0 > 0$ . That  $\gamma^1(\theta_1) = 0$  if  $\theta_0 = 0$ , as we argued above, is covered in the claim that  $\gamma(0) = 0$ .

This completes the proof that the proposed equilibrium is indeed an equilibrium. It remains to show that this is the unique equilibrium satisfying criterion D1. So let  $\tilde{\Pi} =$



$(\tilde{\gamma}, \tilde{x}^J, \tilde{f}(\cdot|I))$  be an equilibrium satisfying criterion D1. For  $\theta_0 > 0$ , let  $\Theta_0^P(\tilde{\Pi}) = \{\theta \in \tilde{\gamma}^{-1}(a^P) : 0 \leq \theta \leq \theta_0\}$ , where  $\tilde{\gamma}^{-1}(a^P)$  is the inverse image set of  $a^P$  under  $\tilde{\gamma}$ . Then we claim that  $\Theta_0^P(\tilde{\Pi})$  is a singleton. For suppose not. First, since  $\tilde{\gamma}$  must be monotonically increasing, if  $\Theta_0^P(\tilde{\Pi})$  is not a singleton it must be an interval  $[\underline{\theta}, \bar{\theta}] \subseteq [0, \theta_0]$ . Then in  $\tilde{\Pi}$ , following the observation of  $a^P$ , updated beliefs  $\tilde{f}(\theta | a^P)$  satisfy  $\tilde{f}(\theta | a^P) > 0$  for every  $\theta \in [\underline{\theta}, \bar{\theta}]$ , and  $\tilde{f}(\theta | a^P) = 0$  otherwise, because of Bayes' rule and the full support assumption. This in turn implies that  $r_H(a^P) \equiv \sup S(a^P) = \arg\max U^{\beta_H(m)}(x|a^P)$  satisfies  $z(\underline{\theta}|\beta_H) < r_H(a^P) < z(\bar{\theta}|\beta_H)$ . And since  $\bar{\theta} \leq \theta_0$ , then  $z(\bar{\theta}|\beta_H) < z^J$ . Thus the constraint is binding for the Court, and  $\tilde{x}^J(a^P) = r_H(a^P)$ . Next, choose  $\theta < \bar{\theta}$  sufficiently close to  $\bar{\theta}$  to give  $r_H(a^P) < z(\theta|\beta_H)$ . Since by assumption  $C_{\theta} < 0$ , the slope of a union's indifference curve in the  $(a, x)$  space is decreasing in the type  $\theta$ , and we can always find a pair  $(a^*, x^{J*})$  s.t.  $U(a^*, x^{J*}, \theta) > U(a^P, r_H(a^P), \theta)$  (1), and for any  $\theta' < \theta$ ,  $U(a^*, x^{J*}, \tilde{\theta}) < U(a^P, r_H(a^P), \tilde{\theta})$  for all  $\tilde{\theta} \leq \theta'$  (2). Furthermore, we can as well find one such pair for  $x^{J*} < z(\theta|\beta_H)$ . Next, if  $U(a^*, x^J, \tilde{\theta}) \geq U(a^P, r_H(a^P), \tilde{\theta})$  for  $\tilde{\theta} \leq \theta$ , then from (2) we have that  $x^J > x^{J*}$ . It follows from (1) that  $U(a^*, x^J, \bar{\theta}) > U(a^P, r_H(a^P), \bar{\theta})$ . Thus criterion D1 requires  $\text{supp}\{\tilde{f}(\theta | a^P)\} \subseteq [\theta, \bar{\theta}]$ . But then  $x^J(a^*) \geq x^J(\theta)$  ( $>$  in fact, by full support), and then (1) implies that  $\bar{\theta}$  overturns the equilibrium.

Q.E.D.

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Table 1. Sample Information

Variable	Data arranged by individual rulings					Annual Data				
	Obs	Mean	Std. Dev.	Min	Max	Obs	Mean	Std. Dev.	Min	Max
PRO-LABOR RULING	314	0.529	0.500	0.000	1.000					
STRIKES	314	177.6	152.6	6.7	755.1	65	175.9	177.8	6.7	755.1
DICTATOR	314	0.433	0.496	0.000	1.000	65	0.313	0.439	0.000	1.000
POSTPERON	314	0.793	0.406	0.000	1.000	65	0.662	0.477	0.000	1.000
GROWTH	314	0.033	0.048	-0.066	0.114	65	0.034	0.047	-0.066	0.114
COURTPREF1	314	0.405	0.452	0.000	1.000	65	0.443	0.431	0.000	1.000
COURTPREF2	314	0.401	0.428	0.000	0.984	65	0.441	0.405	0.016	0.984
COURTPREF3	314	0.406	0.397	0.000	0.950	65	0.445	0.374	0.050	0.950
COURTPREF4	314	0.413	0.365	0.000	0.912	65	0.450	0.344	0.088	0.912
COURTPREF5	314	0.420	0.336	0.000	0.875	65	0.454	0.318	0.125	0.875
COURTPREF6	314	0.426	0.312	0.000	0.843	65	0.457	0.296	0.157	0.843
COURTPREF7	314	0.431	0.291	0.000	0.814	65	0.459	0.278	0.186	0.814
COURTPREF8	314	0.436	0.273	0.000	0.790	65	0.461	0.262	0.210	0.790
COURTPREF9	314	0.440	0.258	0.000	0.769	65	0.462	0.249	0.231	0.769
NR-LOW1	314	0.320	0.360	0.000	0.999	65	0.374	0.356	0.000	0.999
NR-LOW2	314	0.323	0.301	0.031	0.968	65	0.385	0.289	0.031	0.968
NR-LOW3	314	0.345	0.245	0.099	0.900	65	0.401	0.231	0.099	0.900
NR-LOW4	314	0.373	0.193	0.176	0.823	65	0.420	0.180	0.176	0.823
NR-LOW5	314	0.401	0.147	0.250	0.749	65	0.438	0.136	0.250	0.749
NR-LOW6	314	0.426	0.108	0.314	0.685	65	0.453	0.100	0.314	0.685
NR-LOW7	314	0.448	0.075	0.371	0.628	65	0.468	0.069	0.371	0.628
NR-LOW8	314	0.468	0.046	0.420	0.579	65	0.480	0.043	0.420	0.579
NR-LOW9	314	0.485	0.022	0.462	0.537	65	0.490	0.020	0.462	0.537
NR-HIGH1	314	0.500	0.436	0.000	0.999	65	0.599	0.373	0.000	0.999
NR-HIGH2	314	0.458	0.381	0.031	0.968	65	0.546	0.331	0.031	0.968
NR-HIGH3	314	0.450	0.318	0.099	0.900	65	0.525	0.279	0.099	0.900
NR-HIGH4	314	0.454	0.254	0.176	0.823	65	0.514	0.224	0.176	0.823
NR-HIGH5	314	0.463	0.195	0.250	0.749	65	0.509	0.172	0.250	0.749
NR-HIGH6	314	0.471	0.144	0.314	0.685	65	0.505	0.128	0.314	0.685
NR-HIGH7	314	0.479	0.100	0.371	0.628	65	0.503	0.089	0.371	0.628
NR-HIGH8	314	0.487	0.062	0.420	0.579	65	0.502	0.055	0.420	0.579
NR-HIGH9	314	0.494	0.029	0.462	0.537	65	0.500	0.026	0.462	0.537
NR-AVG1	314	0.410	0.380	0.000	0.999	65	0.486	0.343	0.000	0.999
NR-AVG2	314	0.391	0.334	0.031	0.968	65	0.466	0.302	0.031	0.968
NR-AVG3	314	0.397	0.276	0.099	0.900	65	0.463	0.249	0.099	0.900
NR-AVG4	314	0.413	0.220	0.176	0.823	65	0.467	0.198	0.176	0.823
NR-AVG5	314	0.432	0.168	0.250	0.749	65	0.473	0.151	0.250	0.749
NR-AVG6	314	0.449	0.124	0.314	0.685	65	0.479	0.112	0.314	0.685
NR-AVG7	314	0.464	0.086	0.371	0.628	65	0.485	0.077	0.371	0.628
NR-AVG8	314	0.477	0.053	0.420	0.579	65	0.491	0.048	0.420	0.579
NR-AVG9	314	0.489	0.025	0.462	0.537	65	0.495	0.022	0.462	0.537
NR-LENGTH1	314	0.180	0.246	0.000	0.857	65	0.225	0.246	0.000	0.789
NR-LENGTH2	314	0.135	0.166	0.000	0.666	65	0.161	0.154	0.000	0.609
NR-LENGTH3	314	0.105	0.130	0.000	0.525	65	0.123	0.115	0.000	0.490
NR-LENGTH4	314	0.082	0.103	0.000	0.407	65	0.094	0.090	0.000	0.383
NR-LENGTH5	314	0.062	0.079	0.000	0.308	65	0.071	0.070	0.000	0.292
NR-LENGTH6	314	0.046	0.059	0.000	0.226	65	0.052	0.052	0.000	0.215
NR-LENGTH7	314	0.031	0.041	0.000	0.155	65	0.036	0.036	0.000	0.148
NR-LENGTH8	314	0.019	0.025	0.000	0.096	65	0.022	0.022	0.000	0.091
NR-LENGTH9	314	0.009	0.012	0.000	0.045	65	0.010	0.011	0.000	0.043

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Table 2. Equation-by Equation OLS and Lagrange Multiplier Statistic for Diagonal Variance-Covariance Matrix Hypothesis Test

		Cohesive Parties				Alfa										Non-cohesive Parties			
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9	
PRO-LABOR RULING	COURTPREF	0.09 (0.13)	0.51	0.11 (0.14)	0.43	0.09 (0.15)	0.55	0.08 (0.16)	0.62	0.09 (0.17)	0.61	0.10 (0.18)	0.58	0.11 (0.18)	0.55	0.13 (0.19)	0.49	0.14 (0.19)	0.46
	NR-LOW	0.53 (0.15)	0.00	0.47 (0.24)	0.05	0.32 (0.32)	0.32	0.22 (0.41)	0.59	0.18 (0.54)	0.73	0.17 (0.73)	0.81	0.17 (1.05)	0.87	0.30 (1.69)	0.86	0.44 (3.55)	0.90
	NR-HIGH	-0.24 (0.26)	0.36	0.06 (0.34)	0.86	0.42 (0.41)	0.31	0.73 (0.50)	0.14	1.06 (0.63)	0.09	1.49 (0.82)	0.07	2.20 (1.16)	0.06	3.50 (1.85)	0.06	7.53 (3.84)	0.05
	STRIKES	0.001 0.000	0.014	0.001 0.000	0.013	0.001 0.000	0.010	0.001 0.000	0.008	0.001 0.000	0.007	0.001 0.000	0.006	0.001 0.000	0.005	0.001 0.000	0.005	0.001 0.000	0.004
	DICTATOR	0.06 (0.17)	0.73	0.25 (0.15)	0.10	0.33 (0.14)	0.02	0.36 (0.13)	0.01	0.37 (0.13)	0.01	0.37 (0.13)	0.00	0.37 (0.13)	0.00	0.38 (0.13)	0.00	0.37 (0.12)	0.00
	POSTPERON	-0.19 (0.12)	0.13	-0.17 (0.13)	0.18	-0.14 (0.13)	0.25	-0.13 (0.13)	0.29	-0.13 (0.13)	0.30	-0.13 (0.12)	0.29	-0.14 (0.12)	0.28	-0.14 (0.12)	0.26	-0.14 (0.12)	0.25
	CONS	0.46 (0.20)	0.03	0.22 (0.20)	0.27	0.05 (0.20)	0.82	-0.09 (0.22)	0.67	-0.25 (0.26)	0.33	-0.47 (0.32)	0.14	-0.84 (0.43)	0.06	-1.56 (0.67)	0.02	-3.65 (1.38)	0.01
	F(6,307)	6.59		5.76		5.64		5.72		5.78		5.85		5.9		5.92		5.96	
Prob > F	0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		
STRIKES	GROWTH	-161.77 (131.52)	0.22	-130.66 (130.04)	0.32	-114.14 (129.43)	0.38	-103.75 (129.10)	0.42	-94.19 (128.69)	0.47	-86.52 (128.69)	0.50	-79.24 (128.54)	0.54	-72.50 (128.34)	0.57	-66.24 (128.30)	0.61
	NR-AVG	112.09 (51.58)	0.03	141.53 (53.62)	0.01	187.55 (60.32)	0.00	248.99 (72.54)	0.00	333.71 (92.12)	0.00	455.53 (122.09)	0.00	657.76 (174.01)	0.00	1049.71 (278.56)	0.00	2200.2 (585.53)	0.00
	NR-LENGTH	-69.65 (40.74)	0.09	-136.67 (59.35)	0.02	-180.29 (75.47)	0.02	-224.77 (93.77)	0.02	-289.15 (119.36)	0.02	-387.84 (157.87)	0.02	-569.01 (224.12)	0.01	-964.21 (358.17)	0.01	-2067.5 (743.86)	0.01
	DICTATOR	-220.58 37.96	0.000	-215.40 32.16	0.000	-202.46 28.99	0.000	-193.25 27.46	0.000	-187.77 26.77	0.000	-184.01 26.39	0.000	-180.97 26.08	0.000	-179.98 25.99	0.000	-177.49 25.68	0.000
	COURTPREF	-161.36 (28.37)	0.00	-161.15 (29.79)	0.00	-166.65 (32.22)	0.00	-177.92 (34.34)	0.00	-191.24 (36.07)	0.00	-204.07 (37.47)	0.00	-214.84 (38.78)	0.00	-223.83 (39.80)	0.00	-232.76 (40.77)	0.00
	POSTPERON	310.44 (21.75)	0.00	303.70 (21.97)	0.00	299.10 (22.04)	0.00	297.82 (21.95)	0.00	298.02 (21.76)	0.00	298.30 (21.61)	0.00	298.51 (21.46)	0.00	297.80 (21.33)	0.00	296.99 (21.30)	0.00
	CONS	64.20 (46.35)	0.17	62.14 (43.98)	0.16	44.11 (44.61)	0.32	17.53 (48.55)	0.72	-20.09 (56.64)	0.72	-76.04 (70.20)	0.28	-172.83 (94.79)	0.07	-363.13 (145.97)	0.01	-933.95 (298.10)	0.00
	F(6,307)	51.68		54.95		56.4		57.27		57.97		58.49		58.99		59.54		59.84	
Prob > F	0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		
VAR_RULING	0.221		0.224		0.224		0.224		0.224		0.224		0.223		0.223		0.223		
VAR_STK	11550		11194		11043		10955		10884		10833		10784		10730		10701		
COV	0.444		0.357		0.304		0.271		0.244		0.221		0.201		0.182		0.165		
lamdaLM	0.024		0.016		0.012		0.009		0.008		0.006		0.005		0.004		0.004		

For each coefficient, the table shows the estimated value, its standard deviation (in parenthesis, below) and the cutoff probability to accept the hypothesis that the coefficient is different than 0. The Lagrange Multiplier statistic (lambda LM) has limiting distribution chi2 with 1 degree of freedom; 1 % critical value is 6.63.

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Table 3. Logit model for "Pro-Labor Rulings", OLS for "Strikes", with annual observations. <sup>1</sup>

		Cohesive Parties					Alfa					Non-cohesive Parties							
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9	
PRO-LABOR RULING	COURTPREF	0.41 (0.63)	0.51	0.35 (0.68)	0.60	0.19 (0.72)	0.80	0.13 (0.76)	0.86	0.17 (0.79)	0.83	0.24 (0.82)	0.77	0.31 (0.85)	0.72	0.40 (0.87)	0.64	0.47 (0.89)	0.60
	NR-LOW	2.35 (0.71)	0.00	2.05 (1.08)	0.06	1.50 (1.42)	0.29	1.25 (1.84)	0.50	1.26 (2.42)	0.60	1.47 (3.29)	0.66	1.84 (4.76)	0.70	3.14 (7.70)	0.68	5.96 (16.22)	0.71
	NR-HIGH	-1.10 (1.28)	0.39	0.73 (1.75)	0.67	2.59 (2.07)	0.21	4.07 (2.46)	0.10	5.59 (3.07)	0.07	7.67 (3.99)	0.05	11.15 (5.59)	0.05	17.61 (8.88)	0.05	37.30 (18.29)	0.04
	STRIKES	0.003 (0.001)	0.017	0.003 (0.001)	0.015	0.003 (0.001)	0.012	0.003 (0.001)	0.010	0.003 (0.001)	0.010	0.003 (0.001)	0.009	0.003 (0.001)	0.008	0.003 (0.001)	0.008	0.003 (0.001)	0.007
	DICTATOR	0.30 (0.84)	0.72	1.39 (0.80)	0.08	1.84 (0.74)	0.01	1.95 (0.70)	0.01	1.97 (0.68)	0.00	1.99 (0.67)	0.00	1.98 (0.67)	0.00	1.99 (0.67)	0.00	1.97 (0.66)	0.00
	POSTPERON	-0.93 (0.58)	0.11	-0.73 (0.58)	0.21	-0.57 (0.58)	0.33	-0.50 (0.58)	0.39	-0.50 (0.58)	0.39	-0.51 (0.58)	0.38	-0.53 (0.58)	0.36	-0.56 (0.58)	0.33	-0.58 (0.58)	0.32
	CONS	-0.11 (1.00)	0.92	-1.52 (1.04)	0.14	-2.47 (1.08)	0.02	-3.19 (1.19)	0.01	-4.01 (1.41)	0.01	-5.19 (1.78)	0.00	-7.14 (2.44)	0.00	-11.04 (3.82)	0.00	-22.31 (7.87)	0.01
	Obs.	314		314		314		314		314		314		314		314		314	
	LogLikelihood	-198.19		-200.22		-200.27		-200.00		-199.83		-199.67		-199.55		-199.51		-199.44	
	Area u/ROC curve	0.70		0.69		0.70		0.70		0.70		0.70		0.70		0.70		0.70	
Sensitivity	0.54		0.55		0.49		0.49		0.49		0.53		0.53		0.53		0.53		
Specificity	0.72		0.72		0.78		0.78		0.78		0.77		0.77		0.77		0.77		
Positive Pred. Value	0.69		0.69		0.71		0.71		0.71		0.72		0.72		0.72		0.72		
Negative Pred. Value	0.58		0.59		0.58		0.58		0.58		0.59		0.59		0.59		0.59		
Correctly Classified	0.63		0.63		0.63		0.63		0.63		0.64		0.64		0.64		0.64		
STRIKES	GROWTH	-308.84 (302.83)	0.31	-319.62 (292.77)	0.28	-344.02 (286.00)	0.23	-356.85 (281.49)	0.21	-355.13 (278.91)	0.21	-349.68 (276.93)	0.21	-342.68 (276.03)	0.22	-335.02 (274.54)	0.23	-329.56 (273.53)	0.23
	NR-AVG	199.22 (69.28)	0.01	218.29 (78.47)	0.01	274.68 (95.17)	0.01	360.20 (119.36)	0.00	481.67 (153.90)	0.00	657.60 (203.89)	0.00	947.41 (289.01)	0.00	1513.17 (455.76)	0.00	3185.22 (945.95)	0.00
	NR-LENGTH	-112.73 (72.89)	0.13	-237.32 (116.32)	0.05	-330.38 (164.71)	0.05	-418.97 (214.70)	0.06	-534.95 (276.89)	0.06	-712.99 (372.49)	0.06	-1025.2 (527.3)	0.06	-1714.5 (850.7)	0.05	-3609.3 (1741.3)	0.04
	DICTATOR	-280.39 (73.07)	0.000	-280.46 (69.54)	0.000	-261.14 (62.20)	0.000	-245.16 (56.24)	0.000	-235.60 (52.66)	0.000	-229.34 (50.47)	0.000	-224.85 (48.88)	0.000	-223.65 (48.20)	0.000	-219.97 (47.04)	0.000
	COURTPREF	-263.16 (71.54)	0.00	-251.79 (61.62)	0.00	-245.77 (66.38)	0.00	-252.64 (75.62)	0.00	-267.30 (83.96)	0.00	-282.60 (91.17)	0.00	-297.12 (97.35)	0.00	-309.31 (102.13)	0.00	-323.44 (106.56)	0.00
	POSTPERON	361.87 (44.83)	0.00	340.99 (38.71)	0.00	330.38 (38.71)	0.00	327.80 (39.99)	0.00	328.60 (40.80)	0.00	329.67 (41.26)	0.00	330.42 (41.43)	0.00	329.85 (41.10)	0.00	329.99 (41.13)	0.00
	CONS	79.83 (51.30)	0.13	96.51 (63.21)	0.13	73.86 (66.36)	0.27	32.94 (70.02)	0.64	-24.33 (79.34)	0.76	-107.63 (97.78)	0.28	-247.74 (134.35)	0.07	-523.15 (212.97)	0.02	-1353.7 (453.1)	0.00
	Obs.	65		65		65		65		65		65		65		65		65	
	F(6,58)	18.87		20.41		20.09		19.68		19.44		19.34		19.42		19.82		19.85	
	Prob > F	0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000	
R-squared	0.62		0.64		0.65		0.66		0.66		0.66		0.67		0.67		0.67		

For each coefficient, the table shows the estimated value, its standard deviation (in parenthesis, below) and the cutoff probability to accept the hypothesis that the coefficient is different than 0.  
 1. Variables other than STRIKES are averages of monthly data.

**Table 4. Characterization of equilibrium strategies**

Case	Parameters	$\theta_0, \theta_1$	$x^j(\theta)$	$\gamma(\theta)$	For
(i)	$z^j \leq z(0 \beta_L)$	$\theta_0 = \theta_1 = 0$	$z(0 \beta_L)$	$\gamma^j(\theta)$	$\theta \in \Theta$
(ii)	$z(0 \beta_L) \leq z^j \leq$ $\text{Min}\{z(0 \beta_H), z(1 \beta_L)\}$	$\theta_0 = 0 < \theta_1 < 1$	$z^j$	0	$\theta \leq \theta_1$
	$z(\theta \beta_L)$		$\gamma^j(\theta)$	$\theta > \theta_1$	
(iii.a)	$z(1 \beta_L) < z^j < z(0 \beta_H)$	$\theta_0 = 0 < \theta_1 = 1$	$z^j$	0	$\theta \in \Theta$
(iii.b)	$z(1 \beta_H) \leq z^j \leq z(1 \beta_L)$	$0 < \theta_0 < \theta_1 < 1$	$z(\theta \beta_H)$	$\gamma^0(\theta)$	$\theta < \theta_0$
			$z^j$	$\gamma^0(\theta_0)$	$\theta \in [\theta_0, \theta_1]$
			$z(\theta \beta_L)$	$\gamma^j(\theta)$	$\theta > \theta_1$
(iv)	$\text{Max}\{z(0 \beta_H), z(1 \beta_L)\}$ $\leq z^j \leq z(1 \beta_H)$	$0 < \theta_0 < \theta_1 = 1$	$z(\theta \beta_H)$	$\gamma^0(\theta)$	$\theta < \theta_0$
			$z^j$	$\gamma^0(\theta_0)$	$\theta \geq \theta_0$
(v)	$z^j \geq z(1 \beta_H)$	$\theta_0 = \theta_1 = 1$	$z(\theta \beta_H)$	$\gamma^0(\theta)$	$\theta \in \Theta$

where the functions  $\gamma^0: [0, \theta_0] \rightarrow \mathbb{R}$ , and  $\gamma^j: [\theta_1, 1] \rightarrow \mathbb{R}$  are defined as the solutions of:

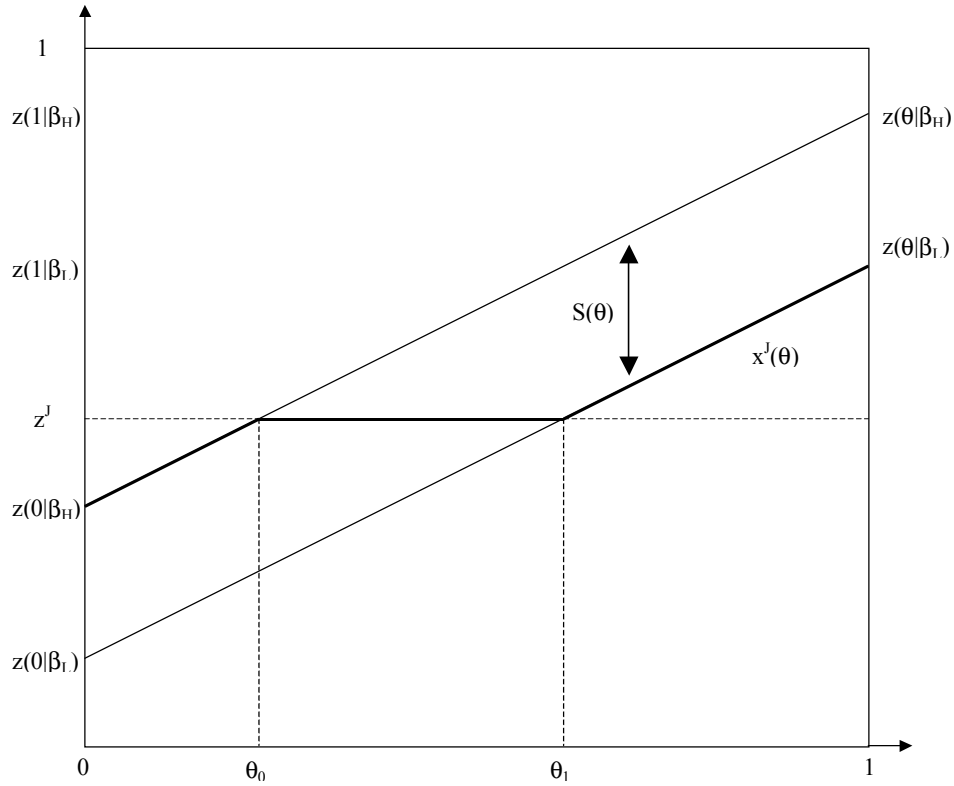
$$\frac{\partial \gamma^0(\theta)}{\partial \theta} = \left[ \frac{\partial u(z(\theta|\beta_H)) / \partial x}{\partial C(\gamma^0(\theta), \theta) / \partial \gamma} \right] \frac{\partial z(\theta|\beta_H)}{\partial \theta}$$

and

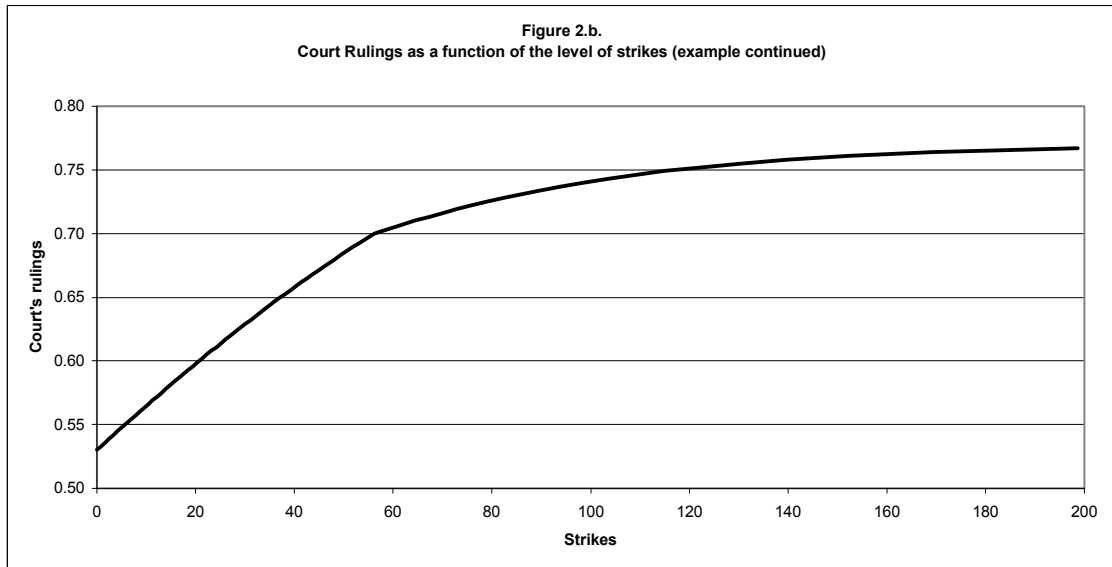
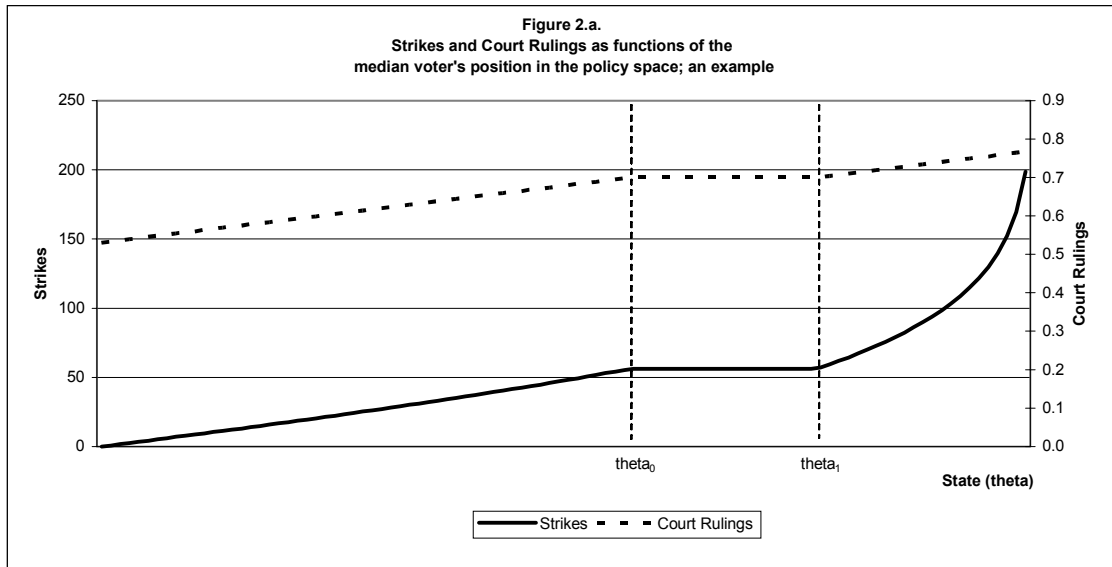
$$\frac{\partial \gamma^j(\theta)}{\partial \theta} = \left[ \frac{\partial u(z(\theta|\beta_L)) / \partial x}{\partial C(\gamma^j(\theta), \theta) / \partial \gamma} \right] \frac{\partial z(\theta|\beta_L)}{\partial \theta}$$

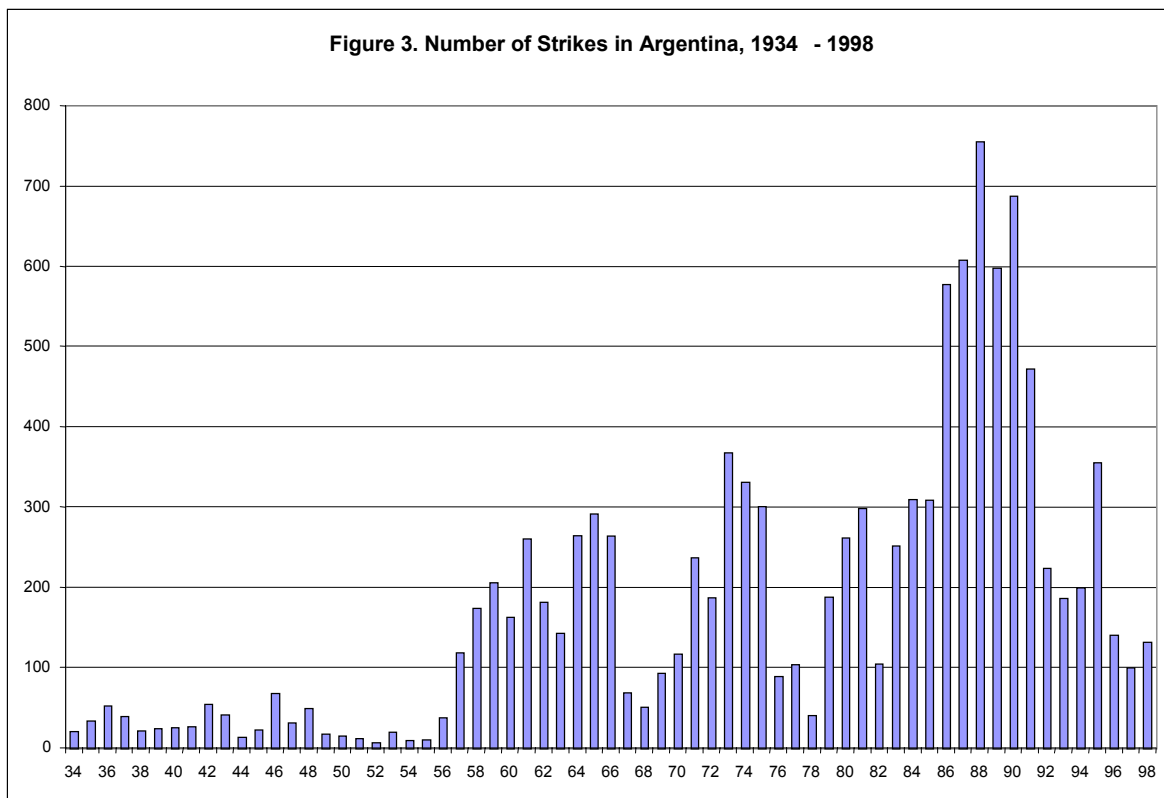
with initial conditions  $\gamma^0(0) = 0$ , and  $\gamma^j(\theta_1) = \gamma^0(\theta_0)$  if  $\theta_0 > 0$ ,  $\gamma^j(\theta_1) = 0$  if  $\theta_0 = 0$ .

Figure 1. Court's best response with  $\theta$  public information



In the case depicted in Figure 1,  $z(0|\beta_H) < z^J < z(1|\beta_L)$ . The Court is perceived as “pro-labor” for  $\theta < \theta_0$ . Here the constraint is binding and  $x^J(\theta) = z(\theta|\beta_H)$ . Similarly, the Court is perceived as “anti-labor” for  $\theta > \theta_1$ , and  $x^J(\theta) = z(\theta|\beta_L)$ . For  $\theta \in [\theta_0, \theta_1]$ , the Court is unconstrained and  $x^J(\theta) = z^J$ .







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<sup>1</sup> For studies finding a relation, see Stratman 1992, 1995 and 1996. See also Snyder 1992.

<sup>2</sup> In several states in the US, though, justices are nominated by the Governor, but reelected by voters (see Spiller and Vanderbergh 2000). In these cases, justices must pay very close attention to interest groups preferences, as interest groups may participate in the reelection process directly, affecting their probability of reelection.

<sup>3</sup> This is the case of El Salvador, where justices must be reappointed by the legislature. The budget could also serve as an instrument of influence. See Toma 1991.

<sup>4</sup> For a discussion, see Segal 1997 and Bergara et al 2002. For an application to Argentina, see Iaryczower, Spiller and Tommasi 2002. In a related argument, Helmke 2002 states, and tests for Argentina, the Strategic Defection thesis. Justices' behavior reflects not only the effect of current political constraints, but also their anticipation of the political constraints they will face in the future.

<sup>5</sup> On evidence on the extent of legislative override of courts in the US, see Eskridge 1991.

<sup>6</sup> Indeed, since courts affect agency behavior, one could also look at the indirect link between interest groups, legislative preferences and agency behavior. See, for example, Edwards 2003, for an application of this idea. For a model of agency discretion under judicial review, see Spiller 1992. See also de Figueiredo and Tiller 2001 and de Figueiredo and de Figueiredo 2002 for analysis of lobbying bureaucracies.

<sup>7</sup> Although public demonstrations *can* emerge in a decentralized fashion (Lohmann 1993; Lohmann 1994), the centralized control by unions of an institutional structure allowing the effective organization of large demonstrations provides a valuable source of political influence. In several countries (France, Spain, Argentina, Venezuela, etc.), unions have achieved such a central

structure, and with it, have broadened their scope of interest from particular industrial relations to general policies affecting labor even indirectly.

<sup>8</sup> The assumption that the stance of the voters with respect to labor legislation is private information of the union intends to capture the stylized fact that interest groups, and in particular unions, are better able to maintain a closer connection to citizens than government officials.

<sup>9</sup> Implicitly, we are assuming that Congress is unicameral, with no relevant committees. We show below, however, that in this model this is formally equivalent to an institutional environment in which two collective bodies (house and senate; floor and committee, etc) possess veto power. Furthermore, with yet another interpretation, the model can include the case in which the President or an agency chooses a policy that has to survive reversals by a Court and Congress.

<sup>10</sup> Note that we are implicitly assuming that whenever the set of policies that would make every legislator in a group better off than the status quo is nonempty, this group will reach an agreement within this set. That is, we assume that the members of this group can “negotiate effectively” (see Myerson 1991).

<sup>11</sup> We assume the prior density  $f(\cdot)$  has full support ( $f(\theta) > 0$  for all  $\theta \in \Theta$ ).

<sup>12</sup> This assumption is also applicable to standard lobbying. Interest groups whose narrow interests are more directly aligned with voters’ perceptions will have an easier time explaining their concerns to politicians, than those whose policies are opposed by most constituents. More generally, this also seems to be a reasonable assumption for alternative interpretations of the underlying state of nature.

<sup>13</sup> Alternatively, we can replace (iii) with (iii)’ the Court chooses  $x^J \in X$ , and (iv)’ “Congress” chooses  $x^C \in X$ , possibly reversing Court’s prior decision. Anticipating that a non-stable ruling would be reversed in Congress, the Court would optimally choose only among “stable”

alternatives. Furthermore, note that a first stage in which Congress enacts a new legislation is irrelevant in this model, since the Court can always reverse it later.

<sup>14</sup> We supplement this equilibrium concept with a refinement of beliefs off the equilibrium path; criterion D1 (Banks and Sobel 1987; Cho and Kreps 1987). Intuitively, “this criterion insists that, on observing a deviation (defined as an action not taken with positive probability by any type of agent in the candidate equilibrium), [the uninformed agents] will infer that the deviating party belong to the class of agents who had the greatest incentive to make the observed deviation” (Bernheim 1994).

<sup>15</sup> Note that this framework allows us to accommodate different procedures for legislative approval. For example, consider the case in which a policy has to be approved by two collective bodies (a House and a Senate, a Committee and the floor, etc) by simple majority. In this case,  $\beta_L$  and  $\beta_H$  would be given by the median voters in each chamber,  $S(1/2|\gamma)$  would not in general be a singleton, and the Court would face a nontrivial strategic problem. To simplify the presentation, however, we continue with the benchmark interpretation of a unicameral legislature with a supermajority rule unless it is otherwise noted, and drop the  $m$  subscript when there can be no confusion.

<sup>16</sup> This doesn't say, however, that the equilibrium necessarily involves transmission of information. In fact, the equilibrium strategy involves complete pooling by the union if (and only if) the Court is unconstrained for every possible realization of  $\theta$ . Nonetheless, there can never be pooling in subsets of  $\Theta$  in which informed policy is responsive.

<sup>17</sup> For very low levels of judicial support for the unions, i.e.,  $z^j < z(0, \beta_L)$ , the Court is constrained for all values of  $\theta$ . Thus, it is fully responsive to union's actions, and the expected level of strikes is maximized. As  $z^j$  increases, though, the range of values of  $\theta$  for which equilibrium policy is unresponsive,  $[\theta_0, \theta_1]$ , increases, reaching its maximum spread when  $\theta = z(0, \beta_H)$ . The expected

level of strikes is thus decreasing in  $z^J$  in this range. Further pro-labor changes in  $z^J$  (until  $z^J = z(1, \beta_H)$ ) increase both  $\theta_0$  and  $\theta_1$ . The behavior of the expected level of strikes in this range depends on the distribution of  $\theta$  and on the particular shape of the union's strategy, determined, in turn, by the details of the particular specification of functions and parameter values. The effect of further pro-labor changes in  $z^J$  mirror the previous argument, as  $[\theta_0, \theta_1]$  decreases again, until vanishing at  $z(1, \beta_H)$ .

<sup>18</sup> Note that the equilibrium level of strikes is a function of Court's preferences and not of actual rulings by the Court, as those only happen after the level of strikes is observed.

<sup>19</sup> By any account, this is a major simplification, as all Presidents in office have sought to some extent support from (at least some fractions of) the unions. However, the strong association between unions and the Peronist Party, together with the Peronist/anti-Peronist division of Argentine society in the second part of the 20<sup>th</sup> century simplifies this attempt (Rotondaro 1971; Torre 1983; Fernandez 1988; McGuire 1997).

<sup>20</sup> Peronism was banned from participating in the 1958 elections, and President Frondizi was elected with the explicit support of Peron (see, for example, McGuire 1997).

<sup>21</sup> That is, each party is modeled as a (possibly) heterogeneous group of politicians, where the heterogeneity is given by the distribution  $G_k(\cdot)$  of the ideal points of party  $k$  members.

<sup>22</sup> We say that party  $s$  is "pro-labor" compared to party  $t$  when for any feasible policy  $q$ , the mass of party members for whom their ideal points are to the left of  $q$  (more "anti-labor") is smaller for party  $s$  than for party  $t$ .

<sup>23</sup> Observe that the measures of political tendencies in Congress depend on the level of the party discipline variable  $\alpha$ .

<sup>24</sup> Observe that the median voter in the Senate will depend on the extent of party discipline, which depends on the parameter  $\alpha$ . Thus, the imputed preference of each justice will depend on the assumed level for the party discipline variable  $\alpha$ .



<sup>25</sup> Since 1991, the Court has been handling between 5000 and 8000 annually. See Molinelli 1999. Differing from its U.S. counterpart, the Argentine Supreme Court does not have the ability to issue *certiorari* decisions, nor does the *stare decisis* doctrine formally exist. As a consequence, the Argentine Supreme Court sees a very large number of cases per year (Bidart Campos 1982). But the thousands of cases mask the fact that many are repetitive cases. Since until very recently the court did not have the ability to determine a law as unconstitutional *per se*, but rather had to deal with the unconstitutionality of its application to a particular case (person), the Court has ruled multiple cases but essentially implemented a single decision multiple times.

<sup>26</sup> By norms, we mean laws, Presidential decrees, administrative decisions and resolutions. Cases in which the constitutionality of a lower court decision was questioned (*arbitrariedad*) and cases in which the constitutionality of *the interpretation of a norm* by a lower court was questioned *but not the norm in itself*, were excluded.

<sup>27</sup> Cases in which the Supreme Court decided not to pronounce over the constitutionality of the challenged norm, alleging *formal* or *technical* reasons, were also excluded.

<sup>28</sup> It should be noted that the accuracy and reliability of strike data Argentina is at best questionable. Although the importance of unions in Argentina's political life generated a vast literature, in few cases authors provide data at all, and where these are provided, they are often contradictory. Since every study focuses on a relatively short period of time, we were unable to find a single source covering the entire period of our sample (1935 – 1998). With these constraints, we built the variable STRIKES in the following way. First, we selected what we thought was the best possible source for our sample. Second, to reduce possible differences in absolute values coming from different methodologies, we fixed the absolute values of what we considered was the best source available, and generated the remaining data using the percent variation in the next best available series. The most comprehensive and reliable source is O'Donnel 2000 which covers the period 1955-1972. For 1935 – 1955 we used the variations in

data from Rotondaro 1971, which independently covers the period 1935 – 1968. For the period 1972 – 1998 we used Torre 1983, Fernandez 1988, and Nueva Mayoria 2001.

<sup>29</sup> Recall that computed variables for political and judicial preferences depend on the level of the party discipline variable  $\alpha$ . Thus, for each of those variables we provide nine values, one for each level of party discipline, where 1 is the highest level of party discipline and 9 is the lowest.

<sup>30</sup> Below we will consider a nonlinear (logit) specification.

<sup>31</sup> Including the mean (NR-AVG) and amplitude (NR-LENGTH) of the set of stable policies in the specification of the STRIKES equation is of course equivalent to including the upper and lower bounds of the stable set of policies, NR-LOW and NR-HIGH.

<sup>32</sup> See Greene (2000), pg. 621. The Lagrange Multiplier Statistic is  $\lambda_{LM} = T \sum_{i=2}^M \sum_{j=1}^{i-1} r_{ij}^2$ , where M is the number of equations, T the number of observations, and  $r_{ij}$  is the estimated correlation  $\sigma_{ij}(\sigma_{ii}\sigma_{jj})^{-1/2}$  from OLS. In our case, M=2, and T=314. Table 2 shows the OLS estimations and the value of the statistic (for every  $\alpha$  - implicit party discipline - see below). The maximum value of  $\lambda_{LM}$  across  $\alpha$  is 0.025, well below the 1% critical value of 6.63 from the limiting chi-squared distribution with  $M(M-1)/2=1$  degrees of freedom.

<sup>33</sup> The following measures of goodness of fit for the logit model are presented: Sensitivity, Specificity, Positive Predictive Value, Negative Predictive Value. These are, respectively, the percent of hits when the dependent variable is 1; the percent of hits when the dependent variable is 0; the number of correctly classified as 1 as a proportion of the number of cases classified as 1; and the number of correctly classified as 0 as a proportion of the number of cases classified as 0. The table also shows the total percent of cases correctly classified. The percentage of correctly classified cases is heavily dependent upon the choice of cut-off point. Although there is not a unique criterion to choose this cut-off point, here we use the mean of the dependent variable. We also compute the area under the ROC curve, which overcomes the indeterminacy of the cut-off

problem. In a ROC curve, the sensitivity and specificity (1-specificity) are plotted for the various cut-off points. An area under the curve close to one (which is the maximum value this area can attain) indicates a good prediction, while an area close to one-half indicates a poor prediction. See Afifi and Clark 1998.

<sup>34</sup> Note that although there are cases under which the sign of the coefficients of these variables are not consistent with the predictions of the theory, this is only true for the cases in which the coefficient is not statistically significant. Conversely, whenever the coefficient is statistically significant the sign is consistent with the predictions of the theory.

<sup>35</sup> An explanation of this fact falls outside the scope of this paper.

<sup>36</sup> This might capture the reaction to the impressive switch towards pro-labor legislation during Peron's government.

<sup>37</sup> Furthermore, according to Proposition 3, a change in Congressional composition resulting in a pro-labor change in the *lower* bound of the set of stable policies results in a *higher* expected level of strikes. Similarly, a change in Congressional composition resulting in a pro-labor change in the *upper* bound of the set of stable policies results in a *lower* expected level of strikes. As it has been already noted, our specification of the STRIKES equation including NR-LENGTH and NR-AVG is equivalent to one including, instead, the bounds of the set of stable policies, NR-LOW and NR-HIGH. Specifically, denote the coefficients of NR-LENGTH and NR-AVG as  $\alpha_0$ , and  $\alpha_1$  respectively. Similarly, denote the coefficients of NR-HIGH and NR-LOW as  $\beta_H$  and  $\beta_L$  respectively. Then  $\beta_H = \alpha_1/2 + \alpha_0$ , and  $\beta_L = \alpha_1/2 - \alpha_0$ . Transforming the estimated coefficients to obtain the coefficients of these variables as above, we conclude that, as predicted by proposition 3, the expected level of strikes is decreasing in NR-HIGH and increasing in NR-LOW.

<sup>38</sup> If there is no such set  $\Theta'$ , criterion D1 places no restrictions on the receiver's posterior conditional on  $a$ .