A Property Rights Approach to Legislative Delegation*

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January 14, 2010

Abstract

This paper applies the property rights theory to study both positive and normative aspects of legislative delegation in a setup where interest groups directly influence lawmaking by initiating regulatory bargaining. A self-interested legislature choosing between the direct exercise of its legislative authority and delegation to an administrative agency must therefore trade off the value of bureaucratic competence against bureaucratic drift and, importantly, loss of control over bargaining. Our analysis, first, clarifies when the legislature's choice between delegation and no delegation is socially efficient or socially inefficient; second, illustrates the role of political bargaining and shows that precluding interest group influence through bargaining may actually increase the scope for socially inefficient outcomes; third, develops novel predictions on the type of policy issues that we should observe get delegated; and, fourth, reflects on the practice of the scant empirical work on legislative delegation.

Keywords: legislative delegation, property rights, interest groups, regulatory bargaining

JEL Classifications: D73, K23, K40, P50

* For helpful comments, suggestions and discussion, I thank Andrzej Baniak, Atin Basu, Anthony Bertelli, Martin Davies, Valentina Dimitrova-Grajzl, Joseph Guse, Greg Holyk, Alan Marco, Peter Murrell, seminar participants at Washington and Lee University, and participants at the 81st Annual Conference of the Southern Political Science Association in Atlanta.
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1. Introduction

Legislative delegation of lawmaking and policy authority to governmental bureaucracy has been subject of research in political science, legal scholarship and economics (see, e.g., Rose-Ackerman 2008, Epstein and O'Halloran 1999, von Wangenheim 2000). The contemporary theories, which aim to rationalize legislative delegation, focus on the trade-off between the value of bureaucratic competence and the loss of political control due to the mismatch between the objectives of bureaucrats and their political principals (see, e.g, Bawn 1995, Epstein and O'Halloran 1999: Ch.4, Cooter 2000: Ch.4, Bendor et al. 2001).[1]

This paper aims to offer a fresh perspective on legislative delegation by examining both positive and normative aspects of the legislature's choice between delegation and no delegation of lawmaking authority through the lens of the property rights theory. We argue that the lawmaking powers allocated in the administrative process may be viewed as analogous to the notion of firm ownership of Grossman and Hart (1986) and Hart and Moore (1990). In the Grossman-Hart-Moore theory, ownership matters because it specifies the control rights over the firm's assets in instances not stipulated in the necessarily incomplete contracts. Property rights therefore determine the threat points in ex post bargaining among the firm's stakeholders. In a similar vein, given the legislatures' inability to promulgate complete laws (see, e.g., Pistor and Xu 2003, Dari-Mattiacci and Deffains 2007: 631, Rossi 2005, Sunstein 1995:1740, Baker and Krawiec 2004, Bamberger 2006: 402), the allocation of lawmaking rights determines the authority to 'fill in the gaps'. Legislative delegation to an administrative agency then effectively allocates the rulemaking authority to bureaucrats just as, for example, privatization allocates authority to manage a firm to private agents (Hart et al. 1997, Shleifer and Vishny 1994).

[1] For discussion and review of literature on other reasons why legislatures delegate lawmaking and policy authority, see Epstein and O'Halloran (1999: 29-33), Stephenson (2006: 1042-1049), and Rose-Ackerman (2007: 5-6).

The property rights approach we adopt provides a natural, yet thus far unexplored, channel to examine the consequences of direct interest group influence in legislative delegation. In our framework, interest groups differ from the general public in that only the former can initiate the process of regulatory bargaining through lobbying or bribery of decision-makers (see, e.g., Rossi 2005; Bertelli and Feldmann 2006, 2007). Because the legislature's allocation of lawmaking powers determines the threat points in regulatory bargaining, it impacts the politics of implementation of new rules in a fundamental way. When the legislature chooses to exercise its lawmaking powers directly, lawmaking is shaped by bargaining between the legislature and the politically organized interest groups. In the case of legislative delegation, in contrast, new legal rules are determined through bargaining between the interest groups and the bureaucrats representing the administrative agency.[2]

The legislature considering delegation must therefore weigh the benefits of improved quality of lawmaking, which arise due to bureaucrats' greater competence about the regulatory issues at stake, against two types of losses. One is the familiar loss of political control due to bureaucratic drift caused by a mismatch between the legislature's and the agency's preferences (Bawn 1995, Epstein and O'Halloran 1999, Cooter 2000: Ch. 4). The second type of loss has, in contrast, thus far not been examined in the literature. When the legislature delegates, it relinquishes control over regulatory bargaining and therefore looses the ability to extract direct side payments from the interest group in the form of lobbying contributions or outright bribes.[3] Applying the property rights lens to characterize the legislature's incentives therefore leads us to refine the conventional trade-off between the gains from bureaucratic expertise and losses from lack of political control.

[2] Interest group influence and bargaining over the content of promulgated rules under legislative delegation are of course an integral part of the formalized process of negotiated rulemaking (the so-called "Reg-Neg"). As construed in our theory, however, interest group influence and bargaining may take place under any agency rulemaking procedure. See Fox (2000), Gellhorn and Levin (1990), and Rosenbloom (2003) for discussion of institutional frameworks and mechanisms of agency rulemaking.

[3] In effect, "delegation increases opportunities for corruption by agents and reduces opportunities for corruption by principals" (Cooter 1996: 16).

Yet the theory of legislative delegation we offer is not only a positive one: we examine legislative delegation from the normative perspective as well. Considering both the legislature and the bureaucracy as self-interested actors whose political views need not be congruent with wider societal views allows us to tackle a crucial, yet thus far neglected, question of when the legislature's decision to delegate is congruent with the objectives of society as a whole, and when not.[4]

Intuitively, socially inefficient legislative delegation may occur when, on one hand, the extent of bureaucratic drift and the legislature's opportunity costs of delegation (foregone bribes or lobbying income) are small and, at the same time, the general public, which cannot participate in regulatory bargaining, is worse off under agency rule-making than under a direct legislative response. Similarly, socially inefficient direct legislating may occur when the extent of bureaucratic drift and the legislature's opportunity costs of delegation are large and, at the same time, agency rule-making results in legal rules that are less biased against the general public than the legal rules promulgated under direct legislating. Our analysis, first, illustrates how the social efficiency or inefficiency of the legislature's choice between delegation and a direct legislative response depends on the interplay of factors such as the extent of bureaucratic competence advantage vis-à-vis the legislature, the divisiveness of the issue on the lawmaking agenda, and both the extent and nature of bureaucratic drift indicative of an intra-government policy conflict.

Second, we highlight the central role of the patterns of interest group influence in government and clarify the implications of bargaining as means of direct interest group involvement in legislative delegation. We also investigate the effects of limiting the scope for regulatory bargaining, thereby relating our analysis to the recent literature exploring the consequences of limiting interest groups' political contributions and access to the political

[4] Cooter (2000: 88), for example, argues that "[b]ribe-taking by an agent may harm the public more than it harms the principal. Consequently, the public might benefit from more direct administration by the principal than he would voluntarily choose."

arena (see, e.g., Austen-Smith 1998, Prat 2002, Drazen et al. 2007). In particular, we find that eliminating the scope for interest group influence through bargaining, interestingly, increases the scope for socially inefficient delegation. On the other hand, the effect on the scope for socially inefficient direct exercise of legislature's lawmaking authority is unclear.

Third, our framework allows us to classify policy issues (to be addressed with legal rules) along the dimensions of their technical complexity and social divisiveness. Our results predict what policy issues we should observe get delegated to bureaucracies, and what issues we should expect to remain under the legislature's control, thereby complementing the analysis of Epstein and O'Halloran (1999, Ch.8). Finally, our analysis reflects on the practice of the scant existing empirical work on legislative delegation. Specifically, our findings imply that the effect of policy conflict in government—a key explanatory variable in empirical studies on legislative delegation—should be viewed as conditional on both issue characteristics and the pattern of interest group influence in government.

The rest of the paper is organized as follows. Section 2 discusses our approach in light of the existing literature. Sections 3 and 4 develop and analyze a model of legislative delegation in the spirit of the property rights theory to characterize the legislature's incentive and the social welfare implications of the legislature's choice. Section 5 discusses the implications of our results with respect to the role of regulatory bargaining, the types of policy issues that we should observe the legislatures delegate, and the existing empirical work on legislative delegation.

2. Related Literature

The legislature's choice between delegation and direct exercise of its lawmaking powers, and the associated trade-off between bureaucratic expertise and bureaucratic drift, have previously been formally analyzed by Bawn (1995), Epstein and O'Halloran (1999, Ch. 4), and Cooter (2000, Ch. 4).[5] Our paper is, to the best of our knowledge, the first to explicitly study the legislature's choice between direct legislative response and delegation from the property rights perspective. The property rights approach allows us to highlight the role of political bargaining as a channel of direct interest group influence in legislative delegation.

The theoretical literature on the administrative process has, with a handful of exceptions discussed below, sidestepped examining the direct influence of interest groups in legislative delegation (see, e.g., von Wangehneim 2000: 559).[6] Instead, the literature has analyzed interest groups primarily in their capacity to raise "fire alarms" and thus assist the legislature in performing strategic oversight of the bureaucracy (see, e.g., McCubbins and Schwartz 1984, Epstein and O'Halloran 1995, Hopenhayn and Lohmann 1996, de Figueiredo et al. 1999).

Sloof (2000) examines the consequences of interest group lobbying for the politicians' choice between delegation and no delegation of policy authority. He focuses on the signaling role of interest-group lobbying. We, in contrast, explore the role of interest groups as initiators of regulatory bargaining, when the interest groups directly influence the lawmaking authorities by offering monetary transfers or political favors. Bennedsen and Feldmann (2006) study how interest group lobbying of bureaucrats impacts the legislature's willingness to delegate decision-making authority. They, however, unlike us assume that the interest group cannot lobby the legislature.[7] Boehmke et al. (2005) examine how the interest group's choice among lobbying the legislature, a standing bureaucracy, or no one, influences the legislature's

[5] A related line of research on the administrative process takes bureaucratic delegation as given and instead characterizes the scope of bureaucratic discretion which is optimal from the point of view of the legislature subject to various institutional constraints (see, e.g., Epstein and O'Halloran 1994, Huber and McCarty 2004, Gailmard 2002, Volden 2002a, Gailmard and Patty 2007).

[6] For earlier, more reduced-form attempts to incorporate interest groups in models of legislative delegation, see Bendor and Moe (1985) and Banks and Weingast (1992). For empirical evidence on direct interest group influence on agency rule-making, see, e.g., Golden (1998), Furlong and Kerwin (2004), WebbYackee (2006), and Webb Yackee and Webb Yackee (2006).

[7] Indeed, Bennedsen and Feldmann (2006: 648) state that their model "can be viewed as a building block for a larger model of political decision-making in which the interest group may lobby in multiple venues, including both the legislature and the bureaucracy".

decision to delegate to an ideologically distinct, as opposed to an ideologically close, bureaucrat. We, in contrast, examine a framework where the legislature, through the delegation versus no delegation decision, predetermines the interest group's venue for lobbying or corruption. Bertelli and Feldmann (2006, 2007), much like this paper, view interest groups as initiators of bargaining in the administrative process. They do not, however, focus on the legislature's choice between delegation and no delegation.

Finally, Alesina and Tabellini (2007a,b) investigate the allocation of policy responsibilities between politicians and bureaucrats, who are subject to different accountability mechanisms. Alesina and Tabellini (2007a,b) show that the socially optimal allocation of policy tasks between politicians and bureaucrats in general differs from the allocation which is optimal from the politician's viewpoint. Our paper, in contrast, elaborates on the trade-off between bureaucratic competence and loss of political control to derive exact conditions under which a self-interested legislature's decision between delegation and no delegation is socially optimal, and when it is not.

3. The Model

We present a model in the spirit of Grossman and Hart (1986) and Hart and Moore (1990) to shed light on the self-interested legislature's choice between direct exercise of its lawmaking powers and delegation to an administrative agency. The model aims to illustrate the consequences of interest group influence through regulatory bargaining. To this end, we view delegation as a binary choice and follow the existing formal literature on legislative delegation in that we abstract from many other institutional details of the administrative process.[8] Much like the related papers discussed in the previous section, our analysis, for

[8] In reality, the extent of discretion granted to an administrative agency of course depends on the degree of specificity of administrative law (see, e.g., Huber and Shipan 2002), as well as statutory default rules (see, e.g., Elhauge 2008). When legislative delegation is a de facto consequence of the incompleteness of law, legislative delegation per se also does not automatically constitute a violation of the non-delegation doctrine; see Baker and Krawiec (2004).

example, excludes the possibility for judicial review, or explicit ex post legislative oversight of the agency's actions.

3.1. Model Setup

There are four actors in our model: the legislature (L), the administrative agency (A), the interest group (G), and the general public (P). The model captures a situation where there is a need for implementation of new legal rules. The demand for new rules and regulations arises as a response to an exogenous change in socio-economic circumstances. This change occurs at $t = 0$ and renders existing legal solutions inadequate. To supply new rules, the legislature at $t = 1$ chooses between direct implementation of new legislation and delegation of lawmaking authority to an administrative agency (see, e.g., Aranson et al. 1982: 55; Cooter 2000: Ch.4; Epstein and O'Halloran 1999).

When the legislature exercises its lawmaking powers directly, the legislature regulates by statute and provides for judicial enforcement, or even enforcement by a regulatory agency while withholding agency discretion (Aranson et al. 1982: 55). Under legislative delegation, the rulemaking powers are allocated to an administrative agency.[9] The agency promulgates new rules by following the rulemaking procedure as prescribed by the Administrative Procedure Act (see, e.g., Fox 2000, Custos 2006).[10] These new legal rules are implemented at $t = 2$ (in a process to be described below), and the payoffs are realized at $t = 3$. Figure 1 summarizes the timeline of events.

Following the existing literature on legislative delegation, we represent the outcome of lawmaking in a unidimensional outcome space, Ω, a subset of the real line.[11] The outcome of lawmaking depends on both the new status quo (ω) and the newly implemented legal rules

[9] We blur the distinction between an "independent regulatory agency" and a "cabinet agency" located within an executive branch department. See Custos (2006) for discussion.
[10] The Administrative Procedure Act defines a 'rule' as "the whole or a part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy" (5 U.S.C.A. §551 (4)).
[11] See Bendor and Meirowitz (2004) for a critical discussion and alternatives to this approach.

($\Delta\omega$): $\Omega = \omega + \Delta\omega$. The new status quo ($\omega$), which is realized at $t = 0$, reflects the consequences of the exogenous change in socio-economic conditions. We assume that ω is observed by all actors in the economy: as in the Grossman-Hart-Moore framework, information in our model is symmetric and complete.

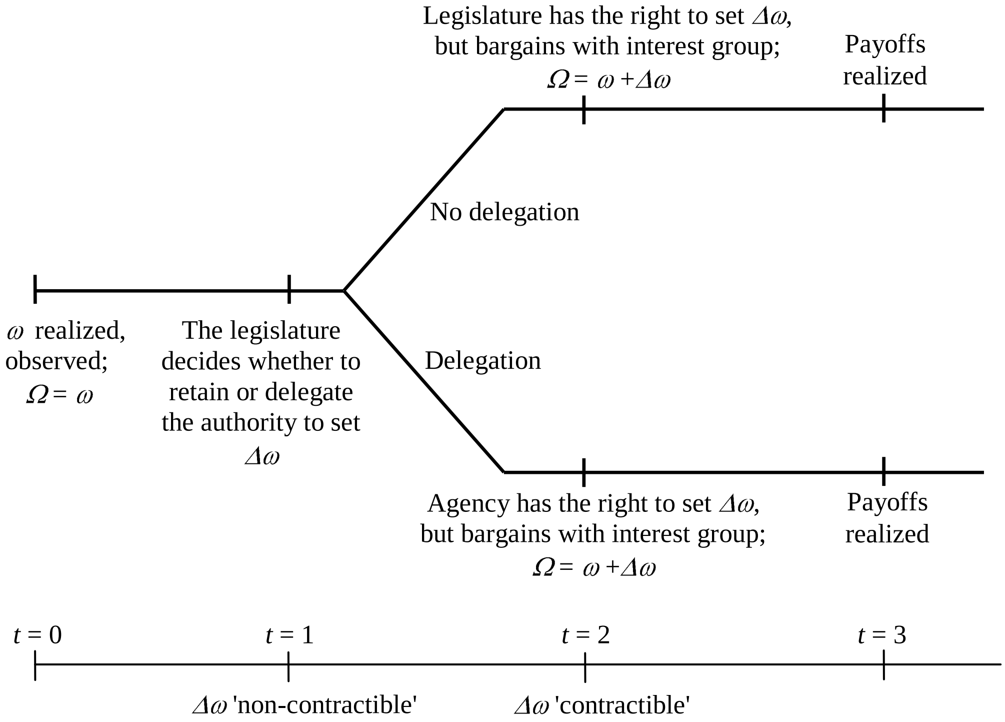

Figure 1: The timeline

Law is, much like contracts, inherently incomplete (Pistor and Xu 2003, Dari-Mattiacci and Deffains 2007: 631, Rossi 2005, Sunstein 1995:1740, Baker and Krawiec 2004, Bamberger 2006: 402). Thus, at the outset of the lawmaking process at $t = 1$, the legislature is unable to adequately spell out all the possible contingencies, especially those unforeseen, that the law should apply to. As a result, ex ante (at $t = 1$), the legislature can only decide whether the legislative authority—the right to determine $\Delta\omega$—should be delegated or not. Ex post (at $t = 2$), as the regulatory process unfolds, however, the ex ante unanticipated peculiarities of the regulatory issue at stake are better understood, and so are the possible legal solutions which can now be adequately specified. Therefore, $\Delta\omega$ is viewed as 'non-contractible' at $t = 1$, but as 'contractible' at $t = 2$ (see Figure 1).

When the legislature chooses to exercise its lawmaking powers directly, the legislature retains the right to draft the law and thus to set $\Delta\omega$. Under legislative delegation, in contrast, the authority to promulgate and interpret rules, and thus to determine $\Delta\omega$, is vested with the bureaucracy. Regardless of whether legislative authority has at $t = 1$ been delegated or not, however, lawmaking is at $t = 2$ crucially shaped by direct influence of organized interest groups.

Interest groups steer the course of lawmaking through lobbying or bribery of decision-makers in the process of regulatory bargaining (Rossi 2005; Bertelli and Feldmann 2006, 2007). The legislature's decision to delegate or to directly exercise its lawmaking authority therefore profoundly affects the process of implementation of new rules. When the legislature chooses to exercise its lawmaking powers directly, lawmaking (the setting of $\Delta\omega$) is shaped by political bargaining between the legislature and the organized interest groups. In the case of legislative delegation, in contrast, new legal rules ($\Delta\omega$) are determined through bargaining between the interest groups and the administrative agency. The general public is passive (see, e.g., Olson 1971) in that it does not directly influence lawmaking through participation in regulatory bargaining.[12] The public, however, has well-defined preferences over alternative legal rules and is affected by the outcome of rulemaking.

With $\Omega = \omega + \Delta\omega$, the actors' preferences are assumed to be single-peaked over outcomes (Ω). The payoffs for the interest group (G), the general public (P), the legislature (L), and the administrative agency (A) are respectively as follows:

$$U_G = -\{(G - \Omega)^2 + \Psi_i\} - t \qquad (1)$$

[12] This assumption is fully in line with the empirical findings on participation of different social groups in agency rulemaking. See Golden (1998), Furlong and Kerwin (2004), and Webb Yackee and Webb Yackee (2006).

$$U_P = -\{(P - \Omega)^2 + \Psi_i\} \quad (2)$$

$$U_L = -\theta\{(G - \Omega)^2 + \Psi_i\} - (1-\theta)\{(P - \Omega)^2 + \Psi_i\} + (1-\chi)\cdot t \quad (3)$$

$$U_A = -\lambda\{(G - \Omega)^2 + \Psi_i\} - (1-\lambda)\{(P - \Omega)^2 + \Psi_i\} + \chi\cdot t \quad (4)$$

The parameters G and P respectively capture the preferred law of the interest group and the public. In general, $G \neq P$. The size of the (Euclidian) distance between G and P captures the extent of misalignment between the interest group and the general public, and is thus indicative of the *divisiveness* of the issue for which a regulatory response is sought. When a regulatory solution is sought for a highly divisive issue, the interest group's and the public's ideal points (G and P respectively) may differ considerably. In that case, laws that favor one constituency significantly hurt the other. On the other hand, when there is consensus over appropriate legal solutions, the interest group's and the public's ideal points (G and P, respectively) are positioned close to each other.

Ψ_i is the cost incurred by the interest group and the public because of implementation of, and adjustment to, new legal rules: legal change is costly per se (Van Alstine 2002).[13] The necessity for agents to learn the content of new rules, to review and adjust established organizational and contractual practices in response to new rules, as well as to reorganize public administration (see e.g. Van Alstine 2002, Section II) arises regardless of the extent to which the substantive content of new laws and regulations deviates from the existing ones. We therefore model the costs of implementation and adjustment as fixed costs.[14] To highlight

[13] The interest group and the public thus differ only in their preferences over desirable law, but not in the costs that they incur because of implementation of, and adjustment to, new law. This assumption merely simplifies the notation and exposition: no aspect of the analysis changes if we instead assume that the interest group and the public incur different adjustment and implementation costs, but that delegation results in equivalent decrease in these costs for the interest group and the public. Even if delegation decreases the adjustments and implementation costs by a different absolute amount for the interest group and the public, the qualitative conclusions implied by Lemma 1 and 2 continue to hold. In this case, however, identifying the instances of the discrepancy between the legislature's and the socially optimal choice becomes analytically un-tractable. Proof of these points is available upon request.

[14] Mulligan and Shleifer (2005: 1146), for example, argue that in the process of introducing new regulations, "fixed costs are important. It takes some political and administrative resources to organize a community to draft and adopt each new regulation, especially when the government enters a new area". Fixed costs of lawmaking are also prominent in the analysis of Fon and Parisi (2007) and Carbonara and Parisi (2009).

the differences in equilibria under delegation and no delegation, we must ensure that the benefits from legal change outweigh the costs. Thus, we implicitly assume that, for a given realization of ω, Ψ_i is sufficiently small so that proceeding with legal amendments (as opposed to preserving status quo) is rational for all affected actors.

The subscript $i \in \{N,D\}$ indicates whether legislative authority has been *D*elegated ($i = D$) or *N*ot ($i = N$). The generally agreed-upon source of benefits from legislative delegation is the comparatively greater competence of the bureaucracy vis-à-vis the legislature about the regulatory issue at stake (see, e.g., Epstein and O'Halloran 1999, Gellhorn and Levin 1990, Fox 2000). The existing formal literature has typically identified the agency's competence advantage vis-à-vis the legislature with an informational advantage, in a game-theoretic sense (see, e.g., Bendor et al. 2001).[15] We, in contrast, identify bureaucratic competence advantage with the agency's ability to respond to a given well-defined legislative problem in a comparatively quicker, more flexible, more expert, and therefore socially more cost-effective, way than the legislature (see, e.g., Kerwin 2003: 28-32). In our framework, delegation of legislative authority to professionally competent bureaucrats accordingly improves the quality of lawmaking by reducing the interest group's and the general public's costs incurred through implementation of, and adjustment to, new legal rules relative to the no delegation case: $\Psi_N > \Psi_D$.

In the analysis that follows, we refer to the size of $\Delta\Psi \equiv \Psi_N - \Psi_D > 0$ as the *extent of bureaucratic competence advantage vis-à-vis the legislature*. Ceteris paribus, $\Delta\Psi > 0$ increases with the degree of bureaucratic competence and decreases with legislative capacity—the costs to politicians of crafting adequate legislation (Huber and Shipan 2002).

[15] Gailmard and Patty (2007) present a model of legislative delegation where bureaucratic expertise is endogenous.

Thus, small (large) values of $\Delta\Psi$ may be indicative of a less competent (well-versed) bureaucracy or a high-capacity (low-capacity) legislature, or both.[16]

The transfer $t > 0$ denotes the monetary value of political favors, outright bribes, or lobbying contribution (in the case of the legislature) from the interest group to the party with the authority to implement new legal rules: the legislature (if $i = N$) or the administrative agency (if $i = D$). χ is an indicator function: $\chi = 0$ if $i = N$, and $\chi = 1$ if $i = D$.

Both the legislature's and the agency's payoff are weighted averages of payoffs from rulemaking (i.e. payoffs net of transfers) for the interest group and the general public. The parameters $\theta \in (0,1)$ and $\lambda \in (0,1)$ respectively capture the extent to which the legislature and the bureaucrats side with the interest group rather than with the general public. θ and λ reflects regular representative politics, where different social groups vie for political consideration. A value of θ (λ) close to 1, for example, indicates that the legislature (agency) adopts a strongly pro-interest group stance, a scenario often referred to as 'regulatory capture'. A value of θ (λ) close to 0 indicates that the legislature (agency) aligns with the general public, in which case we refer to the decision-maker—the legislature or the agency—as 'populist'. We assume that at $t = 1$, when the legislature decides whether delegation should take place or not, the legislature knows the bureaucrat's type as represented by the value of λ (see, e.g., Gailmard 2002, 2009; Epstein and O'Halloran 1994, Volden 2002a).

Vesting lawmaking authority with the bureaucracy may result in bureaucratic drift (McCubbins et al. 1987)—the divergence of the law's content away from that desired by the legislature. Bureaucratic drift occurs whenever the bureaucracy's preferences over appropriate

[16] Huber and McCarty (2004), for example, differentiate between bureaucratic "expertise" and bureaucratic "capacity". The former corresponds to the conventional informational advantage about the effects of various policies. The latter captures the notion that bureaucrats may make errors in implementation. Our notion of bureaucratic competence can be thought of as blurring both effects. In contrast to the literature identifying bureaucratic expertise with superior information in the game-theoretic sense, our approach allows us to elucidate how varying the *extent* of bureaucratic competence advantage vis-à-vis the legislature affects the legislature's delegation vs. no delegation decision. In this respect, our analysis resonates with that of Huber and McCarty (2004). They, however, focus their analysis only on the cases where bureaucratic capacity is small.

legal rules do not coincide with the legislature's preferences, that is, when $\lambda \neq \theta$. In a system with separation of powers, administrative agencies are nested in the executive branch of the government. Therefore, any divergence between λ and θ is also suggestive of an *executive-legislative policy conflict*, or equivalently, of a divided (as opposed to unified) government (Epstein and O'Halloran 1996, 1999; Huber and Shipan 2002).

The relative magnitude of θ versus λ is indicative of the *pattern of interest group influence in government*.[17] When $\theta > \lambda$, the legislature adopts a relatively more pro-interest group position than the bureaucracy, indicating that the interest group is better able to capture the former than the latter. In contrast, when $\theta < \lambda$, the legislature adopts a less pro-interest group stance than the bureaucracy, suggesting that the interest group is better able to capture the latter than the former.

The bargaining transfer $t > 0$ is a loss for the interest group but a gain for the party holding the decision-making authority (the legislature or the bureaucrats). Transfers are assumed not to cause any inefficiency per se. Social welfare is then defined as the weighted sum of the interest group's and the general public's payoff from law:

$$W^i = -\nu\{(G - \Omega)^2 + \Psi_i\} - (1-\nu)\{(P - \Omega)^2 + \Psi_i\}, \ i \in \{D, N\}, \tag{5}$$

where ν is the relative size of the constituency that is organized as an interest group. Following Olson (1971), a plausible value of ν is smaller than ½, an assumption we maintain throughout the rest of the paper.

3.2. Equilibrium Under No Delegation

Under no delegation ($i = N$), the legislature exercises its lawmaking powers directly. Under the default scenario without recourse to bargaining, therefore, the legislature chooses $\Delta\omega$ to

[17] In our framework, we take the pattern of interest group influence as given. See, however, Moore and Suranovic (1992) and Rubin et al. (2001) for models endogenizing the interest groups' influence choices.

maximize (3) with $t \equiv 0$. As a result, the legal rules implemented under the default scenario in the case of no delegation are such that

$$\Delta\omega^{N,d} = \theta G + (1-\theta)P - \omega \equiv L - \omega, \tag{6}$$

where $L \equiv \theta G + (1-\theta)P$. Under the default scenario, the legislature passes law that fully reflects its desired preferences given the new status quo ω. The interest group may, however, by offering political favors, lobbying contributions, or bribes, initiate the process of regulatory bargaining. The interest group thereby attempts to convince the legislature to implement legal rules closer to the interest group's preferred law.

We characterize the outcome of the bargaining process with a Nash bargaining solution. Assuming that the parties possess equal bargaining strength, the Nash bargaining solution is obtained by finding $\Delta\omega$ and t that maximize the following (Nash) product:

$$\begin{gathered}\{-\theta(G-\omega-\Delta\omega)^2-(1-\theta)(P-\omega-\Delta\omega)^2-\Psi_N+t+\theta(G-\omega-\Delta\omega^{N,d})^2+(1-\theta)(P-\omega-\Delta\omega^{N,d})^2+\Psi_N\}\\ \times\{-(G-\omega-\Delta\omega)^2-\Psi_N-t+(G-\omega-\Delta\omega^{N,d})^2+\Psi_N\}.\end{gathered} \tag{7}$$

Solving the above maximization problem yields:

$$\Delta\omega^{N,b} = ½[\theta G+(1-\theta)P+G] - \omega \equiv ½(L+G) - \omega \tag{8}$$

$$t = ½(G-P)^2(1-\theta)^2. \tag{9}$$

In the equilibrium, the legislature and the interest group then agree on implementing a 'jointly efficient' set of legal rules (8).[18] When it chooses to retain the legislative powers, the legislature is willing to implement rules which differ from its preferred rules (6) only if it receives an adequate compensation (9) from the interest group. The size of the equilibrium transfer (9) depends on the potency of the legislature's threat to discontinue bargaining and resort to implementing default legal rules (6). The equilibrium transfer (9) therefore increases with the extent to which the legislature is populist and the degree of misalignment of the interest group with the rest of society.

[18] That is, this is the set of rules that maximizes the joint payoff of the legislature and the interest group, *not* social welfare.

Inserting expressions (8) and (9) into (1), (2) and (3) above, we find the legislature's and society's welfare under no delegation:

$$U_L^N = \tfrac{1}{4}(G-P)^2(1-\theta)(1-5\theta) - \Psi_N \tag{10}$$

$$W^N = -\tfrac{1}{2}(G-P)^2(1+\theta^2+2\theta(1-\nu)) - \Psi_N. \tag{11}$$

3.3. Equilibrium Under Legislative Delegation

Under delegation ($i = D$), the legislature, by passing the enabling act, delegates the lawmaking authority to the administrative agency. Under the default scenario without recourse to bargaining, therefore, the agency chooses $\Delta\omega$ to maximize (4) with $t \equiv 0$. As a result, the legal rules implemented under the default scenario in the case of legislative delegation are such that

$$\Delta\omega^{D,d} = \lambda G + (1-\lambda)P - \omega \equiv A - \omega, \tag{12}$$

where $A \equiv \lambda G + (1-\lambda)P$. Under the default scenario, the agency passes law that fully reflects its desired preferences given the new status quo ω. Yet the interest group may, through offering political favors or bribes, convince the agency to implement legal rules that differ from those implemented under the default scenario.

We again characterize the outcome of the bargaining process with a Nash bargaining solution, assuming that delegation per se does not alter the relative bargaining strength of the interest group. Characterizing the outcome of regulatory bargaining therefore requires maximizing the following Nash product with respect to $\Delta\omega$ and t:

$$\begin{gathered}\{-\lambda(G-\omega-\Delta\omega)^2-(1-\lambda)(P-\omega-\Delta\omega)^2-\Psi_D+t+\lambda(G-\omega-\Delta\omega^{D,d})^2+(1-\lambda)(P-\omega-\Delta\omega^{D,d})^2+\Psi_D\}\\ \times\{-(G-\omega-\Delta\omega)^2-\Psi_D-t+(G-\omega-\Delta\omega^{D,d})^2+\Psi_D\}.\end{gathered} \tag{13}$$

Solving the first-order conditions associated with maximizing (13) gives:

$$\Delta\omega^{D,b} = \tfrac{1}{2}[\lambda G + (1-\lambda)P + G] - \omega \equiv \tfrac{1}{2}(A + G) - \omega \tag{14}$$

$$t = \tfrac{1}{2}(G-P)^2(1-\lambda)^2. \tag{15}$$

In the equilibrium, the interest group pays a transfer to the agency in the amount of (15), which has an interpretation analogous to (9). The agency and the interest group then agree on implementing a 'jointly efficient' set of legal rules (14) to adapt to altered circumstances.

Using expression (14), the legislature's payoff and the social welfare under delegation are respectively:

$$U_L^D = -\tfrac{1}{4}(G-P)^2[\theta(1-\lambda)^2+(1-\theta)(1+\lambda)^2] - \Psi_D \tag{16}$$

$$W^D = -\tfrac{1}{2}(G-P)^2[1+\lambda^2+2\lambda(1-2\nu)] - \Psi_D. \tag{17}$$

4. The Legislature's Incentives and Social Efficiency Considerations

Under what conditions does the legislature prefer to delegate its rule-making powers to the bureaucracy? What are the social welfare implications of the legislature's choice? In this section, we tackle these questions in turn.

We first, in section 4.1, focus on the positive aspect of the legislature's choice, analyzing how various factors interact in shaping the legislature's incentives to delegate lawmaking authority to an administrative agency. To set the terrain for the analysis of social welfare implications of the legislature's choice, section 4.2 compares the institutional arrangements of legislative delegation and the legislature's direct exercise of lawmaking powers from the social welfare perspective. Section 4.3 then analyzes the social welfare implications aspects of the legislature's choice.

4.1. Delegation vs. No Delegation: The Legislature's Perspective

Comparison of (10) and (16) yields the following result:

Lemma 1: $U_L^D \begin{Bmatrix} > \\ = \\ < \end{Bmatrix} U_L^N \Leftrightarrow \dfrac{\Delta\Psi}{(G-P)^2} \begin{Bmatrix} > \\ = \\ < \end{Bmatrix} \dfrac{5}{4}\theta^2 - (3/2+\lambda)\theta + \dfrac{1}{4}(1+(1+\lambda)^2).$

We illustrate Lemma 1, as well as other results in Section 4, with Figure 2. In Figure 2, the green surface depicts the set of points where the legislature is indifferent between the direct exercise of its lawmaking powers and delegation of lawmaking authority to an agency: along the green surface, $U_L^D = U_L^N$ as implied by Lemma 1. Above (below) the green surface, $U_L^D >(<) U_L^N$: the legislature's payoff is greater (smaller) under delegation than under no delegation. (We discuss the blue surface in section 4.2.) We now explore several conclusions which emerge from examining the shape and position of the green surface in Figure 2.

First, an immediate result implied by Figure 2 is that, ceteris paribus, the divisiveness of the debated issue ($(G - P)^2$) and the size of the bureaucratic competence advantage vis-à-vis the legislature ($\Delta\Psi > 0$) act as substitutes in shaping the legislature's incentives to delegate lawmaking authority. Holding other things equal, the legislature chooses to delegate its lawmaking powers when either (i) the bureaucracy is much more competent at tackling the regulatory problem at stake than the legislature, or (ii) the interest group and the public to a large extent share the views about the appropriate legal solutions.

To see the intuition behind this at first glance somewhat striking result, recall the central trade-off faced by the legislature: when considering delegation of lawmaking authority, the legislature weighs the benefits of improved quality of lawmaking against the costs incurred because of bureaucratic drift and, importantly, the loss of control over regulatory bargaining. Keeping this in mind, better alignment of the interest group's aims with the aims of the rest of society (a small $(G - P)^2$) ceteris paribus induces two effects. By expression (9), the equilibrium size of the transfer from the interest group to the legislature under no delegation decreases. Therefore, the legislature's opportunity costs from delegation, which arise because of the loss of control over bargaining, decrease. In addition, the legislature's losses due to bureaucratic drift decrease as well. As a consequence, a less divisive issue on the agenda, much like an increase in bureaucratic competence (an increase in $\Delta\Psi$), in effect increases the relative attractiveness of delegation for the legislature. (Section

5.2 discusses the implications of this result for the types of policy issues we should observe being delegated.)

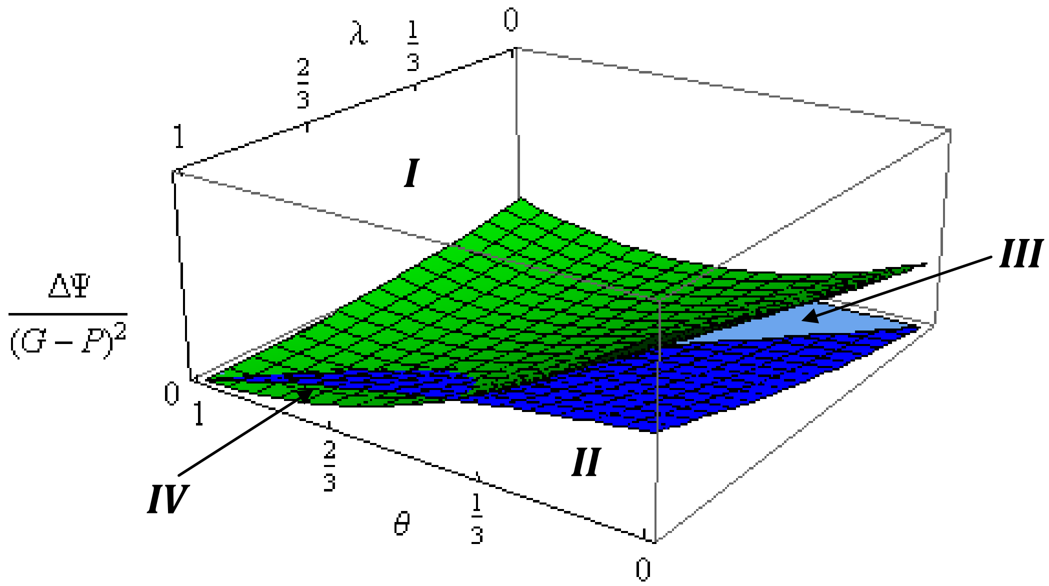

Figure 2: The legislature's incentives and social efficiency
Remark: The green surface depicts the set of points where $U_L^D = U_L^N$.
The blue surface depicts the set of points where $W^D = W^N$.

Second, consider the scenario of a unified (as opposed to divided) government ($\lambda = \theta$), so that legislative delegation implies no bureaucratic drift. Then, Figure 2 implies that the bureaucracy's competence advantage vis-à-vis the legislature per se (i.e. $\Delta\Psi > 0$) is not a sufficient condition for legislative delegation to take place. This result highlights the central role of regulatory bargaining. When $\lambda = \theta$, the agency's preferences over appropriate legal rules mirror the legislature's preferences. Thus, the legislature considering delegation of lawmaking authority needs to consider only the opportunity costs (in the form of foregone monetary transfers) because of loss of control over regulatory bargaining. Moreover, when $\lambda = \theta$, the legislature's opportunity costs of delegation are greatest when the legislature is populist (the legislature with a populist stance is able to extract the highest transfer from the interest group–see expression (9)) and decrease (at a decreasing rate) as the legislature takes on a more pro-interest group position (see Figure 2).

Third, Figure 2 clarifies that, in a framework allowing for heterogeneity among the societal groups affected by legal rules, it is not the *extent*, but rather the *pattern* of policy conflict in government that determines the relative attractiveness of delegation from the legislature's standpoint. Specifically, for a given extent of policy conflict in government, the size of bureaucratic competence advantage required to induce the legislature to delegate legislative authority is greater when the relatively more pro-interest group stance is adopted by the bureaucracy.[19]

The above conclusion is yet another natural consequence of interest group influence in regulatory bargaining. If the legislature is populist, then, for a given extent of policy conflict in government $|\lambda - \theta|$, delegation to a more pro-interest group agency ($\lambda > \theta$) results in implementation of legal rules that are further away from the legislature's desired law (compare expression (6) with (14)). In addition, when the legislature is populist, delegation entails a substantial loss in lobbying contributions (see expression (9)). Hence, the benefits of delegation, arising from greater bureaucratic competence, must be large for delegation to take place. Suppose, in contrast, that for the same extent of policy conflict in government $|\lambda - \theta|$, the interest group is better able to capture the legislature than the bureaucracy ($\lambda < \theta$). Legislative delegation then results, first, in implementation of law which may be relatively close to the legislature's ideal point (see expression (14)). Second, because of the legislature's pro-interest group stance, legislative delegation also results in a comparatively small foregone lobbying income or bribes. Thus, the benefits of delegation due to the bureaucratic competence advantage can be relatively small, yet the legislature still chooses to delegate.

[19] That is, for a given $|\lambda - \theta| = k > 0$, legislative delegation is relatively more attractive from the legislature's viewpoint when $\lambda - \theta = -k < 0$ than when $\lambda - \theta = k > 0$.

4.2. Delegation vs. No Delegation: The Society's Perspective

We now set the terrain for examination of the social efficiency implications of the legislature's choice. To this end, we first investigate under what conditions legislative delegation is preferred to no delegation (and vice versa) from the perspective of the society as a whole. Comparing expressions (11) and (17), we find:

Lemma 2: $$W^D \begin{Bmatrix} > \\ = \\ < \end{Bmatrix} W^N \Leftrightarrow \frac{\Delta\Psi}{(G-P)^2} \begin{Bmatrix} > \\ = \\ < \end{Bmatrix} \frac{1}{4}(\lambda^2 - \theta^2 + (2-4\nu)(\lambda - \theta))$$

In Figure 2, the blue surface depicts the set of points at which the society as a whole is indifferent between delegation and no delegation (i.e. where $W^D = W^N$, as implied by Lemma 2).[20] Above (below) the blue surface, $W^D >(<) W^N$: legislative delegation yields higher (lower) social welfare than no delegation.

Observe, first, that, much like in determining the legislature's incentives, the extent of divisiveness of the issue ($(G-P)^2$) and the size of bureaucratic competence advantage vis-à-vis the legislature ($\Delta\Psi > 0$) act as substitutes in determining the socially preferred way of promulgating legal rules as well.

Second, the position of the blue surface in Figure 2 implies that whether social welfare is higher under legislative delegation or no delegation crucially depends on the pattern of interest group influence in government, that is, on who adopts a more pro-interest group stance—the legislature or the agency. To see this, consider first the scenario when the interest group is relatively better able to capture the legislature than the agency ($\theta > \lambda$). As lobbying transfers do not enter social welfare, the socially optimal allocation of lawmaking powers depends solely on the considerations of the value of bureaucratic competence and the

[20] In producing Figure 2, as well as in producing Figure 3 (see Section 5), we set $\nu = 1/10$. We emphasize that qualitatively identical conclusions are obtained for any $\nu \leq ½$. Decreasing the value of ν merely rotates the blue surface upward: the minimum value of $\Delta\Psi/(G-P)^2$ that renders legislative delegation socially desirable hence increases. Intuitively, reducing the value of ν corresponds to decreasing the importance of the interest group's payoff in social welfare. This in turn decreases the relative attractiveness of legislative delegation from the social viewpoint when the agency is relatively more pro-interest group than the legislature ($\lambda > \theta$).

fit of implemented law to preferences of the society as a whole. Direct execution of the legislature's lawmaking powers always results in greater social cost from implementation of, and adjustment to, new law ($\Delta\Psi > 0$). Moreover, as the legislature is relatively more pro-interest group than the administrative agency ($\theta > \lambda$), the legal rules implemented under legislative delegation in addition also better reflect preferences of the society as a whole than the legal rules implemented directly by the legislature. Legislative delegation is therefore socially optimal even for minimal levels of bureaucratic competence advantage.[21]

Suppose instead that the interest group is relatively better able to capture the agency than the legislature ($\theta < \lambda$). Then, for a given extent of bureaucratic competence advantage vis-à-vis the legislature, the social desirability of legislative delegation decreases with the extent of policy conflict in government, $\lambda - \theta > 0$ (see Figure 2). The reason is that the content of the implemented rules diverges further away from the socially desirable law when legal rules are determined through regulatory bargaining between the interest group and a like-minded bureaucracy. Thus, for legislative delegation to be warranted from the social welfare viewpoint, the extent of bureaucratic competence advantage vis-à-vis the legislature must be correspondingly large.

4.3. Social Efficiency or Inefficiency of the Legislature's Choice

Given Lemmas 1 and 2, when is the legislature's choice between the direct exercise of its lawmaking powers and delegation of lawmaking authority to an administrative agency socially efficient, and when is it socially inefficient? Figure 2 and the relative positions of the green and the blue surfaces suggest the answer.

When the bureaucracy's competence advantage vis-à-vis the legislature is substantial ($\Delta\Psi > 0$ is large), or/and when the divisiveness of the issue is small ($(G - P)^2$ is small), the

[21] In fact, when $\theta > \lambda$, it is readily apparent from Lemma 2 that legislative delegation would be socially optimal even for $\Delta\Psi < 0$, for small to intermediate values of $|\Delta\Psi|$.

legislature delegates lawmaking authority to an agency and, at the same time, legislative delegation is also socially efficient. This scenario is depicted by Region *I* of Figure 2. In contrast, when the interest group is better able to influence the bureaucracy than the legislature ($\lambda > \theta$) and when the bureaucracy's competence advantage vis-à-vis the legislature is small to intermediate (or, equivalently, when the degree of divisiveness of the issue is intermediate to large), the legislature chooses to exercise its lawmaking powers directly, which is also socially optimal. This scenario is depicted by Region *II* of Figure 2.

The institutional mechanisms for promulgation of new legal rules therefore differ in regions *I* and *II*. In region *I*, new legal rules emerge through bureaucratic rulemaking. In region *II*, new legal rules appear in the form of statutes promulgated by the legislature. Yet in both regions *I* and *II*, the particular lawmaking mechanism chosen by the self-interested legislature is, given circumstances, socially optimal.

The self-interested legislature's choice between delegation and no delegation is socially suboptimal in the remaining two regions depicted in Figure 2. In region *III*, the legislature chooses to exercise its lawmaking powers directly, yet doing so is socially suboptimal: social welfare would have been higher under legislative delegation. In region *IV*, in contrast, the legislature chooses to delegate lawmaking authority, but social welfare would have been higher under no delegation.

We first focus on region *III*—the region of socially inefficient exercise of legislature's lawmaking powers. Region *III* may be decomposed into two parts, corresponding to two different settings. In one setting, the bureaucracy's competence advantage vis-à-vis the legislature is small to intermediate and the interest group is relatively better able to capture the legislature than the bureaucracy ($\theta > \lambda$). To see why in this case no delegation is socially suboptimal, recall the implications of Lemma 2: When the legislature takes on a relatively more pro-interest group position than the administrative agency, direct exercise of lawmaking powers leads not only to greater social costs from implementation of, and adjustment to, new legal rules, but, through regulatory bargaining, also results in legal rules that overtly disfavor the general public. At the same time, Lemma 1 implies that for small to intermediate bureaucratic competence advantage, the legislature is reluctant to delegate its lawmaking powers to a comparatively more populist agency because of bureaucratic drift and the opportunity costs from loss of control over regulatory bargaining (which are particularly large when the legislature itself is relatively populist). As a result, no delegation takes place even though agency rulemaking would be the socially optimal regime.

The second setting when the direct exercise of legislature's lawmaking powers is socially inefficient arises when the extent of bureaucratic competence advantage vis-à-vis the legislature is intermediate and the interest group is better able to capture the agency than the legislature ($\theta < \lambda$). (See region *III* in Figure 2.) To see why, recall from Lemma 2 that when the administrative agency is more pro-interest group than the legislature ($\theta < \lambda$), first, social losses due to divergence of law away from its socially optimal content are greater under delegation than under no delegation, and, second, the minimum level of bureaucratic competence advantage required to render legislative delegation socially optimal increases with the extent of policy conflict in government, $\lambda - \theta > 0$. Simultaneously, a relatively populist legislature considering delegation must, in addition to weighing the benefits of bureaucratic competence advantage against the losses from bureaucratic drift, also consider sizeable opportunity costs from the loss of control over regulatory bargaining (see Lemma 1). Hence, the level of bureaucratic competence advantage which renders legislative delegation socially optimal does not suffice to render delegation optimal from the legislature's perspective as well. As a result, legislative delegation does not take place, even though agency rulemaking would be socially desirable.

Finally, we investigate under what conditions the legislature's allocation of lawmaking authority to an administrative agency is socially inefficient, as is the case in region *IV* of Figure 2. In region *IV*, bureaucratic competence advantage vis-à-vis the legislature is relatively small, and while the interest group is able to exert strong influence on both the agency and the legislature, the legislature's stand is less pro-interest group than the agency's. To understand why this scenario leads to socially inefficient legislative delegation, note the following: A pro-interest group position of the bureaucracy implies that in region *IV*, under legislative delegation, the society's losses from divergence of laws away from the socially optimal laws would have been substantial. At the same time, the relatively small degree of bureaucratic competence advantage implies that social opportunity costs due to less efficient lawmaking under no delegation (which equal $\Delta\Psi > 0$) are not insurmountable. As a result, in region *IV*, direct exercise of legislature lawmaking powers is socially optimal.

From the legislature's perspective, however, its pro-interest group position in region *IV* implies that the legislature's opportunity costs due to loss of control over regulatory bargaining are relatively small. Since in region *IV* the degree of policy conflict in government is relatively small as well ($|\lambda - \theta|$ is relatively small), the legislature is willing to delegate its lawmaking powers to an administrative agency even at a relatively small degree of bureaucratic competence advantage which does not justify legislative delegation on social efficiency grounds. As a result, in region *IV*, socially inefficient legislative delegation takes place.

5. Discussion

Section 4 has focused on the analysis of the legislature's incentives and the social welfare repercussions of the legislature's choice, highlighting the interaction of factors such as the extent of bureaucratic competence advantage vis-à-vis the legislature, the divisiveness of the issue on the lawmaking agenda, and the extent and pattern of bureaucratic drift. In this section, we conclude the paper by highlighting several broader implications of our analysis.

5.1. Should Interest Group Influence through Regulatory Bargaining Be Precluded?

In the property rights framework we adopt, the legislature's decision to delegate or retain its lawmaking powers determines the threat points in political bargaining. Participation in political bargaining represents a powerful channel through which the organized interests steer the course of lawmaking toward their preferred outcome. Because interest group involvement in general comes at the expense of the general public, a natural question to ask then is whether it might not be desirable to limit interest group influence by precluding regulatory bargaining. [22]

To shed light on the above question, we contrast the set-up developed and analyzed in Sections 3-4 with the hypothetical scenario where interest groups are unable to influence the decision-makers (the legislature or an agency) by offering bribes, lobbying contributions, or political favors, implying that $t \equiv 0$. The resulting comparison allows us to deduce how preventing interest group influence through regulatory bargaining affects the scope for socially inefficient outcomes.

When $t \equiv 0$, the interest group is unable to persuade the decision-maker to deviate from its preferred set of legal rules. The set of legal rules implemented under no delegation and delegation respectively equals the set of legal rules implemented under each of the two regimes in the default scenario without recourse to bargaining (expressions (6) and (12)). The resulting comparison of the legislature's payoff and social welfare under delegation and no delegation when $t \equiv 0$ then gives rise to Figure 3b. [23] The interpretation of Figure 3b is

[22] The rationale for and the implications of limiting political contributions and access to the political arena have been subject of growing interest in the political economy literature. See, e.g, Austen-Smith (1998), Che and Gale (1998), Riezman and Wilson (1997), Prat (2002), Coate (2004), Drazen et al. (2007), and Cotton (2009).

[23] Determining the legislature's payoff and social welfare under delegation and no delegation when $t \equiv 0$ is a straightforward exercise (which makes use of expressions (3) and (5)), and thus omitted.

analogous to that of Figure 2: the green surface represents the set of points where the legislature is indifferent between delegation and no delegation, and the blue surface the set of points where social welfare is the same under delegation and no delegation. Figure 3a replicates Figure 2, which we present again to better facilitate the comparison of the outcomes with and without regulatory bargaining.

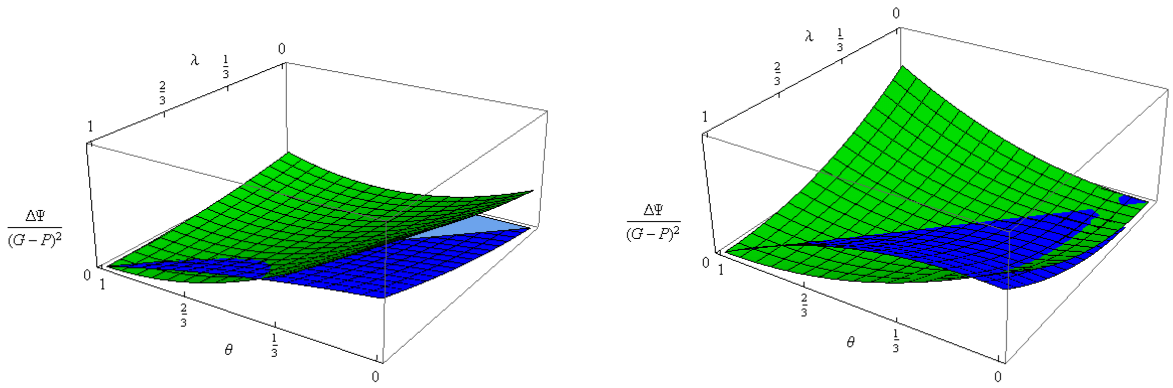

Figure 3a: Outcomes with bargaining **Figure 3b: Outcomes without bargaining ($t \equiv 0$)**

Figure 3: The impact of eliminating interest group influence through bargaining
Remark: In both Figures 3a and 3b, the green surface depicts the scenarios where $U_L^D = U_L^N$; above (below) the green surface, $U_L^D >(<) U_L^N$. The blue surface depicts the scenarios where $W^D = W^N$; above (below) the blue surface, $W^D >(<) W^N$.

Upon inspection of Figures 3a and 3b, it is evident that preventing interest group influence through regulatory bargaining increases the scope for socially inefficient delegation (i.e. there is an increase in size of the region where socially inefficient delegation takes place). To see the intuition, let us focus on the scenario when the interest group is better able to capture the bureaucracy than the legislature ($\lambda > \theta$). In the absence of the opportunity to engage in regulatory bargaining, a relatively populist legislature, which is otherwise able to extract the comparatively largest bargaining transfer from the interest group, is ceteris paribus now more willing to delegate its lawmaking authority. (For $\lambda > \theta$, the green surface in Figure 3b increases with $|\theta - \lambda|$ at a slower rate than the green surface in Figure 3a.)

Furthermore, as bargaining transfers do not enter social welfare, the elimination of regulatory bargaining affects the social desirability of delegation versus no delegation only via the impact on the content of implemented rules under the two cases. Upon comparison of expressions (12) and (6), and (14) and (8), it follows that the relative difference in the content of legal rules implemented under delegation and no delegation when regulatory bargaining is feasible is quite similar as in the case when regulatory bargaining is not feasible. This suggests that the absence of interest group influence through regulatory bargaining does not drastically alter the social desirability of delegation and no delegation. (That is, the position and shape of the blue surface in Figure 3b does not differ much from the blue surface in Figure 3a.). As a result, preventing regulatory bargaining necessarily increases the scope for socially inefficient delegation (see Figures 3a and 3b). [24]

On the other hand, the effect of elimination of regulatory bargaining on the scope for socially inefficient direct exercise of legislature's lawmaking powers is ambiguous. When the interest group is relatively better able to capture the agency than the legislature ($\lambda > \theta$), the scope for socially inefficient direct legislative response decreases because the scope for socially inefficient delegation, as argued above, increases. In the opposite scenario, when the interest group is relatively better able to capture the legislature than the agency ($\lambda < \theta$), however, the scope for socially inefficient direct legislative response may actually increase. The basic reason for this is that a pro-interest group legislature facing a relatively populist agency is in the absence of bargaining ceteris paribus in general less willing to delegate: without recourse to bargaining, the interest group under delegation cannot steer the content of implemented rules closer toward the legislature's preferred point.

In sum, our analysis shows that precluding interest group influence through political bargaining may actually increase the scope for socially inefficient outcomes, at least when it

[24] From Figure 3b, one can also observe that eliminating the possibility for regulatory bargaining creates the scope for socially inefficient delegation even when $\lambda < \theta$. This region emerges because in the absence of regulatory bargaining, no delegation can be socially preferred to delegation even when the legislature adopts a relatively more pro-interest group stance than the agency. Intuitively, when the legislature and the agency are both closely aligned with the general public, but $\lambda < \theta$, the legislature implements a set of rules that is closer to the socially optimal point than the set of rules implemented by the agency. For a sufficiently small extent of bureaucratic competence advantage, social welfare is then greater under no delegation.

comes to agency rule-making. This conclusion therefore echoes with some of the recent findings in the literature, which suggests that limiting interest group access to political arena need not be socially desirable (see, e.g., Wilson 1997, Coate 2004, Drazen et al. 2007, Cotton 2009).

5.2. Implications for Types of Policy Issues that Get Delegated

Our analysis predicts what policy issues we should observe get delegated to bureaucracies, and what issues we should expect to remain under the legislature's control. Our results (see Figure 2 and the discussion in Section 4.1) suggests that, first, we should observe a pattern of administrative rulemaking on issues that are technical and non-divisive (implying a large $\Delta\Psi > 0$ and a small $(G-P)^2$), and, in contrast, a pattern of direct legislative responses to issues that are simultaneously non-technical and divisive (implying a small $\Delta\Psi > 0$ and a large $(G-P)^2$)). To the extent that divisive issues are also redistributive in nature, this prediction resonates with Epstein and O'Halloran's (1999) in explaining why, for example, delegation is uncommon in the domain of tax, trade and foreign policies, but ubiquitous in the domain of space and technology.

Second, controlling for the extent of policy conflict and patterns of interest group influence in government, our model predicts that we should observe similar outcomes in the legislature's delegation versus no delegation choices for issues that are technically challenging and divisive, and issues that are non-technical and non-divisive (both implying that $\Delta\Psi/(G-P)^2$ is in the intermediate range; see Figure 2). This could explain, for example, why legislatures delegate both the relatively more controversial and technical environmental policy (which may benefit the public at large but hurts the producers), and the relatively less controversial and less technical regulation of humanities and arts (see Epstein and O'Halloran's (1999), Table 8.1).

5.3. Implications for Empirical Analyses of Legislative Delegation

Finally, our theory casts light on the scant empirical analyses of the determinants of legislative delegation. Our results suggest that viewing the effect of policy conflict in government on the extent of legislative delegation as an unconditional effect (see Epstein and O'Halloran 1996, 1999; Volden 2002b) may result in a misspecified model. Instead, this paper suggests that the effect of executive-agency policy conflict would be more appropriately modeled as conditional on both (i) issue characteristics, such as the extent of their divisiveness and technical complexity, and (ii) the pattern of interest group influence in the government (that is, the extent to which the interest group is able to capture the legislature vs. an agency). While ways of controlling for issue characteristics have been proposed in the literature (e.g. Huber and Shipan 2002), future empirical work building upon the framework proposed in this paper would need to seek ways of controlling for (ii).

References

Alesina, Alberto and Guido Tabellini. 2007a. "Bureaucrats or Politicians? Part I: A Single Policy Task." *American Economic Review*, 97:1, 169-179.

Alesina, Alberto and Guido Tabellini. 2007b. "Bureaucrats or Politicians? Part II: Multiple Policy Tasks." *Journal of Public Economics*, 92:3-4, 426-447.

Aranson, Peter H., Ernest Gellhorn and Glen O. Robinson. 1982. "A Theory of Legislative Delegation." *Cornell Law Review*, 68, 1-66.

Austen-Smith, David. 1995. "Campaign Contributions and Access." *American Political Science Review*, 89:3, 566-581.

Austen-Smith, David. 1998. "Allocating Access for Information and Contributions." *Journal of Law, Economics, and Organization*, 14:2, 277-303.

Baker, Scott and Kimberly D. Krawiec. 2004. "The Penalty Default Canon." *The George Washington Law Review*, 72, 663-724.

Banks, Jeffrey S. and Barry R. Weingast. 1992. "The Political Control of Bureaucracies under Asymmetric Information." *American Journal of Political Science*, 36:2, 509-524.

Bamberger, Kenneth A. 2006. "Regulation as Delegation: Private Firms, Decisionmaking, and Accountability in the Administrative State." *Duke Law Journal*, 56:2, 377-468.

Bawn, Kathleen. 1995. "Political Control versus Expertise: Congressional Choices about Administrative Procedures." *American Political Science Review*, 89:1, 62-73.

Bendor, Jonathan and Adam Meirowitz. 2004. "Spatial Models of Delegation." *American Political Science Review*, 98:2, 293-310.

Bendor, Jonathan, Amihai Glazer, and Thomas H. Hammond. 2001. "Theories of Delegation." *Annual Review of Political Science*, 4, 235-269.

Bendor, Jonathan and Terry M. Moe. 1985. "An Adaptive Model of Bureaucratic Politics." *American Political Science Review*, 79:3, 755-774.

Bennedsen, Morten and Sven E. Feldmann. "Lobbying Bureaucrats." *Scandinavian Journal of Economics*, 108:4, 643-668.

Bertelli, Anthony M. and Sven E. Feldmann. 2006. "Structural Reform Litigation: Remedial Bargaining and Bureaucratic Drift." *Journal of Theoretical Politics*, 18:2, 159-183.

Bertelli, Anthony M. and Sven E. Feldmann. 2007. "Strategic Appointments." *Journal of Public Administration Research and Theory*, 17:1, 19-38.

Boehmke, Frederick J., Sean Gailmard, and John Wiggs Patty. 2005. "Whose Ear to Bend? Information Sources and Venue Choice in Policy-Making." *Quarterly Journal of Political Science*, 1, 139-169.

Carbonara, Emanuela and Francesco Parisi. 2009. "Choice of Law and Legal Evolution: Rethinking the Market for Legal Rules." *Public Choice*, 139:3, 461-492.

Che, Yeon-Koo and Ian L Gale. 1998. "Caps on Political Lobbying." *American Economic Review*, 88:3, 643-651.

Coate, Stephen. 2004. "Pareto Improving Campaign Finance Policy." *American Economic Review*, 94:3, 628-655.

Cooter, Robert D. 1996. "Administrative Law and Economics." John M. Olin Working Paper in Law, Economics, and Institutions 96/97-5.

Cooter, Robert D. 2000. *The Strategic Constitution*. Princeton, New Jersey: Princeton University Press.

Cotton, Christopher. 2009. "Access Fees in Politics." Unpublished manuscript.

Custos, Dominique. 2006. "The Rulemaking Power of Independent Regulatory Agencies." *American Journal of Comparative Law*, 54, 615-640.

Dari-Mattiacci, Guiseppe and Bruno Deffains. 2007. "Uncertainty of Law and the Legal Process." *Journal of Institutional and Theoretical Economics*, 163:4, 627-656.

de Figueiredo, Jr. Rui J., Pablo T. Spiller and Santiago Urbiztondo. 1999. "An Informational Perspective on Administrative Procedures." *Journal of Law, Economics, and Organization*, 15:1, 283-305.

Drazen, Allan, Nuno Limao, and Thomas Stratmann. 2007. "Political Contribution Caps and Lobby Formation: Theory and Evidence." *Journal of Public Economics*, 91:3-4, 723-754.

Elhauge, Einer. 2008. *Statutory Default Rules: How to Interpret Unclear Legislation*. Harvard University Press.

Epstein, David and Sharyn O'Halloran. 1994. "Administrative Procedures, Information, and Agency Discretion." *American Journal of Political Science*, 38:3, 697-722.

Epstein, David and Sharyn O'Halloran. 1995. "A Theory of Strategic Oversight: Congress, Lobbyists, and the Bureaucracy." *Journal of Law, Economics, and Organization*, 11:2, 227-255.

Epstein, David and Sharyn O'Halloran. 1999. *Delegating Powers*: *A Transaction Cost Politics Approach to Policy Making under Separate Powers*. Cambridge, UK: Cambridge University Press.

Fon, Vincy and Francesco Parisi. 2007. "On the Optimal Specificity of Legal Rules." *Journal of Institutional Economics*, 3:2, 147-164.

Fox, William F., Jr. 2000. *Understanding Administrative Law, Fourth Edition*. New York, NY: Lexis Publishing.

Furlong, Scott R. and Cornelius M. Kerwin. 2004. "Interest Group Participation in Rule Making: A Decade of Change." *Journal of Public Administration Research and Theory*, 15:3, 353-370.

Gailmard, Sean. 2002. "Expertise, Subversion, and Bureaucratic Discretion." *Journal of Law, Economics, and Organization*, 18:2, 536-555.

Gailmard, Sean. 2009. "Discretion Rather than Rules: Choice of Instruments to Constrain Bureaucratic Policy-Making." *Political Analysis*, 17:1, 25-44.

Gailmard, Sean and John W. Patty. 2007. "Slackers and Zealots: Civil Service, Policy Discretion, and Bureaucratic Expertise." *American Journal of Political Science*, 51:4, 873-889.

Gellhorn, Ernest and Ronald M. Levin. 1990. *Administrative Law and Process in a Nutshell, Third Edition*. St. Paul, Minnesota: West Publishing Company.

Golden, Marissa. 1998. "Interest Groups in the Rule-Making Process: Who Participates? Whose Voices Get Heard?" *Journal of Public Administration Research and Theory*, 8:2, 245-269.

Grossman, Sanford and Oliver Hart. 1986. "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration." *Journal of Political Economy*. 94:4, 691-719.

Hart, Oliver and John Moore. 1990. "Property Rights and the Nature of the Firm." *Journal of Political Economy*, 98:6, 1119-1158.

Hart, Oliver, Andrei Shleifer and Robert W. Vishny. 1997. "The Proper Scope of Government: Theory and Application to Prisons." *Quarterly Journal of Economics*, 112:4, 1127-1161.

Hopenhayn, Hugo and Susanne Lohmann. 1996. "Fire-Alarm Signals and the Political Oversight of Regulatory Agencies." *Journal of Law, Economics, and Organization*, 12:1, 196-213.

Huber, John D. and Nolan McCarty. 2004. "Bureaucratic Capacity, Delegation, and Political Reform." *American Political Science Review*, 98:3, 481-494.

Huber, John D. and Charles R. Shipan. 2002. *Deliberate Discretion? The Institutional Foundations of Bureaucratic Autonomy*, Cambridge University Press.

Kerwin, Cornelius M. 2003. *Rulemaking. How Government Agencies Write Law and Make Policy*, Third Edition, CQ Press.

McCubbins, Mathew D., Roger G. Noll and Barry R. Weingast. 1987. "Administrative Procedures as Instruments of Political Control." *Journal of Law, Economics, and Organization*, 3:2, 243-277.

McCubbins, Mathew D. and Thomas Schwartz. 1984. "Congressional Oversight Overlooked: Police Patrols versus Fire Alarms." *American Journal of Political Science*, 28:1, 165-179.

Moore, Michael O. and Steven M. Suranovic. 1992. "Lobbying vs. Administered Protection. Endogenous Industry Choice and National Welfare." *Journal of International Economics*, 32:3-4, 289-303.

Mulligan, Casey B. and Andrei Shleifer. 2005. "The Extent of the Market and the Supply of Regulation." *Quarterly Journal of Economics*, 120:4, 1445-1473.

Olson, Mancur. 1971. *The Logic of Collective Action: Public Goods and the Theory of Groups*. Revised Edition. Harvard University Press.

Pistor, Katharina and Chenggang Xu. 2003. "Incomplete Law – A Conceptual and Analytical Framework and its Application to the Evolution of Financial Market Regulation." *Journal of International Law and Politics*, 35:4, 931-1013.

Prat, Andrea. 2002. "Campaign Advertising and Voter Welfare." *Review of Economic Studies*, 69:4, 997-1017.

Riezman, Raymond and John Douglas Wilson. 1997. "Political Reform and Trade Policy." *Journal of International Economics*, 42:1-2, 67-90.

Rose-Ackerman, Susan (Ed.). 2008. *Economics of Administrative Law*. Edward Elgar Publishing.

Rose-Ackerman, Susan. 2007. "Public Choice, Public Law, and Public Policy." Keynote Address, First World Meeting of the Public Choice Society.

Rosenbloom, David H. 2003. *Administrative Law for Public Managers.* Westview Press.

Rossi, Jim. 2005. *Regulatory Bargaining and Public Law*. New York: Cambridge University Press

Rubin, Paul H., Christopher Curran, and John F. Curran. 2001. "Litigation versus Regulation: Forum Shopping by Rent Seekers." *Public Choice*, 107:3-4, 295-310.

Shleifer, Andrei and Robert W. Vishny. 1994. "Politicians and Firms." *Quarterly Journal of Economics*, 109:4, 995-1025.

Sloof, Randolph. 2000. "Interest Group Lobbying and the Delegation of Policy Authority." *Economics and Politics*, 12:3, 247-274.

Stephenson, Matthew. 2006. "Legislative Allocation of Delegated Power: Uncertainty, Risk, and the Choice between Agencies and Courts." *Harvard Law Review*, 119, 1035-1070.

Sunstein, Cass R. 1995. "Incompletely Theorized Agreements." *Harvard Law Review*, 108, 1733-1773.

Van Alstine, Michael P. 2002. "The Costs of Legal Change." *UCLA Law Review*, 49, 789-870.

Volden, Craig. 2002a. "A Formal Model of the Politics of Delegation in a Separation of Powers System." *American Journal of Political Science*, 46:1, 111-133.

Volden, Craig. 2002b. "Delegating Power to Bureaucracies: Evidence from the States." *Journal of Law, Economics, and Organization*, 18:1, 187-220.

von Wangenheim, Georg. 2000. "Production of Legal Rules by Agencies and Bureaucracies." In: Bouckaert, Boudewijn and Gerrit De Geest (eds.), *Encyclopedia of Law and Economics, Volume V. The Economics of Crime and Litigation* , Cheltenham, Edward Elgar, 559-586.

Webb Yackee, Susan. 2006. "Sweet-Talking the Fourth Branch: The Influence of Interest Group Comments on Federal Agency Rulemaking." *Journal of Public Administration Research and Theory*, 16:1, 103-124.

Webb Yackee, Jason and Susan Webb Yackee. 2006. "A Bias Toward Business? Assessing Interest Group Influence on the U.S. Bureaucracy." *Journal of Politics*, 68:1, 128-139.