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Administrative Procedures, Information, and Agency Discretion*

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This paper investigates the design of administrative procedures when policy consequences are uncertain. In general, when deciding how much discretion to delegate, legislators must trade off informational gains from agency expertise and distributive losses from bureaucratic drift. We show that when Congress has both ex post agenda control and access to information, it will delegate a large degree of discretionary authority to all agencies, regardless of differences in policy preferences. This "discretionary floor" rises as future events become more uncertain. We further show that the possibility of coalitional drift, or changing preferences of the median legislator, may lead either to "hard-wired" agencies with little discretionary authority or "soft-wired" agencies with large discretionary powers to set policy.

Introduction

Recent studies of bureaucracy focus on the means by which political actors can control agency decision making. Working from a principal-agent framework, this literature examines how agency structure, appointment powers, interest group access, and administrative procedures keep bureaucrats in line when exercising delegated authority. However, one straightforward method for influencing bureaucrats has thus far been overlooked: directly limiting agency discretion. This is somewhat surprising, since all delegations of authority must involve some restrictions on policymaking powers. Of course, the more Congress limits discretion, the less flexible the agency is when responding to changing circumstances. In this paper, we examine this trade-off between circumscribing wayward bureaucrats and giving them the latitude to react to unforeseen contingencies. We show that when legislators have a rich set of ongoing controls over agency actions, they will delegate a large amount of discretionary

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authority, regardless of the policy differences between legislative and executive actors. We then extend our findings to the general design of administrative procedures under uncertainty and to the impact of coalitional drift on delegation.

Legal theorists, congressional scholars, and economists have all recently addressed how rational actors can control the behavior of agents to whom they delegate authority. Administrative law examines the procedural mechanisms that restrict bureaucratic decision making (Mashaw 1990); congressional research focuses on the relation between floor voters and committee members (Krehbiel 1991; Cox and McCubbins 1993); and economic theory looks at firms' hierarchical relations among owners, managers, and workers (Alchian and Demsetz 1972; Holmström 1979; Miller 1992). In general, this literature emphasizes the impossibility and even undesirability of perfect control due to problems of asymmetric information, monitoring costs, and inherent uncertainty about future conditions.

When applied to congressional delegations of authority to the executive branch, this set of issues can be framed in two ways. If the delegation of authority is to bureaucracies, the central question is how democratically elected political actors can control unelected bureaucrats. If the delegation is to the president, the central question is how Congress can reap the advantages of executive decision making without abdicating control over policy. In either case, by delegating power, legislators can minimize the inefficiencies of legislative logrolls (Lohmann and O'Halloran 1994), take advantage of policy expertise (Martin 1992), and keep their workload manageable (Ripley and Franklin 1984). These advantages, however, must be weighed against the costs of "agency losses": slippage and shirking.

Whoever the recipient of delegated authority may be, two general categories of administrative control have been analyzed. The first category, ex ante controls, concerns issues of agency design. What are the procedures, including reporting and consultation requirements, which an agency must follow to make policy? Who are the agency's key constituents and how will they influence decision making? What standards or criteria must an agency consider when promulgating regulations? In which executive department will the new agency be located, and how far down the organizational ladder will political appointments reach? These are all questions that legislators must answer when drafting the authorizing legislation.

The second category consists of ongoing controls, those institutions

¹See Milgrom and Roberts (1992) for an excellent overview of the principal-agent literature.

or procedures that check agency actions on a regular basis. These include instruments of congressional oversight, such as direct and indirect monitoring (McCubbins and Schwartz 1984; McCubbins, Noll, and Weingast 1987; Lupia and McCubbins 1993) and renewing or withholding appropriations (Calvert, Moran, and Weingast 1987). They also include judicial oversight implemented through existing administrative law (Mashaw 1990) and presidential appointment powers (Calvert, McCubbins, and Weingast 1989; Spulber and Besanko 1992).

Thus, all three branches of government are involved in ongoing oversight, while the institutional design questions are left mostly to the legislative arena. Of course, the two categories are not completely independent. For example, ex ante reporting and consultation requirements may facilitate the ongoing oversight of agency activities. This is known as "hard wiring" agencies or "deck stacking" (McCubbins, Noll, and Weingast 1987). One of the central findings of this essay is that the availability of ongoing controls makes legislators more willing to grant agencies discretion ex ante.

What problems are these ex ante and ongoing controls designed to address? In simplest terms, the answer is bureaucratic drift, the ability of an agency or other executive actors to enact outcomes different from the policies preferred by those who originally delegated power. This phenomenon is illustrated in Figure 1. Assume that the House, Senate, and president pass legislation designed to implement policy X. Now assume that the agency has policy preference A. The agent maximizes his or her utility by setting policy equal to X', the point in the Pareto set closest to his or her ideal point. Even though this policy is not what Congress and the president originally intended, the necessary coalition to overturn agency decisions cannot be formed.

Much of the discussion of intricate institutional design and administrative procedures revolves around analyzing various ways to minimize bureaucratic drift (McCubbins, Noll, and Weingast 1989; Spiller and Ferejohn 1992). There is, however, a much more direct method of circumscribing agency influence that avoids the problem of costly monitoring: explicitly limiting the discretion of an agency to move outcomes from the status quo. Thus, Figure 2 is the same as Figure 1 except that the agency may move only a limited distance away from X. Outcomes are now equal to X'', which is much closer to Congress's original intent than X'.

²Agency preferences may be derived from private political values, personal career objectives, or, all else equal, an aversion to effort. We assume throughout that the agency's preferred policy is observable to Congress. For a model where the agency's preferences are uncertain, see Bawn (1993).

Figure 1. Bureaucratic Drift

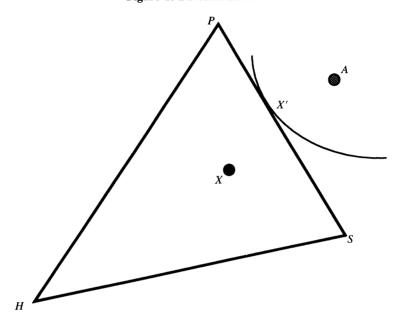
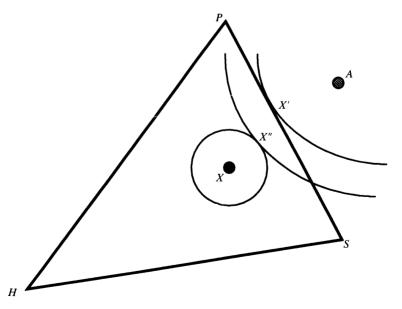


Figure 2. Controlling Bureaucratic Drift by Limiting Agency Discretion



The example above illustrates that agencies can be controlled through limits on the range of policies they can enact. In practice, such limits on agency discretion are common, and they come in many shapes and forms. Sometimes the limits on discretion are defined very clearly: under the 1934 Reciprocal Trade Agreements Act, the president could reduce tariffs on any item up to 50%, and in 1975 Congress required the National Highway and Traffic Safety Administration to set corporate average fuel economy standards somewhere between 20 and 27.5 miles per gallon. Congress can also control agency discretion indirectly, by defining the criteria by which policy is made. The Agency for International Development, which administers foreign aid programs, has 33 objectives and 75 priorities and must send Congress 288 reports each year, and the 1986 Superfund Act required the Environmental Protection Agency (EPA) to choose a clean-up method that was "cost effective in both the short- and long-term and that protected human health." In each of these cases, even when the criteria specified in legislation did not dictate a single best policy, they did eliminate certain policies from consideration.³

Of course, there are costs to limiting agency discretion. One of the reasons that bureaucracies are created in the first place is to implement policies in areas where Congress has neither the time nor expertise to micromanage policy decisions. By restricting flexibility, Congress limits the agency's ability to adjust to changing circumstances. This trade-off is captured perfectly by Terry Moe (1990, 228) in his discussion of regulatory structure:

"The most direct way [to control agencies] is for today's authorities to specify, in excruciating detail, precisely what the agency is to do and how it is to do it, leaving as little as possible to the discretionary judgment of bureaucrats—and thus as little as possible for future authorities to exercise control over, short of passing new legislation. . . . Obviously, this is not a formula for creating effective organizations. In the interests of public protection, agencies are knowingly burdened with cumbersome, complicated, technically inappropriate structures that undermine their capacity to perform their jobs well."

Thus, our central question is how Congress, faced with possible bureaucratic drift, designs an agency flexible enough to meet changing circumstances. In other words, there is a fundamental trade-off in designing

³There is a debate in the bureaucracy literature as to whether the criteria defined in administrative procedures imply a single optimal policy that agencies must implement. Shapiro (1988) calls this "synoptic" decision making. We take the less ambitious position that administrative procedures define a set of possibly acceptable policies and a set of clearly unacceptable ones.

administrative procedures between informational gains and distributive losses.

In various guises, discussions of agency discretion permeate the bureaucracy literature. Statutory recognition of agency discretion dates back to the 1946 Administrative Procedure Act, which created three categories of permissible agency actions: rule making, adjudicatory hearings, and discretionary actions (also known as informal rule making). Shapiro (1988) equates bureaucratic discretion with the ability to make "prudent" policy choices. Levine and Forrence (1990) use the term "slack" to indicate the degree to which agencies can escape political control; in their model, bureaucrats can use their freedom either to further the goals of interest groups or to serve the public good. And as shown in Figure 1 above, McCubbins, Noll, and Weingast (1989) define discretion as those actions that no political coalition can overturn; discretion is thus equated with the limits of bureaucratic drift. In contrast, we argue that often Congress prefers to set ex ante limits on agency discretion more stringent than those implied by their ex post power to overturn agency decisions.

This paper develops a formal model of agency discretion in which Congress can choose to limit an agency's policy latitude. We investigate a setting where legislators, uncertain about the future, will delegate some amount of discretionary authority to executive agents. Our analysis shows that there is a "discretionary floor," a minimum amount of discretion given to any agency. In equilibrium, legislators trade off agency discretion and effective design.

The paper is organized as follows. In the next section, we present a model of agency discretion and then investigate how changes in the degree and type of legislators' uncertainty affect the amount of discretion legislators delegate. Next we examine how legislators, faced with the

⁴The Supreme Court has continuously maintained that agencies always have some degree of latitude when setting policy. In writing the majority decision in the well-known *Chevron* case, for instance, Rehnquist declared that agencies exercise discretion within a "gap" created by Congress (*Chevron v. NRDC* [467 U.S. 837 (1984)]). In fact, for Congress to delegate power to an agency without any limits on discretion whatsoever would be constitutionally impermissible according to the "nondelegation doctrine," which states that legislative powers cannot be delegated to a private individual. Thus, constitutional constraints derived from the separation of powers ensure that all delegation will be tempered by some limits on discretion.

⁵What makes this commitment credible is the court system, which we assume can cheaply and easily (from Congress's point of view) overturn agency transgressions. Without the courts as an enforcement mechanism, Congress's threat to veto certain agency actions may be unrealistic. Thus, legislators must determine the optimal range within which to commit themselves to reversing bureaucratic policy decisions.

possibility of coalitional drift, set discretion, and finally, we summarize our conclusions. Proofs of all propositions are provided in an appendix.

The Model: Ex Ante Discretion and an Ex Post Veto

In the tradition of Niskanen (1971), many formal models of bureaucracy assume that agencies wish to maximize their budgets. This line of inquiry usually presents congressional-executive relations in a principal-agent context. Bendor, Taylor, and Van Gaalen (1985, 1987), for instance, derive optimal punishment and reward schemes for bureaucracies that must report cost and benefit information to overseeing committees. Banks (1989) and Banks and Weingast (1992) investigate the ability of agencies to extract funding from Congress when the possibility of a costly audit is available. Although we do not adopt a budget-maximizing approach, we do treat bureaucratic control as a problem of mechanism design: when constructing ex ante constraints, Congress must develop rules for agency behavior *before* it learns about possible future states of the world. Also, like the costly audits in Banks (1989), legislators have some measure of ex post control after the agency sets policy.

Another set of models adopts a spatial approach to the study of congressional-bureaucratic relations. Ferejohn and Shipan (1990), for example, investigate policy outcomes with the possibility of judicial review and/or a presidential veto. Calvert, McCubbins, and Weingast (1989) examine discretion in a multidimensional policy setting that reduces to a one-dimensional line joining the ideal points of Congress and the president. Lohmann and O'Halloran (1994) analyze a model in which authority to divide a dollar is delegated to a president, possibly subject to legislative override, in order to overcome the inefficiencies of legislative logrolls. They find that, all else equal, the more similar are policy preferences, the more authority legislators will delegate to the president.

Similar to these models, we investigate legislators' ex ante decisions about agency structure in a spatial setting when the future is still uncertain. Our motivation is captured well by Spulber and Besanko (1992, 126–27). "A crucial aspect of the instruments of executive and legislative control over administrative agencies is the *timing* of the control action relative to the sequence of actions taken by the other branch of government and the agency. The inherent restrictions on timing imposed by the Constitution and administrative law are important determinants of the combination of instruments a policy-maker will employ. . . . The administrative agency is established before economic parameters that affect regulatory outcomes are observed, . . . while oversight can take place after policy-makers have the opportunity to acquire information from the

agency." Adopting these insights, the general sequence of events is as follows: Congress designs an agency, more information about the state of the world is revealed, agencies choose policies, and then Congress exercises ex post controls over the agency's decisions.

The Model

We examine a game between the median congressional voter and an executive agent, with typical ideal points as illustrated in Figure 3. The policy space is $X = \Re^1$, the real line.⁶ Without loss of generality, assume that Congress's ideal point is C = 0 and that the agent has ideal point A > 0. Preferences for each player are quadratic in final policy outcomes X:

$$U_C(X) = -(X - C)^2 = -X^2;$$

 $U_A(X) = -(X - A)^2.$

Outcomes depend on both policy (p) and the state of nature (ω) : $X = p + \omega$. We present the model in this form to make clear its links with other models of procedural choice. Austen-Smith (1990) and Gilligan and Krehbiel (1987, 1989), for instance, use a similar formulation, in which p is the systematic component of outcomes and ω is a random component or shock. In our model, ω represents the outcome that would result if the agency took no action (p = 0) or if Congress vetoes the agency's proposal. We assume that ω is initially distributed uniformly in the range -1 to 1: $\omega \sim U[-1, 1]$.

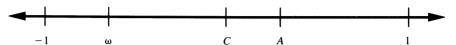
Congress must decide how much discretion to give the agent; call this variable d. After the state of nature is revealed, the agent may offer a policy such that $|p| \le d$. If the agency were to offer a proposal outside this range, we assume that it would be struck down by the courts with certainty. We thus model discretion as an explicit limit on the scope of

⁶By adopting a one-dimensional model, we evade the problems of preference aggregation inherent in multidimensional settings. See Hammond and Miller (1985) for a discussion of the problems created by incomplete information and expertise in a multidimensional hierarchical setting.

⁷One could think of ω as a future state of the world that Congress cannot perfectly anticipate when it establishes an agency. Or the model could be specified in terms of a series of ω 's, each with the same distribution, which are realized over a period of time, without changing the results. For technical simplicity we also assume that $A \leq 1$, so there is some state of the world that gives the bureaucratic agent his or her ideal outcome.

⁸Note that if discretion could be specified as a function of ω , Congress could set a discretion *schedule* $d(\omega)$. In certain policy areas, this may be a realistic possibility. In many others, however, mandates that an agency produce a specific outcome are worded so generally (such as ordering the use of the "best available control technology") that the agency will in fact have latitude to enact a wide range of policies.

Figure 3. Ideal Points of the Actors and a Sample Value of the State of the World (ω)



possible agency actions. By increasing d, Congress gives the agency more leverage to adjust extreme realizations of ω , but it also allows the agent to move outcomes closer to the ideal point. After the agency chooses a policy, Congress observes both p and ω . It then decides whether or not to veto the agency's proposal. The entire sequence of events is shown in Figure 4.

A strategy for Congress is a pair $\{d, V\}$, where $d \in \mathbb{R}^1$ is the amount of discretion given the agent, and $V: \mathbb{R}^1 \to \{0, 1\}$ is a function relating policy proposals to veto decisions. If a proposal p is vetoed (V = 1), then the outcome is ω ; otherwise the outcome is $p + \omega$. A strategy for the agent is a function $p: \mathbb{R}^1 \times \mathbb{R}^1 \to \mathbb{R}^1$ telling him or her what proposal to make as a function of ω and the amount of discretion that has been given. Let $\phi(p) = p + \omega$ if $V^*(p) = 0$, and $\phi(p) = \omega$ otherwise. Also, let $\pi(d, \omega) = \{x \in X \text{ such that } |x - \omega| \leq d\}$.

DEFINITION 1: A Bayesian Nash equilibrium consists of strategies $\{d^*, V^*\}$ and p^* such that:

- 1. $V^*(p) = 0 \text{ iff } U_C(p + \omega) > U_C(\omega);$
- 2. $p^*(d, \omega) \in \operatorname{argmax}_{p \in \pi(d, \omega)} U_A(\phi(p));$
- 3. $d^* \in \operatorname{argmax}_{d \in \Re} EU_C(p^*(d, \omega)),$

where the expectation in Condition 3 is taken with respect to the prior distribution of ω .

Condition 1 states that Congress will accept the agent's proposal only if it gives Congress higher utility than ω . Condition 2 states that the agent maximizes utility subject to Congress's optimal decision rule V^* . And Condition 3 states that Congress gives the agent discretion so as to maximize its expected utility after ω is revealed and the agent proposes p^* .

⁹In many similar models of incomplete information, Congress must either make policy choices while still uncertain about their effects (Gilligan and Krehbiel 1987; Epstein 1993) or perform costly audits to gain this information (Banks 1989; Cameron, Segal, and Songer 1993). We assume that through fire alarms, police patrols, and the like, Congress can gain the necessary information at low cost. This is certainly a strong assumption, which we relax in a related study (Epstein and O'Halloran 1993).



or Rejects

Figure 4. Sequence of Events

Revealed (ω)

Note: $\omega + p = X$.

Congress Sets

Discretion (d)

Results

The analysis of Conditions 1 and 2 is straightforward. At the last step, Congress will accept the agent's proposal only if it produces an outcome no farther away from Congress's ideal point than ω . ¹⁰ Knowing this, the agent will make a proposal that is within a distance d of ω and as close to A as possible without triggering a congressional veto. This is standard analysis for models with an expost veto, ¹¹ except that the executive agency is constrained in the policies it can enact.

The solution to Condition 3 is, however, surprisingly complicated. As shown in the appendix, deriving the optimal d involves checking a number of different possible solutions for consistency to obtain a unique d^* for every value of A. The result of these calculations is summarized in:

Proposition 1: Discretionary Floor

- i. When the agent's preferences are near Congress's, discretion declines as A moves farther away from $C: 0 \le A \le \frac{1}{3} \Rightarrow d^* = 1 A$.
- ii. When the agent's preferences are far from Congress's, discretion is constant: $\frac{1}{3} \le A \le 1 \Rightarrow d^* = \frac{2}{3}$.

Proposition 1 is illustrated in Figure 5. When A=0, Congress and the agent have identical preferences. In this case, d is set to 1; that is, the agent is given full discretion to set policy. The agent acts as a perfect representative and will always implement Congress's ideal outcome. As A becomes greater than 0, the preferences of Congress and the agency begin to diverge and the agent's discretion is reduced, up until $A=\frac{1}{3}$ and $d=\frac{2}{3}$. At this point, the equilibrium reaches a "discretionary floor,"

 $^{^{10}}$ In models where p is observable but ω is not, this decision is made with respect to Congress's updated beliefs about ω . Since both p and ω are observable in our model, this decision is made with certainty.

¹¹Romer and Rosenthal (1978) is the classic example.

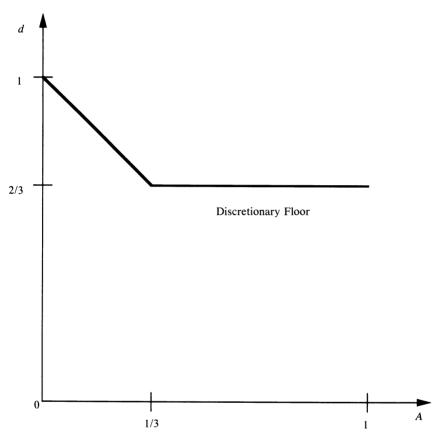


Figure 5. Equilibrium Amount of Discretion as a Function of the Agent's Ideal Point

with d remaining constant at $^{2}/_{3}$ as A increases from $^{1}/_{3}$ to 1. This result contrasts with O'Halloran (1994), where Congress has no ex post veto and discretion declines monotonically as the agent's preferences become more extreme. 12

Our equilibrium is similar in some ways to the equilibria of incomplete information models of legislative delegation (Gilligan and Krehbiel 1987, 1989; Epstein 1993). In those models, the median floor voter is willing to

¹²This discretionary floor also holds for distributions other than a uniform distribution on ω . For instance, with linearly declining probability densities (a "tent" distribution), there is a discretionary floor at $d=\frac{1}{2}$.

cede committees some degree of parliamentary privileges as long as the ideal points of the two actors are not "too far apart." In particular, our model is similar to Gilligan and Krehbiel (1989), in which the floor commits to using a closed rule with some probability before the committee issues its recommendations. An increased probability of a closed rule is analogous to increasing agency discretion in our model. In Gilligan and Krehbiel (1989), the probability that the committee will be assigned a closed rule decreases monotonically as the policy preferences of the committee and the floor diverge.

Combined with the results of O'Halloran (1994), we can gain some intuition as to why the discretionary floor (the flat region) in our equilibrium exists. In O'Halloran (1994), legislators have no ex post agenda control, and discretion declines as preferences diverge. In Gilligan and Krehbiel (1989), unlike our model, legislators cannot directly observe the hidden variable (ω) when they make their policy decisions, so they have no ex post information. Thus, it seems that procedural or informational advantages alone are insufficient to establish a minimum level of discretion. Only when legislators have both information and agenda control will they permit agents, even those with extreme preferences, to exercise some degree of discretion. The implication, then, is that as agenda control increases and information asymmetries decline, Congress increases ex ante policy discretion because ongoing controls can minimize the problems of bureaucratic drift.

Comparative Studies

Using the results from O'Halloran (1994), we can compare Congress's utility with and without an ex post veto. As shown in the appendix, Congress is always made better off with an ex post veto, and the advantages of agenda control increase as policy differences become more extreme. Without an ex post veto, Congress gives outlying agencies very little discretion, and so legislators are unprotected from future uncertainties. With an ex post veto, Congress can give the agency more latitude to correct for unfavorable realizations of ω .

Replicating this analysis for the executive agent, we show that as preferences become extreme, the *agent* also prefers that Congress possess an ex post veto. The logic here is straightforward: agents with extreme preferences are given more freedom to set policy when legislators retain an ex post veto than when they do not. These results are summarized in:

¹³Thus, as the agency's preferences become more extreme, Congress prefers a legislative veto, even if it is not costless to implement.

Proposition 2: Preferences over a Legislative Veto

- i. For all A, Congress prefers to have a legislative veto.
- ii. For sufficiently large A, the agent also prefers that Congress possess a legislative veto.

Proposition 2 suggests that executive branch actors will not always disagree with congressional restrictions on their authority. A good example is the genesis of fast track approval procedures for trade agreements. From 1967 to 1974, Congress had refused to extend the president any authority to negotiate international trade agreements. The Nixon administration requested broad authority to begin multilateral negotiations to reduce tariff and nontariff barriers. In a bid to win congressional support for his proposal, Nixon included a possible one-house congressional veto over proposed trade agreements. The Senate Finance Committee counteroffered a two-house approval procedure instead, under which the president submits an implementing bill. This legislation is then subject to committee consideration and a closed rule floor vote in each chamber. Thus, Nixon realized that giving Congress an ex post veto over trade proposals was the price to pay for some amount of policy latitude.

Uncertainty, Asymmetry, and Discretionary Authority

We now turn to the question of how changes in the scope and nature of uncertainty affect the optimal level of discretionary authority. Uncertainty in our model is captured by the fact that ω may fall anywhere between -1 and 1. As noted above, in equilibrium Congress structures bureaucracies to trade off an agency's ability to correct extreme realizations of ω with the hazards of giving bureaucrats too much discretion.

First, what would happen if the entire range of possible states of nature were expanded, thereby increasing legislators' uncertainty about future events? We now assume that $\omega \sim U[-R, R]$ and treat R as a variable. The magnitude of R represents the range of outcomes that could result with no agency action. As shown in the appendix, as R increases, the amount of discretion given to the agent also increases for any value of A. The original delegation levels, and those after R has shifted to R' > R, are illustrated in Figure 6.

One way to interpret this result is that as the future becomes more uncertain, all else being equal, Congress broadens the scope of agency decision making. Another interpretation, though, is that the difference in preferences between Congress and the executive should be measured relative to the degree of uncertainty in the policy environment; that is, an agent is an outlier not if |C - A| itself is large, but rather if it is large relative to the range of possible alternatives. The amount of discretionary

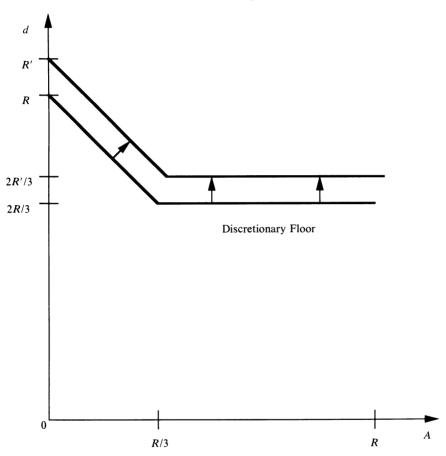


Figure 6. Change in Equilibrium When the Range of Possible Status Quos Becomes Larger

authority that legislators will delegate, then, depends on the outcomes that might result without agency intervention and on the costliness of bureaucratic miscues. Hence, new policy areas, salient public issues, and areas in which the consequences of ill-formed policy are politically disastrous (as in airline safety) should provoke Congress to delegate *more* power to executive agents.

In the basic model, we assume that C=0, which implies that the expected outcome is equal to Congress's ideal point. This assumption may be suspect; in many cases Congress delegates power because it fears that, on average, policies will be skewed heavily in one direction

or another. For instance, Congress passed the 1934 Reciprocal Trade Agreements Act largely because the status quo (the 1930 Smoot-Hawley Tariff Act) was seen as too protectionist. Legislators subsequently gave the president the power to reduce tariffs up to 50% by executive decree alone.

To model the effect of an asymmetric range of possible outcomes, we allow the left- and right-hand boundaries of the range, R_L and R_R , to shift in either direction, by amounts ΔR_L and ΔR_R .¹⁴ The equilibrium amount of discretion in this new setting depends on the distance of A from C. If A is relatively close to C, $0 < A < \frac{1}{3}$, then discretion may either increase or decrease, in accordance with the relative values of ΔR_L and ΔR_R . For instance, when both R_L and R_R move to the left, Congress expects that if no further actions are taken, outcomes will tend to be to the left of its ideal point. This corresponds, for example, to Congress's anxiety that in the mid-1930s the status quo in trade policy was too protectionist. In this case, our model predicts that discretion will *increase* as expected outcomes (the expected value of ω) become more extreme.

But if $\frac{1}{3} < A < 1$, so that the agency's ideal point is within the flat part of Figure 3, then only changes in the left-hand boundary (that closest to Congress's ideal point) have any impact on whether the agency receives more or less authority. If the left boundary moves away from C, then the agency will receive more authority. If it moves closer, the agency will receive less. Thus, for agencies already at the discretionary floor, only changes in uncertainty at the boundary nearest Congress's ideal point have a marginal impact on discretion. These results are summarized in:

Proposition 3: The Effect of Changes in Uncertainty on Agency Discretion

- i. As the range [-R, R] becomes larger symmetrically, Congress gives the agent greater amounts of discretion.
- ii. When the boundaries change asymmetrically,
 - a) if $A \le \frac{1}{3}$ and if the change in the left-hand boundary is large relative to the change in the right-hand boundary, then discretion will increase;
 - b) if $A > \frac{1}{3}$, then discretion increases if the left-hand boundary moves further to the left and decreases if it moves to the right.

To understand the implications of Proposition 3, consider again the case of trade policy and assume that Congress is relatively more

 $^{^{14}\}mathrm{We}$ assume that the shifts are small enough not to change the basic nature of the equilibrium.

protectionist than the president.¹⁵ If the views of Congress and the president are, nonetheless, similar on trade issues, such as might be the case under unified government, then Congress will measure its delegations of power depending on whether it expects that the status quo is likely to be too protectionist or too free trade. On the other hand, if the preferences of Congress and the president are dissimilar, as in the case of divided government, legislators fear that the status quo will prove to be too protectionist, and the president will use this opportunity to greatly liberalize trade. These considerations led Congress to reduce the president's discretion in the 1991 extension of fast track authority by extracting promises from President Bush that the upcoming North American Free Trade Agreement would not result in environmental degradation and would include retraining grants for labor.

Coalitional Drift and Discretionary Deck Stacking

Another issue discussed in the delegation literature is the possibility that future Congresses may grow to have different preferences. As the median voter changes, so will the manner in which ongoing oversight is exercised. Denoted "coalitional drift," this factor has a number of implications for present-day legislators designing bureaucratic structures. For instance, coalitional drift reduces the value of politicians' services to interest groups because future legislators may undo present-day policies. This time consistency problem reduces the rents legislators can extract for their services.

Furthermore, Shepsle (1992) contends that decreasing coalitional drift comes only at the expense of increasing bureaucratic drift. His reasoning is as follows. In order to check runaway bureaucracies, legislators must structure agency decision making to be responsive to congressional demands. However, this ensures that future Congresses will be able to influence policy outcomes, thereby exacerbating the consequences of coalitional drift. In our language, ex ante decisions about bureaucratic structure are intimately linked with issues of ongoing oversight.

There are two possible consequences of coalitional drift. First, coalitional drift may result in future Congresses passing legislation that redefines an agency's goals, structure, or rule-making procedures. If it is easy for future Congresses to pass new legislation, then no amount of

¹⁵Lohmann and O'Halloran (1994) argue that this will generally be the case, as the president has a national constituency and can better trade off the gains and losses from changes in trade policy.

¹⁶As Shepsle (1992) points out, these may be the very same legislators who are enacting current policies, only under a different set of pressures.

present-day safeguards can avoid this eventuality. However, the transactions costs to passing new legislation may be quite high. ¹⁷ If so, then limits on agency discretion (small values of d) can address the problem of bureaucratic drift *without* intensifying the problems of coalitional drift because discretionary limits specified *ex ante* in statutes cannot be changed without passing new legislation.

Ongoing controls, on the other hand, rely on future legislators for enforcement. This leads to the second consequence of coalitional drift. Any agenda control left to Congress, such as an ex post veto, may be enforced by legislators with preferences different from those enacting the original legislation. This possibility may lead present-day legislators to make the agency as impervious as possible to political control. Moe (1989, 313) suggests that these considerations led Congress to structure the Environmental Protection Agency with a maze of

"painfully explicit goals and criteria, lists of specific substances to be regulated, exact deadlines for agency action and goal attainment, detailed procedures to be followed in setting and enforcing standards, citizen suits as a check on agency inaction, and pervasive opportunities for judicial review. . . . By imposing strict requirements and deadlines on the agency—even though, given the daunting technical complexity of the issues involved, they could not be sure that these requirements and deadlines were technically justified or feasible—they reduced the likelihood that resurgent business and state-local interests could someday turn agency discretion to their own advantage." Thus, legislators may respond to the possibility of coalitional drift by "stacking the deck" or "hard wiring" agencies in favor of the enacting coalition. If these concerns lead legislators to give agencies more or less discretion, then we might speak of "discretionary deck stacking."

We investigate the consequences of coalitional drift by extending our model to two periods. The first period replicates the basic model: legislators set agency discretion, ω is revealed, the agency chooses a policy, and then legislators have the option of exercising their ex post veto. The second period is the same, except that the preferences of the median member of Congress may have shifted. Legislators with possibly different preferences than the implementing coalition now have the opportunity to exercise an ex post veto over agency actions.

To model this possibility, assume that with probability q legislators'

¹⁷Moe (1989, 285) asserts that "the choices about structure that are made in the first period when the agency is designed and empowered with a mandate, are normally far more enduring and consequential than those that will be made later. . . . Most of the pushing and hauling in subsequent years is likely to produce only incremental change."

¹⁸These considerations also play an important role in modern analyses of the judicial interpretation of congressional statutes: courts that interpret laws in a manner different from their original intent may not be overturned if the enacting coalition no longer constitutes a legislative majority. See Eskridge and Ferejohn (1992) for a fuller treatment of these issues.

preferences in period 2 will be $C_2 \ge 0$, and with probability (1-q) they will be $-C_2$. Then as the absolute value of C_2 rises, legislators become more uncertain about future legislative preferences. As q increases, legislators expect that future preferences will lean more toward the president's viewpoint. Let $U_C(\mu; d)$ be the expected utility of a legislator with ideal point 0 when the agent has discretion d and the median member of Congress has ideal point μ . ¹⁹ For a given level of discretion d, legislators now have two-period expected utilities:

$$EU_C(d) = U_C(0,d) + qU_C(C_2,d) + (1-q)U_C(-C_2,d).$$

This function, then, is to be maximized with respect to d. Legislative preferences over discretion in this setting are given as follows:

Proposition 4: Impact of Coalitional Drift on Agency Discretion

- i. When the agent's preferences are near Congress's, coalitional drift has *no impact* on the optimal amount of discretion.
- ii. When the agent's preferences are far from Congress's, the optimal amount of discretion declines as future Congresses move toward the executive and rises as future Congresses move away from the executive.

Proposition 4 states that discretionary deck stacking may occur, but only if certain conditions hold. First, the preferences of the agency and Congress must be sufficiently far apart. Second, Congress must expect that future legislators will have preferences closer to those of the executive than they do at the moment when the agency is created.²⁰ If the preferences of future Congresses do become closer to those of the executive, then, in effect, coalitional drift leads to collusion between the legislative and executive branches against the wishes of the enacting coalition. In this case, reducing agency discretion minimizes distributional losses resulting from such collusion.

On the other hand, it is also possible that coalitional drift can work in the opposite direction. If the preferences of Congress and the president are expected to move farther apart, then Congress will give the agency

¹⁹Notice that utilities are calculated from the viewpoint of a legislator with ideal point zero. This reflects the notion that legislators' utility functions are derived from those of supporting interest groups. For instance, environmentalists wanted tight controls on the EPA to circumvent the possibility that legislators in the future might not be so inclined to support their positions.

²⁰Moe (1989) argues that both these conditions held when the EPA was created. Congressional and executive preferences over the strength of regulations varied widely, and legislators were well aware that the agency was being created at a moment of uniquely high environmentalist power.

more latitude than otherwise. The possibility of coalitional "antidrift," as we call it, has not been mentioned in the literature, but it is a logical consequence of this line of reasoning. Here, the enacting coalition reacts not to the possibility of collusion but rather to the possibility that future Congresses will be too obstructionist. Thus, they "soft wire" the agency giving it greater leverage in dealing with future oppositional Congresses.

Furthermore, Proposition 4 states that these considerations will come into play only if the preferences of Congress and the agency diverge widely (i.e., when we have reached the discretionary floor). If not, then although the possibility of coalitional drift makes the enacting coalition worse off, they cannot improve their prospects by changing discretion. Thus, combined with the earlier results from Proposition 1, there are two qualitatively different discretionary ranges. In the first $(0 \le A \le \frac{1}{3})$, discretion is responsive only to changes in the preferences of the agent; in the second $(\frac{1}{3} \le A \le 1)$, discretion is responsive only to changes in the preferences of Congress.

Conclusion

The motivation for this paper was to examine the nature of ex ante bureaucratic constraints given a rich set of ongoing controls. In particular, we investigated the possibility of limiting agency discretion as a means of controlling bureaucratic drift when legislators have both ex post agenda control and access to information. Similar to previous studies, we found that discretion decreases as the preferences of Congress and the executive agency move apart. But we also observed a "discretionary floor," below which discretion does not fall. Our main conclusion is that as agenda control increases and problems of asymmetric information decline, Congress will delegate a minimum level of ex ante discretionary authority to an agency, regardless of differences in policy preferences.

Our analysis also uncovered some surprising implications for the coalitional-bureaucratic drift trade-off. Shepsle's (1992) conclusions, which assumed that the response to coalitional drift was always to create a more independent agency, were shown to hold only in certain cases. We demonstrated that when the preferences of Congress and the president are similar, coalitional drift has no effect on the optimal amount of delegation. When policy preferences diverge, we found instances when Congress decreases agency discretion to correct for coalitional drift, thereby hard wiring the agency to follow a certain policy course. However, there is also the possibility of coalitional "antidrift" (the policy stances of Congress and the executive move apart). In this case, the enacting coalition soft wires the agency, giving it greater flexibility with which to combat future Congresses.

The implications of our analysis for the design of executive agencies can be summarized as follows. Agencies are structured to balance the need for flexibility and bureaucratic expertise against the desire to limit policy slack and bureaucratic drift. All else being equal, legislators will *increase* discretionary authority when their policy preferences are similar to those of the executive branch; when there is more uncertainty in the policy environment; when legislators retain ongoing agenda control over the agency's actions; when legislators are relatively well informed; when it is probable that the status quo is skewed more in favor of Congress than the executive; and when congressional-executive conflict is likely to increase.

Our conclusions also speak to larger questions of institutional design. If agents are to be ensured of some latitude to respond to unfavorable events, Congress must retain some means by which to gather information, such as "fire alarms" and direct oversight hearings, and some form of agenda control over agency actions, such as an ex post veto or budgetary authority. Rather than seeing these controls as inhibiting agents from performing their jobs well, one should realize that they are a *precondition* for the agent to have any discretion whatsoever. They are part of a larger trade-off, whereby legislators give bureaucrats discretion to set policy but retain some control over agency actions.

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APPENDIX

Proof of Proposition 1

Recall that in the closed rule offer game without discretionary limits (i.e., Romer and Rosenthal, 1978), outcomes are as follows:

Range of ω	Outcome
$-1 \le \omega \le -A$	A
$-A \le \omega \le 0$	– ω
$0 \le \omega \le A$	ω
$A \le \omega \le 1$	A

With limits on discretion, the outcomes become:

Range of ω	Outcome
$-1 \le \omega \le -A$	$\min[\omega + d, A]$
$-A \le \omega \le 0$	$\min[\omega + d, -\omega]$
$0 \le \omega \le A$	ω
$A \le \omega \le 1$	$\max[\omega - d, A]$

Thus, Congress, for any given value of A, will set d to maximize:

$$EU_{C} = \int_{-1}^{-A} U_{C}(\min[\omega + d, A]) f(\omega) d\omega + \int_{-A}^{0} U_{C}(\min[\omega + d, -\omega]) f(\omega) d\omega$$

$$+ \int_{0}^{A} U_{C}(\omega) f(\omega) d\omega + \int_{A}^{1} U_{C}(\max[\omega - d, A]) f(\omega) d\omega.$$
(1)

The first integrand in equation (1) will be equal to A whenever $d \ge 1 + A$, and the second will be equal to $-\omega$ whenever $d \le 2A$. Similarly, the fourth integrand will be equal to A whenever $d \ge 1 - A$. To fully specify the integral in equation (1), then, there are six cases to consider:

Case 1: $d \ge 1 + A$ and $d \ge 1 - A$;

Case 2: $d \ge 1 + A$ and $d \le 1 - A$;

Case 3: $1 + A \ge d \ge 2A$ and $d \ge 1 - A$:

Case 4: $1 + A \ge d \ge 2A$ and $d \le 1 - A$;

Case 5: $d \le 2A$ and $d \ge 1 - A$;

Case 6: $d \le 2A$ and $d \le 1 - A$.

Note that Case 2 is internally inconsistent; therefore, it will be deleted from the following analysis. The strategy is to derive the optimal amount of discretion for each of the other five cases and then check the solution against the assumptions about d relative to A. Only for those values of A where the assumptions hold will the solution remain valid.

Case 1:
$$d \ge A + 1$$

$$EU_C = -\int_{-1}^{-A} A^2 f(\omega) d\omega - \int_{-A}^{0} (-\omega)^2 f(\omega) d\omega - \int_{0}^{A} (\omega)^2 f(\omega) d\omega - \int_{A}^{1} A^2 f(\omega) d\omega$$
$$= \frac{2A^3}{3} - A^2 \equiv EU_C^0.$$

This expression does not depend on d; it represents Congress's expected utility from giving the agent infinite discretion. Future possible solutions will be checked against EU_C^0 as a baseline case.

Case 3:
$$A + 1 \ge d \ge 2A$$
 and $d \ge 1 - A$

$$EU_C = -\int_{-1}^{A-d} (\omega + d)^2 f(\omega) d\omega - \int_{A-d}^{-A} A^2 f(\omega) d\omega - \int_{-A}^{0} (-\omega)^2 f(\omega) d\omega$$

$$-\int_{0}^{A} (\omega)^2 f(\omega) d\omega - \int_{A}^{1} A^2 f(\omega) d\omega$$

$$\frac{\partial EU_C}{\partial d} = -\frac{(A+1-d)(A-1+d)}{2}$$

$$d^* = 1 + A \quad \text{or} \quad 1 - A$$

For $A \ge 0$, the appropriate solution is 1 - A. We now check the solution for consistency:

$$2A \le d \Rightarrow 2A \le 1 - A \Rightarrow A \le \frac{1}{3};$$

$$d \le A + 1 \Rightarrow 1 - A \le A + 1 \Rightarrow A \ge 0;$$

$$1 - A \le d \Rightarrow 1 - A \le 1 - A.$$

Collectively, these conditions imply that the solution is valid for $0 \le A \le \frac{1}{3}$, and $EU_C > EU_C^0$ for all values of A.

Case 4:
$$A + 1 \ge d \ge 2A$$
 and $d \le 1 - A$

The solution for this case is the same as for Case 3, since the only difference is the second inequality, which is satisfied by d^* derived above.

Case 5:
$$2A \ge d$$
 and $d \ge 1 - A$

$$EU_C = -\int_{-1}^{-d/2} (\omega + d)^2 f(\omega) d\omega - \int_{-d/2}^{0} (-\omega)^2 f(\omega) d\omega - \int_{0}^{A} (\omega)^2 f(\omega) d\omega$$

$$-\int_{A}^{1} A^2 f(\omega) d\omega;$$

$$\frac{\partial EU_C}{\partial d} = \frac{1}{2} - d + \frac{3d^2}{8};$$

$$d^* = \frac{2}{3} \quad \text{or} \quad 2.$$

Given our assumptions about the distribution of ω , the appropriate solution is $^{2}/_{3}$. We now check the solution for consistency:

$$2A \ge d \Rightarrow 2A \ge \frac{2}{3} \Rightarrow A > \frac{1}{3};$$

$$d \ge 1 - A \Rightarrow \frac{2}{3} \ge 1 - A \Rightarrow A \ge \frac{1}{3}.$$

Thus, this solution holds for all $A \ge \frac{1}{3}$, and $EU_C > EU_C^0$ for all values of A.

Case 6:
$$2A \ge d$$
 and $d \le 1 - A$

$$EU_C = -\int_{-1}^{-d/2} (\omega + d)^2 f(\omega) d\omega - \int_{-d/2}^{0} (-\omega)^2 f(\omega) d\omega - \int_{0}^{A} (\omega)^2 f(\omega) d\omega$$

$$- \int_{A}^{A+d} A^2 f(\omega) d\omega - \int_{A+d}^{1} (\omega - d)^2 f(\omega) d\omega;$$

$$\frac{\partial EU_C}{\partial d} = -\frac{A^2}{2} + R - 2d + \frac{7d^2}{8};$$

$$d^* = \frac{16 \pm \sqrt{112A^2 + 32}}{14}.$$

For no value of A is either of these solutions consistent with the assumptions about d. Thus, the solution is completely characterized by Cases 3 and 5, which together

Thus, the solution is completely characterized by Cases 3 and 3, which together specify that

$$d = \begin{cases} 1 - A & \text{for } 0 \le A \le \frac{1}{3} \\ \frac{2}{3} & \text{for } \frac{1}{3} \le A \le 1. \end{cases}$$
 QED

Proof of Proposition 2

i. Substituting the optimal d^* into Cases 3 and 5 gives:

$$EU_C = \frac{A^2(4A - 3)}{3}$$
 for $0 \le A \le \frac{1}{3}$, and

$$EU_C = \frac{18A^3 - 27A^2 - 1}{3}$$
 for $\frac{1}{3} \le A \le 1$.

From O'Halloran (1993), the expected utility for Congress without an ex post veto is:

$$EU_C = \frac{A^2(2A-3)}{3}$$
.

Simple arithmetic proves that Congress is always better off with an ex post veto.

ii. The agent's expected utility when Congress has no ex post veto is:

$$EU_A = -\int_{-1}^{A-d} (\omega + d - A)^2 f(\omega) d\omega - \int_{A-d}^{A+d} (0)^2 f(\omega) d\omega - \int_{A+d}^{1} (\omega - d - A)^2 f(\omega) d\omega;$$
$$= -\frac{4A^3}{3} \quad \text{when the optimal } d^* \text{ is substituted for } d.$$

With an ex post veto, the agent's utility is:

$$EU_A = -\frac{5A^3}{3}$$
 for $0 \le A \le \frac{1}{3}$, and

$$EU_A = -\frac{9A^3 + 27A^2 - 3A + 1}{54}$$
 for $\frac{1}{3} \le A \le 1$.

Utility with an ex post veto exceeds utility without an ex post veto at A = .40733. QED

Proof of Proposition 3

- i. For $0 \le A \le R/3$, $d^* = R A$. For $R/3 \le A \le R$, $d^* = 2R/3$. In either case, $\partial d^*/\partial R > 0$, so discretion increases as the range of possible values of ω becomes larger.
- ii. Substituting $-1 + \Delta R_L$ for -R and $1 + \Delta R_R$ for R in Case 2 above yields the following:

$$EU_C = -\int_{-1+\Delta R_L}^{A-d} (\omega + d)^2 f(\omega) d\omega - \int_{A-d}^{-A} A^2 f(\omega) d\omega - \int_{-A}^{0} (-\omega)^2 f(\omega) d\omega$$
$$-\int_{0}^{A} (\omega)^2 f(\omega) d\omega - \int_{A}^{A+d} A^2 f(\omega) d\omega - \int_{A+d}^{1+\Delta R_R} (\omega - d)^2 f(\omega) d\omega.$$

This yields an optimal discretion level:

$$d^* = \frac{4 - 2\Delta R_L + 2\Delta R_R - ((2\Delta R_L - 2\Delta R_R - 4)^2 - 8(2 - 2P^2 - 2\Delta R_L + \Delta R_L^2 + 2\Delta R_R + \Delta R_R^2))^{1/2}}{4}$$

This function is convex in ΔR_R for fixed ΔR_L and passes through the point (0, 0). Thus, the optimal amount of discretion can either rise or fall for small changes in the boundaries depending on the relative magnitudes of ΔR_R and ΔR_L .

iii. Substituting R_L for -R and R_R for R in Case 5 above yields the following:

$$EU_C = -\int_{R_L}^{-d/2} (\omega + d)^2 f(\omega) d\omega - \int_{-d/2}^{0} (-\omega)^2 f(\omega) d\omega$$
$$-\int_{0}^{A} (\omega)^2 f(\omega) d\omega - \int_{A}^{R_R} A^2 f(\omega) d\omega.$$

This yields an optimal discretion level $d^* = -2R_L/3$, which depends only on R_L . QED

Proof of Proposition 4

For $0 \le A \le \frac{1}{3}$, the expected utility of a legislator with ideal point 0 is:

$$\begin{split} U_C(C_2) &= -\int_{-1}^{A-d} (\omega + d)^2 f(\omega) d\omega - \int_{A-d}^{2C_2 - A} A^2 f(\omega) d\omega - \int_{2C_2 - A}^{C_2} (2C_2 - \omega)^2 f(\omega) d\omega \\ &- \int_{C_2}^{A} (\omega)^2 f(\omega) d\omega - \int_{A}^{1} A^2 f(\omega) d\omega; \\ EU_C &= U_C(0) + (1-q) U_C(-C_2) + q U_C(C_2); \\ \frac{\partial EU_C}{\partial d} &= -\frac{(A+1-d)(A-1+d)}{2} \\ d^* &= 1+A \quad \text{or} \quad 1-A, \quad \text{as before.} \end{split}$$

For $\frac{1}{3} \le A \le 1$, the expected utility of a legislator with ideal point 0 is:

$$\begin{split} U_C(C_2) &= -\int_{-1}^{C_2 - (d/2)} (\omega + d)^2 f(\omega) d\omega - \int_{C_2 - (d/2)}^{C_2} (2C_2 - \omega)^2 f(\omega) d\omega - \int_{C_2}^{A} (\omega)^2 f(\omega) d\omega \\ &- \int_{A}^{1} A^2 f(\omega) d\omega, \\ EU_C &= U_C(0) + (1 - q) U_C(-C_2) + q U_C(C_2); \\ \frac{\partial EU_C}{\partial d} &= \frac{-2C_2^2 + 4 - 2C_2 d - 8d + 3d^2 + 4C_2 dq}{4}; \\ d^* &= \frac{8 + 2C_2 - 4C_2(1 - q) - (-12(4 - 2C_2^2) + (-8 - 2C_2 + 4C_2(1 - q)^2)^{1/2}}{6}. \end{split}$$

Consider the function $d^* - \sqrt[2]{3}$, which is the difference between the optimal amount of discretion with and without coalitional drift. For fixed C, this function is declining in q. For $q > \frac{1}{2}$, it is rising in C, and for $q < \frac{1}{2}$ it is declining in C. QED

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