Fixed statutes and regulations often have variable consequences over time. If left unattended, such drift can severely erode the performance of government as an institution of representation. To better understand the mechanics of policy-making in a changing world, we develop a positive theory that captures political drift in a dynamic separation-of-powers system. We show analytically that a distinctive combination of legislative supermajoritarianism and agency discretion—institutional features that, in isolation, elicit widespread criticism—can effectively ameliorate policies’ susceptibility to the vicissitudes of exogenous change. The critical mechanism for governmental accommodation of drift is delegation, which increases all decision makers’ well-being by reducing fluctuations in outcomes. Although the complete smoothing of outcomes is attainable in a separation-of-powers system, we show that this is typically not achieved in equilibrium. The presence of drift provides an opportunity for self-interested legislators to extract a distributional benefit from their fellow legislators at the expense of overall policymaking efficiency.

Things alter for the worse spontaneously, if they be not altered for the better designedly.

—Sir Francis Bacon

It is often said that the only constant is change itself. As time marches on, economies evolve in structure and scope, social networks form and fray, and lives of citizens are nudged, shaken, or shocked by an array of social and economic forces. Politics cannot escape these realities. Specifically, as the world changes, so too do the consequences brought about by governmental policies. Often, the direction and magnitude of changes in outcomes are unintended or undesired. Hacker and Pierson (2010b) refer to the impact of change on policy outcomes as drift. They explain:

Drift describes the politically driven failure of public policies to adapt to the shifting realities of a dynamic economy and society. Drift is not the same as simple inaction. Rather, it occurs when the effects of public policies change substantially due to shifts in the surrounding economic or social context and then, despite the recognition of alternatives, policy makers fail to update policies due to pressure from intense minority interests or political actors exploiting veto points in the political process. (170)

Few public policies are immune from political drift, and many are bombarded by it. For instance, massive social programs, such as Medicare, have variable consequences over time even when governing statutes and regulations are constant. On the demand side, drift can be caused by changes in demographics and health ailments (e.g., obesity), and, on the supply side, drift may be initiated by discoveries and innovations in pharmaceuticals or medical devices. Another example is the Internal Revenue Service’s treatment of “carried interest,” which originally sought to encourage real estate investment but, with no intervention or interference, has transformed into a legal basis for private equity and venture capital managers to pay a lower-rate capital gains tax on their managerial fees (Hacker and Pierson 2010a, 2010b). The policy has been stable over time, but the outcomes—that is, the set of beneficiaries, magnitude of benefits, and cost to the U.S. Treasury—have not. In light of the core democratic principle that policy outcomes are meant to reflect citizens’ interests, the ubiquity of drift makes efficacious representative democracy a moving target. How can government
in an ever-changing world react with the speed and accuracy necessary to maintain fidelity between political outcomes and the wishes of its people?

This challenge of institutional design seems to be especially acute in modern separation-of-powers democratic systems, such as the United States. In the legislative branch, the inertia of lawmaking is notorious due to the Constitution’s presidential veto provision and required congressional supermajority override. Interbranch gridlock is further compounded by intrabranch gridlock, such as senators’ ample opportunities to filibuster and the Senate’s supermajority requirement for invoking cloture. Consequently, government often has difficulty reacting to seismic shifts in policy environments, such as medical reform, energy dependence, and immigration, let alone run-of-the-mill incremental drift. As for the executive branch, scholars and commentators frequently lament that the bureaucracy runs amok, shirks responsibility, and abuses unilateral powers, all outside the reach of legislative oversight. Nor are these intragovernmental pathologies significantly attenuated by electoral institutions. For one thing, elections are blunt and infrequent tools for choosing representatives. For another thing, even if the electoral connection were somehow tuned to representative perfection, responsive legislators would still be left to conquer their own propensity for gridlock and to combat agencies’ predispositions to pursue their separate agendas.

Motivated by these broad normative concerns about representative ideals, the narrower positive objective of this article is to acquire a deeper understanding of how modern political systems manage drift in reality—whether it be well or badly. Our approach is grounded in two fundamental features of modern policymaking: supermajoritarianism and delegation. The principal contribution is to show that—in a sensibly stylized institutional setting with repeated interaction between branches of government—a democracy with these seemingly debilitating features is capable of effectively accommodating drift.

Although our main result may be considered surprising or possibly even uplifting, the normative implications of our analysis are not entirely sanguine. In principle, drift can be completely neutralized within political institutions, but this occurs only rarely in equilibrium. Otherwise, the inefficiency of drift does not wash out of the system altogether. The impediment to the best imaginable solution—as so often is the case—is self-interested legislators. The presence of drift creates the possibility for rent-seeking that limits the effectiveness of representative government. For example, control over the legislative agenda allows a winning coalition of legislators to extract a surplus from a losing coalition while reducing but not eliminating fluctuations in outcomes.

The model we introduce is the first to combine supermajoritarianism and delegation into a dynamic theory of policy-making. Among its implications for democratic efficacy is a unique insight about the interactive effects of seemingly unrelated institutional arrangements. We illustrate that, in a changing world with political drift, delegation breaks the supermajoritarian-induced gridlock that is predicted, for instance, by simpler pivotal politics models. In equilibrium, instead of political outcomes drifting over time to the detriment of most everyone’s risk-averse preferences, the agency exercises its discretion to tailor policies, hence realized outcomes, to respond desirably to changing conditions. In this way, legislators are able to agree to delegate authority to an independent agency even when they are unable to agree on a direct change to policy via legislative decree (i.e., nondelegation). Indeed, delegation of authority is supportable in equilibrium not just in spite of—but, more accurately, because of—supermajoritarianism. The resulting outcome is consistent with not only the preferences of the agency but also the preferences of the delegating legislative supermajority. Consequently, the putative runaway bureaucracy does not subvert the legislature; it implements legislative preferences dynamically and more precisely than the legislature itself can do via unilateral statutory decree. More concisely, the freedom of the agency to move policy


2 The literature on bureaucratic control is huge. See, for example, Moe (1984), McCubbins (1985), and Bendor, Taylor, and Van Gaalen (1985) on shirking of various forms, Martin (1997) and Epstein and O’Halloran (1999) on strategic use of information, and McConnell (1966) and Stigler (1971) on agency capture. Excellent reviews include Bendor and Meirowitz (2004), Krause (2010), and Gailmard and Patty (2012).

3 Gailmard and Patty (2012) provide a thorough survey of the formal literature on delegation and bureaucratic policymaking and cite no such models. Volden (2002) presents a model with several features similar to ours but is static and does not yield a counterpart to our main result.

4 The standard, static supermajoritarian models (without delegation) are Krehbiel’s (1996) “pivotal politics” and Brady and Volden’s (2006) “revolving gridlock.”

5 Although it is less central to our aims, a parallel observation pertains to the role that risk plays in our model. Delegation of authority is also supportable in equilibrium not just in spite of—but, more accurately, because of—risk aversion. An early influential formal theory of delegation (Fiorina 1982) critically relied on the assumption of risk acceptance and has, for that reason, been criticized (e.g., Epstein and O’Halloran 1999).
without legislative interference is a feature, and not a bug, of institutional design. As Sir Francis Bacon would summarize, policies are "altered for the better designedly."

**The Model**

We develop a model of dynamic policymaking by separation-of-powers institutions in a changing world. For concreteness, we call its two institutions of policymaking a legislature and an agency. Although these are the most common empirical referents in studies of delegation since at least Lowi (1969), the model also has relevance for other, more complex separation-of-powers arrangements. Its essential features are simply that the first-acting institution is supermajoritarian in nature, and that the second-acting institution may be delegated discretion in its implementation of the statute selected by the first-stage policy maker. As such, our first-acting player, which we generically call a legislature, can instead be thought of as any embedded game of executive- legislative interaction, or cabinet-parliament interaction, in which there is a supermajority pivot. Similarly, the model is in principle applicable to the study of delegation by Congress (with or without the president’s complicity) to the courts, as in recent studies of private lawsuits (e.g., Farhang 2010).

Policy is made in each of two time periods, denoted by \( t = 1, 2 \), over a single-dimensional policy space. The legislature consists of an arbitrary set of legislators with heterogeneous preferences, and it operates via supermajority rule. Three legislators are of special importance, and, as such, we focus on them exclusively: the median, \( M \), and two supermajority pivots, \( L \) and \( R \), on the left and the right sides of the median, respectively.\(^6\) Each legislator has an ideal outcome, or ideal point, \( m \), \( l \), or \( r \), respectively, where \( l \leq m \leq r \).

The agency, \( A \), is modeled as a unitary actor with ideal point \( a \). The agency’s ideal point will be treated as exogenous too, although we consider the question of how the legislators might design or select an agency whose behavior would be in their best interests.\(^7\)

The challenge of policymaking is that outcomes cannot be selected directly. Rather, the object of choice is a policy, \( p \in \mathbb{R} \), whose implementation produces an outcome, also in \( \mathbb{R} \), according to a mapping \( \lambda \).

Players have complete knowledge of the state of the world, and thus the mapping, in each period of policymaking. The key novelty of our legislative model is the notion of drift. Policy drift implies that the mapping from policies to outcomes evolves, or changes, from one period to the next, due to an exogenous shock or a gradual, inexorable flow of changing circumstances.

To capture this possibility, we model the mapping and drift in the simplest form possible. For the mapping, we adopt the conventional additive representation of Gilligan and Krehbiel (1987), \( \lambda (p, \omega) = p + \omega \). We then model drift as a binary variable, \( + \gamma \) or \( -\gamma \), where each realization occurs with equal probability. Without loss of generality, we normalize \( \omega_1 \) to be 0 and let \( \omega_2 = \pm \gamma \). Therefore, the first-period mapping is given by \( \lambda (p_1, 0) = p \), which we frequently simplify to \( \lambda_1 (p) = p \). The world then drifts between periods according to \( \omega_2 \), and the second-period mapping is \( \lambda (p, \omega_2) = p + \omega_2 \), or, alternatively, \( \lambda_2 (p|\omega_2) \).

For simplicity, we assume that all players have quadratic losses in utility over outcomes, which implies that a legislator’s utility function is symmetric around his ideal outcome. Although risk aversion plays an important role in our analysis, quadratic loss specifically is not necessary.\(^8\) For policy \( p \) producing outcome \( x = \lambda (p, \omega) \), the median legislator’s utility in period \( t \) is \( u_t^M = - (x - m)^2 \). To avoid additional notation without losing any insight, we assume players do not discount across time, such that total utility for \( M \) is: \( U^M = u_1^M + u_2^M \). The utility for all other players is analogous.

**Sequence.** The sequence of moves and notation are summarized in Table 1. In each period, policymaking has two distinct phases: lawmaking (or statute passing) and implementation. The legislature proposes bills and passes statutes, and the agency then selects and implements policy. The legislature’s statute may specify exactly which policy the agency is to implement, or it may delegate some authority over this choice to the agency. In either case, the agency phase of each period culminates in a policy choice \( p_t \) that is allowable within the statute, and this policy is subsequently mapped into an outcome by \( \lambda \) and utility is received.

In the legislative phase, the median voter proposes a bill \( b_t \) and the legislature as a whole votes on it. If

---

\(^6\)It will soon become clear that preferences in our model are single peaked. Therefore, by well-known results, agreement among the two pivotal legislators is necessary and sufficient for legislation to pass; to reduce the notational burden, therefore, we keep the remaining \( N - 3 \) legislators in the background.

\(^7\)Technically, one of \( L \) or \( R \) may be interpreted as the president, if his ideal point is interior to the two-thirds pivot in Congress. Repeated reminders of this fact sharply increase the clutter-to-insight ratio, though, so we henceforth refer to them as \( L \) and \( R \) and consider them generic supermajority pivots.

\(^8\)And, as is well known, linear utility curves produce risk aversion when ideal points are interior within outcome space, as is the normal case in political models.
Perhaps contrary to first appearances, and at the outset, the bill requires a supermajority, which is to say both of the pivotal voters, L and R (and the median M), must consent to changes when gridlock takes hold. The structure of our delegation game, however, is such that the previous definition cannot be applied directly and unambiguously. Nevertheless, we can generalize the concept to a branch-specific or, equivalently, an instrument-of-choice-specific setting. Specifically, we say that statutory gridlock holds when the legislature’s statute at one period is the same as the statute inherited from the previous period, that is, \( s_t = s_{t-1} \). Analogously (but less common in the literature), we define policy gridlock as holding when the agency’s policy choice at one period is the same as policy inherited from the previous period, that is, \( p_t = p_{t-1} \). For completeness but of less importance, we say outcome gridlock holds when the outcome in one period is the same as in the previous period of the game. We will see that these forms of gridlock are not synonymous and, indeed, that there are sometimes counterintuitive relationships between the forms of gridlock.

Table 1: Structure of the Supermajoritarian Delegation Game

<table>
<thead>
<tr>
<th>Period 1: Inherited statute ( s_0 )</th>
<th>Actions and Outcomes</th>
<th>Items Chosen or Realized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislature</td>
<td>( b_1, s_1 )</td>
<td>Bill and statute</td>
</tr>
<tr>
<td>Agency</td>
<td>( p_1 )</td>
<td>Policy</td>
</tr>
<tr>
<td></td>
<td>( x_1 )</td>
<td>Period 1 outcome</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Period 2: Inherited statute ( s_1 \in {s_0, b_1} )</th>
<th>Actions and Outcomes</th>
<th>Items Chosen or Realized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislature</td>
<td>( b_2, s_2 )</td>
<td>Bill and statute</td>
</tr>
<tr>
<td>Agency</td>
<td>( p_2 )</td>
<td>Policy</td>
</tr>
<tr>
<td></td>
<td>( x_2 )</td>
<td>Period 2 outcome</td>
</tr>
</tbody>
</table>

Delegation. In every period, the agency is responsible for implementing a policy. We say that authority is delegated if the agency has some discretion over which policy to implement. Formally, a statute (or a bill) specifies a set of policies that are permissible, that is, \( s_t \subseteq \mathbb{R} \). The agency is then required to choose a policy that is in this set, \( p_t \in s_t \). The size of the set of permissible policies measures the degree of discretion granted to the agency.

One extreme is when the statute specifies only a single policy (i.e., the permissible set contains only one point) and so there is no delegation, just a decree. At the other extreme, the statute does not restrict policy choice at all (i.e., the permissible set contains every policy) and so the agency has discretion to choose whichever policy it desires. This is a case of unconstrained delegation. Between these extremes, the permissible set is more than a singleton but less than the entire policy space. These are intermediate cases of constrained delegation. Our analysis of constrained delegation restricts attention to interval delegation, where the statute specifies values \( d, \overline{d} \) such that the set of permissible policies is the interval \([d, \overline{d}]\).

To capture the act of delegating authority, we set the inherited statute at the beginning of play, \( s_0 \), to be a decree.

Terminology. Gridlock has been defined as an equilibrium condition in which a status quo is not replaced by a new policy (Krehbiel 1996). In the standard single-period, complete-information pivotal politics model, gridlock is a property of policies and outcomes alike in that neither changes when gridlock takes hold. The structure of our delegation game, however, is such that the previous definition cannot be applied directly and unambiguously. Nevertheless, we can generalize the concept to a branch-specific or, equivalently, an instrument-of-choice-specific setting. Specifically, we say that statutory gridlock holds when the legislature’s statute at one period is the same as the statute inherited from the previous period, that is, \( s_t = s_{t-1} \). Analogously (but less common in the literature), we define policy gridlock as holding when the agency’s policy choice at one period is the same as policy inherited from the previous period, that is, \( p_t = p_{t-1} \). For completeness but of less importance, we say outcome gridlock holds when the outcome in one period is the same as in the previous period of the game. We will see that these forms of gridlock are not synonymous and, indeed, that there are sometimes counterintuitive relationships between the forms of gridlock.

It is also worth contrasting our notion of drift and standard notions of policy uncertainty. In many previous models, policymaking is confounded by players not knowing the exact outcome any given policy will produce upon its implementation. This form of uncertainty, when experienced by some players but not others, provides a role for policy expertise and strategic use of information. Perhaps contrary to first appearances, and at the

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9In many models, this would be called a status quo point. In this model, the notion of a status quo would be confined by its different meaning in different stages in the game; therefore, we avoid using the term altogether and will instead write of preexisting (or inherited) statutes or preexisting policies at a given period.

10See, for example, Gilligan and Krehbiel (1987) and Huber and McCarty (2004).
risk of repetition, we stress that this type of uncertainty is not present in our model. In fact, at the start of both Periods 1 and 2, all players know perfectly the mapping between policies and outcomes in that period (the mapping function and the value of \( \omega_0 \)). Thus, there is no within-period uncertainty whatsoever. The only uncertainty is about the drift term—that is, how the mapping evolves from one period to the next—and this uncertainty is present only during Period 1. Furthermore, the uncertainty is symmetric; all players have the same information.

**Equilibrium.** Because the game is one of symmetric and complete (albeit uncertain) information, its various forms are easily solved by backward induction. The solution concept is subgame perfect Nash equilibrium. As is common in policymaking games, bills are proposed that leave one pivotal legislator indifferent. We break such ties by assuming that an indifferent legislator votes for the bill. Conversely, we suppose the median legislator offers a bill only if he strictly prefers it to the inherited statute (to avoid degenerate equilibria in which he proposes the inherited statute as the new bill and subjects it to a meaningless vote). Similarly, we assume that the legislature delegates discretion to the agency only if the discretion meaningfully affects outcomes. This assumption avoids equilibria in which an agency is provided discretion but the discretion is not decision-relevant and is never used.

**Results**

The standard model of pivotal politics involves a single period, has no delegation (indeed, no implementation phase at all), assumes complete information, and makes no distinction between policies and outcomes. From this setup emerges the so-called gridlock interval: the set of points between and including the legislature’s supermajority pivots for which no new statutes are passed, or, in our notation, \([l, r]\). For preexisting statutes outside this interval, a bill is proposed that moves inside the gridlock interval, selecting the policy that is most attractive to the median legislator. We state this standard result as Lemma 1 and depict the logic in Figure 1. Formally, the standard model is a special case of our setting with the game restricted to a single period and bills required to be decrees. (We could retain the agency phase of policymaking, but requiring decrees precludes the agency from taking any meaningful actions.) We denote equilibrium values with an asterisk.

**Lemma 1.** Restrict the model to a single period and require that statutes be decrees (nondelegation). For each

\[
s_0 \in [l, r], \text{ no bill passes the legislature, and legislative gridlock holds. For each } s_0 \notin [l, r], \text{ a bill, } b^*_1 \in [l, r], \text{ is proposed and passes the legislature. The equilibrium bill is}
\]

\[
b^*_1 = \begin{cases} 
\max \{m, 2r - s_0\} & \text{if } s_0 > r, \\
\min \{m, 2l - s_0\} & \text{if } s_0 < l.
\end{cases}
\]

The logic of the result is transparent. Within the gridlock interval, policymaking is purely adversarial among the pivotal legislators, so movement in any direction makes at least one of the legislative pivots worse off. Only for preexisting statutes outside the gridlock interval do pivots share a common interest in policymaking. Then movement toward the gridlock interval benefits both pivots and the median and, consequently, wins the support of all three legislators.

Adding dynamics, drift, and delegation to this model complicates the analysis and creates many cases. We focus on the case in which gridlock has its firmest hold on policy, specifically, when a statute lies inside the legislature’s gridlock interval. Imposing this restriction is complicated by the fact that, with drift, a policy that is initially in the standard gridlock interval may drift outside and, vice versa, a policy that is outside may drift inside. To avoid these subcases, we confine our attention to moderate statutes, the outcomes of which lie in the interval \([l, r]\) in both periods, regardless of the realization of drift.

**Definition 1.** A policy environment is moderate if the preexisting statute \( s_0 = p_0 \) satisfies \( \lambda_1(p_0) \in [l, r] \) and \( \lambda_2(p_0|\omega_2) \in [l, r] \) for all \( \omega_2 \in [-\gamma, \gamma] \).

A moderate environment requires that the inherited statute \( s_0 \) is farther than \( \gamma \) from either boundary of the standard gridlock interval, that is, that \( s_0 \in [l + \gamma, r - \gamma] \). Without drift, this definition is equivalent to the standard gridlock interval, and, as described in Lemma 1, the ability of the legislature to pass a bill is nonexistent. A moderate environment, therefore, provides a clean benchmark — gridlock holds — and any legislative action that emerges can definitively be attributed to the presence of drift, dynamics, and delegation.\(^{11}\)

\(^{11}\) The analysis for non-moderate environments is not without interest. Behavior in these cases appears to be a combination of the
Unconstrained Delegation

If, in a moderate environment, self-interested legislators cannot agree by the requisite supermajority to change policy, why would we expect them to delegate to an agency the unconstrained authority to set policy? Such delegation is often interpreted in the popular press as “kicking the can down the road” or in academic research as “abdicating legislative responsibility” (Lowi 1969). Proposition 1 portrays delegation without such normative undertones and lends itself to a more benign interpretation. In the presence of drift, delegation is exactly what rational legislators do in equilibrium. Furthermore, such delegation strictly improves all players’ welfare.

**Proposition 1.** In a moderate policy environment with statutes restricted either to decrees or unconstrained delegation, the legislature delegates in Period 1 if the agency’s ideal point \( a \) is in the non-empty interval:

\[
 a \in \left[ r - \sqrt{(r - s_0)^2 + \frac{\gamma^2}{2}}, \quad l + \sqrt{(s_0 - l)^2 + \frac{\gamma^2}{2}} \right].
\]

If delegated to, the agency implements its ideal outcome via \( p_1^* = a \) in the first period. In Period 2, no bill passes the legislature and legislative gridlock occurs; the agency chooses policy

\[
p_2^* = a - \omega_2,
\]

and the outcome is \( x_2^* = \lambda_2(p_2^*|\omega_2) = a \). If \( a \) is outside the interval, legislative and policy gridlock occurs in both periods, giving \( s_2 = s_1 = s_0 \) and \( p_2 = p_1 = s_0 \).

The striking feature of this result is that, despite the nonexistence of a policy that the legislators can agree to enact, they are able to agree to delegate unconstrained policy-setting authority to a third party. Delegation, therefore, breaks gridlock in the first period. This specific kind of breaking gridlock is short-lived, however, as in the second period, statutory (legislative) gridlock reemerges. But with the policy selected under unconstrained delegation now being the inherited statute, policy gridlock does not occur. The agency adjusts to the vicissitudes of drift in the changing world and thereby smooths out the consequences of such fluctuations to the benefit of all legislators.

Figure 2 depicts the interval of agency ideal points, or delegation range, for which unconstrained delegation of policymaking occurs in equilibrium. This interval is always non-empty. The left boundary is a function of the right pivot’s ideal outcome, \( r \), and the right boundary is a function of the left pivot’s ideal outcome, \( l \). For an agency to be delegated complete discretion, both pivotal legislators and the median must consent. As values of \( a \) increase, the left pivot is less and less pleased with the agency’s ideal-point-yielding outcome, and so the boundary condition for the delegation range is determined by her indifference between retention of the preexisting statute \( s_1 = s_0 \) and a grant of unconditional delegation. The inverse holds for the left boundary of the interval and the right pivot’s indifference. Because the median legislator \( M \) is more moderate than the pivots, if the pivots \( L \) and \( R \) are at least weakly in favor of delegation, then so too is \( M \). Therefore, the median’s ideal point \( m \) does not appear in either boundary expression, and the median’s incentive constraint never binds.

To understand the proposition, it is useful to begin at the end and work backward, following the logic of backward induction. In the second period, the interperiod drift has been realized and policy is made under complete information. This subgame, therefore, reduces to the standard pivotal politics model, and, by Lemma 1, legislative gridlock holds under the assumption of a moderate policy environment (Def. 1). Critically, this logic holds even if authority had been delegated in the first period. Legislators rationally deduce that if power is left in the hands of the agency, the agency will implement a policy that achieves outcome \( a \). Hence, the second-period game reduces to the standard gridlock problem with delegation rendered equivalent to a decree of \( s_2 = a - \omega_2 \).

The legislators are not naive, however, and backing up to the first period, they anticipate that, if they were to delegate authority to the agency in the first period, such delegation would in fact be permanent. In a changing world, a reasonable intuition is that legislators would want to retain authority as much as possible. Proposition 1 establishes that this intuition is wrong. In a changing world, legislators are, in fact, more apt to give up their policy-setting right. And, surprisingly, they do this precisely because a one-time abdication of authority is rendered permanent by institutional design.

To see why delegation is optimal, the outcomes it produces must be compared to what happens otherwise, that is, off the equilibrium path. Suppose that authority is not delegated in the first period and that a bill does not pass the legislature (hence, legislative gridlock). Then \( s_1 = s_0 \), and in the first period this produces outcome \( x_1 = s_1 \). By the definition of a moderate environment, legislative gridlock again holds in the second period, regardless of the realized drift \( \omega_2 \), and the outcome produced is \( x_2 = s_1 \pm \omega_2 \), with positive and negative shocks occurring with equal probability.

The range of outcomes possible in this case is broad and uncertain at the time policy is made in the first period. This variance in outcomes is undesirable to the
legislators, as they are risk averse. By delegating to the agency, in contrast, fluctuations are completely eliminated regardless of the drift realized between periods. Smoothing out the outcomes in this way benefits all the legislators. It is in this way that an efficiency component to policymaking emerges from a purely ideological policy environment.\footnote{By “ideological” we do not necessarily mean liberal versus conservative. Rather, we are referring to whatever the spatial (distributive) component of preferences represents in a given application.} Even within the standard gridlock interval, policymaking is not purely adversarial between the pivots when policymaking is appropriately viewed with a longer time horizon than a single period. The efficiency benefit from outcome smoothing is such that a legislator is willing to tolerate an ideological cost to receive it. That is to say, a legislator, say \( R \), is willing to accept an ideological outcome to the left of \( s_0 \) if it involves no fluctuations over time. This trade-off, by legislators on both the left and the right, is what generates the interval of agency ideal points that are amenable to unconstrained delegation.

To clarify the logic, it is necessary to show why the legislature cannot smooth the outcomes by itself. After all, the agency does not hold an expertise advantage, and every legislator knows how to achieve an efficient stream of outcomes. The legislature’s inability to do this is a problem of commitment. Suppose the legislature tried to capture the benefits of outcome smoothing via decrees. In the first period, legislators see that, in the long run, they will all be better off if, upon learning between periods whether the drift is positive or negative, they simply adjust to the new outcome state by moving policy \( \gamma \) to the left or to the right from some agreed-upon first-period statute \( s_1 \). The problem with this seemingly sensible plan is that the pivotal legislators—as self-interested individuals with different preferences—cannot credibly commit to following through on such a deal. When the second period is reached, the heretofore unrecognized impediment to such commitment surfaces: namely, the legislature’s supermajoritarian requirement that accounts for the statutory gridlock interval in the first period. More specifically, if the interperiod drift is \(+\gamma\), then the right-side pivot benefits and will not honor his first-period commitment to make the adjustment. The same is true of the left-side pivot and a drift of \(-\gamma\). In brief, the contemplated behavior is not subgame perfect, and the inability of legislators to commit to second-period actions in the first period dooms any possible two-period deal that, in expectation, is Pareto-improving.

The deal can be implemented via delegation, however. After granting the agency unrestricted discretion, the legislature’s first-period statute is inherited by the legislature and, therefore, serves as the reversion statute in the second period. Then, and with noteworthy irony, the same supermajority requirement that was the impediment to legislators’ committing to the deal at the outset is essential to enforce the deal in the end. Precisely because the delegation of authority shelters the agency within a supermajority bunker, the agency is able to change policy in response to drift, thereby smoothing outcomes and implementing the two-period Pareto-improving bargain.

\textbf{Necessity.} By adding dynamics, drift, and delegation to the conventional model of legislative policymaking, Proposition 1 shows how delegation emerges and the standard gridlock interval breaks down. To understand the result, it is worth clarifying the roles played by each of three distinctive \( d \)-components in the model: dynamics, drift, and delegation. The following corollary, which emerges straightforwardly from Proposition 1, confirms that each of the three elements is essential to overcome gridlock.

\textbf{Corollary 1.} In a moderate environment, with any two of dynamics, drift, and delegation (and without the third), legislative gridlock and policy gridlock hold in every period.

Brief consideration of the various two-of-three cases exposes the underlying logic. Dynamics and delegation without drift implies that policy is purely adversarial between the pivotal legislators. So, in the absence of drift, there is essentially no problem for delegation to solve. The
left pivot wants to move policy to the left and the right pivot to the right, so no deal can be struck as in the standard gridlock model. In contrast, with drift and dynamics but without delegation, a legislative deal is available; however, without an agency, there is no mechanism for implementing the deal. So, again, legislators are condemning to legislative gridlock, compounded by the inefficiency of irremediable drift.\textsuperscript{13}

**Derivation.** In constructing the equilibrium, the key comparison is between players’ utility from unconstrained delegation and the utility from leaving the initial statute \( s_0 \) in place. As described above, if the initial statute is left in place in the first period, it remains in place in the second period. The total utility for legislator \( L \) from this is given by the following:

\[
U_{L}^{s_0} = -(s_0 - l)^2 - \frac{1}{2} (s_0 + \gamma - l)^2 - \frac{1}{2} (s_0 - \gamma - l)^2,
\]

where the final two terms are the possible outcomes in the second period, weighted by the probability of each occurring.\textsuperscript{14}

If authority is delegated, all variance in outcomes is removed, both within and across periods. The total utility for legislator \( L \) is then

\[
U_{L}^{del} = -(a - l)^2 - (a - l)^2 = -2 (a - l)^2.
\]

Legislator \( L \) prefers to delegate authority if \( U_{L}^{del} > U_{L}^{s_0} \). This condition will hold if the agency ideal point, \( a \), is not too far from the legislator’s ideal point, \( l \). The value of \( a \) at which the legislator is indifferent between delegating and not we refer to as \( L \)’s certainty equivalent.\textsuperscript{15} We denote this value by \( o_{L}^{ce} \). Thus, at \( a = o_{L}^{ce} \) we have that \( U_{L}^{del} = U_{L}^{s_0} \), and

\[
-2 \left( o_{L}^{ce} - l \right)^2 = -\left( s_0 - l \right)^2 - \frac{1}{2} \left( s_0 + \gamma - l \right)^2 - \frac{1}{2} \left( s_0 - \gamma - l \right)^2.
\]

Rearranging to solve for \( o_{L}^{ce} \):

\[
o_{L}^{ce} = l + \sqrt{(s_0 - l)^2 + \frac{\gamma^2}{2}}.
\]

To see the usefulness of this concept, observe that the expression for \( o_{L}^{ce} \) is the right-side boundary of the condition in Proposition 1. Defining the certainty equivalent for legislator \( R \) analogously as \( o_{R}^{ce} \), it follows that

\[
o_{R}^{ce} = r - \sqrt{(r - s_0)^2 + \frac{\gamma^2}{2}},
\]

which is the left-side boundary in the proposition.

With these expressions in hand, the interval in Proposition 1 can be restated concisely as \( a \in [o_{R}^{ce}, o_{L}^{ce}] \). Stated this way, it becomes obvious that \( [o_{R}^{ce}, o_{L}^{ce}] \subset (s_0 - \gamma, s_0 + \gamma) \) and the delegation interval is within the range of possible outcomes from not delegating. For legislator \( L \), the worst outcome she can receive from not delegating is \( s_0 + \gamma \) (see again Figure 1), so obviously her certainty equivalent is less extreme than this point. The same holds for pivot \( R \). This formulation also implies that the interval of delegation need not be symmetric around the inherited statute, \( s_0 \). Each boundary is determined by the indifference condition and, therefore, is a function of the relative locations of the pivots’ ideal points and the inherited statute.

**Agency Design 1.** The proposition also has implications for agency composition. A simplified interpretation of the embedded pivotal politics model is that the legislature’s median voter is an agenda setter operating under a pivot constraint. As such, he is a natural focal actor when contemplating endogenous agency choice.\textsuperscript{16} The relationship between the median’s utility and the distance between the median’s and the agency’s ideal points is easily derived and interpreted.

**Corollary 2.** For all \( a \in [o_{R}^{ce}, o_{L}^{ce}] \) in Proposition 1, the median legislator’s utility is strictly decreasing in \( |m - a| \), the distance between median and agency ideal points.

Although the agency’s ideal point is exogenous in the model, if the median legislator were to be given the right to appoint the agency, he would appoint a clone of himself whenever his ideal point lies within the delegation interval, \( m \in [o_{R}^{ce}, o_{L}^{ce}] \). If, however, this condition

\textsuperscript{13}The third case—drift and delegation without dynamics—is an impossibility: Drift cannot occur without dynamics.

\textsuperscript{14}The efficiency gain from delegation can be seen by expanding and rearranging this expression, as this gives

\[
U_{L}^{s_0} = -(s_0 - l)^2 - (s_0 - l)^2 - \gamma^2,
\]

where the second-period utility simplifies to two separate terms, one for expected ideological loss and the second the variance of outcomes around this point. This is a manifestation of the standard mean-variance representation of expected utility when the utility function is quadratic. This formulation shows that the efficiency gain from removing fluctuations is independent of ideal points and, thus, constant across legislators.

\textsuperscript{15}The certainty equivalent is a commonly used concept in studies of decision making under risk. As the name suggests, it is the outcome that, if received with certainty, leaves the decision maker indifferent between it and a particular lottery.

\textsuperscript{16}In reality, of course, the president is the first mover and critical actor in this process.
is not met — that is, the median legislator’s ideal point lies outside the interval — then he must compromise by appointing an agency whose ideal point lies at the nearer of the two boundary points that define the delegation interval. The rationale for this finding is very similar to, but not identical with, the ally principle (see, for example, Huber and Shipan 2006). For the same reasons as in ally-principle results, the legislative median voter as appointer would like always to have an agency whose preferences are clones of the appointer’s. However, if he were to generalize this clone-appointment strategy to situations in which the appointer’s ideal point lies outside the interval, such overreaching would lose the support of the more distal of the two supermajority pivots, the delegating statute would not pass, and avoidable drift would hurt all legislators. Therefore, unlike the ally principle, a self-interested appointer may intentionally produce a gap between appointer and appointee. Although it is common in the literature to interpret this gap as a form of agency shirking or runaway bureaucracy, our model cautions against this presumption. When supermajoritarianism is taken into account, such space may be more aptly interpreted as optimal appointment, delegation, and drift management rather than as runaway bureaucracy or agency shirking.

Similarly, the model shows how an agency can pull policy away from the legislative median even in the absence of an expertise or informational advantage as in prior, more complex models (Callander 2008; Gailmard and Patty 2007). Again, the agency’s impact on policy choice in our model is an indirect by-product of supermajoritarianism.

Delegation Constraints

Unconstrained delegation is a blunt lawmaking tool insofar as the supermajoritarian legislature, in effect, abdicates all of its right to make adjustments to changing policy environments. Bluntness notwithstanding, to some scholars, that is just the way it is. Shapiro (2003), for example, makes a meticulous, comprehensive, and compelling argument that administrative procedures over three highly developed democracies—the United States, the United Kingdom, and France—have all evolved into separation-of-powers systems in which nearly all legislative delegation to executive agencies is essentially unconstrained. Only as a last resort do the courts intervene to tighten constraints on agencies’ exercise on discretion. Other scholars, such as Epstein and O’Halloran (1999), have argued that empirical scenarios are better approximated by a middle-ground characterization that lies between the pure types considered thus far: legislative decrees and unconstrained delegation. What if legislators not only grant discretion to, but also place limits on the actions of, the agency?

To address this question, we model delegation as a variable, endogenous constraint. Specifically, a statute is a specific pair of values that define a delegation interval \([d, d]\) from which the agency must choose and implement a policy. Unconstrained delegation is a special case of this environment obtained by setting \(d = -\infty\) and \(d = \infty\). At the opposite extreme is \(d = \overline{d}\), where the statute is a decree with no authority delegated.

The equilibrium is stated in Proposition 2. The logic for the use of constrained delegation has two components. First, by constraining the behavior of the agency, delegation is supportable to agencies with a greater range of ideal outcomes than in Proposition 1. This causes the delegation interval to widen and span the entire interval \((s_0 - \gamma, s_0 + \gamma)\). Second, by constraining the agency, the median legislator and the majority he represents are able to benefit more from their proposal rights and move the policy outcomes closer to their ideal points. This leads the median legislator to propose constrained delegation to legislators with single proposal exception, even for agency ideal points within \([a_{L}, a_{R}]\), where the other legislators would gladly vote for unconstrained delegation.

For simplicity, we use the notation \(a_{L}\) and \(a_{R}\) in the statement of equilibrium and impose the restriction \(m \leq s_0 - \gamma\), such that the median legislator’s ideal point is not in the interval of delegation. If instead \(m > s_0 - \gamma\), then equilibrium behavior is substantively very similar, although with additional notational complexity to deal with changes in the direction of delegation around \(m\).

**Proposition 2.** In a moderate policy environment with \(m \leq s_0 - \gamma\), the legislature delegates in Period 1 if the agency’s ideal point satisfies

\[ a \in (s_0 - \gamma, s_0 + \gamma). \]

The constraints on delegation depend on the agency’s ideal point, \(a\), as follows:

\[ d \in \left( \frac{s_0 - \gamma - a}{2}, \frac{s_0 + \gamma - a}{2} \right). \]

Within-country degrees of delegation. In *FCC v. Fox Television Stations* (2009), for example, the U.S. Supreme Court made it easier for the Federal Communications Commission to use its delegated authority to respond to external conditions or, in our vernacular, drift. In general, the nature and degree of delegation from the legislature and executive is court-constrained and often in flux.

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\(^{17}\) In addition to Shapiro’s (2003) focus on the cross-national variation in the background role courts play in legitimating and sometimes conditioning delegation, there is also perpetual evolution of
(i) For \( a \in (s_0 - \gamma, 0^R) \), delegation is left-constrained, satisfying
\[
\frac{d(a)}{a} - \gamma, \text{ and } \bar{d}(a) = \infty, \text{ where } \frac{d(a)}{da} < 0,
\]
\[
\lim_{a \to s_0 - \gamma} d(a) = s_0, \text{ and } \lim_{a \to 0^R} d(a) = \gamma.
\]
(ii) For \( a = 0^R \), delegation is unconstrained.
(iii) For \( a \in (0^R, s_0 + \gamma) \), delegation is right-constrained, satisfying
\[
\frac{d(a)}{a} > \gamma, \text{ and } \bar{d}(a) = \infty, \text{ where } \frac{-d(a)}{da} < 0,
\]
\[
\lim_{a \to 0^R} \bar{d}(a) = 0^R + \gamma \text{ and } \lim_{a \to s_0 + \gamma} \bar{d}(a) = s_0.
\]
Following delegation, legislative gridlock holds in the second period. For all \( a \notin (s_0 - \gamma, s_0 + \gamma) \), legislative gridlock obtains in both periods.

In all cases, the agency possesses discretion in policymaking, although it is only in case (ii) that delegation is unconstrained. In case (i), the agency is left-constrained in that the constraints preclude the agency from moving policy to the left as much as it desires, and in case (iii), the agency is right-constrained similarly.18

To see the equilibrium constraints more clearly, a table and two figures are helpful. Table 2 describes policies and outcomes for each case and following each possible drift value.19 For both cases of constrained delegation, the agency’s behavior varies according to whether the constraint impacts only its second-period choice following a particular drift (drift +\( \gamma \) in case (i) and drift −\( \gamma \) in case (iii)) or whether its first-period choice is also affected. To capture this, the table (and subsequent figures) separate the cases into (a) and (b) components.

The logic in all cases is the same as for unconstrained delegation in the previous section. Once delegated to, the agency retains discretion and is protected behind a figurative iron curtain of supermajority legislative gridlock. Therefore, in all cases, delegation breaks legislative gridlock in the first and only the first period. When the delegation of authority is unconstrained (case ii), outcome gridlock but not policy gridlock occurs, and the agency uses its freedom to adjust policy perfectly to the changing world. In the remaining cases, however, this result breaks down. Neither outcome gridlock nor policy gridlock takes hold following all realizations of drift because the agency is constrained in its ability to fine-tune policy to ameliorate the unwanted consequences of drift.

Figures 3 and 4 present these data graphically. Figure 3 depicts the statutory constraints on delegation as the agency’s ideal outcome varies on the horizontal axis (depicting only the value of \( d \) and \( \bar{d} \) that binds; i.e., the constraint that is not \( \pm \infty \)). As is evident, the relevant constraint is \( d \) to the left of \( 0^R \), and the constraint is above \( a \) for values of \( a \) to the left of \( a^* \). Similarly, to the right of \( 0^R \), the relevant constraint is \( \bar{d} \), and this value is below \( a \) for values of \( a \) more extreme than \( a^* \).

Figure 4 depicts the outcomes that these constraints produce, again as the agency ideal outcome varies on the horizontal axis. The thick solid (blue) line depicts the first-period outcome, and the 45° lines represent the agency’s ideal outcome. The important observation is that the solid line tracks the 45° line only for moderate values of \( a \). The dashed (green) and dot-dashed (red) lines represent second-period outcomes for −\( \gamma \) and \( \gamma \) drifts, respectively. Agency behavior that is unconstrained is represented by outcomes on the 45° line; this holds for the dashed line for values of \( a \) to the left of \( e^R \), and for the dot-dashed line for values of \( a \) to the right of \( e^R \). However, these lines depart from the 45° line, the legislature-imposed constraint on agency behavior is binding. Only at the critical value of \( a = e^R \), which defines case (ii), is behavior unconstrained. Here, all three lines intersect at the 45° line.

To understand the nature and origin of the delegation constraints, consider case (i-b). In this interval, the agency’s ideal point is too far from the right-pivot \( R \) to support unconstrained delegation; he prefers instead the initial statute \( s_0 \) (without delegation) despite the outcome fluctuations it induces. Thus, for constrained delegation to be supported in equilibrium, the policy choices must be pushed to the right to be more appealing to \( R \). This is achieved by left-constraining the agency in equilibrium and forcing it to implement outcomes more to the right than its ideal point.

From the median’s perspective, the agency would ideally be compelled to implement outcome \( e^R \) in both periods, thereby just winning the support of legislator \( R \) and making \( L \) and \( M \) as well off as supermajoritarianism permits. However, it is not possible to structure the delegation constraints to do this. To generate outcome \( e^R \) in the first period requires \( d = e^R \), but then this leaves the agency ill-equipped to address a positive drift \( \gamma \) in the second period.

18The actual expressions for \( d(a) \) and \( \bar{d}(a) \) in each case are available in closed form and presented in the online supporting information.
19The relationship between the values of \( d \) and \( \bar{d} \) in the various cases of the proposition exhibit some noteworthy features. The values of \( d \) and \( \bar{d} \) differ only by a constant 2\( \gamma \). This implies that, at the crossover point of case (ii), equilibrium behavior is continuous and actually given by the same curve the constraint in case (i-b) is on \( d \), whereas in case (iii-a) the constraint is on \( \bar{d} \). The values for \( d \) and \( \bar{d} \) in cases (i-a) and (iii-b) also differ by a constant value, in this case \( \frac{1}{2} \gamma \). However, because these cases are noncontiguous, the implication of this relationship is less obvious.
The failure of this possibility is due to the fact that policy implementation is the responsibility of the self-interested agency. As such, the median legislator’s problem is nontrivial: How can he manipulate the delegation constraints to win R’s support subject to the agency’s post-drift optimizing behavior, and do it in such a way that it moves policy outcomes as close to his own ideal point as possible?

In case (i-b), the optimal delegation scheme pushes the constraint \( \hat{d} \) so that policy implemented in the second period following the \( +\gamma \) drift is to the right of the agency’s ideal outcome and closer to \( R \)’s. This distortion must deliver to \( R \) the same utility as he would receive from outcome \( o^e_R \) with certainty (as this, by definition, is the same utility as from not delegating at all). Thus, a minimal requirement is that the second-period outcome following drift \( +\gamma \) (the dot-dash line) is to the right of \( o^e_R \). Because the value of \( a \) is close to \( o^e_R \) in this case, this distortion is sufficient to win \( R \)’s support. For values of \( a \) to the left of \( a’ \) (case (i-a)), however, constraining only second-period behavior in this way is not sufficient to win \( R \)’s support because the agency ideal point is more distant from \( o^e_R \), and the equilibrium constraint is \( \hat{d} > a \) such that the first-period policy choice as well is pushed toward \( R \)’s ideal outcome.

For agencies with ideal points closer and closer to the boundary \( s_0 - \gamma \), the delegation constraints must be increasingly distorted to win \( R \)’s support. Ultimately, at the boundary the constraint \( \hat{d} \) reaches \( a + \gamma \), and, as \( a \) is approaching \( s_0 - \gamma \), the constraints bind completely. At the boundary, the statute is rendered equivalent to a decree of \( s_1 = s_0 \), and no authority is delegated.

This behavior is mirrored for agency ideal points to the right of \( o^e_R \), although now the agency is
right-constrained. In case (iii), the right-pivot legislator strictly prefers unconstrained delegation to not delegating. This causes the constraints to flip because the median legislator can move proposed statutes to the left and still win R’s support. This is the reverse of case (i), since the median’s problem is now how to move the agency’s policy to the left so as to minimize the distance between the outcome and the median voter’s ideal point while keeping the support of R. In case (iii-a), only second-period behavior following the -γ drift can be distorted without losing R’s support, whereas for values of a farther to the right—and closer to R’s ideal outcome—first-period behavior as well can be distorted to the left, while still gaining the critical vote of the right-side pivot.

Careful readers may have noticed that while the analysis for unconstrained delegation in the previous section depends on the indifference condition of both the left- and right-side pivots, the analysis in this section has invoked the right-side pivot exclusively. The indifference condition for the left pivot disappears from the statement of equilibrium because, in this environment, the interests of M and L are approximately aligned. In all cases, the median legislator uses his proposal right to constrain the agency and force the outcomes farther to the left than the agency would otherwise implement. Because, by definition, the left pivot is to the left of the median, she is made better of by this left movement as well. Moreover, because he is farther from the expected outcome than even the median legislator, she gains more from the constraints than does the median legislator due to his risk aversion. Consequently, if the median legislator is made better off by delegating constrained authority, then so too is the left pivot.

Agency Design 2. We now revisit the question posed in the section on unconstrained delegation. Which agency within the delegation interval maximizes the median legislator’s utility? Surprisingly, it is no longer the agency with an ideal outcome most similar to the median legislator’s. Rather, the median legislator strictly prefers to delegate to a more distant agency, specifically the agency at $a = \alpha_R^c$, for whom equilibrium delegation is unconstrained.

Corollary 3. For the environment in Proposition 2, the median legislator’s utility is strictly maximized when $a = \alpha_R^c$.

This result goes beyond the logic of Corollary 2 for unconstrained delegation. Not only is the median legislator subject to supermajority rule in selecting an agency, but also, even among the agencies that are acceptable to the pivotal legislators (i.e., agencies within the delegation interval), the median legislator would not choose the agency with preferences most like his own.$^{20}$

Why is this? As is evident most clearly in Figure 4, when delegation is constrained, outcome gridlock does not occur. Rather, outcomes fluctuate across time and depend upon realized drift. These fluctuations are costly

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$^{20}$This property also holds for $m \in [s_0 - \gamma, \alpha_R^c]$ and $m > \alpha_R^c$. For $m \in [\alpha_L^c, s_0)$, unconstrained delegation is supportable in equilibrium to an agency clone of the median legislator, by Proposition 1, and delegation is to the nearest agency.
not only to the left pivot but also to all other legislators. Constrained delegation, therefore, produces inefficient outcomes. Corollary 3 establishes that the inefficiency of constrained delegation is sufficiently large that it outweighs the benefit to the median of delegating to an agency with an ideal point closer to the median.

To understand the result, recall that a necessary condition for any deal on delegation is the support of the right pivot, \( R \). For \( R \) to support a statute, he must be at least as well off under its delegation than with the outcome \( o^{ce}_a \) with certainty. For any bill with delegation that does not smooth outcomes perfectly, therefore, \( R \) requires an expected outcome closer to his ideal point than is \( o^{ce}_a \). Such a deal from the median’s perspective, however, produces a worse expected outcome (plus non-smoothed outcomes) than the outcomes from unconstrained delegation to the agency at \( a = o^{ce}_a \). This fact is evident in the thin black line in Figure 4 that depicts the expected outcome across periods and across drifts that are always below \( s_0 \) yet have a lower bound of \( o^{ce}_a \), reaching this value only at \( a = o^{ce}_a \).

It is noteworthy that this result violates the conventional wisdom on the ally principle. This principle says that as the preferences of the principal and the agency become more aligned—as they become allies—more discretion is delegated to the agency (Huber and Shipp 2006, 260). Our result shows that when supermajoritarianism is accounted for, this principle is true only to the right of the right-side pivot’s certainty equivalent, \( o^{ce}_a \). Over the full range for which delegation is possible, the ally principle fails. To the left of \( o^{ce}_a \), the delegation constraints steadily tighten as the interests of the median and the agency increasingly align, the exact reverse of the ally principle.

For agencies with ideal points to the left of \( o^{ce}_a \), unconstrained delegation is not supportable in equilibrium, as we have shown, so the inefficiency of constrained delegation can reasonably be viewed as the price to pay for any delegation at all. An important feature of our result is that the median proposes constrained delegation even for agency ideal points within the interval \([o^{ce}_a, o^{ce}_a] \)—notwithstanding the resulting inefficiency, and notwithstanding the fact that unconstrained delegation and perfect efficiency are supportable in equilibrium (Proposition 1).

The presence of this inefficiency by choice circles back to an issue raised at the outset. As a normative matter, even a democracy that is constrained by the institutions of supermajoritarian lawmaking and separate executive policy implementation can theoretically accommodate change and corresponding drift to eliminate all uncertainty costs. As a positive matter, however, the presence of drift provides opportunities for rent-seeking by legislators with proposal rights to extract a surplus for themselves at the expense of foregone collective benefits from outcome smoothing. Strikingly, these benefits and costs that accrue are not merely distributional as in prior models. Rather, those with agenda rights willfully impose an inefficiency on all legislators and policy makers so that they can produce a better outcome for themselves. To use the analogy of pie-splitting, by choosing statutes with constrained delegation when unconstrained delegation is also feasible, the proposer in the legislature deliberately decreases the size of the pie so that he and like-minded legislators receive larger slices. This form of distribution-information tension is not unique within the delegation literature (Epstein and O’Halloran 1999; Gilligan and Krehbiel 1987), but, unlike earlier works, our model does not require specialization, asymmetric information, or signaling.

**Discussion**

Exogenous forces in the political environment cause the outcomes of fixed policies to drift and, therefore, pose serious challenges for representative governance. One’s perspective on how drift impacts policymaking is distorted if the elements of the policymaking apparatus are viewed in isolation. Specifically, when lawmaking via supermajority is considered in isolation, legislative gridlock ensues in moderate environments and government is unresponsive to the changing world. Similarly, when delegation is considered in isolation, agency shirking or regulatory capture ensues and government may be responsive to exogenous changes in policy consequences, but the nature of its responses is likely to be inconsistent with the preferences of elected representatives. By characterizing formally a conception of drift and embedding it in a single dynamic model that integrates both gridlock and delegation, the resulting whole model is greater than the sum of its isolated parts. Indeed, each of its two major components—gridlock and delegation—tend to address the other’s stand-alone shortcoming. Delegation to a moderate agency does not preclude all statutory gridlock, but it ameliorates its pernicious consequences by breaking both policy and outcome gridlock should statutes prove to be unchangeable. In a dynamic model, then, a more favorable governmental response to drift is achieved than the supermajoritarian legislature can enact by itself, and more representative outcomes are achieved than an unconstrained agency would enact by itself.

With an optimistic outlook for continuation of this research agenda, we conclude by identifying some questions and concerns that, while not addressed directly, are foreshadowed by our framework.
First, from the vantage point of U.S. politics, the president is conspicuously absent from our analyses. Our silence about the policymaking role of the chief executive, however, is born out of convenience rather than ignorance. Along with McCarty and Razaghian (1999), Moe (1990), Moe and Howell (1999), Lewis (2008), and many others, we affirm the importance of the president in bureaucratic policymaking via his appointment powers and other, more informal rights and resources. However, this concession does not render our framework analytically useless in presidential accommodation. As a first approximation, bringing the president into the discussion is a simple matter of reinterpreting one of our legislative pivots’ ideal points, $l$ or $r$, as president determined rather than legislature determined.\textsuperscript{21} Another, more ambitious extension to which our framework is also amenable is the modeling of appointments with our agency $a$ being an endogenous choice. So, while models of appointments are not new, their reconsideration within the context of the dynamics of drift is likely to provide interesting points of contrast from existing exclusively one-shot (and overwhelmingly complete-information) appointment games.

A similar point holds for the inclusion of courts. Shapiro (2003) offers a persuasive, empirical based critique of modeling efforts such as ours in conjunction with his description of delegation in the United States, the United Kingdom, and France. He argues that the standard principal-agent framework is, at best, a loosely applicable metaphor, and he argues for a more salient role of the courts in theories of delegation. An adaptation of our model to address this part of Shapiro’s critique would be to characterize courts as an added third stage to our current two-stage model of drift. Of the several extant models that incorporate the judicial branch in a monitoring or enforcement capacity (e.g., Gailmard 2002; Shipan 1997), none has addressed the relationship between supermajoritarianism, drift, and delegation. Such extensions seem both feasible and promising.

The variable ability of the legislature to constrain agencies led us to consider constrained as well as unconstrained delegation. In principle, there is no restriction on the set of policies to which the legislature can restrict the agency’s choice. Delegation may be confined to a set of distinct points, to multiple disjoint intervals, or to some combination of points and intervals. It is well known that the optimality of interval delegation depends on the distribution of uncertainty—in our case, the distribution of drift—and the preferences of the players (Alonso and Matouschek 2008). With binary drift, the principal can improve her policy outcome by delegating via three distinct points rather than an interval, but the basic forces and logic are identical to those characterized here. We chose the simpler case of binary drift and interval delegation to more transparently capture the underlying forces and, therefore, view this as a special case of the more general problem. In ongoing work, we generalize the model to allow for a continuous, and possibly asymmetric, distribution of drift and characterize how previous results on interval delegation may themselves break down in a dynamic setting with drift.\textsuperscript{22}

Other topics on the agenda include extraction of predictions pertaining to the size of winning coalitions, consideration of changes in preferences as opposed to changes in policy mappings as the exogenous phenomena of interest,\textsuperscript{23} modeling longer time horizons and a larger class of policy-to-outcome mappings, and a more thorough comparison of rationales for delegation, including most notably the expertise-based theories that have been dominant to date.

A final, less well-defined but much talked about area for future research is on the dynamics of policymaking in the presence of an enduring commitment problem. Commitment is invariably at the core of delegation, although the topic does not often surface in the literature. The issue is this: If the legislature at time $t$ delegates to an agency with different preferences in order for the agent to (variously) exert effort, acquire expertise, exercise discretion, and set policy, what is to keep the legislature at time $t + 1$ from reneging on its grant of discretion and correcting whatever form of agency expropriation the delegation elicited? To the best of our knowledge, the analysis in this article speaks to—and solves—this very general commitment problem in a previously unrecognized way. Under specified conditions, a supermajoritarian legislature in a changing world can effectively commit to conferring a statutory grant of executive discretion precisely because it is supermajoritarian.\textsuperscript{24} Meanwhile and furthermore, supermajoritarianism combined with delegation enables

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\textsuperscript{21} More accurately, the analytically appropriate pivot would be the interior-most of the president’s ideal point or the two-thirds veto pivot’s ideal point.

\textsuperscript{22} Allowing legislators to have different beliefs over drift changes the model to one with expertise, a setting from which we have explicitly sought to differentiate our model. Nevertheless, the interaction of our model with expertise is of interest, and we address the point momentarily.

\textsuperscript{23} “The preferences of whom?” is an obvious first question. It could be the public’s; it could be Congress’s; it could be the agency’s (as in exogenous or endogenous parameter); or, to tie in best with a voluminous but mostly overlooked literature in the bureaucracies field, it could be the president’s.

\textsuperscript{24} A recent working paper by Graham and Bernhardt (2012) also explores the benefits of supermajoritarianism, focusing instead on how it constrains the legislative median from deviating too far from the polity median over time.
policy responsiveness through executive action, not only in the presence of—but actually due to—legislative gridlock. It could be that the underlying processes of institutional development are random accidents of evolution, or it could be that they are products of rational calculations. We are agnostic about these possibilities. Suffice it to say, however, that, in the first case, the supermajority solution to the commitment-to-delegation problem is fortuitous; in the latter case, it is ingenious.

References


Supporting Information

Additional Supporting Information may be found in the online version of this article at the publisher’s website:

Supporting information

Formal proofs for propositions and lemmas.