Storable Votes and Judicial Nominations in the U.S. Senate *

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Abstract

We model a procedural reform aimed at restoring a proper role for the minority in the confirmation process of judicial nominations in the U.S. Senate. We propose that nominations to the same level court be collected in periodic lists and voted upon individually with Storable Votes, allowing each senator to allocate freely a fixed number of total votes. Although each nomination is decided by simple majority, storable votes make it possible for the minority to win occasionally, but only when the relative importance its members assign to a nomination is higher than the relative importance assigned by the majority. Numerical simulations approximate the composition of the 113th and 114th Senates. Under plausible assumptions motivated by a game theoretic model, we find that a minority of 45 senators would be able to win about 20 percent of confirmation battles when the majority party controls the presidency, and between 40 and 60 percent when the president identifies with the minority party. For most parameter values, the possibility of minority victories increases aggregate welfare.

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1 Introduction

On November 2013, a majority of the Senate exercised a parliamentary maneuver to impose majority cloture for all executive branch and judicial nominations below the Supreme Court level, effectively eliminating filibusters of such nominations. The maneuver—colloquially known as the *nuclear option*—followed a decade-long battle over the obstruction of nominees to the federal judiciary. It had been threatened at various times by alternating partisan majorities but had not been executed, in part because of concerns about imposing majority rule in an institution accustomed to rule by supermajorities, if not by consensus.

Its effects were immediate and, up to the time of this writing, predictable. In 2014, President Obama and the Democratic majority in the Senate succeeded in confirming 89 federal judges, the highest single-year total in 20 years. After the Republicans took over as the majority party in the Senate, the pace of confirmations slowed sharply. The first four months of 2015 saw only two confirmations of judicial nominees, compared, for example, to 15 when Democrats controlled the Senate in the first quarter of 2007, the start of George W. Bush's last two years in office.[1] Although the new majoritarian regime left many of the minority's procedural prerogatives intact,[2] the shift in power in favor of the majority party seems clear in the data.

But we should pause to ask whether or not it is desirable to make the Senate a purely majoritarian institution, both with respect to outcomes and in terms of the political philosophy guiding the design of American democratic institutions?[3]

In line with a long literature (e.g., McGann 2004), this paper starts from the premise that the minority has a legitimate, important role in confirming nominations. The expression of intense sentiment by the minority once figured prominently in filibuster battles, and its expression was valued by the majority because it provided an informative signal about public opinion (Wawro and Schickler 2006). Yet, the power of the minority should not trump the majority's right to govern; it should consist in the institutional recognition of principled support or opposition to specific nominees. The abuse of the filibuster in recent years, employed by both parties primarily as a tool for obstruction, makes it clear that a different set of procedures is needed. The puzzle then is how to design transparent, formal institutions that balance the minority's right to be heard with the majority's right to rule.

We contend that a solution to this puzzle does exist—one that should appeal to senators whether they are in the majority or the minority party. The reform that we explore offers to the parties a mechanism to reveal the salience of their preferences, and grants the minority the power to prevail on some nominations, but only on those that the minority considers a higher priority than the majority does. It effectively institutionalizes the mode of conflict resolution that the Senate has embraced throughout much of its history.

Specifically, we investigate how the Senate could employ *Storable Votes* to confirm or reject judicial nominees on slates submitted to the chamber. Storable votes is a voting system that endows voters with a fixed number of total votes, but lets them distribute the votes freely over different decisions(Casella 2012). Each decision is then made according to the majority of votes cast. When applied to a slate of nominees, storable votes allow the minority to concentrate its votes on specific nominees, and thus make it possible for the minority to prevail on a fraction of the slate, but at the cost of casting fewer votes on the remaining names, and thus letting the majority prevail on those.

The idea of accepting the minority's objections to majority nominees in "exceptional cases" has been at the core of the bipartisan agreements that have defused the worst crises over the filibusters of nominations in recent years.[4] Implementing the reform through a transparent procedure shields agreements from the arbitrariness and volatility of political alliances and convenience. At the same time, a well-designed voting rule guarantees that revealing the order of priorities sincerely is in the best interest of each senator.

Over the years, commentators have proposed various reforms to address problems associated with the filibuster, from requiring that filibustering senators actually take and hold the Senate floor, to changing the voting threshold for invoking cloture over a sequence of votes (Committee on Rules and Administration 2010). The procedural innovation that we explore shares the same spirit: blocking a nomination should be costly, and the willingness to bear that cost measures the intensity with which the defeat of a nominee is desired. But the cost should not be imposed on the full Senate, as would be the case with "talking filibusters", and the procedural rule should not depend on the size of the minority or on brinkmanship, as would happen with variable voting thresholds. With storable votes, the cost of blocking a nomination is the number of votes withdrawn from other nominations; such cost is voluntary, since the votes could be spread equally, and is borne by the side who chooses to cast multiple votes on a single nomination. In addition, and crucially, while storable votes allow the minority to prevail occasionally, they treat everyone equally, and thus need not be redesigned when the size or identity of the minority changes.

In this paper, we explore how storable votes could be implemented for confirmation of nominations to federal district and circuit courts. After discussing the basic theoretical properties of the voting scheme, we simulate confirmation battles over slates of five nominees, choosing relevant parameter values to mimic the context of the 113th and 114th Senates. Because storable votes take into account the intensity with which different nominations are supported or opposed, voting results reflect the extent of agreement about which nominations should be considered priorities, both within each party and across the two parties. Our simulations show that a higher correlation of intensities *within* parties—higher agreement on which nominations are most important—results in more coordinated voting and favors the minority, whose smaller numerical size makes coordination essential. On the other hand, stronger correlation in intensities *across* parties—when the nominees the president's party most wants to confirm are those the opposition most wants to block—favors the majority, because the larger party tends to win when the two parties prioritize the same nominees. When both types of correlations are high—the case we consider most realistic for today's Senate—our results show that a minority of 45 senators can prevail on about 35 percent of nominations on any given slate. In line with previous results on storable votes, we find that minority victories are generally welfare-increasing: because the minority only prevails on nominations it ranks more highly than the majority does, minority gains tend to weigh more than majority losses. A simple measure of utilitarian efficiency is higher than under a pure majoritarian system.

A key point of concern is whether the slate of nominees can be manipulated to induce the opposing party to waste votes. Can a president name a nominee so objectionable to the opposition that all its votes are concentrated on defeating him, guaranteeing that the other nominations are confirmed? We find that, indeed, placing on the slate one or more "decoy" nominees can be advantageous. In our simulations, in a 55/45 Senate a majority-party president can limit the number of minority blocks to not more than 20 percent, and a minority-party president can obtain the confirmation of up to 60 percent of his nominees. (As mentioned above, both numbers are 35 percent when the slate instead is exogenous). Decoys work, then, but only if the remaining nominees are less polarizing. This is a direct effect of storable votes: because the number of votes cast depend on priorities, a decoy nominee can concentrate the votes of the opposition only if the others nominations are on the whole acceptable. As a result, storable votes exercise a moderating effect on the list of nominees.

No such moderation need exist under a simple majority system. When the president belongs to the majority party and can count on the support of the Judiciary Committee, all president's nominees can be confirmed. However, if the president exploits his party's control of the Senate to nominate polarizing candidates, the cost to the minority can be high: in our simulations, overall welfare falls substantially, relative to storable votes. When the president belongs to the minority party, the imperatives of government must result in some confirmations, even under a majoritarian system. The most likely outcomes seem to us likely to be similar to those obtained under storable votes, where the agenda and voting power of the minority remain constrained by the bargaining power of the Judiciary Committee. But, in contrast to storable votes, the nature and number of the agreements under pure majority rule remain difficult to predict, and are strongly affected by political contingencies.

Without unreasonable claims of realism for our simulations, a comparison to actual confirmation rates may nevertheless be instructive. The parameters we use are better suited to nominations of circuit judges. For circuit judges, under the filibuster, confirmation rates for the last three presidents have been 74% for Clinton, 73% for George W. Bush, and 83% for Obama (measured in June of their sixth year. See Alliance for Justice 2014). Our simulations generate rates between 60 and 80 percent, depending on the minority or majority status of the president's party, and the cohesion of the two parties. These rates are similar to those observed but, most importantly, are generated without obstruction and delays: swift resolution of confirmation battles is a benefit of the institutional recognition of the power of the minority.

The paper is related to three separate strands of literature. For its subject matter, it bears an immediate link to the study of the filibuster in the Senate (Burdette 1940; Binder and Smith 1997; Wawro and Schickler 2006; Koger 2010, among many others). However, our paper is not an analysis of the filibuster's effects and causes; rather, it investigates how an alternative institutional design can better balance minority rights and majority rule. In addition, our approach offers a different perspective from past work on pivotal players in the confirmation process (Moraski and Shipan 1999; Johnson and Roberts 2005; Krehbiel 2007; Rohde and Shepsle 2007; Primo, Binder, and Maltzman 2008; Binder and Maltzman 2009). Standard spatial models that focus on pivotal players and assume complete information typically do not produce rejected nominees in equilibrium. In such models, it is known in advance that a certain type of nominee will not be confirmed and thus the nomination will not occur in the first place.[5]

Our exploration of storable votes uses insights from the study of the design of voting rules, and in particular from the design of rules aimed both at protecting minorities and at recognizing and giving weight to intensity of preferences. Thus, our work is also related to the literature on institutions for minority representation (for example, Grofman, Handley, and Niemi 1992; Guinier 1994; Bowler, Donovan, and Brockington 2003; Dahl 2003, 1956; Buchanan and Tullock 1962; Schwartzberg 2013) as well as to theoretical analyses of alternative allocation mechanisms or fair division (Brams and Taylor 1996; Moulin 2004; Jackson and Sonnenschein 2007; Hortala-Vallve 2012). Relative to this literature, and in particular to previous work on storable votes (Casella 2012), an important goal of this paper is to move the debate from the theoretical analysis of abstract examples, simple enough to be analytically tractable, to the practical question of implementation in realistic environments, in response to concrete, important problems. There is widespread belief that the system of confirmation of judges is broken (Binder and Maltzman 2009; Smith 2014). Scholars who study systematically and rigorously the effects of institutions in politics should play an active role in the search for solutions.

Methodologically, that means accepting the complexity of real world institutions. The voting game at the heart of our approach is related to asymmetric Colonel Blotto games, a famously difficult class of problems.[6] If we want the model to be faithful to the large number of individuals in each party and, especially, to the possibility of different correlations in priorities within and across parties, identifying fully optimal strategies becomes, as far as we can tell, impossible, not only for the researchers but also for the agents represented in the model. Thus the choice is between imposing radically simplifying assumptions and losing the richness of the setting we want to study, or restricting possible behavior to a set of rules-of-thumb, disciplined by our understanding of simpler versions of the game. It is this second approach that we adopt in this paper. We analyze the choice among the possible rules-of-thumb and the final outcomes of such choices through numerical simulations.

The third related strand of literature concerns the methodology of computational models. Here our work shares many of the motivations outlined by De Marchi and Page (2008). Note an important benefit: the use of simple behavioral rules allows us to evaluate the sensitivity of the results to the different rules—that is, to a whole set of "reasonable behaviors", a robustness check that seems critical for establishing a basis for policy recommendations.

The paper proceeds as follows. The next section describes storable votes and discusses how they could be applied to judicial nominations. Section 3 presents the theoretical model underlying the numerical simulations. The simulations are then discussed in section 4. Section 5 discusses the endogenous composition of the slate of nominees, and section 6 concludes. A short Appendix provides the proof for the proposition stated in Section 3.

2 Applying Storable Votes to Judicial Nominations

Storable votes are designed to grant each voter increased influence over decisions he considers priorities, at the cost of reduced influence over the other decisions. The idea is analyzed at length in Casella (2012).[7] In its application to judicial nominees, the scheme would work as follows.

Our focus is on nominations to federal district and circuit courts. The vetting of the nominees by the Senate Judiciary Committee remains unchanged. Once the committee decides to report nominees to the full Senate, however, this is done not as a single name at an arbitrary time, but on a slate of several names, with slates presented at fixed intervals during the year.[8] Each slate is comprised of nominees to the same level of the federal judiciary—either all nominees to district courts, or all nominees to circuit courts. On average, the last three Presidents have submitted about ten nominations per year for circuit courts appointments, and between 40 and 45 for district courts appointments (Alliance for Justice 2014). Thus, for concreteness, suppose that circuit court slates would include five nominees and be presented to the Senate twice during the year; slates of nominees to district courts would include ten names and be presented every three months, from March to December. Each name is nominated for a specific court vacancy. As in the current system, the only question is whether or not each nominee should be confirmed. There is no competition among nominees.

Once a slate of nominees is reported to the full Senate, debate on all the nominees takes place. The length of debate over each nominee can be mandated beyond a specified minimum amount of time, but below a specified maximum, barring unanimous consent to deviate.[9] When debate on all nominees on the slate is concluded, the nominations proceed to an up-or-down vote on the floor.[10] The innovation is the use of storable votes at this stage. Over the full slate of names, each senator has a total number of votes equal to the number of nominations. A senator can cast as many of those votes as desired on any individual nomination, either in favor or against, as long as the sum of votes cast is below the total number of votes at his disposal for this slate. A nominee is confirmed if the number of favorable votes is higher than the number of negative votes, while, following the Constitution, ties are resolved by the vice-president. If a nomination fails, it must be withdrawn and cannot be resubmitted. The senators vote on each nomination in turn; to avoid sequence effects, senators record their vote privately during the voting process, but individual votes are revealed after voting is complete.

The logic behind storable votes is transparent. First, by allowing a senator to concentrate her votes, storable votes can increase the senator's influence on nominations she considers priorities, at the cost of lower influence on nominations she cares less about. Second, by creating a distinction between the majority of *votes* and the majority of *voters*, storable votes allow the minority to win occasionally, but only on those nominations to which the minority assigns higher priority than the majority does, and only with a frequency that is correlated positively to the size of the minority group. Third, although storable votes make minority victories possible, they treat every individual identically: every senator, regardless of party, is granted the same number of votes, every senator has identical latitude over the votes' use, every vote is weighted equally, and every nominee is treated symmetrically. As a matter of principle, equal treatment corresponds to our ethical imperatives; as a matter of practice, it implies that the voting procedure need not be modified if the size of the minority changes, or if the president's party acquires or loses the majority in the Senate. Note that mandating a maximum length to debate but coupling it with storable votes grants the minority the opportunity to prevail, at times, in the final up-or-down vote, but eliminates the delays and obstruction associated with the filibuster.

One clarification may be useful. By allowing voters to cast multiple votes on a single nominee, storable votes resemble *cumulative voting*, a voting system used by some corporate boards and local jurisdictions, and long advocated in the literature as providing effective protection of minorities.[11] The difference is that cumulative voting applies to a slate of candidates who are *all* competing for the same positions—all positions are equivalent, and there are fewer positions than candidates. With storable votes, instead, each candidate is only being considered for a specific position and is not competing directly with the other candidates for that position. There are as many positions as there are nominees, and any nominee is competing only against his own rejection.[12]

But what effect would such a system have in practice? Addressing this question requires the discipline of a formal model. Its precise definitions will help us design and interpret the numerical simulations that are the core of this paper. In particular, the equilibrium of the model in simplified scenarios will guide the choice of the rules-of-thumb that will be used in the simulations.

3 The Model

A legislature of N members decides on a set of T nominations, each of which can either be confirmed or not. Member i's preferences over nomination t are summarized by a value $\mathrm{v}_{it} \in [-1, 1]$. A positive value indicates that the member is in favor of the nomination, a negative value that he is against. If the outcome of the vote on nomination t is as member i desires, then i derives utility $u_{it} = |\mathrm{v}_{it}|$; if the outcome is the opposite, then $u_{it} = -|\mathrm{v}_{it}|$.[13] Thus, preferences are summarized by both a direction (in favor or against) and the importance attributed to obtaining the preferred outcome. We call $v_{it} = |\mathrm{v}_{it}|$ the *intensity* of i's preferences. Preferences could be interpreted in spatial terms, normalizing at $\mathrm{v}_{it} = 1$ ($\mathrm{v}_{it} = -1$) the utility from confirming a member's ideal (worst) nominee. As the distance of the nominee from the member's ideal point increases, v_{it} declines, eventually becoming negative, at which point the member opposes the nomination.[14]

Preferences are separable across nominations, and i's utility over the full set of nominations is given by $U_i = \sum_t u_{it}$. We call welfare (W) the sum of realized utilities, over all members and all nominations: $W = \sum_i U_i$. Maximal possible welfare (W^*) corresponds to the sum of utilities when each nomination is decided in the direction preferred by the side with higher aggregate intensity. The normalized efficiency measure we will report (Ω, which we call the *welfare index*) equals the ratio of realized to maximal possible welfare: $\Omega = W/W^*$ and allows comparisons across different scenarios.[15]

The legislature is composed of two groups of different sizes, the majority, of size M, and the minority, of size $m < M$. We will use M and m to indicate both the labels and the sizes of the two groups. In what follows we will report welfare measures for each party. As is the case for the whole legislature, the welfare index for party $p \in \{m, M\}$ is given by $\Omega_p \equiv \left(\sum_{i \in p} U_i\right) / W_p^*$ where W_p^* is the maximal possible welfare for party p, i.e. its total utility if it won all nominations, or $W_p^* = \sum_{i \in p} \sum_t v_{it}$.

The two groups m and M differ systematically in their preferences. We suppose that all members of the president's party support all nominations, and all opposition members oppose them: $\mathrm{v}_{it} > 0$ if $i \in g^P$, whereg^P is the president's party, and $\mathrm{v}_{it} < 0$ otherwise. The assumption of complete polarization is extreme, but is equivalent to a scenario in which senators who agree with the opposite party abstain rather than use their votes against their own party.[16]

The direction of preferences is thus publicly known. Intensities, on the other hand, are private information. What are commonly known are their stochastic properties: each member's intensities are independent across nominations, and for each nomination t, the members' profile of intensities $v_t = \{v_{it}\}_{i=1\ldots N}$ is a random variable distributed according to the distribution $\Gamma_t(v)$ (the individual marginals are denoted $\Gamma_{it}(v_{it})$). For most of the analysis, we assume that intensities are identically distributed across nominations: $\Gamma_t = \Gamma$, and for each nomination, we denote by Σ the covariance matrix of members' intensities.[17]

With a simple majority voting rule, the majority cannot be defeated. The minority, however, can prevail on a nomination—i.e., block a nomination by a majority-party president, or achieve confirmation of a nominee selected by a minority-party president—if the vote is held with storable votes. Each member holds a total of T votes and can cast as many of these votes as he wishes for or against any nomination. Members record their votes privately over all nominations; when voting is concluded the outcomes as well as the individual votes are made public. Each nomination is decided according to the majority of votes cast; in case of a tie, we suppose that the nomination is approved.[18]

No voter can gain from casting votes against his preferred direction, and thus we assume that voters vote sincerely. The strategic question that every member i faces is the number of votes to cast on any individual nomination t, a variable we denote by x_{it} where $x_{it} \geq 0$ and $\sum_t x_{it} = T$. Formally, the equilibrium concept is Bayesian Nash equilibrium. We denote the equilibrium vector of votes cast by i as $x_i^* = [x_{i1}^*, x_{i2}^*, .., x_{iT}^*]$; $\mathbf{x}_{-i}^*$ denotes the equilibrium matrix of votes cast by all other voters; EU_i indicates i's expected utility, and v_i voter i's vector of intensities over all nominations. Then, for given m, M, and T, $x_i^*(\mathbf{x}_{-i}^*, v_i, \Gamma) = \arg\max_{x_i} EU_i(x_i, \mathbf{x}_{-i}^*, v_i, \Gamma)$ for all i.

The properties of the equilibrium depend strongly on $\Gamma(v)$, the joint distribution of intensities, and particularly on its covariance matrix Σ. If intensities are independent across members, and the distribution of each member's intensity, $\Gamma_i(v)$, is atomless, then we know that an equilibrium exists.[19] Equilibrium strategies, however, are not easy to characterize: each individual strategy is T-dimensional, and the different sizes of the two parties make the game asymmetrical. Most importantly, the independence assumption is not well-suited to our context. We want to allow different courts to be considered more or less important, and different nominees more or less polarizing—realistic assumptions that are captured in the model by correlation in intensities.

Correlation, however, substantially complicates the model, because the incentive to cast multiple votes on a single nominee depends on the number of votes other members are expected to cast. In this section, we limit ourselves to two special cases, with the goal of providing an intuitive understanding of the equilibrium strategies. We will allow for an arbitrary pattern of correlations in our numerical simulations.

Suppose, then, that intensities are: (i) independent across the two parties, and (ii) either independent (model I) or fully correlated (model C) within each party. Recall in addition that intensities are independent across nominations.

In model C, members' interests within each party are perfectly aligned; if each party coordinates its strategy so as to maximize the party's aggregate payoff, given the coordinated strategy of the other party, then no individual member can gain from deviating.[20] Thus we can represent the n-person game described by model C through a simpler 2-person game where the players are the two parties. We label this game as $C2$ and denote the strategies by x_M and x_m. As shown in Casella, Palfrey, and Riezman (2008), there is a simple equivalence between the equilibrium strategies of the $C2$ game and the equilibrium strategies of the original C model. In particular, for given m, M, and T, there exist equilibrium strategies of model C such that for all t, $\sum_{i\in m} x_{it}^*(v_{it}, \mathbf{x}_{-i}^*, \Gamma) = x_{mt}^*(v_{mt}, x_{Mt}^*, \Gamma)$ and $\sum_{i\in M} x_{it}^*(v_{it}, \mathbf{x}_{-i}^*, \Gamma) = x_{Mt}^*(v_{Mt}, x_{mt}^*, \Gamma)$, where $v_{gt}= \{v_{it}\}_{i\in g}$ is the vector of group g members' values over nomination t. In words, model C has an equilibrium such that the aggregate number of votes cast by all members of a group over each nomination equals the number of votes that each group leader casts in equilibrium in the 2-person game. We can thus call *equilibrium group strategies* of model C the equilibrium individual strategies of the $C2$ game. We can state the following result:

Proposition: Monotonicity. *We call a strategy* monotonic *if x_{it}, the number of votes cast by i on nomination t, is monotonically increasing in v_{it}. For any N, M, m, T, and Γ, model I has an equilibrium in monotonic individual strategies; model C has an equilibrium in monotonic groups strategies.*

The proposition is proved in the Appendix. It highlights the role of monotonicity, a property at the heart of storable votes' intuitive appeal. Monotonicity states that a voter—or, in the case of model C, a party—will cast more votes on decisions the voter or party considers higher priorities. The following example makes clear how it applies.

Example. Suppose $M = 3$, $m = 2$ and $T = 2$. For each nomination and all voters, the marginal distribution $\Gamma_{it}(v_i)$ is Uniform over the support $[0, 1]$ Call $\overline{v}_i$ ($\underline{v}_i$) the highest (lowest) of the two realized intensities for voter i, and $\overline{v}_g$ ($\underline{v}_g$) the highest (lowest) of the two realized intensities for group $g \in \{m, M\}$.

(i). In model I there is an equilibrium where each minority member i casts both votes on $\overline{v}_i$ if $\overline{v}_i \geq 1.36\underline{v}_i$, and casts one vote on each nomination otherwise; each majority member j casts both votes on $\overline{v}_j$ if $\overline{v}_j \geq 1.05\underline{v}_j$, and casts one vote on each nomination otherwise. The majority prevails on both nominations with 54 percent probability, but with 23 percent probability, the minority wins on each of the two nominations, while losing the other. Realized welfare as a share of maximal welfare, Ω, is 89 percent.[21] By way of comparison, with simple majority voting, the majority wins on both nominations, and the share of maximal welfare is 88 percent.

(ii). In model C there is an equilibrium where the majority casts four votes on $\overline{v}_M$, and two votes on $\underline{v}_M$; the minority casts all its four votes on $\overline{v}_m$. Thus, with 50 percent probability the minority prevails on one nomination, and with 50 percent probability it loses on both.[22] The welfare share Ω is 85 percent (versus 77 percent with majority voting).

The voting patterns in the example are intuitive: in both models, voters concentrate their votes on the nomination to which they assign higher intensity. In model I, concentration requires that the wedge in intensities be large enough; in model C, concentration always occurs, although the majority never needs to concentrate *all* of its votes.

Monotonicity is a simple, intuitive result but has important implications. The minority can prevail on a nomination by concentrating its votes but is able to win only if its size is not too small, if its members agree on the nomination's importance, and if they consider it a higher priority than majority members do.[23] Thus, while the voting scheme makes minority victories possible, they remain constrained in number and in scope. When they do occur, they concern instances in which the minority's strong preferences are matched by more ambivalence on the majority's side, and thus both equity and efficiency arguments support the minority prevailing. Note that the improvement in welfare over majority rule increases with party cohesion–i.e. is higher in model C than in model I: in model C the difference in intensities between the two groups associated with minority victories is starker. In the remainder of the paper we explore whether these conclusions still obtain when we build in additional complexities that are central to the Senate confirmation process.

4 Simulating Storable Votes in the Senate

In what follows, we parametrize the model with the goal of approximating the compositions of the 113th and 114th Senates. There are 100 senators ($N = 100$), 55 in the majority party, and 45 in the minority party ($M = 55$, $m = 45$). We suppose that senators vote on a slate of five judges ($T = 5$). Ex ante, before specific nominations are put forth, the intensity of each senator's preference over each nomination is distributed uniformly over $[0, 1]$.[24] Each senator's intensities are independent across nominations. For each nomination, we allow for arbitrary correlation among the intensities of different senators, within and across parties. We describe below our methodology and then our results as we increase the complexity of the environment. As we enrich the model progressively, we build our understanding of its workings, a good procedure in general and a particularly important one when using numerical simulations. We begin with an exogenous slate of nominations. Later we will allow for endogenous nominations, i.e. for nominations that are strategically chosen, taking into account the voting rule.

4.1 Rules of thumb

In the example described above, strong simplifying assumptions allowed us to characterize the equilibrium of the voting game. However, such simplifying assumptions fall far short of a complex body like the Senate.[25] We adopt here a different approach, and model the senators' allocation of votes to nominations through a restricted set of reasonable rules-of-thumb.[26]

We specify a number of requirements. First, we impose monotonicity—more votes are cast on higher-intensity nominations—in line with the broad intuition behind storable votes and the behavior observed in previous laboratory studies. Second, we suppose that the number of votes cast depends, for each voter, exclusively on the ranks of the voter's realized intensities, as opposed to their precise cardinal values.[27] Third, we suppose that all voters in the same party adopt the same rule (keeping in mind that following the same rule does not amount to choosing the same action.[28]) Given these requirements, we identify rules that are mutual best responses at the party level: all members of a party choose the rule that maximizes the party's aggregate welfare, given the rule chosen by members of the opposite party. Beyond keeping the analysis tractable, this specification recognizes the role of the party leadership and mirrors the dramatic rise in party unity over the past several decades.

With five nominations and five votes, there are seven possible monotonic, ordinal rules, ranging from casting one vote on each nominee to concentrating all five votes on the nominee to whom the voter attaches the highest intensity. We represent them in Figure 1 and name them progressively in order of increasing vote concentration. The horizontal axis is the ordered rank of intensities for an individual member using the rule, starting with the highest: 1 corresponds to the nomination to which the senator attaches the highest value. The vertical axis indicates the number of votes cast for each nomination.

In what follows, we simulate the results of adopting these different rules party-wise. We begin by specifying assumptions on the correlation of senators' values. Then we randomly generate 45 vectors of five values for the minority and 55 vectors of five values for the majority from the relevant joint distribution. We then compute the voting results, assuming that all senators within a party adopt one of the rules-of-thumb described above. In each case, we calculate the number of minority victories, and each party's welfare index.

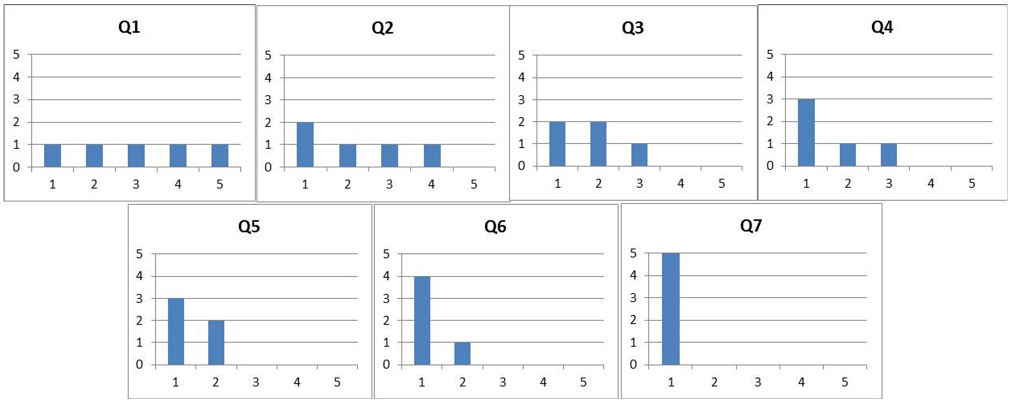

Figure 1: *Rules of thumb.* Individual voting rules with five nominations, as a function of value ranks

We replicate this procedure 1000 times, simulating 1000 different slates of five nominations—i.e. 1000 different value draws. The average number of minority victories and the average welfare index for each party are then a reliable estimate of the expected effect of storable votes for each behavioral rule. Among the different rules, we then focus on those that are mutual best responses: each party's rule is a best response to the opposite party's rule.[29]

4.2 The frequency of minority successes

Given the nature of storable votes, the results will be sensitive to the extent of coordination in voting that each party achieves. To build intuition for the model, consider first the case in which intensities are fully independent across senators, both between and within each party. The assumption is unrealistic, but its simplicity provides a useful benchmark for understanding the effects of the different rules-of-thumb.

With full independence, two members of the same party will typically have different intensity rankings over the nominations. This dispersion must make minority successes relatively rare: it is difficult for the minority to achieve the level of coordination that would allow it to overcome the numerical superiority of the majority. How likely this is to occur depends on the rules-of-thumb followed in casting votes.

Figure 2 plots the expected number of minority victories—the expected number of nominations over which the minority preferences prevail, out of the five presented to the Senate—depending on the rule-of-thumb used by the two parties. Rules are denoted with an upper-case for the majority, and a lower-case for the minority, and are ordered so as to make the figure easy to read across the different cases considered in this section. Recall that higher-numbered rules indicate higher concentration; thus, concentration is highest, for both parties, in the lower-right corner, and lowest in the back-left corner. Again to keep the figure easy to read, we report results for four rules only for each party: the four highest concentration rules for the minority, and the four lowest concentration rules for the majority. These rules include the mutual best response rules, highlighted in yellow in the figure: $Q1$, the least concentrated rule for the majority, and $q7$, the most concentrated rule for the minority.

For any rule adopted by the majority, minority senators prevail with higher probability if they concentrate their votes fully (following rule $q7$). The minority can then expect to win

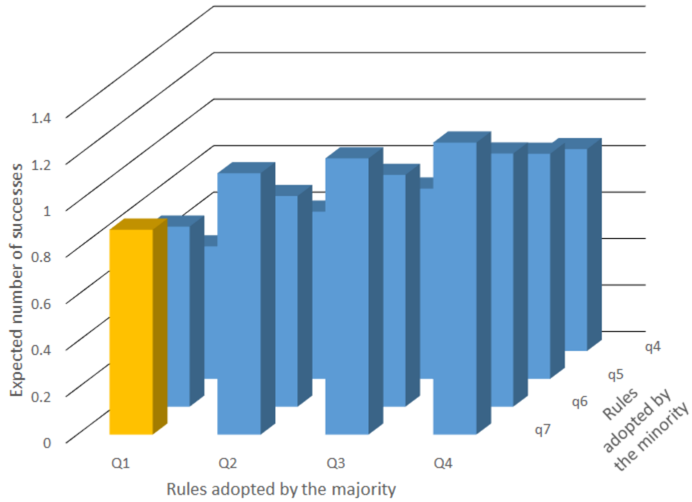

Figure 2: *Expected number of minority successes*, as function of the voting rules used by the two parties. Intensities are independent across nominations, across and within parties.

between 0.9 and 1.3 nominations (i.e. a frequency of success between 18 and 26 percent), depending on the rule followed by the majority. For any rule followed by the minority, majority senators minimize the expected number of minority victories by spreading their votes (following rule $Q1$), and benefiting from the majority's larger size. The majority can then restrict the expected frequency of minority success between 4 and 18 percent, depending on the minority's rule. When the two parties adopt mutual best response rules—represented by the yellow column—the expected number of minority victories is 0.9, or a frequency of 18 percent.

Consider now a more realistic scenario where we relax the assumption that intensities are independent within parties. If party members agree on their priorities, they can succeed in concentrating votes without each individual senator having to cast all his own votes on a single nomination. Thus, minority senators will be able to choose more dispersed voting rules, while forcing the majority to concentrate its own votes more.

Formally, call ρ the linear correlation in values within each party, and to be concrete, suppose $\rho = 0.5$. Across parties and across nominations, values continue to be independent.[30] Figure 3 reports minority successes for the different rules-of-thumb (again omitting, for ease of reading, rules $Q5$, $Q6$ and $Q7$, for the majority, and $q1$, $q2$ and $q3$ for the minority). The highlighted column corresponds to the mutual best response rules.

A comparison with Figure 2 highlights two facts. First, for all combinations of behavioral rules the number of minority successes is now higher: several columns reach beyond 2 and none is below 1. Second, the incentive to concentrate votes, for the minority, or to disperse them, for the majority, is more muted: minority successes do not monotonically decline when moving away from the front-right corner. When the two parties best respond to each other, the minority follows the third most concentrated rule ($q5$), and the majority follows the third most diffuse rule ($Q3$). As expected, by achieving concentration in votes through preferences alone, intraparty correlation reduces the divergence in the two parties' strategies. The expected number of minority victories is just below 2 (1.98), an expected frequency of 40 percent, more than double the number in the independent case. Correlation in values helps

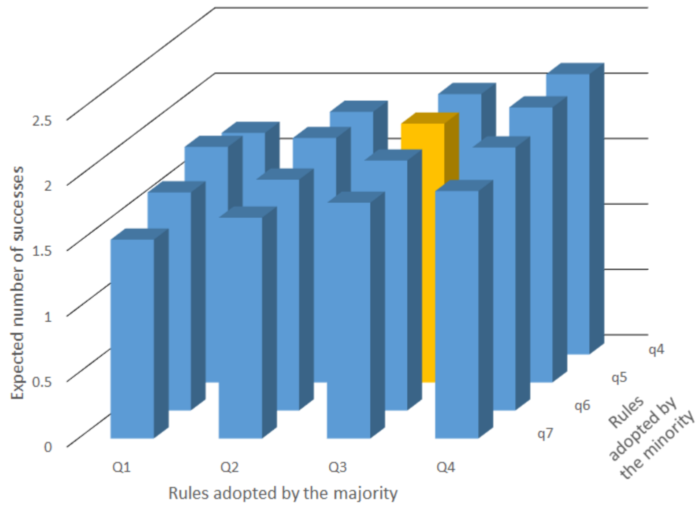

Figure 3: *Expected number of minority successes*, as function of the voting rules used by the two parties. Intensities are independent across nominations and across parties, but are correlated across senators within a party: $\rho = 0.5$.

coordination and benefits the minority.

It seems clear, however, that correlation in intensities *between* parties cannot be ignored: some of the nominations held to be most important by the party that supports them are likely to be those eliciting the opposition's strongest reservations. In our third case we introduce inter-party correlation (denoted by ρ_{inter}). Note that the two correlations are logically linked and cannot be set independently: given ρ, ρ_{inter} cannot be too high, and for large M and m, as here, $\rho_{inter} \leq \rho$.[31] We conjecture that correlation is stronger within a party than across parties, and for our reference case set the two values at $\rho = 0.5$, as above, and $\rho_{inter} = 0.3$. To provide a concrete sense of what these correlation values imply, Figure 4 reproduces the random draws from one of our samples. Each panel corresponds to one nomination and a distribution of values for the 100 senators. Positive values, in blue, denote the majority and negative values, in red, the minority. Draws are collected in twenty bins of size 0.05, ranging from -1 to 1 and are ordered on the horizontal axis. The vertical axis is the number of draws in each bin, summing up to 45 for the minority and to 55 for the majority.[32]

For each nomination, the figure highlights the correlation both within parties (each party's subpanel shows concentration over a subinterval of the support) and across parties (there are similarities across the two parties' distributions within each panel). The first and last panels are good examples. In both, draws appear concentrated at the party level, and with a similar pattern across the two parties: they represent nominations eliciting, respectively, strong (nomination 1) and weak (nomination 5) preferences in both parties. Note that dispersion both within and across the two sides remains possible: the second nomination tends to elicit low intensities within the majority, and more dispersed but on average higher intensity within the minority; the opposite holds for the fourth nomination.

Figure 5 shows the number of minority victories corresponding to each combination of rules-of-thumb. Again, we reproduce the results for the same four rules as above for each party.

The highlighted column, identifying the mutual best response rules, is at $q6$, the second

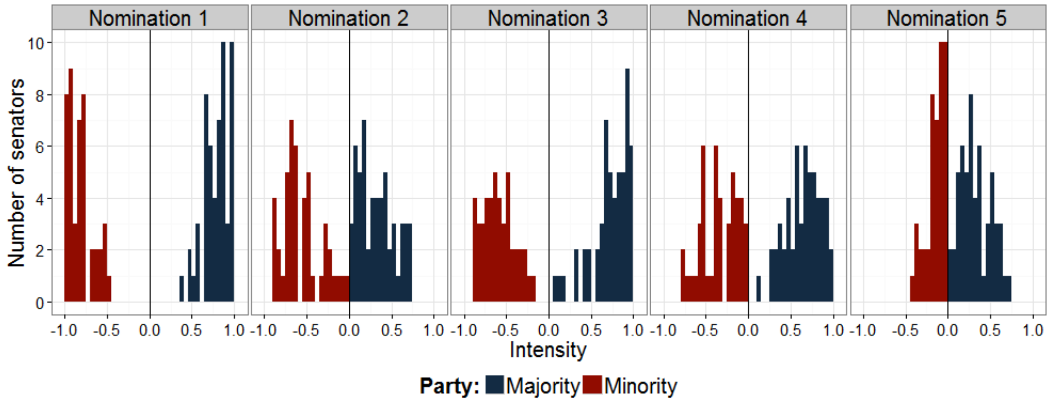

Figure 4: *Example of value draws' histogram* for $\rho = .5$ and $\rho_{inter} = .3$: number of values within bins of size .05.

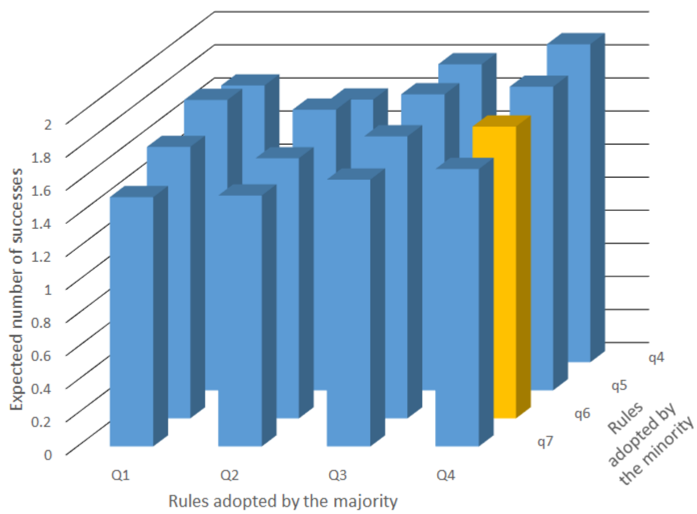

Figure 5: *Expected number of minority successes*, as function of the voting rules used by the two parties for $\rho = .5$ and $\rho_{inter} = .3$.

most concentrated rule for the minority, and $Q4$, the median rule for the majority. The expected number of minority successes is 1.76, or 35 percent. Agreement on priorities across parties leads senators of both sides to concentrate their votes more. The result is that fewer minority victories are possible relative to the case without interparty correlation.

The online appendix presents an overview of the simulations' results with $\rho \in [0, 0.9]$ and $\rho_{inter} \in [0, \rho]$, in intervals of 0.1. Here our goal is not to put all weight on specific correlation values but to understand the effects of changes in these values.

Consider first the adopted behavioral rules. For intraparty correlation $\rho = 0.5$, Figure 6 summarizes for both minority and majority senators the number of expected votes per nomination rank (1 being the highest) corresponding to the mutual best response rules. We consider three alternative values for inter-party correlation: $\rho_{inter} \in \{0, 0.3, 0.5\}$, with a darker shade representing a higher correlation. The figure captures the logic of storable votes and shows patterns that remain qualitatively true at different parameter values.

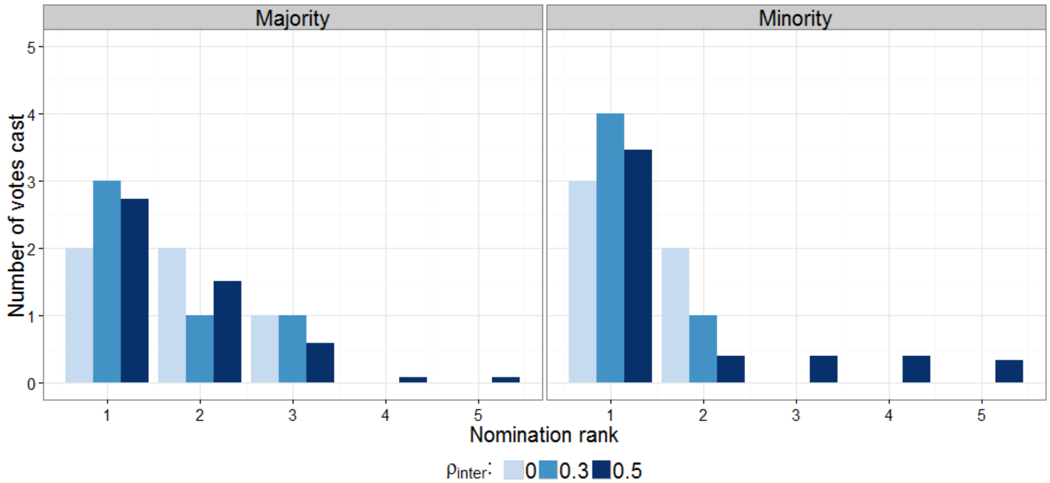

Figure 6: *Expected votes cast* on different priority nominations at the mutual best response rules. $\rho = .5$.

The two panels highlight how their party's smaller size induces minority senators to concentrate their votes more than majority senators. This is true whether priorities are independent across parties or strongly correlated. In both parties, the incentive to concentrate votes is not monotonic in inter-party correlation: concentration increases as ρ_{inter} moves from 0 to 0.3, but then declines as ρ_{inter} reaches 0.5. At maximal ρ_{inter}, the minority gains less from concentrating votes because the majority shares the same priorities and possesses more aggregate votes. Some victories can be achieved by opposing less contentious nominations. As a result the mutual best response rules show a decline in concentration in both parties.

The voting patterns translate into an expected number of minority victories. Figure 7 shows the average number of minority successes over 1000 simulations, for each value of ρ_{inter} between 0 and 0.5, in increments of 0.05; holding ρ fixed at 0.5.[33]

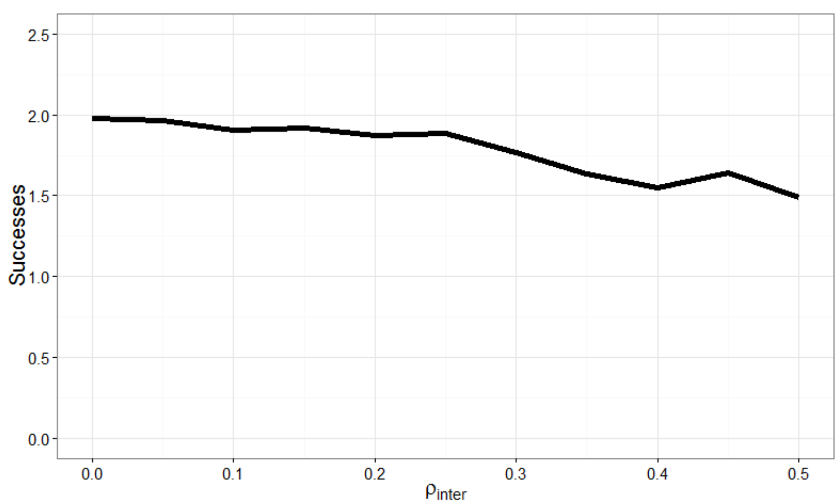

Figure 7: *Expected number of minority successes* when each party follows the mutual best response rule. $\rho = .5$.

The number of minority victories falls almost monotonically from 2 (or 40 percent), when the two parties' priorities are independent, to 1.5 (or 30 percent) when the inter-party correlation is at its maximum. Not surprisingly, the minority is less successful when the parties share the same priorities.

We have focused so far on the number of nominations won as a summary measure of minority power. But what matters to both parties is not only the number, but also the importance assigned to the nominations on which a party prevails. The parties' welfare indices captures both variables. For $\rho = 0.5$, it is reported in Figure 8 as function of ρ_{inter}.

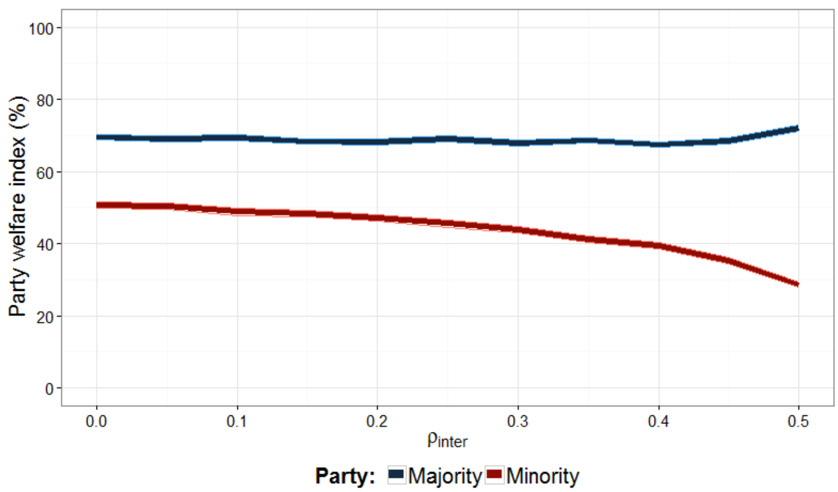

Figure 8: *Expected welfare* (as fraction of maximal potential welfare) when each party follows the mutual best response rule. $\rho = .5$.

The majority's larger size protects it: welfare is approximately constant and hovers close to 70 percent of maximal potential welfare. For the minority, on the other hand, the increase in interparty correlation is sharply welfare-decreasing: the combination of fewer successes and less salient successes means that its realized share of potential welfare falls from 50 percent (at $\rho_{inter} = 0$) to less than 30 percent (at $\rho_{inter} = 0.5$).

The results for the parties are intuitive. What we ultimately want to know, though, is not only how each party fares but whether a move from simple majority voting—the default comparison after November 2013—to storable votes is desirable on social welfare grounds. Figure 9 reports our calculations of Ω, the efficiency measure defined in Section 3—total appropriated welfare as share of maximal possible total welfare. As before, we compute Ω with $\rho = 0.5$ as a function of ρ_{inter} for the two voting rules: the darker band is the share of efficiency achieved with storable votes, the light blue band is the share achieved with simple majority voting.

For most of the interparty correlation values covered by the figure, storable votes yield higher expected welfare than simple majority rule. This reflects, again, the basic logic behind storable votes: the minority concentrates its votes so as to win some high priority nominations; as long as priorities are not shared, minority victories are more frequent on nominations the majority party considers less crucial to defend. As a result, the minority experiences large welfare gains while the majority experiences small losses. In total, welfare increases.

How robust is such a result? Increased interparty correlation means that, when minority

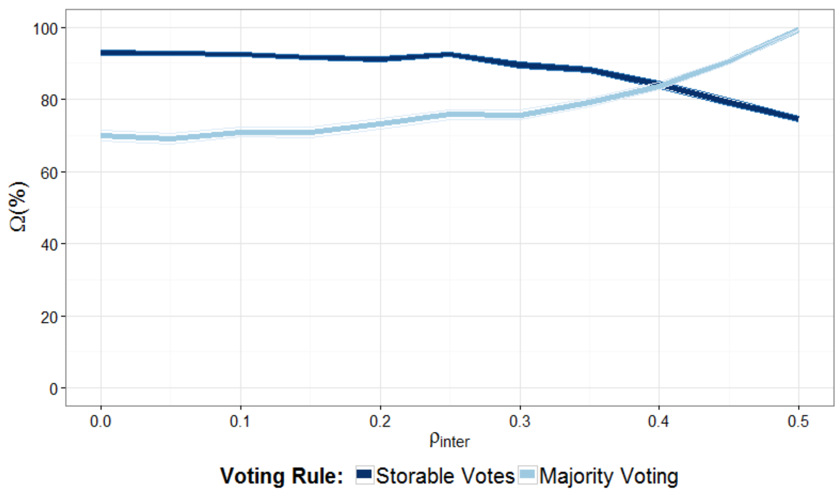

Figure 9: *Expected total realized welfare* (as fraction of maximal potential welfare) when each party follows the mutual best response rule. $\rho = .5$.

victories occur, per capita minority gains and majority losses become more similar. And since the majority is larger, majority losses become more costly, in total welfare terms, as ρ_{inter} increases. In the figure, the efficiency of majority voting increases and the efficiency of storable votes decreases with ρ_{inter}, eventually reversing orders, as ρ_{inter} approaches the maximum possible value.

For the results presented in the figures, we hold intraparty correlation (ρ) constant. Instead, we could hold ρ_{inter} constant and increase ρ, respecting the constraint $\rho \geq \rho_{inter}$. In general, for given inter-party correlation, storable votes perform better the higher the intra-party correlation, and thus the higher is the aggregate minority value on nominations the minority wins. Simulation results that explore a richer set of correlations (reported in the online appendix) confirm these tendencies.

The final conclusion is straightforward: if priorities tend to be more similar within each party than across parties, then there is scope for improving aggregate welfare through storable votes. We expect such a scenario to be the most common, reflecting both similar political goals among members of the same party and party discipline. If instead there is wide disagreement in priorities within parties, and in particular within the minority party, then storable votes become less attractive because minority victories are difficult to achieve, and if achieved need not increase aggregate utilitarian welfare. The choice of adopting storable votes would then rely on fairness or legitimacy grounds more than on a pure efficiency criterion.

5 Endogenous Composition of the Nomination Slates

The analysis described so far studies the effects of storable votes, *given* a slate of nominees. But the slate of nominees is not exogenous: with storable votes, as under current rules, the president chooses the set of nominees that the Senate can consider, and the Senate Judiciary Committee vets and approves them and reports the slate to the Senate floor for the confirmation vote. With storable votes, all names on a slate are linked by the common votes' budget, and the likelihood of a minority success depends on the properties of the preferences over *all* nominees. A plausible concern is that the slate may be constructed to contain some names known to be unacceptable to the opposition party, thus draining the opposition's votes. We study in this section how the results are modified when we account for the endogenous selection of the nominees.

Analyzing the potential for strategic manipulation of the slate requires allowing differences across nominees in the distributions of intensities that represent senators' preferences. We can think of such distributions as the agenda-setter's prior beliefs about the senators' reactions: distributions with high (low) probability mass at high values correspond then to nominations likely to elicit strong (weak) support or opposition. The question is how best to assemble a slate, combining nominees associated with different distributions of intensities, taking into account that the voting rules will reflect the characteristics of the full slate.

We have assumed so far that $\Gamma_t(v) = \Gamma(v)$ for all nominations and that the individual marginals of Γ, $\Gamma_i(v_i)$, are uniform, a diffused prior on intensities. The uniform assumption does not play an important role in the simulations,[34] but the lack of systematic differences in marginal distributions *across* nominations and parties does. In the simulations described in this section, we allow $\Gamma_{it}(v_{it})$ to vary across nominations t and across parties: $\Gamma_{it}(v) = \Gamma_{mt}(v)$ for all $i \in m$, and $\Gamma_{jt}(v) = \Gamma_{Mt}(v)$ for all $j \in M$. For each t and for each party m, M, the agenda-setter can choose a nominee represented by one of three possible distributions: a uniform distribution, as before, and two Beta distributions capturing contrasting priors. Beta (5,2) has a peak at 0.8, and more than 75 percent of its probability mass is above 0.6—it corresponds to a nomination likely to elicit strong reactions. Beta (2,5) is the converse: it has a peak at 0.2, and more than 75 percent of its probability mass is below 0.4—it corresponds to a nomination likely to elicit weak reactions.

Each nominee is characterized by one pair of distributions, one for each party, and each pair can be any combination of two out of the three distributions just described. There are nine possible such pairs, and thus nine "types" of nominees. A slate is a list of nominees whose types have been chosen by the agenda-setter. In the simulations, we construct all possible slates and obtain each party's welfare and the number of minority victories when the two parties' voting rules are mutual best responses, given the slate. With five nominees and three distributions, there is a total of 1287 possible slates.[35] We maintain the default case of high correlations of intensities, both intraparty (0.5) and interparty (0.3).[36]

We assume that both the president and the Judiciary Committee share the priorities that on average characterize their own party, and thus their goals are well captured by the welfare indices of the party they belong to.

Consider first a majority-party president. In this case, the president and the Judiciary Committee have the same goals, and we assume that the Committee seconds the president's choice of nominees. Figure 10 reports the composition of the three highest-welfare slates for the majority, and thus corresponds to the three optimal slates of a majority party president. Each slate is a row of five graphs, with each individual graph corresponding to a nominee and representing the distribution of preferences in the minority (the values to the left of 0, in red), and in the majority (the values to the right of 0, in blue). The slates are ordered vertically, the highest row corresponding to the highest-welfare slate.

Consider for example the first row in Figure 10, the highest welfare slate for the majority. Predictably, the majority wants nominees it strongly supports: in four of the five graphs, the majority's distribution of intensities is concentrated at high values. Equally predictably,

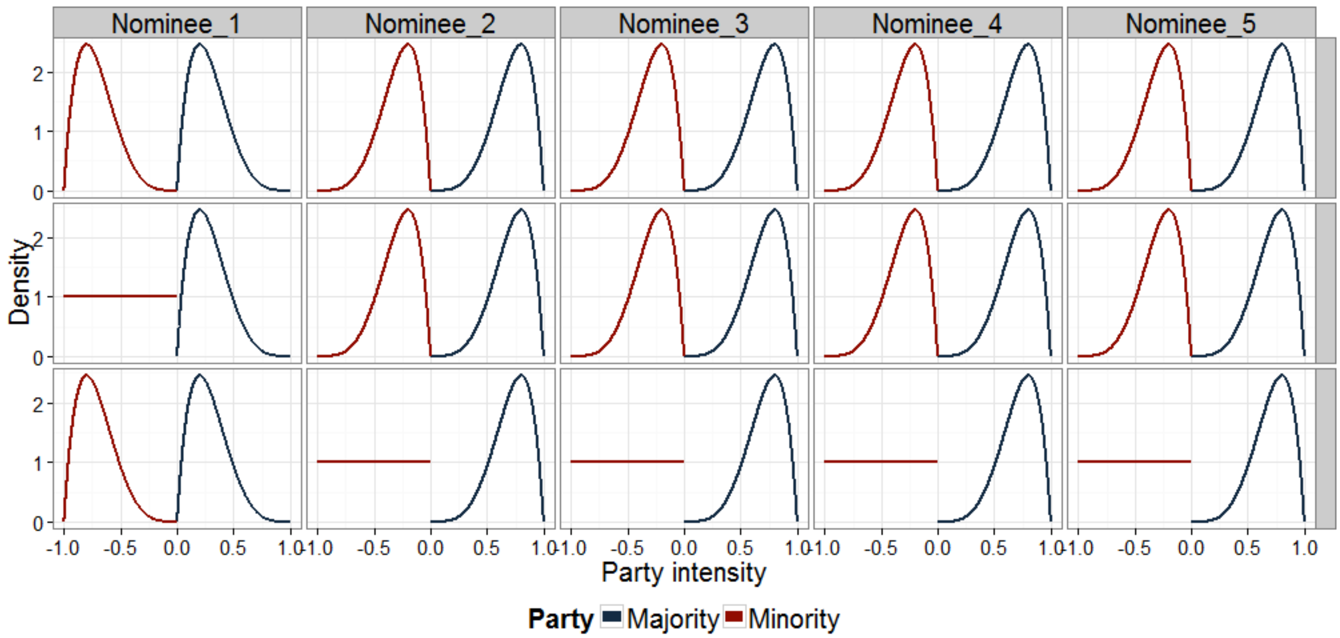

Figure 10: *Welfare-maximizing slate composition for the majority, top three slates.* The five graphs in each row correspond to the five nominees; each represents the distribution of preference intensities in the two parties. Higher rows correspond to higher welfare. Welfare is evaluated at the mutual best response rules. $\rho = .5$; $\rho_{inter} = .3$.

the majority desires as little opposition as possible on these names, and in the same four graphs the minority's intensities are concentrated at low values. Recall, however, that voting behavior is grounded in ranking of priorities, and thus the minority's tepid opposition will translate into a small number of "nay" votes—and thus a successful nomination for the majority—only if its members concentrate their votes on a fifth name, whose defeat is considered more important. Hence the fifth name on the slate (nominee 1) has different properties. The minority's distribution is concentrated at high intensities: with high likelihood, opposition to this nominee is stronger than to any of the others, strong enough to induce a high concentration of votes. At the same time, the majority's distribution is concentrated on low values, with the joint effects that few majority votes will be spent on this nominee, and that the resulting majority defeat will not be too costly. In our simulations, nominee 1 is rejected with probability 1 and all the others are confirmed with probability 1.

Very similar patterns characterize the other two slates reported in the figure, and in our simulations the voting results are replicated: in both slates, the first nominee is always rejected; the others are confirmed with probability higher than 99 percent in the second slate, and 98 percent in the third.[37]

Suppose now that the president belongs to the minority party. The president's choices are then complicated by the possible opposition of the Judiciary Committee. Whether the Judiciary Committee in reality has the power, and the incentive, to act as a veto player is open to discussion;[38] we do not take a position on the issue, but consider both alternatives in turn. Suppose first that it does not: the president selects the slate that is optimal from the minority's perspective, taking into account that nominations must be confirmed by the vote

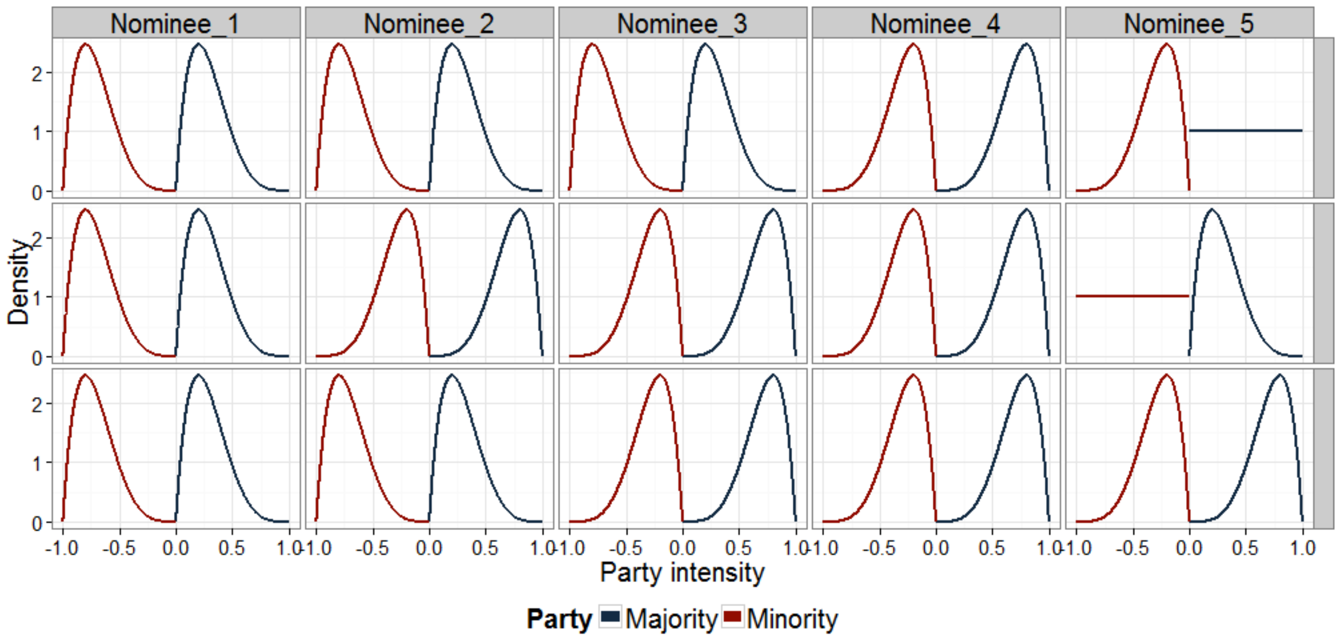

Figure 11: *Welfare-maximizing slate composition for a minority-party president.* The five graphs in each row correspond to the five nominees; each represents the distribution of preference intensities in the two parties. Row 1 corresponds to maximal minority welfare, row 2 to maximal majority welfare, and row 3 to maximal total welfare, all conditional on non-negative utility for both parties. Welfare is evaluated at the mutual best response rules. $\rho = .5$; $\rho_{inter} = .3$.

of the full Senate but having the *de facto* power to force such a vote. The analysis remains very similar to what we saw for the majority, with the only qualification that the minority will not be able to win as many nomination fights.

The first slate in Figure 11 is the highest welfare slate for the minority. Its composition anticipates that the minority will lose two nominations fights out of five: two nominees are designed to attract the majority's concentrated votes and because they are only weakly supported by the minority, those defeats will not be too costly. In our simulations, the nominees represented by the last two graphs in the first row of Figure 11 are always blocked by the majority, while the three remaining nominees are always confirmed.[39]

The striking delays in confirmations in the 114th Congress, in which Republican regained the majority in the Senate and thus a hold majority on the Judiciary Committee, suggest that a majority-party Judiciary Committee may in fact have substantial power to obstruct a minority-party president. We can then think of the interaction between the president and the Judiciary Committee as a bilateral bargaining game in which either side must be guaranteed its reservation welfare.[40] In our model, such default welfare, in the absence of any nomination vote, is normalized to zero.[41] The upper bound in welfare must be the highest achievable welfare for the party, conditional on the opposite party having non-negative welfare. Where the bargaining solution lies, between these two extremes, depends on the relative bargaining power of the two parties, and more precisely of the minority-party president and the majority-party Judiciary Committee. In general, such relative power will be influenced strongly by contingent conditions—public opinion, the personal popularity of the president and of the nominees, party discipline, other political battles—and we do not attempt to model them here. Rather, we note first that the highest minority-welfare slate, the first row in Figure 11, yields positive utility for the majority party and thus belongs to the set of acceptable bargaining outcomes. We complement it in the figure with the slates yielding highest welfare for the majority (row 2) and for the aggregate of the two parties (row 3), both conditional on non-negative utility for both parties.

As noted, the minority-preferred slate results in a 60 percent success rate for the president, a high rate that is nevertheless acceptable to the majority because the confirmed nominees are only weakly opposed, while the two nominees evoking stronger opposition are defeated. A powerful Judiciary Committee, however, can obtain a better outcome for the majority party. The second slate in Figure 11 is the highest majority-party-welfare slate that a minority president would still be willing to submit. It results in two minority victories—nominee 1 is confirmed with probability one, and nominee 5 with probability higher than 80 percent—and three defeats. The president lets the majority veto three nominees who enjoy only weak support by the minority party, in exchange for passing two that both the president and the party consider more important. Finally, the third slate in the figure corresponds to the list of nominations that maximizes aggregate welfare, subject to either side maintaining positive utility. Here again the president wins confirmation for two nominees and again lets the majority veto three nominations whose support by the minority party is weak. Relative to the previous slate, both successful nominees enjoy the strongest possible minority support, while again being weakly opposed by the majority. Expected minority welfare is higher under the third slate both because the two minority victories now occur with probability one, and because they are both highly valuable.[42]

It is clear that the ability to control the slate is valuable. In our simulations, a majority-party president can limit the number of minority blocks to not more than 20 percent, and a minority-party president can succeed in confirming up to 60 percent of his nominees. When they occur, defeats are the result of strategic behavior involving "decoy" nominees intentionally focusing the votes of the opposition. Yet, there are important limits to the agenda-setter's freedom to maneuver. Crucially, the nominations that the president's party intends to win must be relatively non-controversial: the strategic use of decoys can work only if the remaining names are acceptable to the opposition party. This is a direct effect of the voting scheme, and works against extreme polarization in the composition of the slate.

As a result, expected welfare is high not only for the president's party but also for the opposition. Consider first a majority-party president, who need not fear obstruction by the Judiciary Committee. The optimal slate for the majority party, which implies a single successful block by the minority, still allows the minority to appropriate 44 percent of its maximal achievable utility. If the majority president chose the most polarizing slate–a slate of five nominees all strongly supported by the majority and strongly opposed by the minority, again resulting in one expected minority block–the minority's utility would fall to 20.5 percent of its highest achievable level. Such a slate cannot be optimal for the majority because by choosing nominees that are all strongly opposed by the minority, the majority loses the benefit of a decoy concentrating the minority's negative votes and enjoying only weak majority support. The optimal majority slate allows it to appropriate 86 percent of its maximal achievable utility, versus 80 percent with the most polarizing slate. Aggregating over the two parties, the optimal majority slate allows them to appropriate 96 percent of total available surplus (versus 59 percent with the most polarizing slate).[43]

In the absence of storable votes, with simple majority rule, the majority is guaranteed to prevail on all nominees. Contrary to storable votes, majority rule does not give the majority any reason to acknowledge minority preferences. In the absence of other factors, choosing the most polarizing slate is a plausible strategy, especially if the majority wants to exploit its control of both the executive and the Senate to obtain the approval of nominees it knows to be controversial.

By securing passage of all five nominees, the majority reaches a preferred outcome, but the cost imposed on the minority is large: total welfare corresponds now to 63.5 of appropriable surplus (versus 96 with the optimal slate under storable votes). The majority may well be less confrontational than assumed in this calculation, but there is a strong built-in asymmetry. If the majority is as receptive as possible to minority preferences, it will choose nominees it strongly supports but who are only weakly opposed by the minority. In such scenario, the best possible in terms of total welfare, total welfare does increase, relative to storable votes, but only by 4 percent (from 96 to 100 percent), as opposed to the more than 30 percent decline with the slate featuring the maximal degree of polarization.[44]

When the president belongs to the minority party and voting occurs with storable votes, the three slates in Figure 11 yield measures of aggregate welfare that range from 85 percent of maximum possible surplus in slate 1, to 88 percent in slate 2, and 92 percent in slate 3. Again, storable votes work to mitigate the demands of the agenda-setter. A minority president who could impose his preferred slate without any check by the Judiciary Committee would still choose slate 1 in the figure, rather than choosing nominees who are more strongly opposed by the majority, again because in such a case battles may be lost on more highly-valued nominees: the "decoy" function is weakened.

It is not clear what the most likely outcome is with simple majority voting and a minority-party president. The voting rule strengthens the power of the majority party, leading the Judiciary Committee to try to prevent any nominations from coming to a vote. One possible outcome is the kind of blanket obstruction by the Judiciary Committee that has occurred in the first session of the 114th Congress. Such an outcome, however, is dominated *for both parties* by the outcomes reached under storable votes with any of the three slates in Figure 11: the majority would prefer to vote down some nominees, and thus exclude them from consideration forever, rather than forfeiting all confirmation battles. Even with simple majority, some cooperative outcome may then arise, in which the least controversial nominees are confirmed in exchange for vetoing more divisive ones. The agreement could take the form of one of the three slates in Figure 11, or of other intermediate ones, most probably depending, as in the case of storable votes, on other considerations external to the confirmation battles per se. As in the case of a majority-party president, it is easy to see how storable votes may lead to substantial welfare gains relative to simple majority and less easy to see how they may lead to welfare losses.

6 Conclusions

Notwithstanding the 2013 use of the "nuclear option" to impose majority rule for confirmation of executive branch and lower court nominees, this paper is motivated by the belief that providing appropriate channels to record and give weight to intense minority sentiment is valuable not only to the minority but to the Senate as an institution. The filibuster, the Senate's mechanism for doing this, failed because it evolved into an overtly partisan tool of obstruction. We investigate here a reform of the confirmation process for judicial nominations designed to give voice to the minority without compromising the majority's right to govern. Periodic votes on a slate of nominees, coupled with a system of storable votes, would allow the minority to prevail occasionally, but without wasting valuable time and resources and only on those nominations it feels most strongly about. At the same time, the reform would encourage the president to nominate judges who are not too polarizing.

With the help of numerical simulations, the paper studies the effects of such a system in a simplified model that mimics the context of the 113th and 114th Senates. Each senator's voting behavior is chosen among a limited set of simple but realistic rules-of-thumb, and we focus on those rules that are mutual best responses at the party level. The outcomes depend on the extent to which voting decisions are effectively coordinated within and across the two parties: what matters is both how cohesive each party is, and how polarizing the nominations are.

Because of the minority's smaller size, coordination in voting among its members is essential to minority success. Thus, the minority prevails only if its members rank the different nominations on a single slate similarly, whether because of convergence of opinions or party pressure. Correlation in preferences among majority members has less influence on the results because it is less important in achieving majority victories. Where it does matter is when preferences in the two parties are (negatively) correlated: strong opposition (support) by the minority means strong support (opposition) by the majority. The ability of the minority to win nomination battles is then reduced.

Slates can be strategically manipulated by the nomination of "decoy" candidates, with the explicit purpose of concentrating the votes of the opposition. This strategy, however, can work only to the extent that the remaining nominees are relatively uncontroversial.

In our numerical simulations, we posit a majority of 55 senators and a minority of 45, each facing a slate of five nominees and endowed with five votes. In the reference case, there is large agreement on the relative importance of the different nominations both within and across parties. We find that the minority wins 20 percent of the nomination battles when the president belongs to the majority party and chooses strategically the composition of the slate, between 40 and 60 percent when the president belongs to the minority party, and about 35 percent when the slate is exogenous. Because the minority prevails on nominations where it feels relatively more strongly than the majority does, aggregate welfare is high, typically higher than under majority voting: the gains to the minority are larger than the losses to the majority, and the Senate as a whole is better off.

A natural question is how robust our results are to changes in numerical values. We have studied alternative slates of four and six nominees (with four and six total available votes, respectively), and find that the predicted frequency of minority victories is remarkably consistent. When the slate is exogenous, at the correlation values explored in the paper (0.5 for intraparty correlation and 0.3 for interparty correlation), the expected number of minority successes ranges from 35 percent (with six, as well as with our default of five nominees) to 39 percent (with four). In all cases, storable votes are welfare-superior to majority voting. We have also studied the endogenous agenda case with four nominations. The results replicate the five-nomination slate described in the text.[45]

Similarly, holding the slate at five names, we have studied variation in the size of the majority, from 51 to 55. Predictably, the smaller the majority size the higher the percentage of minority successes, and the more similar the best response rules for the two parties. With an exogenous slate and a majority of 51, the 49-senator minority wins just below half of all nominations (47 percent); if the majority has 53 members, the expected fraction of minority victories falls to 39 percent, approaching our default case of a 55-senator majority, with 35 percent minority successes. Again, in all cases, storable votes yield higher aggregate welfare than simple majority voting. If the slate is endogenous, we again replicate the results in the text whether the majority size is 51, 53, or 55.[46]

Regardless of the normative case for storable votes, one might ask whether such an unorthodox procedure could ever have a chance of adoption in the Senate, especially in the current, majoritarian regime. There have been instances in the history of Congress when a majority decided to backtrack from the curtailment of minority rights.[47] More recently, in December 2014, the Republican leadership hotly debated whether to reinstate the 60-vote threshold for cloture on nominations. From a pragmatic point of view, storable votes offer an attractive solution to a source of the deep dysfunction currently plaguing the Senate. From a normative point of view, storable votes uphold the long-standing tradition of protecting minority rights in the Senate without the negative side effects of supermajoritarian rule. There are reasons to think that they should appeal to a broad coalition of senators from both parties bent on preserving the uniqueness of the Senate among the world's legislatures.

Notes

[1]For a recent commentary, see Everett and Kim, 2015.

[2]It maintained, for example, the "blue slip", an obscure, extra-institutional process through which an individual senator can negatively affect the probability of confirmation by signaling an objection to a nominee relevant to the senator's home state. The impact of blue slips has varied over the years and remains an open question under the new regime, since research has suggested that they are effective mainly as signals of an intent to filibuster nominations (see Primo et al. (2008) and Binder and Maltzman (2009)).

[3]Stiglitz (2014) suggests that the move toward majority rule is likely to result in a more fractious Senate and a more polarized judiciary. In December 2014, the Republican party had a contentious internal debate on whether or not to re-establish the 60-vote threshold for cloture on nominations. The main motivation was concern that majority rule could eventually extend to legislative business.

[4]These include the 2005 Gang of Fourteen agreement and the compromise on executive nominations achieved in July 2013.

[5]Recent experience with judicial nominations, attended by escalating delays and partisan disagreement on non-ideological appointments, suggests that there is room for an alternative approach. Note also that spatial models require specifying the policy outcomes produced by filling (or not) vacancies on the bench. In the case of district or appeals court judgeships, the task is extremely difficult and possibly quite arbitrary. See Stiglitz (2014).

[6]Blotto games model two military opponents choosing the distribution of their forces among different battlefields. They were introduced by Borel (1921). (See also Blackett 1954. Roberson (2006) presents the solution for the two-player version with asymmetric budgets). However, Blotto games are constant-sum games of complete information; our game is neither. In addition, our game is decentralized, allowing individual actions within each of the two opposite sides.

[7]See also Casella (2005); Casella et al. (2008); Casella and Gelman (2008). Hortala-Vallve (2012) independently proposes a very similar idea.

[8]Because vacancies and nominations occur at random times, slates presented at fixed intervals may need

to be of different lengths. Alternatively, it could be established that all slates will have a fixed number of nominees, in which case the intervals in between slates may vary. In practice, the existing long list of unfilled vacancies suggests that this is unlikely to be a problem. The important point is that each slate consists of multiple nominees.

[9]Under current Senate rules, once cloture is invoked, district judge nominees are allotted a maximum of two hours of debate while circuit nominees are allotted thirty hours.

[10]A separate cloture vote held with simple majority, as currently in place, provides no voice to the minority. We streamline the procedure by considering a single vote on the nominations, the up-or-down vote held with storable votes.

[11]Most prominently, Guinier (1994). Bowler et al. (2003) discuss the experience of cumulative voting in local elections.

[12]The difference has important consequences. First, cumulative voting *guarantees* that a cohesive minority of sufficient size concentrating all its votes on a single candidate will succeed in electing that candidate. No such guarantee applies to storable votes. Second, cumulative voting would require alternative lists of nominees, presumably presented by the majority and minority parties, from which the confirmed names would be chosen by voting. This would violate constitutional provisions requiring presidential nomination. Storable votes, on the other hand, fit quite naturally in the existing constitutional framework.

[13]What matters is the differential utility from winning or losing the fight over a nomination, here $v_{it} - (-v_{it}) = 2v_{it}$. Alternative normalizations are fully equivalent.

[14]More precisely, the intensity is the importance attributed to the outcome, and thus conflates the strength of a member's support or opposition to a specific nominee, and the weight given to the particular court and seat.

[15]In addition to dividing by maximal possible welfare W^*, we normalize both numerator and denominator by minimal welfare: welfare if the side with lower total intensity won each nomination. The normalization ensures that the lower bound on welfare is correctly measured, and again corrects for possible systematic differences across scenarios.

[16]In a previous version of the paper, we allowed for the possibility of "centrist" senators, implemented through the probability of drawing a 0 value, independently across senators. The fraction of nominations blocked by the minority was not sensitive to such an extension of the model. That said, as a large and growing literature indicates, the assumption of complete polarization is empirically defensible (see McCarty, Poole, and Rosenthal 2006 and Theriault 2008, among many others.)

[17]We maintain the assumption of independence of intensities across nominations throughout the paper. The slate of nominations reflects the vacancies to be filled, with no prior reason to expect correlation in the importance attributed to different posts or different nominees.

[18]With ties broken by the vice-president, our default scenario assumes that the president's party has a majority in the Senate.

[19]The model satisfies the sufficient conditions for equilibrium existence in Milgrom and Weber (1982): the action space is finite, and the types (here, the values) are independent. In fact, as Milgrom and Weber show, an equilibrium exists in pure strategies.

[20]This is the logic exploited by McLennan (1998).

[21]We computed this share by simulating one million random value draws.

[22]Recall that the tie-break rule favors the majority.

[23]Note that what matters for equilibrium strategies is not v_{it} (v_{gt}) alone, but the ratio of intensities, $\overline{v}_i/\underline{v}_i$ ($\overline{v}_g/\underline{v}_g$). This is why we talk of *priorities*, judgements of relative importance.

[24]In the terminology of the model, $\Gamma_{it}(v_{it})$ is uniform over $[0, 1]$, identical for all i and, except for the last section of the paper, for all t.

[25]We could simplify the analysis by considering a chamber of 100 voters large enough for asymptotic results, but laws of large numbers would only apply if the intensities were independent or exchangeable (Casella and Gelman 2008).

[26]Previous experimental studies of storable votes (e.g. Casella, Gelman, and Palfrey 2006 and Casella et al. (2008)) have shown that subjects had difficulties identifying the fully rational strategy even in the simplest scenarios. And yet, the rules-of-thumb observed in the laboratory yielded results that were close approximations of the theoretical predictions under optimal strategies.

[27]For example, we described above an equilibrium of model I in which a minority member i casts both votes on $\overline{v}_i$ if $\overline{v}_i \geq 1.36\underline{v}_i$, a strategy that depends on the specific numerical value of the ratio

$\overline{v}_i/\underline{v}_i$. In previous laboratory studies, subjects consistently cast more votes on $\overline{v}_i$ than on $\underline{v}_i$, but did not condition their strategy consistently on the exact ratio $\overline{v}_i/\underline{v}_i$. We construct rules-of-thumb that depend on ranks ($\overline{v}_i$ v/s $\underline{v}_i$), and not on $\overline{v}_i/\underline{v}_i$.

[28]For example, "cast all votes on the highest priority" will induce senators of the same party to concentrate their votes on different nominations, as long as they disagree on which nomination is their highest individual priority.

[29]In all cases discussed in this section, mutual best responses are unique and, for each party, involve choosing a specified rule with probability one. The simulations allow for mutual best responses that are probabilistic, i.e. include mixing between different rules.

[30]In principle of course ρ could differ in the two parties. Lacking strong arguments for setting $\rho_M \lessgtr \rho_m$, we report results for the case $\rho_M = \rho_m = \rho$. We generate the samples of correlated values by applying the method in Phoon, Quek, and Huang (2004). Details are available in the online appendix.

[31]We discuss this dependency and the constraint it imposes in the online appendix. Briefly, the covariance matrix Σ is positive definite only if:

$$\rho_{inter}^2 \leq \frac{[1+(M-1)\rho][1+(m-1)\rho]}{Mm}$$

For large M and m, the right-hand side converges to ρ^2.

[32]For clarity, the data are generated as 100 five-number vectors, one per senator, with each vector corresponding to a senator's values over one full slate.

[33]The thickness of the line was set to reflect the 95 percent confidence interval (+/− two standard deviations from the average), but such thickness is barely noticeable, indicating the small sample variability over the 1000 simulations. The same comment applies below to Figure 8 and Figure 9.

[34]That is because the rules-of-thumb depend on the ordinal rankings of the values attributed to the different nominations, as opposed to their cardinal values.

[35]Each slate is composed of five draws from a set of nine possible different types of nominees, with repetition (i.e with replacement but disregarding different orderings). The number of possible slates is then $\left(\!\binom{9}{5}\!\right) = \binom{9+5-1}{5} = \binom{13}{5} = 1287$. Because this analysis is much more computationally intensive, we limit ourselves to 200 simulations instead of 1000 for each possible slate.

[36]We do so both for the sake of realism and for ease of comparison to our previous results. However, when distributions vary and have highly concentrated probability mass over different subintervals, a likely ranking of the nominees emerges, and with it coordination in voting, without assuming additional correlation in intensities. Contrary to the previous sections, the results here remain almost identical if we assume full independence.

[37]For the first slate, we find multiple pairs of best response rules, all leading to an identical outcome. Common among all is that minority senators never spread their votes over all nominations, and majority senators never cast more than two votes on the same nomination. The distributions of intensities then guarantee that the minority wins the first nomination, and loses all others, for all other possible voting behaviors. In the second and third slate, the distributions of intensities play a smaller role in coordinating minority votes; as a result the minority must concentrate its votes (with both slates, its senators always cast three or more votes on their first-priority nomination).

[38]Since many nominations die in committee, we might be tempted to simply assume that the Judiciary Committee has absolute veto power. But nominations which did not proceed in the past may in fact have been held back in anticipation of a filibuster. We might also be tempted to assume that so-called "home state" senators (senators whose states include the district or circuit to which appointments are being made) have veto power through the blue slip process. This assumption is tied to our assumption about the power of the Judiciary Committee, since the committee is the de facto enforcer of the blue slip process. According to Binder and Maltzman (2009, 85), "senators' objections [expressed through blue slips] do not necessarily prevent the committee from proceeding."

[39]If we look at the pairs of mutual best responses, with all three slates minority senators vote according to rule $q3$: they spread their votes on three nominations only. The majority has multiple best responses, but must avoid concentrating all its votes on the one nomination it considers most important. The high coordination in voting caused by the intensity distributions must be countered by some dispersion in voting.

[40]This is consistent with the perspective that the blue slip is a mechanism for forcing presidents to consult with senators before making a nomination.

[41]On the other hand, winning a nomination fight always yields positive utility, whether because the party's nominee is confirmed, or because the opposing party's nominee is blocked. In this latter case, we can think of the positive utility as reflecting both the permanent exclusion of a nominee considered undesirable (recall that a defeated nomination cannot be resubmitted) and the wider effects of a public political victory.

[42]With the second slate, the unique mutual best response rules are $Q1$ and $q5$: majority senators spread their votes fully, while minority senators concentrate their votes on the two highest-value nominations. With the third slate, such rules remain mutual best responses, but so do others: any majority rule but $Q6$ and $Q7$ (the two with the highest concentrations) and any minority rule but $q1$ (full dispersion) are mutual best responses and lead to the same outcome.

[43]For each party p, maximal utility with endogenous slate W_p^a (minimal utility $\underline{W}^a{}_p$) corresponds to winning (losing) all five nominations with preferences distributed according to Beta (5,2). As in all similar calculations, the index is calculated as the normalized share: $\Omega_p^a = (W_p^a - \underline{W}_p^a)/(\overline{W}_p^a - \underline{W}^a{}_p)$. Similarly, maximal (minimal) aggregate welfare corresponds to the majority winning (losing) all five nominations, with preferences distributed according to Beta (5,2) for the majority, and Beta (2,5) for the minority. Again, the numbers reported in the text refer to the normalized shares.

[44]With majority voting, votes on different nominations need not be linked, as they are by the votes' budget constraint with storable votes. Here we consider five nominees for comparison to storable votes, with the understanding that these would be five successive votes.

[45]We have not studied the endogenous agenda case with a slate of six nominees because the number of calculations and the required computer time are daunting. We see no reason why the logic should change.

[46]Results from these additional simulations are available from the authors.

[47]Indeed, the nuclear option was exercised in 1975 for legislation, only to be reversed within a few days.

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7 Appendix

The Model: Monotonicity

Proposition: Monotonicity. *We call a strategy monotonic if x_{it}, the number of votes cast by i on nomination t, is monotonically increasing in the intensity of preferences v_{it}. For any* *number of voters N, party sizes M and m, number of nominations T, and distribution Γ, model I has an equilibrium in monotonic individual strategies; model C has an equilibrium in monotonic groups strategies.*

Proof. Call $X_{-i,t}$ the net balance of votes in favor of nomination t excluding voter i, who may belong to either group: $X_{-i,t} = \sum_{\{j\in M, j\neq i\}} x_{jt} - \sum_{\{j\in m, j\neq i\}} x_{jt}$. Consider first model I and suppose other voters' strategies are monotonic. Given $\Gamma_t = \Gamma$, independence across and within groups implies $EX_{-i,t}(v_t, M, m, T) = EX_{-i,t'}(v_{t'}, M, m, T)$ for all t, t': the expected vote balance is equal across nominations. But note that voter i' s probability of being on the winning side on nomination t is always weakly increasing in x_{it}. It follows that i's best response is monotonic. Identical logic holds in model $C2$, and hence applies to group strategies in model C.$\square$