

June 2008

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Matthew Stephenson
Harvard Law School

Jide Nzelibe

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Recommended Citation

Stephenson, Matthew and Nzelibe, Jide, "Political Accountability Under Alternative Institutional Regimes" (2008). *Harvard Law School John M. Olin Center for Law, Economics and Business Discussion Paper Series*. 615.
https://lsr.nellco.org/harvard_olin/615

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ISSN 1936-5349 (print)
ISSN 1936-5357 (online)

HARVARD

JOHN M. OLIN CENTER FOR LAW, ECONOMICS, AND BUSINESS

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Matthew C. Stephenson
Jide Nzelibe

Discussion Paper No. 615

06/17/2008

Harvard Law School
Cambridge, MA 02138

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POLITICAL ACCOUNTABILITY UNDER ALTERNATIVE INSTITUTIONAL REGIMES*

Matthew C. Stephenson[†] & Jide Nzelibe[‡]

ABSTRACT

We analyze the interaction between electoral accountability and separation-of-powers as mechanisms for reducing political agency slack. We compare three stylized regimes: a “Unilateral Authority” setting in which the President has exclusive authority over some policy decision; a “Mandatory Checks and Balances” regime in which the President cannot enact the policy unless Congress approves; and an “Opt-In Checks and Balances” system in which the President *may* seek congressional authorization, but may also act unilaterally. The analysis generates three principal insights. *First*, voters respond to the risk of political bias by making the political rewards and punishments for policy success or failure asymmetric. Voters rely less on this instrument, however, when internal checks screen out some undesirable policies. *Second*, the addition of a veto player need not alter the *ex ante* likelihood of policy change. *Third*, voter welfare is highest under the Opt-In Checks regime and lowest under the Unilateral Authority regime.

* We are grateful to Kenneth Ayotte, Jack Beerman, Ethan Bueno de Mesquita, Ryan Bubb, Alvaro Bustos, Lisa Bressman, John Coates, Einer Elhauge, Dick Fallon, Jake Gersen, Jim Greiner, Louis Kaplow, Daryl Levinson, Katerina Linos, Dan Meltzer, Gerry Neuman, Anne Joseph O’Connell, Eric Posner, Todd Rakoff, Max Schanzenbach, Ken Shepsle, Jed Shugerman, Adrian Vermeule, Abe Wickelgren, Kathy Zeiler, and participants in the Harvard Law School Faculty Workshop and the Harvard Conference on Political Economy and Public Law for helpful comments on earlier drafts.

[†] Assistant Professor, Harvard Law School.

[‡] Associate Professor, Northwestern Law School.

Perhaps the central concern of modern positive and normative political theory is how to manage the agency costs inherent in representative government. What sorts of institutional arrangements are most effective at simultaneously empowering governments to produce desirable policies and limiting the degree to which parochial interests, or politicians themselves, harness the power of the state to selfish or destructive ends? The accumulated body of political thought on this question over the last several centuries emphasizes two broad types of institutional mechanism to address the concern about imperfect political agency. The first is *external accountability* – the power of citizens to select leaders who share their values, and to punish or reward incumbents based on their performance. The second set of mechanisms emphasizes *internal checks* – institutional requirements that multiple government entities, with different and potentially competing interests, participate in the policymaking process.

Scholars working in the positive political theory (PPT) tradition have made significant contributions to our understanding of both external accountability and internal checks. PPT scholars have, however, paid less attention to the relationship between these different forms of political control. Most analyses of external accountability, for example, focus on the electoral incentives of a single politician (e.g., Ferejohn 1986; Austen-Smith & Banks 1989; Canes-Wrone et al. 2001; Gordon & Huber 2002; Bueno de Mesquita et al. 2005). Similarly, most studies of internal checks omit direct consideration of elections, or to incorporate the electoral process only by using electoral incentives to impute agents' preferences (e.g., Ferejohn & Shipan 1990; Tsebelis 1995; Grossman & Helpman 2008). With a few notable exceptions (e.g., Persson et al. 1997), the literature has neglected the degree to which external accountability and internal checks might function as complements or substitutes, or might have some more complex relationship with one another.

This paper contributes to the development of a positive theory of the interaction between internal checks and external accountability. We are interested in how different separation-of-powers rules affect voter behavior, and in how voter responses to these rules affect our assessment of different institutional arrangements. To this end, we compare three stylized regimes: The first is a “Unilateral Authority” setting in which one political agent, such as the President, has exclusive authority over some policy decision.

The second is a “Mandatory Checks and Balances” regime in which one agent (e.g., the President) has proposal rights, but cannot enact a new policy unless a second agent (e.g., Congress) agrees. The third regime is an “Opt-In Checks and Balances” system in which the agenda-setting agent (e.g., the President) *may* seek authorization from a second agent (e.g., Congress), but may also act unilaterally. These are only three of a much larger number of possible arrangements, but their simple structure is useful in generating comparative insights that might then be transposed to more complex and realistic settings.

We pose the following questions: *First*, how does the voter’s political strategy – in particular, the allocation of political credit and blame – differ under alternative institutional arrangements? *Second*, how does the separation of powers affect the expected frequency of policy change? *Third*, and perhaps most importantly, which institutional arrangements are best for voter welfare? Our framework suggests the following answers to these questions:

A voter worried about an agent’s possible bias may skew the amount of political credit or blame she offers the agent in case of policy success or failure, because doing so brings the agent’s expected incentives into closer alignment with the voter’s. For example, a voter who suspects the President might be too enthusiastic about military action abroad might punish the President more harshly (relative to a less hawkish president) if the intervention leads to a quagmire, and reward the President less generously if the intervention successfully replaces a threatening adversary with a peaceful ally. This political support strategy, however, is a blunt instrument that creates many false negatives and false positives. An institutional separation of powers enables the voter to adopt a more refined strategy, with less distortion in the magnitude of political credit and blame, because voters can use the second agent to screen out some of the undesirable policies. As a result, we are likely to see patterns of political behavior that look superficially like responsibility-shifting: when the President proposes a military intervention to Congress, and Congress approves it, the political penalties for failure are less severe, relative to the political gains from success, than is the case when the President acts unilaterally. The explanation, however, is not that voters are uninformed, irrational, or otherwise “fooled” by the separation of powers. Rather, the existence of internal checks and balances reduces the voters’ need to rely on asymmetric political punishments or rewards.

This rational voter adjustment to the institutional regime further explains one of our more surprising results: adding a veto player (e.g., Congress) does not change the *ex ante* probability that a new policy will be adopted. The addition of a veto player would have this effect if voters' political strategies were constant, but if the voter rationally adjusts her strategy in response to the change in the prevailing institutional regime, there is an offsetting effect. To illustrate, imagine a President with sole authority to initiate a military intervention. If the median voter fears that the President might be too hawkish, the voter will disproportionately punish failure. This makes military intervention less desirable (to both hawkish Presidents and unbiased Presidents), reducing the *ex ante* likelihood of such action taking place. Now suppose that the President must get congressional authorization before taking military action. The median voter knows that Congress will block some military interventions that the President would otherwise like to undertake. Knowing this, the voter rationally reduces the asymmetry between the President's political penalties for failure and his political rewards for success. This reduces the degree to which the anticipated voter reaction deters the President from taking military action. In our framework, this second effect offsets the first-order effect of adding the congressional veto player on the probability of policy change.

With respect to the implications of different regimes for voter welfare, we find, first, that a Mandatory Checks and Balances regime is better for the voter than a Unilateral Authority regime. Furthermore, under the Mandatory Checks regime, voters are better off with unified government if the probability that the political agents are biased is low, but voters are better off with divided government if the probability of bias is high. The superiority of the Mandatory Checks regime over the Unilateral Authority regime might seem to suggest the desirability of a strong institutional check on the power of the principal decision-maker. We find, however, that the Opt-In Checks and Balances regime – in which the President retains the option of acting unilaterally – is even better for voter welfare than the Mandatory Checks regime. We further find that the voters are better off with unified government than with divided government under the Opt-In Checks regime. Thus, a central normative implication of our analysis is that, under circumstances that correspond to the assumptions of our model, voters are better off with an institutional check that can be circumvented.

The intuition for this result is as follows: The voters' basic problem is the bluntness of the available tools for sorting out good policies from bad policies. The more the institutional environment allows the voters to fine-tune their political reward and punishment strategies, the better off they are. Under the Unilateral Authority regime, the voter can only adjust her strategy along one dimension: the relative rewards and punishments for the President in case of policy success or failure. Under the Mandatory Checks regime, the voter can adjust her strategy along two dimensions: the relative rewards and punishments for the President, and the relative rewards and punishments for Congress. Under the Opt-In Checks regime, the voter can adjust her strategy along three dimensions: Not only can she vary the political rewards and punishments for the President and Congress in those cases where the President acts with congressional approval, but she can also vary the rewards and punishments the President receives in case of *unilateral* success or failure. This extra degree of freedom allows the median voter to implement a more refined set of political incentives, thereby improving her expected welfare.

This result has implications for ongoing debates over the institutional design and the separation of powers. Most obviously, it suggests that a system in which the President (or some other politically accountable actor) can circumvent another politically accountable veto player (such as Congress) is *not* equivalent to a system in which the institutional check does not exist at all. The voters can observe the fact that the President decided to act unilaterally, rather than seeking congressional authorization, and can adjust their political response to the results of the policy accordingly. More generally, the analysis suggests the importance of thinking about different separation-of-powers regimes not just in terms of how they allocate agenda-setting and veto power, but also in terms of how much they enable voters to fine-tune their strategies for enforcing external political accountability.

I. The Basic Model

Consider a stylized model in which a representative Voter (V) has two political agents, who for convenience we will refer to as the President (P) and Congress (C). These agents are responsible for making

a binary policy choice, $x \in \{0,1\}$, where $x=0$ denotes the decision to retain the status quo and $x=1$ denotes the decision to adopt a new policy. The new policy will result either in “failure” or “success,” and this result becomes publicly observable within a short enough time that the Voter can reward or punish the incumbent politicians based on the outcome. For concreteness, we will use the decision whether to initiate a foreign military intervention as a running example. In this case, “success” might mean the swift replacement of a hostile authoritarian regime with a friendly, stable democracy, while “failure” means getting bogged down in an ongoing civil war with mounting casualties, massive costs, and no end in sight. In the real world, policy decisions are more complicated and may produce a range of possible results. Indeed, there may be uncertainty and disagreement regarding a given policy choice’s actual effects. The above simplifications sacrifice a degree of descriptive realism in order to reduce the complexity of the analysis and to highlight the substantive intuitions that the formal analysis is meant to develop.

The *ex ante* probability that the policy will succeed is $p \in [0,1]$, where p is drawn from a uniform distribution. The Voter’s payoff from a successful policy (e.g., military victory) is 1; her payoff from a policy failure (e.g., military defeat) is 0; and her payoff from no action (e.g., non-intervention) is $\frac{1}{2}$.¹ Under these assumptions (as well as the tiebreaking assumption that, in case of indifference, the Voter would select the status quo), the Voter would prefer that the new policy be adopted if and only if $p > \frac{1}{2}$. It follows that if the Voter were perfectly informed and had direct control over the decision, the *ex ante* probability of policy change would be $\Pr(p > \frac{1}{2}) = \frac{1}{2}$, and expected Voter utility would be $\Pr(p \leq \frac{1}{2})(\frac{1}{2}) + \Pr(p > \frac{1}{2})E(p|p > \frac{1}{2}) = \frac{5}{8}$.

The problem for the Voter is that she is at an informational disadvantage vis-à-vis her political agents regarding the likelihood that the policy will succeed (cf. Canes-Wrone et al. 2001; Downs & Rocke 1994). To capture this information asymmetry, assume that both the President and Congress, but not the

¹ That the utility change from success and from failure is the same is a benign assumption made to simplify the analysis. Everything that follows could easily be modified to allow the Voter to place a relatively higher or lower weight on success than on failure.

Voter, learn p .² Furthermore, the agents' preferences may diverge from the Voter's. To capture this possible divergence, assume that each agent may each be one of three types. First, the agent may be *unbiased*. Second, the agent may be biased in favor of the policy. In the military intervention example, we might refer to these types as *Hawks*. Third, the agent may be biased against the policy. Call these types *Doves*. An unbiased agent receives the same policy payoffs as the Voter: 1 for success, 0 for failure, and $\frac{1}{2}$ for the status quo. For a Hawk, the status quo payoff is also $\frac{1}{2}$, but the payoff from policy success is $1+b$ and the payoff from failure is b . For a Dove, the status quo payoff is $\frac{1}{2}$, but the payoff from success is $1-b$ and the payoff from failure is $-b$. The constant parameter $b \in [0, \frac{1}{2}]$ measures the magnitude of the possible "bias" of each agent.³ Thus, an unconstrained Hawk would prefer to invade if $p > \frac{1}{2} - b$, while an unconstrained Dove would favor invasion only if $p > \frac{1}{2} + b$.

The Voter cannot directly observe either agent's type, but she knows the probability distribution from which they are drawn. Again keeping things simple, suppose the only observable information about each politician is his party affiliation, and there are two parties, a "Left" Party and a "Right" Party. A Right Party member is a Hawk with probability $q \in [0, 1]$, unbiased with probability $1-q$, and never a Dove; a Left Party member is a Dove with probability q , unbiased with probability $1-q$, and never a Hawk. The Voter knows q and observes the party affiliation, but not the actual type, of the President and Congress. In contrast, we assume – again with some sacrifice of descriptive realism – that the President and Congress observe one another's type.

² This is admittedly a problematic assumption in contexts – including our running example of military intervention – where one agent, such as the President, arguably has better information than the other agent, such as Congress (cf. Ponser & Vermeule 2007; Moe & Howell 1999). We abstract away from that complication for purposes of this paper.

³ The upper bound on b guarantees that even a Hawk would not launch a military campaign that was certain to end in defeat, and even a Dove would launch a military campaign that was guaranteed to succeed.

The discretion of the political agents may be checked in two ways. The first mechanism of political control is *external accountability*. Although the Voter never learns p , she observes whether the policy was adopted, and, if so, whether it was a success or failure.⁴ On the basis of that information the Voter can reward or punish a politician by varying her level of political support for that politician. This support level may be thought of most naturally as the probability of voting for the politician's re-election, but it may also be susceptible to other interpretations.⁵ Formally, after policy has been chosen and the outcome revealed, the Voter chooses political support levels $s_i \in [0, 1]$, $i = \{P, C\}$. Each s_i enters additively into the politician i 's utility function.

Following canonical retrospective voting models, we assume the Voter is indifferent between possible support levels for each politician, which makes the Voter's choice of any reward and punishment strategy sequentially rational (Ferejohn 1986; Austen-Smith & Banks 1989; Persson et al. 1997). When political agents vary in their preferences or competence, however, the indifference assumption is problematic (Fearon 1999; Besley 2005; Persson & Tabellini 2000). Our decision to examine optimal voter sanctioning rules therefore requires some additional justification. We believe it is reasonable, at least as a starting point, for three reasons. First, in many cases information as to whether a politician was biased on *past* issues does not provide useful information on the probability of *future* bias, especially if the issues likely to arise in future periods are fundamentally different from those that came up in the past. More generally, the Voter might view all politicians as having roughly the same probability of being biased on any given

⁴ A useful extension would make the Voter's timely observation of the policy outcome probabilistic rather than certain (Canes-Wrone et al. 2001), but we defer that possibility to future work.

⁵ Most of the extant retrospective voting models focus on pure strategies, typically those in which the voter retains the incumbent politician if the voter's welfare exceeds a certain threshold level (e.g. Ferejohn 1986; Austin-Smith & Banks 1989). However, recent work has demonstrated that the voter can typically do better by playing a mixed strategy, retaining the incumbent with some probability between 0 and 1 (e.g. Meirowitz 2007; Bueno de Mesquita & Friedenbergh 2007).

issue, but the particular cases in which this bias manifests itself are randomly distributed.⁶ Second, repeat play, reputation, behavioral conditioning, or other mechanisms might enable voters to commit to an optimal sanctioning strategy, at least when the *ex post* incentives to deviate are not too strong (Downs & Rocke 1994; Persson & Tabellini 2000). Third, notwithstanding the theoretical concerns, there is some evidence that voters engage in purely retrospective sanctioning behavior at least some of the time (Norpoth 1996; Downs & Rocke 1994; Alesina et al. 1993). Therefore, although a more complete analysis should incorporate prospective Voter selection of good types, we believe the identification of the Voter's optimal retrospective sanctioning rule is useful to establish a baseline case, to which more sophisticated models can be compared.

The second mechanism of political control consists of *internal checks*. The constitutional rules may allocate agenda-setting and veto power in different ways, and these alternative arrangements may influence the circumstances under which proponents can enact, or opponents can obstruct, a new policy initiative. We focus on three simplified institutional arrangements. The first is a *Unilateral Authority* regime, in which the President (who we will arbitrarily designate as the agenda setter under all three regimes) has the exclusive authority to decide whether to adopt the new policy. In this regime, there are no internal checks – Congress effectively does not exist – so external accountability is the only source of constraint on presidential policy-making.

⁶ We also note that, despite the fragility of the indifference assumption, recent theoretical advances demonstrate that one can relax that assumption and still retain the result that the voter can employ punishment strategies that combat moral hazard by manipulating politicians' *ex ante* incentives (Bueno de Mesquita & Landa 2008; Ashworth et al. 2008; see also Snyder & Ting 2008). The models that generate this result require more complexity than the canonical model, and it is not clear whether these findings would apply to a model such as ours, in which the political agents vary by policy preference. Nonetheless, simple sanctioning models such as the one developed in this paper are useful in developing intuitions about optimal voter sanctioning strategy (cf. Ashworth et al. 2008).

The second regime we consider is a *Mandatory Checks and Balances* regime, in which the President has agenda-setting power but cannot enact a new policy unless Congress approves it. This form of internal checks corresponds to the widely-used analytical framework that characterizes political systems in terms of the allocation of proposal rights and the number and distribution of “veto players” (Ferejohn & Shipan 1990; Tsebelis 1995, 2002; McCarty 2000). Importantly, the existence of the internal congressional check on Presidential power does not eliminate the central role of external accountability. Indeed, under this system both the President and Congress will be held accountable by the Voter for their choices and the ultimate outcome.

Third and finally, we consider an *Opt-In Checks and Balances* regime, in which the President *may* seek congressional authorization for the new policy, but may also act unilaterally. As was true in the Mandatory Checks case, external accountability remains a salient form of political discipline in the Opt-In Checks regime, because both the President and Congress need to consider the Voter’s likely response to different possible policy choices and outcomes. The Opt-In Checks regime might seem less realistic than the other two. This regime, however, may correspond to a number of important real-world situations. It may, for example, apply relatively well to our running example of foreign military intervention. The United States Constitution gives Congress the exclusive power to declare war, but it makes the President the Commander-in-Chief. This division of authority has given rise to a great deal of legal and political controversy. Practically, it means that while the President *can* ask Congress for a declaration of war, the President is also able to initiate military action unilaterally, and for a variety of legal and political reasons it is difficult for Congress to disapprove of military action once troops are in the field (Moe & Howell 1999). The Opt-In Checks regime may also capture certain areas of domestic policy. The President may pursue his domestic agenda by proposing legislation to Congress, but the President may also be able to advance his agenda by initiating regulatory action by bureaucratic agents in ways that do not require congressional approval, and which are practically difficult for Congress to overturn (Kagan 2001). The correspondence between these real situations and our stylized model is, of course, contestable. For present purposes, we seek only to show that such a system is plausible enough to be taken seriously.

We analyze formally the behavior of the Voter, the President, and Congress under each of these regimes. We are particularly interested in the answers to three questions. First, how does the Voter allocate political credit and blame under these different systems – and, in the checks-and-balances regimes, how does Voter and politician behavior differ under unified and divided government? Second, how does the institutional regime affect the *ex ante* likelihood of policy change? Third, and most important, which regime is best for expected Voter welfare, and why?

Before proceeding, it is useful to explain how our analysis relates to the small but important body of existing scholarship on the connection between internal checks and external accountability. First, some contributions suggest that separation of powers allows politicians to shift or obscure responsibility for controversial decisions. Literature in this vein invokes the diffusion of political accountability to explain, among other things, congressional delegation of power to the President or to executive agencies (e.g., Fiorina 1982; Aranson et al. 1982), acceptance of independent judicial review by the political branches (e.g., Graber 1993; Salzberger 1993), and decisions by the President to seek congressional approval for controversial decisions (e.g. Nzelize 2007). The principal insight of these contributions is that an institutional separation of powers may reduce the efficacy of voter discipline, because voters are unable to assign responsibility accurately and effectively (cf. also Powell & Whitten 1993; Bueno de Mesquita & Landa 2008). Our approach differs, because the Voter in our model is fully rational and can observe the decisions made by each institution, so there is no “clarity of responsibility” problem.

Second, some literature considers how rival politicians may exploit the institutional separation of powers to make their opponents appear extreme or incompetent (e.g., Groseclose & McCarty 2001; Glazer 2007). The central insight of this work is that voters can sometimes use the policy positions taken by different government actors to draw inferences about those actors’ types, and that political agents may strategically adjust their behavior as a result. Separation of powers may (but need not always) enhance the efficacy of electoral accountability by increasing the amount of information that voters learn about their agents’ preferences and abilities. Our analysis has some similarities to this literature. The principal difference is that in our model, the Voter chooses her political support strategy solely to create optimal *ex*

ante incentives; her strategy is not influenced by her *ex post* estimate of the likelihood that a given agent is biased. In other words, in our model the Voter is concerned solely with “sanctioning poor performance” rather than to “selecting good types” (Fearon 1999).⁷

Finally, the prior work most closely related to our analysis is Persson, Roland, and Tabellini (1997) (PRT). In the PRT model, a President and Legislature are jointly responsible for allocating a government budget. Each agent wants to divert as much as possible to private use; the voter prefers a certain amount of government spending on public goods, and to retain the rest of her income for private consumption. The voter can discipline the politicians by threatening to replace them if voter welfare is too low. PRT’s analysis yields two important results. First, if the President and Legislature make independent decisions about how much of the budget to divert to their own private use, separation of powers creates a common-pool problem that reduces voter welfare, relative to a purely unitary system (see also Brennan & Hamlin (1994)). Second, a checks-and-balances regime with “two-stage budgeting” – in which one branch proposes a total government budget, but the other branch chooses how to allocate the budget – improves voter welfare.

Our model is similar to PRT’s, but it differs in several critical respects. First, in PRT, the political agents always want to divert as much of the budget as possible to their own private use; the agents do not

⁷ Typically, models that focus on sanctioning address a moral hazard (hidden action) problem, while those that focus on selecting good types address an adverse selection (hidden information) problem. Our model is technically an adverse selection model rather than a moral hazard model, as the politicians have information (the probability of policy success) that is hidden from the Voter, and there is no hidden action. Our model, however, has more in common with sanctioning models, as the Voter is trying to use political penalties to induce the agents to take the correct action. Our approach is most similar to that of Downs & Rocke (1994). Meirowitz (2007) also considers a model in which voters seek to create appropriate incentives for a politician with hidden knowledge about policy, though in Meirowitz’s model the hidden information takes the form of a budget constraint, rather than a probability of policy success.

directly benefit from supplying the public good. In contrast, we assume politicians have preferences over public policy that may be at least partially aligned with Voter preferences (cf. Bueno de Mesquita & Stephenson 2007). Second, in PRT, the voters know the politicians' utility functions. In contrast, we assume the Voter is uncertain of politicians' preferences (cf. Stephenson 2004; Posner & Vermeule 2007). Third, our analysis focuses on a fundamentally different kind of political decision – whether to implement a specific new policy, such as a foreign military intervention. While PRT's proposed two-stage budgeting process is ingenious, this institutional structure is harder to apply to the sorts of policy decisions that are our focus. As we will see, these differences in set-up lead to striking differences in the main results.

II. Analysis

A. Unilateral Authority

Consider the simplest of the three institutional regimes, in which there is only one political agent involved in making the relevant decision. This regime corresponds most closely to the canonical versions of the retrospective voting model. We assume throughout that the President is a member of the Right Party, meaning that he is either unbiased or a Hawk. Three outcomes are possible in this case: the President might enact a policy that succeeds; the President might enact a policy that fails; or the President might take no action. Voter support for the President is contingent on which of these events occurs.

Before proceeding, it is helpful to first establish the following lemma:

Lemma 1: The Voter always weakly prefers to set an agent's political support level at its maximum value (1) in the event of a policy success, and to set the agent's political support level at its minimum value (0) in the event of a policy failure.⁸

⁸ All proofs are in the Appendix.

The equilibrium of the “Unilateral Authority” game that maximizes expected Voter utility is given by the following proposition:

Proposition 1: In the equilibrium that maximizes the Voter’s expected utility under the Unilateral Authority regime (with a President from the Right Party):

- The *Voter* gives the President maximum political support (1) in case of policy success and minimum political support (0) in case of policy failure. If the President takes no action, the Voter’s political support for the President is $\frac{1}{2} + qb$.
- An *unbiased President* adopts the new policy if and only if the *ex ante* probability of policy success (p) is greater than $\frac{1}{2} + \frac{qb}{2}$.
- A *Hawk President* adopts the new policy if and only if $p > \frac{1}{2} - \frac{(1-q)b}{2}$.

The most important behavioral implication of Proposition 1 concerns the asymmetry in the magnitude of the political rewards and punishments for policy success and failure, respectively. It is reasonable to measure these political rewards and punishments not simply in absolute terms, but relative to the default amount of political support that the President would receive if he took no action. Therefore, let us define the President’s *credit* for policy success as the difference between the President’s support level when policy succeeds (equal to 1) and his support level when he takes no action (equal to $\frac{1}{2} + qb$). Similarly, we can define President’s *blame* for policy failure as the difference between his support level when he takes no action ($\frac{1}{2} + qb$) and his support level in case of policy failure (0). Using this terminology, we can characterize the political stakes for the President as follows: If the policy succeeds, the President’s political credit is $\frac{1}{2} - qb$; if the policy fails, the President’s political blame is $\frac{1}{2} + qb$. Thus, in this case – where the President is a member of the Right Party, and so may be biased in favor of taking military action – the blame for failure is greater than the credit for success. This asymmetry arises because the Voter

partially compensates for the possibility that the President might be a Hawk by, in essence, giving the President some “extra” political support when he decides not to take action.⁹

Behaviorally, then, the model predicts that voters will use asymmetric punishment strategies. When voters perceive a decision-maker as potentially biased in favor of a given policy, such as a military intervention, voters will confer relatively less political credit if the policy succeeds, and relatively more political blame if the policy fails. Conversely, if voters perceive the decision-maker as potentially biased against the new policy, they will offer more credit for success, and impose less blame for failure.

Next, we would like to know the *ex ante* probability that the President will decide to launch the military invasion (i.e., choose $x=1$) in the Unilateral Authority case. That probability is given by the following corollary to Proposition 1.

Corollary 1.1: In the equilibrium of the Unilateral Authority game described in Proposition 1, the *ex ante* probability that the President will choose $x = 1$ is $\frac{1}{2}$.

The particular probability that the new policy is adopted ($\frac{1}{2}$) is not intrinsically interesting; it is an artifact of the model’s particular (and unrealistic) functional form assumptions. It does, however, provide a baseline that we use subsequently to evaluate whether adding internal checks to the model affects the probability of policy change.

Finally, we would like a measure of the welfare effects of the Unilateral Authority system. The Voter’s *ex ante* expected utility, in the equilibrium described in Proposition 1, is given by the following corollary to that proposition:

⁹ If the President were from the Left Party, the analysis would be essentially the same, except the signs would be reversed: The Voter would give the President who does nothing a political support level equal to $\frac{1}{2} - qb$, meaning that credit for success is $\frac{1}{2} + qb$ and blame for failure is $\frac{1}{2} - qb$.

Corollary 1.2: In the equilibrium of the Unilateral Authority game described in Proposition 1, the

Voter's *ex ante* expected utility is $\frac{5}{8} - \frac{q(1-q)b^2}{8}$.

Recall that if the Voter were perfectly informed, or if the President were a perfect agent, the Voter's expected utility would be $5/8$. So, the second term in the expected utility expression in Corollary 1.2 can be interpreted as the welfare loss associated with the Unilateral Authority regime. This welfare loss arises from two sorts of errors. First, if the President is a Hawk and $p \in (\frac{1}{2} - \frac{(1-q)b}{2}, \frac{1}{2}]$, the result is a "false positive": the President acts even though the probability of success is less than $1/2$. Second, if the President is unbiased and $p \in (\frac{1}{2}, \frac{1}{2} + \frac{qb}{2}]$, the result is a "false negative": although the President is unbiased and the probability of success is greater than $1/2$, the Voter's disproportionate punishment of policy failure deters the President from acting.

B. Mandatory Checks and Balances

Next consider a system in which the President may propose a new policy initiative, such as a foreign military intervention, but this policy can be implemented only if Congress approves. There are therefore four possible states of the world that the Voter might observe at the point when she chooses her levels of political support for the President and Congress: policy success, policy failure, a decision by the President not to propose the new policy, and a congressional veto of the President's proposal.

As before, we will assume that the President is from the Right Party, meaning that the President is a Hawk with probability q and is unbiased with probability $1-q$. We will consider separately the cases of "unified government" and "divided government." In the unified government case, Congress is also controlled by the Right Party, meaning that the pivotal voter in Congress has probability q of being a Hawk and probability $1-q$ of being unbiased. In the divided government case, the pivotal voter in Congress belongs to the Left Party, and so is a Dove with probability q and unbiased with probability $1-q$. We assume that the types of Congress and the President are independently drawn.

1. *Mandatory Checks and Balances with Unified Government*

The following lemma is helpful in both the unified and divided government scenarios:

Lemma 2: In the Mandatory Checks regime, the Voter weakly prefers to set the President's support level in the case of a congressional veto equal to the President's support level in the case where the President takes no action.

Under the Mandatory Checks regime, when the President and the pivotal member of Congress are both members of the Right Party, the equilibrium specified in the following proposition maximizes the Voter's expected utility:

Proposition 2: In an equilibrium that maximizes the Voter's expected utility under the Mandatory Checks regime with unified government under the Right Party:

- The *Voter* adopts the following strategy:
 - If the new policy is enacted, give the President and Congress maximum political support (1) in case of policy success, and minimum political support (0) in case of policy failure.
 - If Congress vetoes a presidential proposal, give Congress a political support level of $\frac{1}{2}$, and give the President a support level of $\frac{1}{2} + \frac{q^2b}{q^2-q+1}$.
 - If the President does not propose a new policy, give the President a support level of $\frac{1}{2} + \frac{q^2b}{q^2-q+1}$. (The Voter's political support for Congress in this scenario is irrelevant and can take any value.)

- An *unbiased President* proposes the new policy if and only if the observed *ex ante* probability of policy success (p) is greater than $\frac{1}{2} + \frac{q^2b}{2(q^2-q+1)}$.
- A *Hawk President* proposes the new policy if and only if $p > \frac{1}{2} - \frac{(1-q)b}{2(q^2-q+1)}$.
- An *unbiased Congress* approves a presidential proposal if and only if $p > 1/2$.
- A *Hawk Congress* approves a presidential proposal if and only if $p > \frac{1}{2} - \frac{b}{2}$.

As was true under the Unilateral Authority regime, the Voter imposes asymmetric levels of credit and blame on the President. In the Mandatory Checks case, the President's credit for success is $\frac{1}{2} - \frac{q^2b}{q^2-q+1}$, while his blame for failure is $\frac{1}{2} + \frac{q^2b}{q^2-q+1}$. Because the President may be a Hawk, the blame for failure exceeds the credit for success. Importantly, however, this asymmetry is less extreme in the Mandatory Checks case than in the Unilateral Authority case. In the Unilateral Authority case, the difference between the magnitudes of credit and blame was $2qb$; in the Mandatory Checks case, this difference is $2qb\left(\frac{q}{q^2-q+1}\right)$, which is smaller than $2qb$. While this result seems consistent with the familiar claim that a separation of powers allows the primary decision-maker to "shift the responsibility" for policy outcomes (e.g., Fiorina 1982; Graber 1993), the explanation for the reduction in the asymmetry of blame and credit is *not* that the Voter is somehow fooled or otherwise unsure about how to allocate responsibility for the decision. Our result, then, is not vulnerable to the criticism, sometimes leveled at the blame-shifting argument, that it makes questionable assumptions about voter rationality (e.g., Stephenson 2003). Rather, in our model the Voter rationally reduces the asymmetry in credit and blame because the congressional check acts as a kind of substitute for rewards and punishments offered by the Voter. Because the Voter can rely on Congress to weed out at least some of the inadvisable military interventions, the Voter does not need to be as aggressive in punishing the President disproportionately for policy failures. This is good for the Voter, because the imposition of asymmetric blame and credit is a blunt instrument that pro-

duces many false positives and false negatives. So, while our model appears to predict that the congressional check allows the President to “shift (some) responsibility” for undesirable outcomes, this characterization of the result is misleading.

Another interesting feature of Voter behavior in the equilibrium described in Proposition 2, and another way in which this result differs from the standard blame-shifting story, is that there is no asymmetry in the credit and blame that the Voter confers on *Congress*. Let us define Congress’s political credit for policy success as the difference between its support level when policy succeeds and its support level when it vetoes the President’s proposal. Define Congress’s political blame for failure analogously as the difference between its support level in case of a veto and its support level when it approves a failed policy. In the equilibrium described in Proposition 2, Congress’s credit for success and blame for failure are equal.

In addition to the differences in Voter allocation of credit and blame, we are interested in whether the *ex ante* probability that the new policy will be enacted differs under the Unilateral Authority and Mandatory Checks regimes. After all, a familiar and intuitive claim is that adding another “veto player” reduces the probability of policy change (e.g., Tsebelis 1995; Henisz 2000). A contrary hypothesis suggests that, at least in some circumstances, adding a “veto player” can *increase* the likelihood of policy change, because the primary decision-maker can shift some of the responsibility onto the other agent, whereas unilateral action would be politically infeasible (Nzelibe 2007; Aranson et al. 1982). In our model, neither of these predictions turns out to be right, as can be seen from the following corollary to Proposition 2:

Corollary 2.1: In the equilibrium of the Mandatory Checks game described in Proposition 2, the *ex ante* probability that the President and Congress will adopt $x=1$ is $\frac{1}{2}$.

Thus, the *ex ante* probability of enacting the new policy is exactly the same ($\frac{1}{2}$) under both the Unilateral Authority and Mandatory Checks regimes. The reason is that the introduction of the congressional check has two effects. First, Congress may block some initiatives that the President otherwise would have implemented. This effect decreases the *ex ante* probability of a policy change. Second, precisely

because Congress will block some number of undesirable policies, the Voter rationally reduces (but does not eliminate) the degree to which the President's blame for failure exceeds his credit for success. This effect increases the *ex ante* probability of policy change. These two results offset, leaving the probability of enacting the new policy constant across the two regimes.

While the *probability* of enacting the new policy is unaffected by the addition of the congressional veto, this institutional change does affect the Voter's expected welfare. The Voter is better off with the congressional check than without it, as can be seen in the following corollary to Proposition 2.

Corollary 2.2: In the equilibrium of the Mandatory Checks regime described in Proposition 2, the Voter's *ex ante* expected utility is $\frac{5}{8} - \frac{q^2(1-q)^2 b^2}{8(q^2-q+1)}$, which is *greater* than the Voter's expected utility under the Unilateral Authority regime.

The reason the Voter is better off under the Mandatory Checks regime is that Congress will screen out some number of undesirable policy changes. Because the Voter does not distort Congress's incentives by introducing any asymmetry into the allocation of credit and blame, when Congress is unbiased and the President is a Hawk, the policy choice always perfectly tracks Voter preferences. In this case, if the probability of policy success (p) is high enough to satisfy Congress, it is high enough to satisfy the President, and Congress's threshold for action is exactly the same as the Voter's. If Congress and the President are both unbiased, there will be a false negative if $p \in (\frac{1}{2}, \frac{1}{2} + \frac{q^2 b}{2(q^2-q+1)}]$. If Congress's pivotal member is a Hawk, then anything the President (whether unbiased or Hawkish) would be willing to propose, Congress would approve. In this case, there will be a false negative if the President is unbiased and $p \in (\frac{1}{2}, \frac{1}{2} + \frac{q^2 b}{2(q^2-q+1)}]$, and there will be a false positive if the President is a Hawk and $p \in (\frac{1}{2} - \frac{(1-q)b}{2(q^2-q+1)}, \frac{1}{2}]$. The ranges of p values that result in false positives and false negatives is smaller in the Mandatory Checks

case than in the Unilateral Authority case, and under one possible configuration of preferences (Hawk President, unbiased Congress), there are no errors in either direction.

2. *Mandatory Checks and Balances with Divided Government*

Now consider a “divided government” case, in which the President is a member of the Right Party but Congress is controlled by the Left Party. Thus the President is either unbiased or a Hawk, while the pivotal member of Congress is either unbiased or a Dove. In this case, the following proposition describes an equilibrium that maximizes the Voter’s expected utility under a Mandatory Checks regime:

Proposition 3: In an equilibrium that maximizes expected Voter utility under Mandatory Checks with divided government (Right President, Left Congress):

If the probability of bias (q) is less than or equal to $\frac{1}{2}$:

- The *Voter* adopts the following strategy:
 - If the new policy is enacted, give the President and Congress maximum political support (1) in case of policy success, and minimum political support (0) in case of policy failure.
 - If Congress vetoes a presidential proposal, give Congress political support level $\frac{1}{2} - \frac{b}{2-q}$, and give the President political support level $\frac{1}{2}$.
 - If the President does not propose a new policy, give the President political support level $\frac{1}{2}$. (The Voter’s political support level for Congress in this scenario is irrelevant and can take any value.)
- An *unbiased President* proposes the new policy if and only if the observed *ex ante* probability of policy success (p) is greater than $\frac{1}{2}$.
- A *Hawk President* proposes the new policy if and only if $p > \frac{1}{2} - \frac{b}{2}$.
- An *unbiased Congress* approves a presidential proposal if and only if $p > \frac{1}{2} - \frac{b}{2(2-q)}$.

- A *Dove Congress* approves a presidential proposal if and only if $p > \frac{1}{2} - \frac{(1-q)b}{2(2-q)}$.

If q is greater than $\frac{1}{2}$:

- The *Voter* adopts the following strategy:
 - If the new policy is enacted, give the President and Congress maximum political support (1) in case of policy success, and minimum political support (0) in case of policy failure.
 - If Congress vetoes a presidential proposal, give Congress political support level $\frac{1}{2} - b$, and give the President political support level $\frac{1}{2} + \frac{qb}{1+q}$.
 - If the President does not propose a new policy, give the President political support level $\frac{1}{2} + \frac{qb}{1+q}$. (The Voter's political support level for Congress in this scenario is irrelevant and can take any value.)
- An *unbiased President* proposes the new policy if and only if $p > \frac{1}{2} + \frac{qb}{2(1+q)}$.
- A *Hawk President* proposes the new policy if and only if $p > \frac{1}{2} - \frac{qb}{2(1+q)}$.
- An *unbiased Congress* approves a presidential proposal if and only if $p > \frac{1}{2} - \frac{b}{2}$.
- A *Dove Congress* approves a presidential proposal if and only if $p > \frac{1}{2}$.

Interestingly, the optimal strategy for the Voter in this case depends on whether the probability of bias (q) is low or high. Because this probability is, by assumption, constant for the Left Party and the Right Party, the parameter q might be interpreted as the degree of “polarization.” When q is high, it is likely that at least one of the agents will be biased, and it is more likely that they will both be biased (a Hawk President and a Dove Congress) than that they will both be unbiased. If q is low, there is a greater chance that one or both of the agents will be unbiased.

In the low polarization case ($q < \frac{1}{2}$), the Voter no longer tries to influence the President's incentives by using credit and blame asymmetries. Instead, the Voter uses asymmetric credit and blame to manipulate

the incentives of Congress. Congress's credit for success ($\frac{1}{2} + \frac{b}{2-q}$) is greater than its blame for failure ($\frac{1}{2} - \frac{b}{2-q}$). This distortion gives Congress more incentive to approve a presidential proposal. In contrast, in the high polarization case ($q > \frac{1}{2}$), the Voter uses asymmetric reward and punishment strategies for both the President and Congress. The President's credit for success ($\frac{1}{2} - \frac{qb}{1+q}$) is smaller than his blame for failure ($\frac{1}{2} + \frac{qb}{1+q}$), while Congress's credit for success ($\frac{1}{2} + b$) is larger than its blame for failure ($\frac{1}{2} - b$). The magnitude of the asymmetry is greater for Congress than the President. Also, the asymmetry is less pronounced for the President here than in the Unilateral Authority case. So, again, we see patterns of political behavior that look like responsibility-shifting, but in fact have their roots in the incentive schemes created by rational retrospective voting. In the low polarization case, the Voter does not manipulate the President's incentives because the Voter can best achieve her objectives by leaving the President unconstrained and instead influencing Congress's incentives. In the high polarization case, the Voter manipulates the President's incentives, but she has less need to do so because she can rely on Congress (whose incentives she also manipulates) to weed out some of the bad policies the President might propose.

As was true in the united government case, adding a congressional check does not alter the *ex ante* probability that the new policy will be enacted. This follows straightforwardly from Proposition 3:

Corollary 3.1: In the equilibrium of the Mandatory Checks game described in Proposition 3, the *ex ante* probability that the President and Congress will select $x=1$ is $\frac{1}{2}$.

This result is perhaps even more striking. One might have thought that a Mandatory Checks regime with divided government would exhibit the strongest status quo bias, since both branches must consent to a policy change, and the branches are least likely to agree. But the key insight of the model is that the Voter also understands these features of the system, and adjusts her strategy for allocating political rewards and punishments accordingly. Furthermore, although one might initially assume that there is a very high probability that a Congress controlled by the Left Party might be excessively inclined to block

desirable policies, the Voter is aware of this too, and the Voter compensates for this potential bias by manipulating Congress's incentives. So, the intuition that adding a veto player will increase status quo bias turns out not to be correct in our model, even if the veto player is potentially biased against taking action,

Next, consider Voter welfare. We have already seen that the Voter does better under the Mandatory Checks regime than under the Unilateral Authority regime when the government is unified. This is also true, as the following corollary shows, when the government is divided.

Corollary 3.2: In Mandatory Checks regime with divided government, the Voter's *ex ante* expected utility is

- $\frac{5}{8} - \frac{q(1-q)b^2}{8(2-q)}$ if $q \leq \frac{1}{2}$;
- $\frac{5}{8} - \frac{q(1-q)b^2}{8(1+q)}$ if $q \geq \frac{1}{2}$.

The Voter's expected utility under the relevant Mandatory Checks equilibrium is greater than her expected utility under Unilateral Authority.

We may also want to know whether the Voter is better off under unified or divided government, assuming a Mandatory Checks regime. A comparison of Corollaries 2.2 and 3.2 yields the following result:

Corollary 3.3: Under the Mandatory Checks regime, the Voter prefers unified government if $q < 1/2$, but prefers divided government if $q > 1/2$.

This result indicates that the Voter prefers unified government when polarization is low. Conversely, and perhaps surprisingly, when polarization is high, the Voter prefers divided government.

C. *Opt-In Checks and Balances*

Finally, consider a system in which the President has the authority to act unilaterally, but the President may also “opt in” to a congressional check by submitting his proposal to Congress, which may then approve or disapprove. As in the preceding section, we will consider separately the cases of unified and divided government, assuming throughout that the President is a member of the Right Party. Before proceeding, it is important to note that Lemma 2 does not apply to the Opt-In Checks regime. There may be (and, as we will establish, will be) cases in which the Voter’s equilibrium strategy calls for different levels of political support for the President when Congress vetoes the President’s proposal, and when the President takes no action. Instead, the following lemma applies:

Lemma 3: In the Opt-In Checks regime, the Voter never has an incentive to set the President’s support level in case of a congressional veto lower than the support level in the case where the President makes no proposal.

1. Opt-In Checks and Balances with Unified Government

Under the Opt-In Checks regime, when both the President and the pivotal member of Congress are members of the Right Party, the equilibrium specified in the following proposition maximizes the Voter’s expected utility.

Proposition 4: In an equilibrium that maximizes the Voter’s expected utility under the Opt-In Checks regime with unified government under the Right Party:

- The *Voter* adopts the following strategy:
 - If the President adopts the new policy unilaterally, give the President the maximum political support (1) if the policy succeeds and minimum political support (0) if the policy fails. (The Voter’s political support level for Congress in this scenario is irrelevant and can take any value.)

- If the President proposes a new policy to Congress and Congress approves it, give the President and Congress maximum political support (1) if the policy succeeds and minimum support (0) if the policy fails.
- If the President takes no action, give the President political support of $\frac{1}{2}$. (The Voter's political support level for Congress in this scenario is irrelevant and can take any value.)
- If the President proposes a new policy and Congress vetoes it, give the President political support level $\frac{1}{2} + b$, and give Congress political support level $\frac{1}{2} + \frac{q^2 b}{q^2 + (1-q)^2}$.
- An *unbiased President* adopts the following strategy:
 - If Congress would approve the policy, propose it to Congress if the probability of policy success (p) is greater than $\frac{1}{2}$; otherwise, take no action.
 - If Congress would veto the policy, propose it to Congress if $p \leq \frac{1}{2} + \frac{b}{2}$; otherwise, enact the policy unilaterally.
- A *Hawk President* adopts the following strategy:
 - If Congress would approve the policy, propose it to Congress if $p > \frac{1}{2} - \frac{b}{2}$; otherwise, take no action.
 - If Congress would veto the policy, propose it to Congress if $p \leq \frac{1}{2}$; otherwise, enact the policy unilaterally.
- An *unbiased Congress* approves a proposal if and only if $p > \frac{1}{2} + \frac{q^2 b}{2(q^2 + (1-q)^2)}$.
- A *Hawk Congress* approves a proposal if and only if $p > \frac{1}{2} + \frac{(1-q)^2 b}{2(q^2 + (1-q)^2)}$.

The patterns of credit and blame allocation look different in the Opt-In Checks case than they did in the earlier cases. The first thing to observe is that the President's political support level when Congress vetoes his proposal ($\frac{1}{2} + b$) is greater than his support level when the President makes no proposal at all.

This implies that when the President makes a proposal that is rejected, the Voter rewards the President politically, even though there is no policy change. Thus, if the President can anticipate that Congress will veto his proposal, he prefers to make the proposal. This result is broadly consistent with the argument that an agenda-setter can improve its standing with the electorate by proposing a policy that is vetoed, because this makes the agenda setter look more “moderate” and the veto player more “extreme” (Grosche & McCarty 2001). However, the causal mechanism is different in our framework. In our model, the political “reward” the President receives when his proposal is vetoed has nothing to do with the Voter learning additional information about the President’s type. Instead, the Voter rewards the President in case of a congressional veto because the Voter needs to manipulate presidential incentives to discourage excessive unilateral action.

To see this point more clearly, recall that we defined the President’s “credit” for success as the difference between the President’s support in case of success and his support if the status quo remains in place, and we defined “blame” analogously. In the Opt-In Checks regime, though, there are two possible ways we can end up with a status quo outcome. First, if Congress would approve a presidential proposal, then we get the status quo only if the President takes no action.¹⁰ Second, if Congress would veto a presidential proposal, then (in light of Lemma 3) we get the new policy only if the President acts unilaterally. So, we can define two distinct pairs of credit/blame combinations. The President’s *credit for joint success* is the difference between his support in case of policy success (1) and his support when he makes no proposal ($\frac{1}{2}$). Likewise, the President’s *blame for joint failure* is the difference between his support when he makes no proposal ($\frac{1}{2}$) and his support when policy fails (0). By contrast, the President’s *credit for unilateral success* is the difference between his support in case of success (1) and his support when his proposal is vetoed ($\frac{1}{2} + b$), while his *blame for unilateral failure* is the difference between his support in case of a veto ($\frac{1}{2} + b$) and his support in case of failure (0).

¹⁰ This is guaranteed by the tiebreaking assumption that, if the President is indifferent between unilateral action and joint action, the President will choose joint action.

From this, it follows that the President’s credit and blame in the case of joint action are symmetric: both are equal to $\frac{1}{2}$. When the President acts unilaterally, however, credit and blame are asymmetric: credit for unilateral success ($\frac{1}{2} - b$) is smaller than blame for unilateral failure ($\frac{1}{2} + b$). This asymmetry is more pronounced than was true even under the Unilateral Authority regime. The Voter achieves this asymmetry by offering the President the “carrot” of additional support if the President makes a proposal that is vetoed. If the President passes up that opportunity, and instead acts unilaterally, the potential gains in support if the policy succeeds are much smaller than the potential losses in support if the policy fails. This result is consistent with the claim that the President has more to lose politically when he acts unilaterally, and with the claim that the option of going to Congress raises the political stakes for the President.

What about the Voter’s assignment of credit and blame to Congress? The only comparison that matters here is between the congressional support levels in case of success or failure (1 and 0, respectively), and the congressional support level in case of a veto ($\frac{1}{2} + \frac{q^2b}{q^2+(1-q)^2}$). Thus, Congress’s credit for success ($\frac{1}{2} - \frac{q^2b}{q^2+(1-q)^2}$) is smaller than its blame for failure ($\frac{1}{2} + \frac{q^2b}{q^2+(1-q)^2}$). Note the contrast with the Mandatory Checks regime: In that regime, there was no asymmetry in the Voter’s blame and credit allocations to Congress. Under the Opt-In Checks regime, there is.

As before, the change in the separation of powers regime has no effect on the *ex ante* probability that new regulation will be adopted:

Corollary 4.1: In the equilibrium of the Opt-In Checks regime with unified government described in Proposition 4, the *ex ante* probability that $x=1$ will be chosen is $\frac{1}{2}$.

Although switching from a Mandatory Checks regime to an Opt-In Checks regime does not affect the *ex ante* likelihood the new policy will be adopted, such a switch does improve expected Voter welfare:

Corollary 4.2: In the equilibrium of the Opt-In Checks regime with unified government described in Proposition 4, expected Voter utility is $\frac{5}{8} - \frac{q^2(1-q)b^2}{8(q^2+(1-q)^2)}$; this is *greater* than expected Voter utility under Mandatory Checks with unified government.

This result is noteworthy because it suggests that a system in which the primary decision-maker *may* seek the approval of another agent is better than a system in which the primary decision-maker *must* seek such approval, and also to a system in which there is no such approval mechanism. In the context of our military intervention example, our results suggest, first, that it is better to require congressional approval for military action than to give the President has the sole authority to initiate military operations, with no mechanism for seeking congressional approval; and, second, that it is even better to give the President the *option* of going to Congress, but to have the option of acting unilaterally if the President anticipates congressional disapproval.

2. *Opt-In Checks and Balances with Divided Government*

In an Opt-In Checks regime when the President is a member of the Right Party and the pivotal member of Congress is a member of the Left Party, the equilibrium given in the following proposition maximizes the Voter's expected utility:

Proposition 5: In an equilibrium that maximizes expected Voter utility under the Opt-In Checks regime with divided government (Right President, Left Congress):

- The *Voter* adopts the following strategy:
 - If the President adopts the policy unilaterally, give the President maximum political support (1) if the policy succeeds and minimum support (0) if the policy fails. (The Voter's political support level for Congress in this scenario is irrelevant and can take any value.)

- If the President proposes a policy to Congress and Congress approves it, give both the President and Congress maximum political support (1) if the policy succeeds and minimum support (0) if the policy fails.
 - If the President takes no action, give the President political support level $\frac{1}{2}$. (The Voter's political support level for Congress in this scenario is irrelevant and can take any value.)
 - If the President proposes a policy to Congress and Congress vetoes it, give the President support level $\frac{1}{2} + b$, and give Congress support level $\frac{1}{2} - \frac{b}{2}$.
- An *unbiased President* adopts the following strategy:
 - If Congress would approve the policy, propose it to Congress if the probability of policy success (p) is greater than $\frac{1}{2}$; otherwise, take no action.
 - If Congress would veto the policy, propose it to Congress if $p \leq \frac{1}{2} + \frac{b}{2}$; otherwise, enact the policy unilaterally.
 - A *Hawk President* adopts the following strategy:
 - If Congress would approve the policy, propose it to Congress if $p > \frac{1}{2} - \frac{b}{2}$; otherwise, take no action.
 - If Congress would veto the policy, propose it to Congress if $p \leq \frac{1}{2}$; otherwise, enact the policy unilaterally.
 - An *unbiased Congress* approves a presidential proposal if and only if $p > \frac{1}{2} - \frac{b}{4}$.
 - A *Dove Congress* approves a presidential proposal if and only if $p > \frac{1}{2} + \frac{b}{4}$.

The Voter's political support strategy with respect to the President is the same in the divided government case and the unified government case: credit and blame are symmetric (and therefore irrelevant to the President's incentives) when the President acts with congressional approval, but if the President acts unilaterally, blame for failure exceeds credit for success. The Voter achieves this asymmetry by increas-

ing her support for the President if the President proposes a new policy to Congress, Congress vetoes it, and the President subsequently takes no action. With respect to Congress, the principal difference between the unified and divided government cases is that in the former, blame for failure exceeded credit for success, while in the latter case the opposite is true. This makes sense, because when Congress is a Hawk, the Voter is concerned that Congress will be too prone to grant its approval, but when Congress is a Dove, the Voter is concerned that Congress will be excessively hostile to the proposed action.

Yet again, the *ex ante* probability of policy change remains unchanged:

Corollary 5.1: In the equilibrium of the Opt-In Checks regime with divided government described in Proposition 5, the *ex ante* probability that $x=1$ will be chosen is $\frac{1}{2}$.

Furthermore, when the government is divided, the Voter continues to prefer the Opt-In Checks Regime to the Mandatory Checks regime:

Corollary 5.2: In the equilibrium of the Opt-In Checks regime with divided government described in Proposition 5, expected Voter utility is $\frac{5}{8} - \frac{q(1-q)b^2}{16}$, which is greater than expected Voter utility under Mandatory Checks with divided government.

Finally, we can assess whether the Voter prefers unified or divided government in the Opt-In Checks regime by comparing Corollaries 4.2 and 5.2:

Corollary 5.3: In the Opt-In Checks regime, the Voter prefers unified government.

This final result is intriguing in light of the contrasting result for the Mandatory Checks regime (Corollary 3.3). Under Mandatory Checks, the Voter prefers unified government when the probability of bias,

q , is low, but when q is sufficiently high, the Voter prefers divided government. This reversal does not occur in the Opt-In Checks regime.

III. Conclusion

We set out to consider the interrelationship between external accountability and internal checks by comparing equilibrium political behavior across three ideal-type institutional regimes: a Unilateral Authority regime in which one actor (the President) has sole control over a policy decision; a Mandatory Checks and Balances regime in which the President must get the consent of Congress to enact a new policy; and an Opt-In Checks and Balances Regime, in which the President *may* seek congressional approval, but may also circumvent the congressional check and enact a new policy unilaterally. Our analysis generated three related insights.

First, the model produces a set of positive predictions regarding political behavior, and voter assignment of credit and blame, under different institutional regimes. Our model predicts that voters respond to the risk of politician bias by introducing asymmetries in the rewards and punishments for policy success or failure; voters achieve this asymmetry by varying the political support they confer on an agent when no new policy is proposed, or when a proposal is vetoed. However, voters do not need to rely so heavily on this blunt instrument when institutional checks and balances help rule out some undesirable policies. Hence, checks-and-balances regimes may induce behavior patterns that look superficially like “responsibility shifting”: when Congress is involved in a decision, the President gets less blame when things go badly. But, crucially, this occurs because of voters’ rational retrospective reward and punishment strategies, not from voter confusion or uncertainty about which agents are responsible for the policy choice.

Second, the model suggests that when voters’ rational responses to different institutional regimes are considered, adding a veto player does not alter the *ex ante* probability of policy change. This is because voters reduce the asymmetry in their assignment of political blame and credit when they can rely on other institutions to screen out some proportion of bad policy proposals. When this rational adjustment is taken

into account, the addition of a veto player need not – and in our model does not – alter the *ex ante* likelihood of policy change. This is not to say that the separation of powers makes no difference in the frequency of policy change in the real world; numerous factors outside the scope of our model may bear on this issue. We have shown, however, that consideration of this issue cannot neglect voters' strategic response to different institutional settings.

Third, and perhaps most importantly, our model implies that expected voter welfare is highest under Opt-In Checks and lowest under Unilateral Authority. Thus, adding a second political agent with the power to review the primary agent's policy initiatives improves voter welfare, but the voter is better off if the primary agent can circumvent or ignore this second agent than when it cannot. The intuition for this surprising result is that a voter is better off (in expectation) when she can calibrate her political reward and punishment strategy more precisely. Under Unilateral Authority, the voter can only condition her support for the President on the observed outcome of the policy process (success, failure, or no action), and voter uncertainty leads to many false negatives and false positives. When a mandatory congressional check is added, the voter can rely on Congress (which also responds to electoral incentives) to screen out some of the undesirable policies. This, in turn, means that the voter has less need to distort the amount of blame and credit she confers on the President. Finally, if the President is permitted to circumvent the congressional check, and the voter can observe whether the President acted unilaterally or with congressional assent, then the voter can condition the President's rewards and punishments not only on the outcome, but also on whether the President acted with or without congressional approval. The voter can therefore reduce the asymmetry in blame and credit when the President acts with congressional approval, but increase the blame-credit asymmetry in the case of unilateral action.

This normative conclusion is intriguing and (as far as we know) novel, but it is subject to numerous qualifications. Our stylized model assumes, among other things, that voter responses to policy choices and outcomes can effectively discipline political agents. If voters cannot observe agents' choices, or if they do not get information about the policy's outcome sufficiently soon, or if voters are myopic or otherwise irrational, then voter discipline will not be an effective constraint. We also assume that the Presi-

dent and Congress have good information about the likelihood of policy success, as well as each others' preferences. These strong assumptions never hold absolutely; where they are completely inapposite, the model's results may not hold. Furthermore, using the median voter in the electorate as the normative benchmark, as we do, may not always be appropriate, especially when there are concerns about protecting minorities or politically ineffective majorities.

Additionally, while our analysis demonstrates a benefit of making the policymaking process more elaborate by adding more players and creating more alternative ways a policy choice might be made, this additional complexity may entail unmodelled costs. For example, increasing the number of actors and choices may reduce transparency or increase voter monitoring costs. Indeed, we suspect that the existence of such monitoring costs explains why, despite our central conclusion, we do not believe that voters would be best off with an arbitrarily large number of institutional actors (cf. Berry & Gersen 2008).

Those caveats notwithstanding, we believe that the central normative insight still has broad significance: All else equal, the more freedom an institutional regime gives voters to craft refined political reward and punishment strategies, the greater the efficacy of public accountability mechanisms in aligning the preferences of political agents with voters.

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APPENDIX

Proof of Lemma 1:

Consider actor A , who may be either unbiased or a Hawk. The Voter can anticipate that, if actor A is biased, it will prefer to enact the new policy if:

$$p > \frac{\frac{1}{2} + D - F}{1 + S - F} - \frac{b}{1 + S - F}, \quad (1)$$

where p is the probability of policy success, S is the level of political support associated with policy success, F is the level of political support associated with policy failure, and D is the default level of support associated with the “no action” alternative. If A is unbiased, it will prefer to enact the new policy if:

$$p > \frac{\frac{1}{2} + D - F}{1 + S - F} \quad (2)$$

Consider only those cases in which A 's approval threshold is the binding constraint on whether the new policy is enacted. Let π be the probability that A is unbiased, conditional on A 's approval threshold being the binding constraint. Next, fix F and define $\alpha = 1/(1+S-F)$. Using this notation, the Voter's expected utility, conditional on A 's approval threshold being the binding constraint, is:

$$\pi \left(\alpha \left(\frac{1}{2} + D - F \right) \left(\frac{1}{2} \right) + \left(1 - \alpha^2 \left(\frac{1}{2} + D - F \right)^2 \right) \left(\frac{1}{2} \right) \right) + (1 - \pi) \left(\alpha \left(\frac{1}{2} + D - F - b \right) \left(\frac{1}{2} \right) + \left(1 - \alpha^2 \left(\frac{1}{2} + D - F - b \right)^2 \right) \left(\frac{1}{2} \right) \right)$$

This simplifies to:

$$\frac{1}{2} \left[\pi \left(\alpha b - 2\alpha^2 b \left(\frac{1}{2} + D - F \right) + \alpha^2 b^2 \right) + \left(\alpha \left(\frac{1}{2} + D - F - b \right) - \alpha^2 \left(\frac{1}{2} + D - F - b \right)^2 + 1 \right) \right] \quad (3)$$

Taking the derivative of (3) with respect to D and setting equal to zero yields the optimal D :

$$D^* = \frac{1}{2\alpha} - \frac{1}{2} + F + b - b\pi \quad (4)$$

Substituting this expression for D^* into (3) yields:

$$\frac{5}{8} - \frac{\pi(1-\pi)b^2\alpha^2}{2} \quad (5)$$

Observe that (5) is decreasing in α , and that no S or F terms appear anywhere else in (5). Because α is decreasing in $(S-F)$, it follows that the Voter always weakly prefers $S=1$ and $F=0$ (the respective maximum and minimum possible political support levels).

The analysis is exactly parallel when A may be either unbiased or a Dove.

Proof of Proposition 1:

To simplify the notation, let $N = s_p(\text{Unilateral Authority, no action})$. Using Lemma 1, it follows that an *unbiased* President would enact the new policy iff $p > 1/4 + N/2$, while a *Hawk* president would enact the new policy iff $p > 1/4 + N/2 - b/2$. Denote the p -threshold for the unbiased President as $T = 1/4 + N/2$. The Voter's expected utility is:

$$(1-q)\left(\frac{T}{2} + \frac{(1-T^2)}{2}\right) + q\left(\frac{T - \frac{b}{2}}{2} + \frac{\left(1 - \left(T - \frac{b}{2}\right)^2\right)}{2}\right) \quad (6)$$

We can solve for the Voter's optimal T by taking the derivative of (6) with respect to T and setting equal to zero, which yields:

$$T^* = \frac{1}{2} + \frac{qb}{2} \quad (7)$$

Given the definition of T , it follows straightforwardly that $N^* = 1/2 + qb$. Substituting T^* into (6) yields the Voter's equilibrium expected utility under the Unilateral Authority regime:

$$\frac{5}{8} - \frac{q(1-q)b^2}{8} \quad (8)$$

Proof of Corollary 1.1:

The *ex ante* probability that the President will choose $x = 1$ is:

$$(1-q)(1-T) + q\left(1-T - \frac{b}{2}\right) \quad (9)$$

Substituting the T^* established by Proposition 1 into (9) yields a probability of $\frac{1}{2}$.

Proof of Corollary 1.2:

The Voter's expected utility is given by (8) in the proof of Proposition 1.

Proof of Lemma 2

Consider first the case where Congress would approve any policy the President proposed. In this case the President's political support level in case of a congressional veto is irrelevant, because that event never occurs in equilibrium.

Next consider the case where Congress would veto the policy if the President proposed it. If the President's political support for no action exceeds that for a veto, the President will not act. If the political support the President receives in case of a veto exceeds that which he receives if he does not act, he will propose a policy and Congress will veto it. From the Voter's perspective, this difference is irrelevant, since the policy outcome is the same in both cases.

From this, it follows that under Mandatory Checks, the Voter can set the support levels for veto and no action to be equal, and this is sustainable in equilibrium.

Proof of Proposition 2:

From Lemma 1, we know that $s_i(\text{Mandatory Checks, joint success}) = 1$, and $s_i(\text{Mandatory Checks, joint failure}) = 0$. Making use of Lemma 2, without loss of generality we can define $N = s_P(\text{Mandatory Checks, no action}) = s_P(\text{Mandatory Checks, veto})$. Also define $V = s_C(\text{Mandatory Checks, veto})$. Next, define $T_P = \frac{1}{4} + N/2$ and $T_C = \frac{1}{4} + V/2$.

An *unbiased* Congress would uphold a proposed action iff $p > T_C$; a *Hawk* Congress would uphold a proposed action iff $p > T_C - b/2$. An *unbiased* President would propose action to Congress iff *both* Con-

gress would approve it *and* $p > T_P$. A *Hawk* President would propose action to Congress iff *both* Congress would approve it *and* $p > T_P - b/2$.

Next, define the following condition:

$$\mathbf{Condition\ 2.1:} \quad T_P \geq T_C \geq T_P - \frac{b}{2}$$

When Condition 2.1 is satisfied, then:

- If the President and Congress are both *unbiased*, the policy is enacted iff $p > T_P$. (Under Condition 2.1, any policy the President favors would be approved by Congress.)
- If the President and Congress are both *Hawks*, the policy is enacted iff $p > T_P - b/2$.
- If the President is a *Hawk* and Congress is *unbiased*, the policy is enacted iff $p > T_C$.
- If the President is *unbiased* and Congress is a *Hawk*, the policy is enacted iff $p > T_P$.

Therefore, if Condition 2.1 holds, the Voter's expected utility is:

$$(1-q)^2 \left(\frac{T_P}{2} + \frac{(1-T_P^2)}{2} \right) + q^2 \left(\frac{T_P - \frac{b}{2}}{2} + \frac{\left(1 - \left(T_P - \frac{b}{2} \right)^2 \right)}{2} \right) + q(1-q) \left(\frac{T_C}{2} + \frac{(1-T_C^2)}{2} \right) + q(1-q) \left(\frac{T_P}{2} + \frac{(1-T_P^2)}{2} \right)$$

This simplifies to:

$$\frac{1}{2} \left[(1-q)(T_P - T_P^2 + 1) + q^2 \left(T_P - \left(T_P - \frac{b}{2} \right)^2 + 1 - \frac{b}{2} \right) + q(1-q)(T_C - T_C^2 + 1) \right] \quad (10)$$

We can solve for the optimal T_P and T_C by taking the derivative of (10) with respect to each of them and setting equal to zero. Doing so yields:

$$T_C^* = \frac{1}{2} \quad (11)$$

$$T_P^* = \frac{1}{2} + \frac{q^2 b}{2(1-q+q^2)} \quad (12)$$

Note that these values satisfy Condition 2.1. From the definitions of T_C and T_P it follows that $V^* = 1/2$ and $N^* = 1/2 + q^2 b / (1-q+q^2)$.

To find expected Voter utility under the equilibrium of the Mandatory Checks regime with unified government that satisfies Condition 2.1, substitute (11) and (12) into (10), which yields:

$$\frac{5}{8} - \frac{q^2(1-q)b^2}{8(1-q+q^2)} \quad (13)$$

Next, consider the following alternative condition:

$$\textbf{Condition 2.2: } T_C \geq T_P \geq T_C - \frac{b}{2}$$

Condition 2.2 is analogous to Condition 2.1, except that the subscripts are reversed. It follows that there is an equilibrium that yields the same expected utility to the Voter as that given in (13), except that the values of T_P and T_C given in (11) and (12) are reversed.

Finally, consider cases in which neither Condition 2.1 nor Condition 2.2 holds. If $T_P - b/2 > T_C$, then the conditions for the new policy being enacted are the same as in the Unilateral Authority case, because any policy the President would enact, the Congress would approve. Likewise, if $T_C - b/2 > T_P$, we also have a variant of the Unilateral Authority case, except that Congress supplies the binding constraint in all cases. Therefore, to show that the Voter maximizes her expected utility in the Mandatory Checks with unified government case by imposing the equilibrium consistent with Condition 2.1 (or 2.2), we can subtract (8) from (13), which yields:

$$\frac{q(1-q)^3 b^2}{8(1-q+q^2)} \geq 0 \quad (14)$$

Proof of Corollary 2.1

Under the equilibrium consistent with Condition 2.1 (which is the equilibrium described in Proposition 2), the *ex ante* probability that the new policy will be adopted is:

$$(1-q)(1-T_P^*) + q^2 \left(1 + \frac{b}{2} - T_P^*\right) + q(1-q)(1-T_C^*) \quad (15)$$

Substituting in the T_C^* and T_P^* from (11) and (12) into (15) yields a probability of $\frac{1}{2}$.

Proof of Corollary 2.2

This is established by (13) and (14) in the proof of Proposition 2.

Proof of Proposition 3

Again from Lemma 1, we can assume $s_i(\text{Mandatory Checks, joint success}) = 1$, and $s_i(\text{Mandatory Checks, joint failure}) = 0$, and, from Lemma 2, we can define $N = s_P(\text{Mandatory Checks, no action}) = s_P(\text{Mandatory Checks, veto})$ and $V = s_C(\text{Mandatory Checks, veto})$. As before, we will define $T_P = \frac{1}{4} + N/2$ and $T_C = \frac{1}{4} + V/2$.

An *unbiased* Congress would uphold a proposed action iff $p > T_C$; a *Dove* Congress would uphold a proposed action iff $p > T_C + b/2$. An *unbiased* President would propose action to Congress if *both* Congress would approve it *and* $p > T_P$. A *Hawk* President would propose action to Congress if *both* Congress would approve it *and* $p > T_P - b/2$.

Next, define the following condition:

$$\textbf{Condition 3.1: } T_P \geq T_C \geq T_P - \frac{b}{2}$$

When Condition 3.1 is satisfied, then:

- If the President and Congress are both *unbiased*, the policy is enacted iff $p > T_P$.
- If the President is a *Hawk* and Congress is a *Dove*, the policy is enacted iff $p > T_C + b/2$.
- If the President is a *Hawk* and Congress is *unbiased*, the policy is enacted iff $p > T_C$.
- If the President is *unbiased* and Congress is a *Dove*, the policy is enacted iff $p > T_C + b/2$.

Therefore, if Condition 3.1 holds, then the Voter's expected utility is:

$$(1-q)^2 \left(\frac{T_P}{2} + \frac{(1-T_P^2)}{2} \right) + q^2 \left(\frac{T_C + \frac{b}{2}}{2} + \frac{\left(1 - \left(T_C + \frac{b}{2}\right)^2\right)}{2} \right) + q(1-q) \left(\frac{T_C}{2} + \frac{(1-T_C^2)}{2} \right) + q(1-q) \left(\frac{T_C + \frac{b}{2}}{2} + \frac{\left(1 - \left(T_C + \frac{b}{2}\right)^2\right)}{2} \right)$$

This simplifies to:

$$\frac{1}{2} \left[(1-q)^2 (T_P - T_P^2 + 1) + q \left(T_C - \left(T_C + \frac{b}{2} \right)^2 + 1 + \frac{b}{2} \right) + q(1-q) (T_C - T_C^2 + 1) \right] \quad (16)$$

We can solve for the optimal T_P and T_C by taking the derivative of (16) with respect to each of them and setting equal to zero. Doing so yields:

$$T_P^* = \frac{1}{2} \quad (17)$$

$$T_C^* = \frac{1}{2} - \frac{b}{2(2-q)} \quad (18)$$

Observe that these values satisfy Condition 3.1. From the definitions of T_P and T_C , it follows that $N^* = \frac{1}{2}$ and $V^* = \frac{1}{2} - b/(2-q)$. To find expected Voter utility under the equilibrium of the Mandatory Checks regime with divided government that satisfies Condition 3.1, substitute (17) and (18) into (16), yielding:

$$\frac{5}{8} - \frac{q(1-q)b^2}{8(2-q)} \quad (19)$$

Next, consider the following alternative condition:

$$\textbf{Condition 3.2: } T_P \geq T_C + \frac{b}{2} \geq T_P - \frac{b}{2} \geq T_C$$

When Condition 3.2 is satisfied, then:

- If the President and Congress are both *unbiased*, the policy is iff $p > T_P$.
- If the President is a *Hawk* and Congress is a *Dove*, the policy is enacted iff $p > T_C + b/2$.
- If the President is a *Hawk* and Congress is *unbiased*, the policy is enacted iff $p > T_P - b/2$.
- If the President is *unbiased* and Congress is a *Dove*, the policy is enacted iff $p > T_P$.

Therefore, if Condition 3.1 holds, then the Voter's expected utility is:

$$(1-q)^2 \left(\frac{T_P}{2} + \frac{(1-T_P^2)}{2} \right) + q^2 \left(\frac{T_C + \frac{b}{2}}{2} + \frac{\left(1 - \left(T_C + \frac{b}{2} \right)^2 \right)}{2} \right) + q(1-q) \left(\frac{T_P - \frac{b}{2}}{2} + \frac{\left(1 - \left(T_P - \frac{b}{2} \right)^2 \right)}{2} \right) + q(1-q) \left(\frac{T_P}{2} + \frac{(1-T_P^2)}{2} \right)$$

This simplifies to:

$$\frac{1}{2} \left[(1-q)(T_p - T_p^2 + 1) + q^2 \left(T_c - \left(T_c + \frac{b}{2} \right)^2 + 1 + \frac{b}{2} \right) + q(1-q) \left(T_p - \left(T_p - \frac{b}{2} \right)^2 + 1 - \frac{b}{2} \right) \right] \quad (20)$$

We can solve for the optimal T_p and T_c by taking the derivative of (20) with respect to each of them and setting equal to zero. Doing so yields:

$$T_c^* = \frac{1}{2} - \frac{b}{2} \quad (21)$$

$$T_p^* = \frac{1}{2} + \frac{qb}{2(1+q)} \quad (22)$$

Observe that these values satisfy Condition 3.2. From the definitions of T_p and T_c , it follows that $N^* = \frac{1}{2} + qb/(1+q)$ and $V^* = \frac{1}{2} - b$. To find expected Voter utility under the equilibrium of the Mandatory Checks regime with divided government that satisfies Condition 3.2, substitute (21) and (22) into (20), yielding:

$$\frac{5}{8} - \frac{q(1-q)b^2}{8(1+q)} \quad (23)$$

Of these two equilibria, we would like to know which one gives the Voter a greater expected utility.

We can calculate this by subtracting (23) from (19), which yields:

$$\frac{q(1-q)b^2}{8(1+q)(2-q)}(1-2q) \quad (24)$$

Expression (24) is positive if $q < 1/2$, and negative if $q > 1/2$. Therefore, if $q < 1/2$ (i.e., if the probability of bias is low), the Voter prefers the equilibrium consistent with Condition 3.1, while if $q > 1/2$ (i.e., if the probability of bias is high), the Voter prefers the equilibrium consistent with Condition 3.2.

Finally, observe that if neither Condition 3.1 nor Condition 3.2 is satisfied, then the Voter's equilibrium utility is equivalent to the Voter's expected utility under Unilateral Authority. Specifically if $T_c > T_p$, Congress's preferences supply the only binding constraint on whether the policy will be enacted, while if $T_p - b/2 > T_c + b/2$, the President's preferences supply the only binding constraint.

Proof of Corollary 3.1

If $q \leq 1/2$, the Voter prefers the equilibrium consistent with Condition 3.1. In this equilibrium, the probability that the new policy will be enacted is:

$$(1-q)^2(1-T_P^*) + q\left(1-T_C^* - \frac{b}{2}\right) + q(1-q)(1-T_C^*) \quad (25)$$

Substituting in T_P^* and T_C^* from (17) and (18) yields a probability of $1/2$.

If $q \geq 1/2$, the Voter prefers the equilibrium consistent with Condition 3.2. In this equilibrium, the probability that the new policy will be enacted is:

$$(1-q)(1-T_P^*) + q^2\left(1-T_C^* - \frac{b}{2}\right) + q(1-q)\left(1-T_P^* + \frac{b}{2}\right) \quad (26)$$

Substituting in T_P^* and T_C^* from (21) and (22) yields a probability of $1/2$.

Proof of Corollary 3.2

This is established by (19), (23), and (24) in the proof of Proposition 3.

Proof of Corollary 3.3

When $q < 1/2$, the Voter prefers divided government to unified government when (19) is greater than (13). Subtracting (13) from (19) yields:

$$\frac{q(1-q)b^2(3q-2q^2-1)}{8(1-q+q^2)(2-q)} \quad (27)$$

For $q < 1/2$, expression (27) is always less than or equal to zero, which implies that when $q < 1/2$ and the regime is Mandatory Checks, the Voter prefers unified government.

When $q > 1/2$, the Voter prefers divided government to unified government when (23) is greater than (13). Subtracting (13) from (23) yields:

$$\frac{q^2(1-q)b^2(2-q)}{8(1-q+q^2)(1+q)} \quad (28)$$

Expression (28) is always positive, which implies that when $q > 1/2$ and the regime is Mandatory Checks and Balances, the Voter prefers divided government.

Proof of Lemma 3

Consider the case in which Congress would approve a presidential policy proposal. In this case, the President's political support in the case of a congressional veto is irrelevant, because this event never occurs in equilibrium. The new policy is enacted if and only if the President prefers enactment to no action.

Next, consider the case in which Congress would veto a presidential proposal to enact the new policy. If political support in the case of a veto is less than political support in case of no action, the President would never propose a policy to Congress, because the president can achieve the same policy outcome ($x=0$) with higher political support by taking no action. Thus, lowering the President's post-veto political support level below his no-action political support level can never alter the President's behavior or the expected policy outcome, so the Voter never has an incentive to do so.

Proof of Proposition 4

From Lemma 1, we know that $s_i(\text{Opt-In Check, joint success}) = s_p(\text{Opt-In Check, unilateral success}) = 1$, and $s_i(\text{Opt-In Check, joint failure}) = s_p(\text{Opt-In Check, unilateral failure}) = 0$. Next, let us adopt the following notational simplification: $N_i = s_i(\text{Opt-In Check, no action})$, and $V_i = s_i(\text{Opt-In Check, veto})$. Further, let $T_U = 1/4 + V_p/2$, $T_J = 1/4 + N_p/2$, and $T_C = 1/4 + V_C/2$. We will also make the tiebreaking assumption that if the President would like to enact the policy and Congress would approve it, the President will get congressional approval rather than acting unilaterally. By Lemma 3, we know we can safely ignore cases in which $V_p < N_p$. This implies that we can restrict consideration to cases in which $T_U \geq T_J$. Further, from Lemma 3 we also know that we can restrict attention to cases in which $T_C - b/2 \geq T_U$.

An *unbiased* Congress would uphold a proposal iff $p > T_C$; a *Hawk* Congress would uphold a proposal iff $p > T_C - b/2$. An *unbiased* President would propose action to Congress iff *both* Congress would approve it *and* $p > T_J$; an unbiased President would act unilaterally iff *both* Congress would veto a proposed action *and* $p > T_U$. A *Hawk* President would propose action to Congress iff *both* Congress would approve

it and $p > T_J - b/2$; a Hawk President would act unilaterally iff *both* Congress would veto a proposed action and $p > T_U - b/2$.

Next, define the following two conditions:

Condition 4.1: $T_U > T_C \geq T_U - \frac{b}{2}$

Condition 4.2: $T_C \geq T_J \geq T_C - \frac{b}{2}$

If Conditions 4.1 and 4.2 are both satisfied, then:

- If the President and Congress are *unbiased*, the new policy is enacted (jointly) iff $p > T_C$.
- If the President and Congress are *Hawks*, the new policy is enacted (jointly) iff $p > T_C - b/2$.
- If the President is a *Hawk* and Congress is *unbiased*, the policy is enacted iff $p > T_U - b/2$. It is enacted jointly if $p \geq T_C$, and unilaterally if $T_C > p > T_U - b/2$. (This follows from Condition 4.1.)
- If the President is *unbiased* and Congress is a *Hawk*, the policy is enacted (jointly) iff $p > T_J$. (This follows from Condition 4.2.)

Therefore, if Conditions 4.1 and 4.2 hold, then the Voter's expected utility is:

$$(1-q)^2 \left(\frac{T_C}{2} + \frac{(1-T_C^2)}{2} \right) + q^2 \left(\frac{T_C - \frac{b}{2}}{2} + \frac{1 - \left(T_C - \frac{b}{2} \right)^2}{2} \right) + q(1-q) \left(\frac{T_U - \frac{b}{2}}{2} + \frac{1 - \left(T_U - \frac{b}{2} \right)^2}{2} \right) + q(1-q) \left(\frac{T_J}{2} + \frac{(1-T_J^2)}{2} \right)$$

This simplifies to:

$$\frac{1}{2} \left[\begin{aligned} & (1-q)^2 (T_C - T_C^2 + 1) + q^2 \left(T_C - \left(T_C - \frac{b}{2} \right)^2 + 1 - \frac{b}{2} \right) \\ & + q(1-q) \left(T_U - \left(T_U - \frac{b}{2} \right)^2 + 2 - \frac{b}{2} + T_J - T_J^2 \right) \end{aligned} \right] \quad (29)$$

We can solve for the optimal T_J , T_C , and T_U by taking the derivative of (29) with respect to each of them and setting equal to zero. Doing so yields:

$$T_J^* = \frac{1}{2} \quad (30)$$

$$T_U^* = \frac{1}{2} + \frac{b}{2} \quad (31)$$

$$T_C^* = \frac{1}{2} + \frac{q^2 b}{2((1-q)^2 + q^2)} \quad (32)$$

Observe that these values are consistent with Conditions 4.1 and 4.2. From the definitions of T_J , T_U , and T_C , it follows that $N_P^* = 1/2$, $V_P^* = 1/2 + b$, and $V_C^* = 1/2 + q^2 b / ((1-q)^2 + q^2)$. Substituting these values into (29) yields expected Voter utility in the Opt-In Checks equilibrium that satisfies Conditions 4.1 and 4.2:

$$\frac{5}{8} - \frac{q^2(1-q)^2 b^2}{8((1-q)^2 + q^2)} \quad (33)$$

Finally, observe that if either Condition 4.1 or Condition 4.2 is not satisfied, then the Voter's equilibrium utility is equivalent to the Voter's expected utility under either the Unilateral Authority regime or the Mandatory Checks regime. Specifically:

- If $T_J - b/2 \geq T_C$, then Congress is irrelevant, because the President favors joint enactment of any policy that Congress would accept. Because the only binding constraint in an equilibrium consistent with this condition is the President's threshold for joint action, the Voter's expected utility is equivalent to her expected utility under Unilateral Authority.
- If $T_C - b/2 > T_U$, the President's willingness to act unilaterally is the only binding constraint, since the President's threshold for unilateral action is lower than Congress's approval threshold in all cases. Because the only binding constraint in an equilibrium consistent with this condition is the President's threshold for unilateral action, the Voter's expected utility is equivalent to her expected utility under Unilateral Authority.
- If $T_U > T_U - b/2 > T_C > T_C - b/2 \geq T_J$, then the President's willingness to enact policy jointly is never a binding constraint, since any policy that Congress would approve, the President would be willing to enact jointly. Congress's willingness to approve the policy is always the binding constraint, the Voter's expected utility in an equilibrium consistent with this condition is equivalent to her expected utility under Unilateral Authority.

- If $T_U > T_C > T_U - b/2 > T_C - b/2 \geq T_J$, then the President's willingness to enact policy jointly is never a binding constraint, since any policy that Congress would approve, the President would be willing to enact jointly. The binding constraint is Congress's willingness to approve the policy, except when the President is a Hawk and Congress is unbiased, in which case the President's threshold for unilateral action is the binding constraint. Therefore, the Voter's expected utility in an equilibrium consistent with this condition is equivalent to her expected utility under Mandatory Checks with unified government.
- If $T_U - b/2 > T_C$, then the President never acts unilaterally, because any policy that the President would be willing to enact unilaterally, he can also enact by going through Congress. Therefore, expected Voter utility in an equilibrium consistent with this condition is equivalent to her expected utility under Mandatory Checks with unified government.
- If $T_U \geq T_J > T_C > T_U - b/2$, then Congress is irrelevant, because when the President is a Hawk and Congress is unbiased, the President's threshold for unilateral action is lower than Congress's approval threshold, and in all other cases Congress would approve anything the President would favor enacting. Therefore, expected Voter utility in an equilibrium consistent with this condition is equivalent to expected Voter utility under Mandatory Checks with unified government.
- If $T_C > T_U \geq T_J > T_C - b/2$, then Congress is irrelevant, because the President's threshold for unilateral action is lower than Congress's threshold for approval, except in the case where the President is unbiased and Congress is a Hawk, but in that case Congress's threshold for approval is lower than the President's threshold for joint action. Therefore, the Voter's expected utility in an equilibrium consistent with this condition is equivalent to her expected utility under Mandatory Checks with unified government.

We can compare the Voter's expected utility from the Opt-In Checks and Balances regime to her expected utility under the Mandatory Checks and Balances regime, when the government is unified, by subtracting (13) from (23). Doing so yields:

$$\frac{q^5(1-q)b^2}{8(1-q+q^2)((1-q)^2+q^2)} \geq 0 \quad (34)$$

Because (34) is positive, and recalling from Corollary 2.2 that (13) is greater than (8), it follows that the Voter always prefers the equilibrium consistent with Conditions 4.1 and 4.2 to any other equilibrium under the Opt-In Checks regime with unified government.

Proof of Corollary 4.1

Under the equilibrium consistent with Conditions 4.1 and 4.2, the *ex ante* probability that the new policy will be adopted is:

$$(1-q)^2(1-T_C^*) + q^2\left(1-T_C^* + \frac{b}{2}\right) + q(1-q)\left(\left(1-T_U^* + \frac{b}{2}\right) + (1-T_J^*)\right) \quad (35)$$

Substituting in the T_C^* , T_J^* , and T_U^* from (30)-(32) into (35) yields a probability of $\frac{1}{2}$.

Proof of Corollary 4.2

This is established by (33) and (34) in the proof of Proposition 4.

Proof of Proposition 5

Use the same notation as in the proof of Proposition 4. As before, from Lemma 3 we know we can restrict attention to cases in which $T_U \geq T_J$. An *unbiased* Congress would uphold a proposed action iff $p > T_C$; a *Dove* Congress would uphold a proposed action iff $p > T_C + b/2$. An *unbiased* President would propose action to Congress iff *both* Congress would approve it *and* $p > T_J$; an unbiased President would act unilaterally iff *both* Congress would veto a proposed action *and* $p > T_U$. A *Hawk* President would propose action to Congress iff *both* Congress would approve it *and* $p > T_J - b/2$; a Hawk President would act unilaterally iff *both* Congress would veto a proposed action *and* $p > T_U - b/2$.

Next, define the following two conditions:

$$\mathbf{Condition\ 5.1:} \quad T_U \geq T_C + \frac{b}{2} \geq T_U - \frac{b}{2} \geq T_C \geq T_J - \frac{b}{2}$$

Condition 5.2: $T_J \geq T_C$

If Conditions 5.1 and 5.2 are satisfied, then:

- If the President and Congress are *unbiased*, the policy is enacted (jointly) iff $p > T_J$.
- If the President is a *Hawk* and Congress is a *Dove*, the policy is enacted (jointly) iff $p > T_U - b/2$.
- If the President is a *Hawk* and Congress is *unbiased*, the policy is enacted iff $p > T_C$.
- If the President is *unbiased* and Congress is a *Dove*, the policy is enacted (jointly) iff $p > T_C + b/2$.

Therefore, if Conditions 5.1 and 5.2 hold, then the Voter's expected utility is:

$$(1-q)^2 \left(\frac{T_J}{2} + \frac{(1-T_J^2)}{2} \right) + q^2 \left(\frac{T_U - \frac{b}{2}}{2} + \frac{\left(1 - \left(T_U - \frac{b}{2}\right)^2\right)}{2} \right) + q(1-q) \left(\frac{T_C}{2} + \frac{(1-T_C^2)}{2} \right) + q(1-q) \left(\frac{T_C + \frac{b}{2}}{2} + \frac{\left(1 - \left(T_C + \frac{b}{2}\right)^2\right)}{2} \right)$$

This simplifies to:

$$\frac{1}{2} \left[\begin{aligned} & (1-q)^2 (T_J - T_J^2 + 1) + q^2 \left(T_U - \left(T_U - \frac{b}{2}\right)^2 + 1 - \frac{b}{2} \right) \\ & + q(1-q) \left(2T_C - T_C^2 - \left(T_C + \frac{b}{2}\right)^2 + 2 + \frac{b}{2} \right) \end{aligned} \right] \quad (36)$$

We can solve for the optimal T_J , T_C , and T_U by taking the derivative of (36) with respect to each of them and setting equal to zero. Doing so yields:

$$T_J^* = \frac{1}{2} \quad (37)$$

$$T_U^* = \frac{1}{2} + \frac{b}{2} \quad (38)$$

$$T_C^* = \frac{1}{2} - \frac{b}{4} \quad (39)$$

Observe that these values are consistent with Conditions 5.1 and 5.2. From the definitions of T_J , T_U , and T_C , it follows that $N_P^* = 1/2$, $V_P^* = 1/2 + b$, and $V_C^* = 1/2 - b/2$. Substituting the optimal values from (37), (38), and (39) into (36) yields the Voter's expected utility in the Opt-In Checks and Balances equilibrium that satisfies Conditions 5.1 and 5.2:

$$\frac{5}{8} \frac{q(1-q)b^2}{16} \tag{40}$$

Finally, observe that if either Condition 4.1 or Condition 4.2 is not satisfied, then the Voter's equilibrium utility is equivalent to the Voter's expected utility under either the Unilateral Authority regime or the Mandatory Checks regime. Specifically:

- If $T_J - b/2 > T_C$, Congress's approval threshold never constrains, because Congress is willing to approve anything that the President would be willing to enact jointly. Voter utility in an equilibrium consistent with this condition is equivalent to Voter utility under Unilateral Authority.
- If $T_U - b/2 > T_C + b/2$, then the President never acts unilaterally, because Congress is willing to approve any policy that the President would be willing to enact unilaterally. Therefore, under this condition the Voter's equilibrium expected utility is equivalent either to her expected utility under Unilateral Authority (if only Congress's approval threshold, or only the President's joint action threshold, provides the binding constraint) or to her expected utility under Mandatory Checks with divided government (if $T_J > T_C + b/2 > T_J - b/2 > T_J$ or $T_C + b/2 > T_J > T_C > T_J - b/2$).
- If $T_C + b/2 > T_U$, then the binding constraint is the President's threshold for unilateral action either in all cases (if $T_C > T_U$), or in all cases except when Congress and the President are both unbiased (if $T_U > T_C$, which implies that Congress's approval threshold binds). The Voter's expected utility is equivalent either to her expected utility under Unilateral Authority (in the former case) or to her expected utility under Mandatory Checks with divided government (in the latter case).
- Finally, if Condition 5.1 holds but $T_C > T_J$, the President's threshold for joint action (T_J) is never a binding constraint. In this case, Congress's threshold for action is the binding constraint in all cases except when the President is a Hawk and Congress is a Dove, in which case the President's threshold for unilateral action is the binding constraint. Therefore, the Voter's expected utility in an equilibrium consistent with this condition is equivalent to her expected utility under Mandatory Checks with divided government.

To show that the equilibrium consistent with Conditions 5.1 and 5.2 is the best equilibrium for the Voter under the Opt-In Checks regime with divided government, we can compare the Voter's expected utility under this equilibrium with her expected utility under Mandatory Checks with divided government. From Proposition 4, we know that this requires two separate comparisons. First, if $q < 1/2$, we can calculate the difference between the Voter's expected utility under Opt-In Checks and her expected utility under Mandatory Checks, when the government is divided, by subtracting (19) from (40). Doing so yields:

$$\frac{q^2(1-q)b^2}{16(2-q)} \geq 0 \quad (41)$$

Next, if $q > 1/2$, we compare the Voter's expected utility from the Opt-In Checks regime to her expected utility under the Mandatory Checks regime, when the government is divided, by (23) from (41). This yields:

$$\frac{q(1-q)^2b^2}{16(1+q)} \geq 0 \quad (42)$$

Because (41) and (42) are both positive, and recalling from Corollary 3.2 that (13) is greater than (8), it follows that, under Opt-In Checks with divided government, the equilibrium with the greatest expected utility for the Voter is the equilibrium consistent with Conditions 5.1 and 5.2.

Proof of Corollary 5.1

Under the equilibrium consistent with Conditions 5.1 and 5.2, the *ex ante* probability that the new policy will be adopted is:

$$(1-q)^2(1-T_J^*) + q^2\left(1 - T_U^* + \frac{b}{2}\right) + q(1-q)\left(2 - 2T_C^* - \frac{b}{2}\right) \quad (43)$$

Substituting in the T_C^* , T_J^* , and T_U^* from (37)-(39) into (43) yields a probability of $1/2$.

Proof of Corollary 5.2:

This is established by (40), (41), and (42) in the proof of Proposition 5.

Proof of Corollary 5.3:

We can calculate the difference in expected Voter utility under the Opt-In Checks regime with divided and unified government by subtracting (33) from (41), which yields:

$$-\frac{q(1-q)(2q-1)^2 b^2}{16((1-q)^2 + q^2)} \leq 0 \quad (44)$$

The fact that (44) is negative implies that, under the Opt-In Checks regime, the Voter's expected utility is greater under unified government than under divided government.