POLITICAL ACCOUNTABILITY UNDER ALTERNATIVE INSTITUTIONAL REGIMES[*]

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Perhaps the central concern of modern positive and normative political theory is how to reduce or 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 this concern about imperfect political agents. The first is *public accountability* – the power of citizens to select leaders who share their values, and to punish or reward incumbents based on their performance in office. The second set of mechanisms emphasizes *checks and balances* – institutional requirements that different government entities, with different interests 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 public accountability and checks and balances. PPT scholars have, however, paid less attention to the relationship between these different forms of political control. Most analyses of political accountability, for example, focus on the electoral incentives of a single political agent (e.g., Ferejohn 1986; Austen-Smith & Banks 1989; Maskin & Tirole 2004, Bueno de Mesquita et al. 2005). Similarly, most studies of institutional checks and balances tend to omit direct consideration of elections, or to incorporate the electoral process only in the limited sense of imputing different preferences to the agents playing a separation of powers game (e.g., Ferejohn & Shipan 1990; Tsebelis 1995; Stephenson 2003). With a few notable exceptions (e.g., Persson et al. 1997), the literature has neglected the degree to which

public accountability and checks and balances might function as complements, or as substitutes, or in some more complex relationship with one another.

This article contributes to the development of a positive theory of the interaction between institutional checks and balances and public accountability. In particular, we are interested in how various institutional separation-of-powers rules affect voter behavior, and in how these rational voter responses may affect our positive and normative assessment of different separation-of-powers regimes. To this end, we compare three stylized institutional arrangements: 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 regime is a "Mandatory Checks and Balances" regime in which one political agent (such as the President) has proposal rights, but it can not enact a policy change unless a second agent (such as Congress) approves it. The third and final regime we consider 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 the agenda-setting agent may also choose, at its discretion, to act unilaterally. These are obviously only three of a much larger number of possible institutional arrangements, but we believe their simple structure is useful in generating comparative insights that might then be transposed to more complex and realistic institutional settings.

We pose the following questions: *First*, how does the voter's political strategy – and, in particular, the allocation and magnitude of political credit and blame for policy choices and outcomes – differ under alternative institutional arrangements? How and why do voters treat responsible politicians differently, depending on the prevailing institutional

regime? How does electoral behavior differ under unified and divided government? *Second*, how does the separation of powers affect the expected frequency of policy change? Is it true, as is often supposed, that adding additional veto points in the policymaking process strengthens status quo bias? *Third*, and perhaps most importantly, which institutional arrangements are best for voter welfare? And, when two political agents have influence over the policy choice, how is voter welfare affected by whether the government is united or divided? Our framework suggests the following answers to these questions:

We find that the institutional regime has important effects on voters' optimal political strategy. 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 that the President might be too enthusiastic about military action abroad might punish the President relatively more harshly if the intervention leads to a quagmire, and reward the President relatively less generously if the intervention successfully replaces a threatening adversary with a peaceful ally. In contrast, a voter who suspects the President is too cautious about intervening abroad may punish the President less harshly in case of military failure, and reward the President more generously in case of military success.

For the voter, however, this political support strategy 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

percentage 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 the policy, the political penalties for failure are less severe, relative to the political gains from success, than in the case where the President acts unilaterally. The explanation, however, is not because the voters are uninformed, irrational, or otherwise "fooled" by the separation of powers. Rather, the existence of checks and balances reduces the voters' need to rely on asymmetric political punishments or rewards.

This rational voter adjustment to the prevailing institutional regime further explains one of our model's more surprising results: the addition of another 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 strategically 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 punish failure disproportionately. This makes military intervention less desirable (both to Hawkish Presidents and to unbiased Presidents), reducing the *ex ante* likelihood of such action taking place. If the institutional setting changes, such that the President must seek congressional authorization before taking military action, the median voter knows that Congress will block some number of military interventions that the President would otherwise like to undertake. Knowing this, the voter would rationally reduce the asymmetry between the political penalties for failure and the political rewards for success. This reduces the

political deterrent to taking military action. At least in our framework, this second effect perfectly offsets the first-order effect of adding the 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 may be biased is low, but voters are better off with divided government under this regime 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 has the option of circumventing the congressional check and acting unilaterally – is even better for voter welfare than the Mandatory Checks and Balances 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, at least 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 surprising 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 allow the President to act unilaterally, and 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 actor) can circumvent another 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 political support strategies.

I. The Basic Framework

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). For simplicity, suppose that there is one binary policy choice under consideration, $x \in \{0,1\}$, where $x=0$ denotes the decision to retain the status quo and $x=1$ denotes the decision to adopt a new policy. For example, the decision might be whether to invade a foreign country, or to join an international trade regime, or to deregulate the electricity market, or to impose a new set of auto safety requirements. Furthermore, let us suppose that the new policy will result either in a "failure" or a "success," and this result will become publicly observable within a short enough time after the policy is chosen that the Voter can reward or punish the incumbent politicians based on the outcome.

For concreteness, we will use, as a running example, the decision whether to engage in a foreign military intervention, where "success" would mean the swift replacement of a hostile authoritarian regime with a friendly, stable democracy, and "failure" would mean getting bogged down in an ongoing civil war with mounting casualties, massive costs, and no end in sight. In the real world, of course, policy decisions are more complicated than a simple binary choice, and any given policy may produce a range of possible results. Indeed, there may be considerable uncertainty and disagreement regarding the question of what the policy's effects actually have been. 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 given by $p \in [0,1]$. For simplicity, assume that p is drawn from a uniform distribution. The Voter's utility 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 ½.[1] Under these assumptions, if the Voter could observe p directly, she would prefer that the new policy be adopted if and only if $p>½$.[2] It follows that, if the Voter were perfectly informed and had direct control over the policy decision, the *ex ante* probability of policy change would be $\Pr(p>½)=½$, and the Voter's *ex ante* expected utility would be $\Pr(p\leq½)(½) + \Pr(p>½)E(p|p>½)=5/8$.

The problem for the Voter is that she is at an informational disadvantage vis-à-vis her political agents regarding the likelihood that a given policy will succeed (cf. Meirowitz 2007). To capture the information asymmetry, assume that both the President and Congress, but not the Voter, observe p.[3] Furthermore, as is common in agency relationships, the preferences of the politicians may diverge from those of the Voter. To capture this possible preference divergence, assume that each agent may each be one of three types. First, the agent may be *unbiased*. An unbiased agency has the same preferences over policy outcomes as the Voter. Second, the agent may be biased in favor of the policy. In the foreign intervention example, we might refer to these types as *Hawks*. Third, the agent may be biased against the policy. Let us refer to these types as *Doves*.

An unbiased agent receives the same policy payoffs as the Voter: 1 for policy success, 0 for policy failure, and ½ for the status quo. For a Hawk, the utility payoff from the status quo is also ½, but the payoff from policy success is $1+b$ and the payoff

[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.

[2] We make the tiebreaking assumption that, in the case of indifference, the Voter would opt to retain the status quo.

[3] 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 (cf. Ponser & Vermeule 2007). We abstract away from that complication for purposes of this paper.

from failure is b. For a Dove, the payoff from the status quo is again ½, but the payoff from success is $1-b$ and the payoff from failure is $-b$. The constant parameter $b \in [0,½]$ measures the magnitude of the possible "bias" of each agent.[4] Thus, an unconstrained Hawk would prefer to invade if $p > ½-b$, while an unconstrained Dove would favor invasion only if $p>½+b$.

The Voter cannot directly observe either agent's type, but she can infer – from an agent's background, political party, or position on other issues – the probability distribution from which each agent's type is drawn. Again keeping things as simple as possible, suppose that the only relevant observable information about each politician is his party affiliation, and that there are two parties, a "Left" Party and a "Right" Party. Assume that a member of the Right Party is a Hawk with probability $q \in [0,1]$, unbiased with probability $1-q$, and never a Dove. Symmetrically, a Left Party member is a Dove with probability q, unbiased with probability $1-q$, and never a Hawk. So, while the Voter cannot infer from a politician's party affiliation whether that politician is biased, she knows the direction of any bias that may exist, and she also knows q. In contrast, we will assume – again with some sacrifice of descriptive realism – that the President and Congress observe one another's type.

The discretion of the political agents may be checked in two ways. The first mechanism of political control is *public accountability*. Although the Voter can never learn the true value of p, she can observe whether the policy was adopted, and also whether it was a success or failure. On the basis of that information the Voter can reward or punish the politician by choosing how strongly to support him. This support level may

[4] 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.

be thought of most naturally as the probability of supporting the politician's bid for re-election.[5] It may also be susceptible to other interpretations, such as the size of the Voter's donations to the politician, the Voter's willingness to support the politician's other policy priorities, or the Voter's general esteem for the politician (if the politician cares about such things). Formally, after policy has been chosen and the outcome revealed, the Voter chooses political support levels $s_i(R, O) \in [0,1]$, where $i=\{P,C\}$ denotes the identity of the agent, R denotes the institutional rules governing policymaking, and O denotes the observable features of the policy process (the actions of each agent and the ultimate outcome). Each s_i enters additively into the relevant politician's utility function. Following canonical models of retrospective voting, the Voter is assumed to be indifferent between a range of possible support levels for each politician (which makes the Voter's commitment to a particular punishment and reward strategy sequentially rational), and all parties will play whatever set of equilibrium strategies yields the highest expected utility for the Voter (cf. Ferejohn 1986; Austen-Smith & Banks 1989).[6]

The second mechanism of political control consists of institutional *checks and balances*. The Constitutional rules may allocate agenda-setting and veto power in different ways, and these alternative arrangements may influence the circumstances under

[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 (e.g. Meirowitz 2007; Bueno de Mesquita & Friedenberg 2007).

[6] When political agents may vary in their preferences or competence, and these characteristics affect both past and future decisions, then the assumption of voter indifference is subject to criticism as unrealistic (Fearon 1999; Besley 2005). However, while voter indifference is the standard assumption made to justify the credibility of voter commitment, recent theoretical advances have demonstrated that one can relax the indifference assumption and still retain the result that the voter can commit to political punishment strategies that combat moral hazard by manipulating *ex ante* incentives (Bueno de Mesquita & Landa 2008; Ashworth et al. 2008; Snyder & Ting 2005).

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 this case, the President (who we will designate, arbitrarily, as the agenda setter under all three regimes) has the exclusive authority to decide whether to adopt the new policy. Congress has no power to constrain the President; indeed, for purposes of this policy choice, Congress might as well not exist. Under this regime, public accountability is the only source of constraint on presidential policy-making.

The second regime we consider is a "Mandatory Checks and Balances" regime. Under this regime, the President retains agenda-setting power, but he cannot enact a new policy unless Congress also approves it. This is the classic form of checks and balances, and it 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 congressional check on Presidential power does not eliminate the central role of public accountability. Indeed, under this system both the President and Congress will be held accountable by the Voter for their choices and the ultimate outcome.

The third and final institutional arrangement we consider is an "Opt-In Checks and Balances" regime. Under this system, the President *may* seek authorization from Congress to adopt the new policy. However, the President may instead choose to act unilaterally, and if he does so, there is nothing that Congress can do to stop him. As was true in the Mandatory Checks case, public accountability remains a salient form of

political discipline under the Opt-In Checks regime, because both the President and Congress will need to consider the Voter's likely response to different possible policy choices and outcomes.

The Opt-In Checks regime may initially 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. In the United States, the 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, in many cases 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 extraordinarily difficult for Congress to disapprove of military action once troops are in the field (Moe & Howell 1999). One may also see something like this regime in certain areas of domestic policy. The President may try to implement his domestic policy agenda by proposing legislation to Congress, but the President may also be able to advance his domestic agenda by initiating regulatory action by bureaucratic agents in ways that do not require congressional approval (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 as an alternative to both Unilateral Authority and Mandatory Checks and Balances.

We analyze formally the behavior of the Voter, the President, and Congress under each of these three regimes. We are particularly interested in the answers to three

questions. First, how do Voters allocate political credit and blame under these different systems – and, in the two 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 the Voter, and why?

Before proceeding, it is useful to explain how our analysis relates to, and differs from, the small but important body of existing scholarship on the connection between institutional checks and balances, on the one hand, and political accountability, on the other. First, some contributions focus on how the separation of powers allows politicians to shift or obscure responsibility for controversial decisions or unpopular outcomes. 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. Nzelibe 2007). The principal insight of these contributions is that an institutional separation of powers may reduce the efficacy of electoral accountability to voters, because the voters in these analyses are typically uncertain as to which institution is responsible, or prone to misattribute responsibility (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 parties or branches of government may try to 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 within a given institutional framework to draw more accurate inferences about those actors' types, and, moreover, 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 mechanisms by increasing the amount of information that voters can learn about their political agents' preferences and abilities. While our analysis has some similarities to this literature, the principal difference is that in our model, the Voter chooses a political support strategy solely to create optimal *ex ante* incentives; the Voter's 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 chooses her political strategy solely in order to "sanction poor performance" rather than to "select good types" (Fearon 1999).[7]

Third, some contributions have considered how voters may use their ability to hold political agents accountable through the electoral process (or through other means) in order to enforce a separation-of-powers regime (e.g., Stephenson 2004). This strand of the literature, that is, suggests how the institutional checks-and-balances regime may

[7] Typically, electoral 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 that is hidden from the Voter (the probability of policy success), and there is no hidden action, as the Voter observes the politicians' choices. 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. In that sense, our set-up is similar to that of Meirowitz (2007), who considers a setting in which the politicians have hidden knowledge about the feasible alternative actions. Our model differs, however, in that in our model the hidden information concerns the probability of policy success, whereas in Meirowitz's model, the hidden information takes the form of a budget constraint.

arise endogenously in response to voter preferences, and may be enforced through the threat of voter punishment. In contrast, although we compare Voter welfare under different institutional regimes, we treat the prevailing institutional regime as exogenous.

Finally, the prior work most closely related to our analysis is the contribution of Persson, Roland, and Tabellini (1997) (PTR). In the PTR model, the President and the Legislature are jointly responsible for allocating the government's budget. Each agent wants to divert as much as possible to private use. The voter prefers some public goods spending by the government, and to retain the remainder of her resources for private consumption. The voter can discipline the politicians by threatening to replace them if the voter's welfare is too low. PTR's analysis of this set-up yields two important results. First, that if the President and the Legislature can 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 the budget will be allocated– will improve voter welfare.

Our model is similar to PTR's, but it differs in several critical respects. First, in the PTR model, the political agents always want to divert as great a share of the budget as possible to their own private use; the agents do not directly benefit from the public good. In contrast, we assume that politicians have preferences over public policy that may be at least partially aligned with the Voter preferences (cf. Bueno de Mesquita & Stephenson 2007). Second, in PTR, the voters know the politicians' utility functions. In contrast, we assume that the Voter is uncertain regarding the 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 PTR'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.

II. Public Accountability Under Different Institutional Regimes

We now turn to consideration of political behavior and voter welfare under each of our three ideal-type institutional regimes: Unilateral Authority, Mandatory Checks and Balances, and Opt-In Checks and Balances.

A. Unilateral Authority

We will first consider the simplest of the three institutional regimes, in which there is only one political agent involved in making the relevant decisions. This regime, then, corresponds most closely to the canonical versions of the retrospective voting model. We will 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. The Voter will confer on the President a level of political support that is contingent on which of these results occurs.

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

Lemma 1: The Voter would always weakly prefer to set the political support for each actor in the event of a policy success at its maximum value (1), and to set the political support of each actor at its minimum value (0) in the event of a policy failure.[8]

The equilibrium of the "Unilateral Authority" policymaking game that maximizes 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, the players' strategies are as follows:

- The *Voter* gives the President maximum political support in case of policy success (1) and minimum political support in the case of policy failure (0). When the President takes no action, the Voter gives the President a level of political support equal to $\frac{1}{2} + qb$.
- An *unbiased President* adopts the new policy if and only if the observed *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 President's political rewards and punishments that flow from

[8] All proofs are in the Appendix.

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 equal to the difference between the President's support level when policy succeeds (which is equal to 1) and his support level when he takes no action (which is 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 occurs because the Voter is aware of the fact that the President may be biased, and can anticipate the direction of such bias. The Voter partially compensates for the possibility that the President might be a Hawk by increasing the magnitude of blame for policy failure, and increasing the expected credit for policy success. The Voter achieves this asymmetry 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 political decision-maker as potentially biased in favor of a given policy, such as a military intervention, the voters will confer relatively less

[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 $\frac{1}{2} - qb$.

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, the voters will offer relatively more credit for success, and impose relatively less blame in case of 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 ½.

The particular probability that the new policy is adopted (½) is not intrinsically interesting, as this number is an artifact of the model's particular (and unrealistic) functional form assumptions. It does, however, provide a baseline that we use, in subsequent sections, to evaluate whether adding checks and balances to the model affect 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 utility-maximizing equilibrium described in Proposition 1, is given by the following corollary to that proposition:

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, when the President is a Hawk and p is between $\frac{1}{2} - \frac{(1-q)b}{2}$ and ½, the result is a "false positive": the President launches the military intervention even though the probability of success is less than ½. Second, when the President is unbiased and p is between ½ and $\frac{1}{2} + \frac{qb}{2}$, the result is a "false negative": even though the President is unbiased and the probability of success is greater than ½, the Voter's disproportionate punishment of policy failure will deter the President from taking action.

B. Mandatory Checks and Balances

Let us next consider a separation-of-powers 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, no action (i.e., 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, so that the pivotal voter in Congress has probability 1–q of being a Hawk and probability 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

It is helpful, in both the unified and divided government scenarios, to make use of the following lemma:

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

Under the Mandatory Checks and Balances 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 and Balances regime with unified government, the player's strategies are:

- The *Voter* adopts the following strategy:
    - If the new policy is enacted, the Voter gives both 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, then the Voter confers on Congress a political support level equal to ½, and confers on the President a political support level equal to $\frac{1}{2} + \frac{q^2 b}{q^2 - q + 1}$.
    - If the President does not propose a new policy, the Voter also confers on the President a political support level equal to $\frac{1}{2} + \frac{q^2 b}{q^2 - q + 1}$. 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 $\frac{1}{2} + \frac{q^2 b}{2\left(q^2 - q + 1\right)}$.
- A *Hawk President* proposes the new policy if and only if $p > \frac{1}{2} - \frac{(1-q)b}{2\left(q^2 - q + 1\right)}$.
- An *unbiased Congress* approves a presidential proposal to adopt the new policy if and only if $p > ½$.
- A *Hawk Congress* approves a presidential proposal to adopt the new policy 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 political credit for success is $\frac{1}{2} - \frac{q^2 b}{q^2 - q + 1}$, while his political blame for failure is

$\frac{1}{2} + \frac{q^2 b}{q^2 - q + 1}$. Because the President may be a Hawk, the amount of blame for failure exceeds the amount of credit for success. Importantly, however, this asymmetry is less extreme in the Mandatory Checks case than it was 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 $2qb$.

This result seems consistent with the familiar claim that separation-of-powers institutions, such as review by an independent entity, allow the primary decision-maker to "shift the responsibility" for policy outcomes (e.g., Fiorina 1982; Graber 1993). However, 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 so 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 results in many false positives and false negatives. So, while our model appears to predict that the addition of a 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 in this case there is no asymmetry in the credit and blame that the Voter confers on *Congress*. We can 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. Congress's political blame for failure is defined 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 behavior and allocation of credit and blame as between the Unilateral Authority and Mandatory Checks regimes, we are also interested in whether the *ex ante* probability that the new policy will be enacted – i.e., that an invasion will be launched – differs under the two regimes. After all, a familiar and intuitive claim is that adding another "veto player" to the decision-making process reduces the probability of policy change (e.g., Tsebelis 1995; Henisz 2000). A contrary hypothesis suggests that, at least in some circumstances, the addition of an apparent "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, however, 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 and Balances regime with unified government described in Proposition 2, the *ex ante* probability that the President will select, and Congress will approve, x=1 is ½.

Thus, the *ex ante* probability of enacting the new policy is exactly the same (½) 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, however, precisely because Congress will block some number of undesirable policies, the Voter rationally adjusts her strategy, reducing (but not eliminating) 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 implementing 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, in expectation, with the congressional check than without it, as can be seen in the following corollary of Proposition 2.

Corollary 2.2: In the equilibrium of the Mandatory Checks and Balances regime with unified government described in Proposition 2, the Voter's *ex ante* expected utility is $\frac{5}{8} - \frac{q^2(1-q)^2 b^2}{8\left(q^2-q+1\right)}$, 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. In particular, 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 final policy choice always perfectly reflects Voter preferences. In this case, if the probability of policy success (p) is high enough to satisfy Congress, it is always high enough to satisfy the President, and Congress's threshold for action is exactly the same as the Voter's when Congress is unbiased. If Congress and the President are both unbiased, then there will be a false negative when p is between ½ and $\frac{1}{2} + \frac{q^2 b}{2\left(q^2 - q + 1\right)}$.

If the pivotal member of Congress is a Hawk, then Congress provides no meaningful constraint on the President, because anything the President (whether unbiased or Hawkish) would be willing to propose, a Hawkish Congress would approve. In this case, there will be a false negative when the President is unbiased and p is between ½ and $\frac{1}{2} + \frac{q^2 b}{2\left(q^2 - q + 1\right)}$, and there will be a false positive when the President is a Hawk and p is between $\frac{1}{2} - \frac{(1-q)b}{2\left(q^2 - q + 1\right)}$ and ½. The ranges of p values that result in false positives and false negatives are smaller in the Mandatory Checks case than in the Unilateral Authority case, and under one possible configuration of preferences (Hawk President, unbiased Congress), which occurs with positive probability, there are no errors in either direction.

2. Mandatory Checks and Balances with Divided Government

In the preceding analysis of the Mandatory Checks regime, both the President and the pivotal member of Congress were members of the Right Party, meaning that each actor is either unbiased or a Hawk. Next, consider a case of "divided government," 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 the Voter's expected utility under the Mandatory Checks and Balances regime with divided government, the player's strategies are as follows:

<u>If the probability of bias (q) is less than or equal to ½:</u>

- The *Voter* adopts the following strategy:
    - If the new policy is enacted, give both 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, then the Voter confers on Congress a political support level equal to $\frac{1}{2} - \frac{b}{2-q}$, and confers on the President a political support level equal to ½.
    - If the President does not propose a new policy, the Voter also confers on the President a political support level equal to ½. 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 ½.
- 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 to adopt the new policy if and only if $p > \frac{1}{2} - \frac{b}{2(2-q)}$.
- A *Dove Congress* approves a presidential proposal to adopt the new policy if and only if $p > \frac{1}{2} - \frac{(1-q)b}{2(2-q)}$.

If q is greater than ½:

- The *Voter* adopts the following strategy:
    - If the new policy is enacted, give both 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, then the Voter confers on Congress a political support level equal to $\frac{1}{2} - b$, and confers on the President a political support level equal to $\frac{1}{2} + \frac{qb}{1+q}$.
    - If the President does not propose a new policy, the Voter also confers on the President a political support level equal to $\frac{1}{2} + \frac{qb}{1+q}$. 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 to adopt the new policy if and only if $p > \frac{1}{2} - \frac{b}{2}$.
- A *Dove Congress* approves a presidential proposal to adopt the new policy if and only if $p > ½$.

Interestingly, the optimal political strategy for the Voter in this case depends on whether the probability of bias (q) is low or high. Because the probability of bias is, by assumption, constant for both the Left Party and the Right Party, the parameter q might be interpreted as the degree of "political 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. On the other hand, if q is low, there is a greater chance that one or both of the agents will be unbiased.

In the low polarization case ($q < ½$), the Voter no longer tries to influence the President's incentives by introducing asymmetries in the level of political credit and blame. Instead, the Voter uses this sort of strategy to manipulate the incentives of Congress. Congress's political credit in case of success ($\frac{1}{2} + \frac{b}{2-q}$) is greater than the political blame Congress suffers in case of failure ($\frac{1}{2} - \frac{b}{2-q}$). This distortion gives the Dovish Congress a greater incentive to approve a presidential proposal.

In contrast, in the high polarization case ($q > ½$), 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 this asymmetry is greater for Congress than for the President. Also, the asymmetry is less pronounced for the President in this case than it was in the Unilateral Authority case.

So, again, we see patterns of political behavior that look a bit 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 the incentives of Congress. In the high polarization case, the Voter does manipulate the President's incentives, but she has less of a need to do so because she can rely on Congress (whose incentives she also manipulates) to weed out some of the bad policy ideas the President might propose.

As was true in the united government case, the addition of the 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 and Balances regime with divided government described in Proposition 3, the *ex ante* probability that the President will select, and Congress will approve, x=1 is ½.

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. Because the Voter can anticipate that Congress is likely to block some proportion of the proposals the President would otherwise favor, the Voter can adjust 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. The Voter can partially compensate for this potential bias by manipulating Congress's incentives. So, the intuition that adding a veto player, particularly a veto player that may be biased against action, will increase status quo bias turns out not to be correct in our model.

Next, let us turn to the question of Voter welfare. We have already seen that the Voter does better, in expectation, under the Mandatory Checks regime than under the Unilateral Authority regime when the government is united. Is this also true if the government is divided? As the following corollary to Proposition 3 demonstrates, the answer is yes:

Corollary 3.2: In Mandatory Checks and Balances 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 $q \leq ½$;
- $\frac{5}{8} - \frac{q(1-q)b^2}{8(1+q)}$ if $q \geq ½$..

The Voter's expected utility under the relevant Mandatory Checks and Balances 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. We can address this question directly by comparing the expected utility values in Corollaries 2.2 and 3.2, which yields the following result:

Corollary 3.3: Under the Mandatory Checks and Balances regime, the Voter prefers unified government if $q<1/2$ (i.e., if the probability of bias is relatively low), but prefers divided government if $q>1/2$ (i.e., if the probability of bias is relatively high).

This result indicates that, when political polarization is low, the Voter prefers unified government. Conversely, and perhaps somewhat surprisingly, when political 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, without congressional approval, but the President may also "opt in" to a congressional check by submitting his policy proposal to Congress, which may then approve or disapprove of the policy initiative. The Voter observes whether the President proposed a policy and, if so, whether or not Congress approved it. If the policy is enacted, the Voter also observes success or failure. 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.

1. Opt-In Checks and Balances with Unified Government

Before proceeding, it is important to note that Lemma 2 does not apply to the Opt-In Checks and Balances regime. There may be (and, as we will soon establish, will be) cases in which the Voter's equilibrium strategy will call for different levels of political support for the President when Congress vetoes the President's policy proposal, and when the President takes no action at all. Instead, the following lemma applies:

Lemma 3: In the Opt-In Checks and Balances regime, it is always an equilibrium for the Voter's political support for the President in the case of a congressional veto to be (weakly) greater than the Voter's political support for the President when the President takes no action. That is, the Voter never has an incentive to set the President's support level in case of congressional veto lower than the support level for no action.

When policy is made pursuant to the Opt-In Checks and Balances regime, and 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 and Balances regime with unified government, the player's strategies are as follows:

- The *Voter* adopts the following strategy:
    - If the President adopts the new policy unilaterally, then the Voter confers on the President the maximum level of political support (1) if the policy succeeds and the minimum level of 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, then the Voter confers on both the President and Congress the maximum level of political support (1) if the policy succeeds and the minimum level of support (0) if the policy fails.
    - If the President takes no action, then the Voter confers on both the President a political support level of ½. 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 vetoes it, then the Voter confers on the President a political support level of $\frac{1}{2} + b$, and confers on Congress a political support level of $\frac{1}{2} + \frac{q^2 b}{q^2 + (1-q)^2}$.
- An *unbiased President* adopts the following strategy:

- Propose the new policy to Congress (anticipating that it will be accepted) if *(A)* Congress would approve the policy; and *(B)* the observed *ex ante* probability of policy success (p) is greater than ½.
- Propose the new policy to Congress (anticipating that it will be vetoed) if *(A)* Congress would veto the new policy; and *(B)* $p \leq \frac{1}{2} + \frac{b}{2}$.
- Enact the new policy unilaterally if and only if *(A)* Congress would veto the new policy; and *(B)* $p > \frac{1}{2} + \frac{b}{2}$.
- Take no action if *(A)* Congress would approve the policy; and *(B)* $p \leq$ ½.

- A *Hawk President* adopts the following strategy:
  - Propose the new policy to Congress (anticipating that it will be accepted) if *(A)* Congress would approve the policy; and *(B)* $p > \frac{1}{2} - \frac{b}{2}$.
  - Propose the new policy to Congress (anticipating that it will be vetoed) if *(A)* Congress would veto the new policy; and *(B)* $p \leq$ ½.
  - Enact the new policy unilaterally if and only if *(A)* Congress would veto the new policy; and *(B)* $p >$ ½.
  - Take no action if *(A)* Congress would approve the policy; and *(B)* $p \leq \frac{1}{2} - \frac{b}{2}$.
- An *unbiased Congress* approves a presidential proposal to adopt the new policy if and only if $p > \frac{1}{2} + \frac{q^2 b}{2\left(q^2 + (1-q)^2\right)}$.
- A *Hawk Congress* approves a presidential proposal to adopt the new policy if and only if $p > \frac{1}{2} + \frac{(1-q)^2 b}{2\left(q^2 + (1-q)^2\right)}$.

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 then his support level when the President makes no proposal at all. This suggests the hypothesis that when the President makes a proposal, and that proposal 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 behavior pattern 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") (Groseclose & McCarty 2001). However, the causal mechanism is different in our framework. The political "reward" that the President receives when his proposal is vetoed has nothing to do with the Voter learning additional information about the President's type. In our model, the Voter chooses political support levels solely with reference to their *ex ante* incentive effects. The Voter rewards the President in case of a congressional veto not because the Voter learns that the President is more likely to be a good type in case of a veto, but rather because the Voter needs to manipulate presidential incentives to discourage excessive unilateral action.

To see this point more clearly, recall that we had earlier defined the President's "credit" for success as the difference between the President's support level in case of success from his support level if the status quo remained in place, and we had defined "blame" analogously. In the Opt-In Checks regime, though, there are two possible ways we can end up with the status quo outcome. First, if Congress would approve a

presidential proposal, then we end up with the status quo only if the President takes no action. The assumption that the President weakly prefers joint action guarantees that any new policy will be the result of joint action. Second, if Congress would veto a presidential proposal, then we end up with the new policy only if the President acts unilaterally, and Lemma 3 further implies that we end up with the status quo only if the President proposes the policy and it is vetoed.

So, we can define two distinct pairs of credit/blame combinations. The President's *credit for joint success* is the difference between his support level in case of policy success (equal to 1) and his support level when he makes no proposal (equal to ½). Likewise, the President's *blame for joint failure* is the difference between his support level when he makes no proposal (½) and his support level when policy fails (0). By contrast, the President's *credit for unilateral success* is the difference between his support level in case of success (1) and his support level when his proposal is vetoed ($\frac{1}{2} + b$), while his *blame for unilateral failure* is the difference between his support level in case of a veto ($\frac{1}{2} + b$) and his support level in case of failure (0).

From this, it follows that the President's credit and blame in the case of joint action are symmetric: both are equal to ½. 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 ($\frac{1}{2} + b$). Furthermore, 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 political support if the President makes a proposal that is vetoed. If the President passes up that opportunity, and instead acts unilaterally, then the potential gains in political support if the policy succeeds are

considerably smaller than the potential losses in political support if the policy fails. These behavioral results are consistent with the claim that the President has more to lose politically when he acts unilaterally, and also with the claim that the mere existence of the option of going to Congress raises the political stakes for the President.

What about the Voter's allocation of credit and blame to Congress? The only comparison that matters here is between congressional support levels in case of success or failure (1 and 0, respectively, and the congressional support level in case of a veto ($\frac{1}{2} + \frac{q^2 b}{q^2 + (1-q)^2}$). Thus, Congress's credit for success ($\frac{1}{2} - \frac{q^2 b}{q^2 + (1-q)^2}$) is smaller than its blame for failure ($\frac{1}{2} + \frac{q^2 b}{q^2 + (1-q)^2}$). 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.

Yet again, 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 and Balances regime with unified government described in Proposition 4, the *ex ante* probability that x=1 will be chosen is ½.

However, 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 and Balances regime with unified government described in Proposition 2, the Voter's *ex ante* expected utility is $\frac{5}{8} - \frac{q^2(1-q)b^2}{8\left(q^2+(1-q)^2\right)}$, which is *greater than* the Voter's expected utility under the Mandatory Checks and Balances with unified government.

This last result is especially noteworthy, because it suggests that an institutional system in which the primary decision-maker *may* seek the approval of another political 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. We can put this in the context of the military intervention example. Our results suggest, first, that it is better to require congressional approval for military action than to have a system in which the President has the sole authority to direct military operations, with no mechanism for seeking congressional approval. Our results also suggest, however, that it is even better to give the President the *option* of going to Congress, but to retain the option of acting unilaterally if the President anticipates that Congress would not approve.

2. Opt-In Checks and Balances with Divided Government

In an Opt-In Checks and Balances 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 the Voter's expected utility under the Opt-In Checks and Balances regime with divided government, the player's strategies are as follows:

- The *Voter* adopts the following strategy:
    - If the President adopts the new policy unilaterally, then the Voter confers on the President the maximum level of political support (1) if the policy succeeds and the minimum level of 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, then the Voter confers on both the President and Congress the maximum level of political support (1) if the policy succeeds and the minimum level of support (0) if the policy fails.
    - If the President takes no action, then the Voter confers on the President a political support level of ½. 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 vetoes the proposal, then the Voter confers on the President a political support level of $\frac{1}{2} + b$, and confers on Congress a political support level of. $\frac{1}{2} - \frac{b}{2}$.
- An *unbiased President* adopts the following strategy:

- Propose the new policy to Congress (anticipating that it will be accepted) if *(A)* Congress would approve the policy; and *(B)* the observed *ex ante* probability of policy success (p) is greater than ½.
- Propose the new policy to Congress (anticipating that it will be vetoed) if *(A)* Congress would veto the new policy; and *(B)* $p \leq \frac{1}{2} + \frac{b}{2}$.
- Enact the new policy unilaterally if and only if *(A)* Congress would veto the new policy; and *(B)* $p > \frac{1}{2} + \frac{b}{2}$.
- Take no action if *(A)* Congress would approve the policy; and *(B)* $p \leq$ ½.

- A *Hawk President* adopts the following strategy:
  - Propose the new policy to Congress (anticipating that it will be accepted) if *(A)* Congress would approve the policy; and *(B)* $p > \frac{1}{2} - \frac{b}{2}$.
  - Propose the new policy to Congress (anticipating that it will be vetoed) if *(A)* Congress would veto the new policy; and *(B)* $p \leq$ ½.
  - Enact the new policy unilaterally if and only if *(A)* Congress would veto the new policy; and *(B)* $p >$ ½.
  - Take no action if *(A)* Congress would approve the policy; and *(B)* $p \leq \frac{1}{2} - \frac{b}{2}$.
- An *unbiased Congress* approves a presidential proposal to adopt the new policy if and only if $p > \frac{1}{2} - \frac{b}{4}$.
- A *Dove Congress* approves a presidential proposal to adopt the new policy 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 as it was in the unified government case: Political 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, the political costs of failure are greater than the political rewards for success. The Voter achieves this asymmetry by increasing 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 case is that in the former case, political blame for failure exceeded the political rewards for success, while in the latter case the opposite is true. This makes intuitive 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.

As was true in all previous cases, the *ex ante* probability of a policy change remains unchanged:

Corollary 5.1: In the equilibrium of the Opt-In Checks and Balances regime with divided government described in Proposition 5, the *ex ante* probability that x=1 will be chosen is ½.

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 and Balances regime with unified government described in Proposition 2, the Voter's *ex ante* expected utility is $\frac{5}{8} - \frac{q(1-q)b^2}{16}$, which is *greater than* the Voter's expected utility under Mandatory Checks and Balances with divided government.

Finally, we may be interested in whether the Voter prefers unified or divided government when the regime is Opt-In Checks and Balances. We can answer this question by comparing the expected utilities given in Corollaries 4.2 and 5.2, which yields the following conclusion:

Corollary 5.3: Under the Opt-In Checks and Balances 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). In the Mandatory Checks case, the Voter prefers unified government when the probability of bias (or, alternatively, the level of political polarization), q, is low, but when the probability of bias is sufficiently high, the Voter actually prefers divided government. This reversal does not occur under the Opt-In Checks regime. Instead, the Voter always prefers unified government.

III. Conclusion

We set out to consider the interrelationship between political accountability and institutional checks and balances 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 has generated three related insights.

First, the model generates a set of positive predictions regarding political behavior, and voter assignment of political credit and blame, under different institutional regimes. Our model predicts that rational voters will respond to the risk that a politician may be biased by introducing asymmetries in the political rewards and punishments for policy success or failure; voters achieve this asymmetry by varying the political support they confer on a political agent when no new policy is proposed, or when a policy proposal is vetoed. Furthermore, however, the 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 any 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 taken into account, adding or removing veto players does not

alter the *ex ante* probability of a policy change. This is because voters can 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 question cannot neglect the strategic response of voters to different institutional settings.

Third, and perhaps most importantly, our model predicts that expected voter welfare is highest under the Opt-In Checks regime and lowest under a Unilateral Authority regime. 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 normative result is that a voter is better off (in expectation) when she can calibrate her political reward and punishment strategy more precisely. In the Unilateral Authority case, the voter can only condition her political support for the President on the observed outcome of the policy process (success, failure, or no action), and the voter's uncertainty leads to many false negatives and false positives. When a mandatory congressional check is added, the voter can now rely on Congress (which is also subject to political incentives created by the voter) to screen out some proportion 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, 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 in this case can 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 caveats and qualifications. Our model is highly stylized. It assumes, among other things, that the political agents can be effectively disciplined by anticipated voter response to policy choices and outcomes. If voters cannot observe agents' choices, or if they do not get information about the policy's outcome sufficiently soon, then this disciplining mechanism will not be effective. We also assume that the President and Congress are both informed with respect to the likelihood of policy success, and to each others' preferences. That strong assumption probably never holds completely, and where it is completely inapposite, the model's results may not hold. Furthermore, using the pivotal voter as the implicit normative benchmark may be inappropriate in many cases, especially those where the normative concern is precisely the protection of minorities (or politically ineffective majorities) from the outcome of majoritarian processes. The normative results may also fail to hold if voters are myopic or otherwise irrational.

Those important caveats notwithstanding, we believe that the central normative insight still has broad significance: The more freedom an institutional regime gives to voters to craft more refined political reward and punishment strategies, the greater the efficacy of public accountability mechanisms – including but not limited to electoral accountability – in aligning the preferences of political agents with voters. Thus, the

separation of powers and checks and balances should be thought of not simply as a *substitute* for more direct forms of political accountability, but also as *complementary* to such mechanisms.

REFERENCES

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

Ashworth, Scott, Ethan Bueno de Mesquita, and Amanda Friedenberg. 2008. "Sanctioning and Selecting in Elections." Unpublished manuscript.

Austen-Smith, David and Jeffrey Banks. 1989. "Electoral Accountability and Incumbency," in Peter C. Ordeshook, ed. *Models of Strategic Choice in Politics*. Ann Arbor: University of Michigan Press.

Besley, Timothy. 2005. *Principled Agents: Motivation and Incentives in Politics*. Oxford: Oxford University Press.

Brennan, Geoffrey and Alan Hamlin. 1994. "A Revisionist View of the Separation of Powers," *Journal of Theoretical Politics* 6(3): 345-368.

Bueno de Mesquita, Bruce, Alastair Smith, Randolph M. Siverson, and James D. Morrow. 2005. *The Logic of Political Survival*. Cambridge: MIT Press.

Bueno de Mesquita, Ethan and Amanda Friedenberg. 2007. "Ideologues or Pragmatists?" Unpublished manuscript (October 18, 2007).

Bueno de Mesquita, Ethan and Dimitri Landa. 2008. "An Equilibrium Theory of Clarity of Responsibility." Unpublished manuscript (Jan. 22, 2008).

Bueno de Mesquita, Ethan and Matthew C. Stephenson. 2007. "Regulatory Quality Under Imperfect Oversight," *American Political Science Review* 101(3): 605-620.

Fearon, James D. 1999. "Electoral Accountability and the Control of Politicians: Selecting Good Types versus Sanctioning Poor Performance," in Bernard Manin, Adam Przeworski, and Susan Stokes, eds. *Democracy, Accountability, and Representation*. Cambridge: Cambridge University Press.

Ferejohn, John. 1986. "Incumbent Performance and Electoral Control," *Public Choice* 50: 5-25.

Ferejohn, John and Charles R. Shipan. 1990. "Congressional Influence on Bureaucracy," *Journal of Law, Economics & Organization* 6: 1-20.

Fiorina, Morris P. 1982. "Legislative Choice of Regulatory Forms: Legal Process or Administrative Process?" *Public Choice* 39: 33-.

Glazer, Amihai. 2007. "Strategies of the Political Opposition" Working Paper (May 18, 2007).

Graber, Mark A. 1993. "The Nonmajoritarian Difficulty: Legislative Deference to the Judiciary" *Studies in American Political Development* 7: 35-.

Groseclose, Tim and Nolan McCarty. 2001. "The Politics of Blame: Bargaining Before an Audience," *American Journal of Political Science* 45(1): 100-119.

Henisz, Witold. 2000. "The Institutional Environment for Economic Growth," *Politics & Economics* 12(1): 1-31.

Kagan, Elena. 2001. "Presidential Administration," *Harvard Law Review* 114: 2245-.

Maskin, Eric and Jean Tirole. 2004. "The Politician and the Judge: Accountability in Government," *American Economic Review* 94(4): 1034-1054.

McCarty, Nolan. 2000. "Proposal Rights, Veto Rights, and Political Bargaining," *American Journal of Political Science* 44(3): 506-522.

Meirowitz, Adam. 2007. "Probabilistic Voting and Accountability in Elections with Uncertain Policy Constraints." *Journal of Public Economic Theory* 9(1): 41-68.

Moe, Terry M. and William G. Howell. 1999. "The Presidential Power of Unilateral Action," *Journal of Law, Economics & Organization* 15(1): 132-179.

Nzelibe, Jide. 2007. "Are Congressionally Authorized Wars Perverse?" *Stanford Law Review* 59(4): 907-953.

Persson, Torsten, Gerard Roland, and Guido Tabellini. 1997. "Separation of Powers and Political Accountability," *Quarterly Journal of Economics* 112: 1163-1202.

Posner, Eric A. and Adrian Vermeule. 2007. "The Credible Executive," *University of Chicago Law Review* 74: 865-913.

Powell, G. Bingham and Guy D. Whiten. 1993. "A Cross-National Analysis of Economic Voting: Taking Account of the Political Context," *American Journal of Political Science* 37: 391-414.

Salzberger, Eli M. 1993. "A Positive Analysis of the Doctrine of Separation of Powers, or: Why Do We Have an Independent Judiciary?" *International Review of Law & Economics* 13: 349-.

Snyder, James M. and Michael Ting. 2005. "Interest Groups and the Electoral Control of Politicians." Unpublished manuscript.

Stephenson, Matthew C. 2003. "When the Devil Turns…: The Political Foundations of Independent Judicial Review," *Journal of Legal Studies* 32: 59-89.

Stephenson, Matthew C. 2004. "Court of Public Opinion: Government Accountability and Judicial Independence" *Journal of Law, Economics & Organization* 20(2): 379-399.

Tsebelis, George. 1995. "Decision Making in Political Systems: Veto Players in Presidentialism, Parliamentarism, Multicameralism and Multipartyism," *British Journal of Political Science* 25: 289-325.

Tsebelis, George. 2002. *Veto Players: How Political Institutions Work*. Princeton, N.J.: Princeton University Press.

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:

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

where p is the probability of policy success, S is the level of political support accrued from policy success, F is the level of political support associated with policy failure, 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:

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

Consider only those cases in which *A*'s approval threshold is the binding constraint on whether the new policy is enacted. Let π_u be the probability that *A* is unbiased, conditional on *A*'s approval threshold being the binding constraint. Let π_h be the probability that *A* is a Hawk, conditional on *A*'s approval threshold being the binding constraint. Next, fix F and define α=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:

$$\frac{1}{2}\left[\begin{array}{l}\pi\left(\alpha b - 2\alpha^2 b\left(\frac{1}{2} + D - F\right) + \alpha^2 b^2\right) \\ + \left(\alpha\left(\frac{1}{2} + D - F - b\right) - \alpha^2\left(\frac{1}{2} + D - F - b\right)^2 + 1\right)\end{array}\right] \qquad \textbf{(3)}$$

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

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

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

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

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 $N = s_P$(*Unilateral Authority, no action*) and let $T = ¼ + N/2$. Using this notation, and making use of Lemma 1, it follows that:

An *unbiased* President would enact the new policy iff:

$$p > T\,. \quad \textbf{(6)}$$

A *Hawk* President would enact the new policy iff:

$$p > T - \frac{b}{2}\,. \quad \textbf{(7)}$$

The Voter's expected utility is:

$$(1-q)\left(\frac{T}{2} + \frac{(1-T^2)}{2}\right) + q\left(\frac{T-\frac{b}{2}}{2} + \frac{\left(1-\left(T-\frac{b}{2}\right)^2\right)}{2}\right) \quad \textbf{(8)}$$

We can solve for the Voter's optimal T by taking the derivative of (8) with respect to T and setting equal to zero, which yields:

$$T^* = \frac{1}{2} + \frac{qb}{2} \quad \textbf{(9)}$$

Given the definition of T, it follows straightforwardly that $N^* = ½ + qb$.

Substituting T^* into (8) yields the Voter's equilibrium expected utility under the Unilateral Authority regime:

$$\frac{5}{8} - \frac{q(1-q)b^2}{8} \qquad \textbf{(10)}$$

Proof of Corollary 1.1:

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

$$(1-q)(1-T) + q\left(1 - T - \frac{b}{2}\right) \qquad \textbf{(11)}$$

Substituting the T^* established by Proposition 1 into (11) yields a probability of ½.

Proof of Corollary 1.2:

The Voter's expected utility is given by (10) 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 and Balances, 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(*Mandatory Checks, joint success*) = 1, and s_i(*Mandatory Checks, joint failure*) = 0. Making use of Lemma 2, without loss of generality we can define $N = s_P$(*Mandatory Checks, no action*) = s_P(*Mandatory Checks, veto*). Also define $V = s_C$(*Mandatory Checks, veto*). Next, define $T_P = ¼ + N/2$ and $T_C = ¼ + V/2$.

Using this notation, we can express the conditions under which (A) the President would propose action to Congress; and (B) Congress would approve a presidential proposal as follows:

An *unbiased* Congress would uphold a proposed action iff:

$$p > T_C \quad \textbf{(12)}$$

A *Hawk* Congress would uphold a proposed action iff:

$$p > T_C - \frac{b}{2}. \quad \textbf{(13)}$$

An *unbiased* President would propose action to Congress iff (A) Congress would approve it; and (B):

$$p > T_P. \quad \textbf{(14)}$$

A *Hawk* President would propose action to Congress iff (A) Congress would approve it; and (B):

$$p > T_P - \frac{b}{2}. \quad \textbf{(15)}$$

Next, define the following condition:

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

When Condition 2.1 is satisfied, then:

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

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

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

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

This simplifies to:

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

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:

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

$$T_P^*=\frac{1}{2}+\frac{q^2b}{2\left(1-q+q^2\right)} \quad \textbf{(18)}$$

Note that these values satisfy Condition 2.1. From the definitions of T_C and T_P it follows that $V^* = ½$ and $N^* = ½ + q^2b/(1-q+q^2)$.

To find the Voter's expected utility under the equilibrium of the Mandatory Checks and Balances regime under unified government that satisfies Condition 2.1, we substitute (12) and (13) into (11), which yields:

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

Next, consider the following alternative condition:

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

Observe that Condition 2.2 is analogous to Condition 2.1, except that the subscripts are reversed. It follows that there is an analogous equilibrium that yields the same expected utility to the Voter as that given in (19), except that the values of T_P and T_C given in (17) and (18) 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 Separation of Powers with unified government case by imposing the equilibrium consistent with Condition 2.1 (or 2.2), we can subtract (10) from (19), which yields:

$$\frac{q(1-q)^3 b^2}{8(1-q+q^2)} \geq 0 \qquad \textbf{(20)}$$

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:

$$(1-q)(1-T_P^*) + q^2\left(1+\frac{b}{2}-T_P^*\right) + q(1-q)(1-T_C^*) \qquad \textbf{(21)}$$

Substituting in the T_C^* and T_P^* from (17) and (18) into (21) yields a probability of ½.

Proof of Corollary 2.2

This is established by (19) and (20) in the proof of Proposition 2.

Proof of Proposition 3

Again from Lemma 1, we can assume s_i(*Mandatory Checks, joint success*) = 1, and s_i(*Mandatory Checks, joint failure*) = 0, and, from Lemma 2, we can define $N = s_P$(*Mandatory Checks, no action*) = s_P(*Mandatory Checks, veto*) and $V = s_C$(*Mandatory Checks, veto*). As before, we will define $T_P = ¼ + N/2$ and $T_C = ¼ + V/2$.

Using this notation, we can express the conditions under which (A) the President would propose action to Congress; and (B) Congress would approve a presidential proposal as follows:

An *unbiased* Congress would uphold a proposed action iff:

$$p > T_C \qquad \textbf{(22)}$$

A *Dove* Congress would uphold a proposed action iff:

$$p > T_C + \frac{b}{2}. \quad \textbf{(23)}$$

An *unbiased* President would propose action to Congress iff (A) Congress would approve it; and (B):

$$p > T_P. \quad \textbf{(24)}$$

A *Hawk* President would propose action to Congress iff (A) Congress would approve it; and (B):

$$p > T_P - \frac{b}{2}. \quad \textbf{(25)}$$

Next, define the following condition:

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 will be enacted if and only if $p > T_P$.
- If the President is a *Hawk* and Congress is a *Dove*, the policy will be enacted if and only if $p > T_C + b/2$.
- If the President is a *Hawk* and Congress is *unbiased*, the policy will be enacted if and only if $p > T_C$.
- If the President is *unbiased* and Congress is a *Dove*, the policy will be enacted if and only if $p > T_C + b/2$.

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

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

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

This simplifies to:

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

We can solve for the optimal T_P and T_C by taking the derivative of (26) with respect to each of them and setting equal to zero. Doing so yields:

$$T_P^* = \frac{1}{2} \quad \textbf{(27)}$$

$$T_C^* = \frac{1}{2} - \frac{b}{2(2-q)} \quad \textbf{(28)}$$

Observe that these values satisfy Condition 3.1. From the definitions of T_P and T_C, it follows that $N^* = ½$ and $V^* = ½ - b/(2-q)$.

To find the Voter's expected utility under the equilibrium of the Mandatory Checks and Balances regime under divided government that satisfies Condition 3.1, we substitute (27) and (28) into (26), which yields:

$$\frac{5}{8} - \frac{q(1-q)b^2}{8(2-q)} \quad \textbf{(29)}$$

Next, consider the following alternative condition:

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 will be enacted if and only if $p > T_P$.
- If the President is a *Hawk* and Congress is a *Dove*, the policy will be enacted if and only if $p > T_C + b/2$.
- If the President is a *Hawk* and Congress is *unbiased*, the policy will be enacted if and only if $p > T_P - b/2$.
- If the President is *unbiased* and Congress is a *Dove*, the policy will be enacted if and only if $p > T_P$.

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

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

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

This simplifies to:

$$\frac{1}{2}\left[\begin{array}{l}(1-q)\left(T_P-T_P{}^2+1\right)+q^2\left(T_C-\left(T_C+\frac{b}{2}\right)^2+1+\frac{b}{2}\right)\\+q(1-q)\left(T_P-\left(T_P-\frac{b}{2}\right)^2+1-\frac{b}{2}\right)\end{array}\right] \quad \textbf{(30)}$$

We can solve for the optimal T_P and T_C by taking the derivative of (30) with respect to each of them and setting equal to zero. Doing so yields:

$$T_C^* = \frac{1}{2}-\frac{b}{2} \quad \textbf{(31)}$$

$$T_P^* = \frac{1}{2}+\frac{qb}{2(1+q)} \quad \textbf{(32)}$$

Observe that these values satisfy Condition 3.2. From the definitions of T_P and T_C, it follows that $N^* = ½ + qb/(1+q)$ and $V^* = ½ - b$.

To find the Voter's expected utility under the equilibrium of the Mandatory Checks and Balances regime under divided government that satisfies Condition 3.2, we substitute (31) and (32) into (30), which yields:

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

Of these two equilibria, we would like to know which one gives the Voter a greater expected utility. We can calculate this by subtracting (33) from (29), which yields:

$$\frac{q(1-q)b^2}{8(1+q)(2-q)}(1-2q) \qquad \textbf{(34)}$$

Expression (34) 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), then the Voter prefers the equilibrium consistent with Condition 3.1, while if $q>1/2$ (i.e., if the probability of bias is high), then 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:

$$(1-q)^2\left(1-T_P^*\right)+q\left(1-T_C^*-\frac{b}{2}\right)+q(1-q)\left(1-T_C^*\right) \qquad \textbf{(35)}$$

Substituting in T_P^* and T_C^* from (27) and (28) yields a probability of ½.

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:

$$(1-q)\left(1-T_P^*\right)+q^2\left(1-T_C^*-\frac{b}{2}\right)+q(1-q)\left(1-T_P^*+\frac{b}{2}\right) \qquad \textbf{(36)}$$

Substituting in T_P^* and T_C^* from (31) and (32) yields a probability of ½.

Proof of Corollary 3.2

This is established by (29), (33), and (34) in the proof of Proposition 3.

Proof of Corollary 3.3

When $q<½$, the Voter prefers divided government to unified government when (29) is greater than (19). Subtracting (19) from (29) yields:

$$\frac{q(1-q)b^2\left(3q-2q^2-1\right)}{8\left(1-q+q^2\right)(2-q)} \qquad \textbf{(37)}$$

For $q<1/2$, expression (37) is always less than or equal to zero, which implies that when $q<1/2$ and the regime is Mandatory Checks and Balances, the Voter prefers unified government to divided government.

When $q>1/2$, the Voter prefers divided government to unified government when (33) is greater than (19). Subtracting (19) from (33) yields:

$$\frac{q^2(1-q)b^2(2-q)}{8(1-q+q^2)(1+q)} \qquad \textbf{(38)}$$

Expression (38) is always positive, which implies that when $q>1/2$ and the regime is Mandatory Checks and Balances, the Voter prefers divided government to unified government.

Proof of Lemma 3

Consider first the case in which Congress would approve a presidential proposal to enact the new policy. 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 will be 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(*Opt-In Check, joint success*) = s_P(*Opt-In Check, unilateral success*) = 1, and s_i(*Opt-In Check, joint failure*) = s_P(*Opt-In Check, unilateral failure*) = 0. Next, let us adopt the following notational simplification: $N_i = s_i$(*Opt-In Check, no action*), and $V_i = s_i$(*Opt-In Check, veto*). Further, let $T_U = ¼ + V_P/2$, $T_J = ¼ + N_P/2$, and $T_C = ¼ + V_C/2$. 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 $T_C - b/2 \geq T_U$

Using this notation, we can express the conditions under which (A) the President would propose action to Congress; (B) the President would act unilaterally; and (C) Congress would approve a presidential proposal as follows:

An *unbiased* Congress would uphold a proposed action iff:

$$p > T_C . \quad \textbf{(39)}$$

A *Hawk* Congress would uphold a proposed action iff:

$$p > T_C - \frac{b}{2} . \quad \textbf{(40)}$$

An *unbiased* President would propose action to Congress iff (A) Congress would approve it; and (B):

$$p > T_J . \quad \textbf{(41)}$$

A *Hawk* President would propose action to Congress iff (A) Congress would approve it; and (B):

$$p > T_J - \frac{b}{2} . \quad \textbf{(42)}$$

An *unbiased* President would act unilaterally iff (A) Congress would veto a proposed action; and (B):

$$p > T_U . \quad \textbf{(43)}$$

A *Hawk* President would act unilaterally iff (A) Congress would veto a proposed action; and (B):

$$p > T_U - \frac{b}{2} . \quad \textbf{(44)}$$

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 both *unbiased*, then the new policy will be enacted (jointly) if $p > T_C$.

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

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

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

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

This simplifies to:

$$\frac{1}{2}\left[\begin{array}{l}(1-q)^2\left(T_C-T_C{}^2+1\right)+q^2\left(T_C-\left(T_C-\frac{b}{2}\right)^2+1-\frac{b}{2}\right)\\+q(1-q)\left(T_U-\left(T_U-\frac{b}{2}\right)^2+2-\frac{b}{2}+T_J-T_J{}^2\right)\end{array}\right] \quad \textbf{(45)}$$

We can solve for the optimal T_J, T_C, and T_U by taking the derivative of (45) with respect to each of them and setting equal to zero. Doing so yields:

$$T_J^* = \frac{1}{2} \quad \textbf{(46)}$$

$$T_U^* = \frac{1}{2}+\frac{b}{2} \quad \textbf{(47)}$$

$$T_C^* = \frac{1}{2}+\frac{q^2 b}{2\left((1-q)^2+q^2\right)} \quad \textbf{(48)}$$

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 $N_P^* = ½$, $V_P^* = ½ + b$, and $V_C^* = ½ + q^2b/((1-q)^2 + q^2)$.

Substituting these optimal values into (45) yields the Voter's expected utility in the Opt-In Checks and Balances equilibrium that satisfies Conditions 4.1 and 4.2:

$$\frac{5}{8} - \frac{q^2(1-q)^2 b^2}{8\left((1-q)^2 + q^2\right)} \qquad \textbf{(49)}$$

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 and Balances 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 $T_C - b/2 > T_U$, then the President's willingness to act unilaterally is the only binding constraint on whether the new policy is enacted, 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 with Congress 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 with Congress 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 in the case where 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 and Balances with unified government.
- If $T_U - b/2 > T_C$, then the President will never act unilaterally, because for any policy that the President would be willing to enact unilaterally, he can also enact this policy by going through Congress. Therefore, the Voter's expected utility in an equilibrium consistent with this condition is equivalent to her expected utility under Mandatory Checks and Balances 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 threshold for approval, and in all other cases Congress is willing to approve anything that the President would favor enacting. Therefore, the Voter's expected utility in an equilibrium consistent with this condition is equivalent to her expected utility under Mandatory Checks and Balances 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 and Balances 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 (19) from (49). Doing so yields:

$$\frac{q^5(1-q)b^2}{8\left(1-q+q^2\right)\left((1-q)^2+q^2\right)} \geq 0 \qquad \textbf{(50)}$$

Because (50) is positive, and recalling that from Corollary 2.2 that (19) is greater than (10), it follows that the Voter always prefers the equilibrium consistent with Conditions 4.1 and 4.2 to any other possible equilibrium under the Opt-In Checks and Balances 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:

$$(1-q)^2\left(1-T_C^*\right)+q^2\left(1-T_C^*+\frac{b}{2}\right)+q(1-q)\left(\left(1-T_U^*+\frac{b}{2}\right)+\left(1-T_J^*\right)\right) \qquad \textbf{(51)}$$

Substituting in the T_C^*, T_J^*, and T_U^* from (46), (47), and (48) into (51) yields a probability of ½.

Proof of Corollary 4.2

This is established by (49) and (50) 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 $T_U \geq T_J$.

Using this notation, we can express the conditions under which (A) the President would propose action to Congress; (B) the President would act unilaterally; and (C) Congress would approve a presidential proposal as follows:

An *unbiased* Congress would uphold a proposed action iff:

$$p > T_C . \quad \textbf{(52)}$$

A *Dove* Congress would uphold a proposed action iff:

$$p > T_C + \frac{b}{2} . \quad \textbf{(53)}$$

An *unbiased* President would propose action to Congress iff (A) Congress would approve it; and (B):

$$p > T_J . \quad \textbf{(54)}$$

A *Hawk* President would propose action to Congress iff (A) Congress would approve it; and (B):

$$p > T_J - \frac{b}{2} . \quad \textbf{(55)}$$

An *unbiased* President would act unilaterally iff (A) Congress would veto a proposed action; and (B):

$$p > T_U . \quad \textbf{(56)}$$

A *Hawk* President would act unilaterally iff (A) Congress would veto a proposed action; and (B):

$$p > T_U - \frac{b}{2} . \quad \textbf{(57)}$$

Next, define the following two conditions:

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

Condition 5.2: $T_J \geq T_C$

If Conditions 5.1 and 5.2 are satisfied, then:

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

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

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

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

This simplifies to:

$$\frac{1}{2}\left[\begin{array}{l}(1-q)^2\left(T_J-T_J{}^2+1\right)+q^2\left(T_U-\left(T_U-\frac{b}{2}\right)^2+1-\frac{b}{2}\right)\\+q(1-q)\left(2T_C-T_C{}^2-\left(T_C+\frac{b}{2}\right)^2+2+\frac{b}{2}\right)\end{array}\right] \qquad \textbf{(58)}$$

We can solve for the optimal T_J, T_C, and T_U by taking the derivative of (58) with respect to each of them and setting equal to zero. Doing so yields:

$$T_J^* = \frac{1}{2} \qquad \textbf{(59)}$$

$$T_U^* = \frac{1}{2}+\frac{b}{2} \qquad \textbf{(60)}$$

$$T_C^* = \frac{1}{2} - \frac{b}{4} \quad \textbf{(61)}$$

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 $N_P^* = ½$, $V_P^* = ½ + b$, and $V_C^* = ½ - b/2$.

Substituting the optimal values from (59), (60), and (61) into (58) yields the Voter's expected utility in the Opt-In Checks and Balances equilibrium that satisfies Conditions 5.1 and 5.2:

$$\frac{5}{8} - \frac{q(1-q)b^2}{16} \quad \textbf{(62)}$$

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 and Balances regime. Specifically:

- If $T_J - b/2 > T_C$, then Congress's approval threshold never constrains, because Congress would be willing to approve anything that the President would be willing to enact jointly. The Voter's utility in an equilibrium consistent with this condition is equivalent to her expected utility under the Unilateral Authority regime.
- 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 and Balances 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 in this case 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 and Balances with divided government (in the latter case).
- Finally, if Condition 5.1 holds but $T_C > T_J$, then 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 and Balances 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 and Balances regime with divided government, we can compare the Voter's expected utility under this equilibrium with her expected utility under Mandatory Checks and Balances 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 Balances and her expected utility under Mandatory Checks and Balances, when the government is divided, by subtracting (29) from (62). Doing so yields:

$$\frac{q^2(1-q)b^2}{16(2-q)} \geq 0 \qquad \textbf{(63)}$$

Next, if $q>1/2$, we 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 divided, by (33) from (63). This yields:

$$\frac{q(1-q)^2 b^2}{16(1+q)} \geq 0 \qquad \textbf{(64)}$$

Because (63) and (64) are both positive, and recalling that from Corollary 3.2 that (19) is greater than (10), it follows that, when the regime is Opt-In Checks and Balances and the government is divided, 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:

$$(1-q)^2\left(1-T_J^*\right)+q^2\left(1-T_U^*+\frac{b}{2}\right)+q(1-q)\left(2-2T_C^*-\frac{b}{2}\right) \qquad \textbf{(65)}$$

Substituting in the T_C^*, T_J^*, and T_U^* from (59), (60), and (61) into (65) yields a probability of ½.

Proof of Corollary 5.2:

This is established by (62), (63), and (64) in the proof of Proposition 5.

Proof of Corollary 5.3:

We can calculate the difference in the Voter's expected utility under the Opt-In Checks and Balances regime with divided and unified government by subtracting (49) from (63), which yields:

$$-\frac{q(1-q)(2q-1)^2 b^2}{16\left((1-q)^2+q^2\right)} \leq 0 \qquad \textbf{(66)}$$

The fact that (66) is negative implies that, when the regime is Opt-In Checks and Balances, the Voter's expected utility is greater under unified government than under divided government.