Energy Versus Safety

Unilateral Action, Voter Welfare, and Executive Accountability

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Abstract

Americans have always been skeptical of executive power, but many now see a role for the president in overcoming Congressional gridlock. Will increasing executive power necessarily decrease accountability? To answer this question, I develop a two-period signaling model comparing voter welfare in two separation-of-powers settings. In one, the executive must work with a unitary legislature to change policy; in the other, the executive can choose between legislation or unilateral action. Both politicians may have preferences that diverge from the voter's, yet I find that increasing executive power may increase accountability and welfare, even in some cases where the legislature is more likely to be congruent than the executive. Unilateral power allows a congruent executive to overcome gridlock, implement the voter's preferred policy, and reveal information about the politicians' types—which can outweigh the risks of a divergent executive using his power for partisan and personal gain.

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1 Introduction

> "The ingredients which constitute energy in the executive, are, unity; duration; an adequate provision for its support; competent powers. The ingredients which constitute safety in the republican sense, are, a due dependence on the people; a due responsibility."
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> —Alexander Hamilton, *The Federalist, No. 70*

At a 2016 town hall in South Carolina, then-Candidate Trump attacked President Obama for his reliance on unilateral action, arguing, "The country wasn't based on executive orders. Right now, Obama goes around signing executive orders. He can't even get along with the Democrats, and he goes around signing all these executive orders. It's a basic disaster. You can't do it."[1] In office, President Trump saw things differently. Not only did he sign more than 30 executive orders in his first 100 days, he did so in a series of publicized signing ceremonies designed to show his supporters he was following through on campaign promises—with or without Congress.[2]

President Tump's see-sawing views on presidential policymaking are not unique. Americans have always been skeptical of executive power, yet simultaneously desirous of strong presidential leadership (e.g. Schlesinger 1986). In drafting Article II of the U.S. Constitution, the framers tried to balance these concerns. They hoped to create an executive who would be decisive and energetic in response to challenges, yet constrained by his dependence on public support (Hamilton, Jay and Madison 2001, No. 70), ultimately guaranteeing safety and survival of the republican system. Recent increases in polarization, divided government, and Congressional gridlock have led to calls to rethink the Founders' vision with reform-minded proposals that privilege energy over safety (see e.g. Howell and Moe 2016; Posner and Vermeule 2011; Kagan 2001). However, these pro-

[1] Jonathan Lemire and Jill Colvin, "Trump Touts Executive Orders He Once Lambasted," AP News, April 25, 2017. https://apnews.com/e9f75e03bb7a41c1a44e9512d4990832 (accessed April 26, 2019).

[2] Gregory Korte, "Trump's Executive Actions Come Faster and in Different Forms Than Before," USA Today, January 30, 2017. http://www.usatoday.com/story/news/politics/2017/01/30/trumps-executive-actions-come-faster-and-different-forms-than-before/97255592/ (accessed July 11, 2019).

posals often begin from a presumption of presidential "universalism" (but see Posner and Vermeule 2011). That is, a president elected by and accountable to a national constituency, will pursue policy in the national (rather than, say, partisan or personal) interest. Recent research has called this assumption into question (Wood 2009; Kriner and Reeves 2015), which raises concerns about the welfare effects of expanding executive power. As Kagan (2001, 2341) writes, "The desirability of such [presidential] leadership depends on its content; energy is beneficial when placed in the service of meritorious policies, threatening when associated with the opposite."

In this article, I investigate two questions that have not been sufficiently addressed in the theoretical literature on executive power. First, would the public fare better in the aggregate with a stronger executive who could bypass Congressional gridlock or with one who was subject to Madisonian checks-and-balances? Second, are arguments in favor of expanding executive power dependent on assumptions of executive universalism? To explore these questions, I develop a two-period political agency model that integrates two main strands of theoretical literature on executive power—the separation of powers (e.g. Howell 2003; Turner 2020; Chiou and Rothenberg 2017; Persson, Roland and Tabellini 1997; Buisseret 2016) and signaling through executive policymaking (Judd 2017; Kang 2020; Martin 2005)—while relaxing assumptions of executive universalism (see also Stephenson and Nzelibe 2010). I then compare political behavior and voter welfare between two separation-of-powers regimes and find that increasing executive power does not necessarily decrease accountability or safety.

In the *Constitutional Regime* the executive must work with a unitary legislature to pass policy, while in the *Unilateral Regime* the executive may choose between legislative or unilateral policymaking. The politicians are motivated by their private policy preferences, either congruent with or divergent from the voter's preference, as well as rents they receive from holding office in each period. When politicians disagree about policy, gridlock is the modal outcome—a key source of agency loss in the model. In gridlock, not only does the voter sacrifice potential policy payoffs, but due to incentive compatibility constraints, she must replace both agents in the election despite knowing one of them must be congruent. Endowed with unilateral powers, an executive with congruent policy preferences can circumvent gridlock to enact the voter's preferred policy, revealing information about both agents' types in the process. Although divergent executives would like to unilaterally enact the voter's least favorite policy, doing so perfectly reveals the executive's type and leads to certain removal. Unless the divergent executive is highly policy-motivated, the voter is often able to leverage electoral pressure to hold divergent executives to account.

As one might intuitively expect, when one politician is highly likely to be congruent and the other is highly likely to be divergent, the voter fares best in the separation-of-powers regime that apportions more power to the congruent agent—the Constitutional Regime for the legislature and the Unilateral Regime for the executive. However, when the prior probabilities of congruence are equivalent or not too different—even in some cases when the legislature is *ex-ante* more likely to be congruent than the executive—voter welfare is higher under the Unilateral Regime. The welfare gains from a congruent executive overcoming gridlock outweigh the expected losses of a divergent executive acting myopically in expectation. Thus, career-concerned executives are constrained by the same forces that put them in office in the first place: electoral politics.

2 Institutional and Electoral Constraints on Executive Power

Existing theoretical work on executive power can be characterized as falling into one of two camps focused primarily on institutions or elections. The institutional literature extends the pivotal politics framework (Krehbiel 1998) by situating the president as a first mover in a spatial bargaining game (Howell 2003; Chiou and Rothenberg 2017; Judd and Rothenberg 2020). Given an exogenous amount of discretion, the executive can unilaterally propose a policy position on the real line which is then subject to revision by members of the legislature or the court, each with their own spatial preferences. In the one-shot game, the executive never overreaches in equilibrium, yet his agenda-setting power allows him to achieve more personally preferable outcomes than would be possible were he simply a veto player. While these models characterize the institutional constraints on executive power, they do not include active voters, who may impose additional constraints via electoral sanction (Reeves and Rogowski 2016, 2018).

The electoral literature on executive power grows directly out of work on signaling and pandering in political agency models (Maskin and Tirole 2004; Canes-Wrone, Herron and Shotts 2001). The key insight from these models is that when the president has the power to act unilaterally, his choice to do so (or to refrain) can provide additional information about his type given his role as the sole decision-maker. For example, voters may draw inferences about the executive's policymaking skill (Judd 2017) or commitment to a particular issue set (Kang 2020) when he does or does not act unilaterally. Foreign leaders can similarly draw inferences about the president's commitment to international agreements given his choice over executive agreements or Senate-ratified treaties (Martin 2005). In simplifying the policy game to one principle (the voter) and one agent (the executive), these models illustrate the electoral costs and benefits of executive power. Yet, the lack of an institutional role for the legislature is limiting. While Congress rarely overturns executive action formally (Moe and Howell 1999), members can informally constrain the president by speaking out publicly (Christenson and Kriner 2017*a*), or they may eliminate the need for unilateral action entirely when they share the executive's policy preferences.

The present work is not the first to integrate these dual constraints on executive power into a single model. For example, (Kang N.d.) analyzes how the separation of powers and electoral competition can shape budgeting decisions. When separation of powers is weak, the executive may prefer to underfund a policy to deceive the voter about his own lack of competency; when the separation of powers is strong, the legislature sets the budget, which can reveal the executive's type, improve selection, and increase voter welfare. In contrast to Kang (N.d.), the welfare gains from unilateral action in the present model come from the executive breaking gridlock to implement the voter's favorite policy, which perfectly reveals both agents' types and improves selection. Most similar to this model is Stephenson and Nzelibe (2010), which examines voter welfare under three different separation-of-powers settings that feature an executive and legislature who may each be captured by a hawkish faction. Voters devise an *ex-ante* contracting rule to constrain biased policymakers, and the authors find that a regime in which the executive may choose between legislation and unilateral action allows voters to design the most efficient voting rule. My results are consistent with Stephenson and Nzelibe (2010), however the mechanism differs. The current model combines sanctioning and selection (Fearon 1999) such that the voter tries to prospectively install good types and retrospectively punish bad types *ex-post* rather than relying on *ex-ante* contracts.

I follow the previously cited literature (especially Kang 2020; Judd 2017) in thinking about unilateral action as a costly signal. However, I contribute to the gap in the literature by including the legislature as a robust and active player in the policymaking game to understand how inter-institutional dynamics shape selection, accountability, and welfare. To illustrate the advantage of this approach, consider two recent and salient uses of executive power. In 2012, President Obama signed an executive memorandum allowing some immigrants to work in the U.S. and avoid deportation. Before taking this unilateral action, President Obama had tried to pass a similar policy legislatively in 2011, but he was unable to overcome a Republican-led filibuster in the Senate. From this pattern of behavior, voters could infer two things. First, President Obama was committed to immigration reform. And second, at least some members of Congress must have opposed this policy. Why else would the president expend political capital and executive branch resources (Rudalevige 2012) to institute such a policy? While partisan heuristics may have led a representative voter to draw similar conclusions about the key actors in the absence of unilateral action, consider the more complicated case of President Trump's 2019 declaration of a national emergency at the U.S. southern border. Declaring the emergency allowed the Trump administration to divert previously-appropriated money toward construction of a wall, which a Republican Congress had opposed in 2018. From these actions, a voter could infer that President Trump held a strong preference to build a wall, while the majority party in Congress—who were the president's co-partisans—did not. Thus, voters ideologically aligned with President Trump could choose to vote for him—but not Republicans in Congress—in the next election. These two examples highlight the key dynamics of the model. Had President Obama accepted defeat on immigration reform or had President Trump not unilaterally declared a national emergency, voters may have dismissed the presidents' policy positions as cheap talk. They may also have misunderstood the differences in policy preferences across the branches. The decision to (or not to) leverage unilateral action can signal something about both executive and legislative preferences, which improves voter selection. As I discuss in the model, when the executive is constitutionally barred from exercising unilateral action, gridlock may leave the voter uncertain about the preferences of her agents.

This article also engages a broader literature on inter-institutional bargaining, the separation of powers, and accountability beginning with Persson, Roland and Tabellini (1997), which illustrates how the separation of powers can eliminate informational asymmetries between politicians and voters. Specifically, this article contributes to "blame-game" dynamics and audience costs in bilateral bargaining models (Groseclose and McCarty 2001; Cameron 2000, 2012). In contrast to these models, I shed light on the executive's positive power to unilaterally enact policies that make the legislature appear out of step, a twist on the traditional framework in which legislative policies are designed to draw an executive veto. This model also relates to work on career concerns in separation-of-powers settings (Fox and Van Weelden 2010; Buisseret 2016) by focusing on the signaling incentives of a proposer and veto player. Whereas these models are traditionally concerned with the veto player over or under-exercising her veto power, I focus on the proposer's choice to circumvent the veto player in order to reveal type-dependent information. This article further develops our theoretical understanding of factors that contribute to the executive's choice between unilateral action and legislation as in Turner (2020). There, the author highlights the bureaucracy's role in constraining unilateral action: its expected under investment in less-durable unilateral policies inadvertently makes legislation more attractive. Here, I focus on the role of the electorate in priming a different strategic tradeoff for the executive, namely, the decision between policy today or reelection tomorrow. Finally, the results shed light on an ongoing debate about the president as a universal (Howell and Moe 2016; Kagan 2001) or particularistic (Wood 2009; Kriner and Reeves 2015) actor. While I find that expanding executive power is not risk-free, even when executives have partisan or personal motives, career concerns can constrain their worst impulses (see also Posner and Vermeule 2011). In the case that political incentives do not act as a sufficient constraint, unilateral action at least allows for clear retrospective attribution.

3 A Model of Separated Powers and Policymaking

This section describes a stylized model of policymaking between an executive and unitary legislature that will be analyzed in two alternative separation-of-powers regimes. In the Constitutional Regime, both politicians must agree on a policy proposal to alter the status quo; in the Unilateral Regime, the executive may still make policy with the legislature, as in the Constitutional Regime, or he may unilaterally make new policy on his own. Both politicians vary in their policy preferences—some have interests congruent with the voter's while others have interests that are divergent. Because both politicians earn rents from holding office, they can increase their payoffs if the voter believes they are congruent. After observing the policy outcome, a representative voter chooses whether to reelect or replace the executive and/or the legislator with a randomly drawn challenger from the same population. In the second period, the politican(s) propose a new policy, payoffs are distributed, and the game ends. After identifying the actors' equilibrium strategies in both regimes, I compare policy outcomes and voter welfare.

3.1 The Policy Environment

Both regimes feature three players: the executive (E), a unitary legislator (L), and a representative voter (V). In each period $t \in \{1, 2\}$, each politician $i \in \{E, L\}$ selects a policy $x_i^t \in \{-1, 1\}$ from a binary state space. The labels, -1 and 1, represent left and right policy solutions respectively but should be thought of as different policy domains across periods. In each period, the politicians must propose (and depending on the regime, agree upon) a direction in which they will move policy. In the case that the executive works with the legislature (i.e. he forgoes unilateral action), the per-period policy outcome, x^t (no subscript) is the mean value of both politicians' individual policy choices, x_i^t (subscript i), on the real line:

$$x^t(x_E^t, x_L^t) = \frac{x_E^t + x_L^t}{2}$$

When both politicians choose the same policy, the outcome is simply that policy. If politicians choose different policies, *gridlock* occurs and a default policy, $x^t = 0$ (which can be thought of as the period $t - 1$ status quo), is imposed. Admissible policy outcomes, then, are $x^t \in \{-1, 0, 1\}$. Without loss of generality, I assume the voter ("she") prefers the right policy alternative in each period which ensures that the politicians have an incentive to play the policymaking game. To simplify the presentation of the model, she does not discount the future. The voter's per-period payoff is the period-t policy outcome:

$$u_V^t(x^t) = x^t$$

A crucial assumption of the model is that the voter does not observe the politicians' individual policy selections (x_i^t), only the ultimate policy outcome (x^t) in each period.[3] In making this assumption, I appeal to the fact that a representative voter does not follow the back-and-forth between the executive and legislative branches (see e.g. Cameron 2012; Carpini and Keeter 1997; Bartels 1996). It is only when the policy debate ends and a final decision is reached that the voter learns whether or not policy has changed and what that change is.

3.2 Uncertainty About Politician Types

Both the executive and the legislature have preferences over policy conditional on their type, $\theta_i \in \{C, D\}$. A politician with type $\theta_i = C$ is *congruent*, that is, their preference over policy aligns with the voter's. A politician with type $\theta_i = D$ is *divergent*; their preference ranking over policy is opposite the voter's. At the beginning of the game, these types are drawn independently from different distributions and revealed to both politicians but not the voter.[4] However, the voter knows the distributions from which these types are drawn and holds beliefs that each politician is congruent more often than not. Formally, $\{\Pr(\theta_L = C) = \pi,\ \Pr(\theta_E = C) = \gamma\} > \frac{1}{2}$. Politicians receive per-period policy-specific payoffs conditional on their types and the enacted policy. If a politician is congruent, her policy-specific payoff is x^t, while a divergent politician earns $-x^t$.

In addition to earning policy-specific benefits, politicians also receive per-period office-holding rents, β_i, a random variable drawn independently for each politician from a uni-

[3] In Section B.1 of the supplemental appendix, I relax this assumption and allow the voter to observe the politicians individual actions with some positive probability τ. The main results are not dependent on this assumption, and the normative conclusions hold for low or moderate values of τ approaching 0.55.

[4] The assumption about the independence of the type distributions is made for simplicity and does not preclude the possibility that these two distributions are in fact the same distribution. As I will show in Section 6, the Unilateral Regime is strictly preferable in the event that the prior probabilities of congruence are equivalent. If types were instead drawn from different but correlated distributions, the results would not hold were types perfectly correlated; however, allowing for some modest degree of correlation would complicate the results without generating significant insights.

$x_i^t \in \{-1, 1\}$	politician i's policy selection in period t
$x^t(x_L, x_E) \in \{-1, 0, 1\}$	policy outcome in period t
$\theta_i \in \{C, D\}$	politician i's type, congruent or divergent
$\gamma \in (\frac{1}{2}, 1)$	prior probability the executive is congruent
$\pi \in (\frac{1}{2}, 1)$	prior probability the legislature is congruent
$\beta_i \in (0, \bar{\beta})$	politician i's per-period office holding rent
$\alpha^t \in \{0, 1\}$	the executive's choice of legislation or unilateral action

Table 1: Notation

form distribution with support $(0, \bar{\beta})$.[5] By assumption, $\bar{\beta} \equiv \frac{3+\pi}{2}$, which ensures unilateral action is maximally informative in equilibrium. Note, the value of β_i does not change between periods if the politician remains in office. As with politician's preferences, voters do not know their politicians' realizations of β_i, only that they are drawn from a uniform distribution with support $(0, \bar{\beta})$. The full, per-period payoff for congruent politicians from selecting policy x^t is given by:

$$u_i^t = (x^t; \theta_i = C, \beta_i) = x^t + \beta_i$$

A divergent politician's per-period payoff is given by:

$$u_i^t = (x^t; \theta_i = D, \beta_i) = -x^t + \beta_i$$

For simplicity, politicians do not discount the future, and in the event that a politician leaves office, their second-period payoff is normalized to zero. Table 1 summarizes all relevant notation used throughout the paper (some of which will be introduced in the sections that follow).

[5] In Section B.3 of the supplemental appendix, I show that the main results are robust to β_is drawn from any strictly increasing CDF.

3.3 Constitutional Sequence of Play, Solution Concept, and Equilibrium Refinement

The sequence of play in the Constitutional Regime between the executive, legislature, and voter proceeds as follows:

1. Nature draws two politicians with types (θ_i, β_i) to serve as the executive and the legislature. Both types are revealed to both politicians.

2. The legislature proposes a policy, x_L^1, which is revealed to the executive.

3. The executive makes his policy selection, x_E^1. If it is the same policy chosen by the legislature, that policy is enacted and $x^1 = x_E^1 = x_L^1$. If it is the opposite policy, the default policy, $x^1 = 0$ is enacted. The voter observes x^1.

4. An election is held. The voter chooses to independently retain or replace each politician with a challenger drawn from the relevant population. If challengers were installed, Nature draws their types.

5. The players repeat steps 2 and 3.

6. Players receive payoffs and the game ends.

In Section 5, I describe the Unilateral sequence of play, which follows the same basic framework with one deviation.

In both regimes, I solve for Perfect Bayesian equilibria. However, this solution concept does not completely pin down beliefs at terminal histories off the equilibrium path. As such, it permits a multiplicity of equilibria in which the voter holds beliefs about politicians' types that do not follow from what one might intuitively expect. For example, if the voter were to believe all politicians who enact policy $x^t = 1$ are divergent, with sufficient office-motivation, it would be possible to construct an equilibrium in which all politicians rationally pool on the voter's least favorite policy. Of course, the politician with the most to gain by deviating to $x^t = 1$ is the politician the voter would most want to reelect, rendering this equilibrium unsatisfying. In what follows, I focus on equilibria in which the voter forms beliefs by taking the politician's policy incentives into account were she to observe actions off the path of play (see e.g. Fox and Jordan 2011). I impose the following restrictions on the voter's off-path beliefs. First, if enacting $x^t = 1$ is off the path of play, were the voter to observe that outcome, she would assign probability one to the belief that the executive is congruent. Similarly, if $x^t = -1$ is off the path of play, were the voter to observe that outcome, she would assign probability 0 to the belief that the executive is congruent. [6]

4 The Constitutional Regime

I begin my formal analysis of the Constitutional Regime in the second period using backward induction. All proofs are in Section A of the supplemental appendix. As there is no future election, all actors play the stage game Nash equilibrium. That is, they choose their type-preferred policy. Congruent politicians choose $x_i^2 = 1$ and divergent politicians choose $x_i^2 = -1$. Thus, the voter can maximize her second-period payoff by reelecting congruent politicians and replacing divergent ones in the preceding election stage.

At the time of the election, the voter rarely knows her politicians' types with certainty. She can, however, make inferences and update her beliefs after observing the first-period policy outcome. To construct the equilibrium, I assume that the voter adopts a rule in which she reelects both politicians when policy $x^1 = 1$ is enacted and replaces both politicians otherwise.[7] This voting rule is trivial for congruent politicians who maximize their

[6] This refinement is in the spirit of the Universal Divinity (Banks and Sobel 1987), which rules out unnatural beliefs by asking the receiver to consider which types of senders could benefit most from the off-path message. Universal Divinity is not directly applicable to the current game in which two informed senders with private information engage in a sequential bargaining game before sending a subset of the information to an uninformed third party.

[7] If Bayes Rule would ever make the voter indifferent between reelecting or replacing a politician, I assume she chooses to reelect.

policy and office-holding payoffs by selecting policy $x_i^1 = 1$. Divergent politicians must choose between policy benefits today or reelection tomorrow. If a divergent politician resolves this tradeoff in favor of their policy preference, I call them *policy motivated*, whereas a politician who resolves this tradeoff in favor of reelection rents is called *office motivated*.

The intuition behind each politician's first-period policy decision is as follows. If both politicians are congruent, they naturally agree on policy $x^1 = 1$. Doing so also ensures the voter's posterior beliefs about their respective types are weakly greater than the respective priors, and as such, they are both reelected. Recall, too, that politicians know each others' types, so coordination in this respect is possible. Now suppose one politician is congruent and the other is divergent. The congruent politician still maximizes their payoff by selecting $x_i^1 = 1$. The divergent politician faces a choice. They can either choose to pool with congruent types and pass $x_i^1 = 1$, win reelection, and force gridlock in the second period, or they can force gridlock in the first period to preserve the status quo at the cost of reelection. The divergent politician's choice depends on their realization of β_i. If $\beta_i < 1$, the cost of passing the divergent politician's least favorite policy is higher than the benefit of holding office in the second period. If $\beta_i \geq 1$,[8] then reelection rents offset the first-period policy loss.

As an example, suppose the executive is congruent and the legislature is divergent. The executive's choice is simple—it is strictly dominant to select $x_E^1 = 1$. The legislature solves the following:

$$u_L(1, -1; \beta_L) = 2\beta_L - 1 \geq \beta_L = u_L(-1; \beta_L)$$

$$\beta_L \geq 1$$

Recall β_i is a random variable drawn from a uniform distribution with support $(0, \frac{3+\pi}{2})$, so the probability that $\beta_i < 1$ is $\frac{2}{3+\pi}$. Put another way, a divergent politician is policy mo-

[8] When a politician is indifferent between two actions, I assume they default to choosing the voter's preferred policy.

tivated with probability $\frac{2}{3+\pi}$, while a divergent politician is office motivated with probability $1 - \frac{2}{3+\pi}$. Despite the sequential nature of the policymaking game, this threshold is the same irrespective of which politician is divergent.

When both actors are divergent, $\beta_i = 1$ is still the relevant threshold. In this type combination, however, the legislature's agenda-setting power defines the outcome. Because the legislature moves first, it effectively forces the executive's hand. For example, if the legislature is office motivated, they would prefer to pool with congruent types and set first period policy to $x^1 = 1$. If the executive is also office motivated, then his choice is trivial: he would also prefer to set $x^1 = 1$. If the executive is policy motivated, given the legislature's choice, he must choose between gridlock and loss today or reelection and his most preferred policy in the second period (there is no way he can unilaterally enact $x^1 = 1$). The executive always resolves this tradeoff in favor of reelection and sets $x^1_E = 1$. A similar logic holds for the case when the legislature is policy motivated and the executive is office motivated. The first-period policy when both actors are divergent, then, is entirely dependent on the legislature's realization of β_L.

What should the voter conclude about her agents' types given a policy outcome x^1? An intuitive way to think about the voter's information at the end of the first period policymaking game is to imagine a 2×2 table, as in Figure 1, where each cell represents one of the four possible type combinations, $\{(\theta_E = C, \theta_L = C), (\theta_E = C, \theta_L = D) \ldots\}$, and so on. Within each cell, different policy outcomes are possible. When both politicians are congruent, the only outcome is the voter's preferred policy. When the politicians have different types, the divergent actor may either pool on the voter's favorite policy or cause gridlock. When both agents are divergent, the legislature's agenda-setting power allows it to dictate policy, as the executive prefers either policy to gridlock. This table is also useful when considering the voter's posterior beliefs following a particular policy outcome.

To show that these strategies constitute an equilibrium, the voter must follow through

		E	
		$\theta_E = C$	$\theta_E = D$
L	$\theta_L = C$	$x^1 = 1$	$x^1 \in \{0, 1\}$
	$\theta_L = D$	$x^1 \in \{0, 1\}$	$x^1 \in \{-1, 1\}$

Figure 1: First-period equilibrium policy outcomes across all possible type combinations in the Constitutional Regime.

on the proposed election rule. A rational voter who updates her beliefs following Bayes' Rule will only choose to retain an incumbent if her posterior belief about his congruence is weakly greater than her prior that his replacement will be congruent. First, from Table 1 it is clear that if the voter ever observes $x^1 = -1$, she can conclude that both agents must be divergent and she will replace them both. If the voter observes gridlock, then she knows one agent is divergent and one is congruent. Because she does not see her agents' individual policy choices, she cannot know which is which. Following Bayes' Rule, her belief that either agent is congruent is less than her prior that their replacement will be congruent. As such, she replaces both. Finally, if she observes $x^1 = 1$, then her belief that either agent is congruent is weakly greater than the prior that their replacement would be congruent. Therefore, the voter will not deviate from the proposed voting rule given the strategies of her agents. Proposition 1 summarizes the actors' strategies in the Constitutional Regime.

Proposition 1. *(Constitutional Equilibrium) There exists an equilibrium in which the voter re-elects both politicians after observing $x^1 = 1$ and replaces both politicians otherwise. Both politicians choose their type-preferred policy in the second period, and in the first period:*

a. If both politicians are congruent, they select policy $x_i^1 = 1$.

b. If $\theta_i = C$ and $\theta_j = D$, the congruent politician selects policy $x_i^1 = 1$. If $\beta_j \geq 1$, the divergent politician also selects $x_j^1 = 1$ and $x_j^1 = -1$ otherwise.

c. If both politicians are divergent and $\beta_L \geq 1$, both politicians select $x_i^1 = 1$. If $\beta_L < 1$, they both select $x_i^1 = -1$.

Considering the strategies of the politicians established in Proposition 1, the voter's expected welfare in the Constitutional Regime is given by:

$$\begin{aligned} W_C \equiv\ & \gamma\pi(2) + \gamma(1-\pi)\left[\tfrac{2}{3+\pi}(\gamma+\pi-1) + (1-\tfrac{2}{3+\pi})\right] + \\ & (1-\gamma)\pi\left[\tfrac{2}{3+\pi}(\gamma+\pi-1) + (1-\tfrac{2}{3+\pi})\right] + \\ & (1-\gamma)(1-\pi)\left[\tfrac{2}{3+\pi}(\gamma+\pi-2)\right] \end{aligned} \tag{1}$$

The four terms in Equation 1 represent expected gains and losses the voter receives from each type combination. For example, the first term $\gamma\pi(2)$ indicates that the voter would get a payoff of 2 when both politicians are congruent (a payoff of one in the first period, reelection, and a payoff of 1 in the second period). The second term, $\gamma(1-\pi)[\frac{2}{3+\pi}(\gamma+\pi-1)+(1-\frac{2}{3+\pi})]$ is the expected payoff of having a congruent executive and divergent legislature. With probability $(1-\frac{2}{3+\pi})$, the legislature is sufficiently office-motivated to choose $x_L^1 = 1$ in the first period and $x_L^2 = 0$ in the second period, for a total welfare gain of 1. With probability $\frac{2}{3+\pi}$, the legislature is policy motivated and gridlock occurs in the first period, which results in a payoff of 0. The voter replaces both politicians, and in the second period, her expected utility from a random draw of two new politicians is $\gamma+\pi-1$. Payoffs for the second two terms are similarly constructed to build the full Constitutional welfare equation.

Overall, the Constitutional Regime leads to mixed outcomes from the voter's perspective. On the one hand, she may see her most preferred policy outcome across all type combinations of the politicians. Additionally, her least preferred outcome is only enacted when both politicians are divergent and the legislature is policy motivated, which only occurs with probability $(1-\gamma)(1-\pi)\frac{2}{3+\pi} < \frac{1}{7}$. However, gridlock is costly. When the divergent politician pools with the congruent politician, the voter's total welfare is 1, whereas gridlock results in welfare loss as $\gamma + \pi - 1 \leq 1$ due to the fact that she must take the random draw due to incentive compatibility constraints. In the next section, I show how unilateral action may increase voter welfare by allowing a congruent executive to overcome gridlock and enact the voter's preferred policy, signaling both politicians' types in the process.

5 The Unilateral Regime

I turn my attention to an alternative separation-of-powers regime in which the executive is given substantial unilateral authority to make policy without legislative consent. However, the use of these powers is costly. As such, the executive may forego unilateral action and work with the legislature to pass mutually agreeable policy as in the Constitutional Regime. This new decision, as well as the choice over policy, reveals information to the voter about her politicians' types that she can leverage in the electoral phase to more finely tune her selection. Although unilateral power may allow divergent executives to act against the voter's interest, in Section 6, I show that the potential gains may outweigh losses when the legislature is not overwhelmingly more likely to be congruent.

5.1 Sequence of the Unilateral Regime

The Unilateral game follows the same sequence as the Constitutional game except that after the legislature chooses its policy, the executive chooses his policy, x_E^t, *as well as a means of passing that policy*, $\alpha^t \in \{0, 1\}$. If the executive passes the policy legislatively ($\alpha^t = 0$), the outcome is the same as it would be in the Constitutional Regime—the average value of policy inputs. If the executive chooses unilateral action ($\alpha^t = 1$), then the executive's choice is immediately implemented; that is, $x_E^t = x^t$. To ensure that this choice is non-trivial, I assume the executive pays a cost of $\frac{1}{2}$ when acting unilaterally. This assumption is also consistent with research that has found unilateral action to be costly given the executive branch resources necessary to create and implement a unilateral directive (Rudalevige 2012; Turner 2020), the risk of a judicial challenge (Christenson and Kriner 2017*b*), and the ease with which future administrations can overturn them (Thrower 2017). The legislature's and voter's utility functions carry over from the Constitutional Regime, while the executive's per-period utility function in the Unilateral Regime is given by:

$$u_E^t(x^t, \alpha^t; \beta_E) = \begin{cases} x^t - \frac{1}{2}\alpha^t + \beta_E & \text{if } \theta_E = C \\ -x^t - \frac{1}{2}\alpha^t + \beta_E & \text{if } \theta_E = D \end{cases}$$

Consistent with the Constitutional version of the game, the voter does not observe either politician's individual policy selection. However, the voter does observe α^t—the way policy is implemented. If the executive chooses unilateral action, the voter can easily infer his policy choice and make inferences about his and the legislature's types. Thus, the voter never observes the politicians' individual choices, but she does see the outcomes of those choices and learns something about how those choices were made.[9] Additionally, to ensure that the voter has an incentive to select a congruent legislature, I assume she bears a cost of unilateral action, ε, which is approaching 0 in the limit.[10]

5.2 Analysis of the Unilateral Regime

Again, I begin the analysis in the second period where each politician will try to enact their most preferred policy. If both agents share a type, they will pass that type's preferred policy legislatively (recall, unilateral action is costly). If, however, the politicians' types differ, the executive will unilaterally enact his type-preferred policy. Although unilateral action is costly, that cost does not overwhelm the policy benefit.

[9] In Section B.1, I relax these assumptions by allowing the voter to observe the politicians individual policy selections with positive probability. I find that for moderate levels of transparency, the main conclusions hold and are not driven strictly by this assumption.

[10] Obviously, the larger ε, the less the voter stands to gain from unilateral action. In the event that $\varepsilon > 1$, the Unilateral regime can never be preferable as the voter's constitutional qualms would offset any potential gains from signaling and selection.

Lemma 1. *(Unilateral Second Period Strategies) If the executive and legislature do not share types in the second period, the executive will pass his preferred policy unilaterally. Otherwise, the executive and legislature will pass the policy they both prefer legislatively.*

The voter's electoral choice over the executive takes on greater weight given that his type will ultimately define her second period payoff. However, the voter has additional information when making this decision as the executive's choice over policymaking vehicles in the first period can reveal information about both politicians' types. As I will show, if the executive unilaterally enacts $x^1 = -1$, the voter can conclude that he is divergent and the legislature is more likely to be congruent. If instead the executive unilaterally enacts $x^1 = 1$, the voter can conclude that the executive is congruent and the legislature is divergent—were the legislature congruent, the executive would not have acted unilaterally given the cost.[11] Given her richer informational environment, I assume the voter adopts the following electoral rule: Reelect both politicians when policy $x^1 = 1$ is enacted legislatively. Replace both politicians given any other legislative outcome. Reelect the executive and replace the legislature when $x^1 = 1$ is enacted unilaterally; replace the executive and retain the legislature if $x^1 = -1$ is enacted unilaterally.

The policymaking choice when both politicians are congruent is trivial—they maximize their payoffs and secure reelection by enacting $x^1 = 1$ legislatively. Suppose, now, that the executive is congruent and the legislature is divergent. Here, unilateral action has the highest potential to benefit the voter in terms of both policy payoffs and selection. Regardless of either politician's realization of β_i, the voter will always get her favorite policy in each period. If $\beta_L \geq 1$, the legislature is office motivated and proposes $x^1 = 1$. The executive passes the policy legislatively, both politicians are reelected, and the exec-

[11] Divergent executives never enact $x^1 = 1$ unilaterally in equilibrium given the upper bound on $\beta_i < \bar{\beta} \equiv \frac{3+\pi}{2}$. Were $\beta_i > \bar{\beta}$, the divergent executive could be incentivized to enact $x^1 = 1$ unilaterally for a high value of β_i. Assuming $\bar{\beta}$ is not so large as to make this outcome exceedingly likely, the results would be quite similar, except that the voter would adopt a mixed strategy, reelecting the executive with probability $p(\pi)$ and replacing him with probability $1 - p(\pi)$ after observing unilateral action enacting $x^1 = 1$. Unilateral action would still be informative, however, a semi-separating equilibrium would exist that could reduce the voter's welfare in the Unilateral Regime if the upper bound on $\bar{\beta}$ were large.

utive passes $x^1 = 1$ unilaterally in the second period per Lemma 1. In the case that the legislature is policy motivated, that is $\beta_L < 1$, the executive will unilaterally pass $x^1 = 1$ in the first period. The voter will reelect the executive and replace the legislature, and in the second period, the executive will enact $x^1 = 1$, legislatively if the new legislature is congruent, unilaterally if the new legislature is divergent.[12]

When the executive is divergent and the legislature is congruent, the voter stands to lose from unilateral action if the executive is policy motivated. However, the problem from the executive's perspective is that in enacting $x^1 = -1$ unilaterally, he reveals his type which leads to electoral defeat. If he can win reelection, then in the second period he can enact his favorite policy and earn office rents twice. Nevertheless, the relevant cut point is still $\beta_E = 1$. The legislature always chooses $x^1 = 1$, and the executive solves:

$$u_E((1, \alpha^1 = 0), (-1, \alpha^1 = 1); \beta_E) = 2\beta_E - \frac{1}{2} \geq \beta_E + \frac{1}{2} = u_E((-1, \alpha^1 = 1); \beta_E)$$
$$\beta_E \geq 1$$

Per the voter's electoral rule, if she observes $x^1 = -1, \alpha^1 = 1$, she would replace the executive but retain the legislature.

Finally, suppose both politicians are divergent. The executive and legislature would like to enact policy $x^1 = -1$, but electoral considerations may prevent them from acting in their short-term interests. Clearly, if both politicians are office motivated, they choose $x^1 = 1$ legislatively in the first period, win reelection, and enact $x^2 = -1$ legislatively

[12] It may seem strange that a divergent legislature would propose $x^1 = -1$ if $\beta_L < 1$, which leads to electoral defeat whereas if the policy motivated legislature had pooled with congruent types and offered $x^1 = 1$, it would have secured reelection and thus earned 2β for staying in office. This outcome is the consequence of the assumption that payoffs are normalized to 0 in the event a politician loses office. The legislature solves $u_L(1, 1; \beta_L) = 2\beta - 2 \geq \beta - 1 = u_L(-1; \beta_L)$, which is satisfied only when $\beta_L \geq 1$. If the assumption was that a losing politician's second-period payoff is equivalent to the voter's, then for $\beta_L < \gamma$, the legislature would make a similar strategic calculation and sacrifice the second-period benefit by presenting $x^1 = -1$. It is only when we assume the legislature's second-period payoff is $-x^t$, the same as the policy benefit when in office, that the legislature always pools with congruent types. In this case, a congruent executive would never have an incentive to enact $x^1 = 1$ unilaterally and the only unilateral action that would be observed in the model would be divergent unilateral action. The voter's two-period welfare would not change, only the interpretation of the model.

		E	
		$\theta_E = C$	$\theta_E = D$
L	$\theta_L = C$	$x^1 = 1, \alpha^1 = 0$	$x^1 = 1, \alpha^1 \in \{0,1\}$
	$\theta_L = D$	$x^1 = 1, \alpha^1 = 0$ or $x^1 = -1, \alpha^1 = 1$	$x^1 \in \{0,1\}, \alpha^1 \in \{0,1\}$

Figure 2: First-period equilibrium policy outcomes across all possible type combinations in the Unilateral Regime.

in the second period. Unlike in the Constitutional Regime, the legislature does not have full agenda-setting power given the executive's outside option to use unilateral action if sufficiently office motivated. Even if the legislature were to choose $x^1 = 1$, the executive may still unilaterally enact $x^1 = -1$ when:

$$u_E((1, \alpha^1 = 0), (-1, \alpha^1 = 0); \beta_E) = 2\beta_E < \beta_E + \frac{1}{2} = u_E((-1, \alpha^1 = 1); \beta_E)$$
$$\beta_E < \frac{1}{2}$$

which occurs with probability $\frac{1}{3+\pi}$. Due to the higher payoff from legislatively enacting $x^1 = -1$ in the second period and the cost of unilateral action, this cut point is harder to satisfy than $\beta_i < 1$. In the event that either politician is sufficiently policy motivated, the first period outcome is $x^1 = -1$, and it may be legislative or unilateral depending on the individual realizations of β_i.[13] I outline possible first period outcomes by type combination in Figure 2.

To constitute a Perfect Bayesian equilibrium, the voting rule must be sequentially rational. Given that policy $x^1 = 1$ may always be enacted legislatively, the voter's belief that both politicians are congruent after observing $x^1 = 1$ is weakly greater than her priors. If she sees $x^1 = -1$ legislatively, she knows with certainty both politicians are divergent.

[13] The legislature's decision is also more complicated given the executive's incentive to separate when sufficiently policy motivated. However, the legislature's cut point in this type combination does not play a role in the voter's ultimate welfare function as second period policy is determined soley by the voter's choice over the executive. I leave a discussion of this aspect of the game to Section A.2 of the supplemental appendix but note the cut point and outcomes in Proposition 2.

Turning to unilateral action, only a congruent executive enacts $x^1 = 1$ unilaterally, and he does so only when the legislature is divergent, giving the voter perfect information about the politicians' types. Only a divergent executive enacts $x^1 = -1$ unilaterally, however, he may do so when the legislature is either congruent or divergent. Following Bayes' Rule, the voter updates in the legislature's favor. Finally, gridlock is never observed in equilibrium. Consistent with the refinement criteria established previously, were the voter to see gridlock, she would believe at least one agent were divergent and update unfavorably about both politicians.[14] Thus, the voting rule is sequentially rational. Proposition 2 summarizes the actors' strategies in the Unilateral Regime.

Proposition 2. *(Unilateral Equilibrium) There exists an equilibrium in which the voter reelects both politicians after observing $x^1 = 1, \alpha^1 = 0$ and replaces both politicians otherwise when $\alpha^1 = 0$. She retains the executive and replaces the legislature when $x^1 = 1, \alpha^1 = 1$ and replaces the executive and retains the legislature when $x^1 = -1, \alpha^1 = 1$. Both politicians choose their type-preferred policy in the second period and follow Lemma 1. In the first period:*

a. If both politicians are congruent, they select policy $x_i^1 = 1$ and the executive selects $\alpha^1 = 0$.

b. If $\theta_E = C$ and $\theta_L = D$ and:

- *$\beta_L \geq 1$, the legislature selects $x_L^1 = 1$ and the executive selects $x_E^1 = 1, \alpha^1 = 0$.*
- *$\beta_L < 1$, the legislature selects $x_L^1 = -1$ and the executive selects $x_E^1 = 1, \alpha^1 = 1$.*

c. If $\theta_E = D$ and $\theta_L = C$ and:

- *$\beta_E \geq 1$, the legislature selects $x_L^1 = 1$ and the executive selects $x_E^1 = 1, \alpha^1 = 0$.*
- *$\beta_E < 1$, the legislature selects $x_L^1 = 1$ and the executive selects $x_E^1 = -1, \alpha^1 = 1$.*

d. If both politicians are divergent and:

- *$\beta_E \geq \frac{1}{2}$ and $\beta_L \geq 1$, both politicians select $x_i^1 = 1$ and the executive selects $\alpha^1 = 0$.*

[14] I discuss this refinement further in Section A.2 of the supplemental appendix.

- *$\beta_E \geq \frac{1}{2}$ and $\beta_L < 1$, both politicians select $x_i^1 = -1$ and the executive selects $\alpha^1 = 0$.*
- *$\beta_E < \frac{1}{2}$ and $\beta_L \geq 2\gamma - 1$, the legislature selects $x_L^1 = 1$ and the executive selects $x_E^1 = -1, \alpha^1 = 1$.*
- *$\beta_E < \frac{1}{2}$ and $\beta_L < 2\gamma - 1$, both politicians select $x_i^1 = -1$ and the executive selects $\alpha^1 = 0$.*

Considering the strategies of the politicians established in Proposition 2, the voter's welfare in the Unilateral Regime is formally given by:

$$
\begin{aligned}
W_U \equiv & \gamma\pi(2) + \gamma(1-\pi)(2) + (1-\gamma)\pi\left[\tfrac{2}{3+\pi}(2\gamma-2)\right] + \\
& (1-\gamma)(1-\pi)\left[\left(1 - \left(\left(1-\tfrac{2}{3+\pi}\right)\left(1-\tfrac{1}{3+\pi}\right)\right)\right)(2\gamma-2)\right]
\end{aligned} \tag{2}
$$

From the first two terms of Equation 2, we can see that the voter always gets her preferred policy outcome in both periods. In the third term, with probability $(1 - \frac{2}{3+\pi})$, the divergent executive pools in the first period and unilaterally enacts $x^1 = -1$ in the second period for a total payoff of 0. With probability $\frac{2}{3+\pi}$, the divergent executive unilaterally enacts $x^1 = -1$ in the first period, and the voter's expected second period payoff from a randomly drawn executive is $2\gamma - 1$. Finally, if both agents are divergent, the best possible outcome from the voter's perspective is a two-period payoff of 0 (1 in the first period, -1 in the second), which occurs with probability $(1 - \frac{2}{3+\pi})(1 - \frac{1}{3+\pi})$. Otherwise, she gets a payoff of $2\gamma - 2$. Ultimately, the voter always gains when the executive is congruent, but it's not necessarily the case that she loses when the executive is divergent. The signaling dimension of unilateral action constrains the executive from acting against the voter's interest unless he is sufficiently policy-motivated.

6 Voter Welfare Under Alternative Regimes

It is not surprising that voters stand to gain from unilateral action under the assumption that the executive shares the voter's preferences. As James Madison writes in *The Federalist No. 51*, "If angels were to govern men, neither external nor internal controls on government would be necessary" (Hamilton, Jay and Madison 2001, 269). But voters do not necessarily know an executive's type *ex ante*, which necessitated the separation of powers in the first place. The Constitution places limits on executive power precisely to mitigate the malign impulses of a divergent actor. The relevant question is in which institutional framework are voters better off? Would they prefer a system as outlined in the Constitution, or do they fare better with expansive executive powers—even under less generous assumptions of executive motivation?

In the Constitutional setting, gridlock is a key source of welfare loss. Beyond reducing the voter's potential policy payoff, gridlock leads the voter to draw unfavorable inferences about both agents even though gridlock only occurs when one agent is congruent. Due to incentive compatibility constraints, the voter must replace both agents, which leads to lower welfare than when divergent agents choose to pool with congruent types in the first period. Unilateral action sidesteps this issue by enabling the executive to "speak" directly to the voters. By acting unilaterally, he reveals information about his own, and the legislature's, type. In fact, gridlock never occurs in equilibrium in the Unilateral Regime. However, the voter is not strictly better off as unilateral action allows divergent executives to enact $x_E^t = -1$ even when the legislature is congruent.

The key question is whether the gains from information and congruent unilateral action offset the losses from divergent unilateral action, above and beyond the expected utility of the Constitutional Regime. To determine the answer to this question, I set $W_U - W_C \equiv \Delta(\pi, \gamma)$, that is I subtract Equation 1 from 2. When $\Delta(\pi, \gamma) > 0$, the Unilateral Regime provides higher welfare. When $\Delta(\pi, \gamma) < 0$, the Constitutional Regime provides higher welfare. As one might intuitively expect, as the executive is more likely to be congruent (γ increases holding π constant) voter welfare increases under the Unilateral Regime. If the legislature is more likely to be congruent (increasing π while holding γ constant) welfare under the Unilateral Regime decreases.

Proposition 3. *(Welfare Comparison) When $\Delta(\gamma, \pi) > 0$, the voter strictly prefers the Unilateral Regime. Furthermore, $\Delta(\gamma, \pi)$ is increasing (making the Unilateral Regime more preferable) in γ and decreasing (making the Unilateral Regime less preferable) in π.*

To illustrate this relationship graphically, in Figure 3 I plot a different but related function, $\tilde{\gamma}(\pi)$, which is derived from setting $W_C = W_U$ and solving for γ on the left-hand side. The x-axis is π, the prior on legislative congruence, and the y-axis is γ, the prior on executive congruence. I also plot the 45-degree line ($\gamma = \pi$), which represents a benchmark case in which preferences for checks and balances are driven entirely by which agent is more likely to be congruent.

Here, it is interesting to note that $\tilde{\gamma}(\pi)$ does not fall squarely along the dashed 45-degree line. It is not simply the prior probability the executive will be congruent relative to the legislature that determines whether the voter would prefer a stronger or weaker executive. Rather, there are a range of π values that exceed γ for which the voter would still prefer the Unilateral Regime, depicted as a wedge area between the dashed and solid lines in Figure 3. At the extreme, when $\pi \approx 0.57$ and $\gamma = 0.50$, voter welfare is strictly greater in the Unilateral Regime. This wedge area is decreasing as both agents are more likely to be congruent, but it persists throughout. These surprising gains are a result of both the higher policy payoff in the congruent executive/divergent legislature condition and the better inferences the voter can draw due to unilateral action.

7 Robustness and Model Extensions

In Section B of the supplemental appendix, I present three extensions of the baseline model. First, I relax the assumption that the voter does not observe the politicians' in-

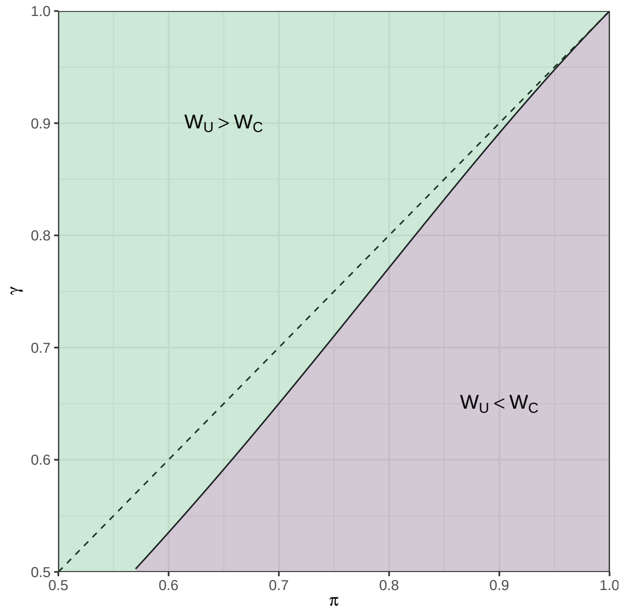

Figure 3: A comparison of voter welfare between the Constitutional Regime and Unilateral Regime. The x-axis tracks π, the prior on legislature congruence, while the y-axis plots γ, the prior on executive congruence. The solid line is $\tilde{\gamma}(\pi)$, the threshold at which the voter is indifferent between either regime type. The area above (below) the curve indicates when the voter would prefer the Unilateral (Constitutional) Regime. The dotted line is the 45-degree line, which represents a benchmark case where preferences over separation of powers follow directly from the priors on congruence. As $\tilde{\gamma}(\pi)$ is always weakly below the 45-degree line, I conclude that the Unilateral Regime provides higher voter welfare in expectation.

dividual policy selections. Rather, the voter observes both the ultimate policy outcome, x^t, as well as each politician's choice in the policymaking game, x_L^t and x_E^t, with some fixed positive probability τ. To summarize the findings, as the probability the voter observes each politician's individual action increases, the Constitutional Regime becomes increasingly preferable. While the strategies and outcomes in the Unilateral Regime are essentially unchanged from the baseline model, the higher probability of transparency allows the voter to better replace divergent politicians in the Constitutional Regime given gridlock, but this comes at the expense of allowing deceptive behavior by the executive when both are divergent. However, the former effects dominate the latter, leading to increasing gains from transparency in the Constitutional Regime. I note that the effects of transparency do not significantly alter the conclusions of the baseline model until the probability of revelation gets reasonably high, above 0.55, indicating that the assumption about transparency in the baseline model is not driving the main results.

In a second extension, I relax the assumption that the voter's policy gains/losses are symmetric around the origin. In the baseline model, the voter nets a payoff of 1 for her favorite policy and -1 for her least favorite policy, but in this extension, the voter's loss from her least favorite policy is allowed to vary on the interval $(-c, 1)$ where $c \in (-1, \infty)$. This varying cost captures situations in which the status quo is worse than the bad policy as well as those in which the bad policy causes severe pain. When $c \in (-1, 0)$, even the bad policy is preferable to the status quo, and the Unilateral Regime is strictly preferable for all $\{\gamma, \pi\}$. When $c \in (0, 1)$, the status quo is still preferable to $x^1 = -1$, however, the loss from the divergent policy is less than in the baseline model; while the Unilateral Regime is not strictly preferable, $\tilde{\gamma}(\pi)$ decreases as compared to the baseline, making the Unilateral Regime more preferable across the parameter space. However, when $c > 1$, the conditions in which the voter prefers the Unilateral Regime shrink. In fact, when $c > 2$, the conclusions of the baseline model begin to break down. That is, even when γ is slightly larger than π, the voter prefers the Constitutional Regime. However, for extreme costs, there are still regions of the parameter space—those in which γ is large π is small—for which the voter would still prefer the Unilateral Regime. As voters regularly approve of the president at much higher rates than Congress, we may currently find ourselves in such a situation.

In the final extension, I relax two additional assumptions. First, that β_i is drawn from a uniform distribution and second that the cost of unilateral action is equal to 1/2. Instead, I allow β_i to be drawn from any strictly increasing CDF and allow the cost of unilateral action, κ, to range on the interval between $(0, 1)$. The substantive results from both changes are minimal, however the interpretation is more nuanced. Although $\tilde{\gamma}(\pi)$ always falls below the 45-degree line (indicating that the Unilateral Regime is the preferable one), the size of the wedge area is highly dependent on the probability that $\beta_i > 1$. As it becomes more probable that $\beta_i < 1$, the Unilateral Regime becomes increasingly preferable. The logic behind this comparative static is as follows: if it's likely that the divergent politician will be policy-motivated (and thus cause gridlock or enact the voter's least preferred policy) the more welfare-enhancing unilateral action becomes. Although the risk of a divergent executive unilaterally enacting the voter's least favorite policy increases, that risk is offset by the gains from a congruent executive unilaterally enacting the voter's favorite policy, especially as compared to increasingly probable gridlock.

8 Conclusion

Americans have always been skeptical of executive power, yet many also see a role for the president in tackling the nation's increasingly complex challenges. Recent increases in polarization, divided government, and Congressional gridlock have tempered concerns and led to proposals that would expand the president's authority (Howell and Moe 2016; Kagan 2001; Posner and Vermeule 2011). However, these proposals often begin from a presumption of presidential "universalism"—that a president, elected by a national constituency, will act in the national interest. If this assumption does not hold (Wood 2009; Kriner and Reeves 2015), then we must examine the overall welfare effects of expansive executive power given our *ex-ante* uncertainty about the executive's type.

In this model, I integrate two strands of the formal literature about executive unilateralism—separation of powers and electoral signaling—while also allowing the executive to have congruent or divergent policy preferences. I then compare the strategic interaction between the executive and the legislature as well as accountability and voter welfare across two regimes. If gridlock occurs in the Constitutional Regime, the voter must dismiss both agents despite knowing one of them is congruent—a key source of welfare loss in the model. In the Unilateral Regime, a congruent executive can enact the voter's preferred policy in both periods as well as signal important information about the legislature's type. Although a divergent executive can unilaterally enact the voter's least favorite policy (overcoming what would have been beneficial gridlock), electoral incentives are often a sufficient constraint. In the event that a divergent executive *does* act in his own self-interest, the voter can at least infer his type with certainty and replace him. When comparing welfare across both regimes, the effects of policy and selection outweigh the risk that a divergent executive will act against the voter's interest.

Formal models necessarily present stylized versions of the policymaking process. One key assumption of the model is that the executive and legislature know each other's types with certainty, which may not hold in the real world. Although some degree of uncertainty among the politicians would likely preserve the main result, unilateral action may not always serve as a perfect signal. A second simplifying assumption is that the cost of unilateral action is always lower than the benefit the executive can obtain by acting unilaterally. This choice actually limits the extent to which the information gained from unilateral action can benefit the voter. In the case that unilateral action is not always possible in the second period (for example, if the cost is a random variable drawn in each period), then the voter's choice over the legislature takes on more weight and would likely increase the value of the executive's unilateral signal. Finally, I assume strong presidential powers under the Unilateral Regime but do not consider the possibility of democratic backsliding or authoritarianism. If the executive is able to use his newfound powers to circumvent or cancel future elections, then the conclusions about accountability would no longer be relevant.

If we assume a more powerful executive upholds democratic norms, then an increase in executive power increases voter welfare in expectation—especially when Congress is unlikely to be congruent and/or when the potential for gridlock is high. These gains come both from policy and signaling. Unilateral action allows the executive to reveal information about the politicians' types, which cannot be communicated through gridlock. While divergent executives do take advantage of unilateral action to implement “bad” policies in equilibrium, they are constrained by their electoral ambitions (see also Posner and Vermeule 2011). If members of Congress continue to focus on ”message politics” at the expense of pursuing much needed reform (e.g. Lee 2016), expanding executive energy—even beyond the current fast track proposals (Howell and Moe 2016; Judd and Rothenberg 2020)—has the potential to improve voter welfare without an overwhelming risk to ”safety in the republican sense.”

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A Proofs of the Baseline Model

A.1 Proofs for the Constitutional Regime

Proposition 1. *(Constitutional Equilibrium) There exists an equilibrium in which the voter reelects both politicians after observing $x^1 = 1$ and replaces both politicians otherwise. Both politicians choose their type-preferred policy in the second period, and in the first period:*

a. If both politicians are congruent, they select policy $x_i^1 = 1$.

b. If $\theta_i = C$ and $\theta_j = D$, the congruent politician selects policy $x_i^1 = 1$. If $\beta_j \geq 1$, the divergent politician also selects $x_j^1 = 1$ and $x_j^1 = -1$ otherwise.

c. If both politicians are divergent and $\beta_L \geq 1$, both politicians select $x_i^1 = 1$ and $x_i^1 = -1$ otherwise.

Proof of Proposition 1. I solve the game by backward induction.

In the second period, there is no future election. As such, both politicians have no incentive to signal and will select their most preferred policy. Congruent politicians will select $x_i^2 = 1$ and divergent politicians will select $x_i^2 = -1$. If both politicians are congruent, the policy outcome will be $x^2 = 1$. If both politicians are divergent, the policy outcome will be $x^2 = -1$. If the politicians have different types, the policy outcome will be gridlock ($x^2 = 0$). Given these outcomes, the voter's incentive is to maximize her probability of selecting congruent politicians after the first period. To do so, I assume she employs a voting rule to reelect both politicians if $x^1 = 1$ and replace both politicians otherwise.

Conditional on the voting rule, politicians in the first period will maximize their utility given their type. A reduced version of the game tree is presented in Figure A1 at the end of this section. The tree presents both politicians' strategies in the first period as well as the sum of first and second period payoffs following the electoral decision. The full derivation of the payoffs shown at each terminal node—as well as all possible type combinations, actions, policy outcomes, and electoral decisions—are presented in Table A1 at the end of this section. To reduce notation, in the text that follows, a utility function $u_i(x_i^1 = 1, x_i^2 = 1; \beta_i, x_j^1 = 1, x_j^2 = 1)$ will be abbreviated as $u_i(1, 1; \beta_i, 1, 1)$.

In the first period, If both politicians are congruent enacting policy $x^1 = 1$ is strictly dominant as both politicians signal that they are of the preferred type and achieve their highest policy payoff.

If the executive is congruent and the legislature is divergent, then the executive always selects $x_E^1 = 1$. If the legislature selects $x_L^1 = 1$, then $x^1 = 1$ is enacted, both politicians are reelected and in the second period, the politicians select the policy that matches their type, which results in gridlock and a payoff of 0. The legislature's payoff is:

$$u_L(1, -1; \beta_L, 1, 1) = 2\beta_L - 1$$

If the legislature selects $x_L^1 = -1$ instead, then gridlock results and both politicians are replaced. The legislature's payoff is:

$$u_L(-1; \beta_L, 1) = \beta_L$$

The legislature would prefer to select $x_L^1 = 1$ when:

$$u_L(1, -1; \beta_L, 1, 1) \geq u_L(-1; \beta_L, 1)$$
$$2\beta_L - 1 \geq \beta_L$$
$$\beta_L \geq 1$$

Recall from the main text that politicians' office-holding rents are drawn from a uniform distribution with support on the open interval, $\beta_i \sim \mathcal{U}(0, \frac{3+\pi}{2})$. Thus, the probability that a politician's office-holding rent will be less than 1 is:

$$\Pr(\beta_i < 1) = \frac{1}{\frac{3+\pi}{2}} = \frac{2}{3+\pi}$$

If the executive is divergent and the legislature is congruent, the legislature always selects $x_L^1 = 1$. If the executive selects $x_E^1 = 1$, then $x^1 = 1$ is enacted, both politicians are reelected and in the second period, the politicians select the policy that matches their type, which results in gridlock and a payoff of 0. If the executive selects $x_E^1 = -1$ instead, then gridlock results and both politicians are replaced. The executive's payoffs from these outcomes are:

$$u_E(1, -1; \beta_E, 1, 1) = 2\beta_E - 1 \geq \beta_E = u_E(-1; \beta_E, 1)$$

The executive would prefer to select $x_E^1 = 1$ when $\beta_E \geq 1$, which occurs with probability $1 - \frac{2}{3+\pi}$. Note that this is the same condition as above.

Finally, **if both politicians are divergent**, the executive will follow the legislature's lead. If the legislature chooses $x_L^1 = 1$, then $x_E^1 = 1$ strictly dominates $x_E^1 = -1$. The opposite is true when the legislature selects $x_L^1 = -1$. Therefore, the legislature must choose between two different two-period payoffs:

$$u_L(1, -1; \beta_L, 1, -1) = 2\beta_L \geq \beta_L + 1 = u_L(-1; \beta_L, -1)$$

The legislature would prefer to select $x_L^1 = 1$ when $\beta_L \geq 1$, which occurs with probability $1 - \frac{2}{3+\pi}$. Note that this is the same condition as above.

Given these strategies, we can now check to ensure it is **Bayes rational for the voter to follow her proposed voting rule**. The probability that both politicians are congruent conditional on the voter observing $x^1 = 1$ is weakly greater than the prior on replacing an incumbent with a challenger:

$$\Pr(\theta_E = C | x^1 = 1) = \frac{\gamma\left[\pi + (1-\pi)\left(1 - \frac{2}{3+\pi}\right)\right]}{\gamma\left[\pi + (1-\pi)\left(1 - \frac{2}{3+\pi}\right)\right] + (1-\gamma)\left(1 - \frac{2}{3+\pi}\right)} = \frac{\gamma(1+3\pi)}{1+\pi+2\gamma\pi} \geq \gamma$$

Similarly:

$$\Pr(\theta_L = C | x^1 = 1) = \frac{\pi\left[\gamma + (1-\gamma)\left(1 - \frac{2}{3+\pi}\right)\right]}{\pi\left[\gamma + (1-\gamma)\left(1 - \frac{2}{3+\pi}\right)\right] + (1-\pi)\left(1 - \frac{2}{3+\pi}\right)} = \frac{\pi(1+2\gamma+\pi)}{1+\pi+2\gamma\pi} \geq \pi$$

The probability that both politicians are congruent conditional on $x^1 = 0$ is less than the prior on replacing an incumbent with a challenger:

$$\Pr(\theta_E = C | x^1 = 0) = \frac{\gamma(1-\pi)\left(\frac{2}{3+\pi}\right)}{\gamma(1-\pi)\left(\frac{2}{3+\pi}\right) + (1-\gamma)\pi\left(\frac{2}{3+\pi}\right)} = \frac{\gamma - \gamma\pi}{\gamma + \pi - 2\gamma\pi} < \gamma \text{ iff } \pi > \frac{1}{2}$$

Similarly:

$$\Pr(\theta_L = C | x^1 = 0) = \frac{\pi(1-\gamma)\left(\frac{2}{3+\pi}\right)}{\pi(1-\gamma)\left(\frac{2}{3+\pi}\right) + (1-\pi)\gamma\left(\frac{2}{3+\pi}\right)} = \frac{\pi - \gamma\pi}{\gamma + \pi - 2\gamma\pi} < \pi \text{ iff } \gamma > \frac{1}{2}$$

As $\{\pi, \gamma\} > 1/2$ by assumption, the voter prefers to replace both incumbents when she sees gridlock.

Finally, it is trivial to show that the voter prefers to replace both incumbents conditional on seeing $x^1 = -1$ as this outcome only occurs in equilibrium when both politicians are divergent.

Thus, the voter will stick to her proposed voting rule and we have established that Proposition 1 is an equilibrium $\square$

Having outlined the all relevant strategies and their associated cut points, we can now calculate the voter's expected welfare in the Constitutional Regime as established in Equation 1. Let $\nu \in \{0, 1\}$ represent the voter's choice to respectively replace or retain a politician. Note that the voter's expected second-period welfare when she replaces both politicians is given by:

$$\begin{aligned} u_V^2(\nu = 0, \nu = 0; x^2, \gamma, \pi) &= \gamma\pi(1) + \gamma(1-\pi)(0) + (1-\gamma)\pi(0) + (1-\gamma)(1-\pi)(-1) \\ &= \gamma + \pi - 1 \end{aligned}$$

Then, we can define her total expected welfare as:

$$\begin{aligned} W_C \equiv & \gamma\pi \cdot 2 + \\ & \gamma(1-\pi)\left[\left(\tfrac{2}{3+\pi}\right)(\gamma+\pi-1) + \left(1 - \left(\tfrac{2}{3+\pi}\right)\right)\cdot 1\right] + \\ & (1-\gamma)\pi\left[\left(\tfrac{2}{3+\pi}\right)(\gamma+\pi-1) + \left(1 - \left(\tfrac{2}{3+\pi}\right)\right)\cdot 1\right] + \\ & (1-\gamma)(1-\pi)\left[\left(\tfrac{2}{3+\pi}\right)(-1+\gamma+\pi-1) + \left(1 - \left(\tfrac{2}{3+\pi}\right)\right)\cdot 0\right] \end{aligned} \tag{A2}$$

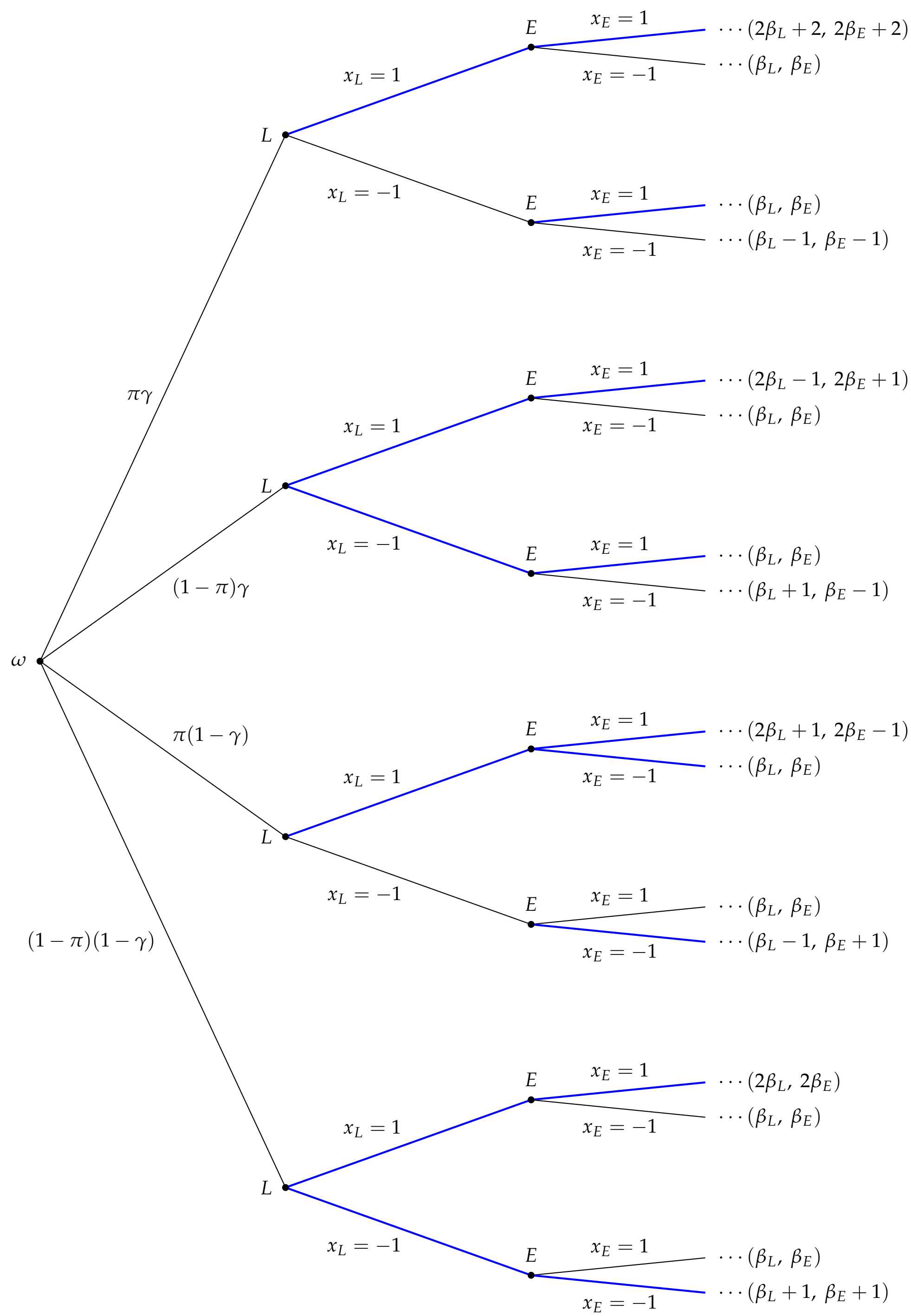

Figure A1: First period game tree and final payoffs following the voter's electoral decision and second period policy selections in the Constitutional Regime

Table A1: Payoffs for the Constitutional Regime

Type Combination	t_1 Action	t_1 Policy	t_1 Payoff	Voter's Electoral Decision	t_2 Action	t_2 Policy	t_2 Payoff	Total Payoff
$\theta_L = C,\ \theta_E = C$	$x_L^1 = 1$ $x_E^1 = 1$	$x_1 = 1$	$\beta_L + 1$ $\beta_E + 1$	Reelect Both	$x_L^2 = 1$ $x_E^2 = 1$	$x_2 = 1$	$\beta_L + 1$ $\beta_E + 1$	$2\beta_L + 2$ $2\beta_E + 2$
	$x_L^1 = 1$ $x_E^1 = -1$	$x_1 = 0$	β_L β_E	Replace Both				β_L β_E
	$x_L^1 = -1$ $x_E^1 = 1$	$x_1 = 0$	β_L β_E	Replace Both				β_L β_E
	$x_L^1 = -1$ $x_E^1 = -1$	$x_1 = -1$	$\beta_L - 1$ $\beta_E - 1$	Replace Both				$\beta_L - 1$ $\beta_E - 1$
$\theta_L = D,\ \theta_E = C$	$x_L^1 = 1$ $x_E^1 = 1$	$x_1 = 1$	$\beta_L - 1$ $\beta_E + 1$	Reelect Both	$x_L^2 = -1$ $x_E^2 = 1$	$x_2 = 0$	β_L β_E	$2\beta_L - 1$ $2\beta_E + 1$
	$x_L^1 = 1$ $x_E^1 = -1$	$x_1 = 0$	β_L β_E	Replace Both				β_L β_E
	$x_L^1 = -1$ $x_E^1 = 1$	$x_1 = 0$	β_L β_E	Replace Both				β_L β_E
	$x_L^1 = -1$ $x_E^1 = -1$	$x_1 = -1$	$\beta_L + 1$ $\beta_E - 1$	Replace Both				$\beta_L + 1$ $\beta_E - 1$
$\theta_L = C,\ \theta_E = D$	$x_L^1 = 1$ $x_E^1 = 1$	$x_1 = 1$	$\beta_L + 1$ $\beta_E - 1$	Reelect Both	$x_L^2 = 1$ $x_E^2 = 1$	$x_2 = 0$	β_L β_E	$2\beta_L + 1$ $2\beta_E - 1$
	$x_L^1 = 1$ $x_E^1 = -1$	$x_1 = 0$	β_L β_E	Replace Both				β_L β_E
	$x_L^1 = -1$ $x_E^1 = 1$	$x_1 = 0$	β_L β_E	Replace Both				β_L β_E
	$x_L^1 = -1$ $x_E^1 = -1$	$x_1 = -1$	$\beta_L - 1$ $\beta_E + 1$	Replace Both				$\beta_L - 1$ $\beta_E + 1$
$\theta_L = D,\ \theta_E = D$	$x_L^1 = 1$ $x_E^1 = 1$	$x_1 = 1$	$\beta_L - 1$ $\beta_E - 1$	Reelect Both	$x_L^2 = -1$ $x_E^2 = -1$	$x_2 = -1$	$\beta_L + 1$ $\beta_E + 1$	$2\beta_L$ $2\beta_E$
	$x_L^1 = 1$ $x_E^1 = -1$	$x_1 = 0$	β_L β_E	Replace Both				β_L β_E
	$x_L^1 = -1$ $x_E^1 = 1$	$x_1 = 0$	β_L β_E	Replace Both				β_L β_E
	$x_L^1 = -1$ $x_E^1 = -1$	$x_1 = -1$	$\beta_L + 1$ $\beta_E + 1$	Replace Both				$\beta_L + 1$ $\beta_E + 1$

A.2 Proofs for the Unilateral Regime

To reduce notation, in the section that follows, a utility function $u_E((x_E^1 = 1, \alpha^1 = 1), (x_E^2 = 1, \alpha^2 = 1); \beta_E, x_L^1 = 1, x_L^2 = 1)$ is abbreviated as $u_E((1,1),(1,1);\beta_i,1,1)$.

Lemma 1. *In the second period, if the executive and legislature do not share types, then the executive passes his preferred policy unilaterally. Otherwise, the executive and legislature pass the policy they both prefer through legislation.*

Proof of Lemma 1. After the second period, the game ends. As such, the politicians select their most preferred actions. When both politicians are congruent, they select $x_i^2 = 1$ and when they are divergent, they select $x_i^2 = -1$. As unilateral action is costly, the executive sets $\alpha^2 = 0$ in these cases. Now suppose the executive is congruent and the legislature is divergent. The legislature chooses its most preferred action, $x_L^2 = -1$. However, the executive may choose between $x_E^2 = 1, \alpha^2 = 0$ or $x_E^2 = 1, \alpha^2 = 1$:

$$u_E^2((1,0);\beta_E,-1) = \beta_E < \beta_E + \frac{1}{2} = u_E^2((1,1);\beta_E,-1)$$

As $u_E^2((1,1);\beta_E,-1) > u_E^2((1,0);\beta_E,-1)$, the executive would always prefer to act unilaterally. The same logic follows when the legislature is congruent and the executive is divergent. □

Proposition 2. *(Unilateral Equilibrium) There exists an equilibrium in which the voter reelects both politicians after observing $x^1 = 1, \alpha^1 = 0$ and replaces both politicians otherwise when $\alpha^1 = 0$. She retains the executive and replaces the legislature when $x^1 = 1, \alpha^1 = 1$ and replaces the executive and retains the legislature when $x^1 = -1, \alpha^1 = 1$. Both politicians choose their type-preferred policy in the second period and follow Lemma 1. In the first period:*

a. If both politicians are congruent, they select policy $x_i^1 = 1$ and the executive selects $\alpha^1 = 0$.

b. If $\theta_E = C$ and $\theta_L = D$ and:

- *$\beta_L \geq 1$, the legislature selects $x_L^1 = 1$ and the executive selects $x_E^1 = 1, \alpha^1 = 0$.*

- *$\beta_L < 1$, the legislature selects $x_L^1 = -1$ and the executive selects $x_E^1 = 1, \alpha^1 = 1$.*

c. If $\theta_E = D$ and $\theta_L = C$ and:

- *$\beta_E \geq 1$, the legislature selects $x_L^1 = 1$ and the executive selects $x_E^1 = 1, \alpha^1 = 0$.*
- *$\beta_E < 1$, the legislature selects $x_L^1 = 1$ and the executive selects $x_E^1 = -1, \alpha^1 = 1$.*

d. If both politicians are divergent and:

- *$\beta_E \geq \frac{1}{2}$ and $\beta_L \geq 1$, both politicians select $x_i^1 = 1$ and the executive selects $\alpha^1 = 0$.*
- *$\beta_E \geq \frac{1}{2}$ and $\beta_L < 1$, both politicians select $x_i^1 = -1$ and the executive selects $\alpha^1 = 0$.*
- *$\beta_E < \frac{1}{2}$ and $\beta_L \geq 2\gamma - 1$, the legislature selects $x_L^1 = 1$ and the executive selects $x_E^1 = -1, \alpha^1 = 1$.*
- *$\beta_E < \frac{1}{2}$ and $\beta_L < 2\gamma - 1$, both politicians select $x_i^1 = -1$ and the executive selects $\alpha^1 = 0$.*

Proof of Proposition 2. I solve the game by backward induction.

In the second period, we have established politician behavior in Lemma 1. Given these outcomes, the voter's incentive is to maximize her probability of selecting congruent politicians after the first period. Assume she follows the voting rule established in Proposition 2.

Conditional on the voting rule, politicians in the first period will maximize their utility given their type. A reduced version of the game tree is presented in Figure A2 at the end of this section. The tree presents both politicians' strategies in the first period as well as the sum of first and second period payoffs following the electoral decision. The full derivation of the payoffs shown at each terminal node—as well as all possible type combinations, actions, policy outcomes, and electoral decisions—are presented in Tables A2 and A3 at the end of this section.

If both politicians are congruent, enacting policy $x^1 = 1$ is strictly dominant as both politicians signal their positive type and achieve their highest policy payoff. As unilateral action is costly, the executive selects $\alpha^t = 0$ in both periods.

If the executive is congruent and the legislature is divergent, then the executive always selects $x_E^1 = 1$. If the legislature selects $x_L^1 = 1$, then the executive selects $x_E^1 = 1, \alpha^1 = 0$ and $x^1 = 1$ is enacted. The voter reelects both politicians and in the second period, the executive selects $x_E^2 = 1, \alpha^2 = 1$. If the legislature selects $x_L^1 = -1$, it is strictly dominant for the executive to select $x_E^1 = 1, \alpha^1 = 1$. The executive is retained and the legislature is replaced. If the new legislature is congruent, the executive selects $x_E^2 = 1, \alpha^2 = 0$; if the new legislature is divergent, the executive selects $x_E^2 = 1, \alpha^2 = 1$. At the outset, the legislature will choose $x_L^1 = 1$ when:

$$u_L(1, -1; \beta_L, (1,0), (1,1)) = 2\beta_L - 2 \geq \beta_L - 1 = u_L(-1; \beta_L, (1,1))$$
$$\beta_L \geq 1$$

which occurs with probability $1 - \frac{2}{3+\pi}$.

If the executive is divergent and the legislature is congruent, the legislature always selects $x_L^1 = 1$.[15] If the executive selects $x_E^1 = 1$, he also selects $\alpha^1 = 0$ and $x^1 = 1$ is enacted. Both politicians are reelected and in the second period, the executive selects $x_E^2 = -1, \alpha^2 = 1$. If the executive selects $x_E^1 = -1$, he also selects $\alpha^1 = 1$. The executive is replaced, the legislature is retained, and the new executive dictates the second period policy. In the second period, the legislature always selects $x_L^2 = 1$. With probability γ, the challenger is congruent and chooses $x_C^2 = 1, \alpha^2 = 0$. With probability $1 - \gamma$, the challenger is divergent and chooses $x_C^2 = -1, \alpha^2 = 1$. The key decision is the incumbent executive's choice in the first period following the legislature's decision of $x_L^1 = 1$. The executive

[15] This is true because $\beta_i < \bar{\beta} \equiv \frac{3+\pi}{2}$ by definition. If this were not true, the congruent legislature could choose $x_L^1 = -1$ and the executive would choose $x_E^1 = 1, \alpha = 1$. I rule out this possibility to concentrate on the cases in which unilateral action is a maximally informative signal. If this condition did not hold, then a semi-separating equilibrium would exist in which both types of executive unilaterally enact policy $x^1 = 1$ with positive probability.

chooses $x_E^2 = 1, \alpha^2 = 0$ when:

$$u_E((1,0),(-1,1);\beta_E,1,1,) = 2\beta_E - \frac{1}{2} \geq \beta_E + \frac{1}{2} = u_E((-1,1);\beta_E,1)$$
$$\beta_E \geq 1$$

which occurs with probability $1 - \frac{2}{3+\pi}$.

Finally, **if both politicians are divergent** and the legislature selects $x_L^1 = 1$, the executive chooses between $x_E^1 = 1, \alpha^1 = 0$ or $x_E^1 = -1, \alpha^1 = 1$. If he chooses the former, both politicians are reelected and in the second period, they both select $x_i^2 = -1$ and $\alpha^1 = 0$. If he chooses the latter, then the legislature is retained, the executive is replaced, and the second period outcome depends on the executive challenger executive's type. If he is divergent, he chooses $x_C^2 = -1, \alpha^1 = 0$. If he is congruent, he selects $x_C^1 = 1, \alpha^1 = 1$. Conditional on the legislature selecting $x_L^1 = 1$, the executive chooses $x_E^1 = 1, \alpha^1 = 0$ over $x_E^1 = -1, \alpha^1 = 1$ when:

$$u_E((1,0),(-1,0);\beta_E,1,-1,) = 2\beta_E \geq \beta_E + \frac{1}{2} = u_E((-1,1);\beta_E,1)$$
$$\beta_E \geq \frac{1}{2}$$

which occurs with probability $1 - \frac{1}{3+\pi}$. This probability is derived from:

$$\Pr\left(\beta_i < \frac{1}{2}\right) = \frac{\frac{1}{2}}{\frac{3+\pi}{2}} = \frac{1}{3+\pi}$$

If the legislature selects $x_L^1 = -1$, the executive selects $x_E^1 = -1, \alpha^1 = 0$. Conditional on $\beta_E \geq 1$ (recall that the legislature knows β_E), the legislature will choose $x_L^1 = 1$ when:

$$u_L(1,-1;\beta_E,(1,0),(-1,0)) = 2\beta_L \geq \beta_L + 1 = u_L(-1;\beta_L,(-1,0))$$
$$\beta_L \geq 1$$

Conditional on $\beta_E < 1$, the legislature will choose $x_L^1 = 1$ when:

$$u_L(1,-1;\beta_E,(-1,1),(...)) = 2\beta_L + 2 - 2\gamma \geq \beta_L + 1 = u_L(-1;\beta_L,(-1,0))$$
$$\beta_L \geq 2\gamma - 1$$

which occurs with probability:

$$\Pr(\beta_i \geq 2\gamma - 1) = 1 - \frac{2\gamma - 1}{\frac{3+\pi}{2}} = 1 - \frac{4\gamma - 2}{3 + \pi}$$

Given these strategies, we can now check to ensure it is **Bayes rational for the voter to follow her proposed voting rule**. First, consider the cases in which the executive does not act unilaterally. The probability that both politicians are congruent conditional on $x^1 = 1, \alpha^1 = 0$ is weakly greater than the prior on replacing an incumbent with a challenger:

$$\Pr(\theta_E = C | x^1 = 1, \alpha^1 = 0) =$$
$$\frac{\gamma\left[\pi + (1-\pi)\left(1 - \left(\frac{2}{3+\pi}\right)\right)\right]}{\gamma\left[\pi + (1-\pi)\left(1 - \left(\frac{2}{3+\pi}\right)\right)\right] + (1-\gamma)\left[\pi\left(1 - \left(\frac{2}{3+\pi}\right)\right) + (1-\pi)\left(1 - \left(\frac{2}{3+\pi}\right)\right)\left(1 - \left(\frac{1}{3+\pi}\right)\right)\right]} \geq \gamma$$

Similarly:

$$\Pr(\theta_L = C | x^1 = 1, \alpha^1 = 0) =$$
$$\frac{\pi\left[\gamma + (1-\gamma)\left(1 - \left(\frac{2}{3+\pi}\right)\right)\right]}{\pi\left[\gamma + (1-\gamma)\left(1 - \left(\frac{2}{3+\gamma}\right)\right)\right] + (1-\pi)\left[\gamma\left(1 - \left(\frac{2}{3+\pi}\right)\right) + (1-\gamma)\left(1 - \left(\frac{2}{3+\pi}\right)\right)\left(1 - \left(\frac{1}{3+\pi}\right)\right)\right]} \geq \pi$$

Trivially, when $x^1 = -1$ and $\alpha^1 = 0$, the voter can infer both politicians are divergent with certainty.

Now consider the probability that both politicians are congruent conditional on $x^1 = 1, \alpha^1 = 1$. Because the divergent executive never enacts $x^1 = 1$ unilaterally, the voter can be certain he is congruent. Additionally, if the executive enacts $x^1 = 1$ unilaterally, he does so because the legislature has not given him the option to enact $x^1 = 1$ legislatively. Because unilateral action is costly, the executive never chooses $x^1 = 1, \alpha^1 = 1$ when the legislature is congruent, therefore, the voter can infer that the legislature must be divergent. As such, she retains the executive and dismisses the legislature.

What does the voter believe conditional on seeing $x^1 = -1, \alpha^1 = 1$? First, only a divergent executive enacts policy $x_1 = -1$ unilaterally, and as such, the executive must be divergent. However, a divergent executive may choose $x_1 = -1, \alpha^1 = 1$ when the legislature is either congruent and divergent. Therefore, the voter's posterior is:

$$\Pr(\theta_L = C | x^1 = -1, \alpha^1 = 1) = \frac{\pi(1-\gamma)\left(\frac{2}{3+\pi}\right)}{\pi(1-\gamma)\left(\frac{2}{3+\pi}\right) + (1-\pi)(1-\gamma)\left(\frac{1}{3+\pi}\right)\left(1 - \frac{4\gamma-2}{3+\pi}\right)} > \pi$$

which implies that the voter will retain the legislature when a divergent executive unilaterally enacts $x^1 = -1$.

Finally, gridlock never occurs in equilibrium, and as such, the voters beliefs about the politicians' types *were she to observe gridlock* are not well-defined. Classical signaling refinements, such as the Intuitive Criterion or Universal Divinity, say that if an out-of-equilibrium signal is sent by some sender, the receiver should update her beliefs conditional on which type(s) or sender(s) have the most to gain from sending an off-path signal. However, neither of these refinements naturally map onto a game in which two agents with private information make a joint signal to an uninformed receiver.

Refinement is not necessary in the Constitutional Regime as all three admissible outcomes, $x^1 = \{-1, 0, 1\}$, are observed in in equilibrium with positive probability, so all beliefs are well-defined by Bayes Rule. In the Unilateral Regime, gridlock is never on the equilibrium path, and so we must consider the voter's beliefs in this instance. First, notice that gridlock is always equilibrium dominated for the congruent executive. Even if the voter were to hold the most beneficial off-path beliefs (i.e. that gridlock implied that the executive was congruent and the legislator was divergent), the congruent executive would still be able to increase his payoff by selecting policy $x^1 = 1, \alpha^1 = 1$ in the first period:

$$u_E((1,1),(1,\alpha);\beta_E,-1,x_C^2) = 2\beta_E + 1 + \frac{\pi}{2} > 2\beta_E + \frac{1}{2} + \frac{\pi}{2} = u_E((1,0),(1,\alpha);\beta_E,-1,x_C^2)$$

Were the voter to witness gridlock, she would believe the executive to be divergent with probability 1. The sequential nature of the policymaking game prevents further analysis of this sort vis-a-vis the legislature, because the legislature never directly selects gridlock. However, the choice as to whether to retain or replace the legislature is actually mathematically irrelevant to the voter's ultimate payoff as the executive's type perfectly determines the second period outcome. As such, I assume the voter dismisses the legislator were she to witness gridlock, however, this assumption does not materially affect the policy or welfare outcome.

Thus, the voter will stick to her proposed voting rule and we have established that Proposition 2 is an equilibrium $\square$

Having outlined the relevant strategies and their associated cut points, we can now calculate the voter's expected welfare in the Unilateral Regime as established in Equation 2. Note that the voter's expected second-period welfare when she replaces both politicians is given by:

$$\begin{aligned} u_V^2(\nu = 0, \nu = 0; x^2, \gamma, \pi) &= \gamma\pi(1) + \gamma(1-\pi)(1) + (1-\gamma)\pi(-1) + (1-\gamma)(1-\pi)(-1) \\ &= 2\gamma - 1 \end{aligned}$$

Then, we can define her total expected welfare as:

$$
\begin{aligned}
&W_U \equiv \gamma\pi(2)+\\
&\gamma(1-\pi)[\left(\tfrac{2}{3+\pi}\right)(1+\pi\cdot 1+(1-\pi)\cdot 1)+\left(1-\left(\tfrac{2}{3+\pi}\right)\right)(1+1)]+\\
&(1-\gamma)\pi[\left(\tfrac{2}{3+\pi}\right)(-1+\gamma\cdot 1+(1-\gamma)\cdot(-1))+\left(1-\left(\tfrac{2}{3+\pi}\right)\right)(1-1)]+\\
&(1-\gamma)(1-\pi)\Bigg[\left(1-\left(\tfrac{2}{3+\pi}\right)\right)\left(1-\left(\tfrac{1}{3+\pi}\right)\right)\cdot 0+\left(\tfrac{2}{3+\pi}\right)\left(1-\left(\tfrac{1}{3+\pi}\right)\right)(-1+2\gamma-1)+\\
&\left(\tfrac{1}{3+\pi}\right)\left(1-\left(\tfrac{4\gamma-2}{3+\pi}\right)\right)(-1+2\gamma-1)+\left(\tfrac{1}{3+\pi}\right)\left(\tfrac{4\gamma-2}{3+\pi}\right)(-1+2\gamma-1)\Bigg]
\end{aligned}
\tag{A3}
$$

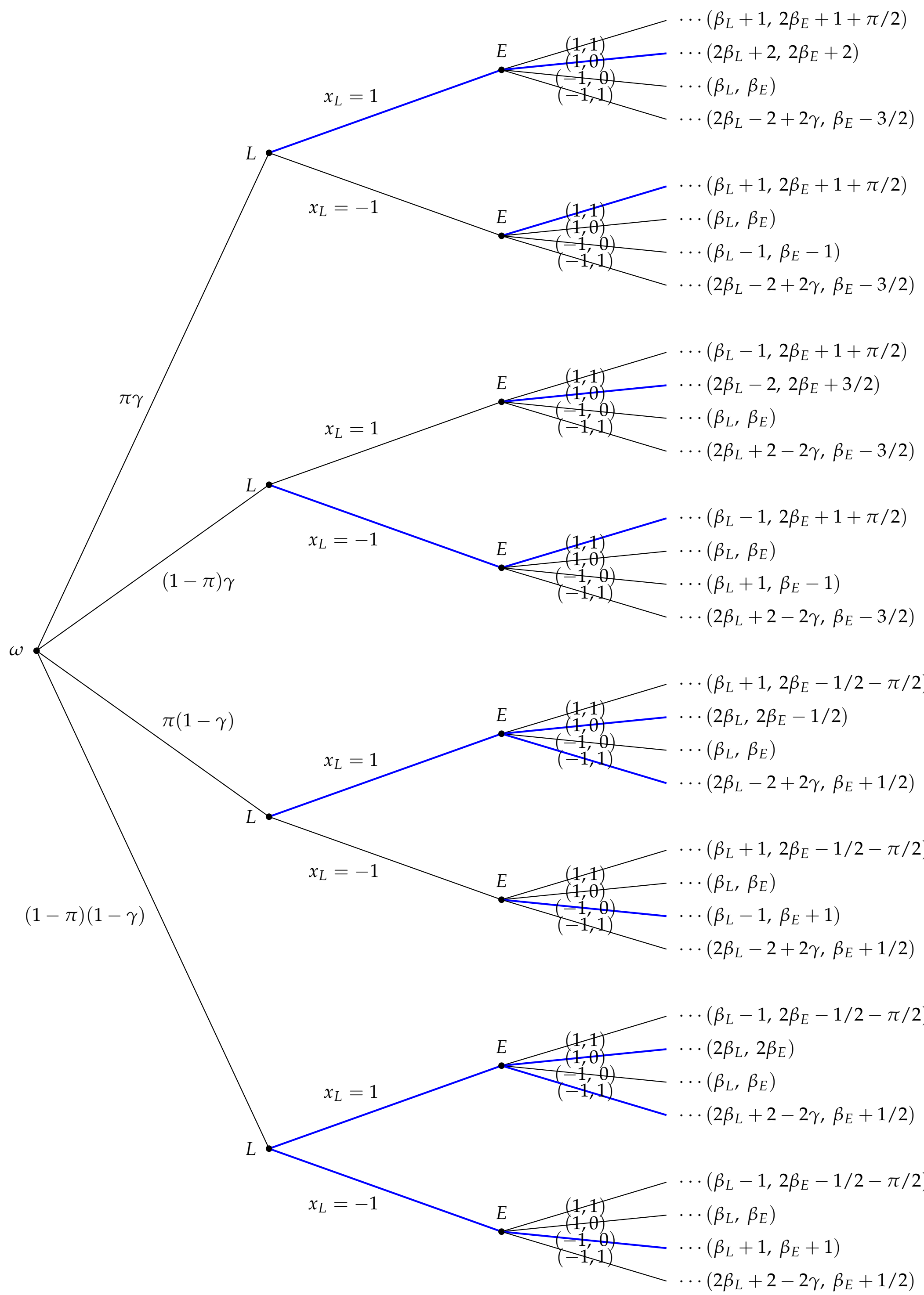

Figure A2: The truncated game tree for the Unilateral Regime. The tree represents decisions in the first period policymaking game of complete information and presents payoffs for the full, two-period game following Lemma 1.

Table A2: Payoffs for the Unilateral Regime, Part 1

Type Combination	t_1 Action	t_1 Policy	t_1 Payoff	Voter's Electoral Decision	t_2 Action	t_2 Policy	t_2 Payoff	Total Payoff
$\theta_L = C$, $\theta_E = C$	$x_L^1 = 1$ $x_E^1 = 1, \alpha = 1$	$x_1 = 1$	$\beta_L + 1$ $\beta_E + 1 - 1/2$	Reelect E, Replace L	$x_C^2 \in \{-1, 1\}$ $x_E^2 = 1, \alpha \in \{0, 1\}$	$x_2 = 1$	 $\beta_E + \pi \cdot 1 + (1-\pi)(1-1/2)$	$\beta_L + 1$ $2\beta_E + 1 + \pi/2$
	$x_L^1 = 1$ $x_E^1 = 1, \alpha = 0$	$x_1 = 1$	$\beta_L + 1$ $\beta_E + 1$	Reelect Both	$x_L^2 = 1$ $x_E^2 = 1, \alpha = 0$	$x_2 = 1$	$\beta_L + 1$ $\beta_E + 1$	$2\beta_L + 2$ $2\beta_E + 2$
	$x_L^1 = 1$ $x_E^1 = -1, \alpha = 0$	$x_1 = 0$	β_L β_E	Replace Both				β_L β_E
	$x_L^1 = 1$ $x_E^1 = -1, \alpha = 1$	$x_1 = -1$	$\beta_L - 1$ $\beta_E - 1 - 1/2$	Reelect L, Replace E	$x_L^2 = 1$ $x_C^2 \in \{-1, 1\}, \alpha \in \{0, 1\}$	$x_2 \in \{-1, 1\}$	$\beta_L + \gamma \cdot 1 + (1-\gamma)(-1)$	$2\beta_L - 2 + 2\gamma$ $\beta_E - 3/2$
	$x_L^1 = -1$ $x_E^1 = 1, \alpha = 1$	$x_1 = 1$	$\beta_L + 1$ $\beta_E + 1 - 1/2$	Reelect E, Replace L	$x_C^2 \in \{-1, 1\}$ $x_E^2 = 1, \alpha \in \{0, 1\}$	$x_2 = 1$	 $\beta_E + \pi \cdot 1 + (1-\pi)(1-1/2)$	$\beta_L + 1$ $2\beta_E + 1 + \pi/2$
	$x_L^1 = -1$ $x_E^1 = 1, \alpha = 0$	$x_1 = 0$	β_L β_E	Replace Both				β_L β_E
	$x_L^1 = -1$ $x_E^1 = -1, \alpha = 0$	$x_1 = -1$	$\beta_L - 1$ $\beta_E - 1$	Replace Both				$\beta_L - 1$ $\beta_E - 1$
	$x_L^1 = -1$ $x_E^1 = -1, \alpha = 1$	$x_1 = -1$	$\beta_L - 1$ $\beta_E - 1 - 1/2$	Reelect L, Replace E	$x_L^2 = 1$ $x_C^2 \in \{-1, 1\}, \alpha \in \{0, 1\}$	$x_2 \in \{-1, 1\}$	$\beta_L + \gamma \cdot 1 + (1-\gamma)(-1)$	$2\beta_L - 2 + 2\gamma$ $\beta_E - 3/2$
$\theta_L = D$, $\theta_E = C$	$x_L^1 = 1$ $x_E^1 = 1, \alpha = 1$	$x_1 = 1$	$\beta_L - 1$ $\beta_E + 1 - 1/2$	Reelect E, Replace L	$x_C^2 \in \{-1, 1\}$ $x_E^2 = 1, \alpha \in \{0, 1\}$	$x_2 = 1$	 $\beta_E + \pi \cdot 1 + (1-\pi)(1-1/2)$	$\beta_L - 1$ $2\beta_E + 1 + \pi/2$
	$x_L^1 = 1$ $x_E^1 = 1, \alpha = 0$	$x_1 = 1$	$\beta_L - 1$ $\beta_E + 1$	Reelect Both	$x_L^2 = -1$ $x_E^2 = 1, \alpha = 1$	$x_2 = 1$	$\beta_L - 1$ $\beta_E + 1 - 1/2$	$2\beta_L - 2$ $2\beta_E + 3/2$
	$x_L^1 = 1$ $x_E^1 = -1, \alpha = 0$	$x_1 = 0$	β_L β_E	Replace Both				β_L β_E
	$x_L^1 = 1$ $x_E^1 = -1, \alpha = 1$	$x_1 = -1$	$\beta_L + 1$ $\beta_E - 1 - 1/2$	Reelect L, Replace E	$x_L^2 = -1$ $x_C^2 \in \{-1, 1\}, \alpha \in \{0, 1\}$	$x_2 \in \{-1, 1\}$	$\beta_L + \gamma \cdot (-1) + (1-\gamma) \cdot 1$	$2\beta_L + 2 - 2\gamma$ $\beta_E - 3/2$
	$x_L^1 = -1$ $x_E^1 = 1, \alpha = 1$	$x_1 = 1$	$\beta_L - 1$ $\beta_E + 1 - 1/2$	Reelect E, Replace L	$x_C^2 \in \{-1, 1\}$ $x_E^2 = 1, \alpha \in \{0, 1\}$	$x_2 = 1$	 $\beta_E + \pi \cdot 1 + (1-\pi)(1-1/2)$	$\beta_L - 1$ $2\beta_E + 1 + \pi/2$
	$x_L^1 = -1$ $x_E^1 = 1, \alpha = 0$	$x_1 = 0$	β_L β_E	Replace Both				β_L β_E
	$x_L^1 = -1$ $x_E^1 = -1, \alpha = 0$	$x_1 = -1$	$\beta_L + 1$ $\beta_E - 1$	Replace Both				$\beta_L + 1$ $\beta_E - 1$
	$x_L^1 = -1$ $x_E^1 = -1, \alpha = 1$	$x_1 = -1$	$\beta_L + 1$ $\beta_E - 1 - 1/2$	Reelect L, Replace E	$x_L^2 = -1$ $x_C^2 \in \{-1, 1\}, \alpha \in \{0, 1\}$	$x_2 \in \{-1, 1\}$	$\beta_L + \gamma \cdot (-1) + (1-\gamma) \cdot 1$	$2\beta_L + 2 - 2\gamma$ $\beta_E - 3/2$

Table A3: Payoffs for the Unilateral Regime, Part 2

Type Combination	t_1 Action	t_1 Policy	t_1 Payoff	Voter's Electoral Decision	t_2 Action	t_2 Policy	t_2 Payoff	Total Payoff
$\theta_L = C,\ \theta_E = D$	$x_L^1 = 1$ $x_E^1 = 1, \alpha = 1$	$x_1 = 1$	$\beta_L + 1$ $\beta_E - 1 - 1/2$	Reelect E, Replace L	$x_C^2 \in \{-1, 1\}$ $x_E^2 = -1, \alpha \in \{0, 1\}$	$x_2 = -1$	 $\beta_E + \pi(1 - 1/2) + (1 - \pi) \cdot 1$	$\beta_L + 1$ $2\beta_E - 1/2 - \pi/2$
	$x_L^1 = 1$ $x_E^1 = 1, \alpha = 0$	$x_1 = 1$	$\beta_L + 1$ $\beta_E - 1$	Reelect Both	$x_L^2 = 1$ $x_E^2 = -1, \alpha = 1$	$x_2 = -1$	$\beta_L - 1$ $\beta_E + 1 - 1/2$	$2\beta_L$ $2\beta_E - 1/2$
	$x_L^1 = 1$ $x_E^1 = -1, \alpha = 0$	$x_1 = 0$	β_L β_E	Replace Both				β_L β_E
	$x_L^1 = 1$ $x_E^1 = -1, \alpha = 1$	$x_1 = -1$	$\beta_L - 1$ $\beta_E + 1 - 1/2$	Reelect L, Replace E	$x_L^2 = 1$ $x_C^2 \in \{-1, 1\}, \alpha \in \{0, 1\}$	$x_2 \in \{-1, 1\}$	$\beta_L + \gamma \cdot 1 + (1 - \gamma) \cdot (-1)$	$2\beta_L - 2 + 2\gamma$ $\beta_E + 1/2$
	$x_L^1 = -1$ $x_E^1 = 1, \alpha = 1$	$x_1 = 1$	$\beta_L + 1$ $\beta_E - 1 - 1/2$	Reelect E, Replace L	$x_C^2 \in \{-1, 1\}$ $x_E^2 = -1, \alpha \in \{0, 1\}$	$x_2 = -1$	 $\beta_E + \pi \cdot 1 + (1 - \pi)(1 - 1/2)$	$\beta_L + 1$ $2\beta_E - 1/2 - \pi/2$
	$x_L^1 = -1$ $x_E^1 = 1, \alpha = 0$	$x_1 = 0$	β_L β_E	Replace Both				β_L β_E
	$x_L^1 = -1$ $x_E^1 = -1, \alpha = 0$	$x_1 = -1$	$\beta_L - 1$ $\beta_E + 1$	Replace Both				$\beta_L - 1$ $\beta_E + 1$
	$x_L^1 = -1$ $x_E^1 = -1, \alpha = 1$	$x_1 = -1$	$\beta_L - 1$ $\beta_E + 1 - 1/2$	Reelect L, Replace E	$x_L^2 = 1$ $x_C^2 \in \{-1, 1\}, \alpha \in \{0, 1\}$	$x_2 \in \{-1, 1\}$	$\beta_L + \gamma \cdot 1 + (1 - \gamma) \cdot (-1)$	$2\beta_L - 2 + 2\gamma$ $\beta_E + 1/2$
$\theta_L = D,\ \theta_E = D$	$x_L^1 = 1$ $x_E^1 = 1, \alpha = 1$	$x_1 = 1$	$\beta_L - 1$ $\beta_E - 1 - 1/2$	Reelect E, Replace L	$x_C^2 \in \{-1, 1\}$ $x_E^2 = -1, \alpha \in \{0, 1\}$	$x_2 = -1$	 $\beta_E + \pi(1 - 1/2) + (1 - \pi) \cdot 1$	$\beta_L - 1$ $2\beta_E - 1/2 - \pi/2$
	$x_L^1 = 1$ $x_E^1 = 1, \alpha = 0$	$x_1 = 1$	$\beta_L - 1$ $\beta_E - 1$	Reelect Both	$x_L^2 = -1$ $x_E^2 = -1, \alpha = 0$	$x_2 = -1$	$\beta_L + 1$ $\beta_E + 1$	$2\beta_L$ $2\beta_E$
	$x_L^1 = 1$ $x_E^1 = -1, \alpha = 0$	$x_1 = 0$	β_L β_E	Replace Both				β_L β_E
	$x_L^1 = 1$ $x_E^1 = -1, \alpha = 1$	$x_1 = -1$	$\beta_L + 1$ $\beta_E + 1 - 1/2$	Reelect L, Replace E	$x_L^2 = -1$ $x_C^2 \in \{-1, 1\}, \alpha \in \{0, 1\}$	$x_2 \in \{-1, 1\}$	$\beta_L + \gamma \cdot (-1) + (1 - \gamma) \cdot 1$	$2\beta_L + 2 - 2\gamma$ $\beta_E + 1/2$
	$x_L^1 = -1$ $x_E^1 = 1, \alpha = 1$	$x_1 = 1$	$\beta_L - 1$ $\beta_E - 1 - 1/2$	Reelect E, Replace L	$x_C^2 \in \{-1, 1\}$ $x_E^2 = -1, \alpha \in \{0, 1\}$	$x_2 = -1$	 $\beta_E + \pi \cdot (1 - 1/2) + (1 - \pi) \cdot 1$	$\beta_L - 1$ $2\beta_E - 1/2 - \pi/2$
	$x_L^1 = -1$ $x_E^1 = 1, \alpha = 0$	$x_1 = 0$	β_L β_E	Replace Both				β_L β_E
	$x_L^1 = -1$ $x_E^1 = -1, \alpha = 0$	$x_1 = -1$	$\beta_L + 1$ $\beta_E + 1$	Replace Both				$\beta_L + 1$ $\beta_E + 1$
	$x_L^1 = -1$ $x_E^1 = -1, \alpha = 1$	$x_1 = -1$	$\beta_L + 1$ $\beta_E + 1 - 1/2$	Reelect L, Replace E	$x_L^2 = -1$ $x_C^2 \in \{-1, 1\}, \alpha \in \{0, 1\}$	$x_2 \in \{-1, 1\}$	$\beta_L + \gamma \cdot (-1) + (1 - \gamma) \cdot 1$	$2\beta_L + 2 - 2\gamma$ $\beta_E + 1/2$

A.3 Proofs for the Welfare Comparison

Proposition 3 *When $\Delta(\gamma, \pi) > 0$, the voter strictly prefers the Unilateral Regime. Furthermore, $\Delta(\gamma, \pi)$ is increasing (making the Unilateral Regime more preferable) in γ and decreasing (making the Unilateral Regime less preferable) in π.*

Proof of Proposition 3. To determine when voter welfare is higher under the Unilateral Regime, set $\Delta(\gamma, \pi) \equiv W_U - W_C$, which is Equation A3 − Equation A2:

$$W_U - W_C = \frac{2\gamma^2\left(2\pi^2 + \pi - 7\right) + \gamma\left((2\pi - 1)\pi^2 + 31\right) - \pi(\pi(\pi + 6) + 15) - 2}{(\pi + 3)^2} \equiv \Delta(\gamma, \pi) \tag{A4}$$

When the function $\Delta(\gamma, \pi)$ is positive, the Unilateral Regime provides higher voter welfare than the Constitutional Regime, and when $\Delta(\gamma, \pi)$ is negative, the Constitutional Regime provides higher voter welfare. To derive comparative statics, I take partial first derivatives of $\Delta(\gamma, \pi)$ with respect to each parameter.

First $\Delta(\gamma, \pi)$ is increasing in γ:

$$\frac{\partial\Delta(\gamma, \pi)}{\partial\gamma} = \frac{4\gamma\left(2\pi^2 + \pi - 7\right) + (2\pi - 1)\pi^2 + 31}{(\pi + 3)^2}$$

By inspection, it can be shown that $\frac{\partial\Delta(\gamma,\pi)}{\partial\gamma} > 0$. First, the denominator is squared. As for the numerator, upon expansion, the two negative terms are -28γ and $-\pi^2$. As $31 - 28\gamma - \pi^2 > 0$, the entire numerator is positive.

Second, $\Delta(\gamma, \pi)$ is decreasing in π:

$$\frac{\partial\Delta(\gamma, \pi)}{\partial\pi} = \frac{2\gamma^2(4\pi + 1) + \gamma\left(2\pi^2 + 2(2\pi - 1)\pi\right) - \pi(\pi + 6) - \pi(2\pi + 6) - 15}{(\pi + 3)^2} - \frac{2\left(2\gamma^2\left(2\pi^2 + \pi - 7\right) + \gamma\left((2\pi - 1)\pi^2 + 31\right) - \pi(\pi(\pi + 6) + 15) - 2\right)}{(\pi + 3)^3}$$

Note that $\frac{\partial\Delta(\gamma,\pi)}{\partial\pi}$ is maximized at -1 when $\gamma = \pi = 1$. Thus $\Delta(\gamma, \pi)$ is decreasing in π. □

B Model Extensions

B.1 Transparency

In this section, I relax the assumption that the voter only observes the ultimate policy outcome (x^t). Instead, I define an exogenous probability of transparency, $\tau \in (0,1)$ with which the voter observers the politicians' individual inputs (x_i^t) as well as the ultimate policy outcome. With probability τ, the voter can implement a more refined voting rule conditioned on the individual agent's actions. This voting rule improves her two-period payoff, primarily by allowing her to keep the congruent politician and replace the divergent politician when observing gridlock at the cost of allowing the divergent executive to pool with congruent types through gridlock when both politicians are divergent. With probability $1-\tau$, however, the voter only observes the ultimate policy outcome as in the baseline model and follows the same voting rule. I show that for $\tau < 0.55$, the main conclusions of the baseline model, while attenuated, continue to hold. For extremely large values of τ, the Unilateral Regime still provides higher welfare when the executive is much more likely to be congruent, but is no longer the ex-ante best regime as signaling gains from unilateral action are less valuable under large-to-full transparency.

B.1.1 Model Setup

Suppose that in both regimes, after policy is implemented, the voter observes x_i^t, the politicians' individual policy inputs with probability $\tau \in (0,1)$. When both agents choose the same action, the voter does not learn anything more than she could infer in the baseline model from the ultimate policy outcome. However, revealing actions leads to new information both in gridlock—where previously the voter only learned that politicians disagreed, but not how—and when the executive acts unilaterally—where previously the voter did not know the legislature's individual action.

When the voter does not observe the politicians' individual actions (with probability

$1-\tau$), she continues to follow the same voting rules described in the main text. When the voter does observe each politician's individual action, she adopts a new and more straightforward voting rule—retain politicians who choose $x_i^1 = 1$ and replace politicians who choose $x_i^1 = -1$.

B.1.2 The Constitutional Regime

I solve the game by backward induction. In the second period, the politicians do not need to stand for election. As in the baseline model, each agent will simply choose their type-preferred policy. Two congruent politicians will enact $x^2 = 1$; two divergent politicians will enact $x^2 = -1$, and two politicians with different types will find themselves in gridlock. As before, the voter wants to select two congruent politicians, which may incentivize divergent politicians to act like congruent politicians. However, the exogenous probability of action-revelation will determine which voting rule the voter will deploy and will also modify the agents' first period actions.

First, notice that in the Constitutional Regime, action revelation provides no additional information if policy change occurs. For example, if the first-period policy outcome is $x^1 = 1$, the voter would infer (correctly) that both politicians chose $x_i^1 = 1$, as policy can only change when the politicians agree. Thus, gridlock is the only instance in which action-revelation can make a difference. Surprisingly, the probability of transparency does little to change the politicians' strategic decisions. Consider the case of a congruent executive and divergent legislature. In the baseline model, the divergent legislature chooses between policy $x_L^1 = 1$ in the first period and a two-period payoff of $u_L(1,0;\beta_L,1,1) = 2\beta_L - 1$ and $x_L^1 = -1$ which causes gridlock and electoral loss for a payoff of $u_L(0;\beta_L,1) = \beta_L$. The executive, in this case, always selects $x_E^1 = 1$: in the first instance he nets $u_E(1,1;\beta_E,1,0) = 2\beta_E + 1$, and in the second, $u_E(1;\beta_E,0) = \beta_E$. Now consider that with some probability τ, the agents' individual actions are revealed. If the legislature were to select $x_L^1 = 1$, whether or not actions are revealed, the voter will retain both politicians. In both instances, she knows that the politicians selected $x_i^1 = 1$ and it is Bayes' rational to retain them both. If the legislature selects $x_L^1 = -1$, its payoff is unchanged: $u_L(0; \beta_L, 1) = \beta_L$. Either the voter does not learn the legislature's individual choice and dismisses both politicians, or, she learns the legislature selected $x_L^1 = -1$ and dismisses it while retaining the executive. Therefore, the cut point at which the legislature chooses between either strategy is the same as it is in the baseline model: $\beta_L = 1$. The executive earns a higher payoff in the latter case:

$$u_E(1, 1; \beta_E, \tau, 0, x_L^2) = \beta_E + \tau(\beta_E + \pi)$$

as he is retained, and this increases the voter's welfare. Whereas she would otherwise dismiss both politicians and net an expected second period payoff of $\gamma + \pi - 1$, now she retains the congruent executive and replaces the divergent legislature which leads to an expected second period payoff of $\pi > \gamma + \pi - 1$. The logic is similar when the legislature is congruent and the executive is divergent.

One other important change occurs when both agents are divergent. If the legislature chooses $x_L^1 = 1$, the executive chooses between $x_E^1 = 1$ with a payoff of $u_E(1, -1; \beta_E, 1, -1) = 2\beta_E$ and $x_E^1 = -1$ and a payoff of β_E as transparency reveals him to be the bad actor. Thus, if the legislature chooses $x_L^1 = 1$, so too does the executive. However, if the legislature chooses $x_L^1 = -1$, the executive can earn a higher payoff by choosing $x_E^1 = 1$ and causing gridlock when:

$$u_E(1, -1; \beta_E, \tau, -1, x_L^2) = \beta_E + \tau(\beta_E + 1 - \pi) \geq \beta_E + 1 = u_E(-1; \beta_E, -1)$$
$$\beta_E \geq \frac{1 - \tau + \tau\pi}{\tau}$$

Whereas the legislature's draw of β_L completely determined the outcome when both politicians were divergent in the baseline model, transparency now gives the office-motivated executive some leverage. When $\beta_E \geq \frac{1-\tau+\tau\pi}{\tau}$, the legislature will always choose $x_L^1 = 1$.

When $\beta_E < \frac{1-\tau+\tau\pi}{\tau}$, then the legislature chooses $x_L^1 = 1$ when $\beta_L \geq 1$ or $x_L^1 = -1$ otherwise. We can determine the probability with which β_E fails to achieve the cutoff by:

$$\Pr\left(\beta_E < \frac{1-\tau+\tau\pi}{\tau}\right) = \frac{\frac{1-\tau+\tau\pi}{\tau}}{\frac{3+\pi}{2}} = \frac{2(1-\tau+\tau\pi)}{\tau(3+\pi)}$$

For compactness, define $\eta \equiv \Pr\left(\beta_E < \frac{1-\tau+\tau\pi}{\tau}\right)$. One small complication is the fact that τ appears in the denominator of η such that for small τ, $\eta > 1$, which is not an admissible probability. If τ were too small, then it would be impossible for β_E to exceed η, at which point, the strategy set would revert back to the baseline model when both politicians are divergent. That value of τ can be calculated by determining when τ is small enough to cause the executive's cutpoint to exceed the maximum value of β_E, $\frac{3+\pi}{2}$:

$$\frac{1-\tau+\tau\pi}{\tau} > \frac{3+\pi}{2}$$
$$\tau < \frac{2}{5-\pi}$$

Depending on the value of π, this threshold is met when $\tau \in [4/9, 1/2]$. That is, when τ exceeds this threshold, then play proceeds as specified. When τ falls below this threshold, play continues precisely as it does in the baseline model when both politicians are divergent. The intuition is that when transparency is unlikely enough, the divergent executive does not find gridlock profitable. To ease the interpretation of the model, going forward, I will focus on two cases—one in which $\tau < 4/9$ and one in which $\tau > 1/2$, which has the effect of fixing the strategies for all values of π. For more information on the path of play, in Figure B1, I construct a first-period game tree with two-period payoffs and derive all payoffs for all type combinations in Table B1.

Before stating the new equilibrium fully, I will first show that the voter will adhere to the voting rules established at the beginning of this section. First, if she does not see the politicians' individual actions, when she observes $x^1 = 1$, she will retain both agents, even when accounting for the change when both politicians are divergent. If $\tau < 4/9$, strategies are exactly as they are in the baseline model and $\{\Pr(\theta_E = C|x^1 = 1), \Pr(\theta_E = L|x^1 = 1)\} > \{\gamma, \pi\}$. When $\tau > 1/2$:

$$\Pr(\theta_E = C|x^1 = 1) = $$
$$\frac{\gamma\left(\pi + (1-\pi)\left(1 - \frac{2}{3+\pi}\right)\right)}{\gamma\left(\pi + (1-\pi)\left(1 - \frac{2}{3+\pi}\right)\right) + (1-\gamma)\left[\pi\left(1 - \frac{2}{3+\pi}\right) + (1-\pi)\left((1-\eta) + \eta\left(1 - \frac{2}{3+\pi}\right)\right)\right]}$$
$$> \gamma$$

$\Pr(\theta_L = C|x^1 = 1)$ is constructed similarly and is also greater than π. Regardless of the value of τ, gridlock is observed with the same probability as in the baseline model, and enacting $x^1 = -1$ reveals that both politicians are divergent. If, on the other, the voter does observe the outcomes, she will retain all politicians that choose $x_i^1 = 1$ and replace politicians who chose $x_i^1 = -1$. As only divergent politicians choose $x_1^1 = -1$, the voting rule is sensible. When politicians choose $x_i^1 = 1$ and $\tau > 1/2$:

$$\Pr(\theta_E = C|x_E^1 = 1) = \frac{\gamma}{\gamma + (1-\gamma)\left[\pi\left(1 - \frac{2}{3+\pi}\right) + (1-\pi)\left((1-\eta) + \eta\left(1 - \frac{2}{3+\pi}\right)\right)\right]} > \gamma$$

and the logic for $\Pr(\theta_L = C|x_L^1 = 1)$ is similar. If $\tau < 4/9$:

$$\Pr(\theta_E = C|x_E^1 = 1) = \frac{\gamma}{\gamma + (1-\gamma)\left(1 - \frac{2}{3+\pi}\right)} > \gamma$$

and the logic for $\Pr(\theta_L = C|x_L^1 = 1)$ is similar. Thus, the voting rule is Bayes' rational and the equilibrium is established.

Proposition B1. *(Constitutional Equilibrium with Transparency) There exists an equilibrium in which the voter reelects both politicians when $x^1 = 1$ and dismisses them otherwise in the absence of transparency; otherwise, she retains politicians who choose $x_i^1 = 1$ and dismisses them otherwise. Both politicians choose their type preferred policy in period two and in period one:*

a. If both politicians are congruent, they select policy $x_i^1 = 1$.

b. If $\theta_i = C$ and $\theta_j = D$, the congruent politician selects policy $x_i^1 = 1$. If $\beta_j \geq 1$, the divergent politician also selects $x_j^1 = 1$ and $x_j^1 = -1$ otherwise.

c. If both politicians are divergent, $\tau > 1/2$, $\beta_E < \frac{1-\tau+\tau\pi}{\tau}$ and $\beta_L < 1$, both politicians select $x_i^1 = -1$ and $x_i^1 = 1$ otherwise.

d. If both politicians are divergent, $\tau < 4/9$, $\beta_L < 1$, both politicians select $x_i^1 = -1$ and $x_i^1 = 1$ otherwise.

When $\tau < 4/9$, voter welfare is given by:

$$\begin{aligned} W_C' \equiv & \gamma\pi(2) + \gamma(1-\pi)\left[\left(1 - \tfrac{2}{3+\pi}\right) + \left(\tfrac{2}{3+\pi}\right)((1-\tau)(\gamma+\pi-1) + \tau\pi)\right] \\ & (1-\gamma)\pi\left[\left(1 - \tfrac{2}{3+\pi}\right) + \left(\tfrac{2}{3+\pi}\right)((1-\tau)(\gamma+\pi-1) + \tau\gamma)\right] + \\ & (1-\gamma)(1-\pi)\left[\left(\tfrac{2}{3+\pi}\right)(\gamma+\pi-2)\right] \end{aligned} \tag{B1}$$

When $\tau > 1/2$, voter welfare is given by:

$$\begin{aligned} W_C'' \equiv & \gamma\pi(2) + \gamma(1-\pi)\left[\left(1 - \tfrac{2}{3+\pi}\right) + \left(\tfrac{2}{3+\pi}\right)((1-\tau)(\gamma+\pi-1) + \tau\pi)\right] \\ & (1-\gamma)\pi\left[\left(1 - \tfrac{2}{3+\pi}\right) + \left(\tfrac{2}{3+\pi}\right)((1-\tau)(\gamma+\pi-1) + \tau\gamma)\right] + \\ & (1-\gamma)(1-\pi)\left[\eta\left(\tfrac{2}{3+\pi}\right)(\gamma+\pi-2)\right] \end{aligned} \tag{B2}$$

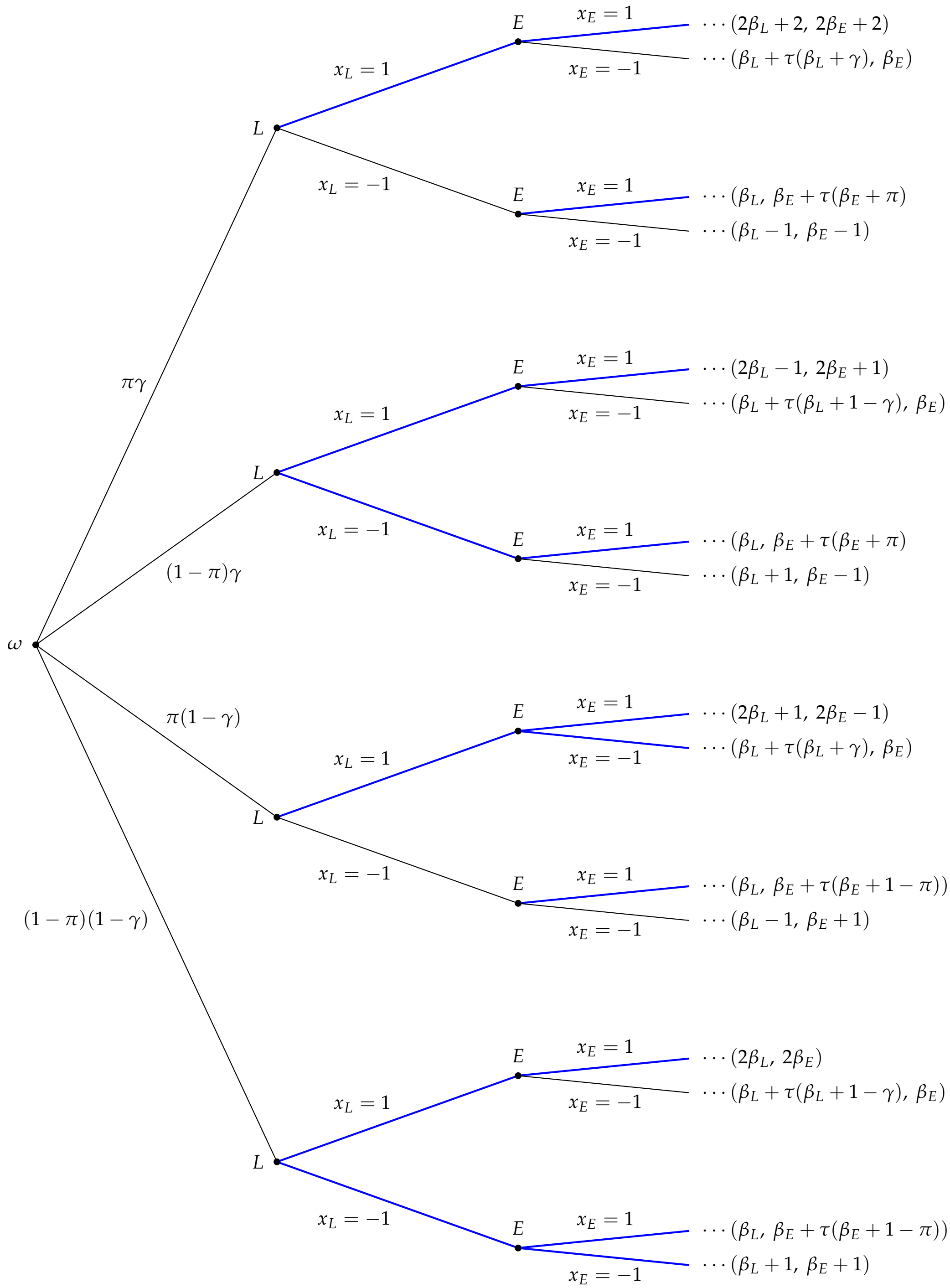

Figure B1: First period game tree and final payoffs following the voter's electoral decision and second period policy selections in the Constitutional Regime with transparency.

Table B1: Payoffs for the Constitutional Regime with Transparency

Type Combination	t_1 Action	t_1 Policy	t_1 Payoff	Voter's Electoral Decision	t_2 Action	t_2 Policy	t_2 Payoff	Total Payoff
$\theta_L = C,\ \theta_E = C$	$x_L^1 = 1$ $x_E^1 = 1$	$x_1 = 1$	$\beta_L + 1$ $\beta_E + 1$	Reelect Both	$x_L^2 = 1$ $x_E^2 = 1$	$x_2 = 1$	$\beta_L + 1$ $\beta_E + 1$	$2\beta_L + 2$ $2\beta_E + 2$
	$x_L^1 = 1$ $x_E^1 = -1$	$x_1 = 0$	β_L β_E	Reelect L with $\Pr(\tau)$, Replace E	$x_L^2 = 1$ $x_C^2 \in \{-1,1\}$	$x_2 \in \{0,1\}$	$\tau(\beta_L + \gamma \cdot 1 + (1-\gamma)(0))$	$\beta_L + \tau(\beta_L + \gamma)$ β_E
	$x_L^1 = -1$ $x_E^1 = 1$	$x_1 = 0$	β_L β_E	Replace L, Reelect E with $\Pr(\tau)$	$x_C^2 \in \{-1,1\}$ $x_E^2 = 1$	$x_2 \in \{0,1\}$	$\tau(\beta_E + \pi \cdot 1 + (1-\pi) \cdot 0)$	β_L $\beta_E + \tau(\beta_E + \pi)$
	$x_L^1 = -1$ $x_E^1 = -1$	$x_1 = -1$	$\beta_L - 1$ $\beta_E - 1$	Replace Both				$\beta_L - 1$ $\beta_E - 1$
$\theta_L = D,\ \theta_E = C$	$x_L^1 = 1$ $x_E^1 = 1$	$x_1 = 1$	$\beta_L - 1$ $\beta_E + 1$	Reelect Both	$x_L^2 = -1$ $x_E^2 = 1$	$x_2 = 0$	β_L β_E	$2\beta_L - 1$ $2\beta_E + 1$
	$x_L^1 = 1$ $x_E^1 = -1$	$x_1 = 0$	β_L β_E	Reelect L with $\Pr(\tau)$, Replace E	$x_L^2 = -1$ $x_C^2 \in \{-1,1\}$	$x_2 \in \{-1,0\}$	$\tau(\beta_L + \gamma \cdot 0 + (1-\gamma) \cdot 1)$	$\beta_L + \tau(\beta_L + 1 - \gamma)$ β_E
	$x_L^1 = -1$ $x_E^1 = 1$	$x_1 = 0$	β_L β_E	Replace L, Reelect E with $\Pr(\tau)$	$x_C^2 \in \{-1,1\}$ $x_E^2 = 1$	$x^2 \in \{0,1\}$	$\tau(\beta_E + \pi \cdot 1 + (1-\pi) \cdot 0)$	β_L $\beta_E + \tau(\beta_E + \pi)$
	$x_L^1 = -1$ $x_E^1 = -1$	$x_1 = -1$	$\beta_L + 1$ $\beta_E - 1$	Replace Both				$\beta_L + 1$ $\beta_E - 1$
$\theta_L = C,\ \theta_E = D$	$x_L^1 = 1$ $x_E^1 = 1$	$x_1 = 1$	$\beta_L + 1$ $\beta_E - 1$	Reelect Both	$x_L^2 = 1$ $x_E^2 = -1$	$x_2 = 0$	β_L β_E	$2\beta_L + 1$ $2\beta_E - 1$
	$x_L^1 = 1$ $x_E^1 = -1$	$x_1 = 0$	β_L β_E	Reelect L with $\Pr(\tau)$, Replace E	$x_L^2 = 1$ $x_C^2 \in \{-1,1\}$	$x_2 \in \{0,1\}$	$\tau(\beta_L + \gamma \cdot 1 + (1-\gamma) \cdot 0)$	$\beta_L + \tau(\beta_L + \gamma)$ β_E
	$x_L^1 = -1$ $x_E^1 = 1$	$x_1 = 0$	β_L β_E	Replace L, Reelect E with $\Pr(\tau)$	$x_C^2 \in \{-1,1\}$ $x_E^2 = -1$	$x_2 \in \{-1,0\}$	$\tau(\beta_E + \pi \cdot 0 + (1-\pi) \cdot 1)$	β_L $\beta_E + \tau(\beta_E + 1 - \pi)$
	$x_L^1 = -1$ $x_E^1 = -1$	$x_1 = -1$	$\beta_L - 1$ $\beta_E + 1$	Replace Both				$\beta_L - 1$ $\beta_E + 1$
$\theta_L = D,\ \theta_E = D$	$x_L^1 = 1$ $x_E^1 = 1$	$x_1 = 1$	$\beta_L - 1$ $\beta_E - 1$	Reelect Both	$x_L^2 = -1$ $x_E^2 = -1$	$x_2 = -1$	$\beta_L + 1$ $\beta_E + 1$	$2\beta_L$ $2\beta_E$
	$x_L^1 = 1$ $x_E^1 = -1$	$x_1 = 0$	β_L β_E	Reelect L with $\Pr(\tau)$, Replace E	$x_L^2 = -1$ $x_C^2 \in \{-1,1\}$	$x_2 \in \{-1,0\}$	$\tau(\beta_L + \gamma \cdot 0 + (1-\gamma) \cdot (-1))$	$\beta_L + \tau(\beta_L + 1 - \gamma)$ β_E
	$x_L^1 = -1$ $x_E^1 = 1$	$x_1 = 0$	β_L β_E	Replace L, Reelect E with $\Pr(\tau)$	$x_C^2 \in \{-1,1\}$ $x_E^2 = -1$	$x_2 \in \{-1,0\}$	$\tau(\beta_E + \pi \cdot 0 + (1-\pi) \cdot 1)$	β_L $\beta_E + \tau(\beta_E + 1 - \pi)$
	$x_L^1 = -1$ $x_E^1 = -1$	$x_1 = -1$	$\beta_L + 1$ $\beta_E + 1$	Replace Both				$\beta_L + 1$ $\beta_E + 1$

B.1.3 The Unilateral Regime

I solve the game by backward induction. In the second period, the politicians do not need to stand for election. Lemma 1 still applies, so the executive's type perfectly determines second period policy. A congruent executive will enact $x_E^2 = 1$ legislatively if the legislature is congruent and unilaterally if the legislature is divergent. A similar logic holds for a divergent executive.

As in the Constitutional Regime with transparency, the voter will condition her voting rule on whether or not the politicians individual actions are revealed. If not, then her voting rule is as established in the main text. If actions are revealed, then the voter has the potential to learn more about her agents' types in gridlock or when unilateral action is chosen (recall that in the baseline model, the voter can infer the executive's choice through unilateral action but does not observe what the executive or legislator individually chose). With transparency, the voter conditions reelection on the individual actions (both policy and unilateral action for the executive)—keeping politicians who choose $x_i^1 = 1$ and dismissing those who choose $x_i^1 = -1$. Although this voting strategy caused some changes in the Constitutional Regime, as I will show, unilateral action allows the congruent executive to avoid gridlock entirely, which rules it out as a possible strategy for divergent executives (causing gridlock would perfectly reveal his type). As such, the strategies (and thus voter welfare) under the Unilateral Regime follows from the baseline model.

To see this, first consider the case of a congruent executive. If the legislature is also congruent, then it is strictly dominant to legislatively enact $x^1 = 1$. If the legislature is divergent and is office-motivated, then the executive will choose $x_E^1 = 1$ legislatively, both politicians will be reelected, and then the executive will unilaterally enact the same policy in the second period. If the legislature is policy-motivated and chooses $x_L^1 = -1$, then the executive will choose to unilaterally enact $x_E^1 = 1$. In the baseline model without transparency, this decision leads the voter to update unfavorably about the legislature. However, transparency does nothing to change the voter's inferences. If the voter observes the legislature's action in this case, she will learn that the legislature chose $x_L^1 = -1$ and dismiss her with certainty. As in the baseline model, the legislator's cut point on this decision occurs at $\beta_L = 1$.

Now consider the cases when the executive is divergent. If the legislature is congruent, it will select $x_L^1 = 1$ and the executive will choose between $x_E^1 = 1, \alpha^1 = 0$ or $x_E^1 = -1, \alpha^1 = 1$, choosing the former when $\beta_E \geq 1$ as in the baseline model. Finally, when both politicians are divergent, if the legislator selects $x_L^1 = 1$, then the executive is office-motivated and chooses $x_E^1 = 1, \alpha^1 = 0$ when $\beta \geq 1/2$, or he is policy-motivated and chooses $x_E^1 = -1, \alpha^1 = 1$ otherwise. If the legislature chooses $x_L^1 = -1$, the executive must choose $x_E^1 = -1, \alpha^1 = 0$ unlike in the Constitutional Regime where he may choose gridlock based on the value of τ. This must be the case because if the divergent executive chooses gridlock (which could provide a higher payoff if he is especially policy-motivated), he will reveal that he is divergent; the congruent executive is always able to use unilateral action to circumvent gridlock, which is not the case in the Constitutional Regime and is what allows for more interesting behavior there.

Thinking about Bayesian updating in this context is quite straightforward. As the strategies are the same (and occur with the same frequency) as in the baseline model, when the voter does not observe individual actions, then her voting rule is rational. If the voter observes individual actions, this should only matter in the context of gridlock (which does not occur in equilibrium) or unilateral action. The policy $x^1 = 1$ is only ever unilaterally enacted when the executive is congruent and the legislature is divergent, so learning the individual actions does nothing to change the voter's inferences. When $x^1 = -1$ and $\alpha^1 = 1$, then the executive is certainly divergent and learning individual actions does not change that. Further, the voter believes the legislator is more likely to be congruent despite the fact that this situation can occur either when the legislature is congruent or divergent and office-motivated. However, the executive only chooses $x^1 = -1, \alpha^1 = 1$ if either type of legislature chooses $x_L^1 = 1$, and so learning individual actions does nothing to change the voter's inferences. As in the baseline model, the equilibrium refinement criteria allows us to state that were the voter to see gridlock, she would dismiss both politicians. Thus, Proposition 2 holds even under transparency, and τ never enters the voter's welfare function, so it is the same as it is in Equation 2.

B.1.4 Welfare Comparison

To determine when voter welfare is higher under the Unilateral Regime, we must consider the cases when $\tau < 4/9$ and $\tau > 1/2$. Consider, the former case. Define $\Delta'(\gamma, \pi, \tau) \equiv W_U - W'_C$, which is Equation A3 $-$ Equation B1:

$$
\begin{aligned}
&W_U - W'_C = \\
&\frac{2\gamma^2(\pi(-(2\pi+5)\tau+2\pi+1)+3\tau-7)+\gamma\left(-\pi^2(1-6\tau)+2\pi^3+16\pi\tau-6\tau+31\right)}{(\pi+3)^2} - \\
&\frac{\pi(\pi(\pi+2\tau+6)+6\tau+15)-2}{(\pi+3)^2} \\
&\equiv \Delta'(\gamma, \pi, \tau)
\end{aligned}
\tag{B3}
$$

Of particular interest is:

$$
\frac{\partial \Delta'(\gamma, \pi, \tau)}{\partial \tau} = \frac{2\gamma^2((-2\pi-5)\pi+3)+\gamma\left(6\pi^2+16\pi-6\right)-\pi(2\pi+6)}{(\pi+3)^2} < 0
$$

Thus, increasing transparency reduces welfare under the Unilateral Regime relative to the Constitutional Regime as expected. To develop some intuition about whether transparency can reverse the conclusions of the baseline model, we can look at the sign of $\Delta'(\gamma, \pi, \tau)$ when $\pi = \gamma$ and $\max\{\tau\} = 4/9$. If the sign is positive, the Unilateral Regime provides higher welfare overall.

$$
\Delta'(\gamma = \pi, \pi, \tau = 4/9) = \frac{2(\pi-1)^2\left(19\pi^2+30\pi-9\right)}{9(\pi+3)^2} > 0
$$

which is always positive. Therefore, we have for any $\tau < 4/9$, the conclusions of the baseline model—that the Unilateral Regime is *ex ante* preferable—hold.

Next, define $\Delta''(\gamma, \pi, \tau) \equiv W_U - W_C''$, which is Equation A3 $-$ Equation B2 for $\tau > 1/2$:

$$
\begin{aligned}
&W_U - W_C'' = \\
&-2\gamma^2\left(\pi^2\tau(2\tau-1)+\pi\left(5\tau^2-7\tau+2\right)-3\tau^2+12\tau-2\right)+\gamma \\
&\left(\pi^2\left(6\tau^2+17\tau-4\right)+2\pi\left(8\tau^2-23\tau+8\right)-6\tau^2+61\tau-12\right)-2\pi^2\left(\tau^2+11\tau-2\right)+\pi^3\tau+\pi \\
&\left(-6\tau^2+19\tau-12\right)-22\tau+8\Big/(\pi+3)^2\tau \\
&\equiv \Delta''(\gamma,\pi,\tau)
\end{aligned}
\tag{B4}
$$

Of interest is the first derivative with respect to τ:

$$
\frac{\partial \Delta''(\gamma,\pi,\tau)}{\partial\tau} = \frac{2(\gamma-1)\left(2(\pi-1)(\gamma+\pi-2)-(\pi+3)\tau^2(\gamma(2\pi-1)-\pi)\right)}{(\pi+3)^2\tau^2} < 0
$$

As expected, increasing transparency decreases welfare in the Unilateral Regime as compared to the Constitutional Regime. However, $\Delta''(\gamma=\pi,\pi,\tau) \leq 0$ in some cases. Consider, for example, $\Delta''(0.5, 0.5, \tau)$, which should indicate the case when transparency is most likely to increase Constitutional welfare relative to Unilateral welfare:

$$
\begin{aligned}
\Delta''(0.5,0.5,\tau) = \frac{1}{98}\left(-14\tau+\frac{8}{\tau}-7\right) &\leq 0 \\
\tau &\geq \frac{1}{28}(\sqrt{497}-7) \approx 0.55
\end{aligned}
$$

which tells us that the Constitutional Regime is *ex-ante* preferable when $\tau > 0.55$.

To investigate this relationship graphically, in Figure B2, I plot $\tilde{\gamma}''(\pi,\tau)$ at different levels of τ, which is constructed by setting $W_C'' = W_U$ and solving for γ. The x-axis is π, the prior on legislative congruence, and the y-axis is γ, the prior on executive congruence.

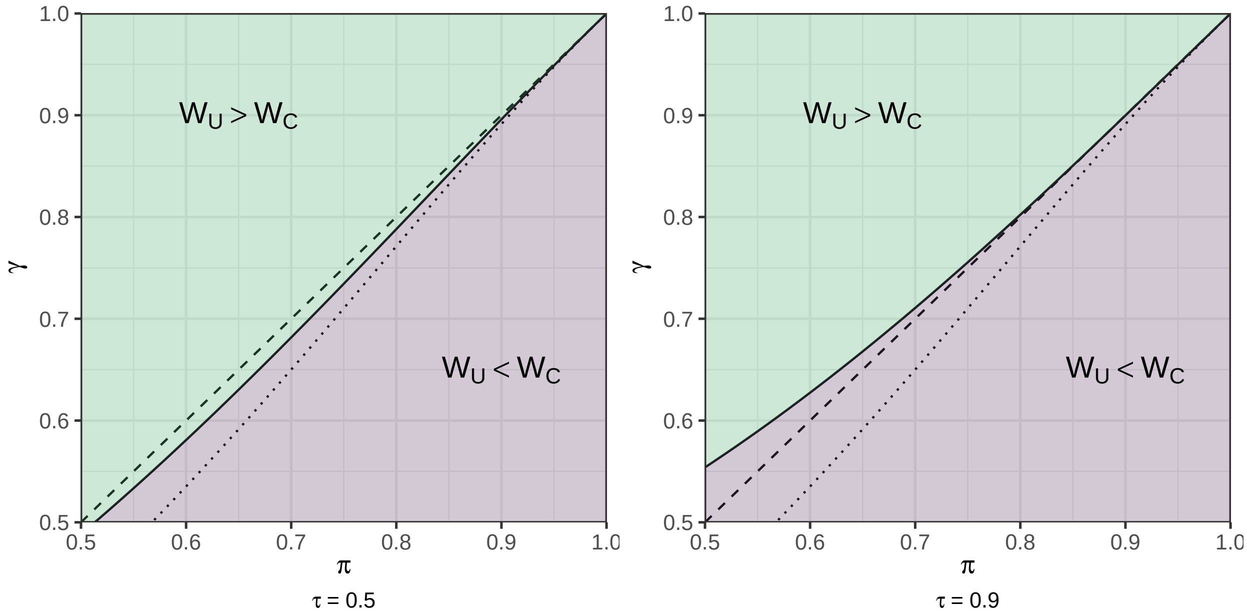

Figure B2: A comparison of voter welfare between the Constitutional Regime and Unilateral Regime with transparency. The *x*-axis tracks π, the prior on legislature congruence, while the *y*-axis plots γ, the prior on executive congruence at various levels of τ, transparency. The solid line tracks $\tilde{\gamma}''(\pi, \tau)$, the threshold at which the voter is indifferent between either regime type. The area above (below) the curve indicates when the voter would prefer the Unilateral (Constitutional) Regime. The dashed line is the 45-degree line, which represents a benchmark case where preferences over separation of powers follow directly from the priors on congruence and the dotted line is $\tilde{\gamma}(\pi)$ from the baseline model. For moderate values of τ, $\tilde{\gamma}''(\pi, \tau)$ falls below the 45-degree line, indicating that it is the preferable regime type. Even for extreme values of τ, the Constitutional Regime is only marginally more preferable when γ and π are close and low.

I also plot the 45-degree line ($\gamma = \pi$), which represents the case in which preferences for separation of powers follow directly from the priors on congruence.

As in the baseline model, the Constitutional Regime is preferable when $\pi >> \gamma$ and vice versa for the Unilateral Regime. When τ is moderate, the Unilateral Regime still provides higher welfare when π and γ are close; $\tilde{\gamma}(\pi, \tau)$ falls below the 45-degree line indicating that the Unilateral Regime is *ex ante* preferable. For larger values of τ, the Unilateral Regime is not always preferable even when $\pi < \gamma$.

B.2 Asymmetric Costs

In this section, I relax the assumption that the voter's payoffs from policy, $x^t = 1$ and $x^t = -1$, are symmetric around the default policy at $x^t = 0$. Suppose the politicians' utility functions are equivalent to the baseline model while the voter's per-period utility function is given by:

$$u_V(x^t, c) = \begin{cases} 1 & \text{if } x^t = 1 \\ -c & \text{if } x^t = -1 \end{cases}$$

where $c > -1$. Thus, $c < 0$ represents a situation in which any new policy is better than the default policy and $c > 1$ represents a situation in which the voter's least preferred policy may be costlier than her preferred policy benefits her.

As the politicians utility functions, and thus strategies, do not change, we need only examine the voter's welfare equations to determine how this shapes preferences over regime type. Generalizing Equation A2, we can calculate the voter's welfare in the Constitutional Regime as:

$$\begin{aligned}
&W_C^\dagger \equiv \gamma\pi \cdot 2+ \\
&\gamma(1-\pi)\left[\left(\tfrac{2}{3+\pi}\right)\left(\gamma\pi + (1-\gamma)(1-\pi)(-c)\right) + \left(1 - \left(\tfrac{2}{3+\pi}\right)\right)\cdot 1\right] + \\
&(1-\gamma)\pi\left[\left(\tfrac{2}{3+\pi}\right)\left(\gamma\pi + (1-\gamma)(1-\pi)(-c)\right) + \left(1 - \left(\tfrac{2}{3+\pi}\right)\right)\cdot 1\right] + \\
&(1-\gamma)(1-\pi)\left[\left(\tfrac{2}{3+\pi}\right)\left(-c + \gamma\pi + (1-\gamma)(1-\pi)c\right) + \left(1 - \left(\tfrac{2}{3+\pi}\right)\right)\cdot(1-c)\right]
\end{aligned} \tag{B5}$$

And similarly for the Unilateral Regime from Equation A3:

$$\begin{aligned}
&W_U^\dagger \equiv \gamma\pi \cdot 2+ \\
&\gamma(1-\pi)[\left(\tfrac{2}{3+\pi}\right)(1+\pi\cdot 1+(1-\pi)\cdot 1)+\left(1-\tfrac{2}{3+\pi}\right)(1+1)]+ \\
&(1-\gamma)\pi[\left(\tfrac{2}{3+\pi}\right)(-c+\gamma\cdot 1+(1-\gamma)(-c))+\left(1-\tfrac{2}{3+\pi}\right)(1-c)]+ \\
&(1-\gamma)(1-\pi)\Big[\left(1-\tfrac{2}{3+\pi}\right)\left(1-\tfrac{1}{3+\pi}\right)(1-c)+ \\
&\left[1-\left(1-\tfrac{2}{3+\pi}\right)\left(1-\tfrac{1}{3+\pi}\right)\right](-c+\gamma\cdot 1+(1-\gamma)(-c))\Big]
\end{aligned} \tag{B6}$$

Then, define $\Delta^\dagger(\gamma,\pi,c) \equiv W_U^\dagger - W_C^\dagger$ where:

$$\begin{aligned}
\Delta^\dagger(\gamma,\pi,c) \equiv &\frac{c(1-\gamma)(-\gamma(7-\pi(4-\pi(2\pi+3)))+\pi(\pi(\pi+7)+15)+1)}{(\pi+3)^2}+ \\
&\frac{(1-\pi)(-\gamma(-\gamma(\pi+1)(2\pi+7)+\pi(\pi+12)+23)+\pi+1)}{(\pi+3)^2}
\end{aligned}$$

As expected, $\Delta^\dagger(\gamma,\pi,c)$ is decreasing in c:

$$\frac{\partial\Delta^\dagger(\gamma,\pi,c)}{\partial c} = -\frac{(1-\gamma)(1-7\gamma+15\pi+4\gamma\pi+7\pi^2-3\gamma\pi^2+\pi^3-2\gamma\pi^3)}{(\pi+3)^2} < 0$$

To see this, notice that $1+15\pi$ is larger than all the negative terms combined for all values of γ and π. As c increases, the voter bears a larger cost when her least preferred policy is enacted, thus the Constitutional Regime becomes increasing preferable for a larger range of the parameter space.

To investigate this relationship graphically, I plot $\tilde{\gamma}^\dagger(\pi,c)$ (a function constructed by setting $W_U^\dagger = W_C^\dagger$ and solving for γ) in Figure B3. On the left, I plot this function when $c = 0.5$, which shows that the Unilateral Regime provides higher welfare under broader conditions than in the baseline model. On the right, I set $c = 2$, which shows that for moderate asymmetry of costs, the conclusions of the baseline model no longer hold. Normatively, Figure B3 may point out the differences between arguments like Howell and

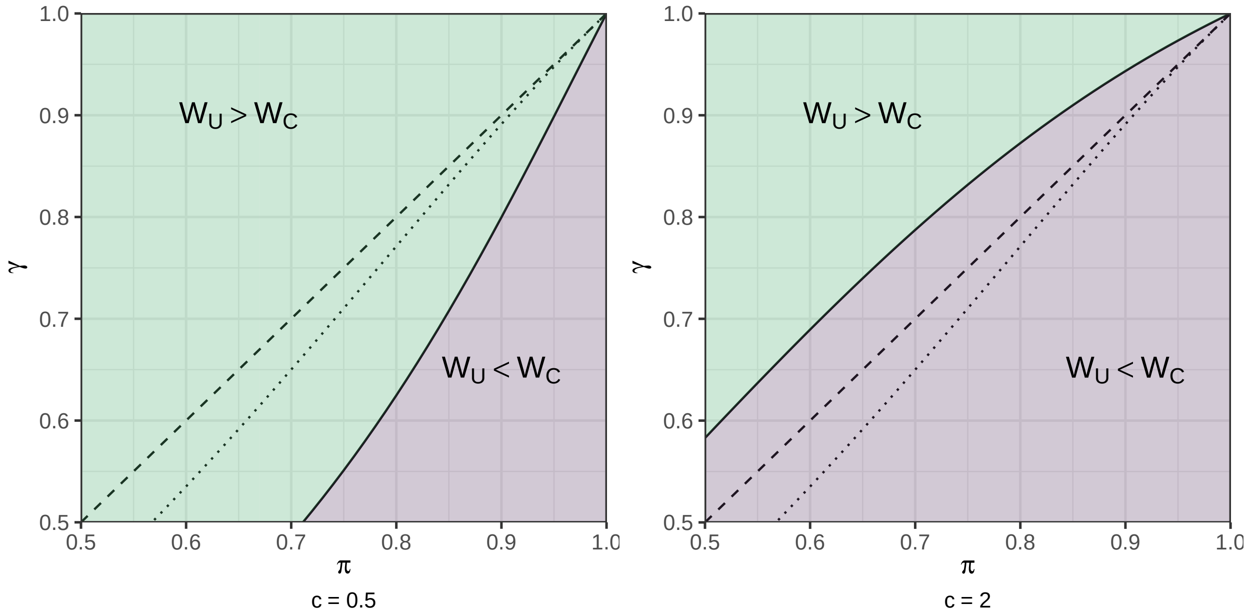

Figure B3: A comparison of voter welfare between the Constitutional Regime and Unilateral Regime with asymmetric costs. The x-axis tracks π, the prior on legislature congruence, while the y-axis plots γ, the prior on executive congruence at various levels of c, the cost the voter bears when her least favorite policy is enacted. The solid line tracks $\tilde{\gamma}^{\dagger}(\pi, c)$, the threshold at which the voter is indifferent between either regime type. The area above (below) the curve indicates when the voter would prefer the Unilateral (Constitutional) Regime. The dashed line is the 45-degree line, which represents a benchmark case where preferences over separation of powers follow directly from the priors on congruence and the dotted line is $\tilde{\gamma}(\pi)$ from the baseline model. For moderate values of $c < 1$, $\tilde{\gamma}^{\dagger}(\pi, c)$ falls below the 45-degree line, indicating that it is the preferable regime type. However, for modestly larger values of c, here $c = 2$, the Constitutional Regime is preferable when $\gamma < \pi$ and close.

Moe (2016), who argue that new policies are superior to the status quo, and the Founders, who were more skeptical of change.

B.3 Generic Distribution of β_i and Varying Cost of Unilateral Action

In this extension, I relax the assumption that $\beta_i \sim \mathcal{U}[0, (3+\pi)/2]$ as well as the assumption that the cost of unilateral action is $1/2$. Instead, suppose that β_i is drawn from any strictly increasing CDF, F_β, with support $[0, (3+\pi)/2]$ and that the cost of unilateral action is given by $\kappa \in (0, 1)$.

Despite these changes, the underlying structure of the game has not changed. First, the politicians already had perfect information about their own and the other politicians' office-holding rents. Changing the underlying distribution changes voter welfare, but not the agents' strategic choices. Second, for any $\kappa \in (0,1)$, Lemma 1 still holds—the executive will always use unilateral action in the second period when the legislature does not share his type.

Before proceeding to the voter welfare calculation, however, we need to establish two definitions regarding the cut points. First, let $\phi \equiv F_\beta(1)$ and $\psi \equiv F_\beta(1-\kappa)$. The latter replaces $\Pr(\beta_i < 1/2)$ from the baseline model. Also note that because F_β is strictly increasing, $\psi \leq \phi$. Now we are ready to define $W_C^\ddagger$ as:

$$\begin{aligned} W_C^\ddagger \equiv & \gamma\pi(2) + \gamma(1-\pi)\left[\phi(\gamma+\pi-1) + (1-\phi)\cdot 1\right] + \\ & (1-\gamma)\pi\left[\phi(\gamma+\pi-1) + (1-\phi)\cdot 1\right] + (1-\gamma)(1-\pi)\left[\phi(-1+\gamma+\pi-1)\right] \end{aligned} \tag{B7}$$

and $W_U^\ddagger$ as:

$$\begin{aligned} W_U^\ddagger \equiv & \gamma\pi(2) + \gamma(1-\pi)[\phi(1+\pi\cdot 1+(1-\pi)\cdot 1) + (1-\phi)\,(1+1)] + \\ & (1-\gamma)\pi[\phi(-1+\gamma\cdot 1+(1-\gamma)\cdot(-1)) + (1-\phi)\,(1-1)] + \\ & (1-\gamma)(1-\pi)\left[\phi\,(1-\psi)\,(2\gamma-2) + (\psi)\,(2\gamma-2)\right] \end{aligned} \tag{B8}$$

Define $\Delta^\ddagger(\gamma,\pi,\phi,\psi) \equiv W_U^\ddagger - W_C^\ddagger$, which is equal to:

$$\begin{aligned} \Delta^\ddagger(\gamma,\pi,\phi,\psi) \equiv & \gamma^2(-\phi(-2\psi(1-\pi)-\pi+2) - 2\psi(1-\pi)) + \\ & \gamma(\phi(\psi(4\pi-4)+(\pi-2)\pi+3) + 4\psi(1-\pi)+1) - 2(1-\phi)\psi \end{aligned}$$

From the first derivative with respect to ψ, we see that $\Delta^\ddagger(\gamma,\pi,\phi,\psi)$ is decreasing in ψ, that is, the more likely $\beta_E < 1-\kappa$, welfare under the Unilateral Regime decreases relative to the Constitutional Regime:

$$\frac{\partial \Delta^{\ddagger}(\gamma, \pi, \phi, \psi)}{\partial \psi} = -\gamma^2(2(1-\pi) - 2\phi(1-\pi)) - \gamma(4\phi(1-\pi) + 4\pi - 4) - 2(\phi\pi - \phi - \pi + 1) < 0$$

The effect of ϕ is less certain. When π is larger, increasing ϕ decreases welfare under the Unilateral Regime relative to the Constitutional Regime, but increasing ϕ when π is low has the opposite effect.

$$\frac{\partial \Delta^{\ddagger}(\gamma, \pi, \phi, \psi)}{\partial \phi} = -\gamma^2(-2\psi(1-\pi) - \pi + 2) - \gamma(4\psi(1-\pi) + (2-\pi)\pi - 3) - 2\psi(\pi - 1) - \pi$$

In Figure B4, I plot $\tilde{\gamma}^{\ddagger}(\pi, \phi, \psi)$, which is constructed by setting $W_U^{\ddagger} = W_C^{\ddagger}$ and solving for γ, at varying levels of ϕ. The variable ϕ is the probability that divergent types will separate in the first period, and is similar to the probability of gridlock. For all levels of ϕ, the Unilateral Regime is the *ex ante* preferred regime. As ϕ increases, two things happen. In the Constitutional Regime, first-period gridlock is more likely, however, in the the Unilateral Regime, the divergent executive is more likely to enact $x^1 = -1$ unilaterally. The loss from the former effect is generally larger than the loss from the latter effect, and so increasing ϕ increases welfare in the Unilateral Regime relative to the Constitutional Regime.

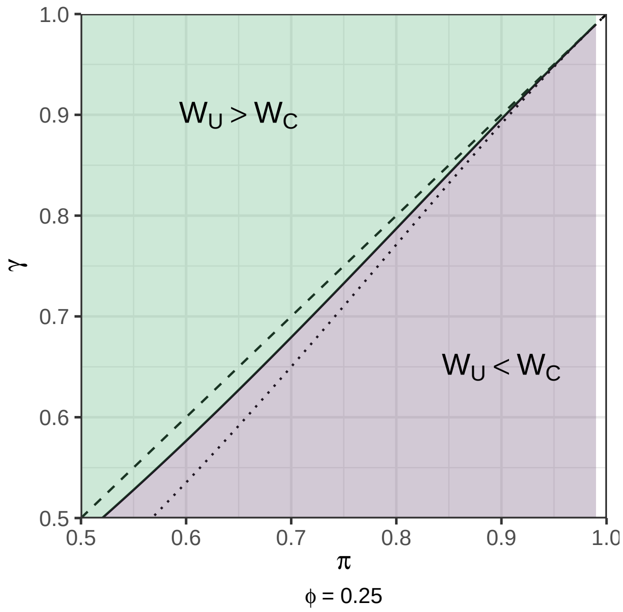

Figure B4: A comparison of voter welfare between the Constitutional Regime and Unilateral Regime with non-uniform β_i. The x-axis tracks π, the prior on legislature congruence, while the y-axis plots γ, the prior on executive congruence at various levels of ϕ, the probability with which divergent politicians are policy motivated. The solid line tracks $\tilde{\gamma}^{\ddagger}(\pi, \phi, \psi)$, the threshold at which the voter is indifferent between either regime type. The area above (below) the curve indicates when the voter would prefer the Unilateral (Constitutional) Regime. The dashed line is the 45-degree line, which represents a benchmark case where preferences over separation of powers follow directly from the priors on congruence and the dotted line is $\tilde{\gamma}(\pi)$ from the baseline model. For low to moderate values of ϕ, the Unilateral Regime is modestly *ex-ante* preferable when π and γ are close. For larger ϕ, welfare under the Unilateral Regime equals and even exceeds the baseline model. Note $\psi = 0.2$.