# Flexibility or Stability? Analyzing Proposals to Reform the Separation of Powers*

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**Abstract**

The social welfare effects of legislatures in presidential systems, such as the U.S. Congress, are frequently lamented. In response, there are proposals to reform the separation of powers system by giving presidents control of the legislative agenda and weakening rules such as the filibuster. We provide a game-theoretic analysis of the policy and social welfare consequences of a more executive-centric system. Integrating standard assumptions about legislative and executive incentives into a dynamic model of decision-making with private investment, we show there are a variety of conditions under which stronger executives do not produce better outcomes. Moreover, we characterize how these conditions depend on factors such as the stability of the policymaking environment or investment fundamentals. Our findings are robust and consistent with empirical observations that U.S. policy outputs are not necessarily worse than those of nations with stronger executives, which more closely approximate prominent proposals by populist-oriented reformers.

**Keywords:** presidency, separation of powers, supermajority, fast-track, investment

*We thank Steve Callander and Peter Buisseret for helpful comments and suggestions.

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What facilitates and what undermines the American political system's capacity to confront societal problems? Some decry changes in recent decades, such as enhanced polarization and politicization (Hetherington and Rudolph, 2015; McCarty, Poole and Rosenthal, 2016) or the negative effects of campaign dollars, particularly in the wake of *Citizens United* (La Raja and Schaffner, 2015). These views suggest that welfare gains could follow from facilitating more moderate preferences or implementing stronger campaign spending restrictions, neither easy to achieve but involving potentially malleable features.

Alternatively, other scholars concentrate on American presidentialism. They view the checks and balances structure of the presidential system as a poor match for modern societal problems and advocate for weak executive constraints (Mann and Ornstein, 2006; Posner and Vermeule, 2011).[1] A prominent and lucid example is Howell and Moe (2016). They recommend giving presidents fast-track authority like that currently available for trade agreements, which can arise if Congress prefers to delegate such authority for a specific period (Conconi, Facchini and Zanardi, 2012; Celik, Karabay and McLaren, 2015). Their recommendation essentially provides the president with permanent closed-rule agenda control in the legislature and prohibits rule-based obstruction. Executive proposals are voted up or down in both chambers with majoritarian rules and without potential for amendment. Passed proposals become the new status quo and are alterable only by the legislature enacting new statutes in the traditional way with all possibilities for obstruction, including a presidential veto, in place. Flexibility is trumpeted as a key virtue of fast-track, with the expectation that avoiding supermajority gridlock produces policy tailored to current conditions.[2]

Many initial reactions to such proposals seem as much philosophical or legalistic as analytic, as some view them as a call for more government intervention and an attack on the Madisonian Constitution.[3] As highlighted by concerns about electing Donald Trump, however, there are other reasons, empirical and theoretical, to probe the claim that a stronger presidency will routinely buttress societal welfare. Prudence is especially warranted if delegation is permanent and not chosen by the legislature à la the use of fast-track to date.

Empirically, it is unclear that parliamentary systems, which allow less obstructionism than supermajoritarianism, consistently outperform the US (Mayhew, 2015). For example, although the global financial crisis of 2008 originated in the US, it recovered quicker than Europe (Arias and Wen, 2015). More broadly, executive constraints are positively correlated with foreign investment and, furthermore, negatively correlated with economic volatility as

[1] Melnick 2015 offers a more positive assessment.

[2] The argument in Howell and Moe (2016) builds on the view that presidents are relatively more public-minded than parochial and self-centered legislators. Also see Moe and Caldwell (1994) and Moe and Wilson (1994).

[3] See the symposium in Milkis, Azari, Kriner, Lee, Skowronek, Howell and Moe (2017).

measured by country growth rates (Besley and Mueller, 2017).[4] Although these relationships are only suggestive, and may be countered by alternative examples and general analyses of bureaucratic competence (Kettl, 2016), they encourage careful evaluation of systems with greater executive control. And the observation, illustrated by the real-world contrast of Barack Obama and Donald Trump, that successive presidents may vary in their skill sets and ideology motivates exploration of how these institutions perform under various assumptions about such variation.

Put differently, the view that the president is the best hope for improving social welfare and dealing with societal ills has attracted attention and is intuitive in many respects (but see Kriner and Reeves, 2015; Hudak, 2014). Nonetheless, there is room for incorporating prominent substantive assumptions into formal models of policy-making to assess various claims about the social welfare consequences of different political institutions. This is our objective.

To do so, we provide a game-theoretic analysis of conventional separation of powers institutions and more flexible fast-track style systems in a dynamic policymaking environment. Policy is made repeatedly over time, with status quo policy persisting until new policy passes and citizens making policy-contingent private investments. This setup allows us to integrate related features that are often viewed as key for government performance, including the ability to tailor policy to changing conditions and the need to overcome potential hold-up problems inhibiting investment.

We investigate if, or under what conditions, an exogenously-dictated fast-track world improves social welfare over an American-style presidential system where the legislature either does or does not propose, a supermajority is required, and the president can veto to maintain the status quo subject to override. After establishing a baseline strategic setting, our analysis considers various sets of assumptions that are standard in the substantive literature informally comparing executive and legislative policymaking in the US. In different variants of our setting, the socially optimal policy changes, presidents share the citizenry's policy preferences, presidents have heterogeneous ideologies, and investment competence varies across presidents.

Overall, we show that the possibility of policy-sensitive private investment generates reasonable conditions in which the conventional separation of powers setup is better for society even under generous assumptions about presidential preferences and capabilities. For example, supermajority rule can prevail even if the president is perfectly attuned to society's policy interests and legislators are not. Our analysis goes further by highlighting the logic underlying the sharp scope conditions, the boundaries of the empirical phenomena to which our theory

[4] Also see Cox and Weingast (2018).

applies, for citizens to prefer supermajority rule. Perhaps most notably, in our dynamic setting the well-recognized connection between stable policy and private-sector investment[5] drives supermajority superiority even under conditions that are *prima facie* favorable to fast-track. Strategic behavior produces endogenous differences in policy persistence across the institutions, which in turn generates different levels of policy-sensitive private investment. Even under fundamentally identical investment conditions, anticipated lower policy persistence under fast-track depresses private investment relative to supermajority.[6]

To preview, if the president is public-minded, then fast-track is always weakly superior in a world without private investment. Adding private investment into the equation, however, can reverse this conclusion. In particular, we show that if policy-sensitive private investment is viable and the socially optimal policy can potentially change over time, then a canonical supermajoritarian system is preferable when investment conditions are not too unfavorable. Such insights are robust to alternative assumptions that some presidents are more competent at facilitating investment than others, or that presidential ideology can vary.

The scope conditions from our formal analysis allow us to further explore how changes to the political environment affect whether supermajority rule is superior. Examples include fluctuations in (i) socially optimal policy – both in its likelihood to change and the degree of possible change, (ii) presidential ideology, and (iii) executive competence. For instance, conditions for the citizenry to prefer supermajority rule are more pervasive as (i) the persistence of socially optimal policy decreases, or (ii) there are larger discrepancies between potential socially optimal policies. Conversely, conditions are more favorable for fast-track as ideological polarization increases, ideological turnover is more frequent, or presidents provide a larger investment premium (a heightened investor return due to the president's greater competence relative to legislators).

Beyond analyses evaluating separation of powers systems per se, our study relates to a number of different literatures. One is the well-established literature studying tradeoffs between commitment and flexibility in political institutions. On one hand, citizens value policy and want politicians who produce favorable laws and regulations. A large literature highlights the respective costs and benefits of policy commitment and flexibility (Kydland and Prescott, 1977; Bernanke, 1983; Rogoff, 1985; Dal Bó, 2006). On the other hand, citizens value investment returns, which can depend on policy. In this vein, Coate and Morris (1999) demonstrate that dynamic investment considerations can create an endogenous preference for policy stability.

[5]See Gulen and Ion (2015) and Baker, Bloom and Davis (2016) for recent work and overviews.

[6]Empirical evidence aligns with the negative relationship between policy stability and investment in equilibrium. See Julio and Yook (2012); Canes-Wrone and Park (2012, 2014); Gulen and Ion (2015); Jens (2017).

Our analysis follows previous research by demonstrating how policy flexibility can depress private investment via dynamic considerations with the flavor of a *hold-up problem*. However, in contrast to the established literature on hold-up problems, we do not assume politicians are intrinsically interested in expropriating the citizenry's investment (Grout, 1984; Tirole, 1986; Hart and Moore, 1988).[7] Nor do we explicitly aim to propose a solution to the hold-up problem.[8] Instead, we simply show that stability emerging endogenously from supermajority rule can mitigate hold-up problems in policy-dependent private investment.

The supermajority institution we analyze builds upon canonical static settings studied in Krehbiel (1998, 1996) and Brady and Volden (2005). We go beyond such analyses by allowing for dynamics, studying a two-period setting featuring policy persistence. Thus, we add to recent work studying dynamic models of lawmaking. Callander and Krehbiel (2014) demonstrate that supermajority rule encourages legislatures to delegate policymaking to bureaucratic agencies. However, they study discretion delegated to a bureaucratic agency with temporal policy *drift* and do not include private investment, whereas we analyze statutory shifts in policy over time. Callander and Martin (2017) show how the anticipation of policy *decay*, which is Pareto inefficient, can subvert gridlock. Dziuda and Loeper (2018) study a dynamic model of pivotal politics in which legislator preferences evolve over time and show that strategic polarization arises under broad conditions.[9] They analyze an infinite-horizon setting with a binary policy space, whereas we study a two-period model where policies are chosen from a continuum. Unlike the preceding papers, citizen investment occupies a central role in our analysis.

Given our investment interests, our analysis is in the spirit of existing work incorporating some form of investment in U.S. political institutions, such as Gilligan and Krehbiel (1987) and Hirsch and Shotts (2015). These analyses study settings where politicians can invest to improve policy, either via better information or higher quality, and compare the merits of open and closed-rule procedures. Both demonstrate how procedural choices can affect political investment. Conversely, private investment in our model does not affect policy quality and, thus, does not substantially influence the calculi of future politicians choosing whether to alter existing policy. Additionally, in contrast to Hirsch and Shotts (2012) but consistent with many findings regarding policy uncertainty (Baker, Bloom and Davis, 2016), policy flexibility depresses investment in the settings that we study.

[7] Although, see Che and Hausch (1999) for a prominent example studying the hold-up problem in a setting with cooperative investments.

[8] Proposed solutions include vertical integration (Williamson, 1979) and formal and informal contracts (Chung, 1991; Rogerson, 1992).

[9] Also see Dziuda and Loeper (2016).

We add to work studying the political economy of the US presidency,[10] particularly unilateral action. Scholars have analyzed when presidents use unilateral action to circumvent legislative obstruction in canonical models of supermajoritarian policymaking (Howell, 2003; Chiou and Rothenberg, 2014, 2017). They aim to understand how unilateral action depends on unified government and gridlock.[11] We study a related model of fast-track policymaking, but also include dynamic considerations and investment. Our results highlight that expanded unilateral powers can depress policy-sensitive private investment even with executives skilled at supporting the private sector.

Technically, we analyze settings related to recent work building upon Romer and Rosenthal (1979) by allowing intertemporal policy persistence via an endogenous status quo.[12] In one of the settings we study, which allows successive presidents to vary in ideology, our model of the fast-track institution is nearly analogous to a simple version of the model studied in Buisseret and Bernhardt (2017) with a fixed, centrist, veto player. A key difference is that we model policy-dependent citizen investment.

## Strategic Setting

As discussed, we contrast two institutions: a presidential fast-track system, where the president has agenda control and only requires 50 percent approval from the legislature, versus a supermajoritarian alternative, where a minority can maintain the status quo. We examine each institution's performance in a dynamic policymaking environment where policy is made repeatedly over time, enacted policy persists as the new status quo, and citizens can make policy-sensitive private investments.

We compare these systems in two settings. First, we study a world where the underlying policy environment can vary over time, so that society's optimal policy may change. Furthermore, we extend this analysis to allow differences in the investment environment (i) across the two systems, and (ii) between successive presidents. Second, we analyze a setting where the president may be replaced by a challenger with different ideological preferences, for example when a chief executive from one political party is succeeded by a member of another. Integrating the two possibilities into one model, allowing the policy environment and chief executive to change, yields results analogous to studying each in isolation, so we examine them separately for clarity.

Before formalizing each system, we first introduce the fundamental strategic setting. The

[10] See Cameron (2006) for an overview.

[11] Others have studied how unilateral action is shaped by electoral incentives (Judd, 2017) and international conflict (Martin, 2005).

[12] See Baron (1996) for early work with an endogenous status quo.

players consist of a citizen, $C$, and four politicians: a president, $P$; a median legislator, $M$; and two supermajority pivots, $L$ and $R$ (who are superfluous in the fast-track institution). Policymaking occurs over two periods while politicians enact policy in a one-dimensional policy space $X \subseteq \mathbb{R}$. At the beginning of the first period, an exogenous status quo policy $q_1 \in X$ is in place. The enacted first-period policy, possibly $q_1$, persists as the second-period status quo. To ease exposition and reflect policies that are widely agreed to be sufficiently deficient that they attract attention from policymakers, we assume that all players are on the same side of $q_1$. Our fundamental results do not depend on this assumption and we will discuss the consequences of relaxing it.

Each player $i$ has quadratic policy utility and associated ideal point $\hat{x}_i \in X$. Legislators are purely ideological. For convenience, we normalize the median legislator's ideal point to zero, so $\hat{x}_M = 0$. All players value future policy, relative to the present, at the rate $\delta \in (0, 1)$. The dynamic payoff to politician $i$ from the policies $(x_1, x_2)$ is

$$(1-\delta)u_i(x_1) + \delta u_i(x_2). \tag{1}$$

While politicians choose policy, the citizen, $C$, makes a first-period investment decision that generates second-period returns. The citizen cares about policy and investment returns. A key feature is that $C$'s returns are policy dependent to some degree: they deteriorate with the distance between $x_1$ and $x_2$. We capture this feature explicitly by parameterizing $C$'s investment payoff as

$$\beta c - [1 + (x_2 - x_1)^2]\kappa c^2, \tag{2}$$

where the first term reflects $C$'s investment returns and the second term reflects investment costs. The parameter $\beta \geq 0$ is $C$'s marginal benefit from investment, while $\kappa \geq 0$ affects $C$'s marginal cost of investment. Yet, $C$'s effective marginal investment cost is not captured by $\kappa$ alone, as it also depends on the gap between $x_1$ and $x_2$. Thus, $\kappa$ captures non-policy conditions affecting the price of investment. We refer to $\kappa$ as the *contingent marginal investment cost*.

We ignore $C$'s first-period returns in the baseline analysis because they do not affect the key results. Moreover, to streamline the welfare analysis, we do not discount the value of $C$'s investment in the baseline. Thus, $C$'s total payoff from $(x_1, x_2)$ and investment amount $c$ is

$$(1-\delta)u_C(x_1) + \delta u_C(x_2) + \beta c - [1 + (x_2 - x_1)^2]\kappa c^2. \tag{3}$$

Later, in an extension that generalizes the baseline setting by permitting investment parameters to vary across the two institutions, as well as presidents, we include first-period returns

and allow $C$ to discount second-period returns.

Before proceeding, it is helpful to comment on our approach to modeling policy-dependent investment. The citizen's investment payoff in (2) is specified as policy dependent so that marginal investment costs increase with the gap between $x_1$ and $x_2$. Outside of this dependence on policy stability, however, we specify a standard investment function with linear returns and convex costs. We are agnostic about whether particular policies are inherently more favorable for investment. That is, we assume investment returns are not sensitive to the particular locations of $x_1$ and $x_2$. It is certainly possible that some policies are more favorable for investment than others, but we view our approach as a reasonable benchmark. In an extension, we allow for superior investment fundamentals being possible under (i) particular presidents, or (ii) the fast-track institution.

Additionally, in our setting politicians do not internalize the citizen's investment concerns. Our main results are robust to politicians having some degree of concern for private investment, provided these concerns are sufficiently low relative to those of citizens. Substantively, this appears reasonable and our setup can be viewed as a useful simplification in this direction.

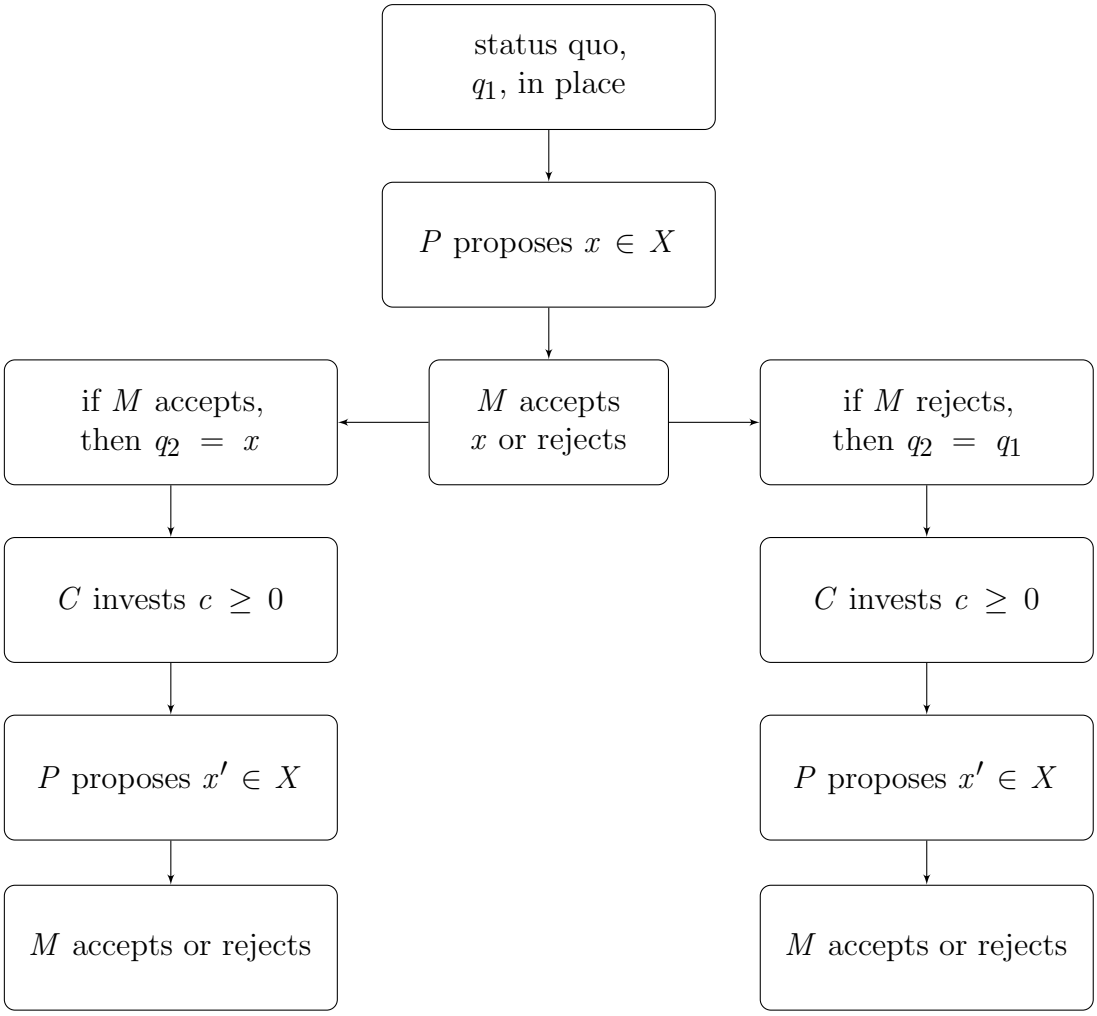
## Presidential Fast-Track Institution

Our model of the presidential fast-track institution aims to capture fundamental features of the system proposed in Howell and Moe (2016). The president has proposal power in each period, offering a policy under a closed rule that is voted on and enacted if it receives support from a simple majority of legislators, represented by the median legislator.[13]

As Figure 1 shows, the first period begins with the status quo, $q_1$, in place and the incumbent president, $P$, in office. Next, $P$ proposes a policy $x \in X$ and the median legislator, $M$, accepts or rejects. If $M$ accepts, then $x$ is enacted in the first period and $q_2 = x$. If $M$ rejects, then $q_1$ is enacted in the first period and $q_2 = q_1$. After the first-period policy is set, the citizen, $C$, chooses investment level $c \geq 0$. First-period payoffs accrue once first-period policy is in place. In the second period, $P$ again proposes a policy that passes if and only if $M$ votes in favor. Once second-period policy is enacted, $C$ receives investment returns and the game ends.

[13] Howell and Moe (2016) suggest that adding another stage in which the legislature can respond to presidential proposals by making its own proposal subject to standard supermajoritarian constraints (including a presidential veto) would temper worries about presidential influence gone astray. However, integrating this option only complicates our analysis without changing the inferences drawn.

Figure 1. Fast-track institution




## Supermajority Institution

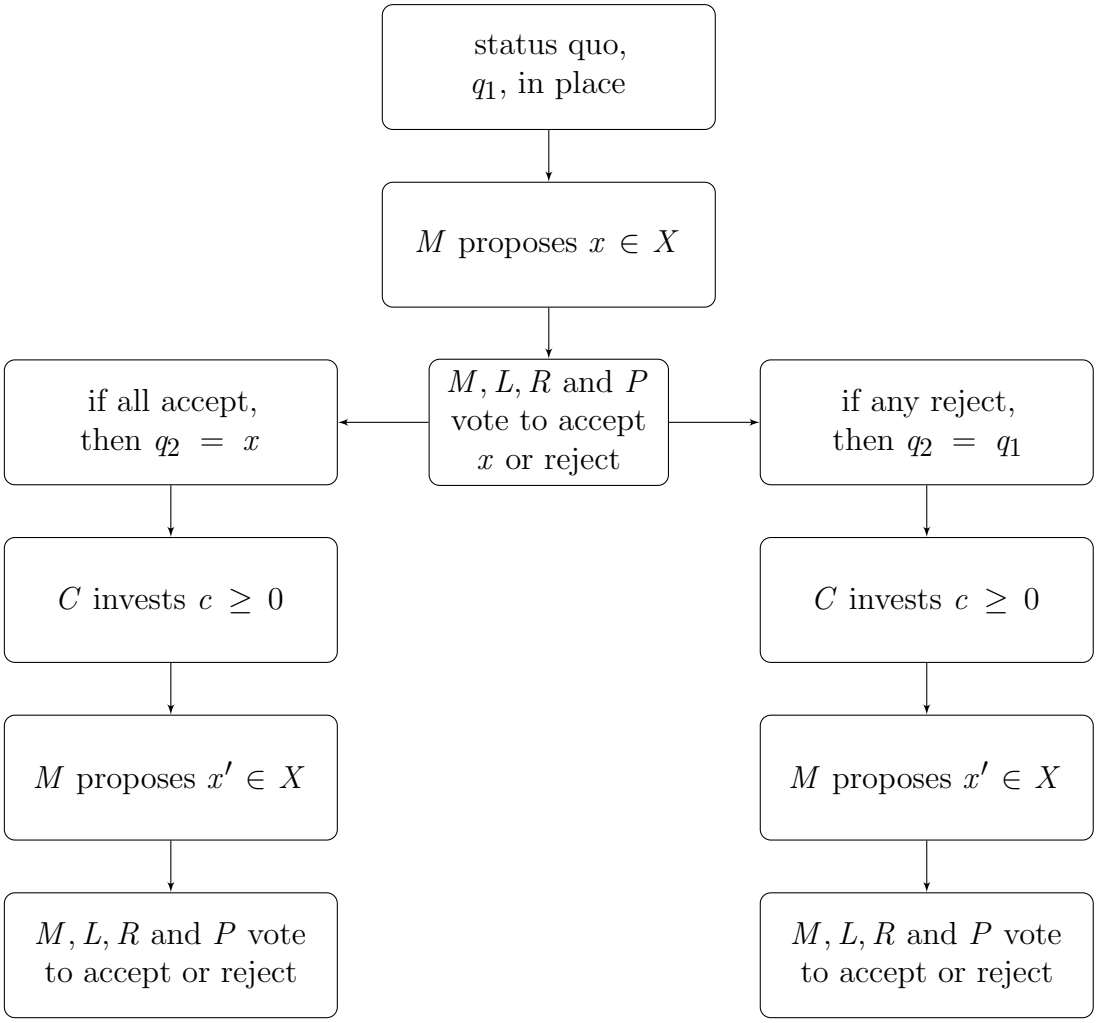
By contrast to fast-track, our stylized supermajority institution assigns proposal power to the legislature, requires a legislative supermajority for approval, and gives the president veto power (see Figure 2).[14] We aim to adhere closely to existing dynamic extensions of the canonical supermajority model, such as Callander and Krehbiel (2014), where $M$ always proposes and the legislature's ideological composition is invariant with time.[15]

At the outset, the first-period status quo, $q_1$, is in place. The median legislator, $M$, proposes a policy $x \in X$. Next, each legislator, as well as the president, votes whether to

[14] Allowing the executive to veto a proposal approved by the median and the legislature to override this action with a supermajority complicates analysis without adding insight.

[15] See Callander and Krehbiel (2014) for discussion about the flexibility of this setup. Additionally, the median legislator's ideology is a robust statistic that plausibly remains fairly stable over time in a large body such as Congress.

Figure 2. Supermajority institution




accept or reject $x$. Votes are cast simultaneously and $x$ passes if and only if it receives support from $M$, $P$, and the needed supermajority pivot, $L$ or $R$. If $x$ passes, then it is enacted and $q_2 = x$. Otherwise, $q_1$ is enacted and $q_2 = q_2$. First-period payoffs materialize and $C$ invests. The legislative sequence of play repeats in the second period with the first-period policy as the status quo. Once the second-period policy is set, $C$ receives her investment return and the game concludes.

# Public-minded President

We first analyze a setting where $P$ is a public-minded policymaker but the legislators are not. To reiterate, this setup reflects a prominent view that presidents are more attuned to national interests than congresspersons (Wilson, 1908; Howell, Jackman and Rogowski, 2013).

Furthermore, we allow changes in underlying conditions to cause today's optimal policy to be suboptimal tomorrow.

There is a state of the world $\omega_t \in X$ in each period $t = 1, 2$ corresponding to the best policy for the citizen, $C$, in period $t$. For simplicity, we study a binary state space $\Omega = \{\underline{\omega}, \overline{\omega}\}$. The optimal first-period policy persists with probability $\alpha \in (0, 1)$, so $Pr(\omega_1 = \omega_2) = \alpha$, and we refer to $\alpha$ as the *stability* of the policy environment. To reflect substantial changes in the underlying policy environment, we assume $\underline{\omega} < 0 < \overline{\omega}$. Throughout, we refer to $\overline{\omega} - \underline{\omega}$ as the *scale* of policy uncertainty. Finally, we streamline the analysis by assuming $\min\{u_M(\underline{\omega}), u_M(\overline{\omega})\} \geq u_M(q_1)$. This assumption is not crucial and we will discuss relaxing it.

The game begins with the realization of $\omega_1 \in \Omega$. Next, first-period policy $x_1 \in X$ is enacted according to the particular institution. The citizen, $C$, observes $x_1$ and then invests $c \geq 0$. Next, $\omega_2 \in \Omega$ is realized and a second-period policy $x_2 \in X$ is enacted. Payoffs accrue and the game ends.

As expressed previously in (3), $C$ cares about policy and investment. In each period, $C$ prefers policies closer to the state: $C$'s period-$t$ policy payoff from $x_t$ is $u_C(x_t; \omega_t) = -(x_t - \omega_t)^2$.

To model $P$ as a public-minded policymaker, $P$ shares $C$'s policy preferences and thus also prefers policies closer to $\omega_t$. In contrast, legislators are purely ideologically motivated, so their respective preferences do not depend on $\omega_t$: each legislator $i$'s ideal policy, $\hat{x}_i$, is fixed across both periods and unrelated to $\omega_t$. Thus, in this setting the president is relatively more public-minded than legislators. To reiterate, this corresponds with literature assuming or asserting that legislators are more parochial than the president.

We characterize equilibrium policies and investment under each institution. Throughout, we study subgame perfect Nash equilibria (SPE) and impose the standard requirement that politicians use weakly undominated voting strategies (Baron and Kalai, 1993; Banks and Duggan, 2006), which ensures they vote as if pivotal. Assume without loss of generality $\omega_1 = \overline{\omega}$. Furthermore, suppose $\overline{\omega} \geq |\underline{\omega}|$, which ensures $\omega_1$ is weakly farther from $M$'s ideal policy than $\omega_2$. Relaxing this assumption makes characterizing equilibrium policies more involved, but preserves main results.[16]

## Fast-track Equilibrium Behavior

To describe fast-track equilibrium behavior, we work backwards from $M$'s second-period voting decision. Because $M$ is purely ideological, she simply compares $x_2$ against $q_2$. Consequently, $\omega_2$ does not affect $M$'s decision: $x_2$ passes if and only if $u_M(x_2) \geq u_M(q_2)$.

[16] See Model Discussion for consequences of relaxing this assumption.

Next, we characterize $P$'s second-period policy choice. Given $q_2$ and $M$'s equilibrium voting behavior, $P$ perfectly anticipates which policies can pass. Additionally, $P$ observes $\omega_2$ before choosing $x_2$. Consequently, $P$ proposes the unique policy closest to $\omega_2$ that $M$ passes.

Proceeding backwards to $M$'s first-period voting decision, $M$ evaluates the expected dynamic payoff of any proposal relative to $q_1$. Given any first-period policy, $M$ perfectly anticipates which policy $P$ will pass in the second period for each realization of $\omega_2$. Combined with beliefs about $\omega_2$, $M$'s expectations determine her expected dynamic payoff for any first period policy. Thus, although $M$ is ideological, she optimally anticipates national considerations to serve her own interests when voting on first-period policy. Accordingly, $M$ votes for any policy yielding an expected dynamic payoff weakly greater than that derived from rejecting and maintaining $q_1$.

At the outset, $P$ perfectly anticipates which first-period policies can pass, as well as their associated expected dynamic payoff. Thus, $P$ proposes the best of these policies.[17] Under our maintained assumptions, $P$ can pass $\omega_1 = \overline{\omega}$ and this is uniquely optimal. To see this, note that if $q_2 = \overline{\omega}$, then $P$ can match $\omega_2$ perfectly because $u_M(\overline{\omega}) \leq u_M(\underline{\omega})$. Moreover, $M$ strictly prefers $x_1 = \overline{\omega}$ because (i) $u_M(\overline{\omega}) > u_M(q_1)$ and (ii) second-period policy is equivalent if either $q_2 = q_1$ or $q_2 = \overline{\omega}$. This is clearly optimal for $P$.

The citizen, $C$, forecasts possible policy changes when investing and faces a straightforward decision problem. In light of anticipated equilibrium policies, $C$ invests to maximize

$$\alpha\Big(\beta c - \kappa c^2\Big) + (1-\alpha)\Big(\beta c - [1 + (\underline{\omega} - \overline{\omega})^2]\kappa c^2\Big), \tag{4}$$

where the first term reflects no policy change in equilibrium if $\omega_1 = \omega_2$ and the second term reflects $C$ anticipating policy to change from $\omega_1 = \overline{\omega}$ to $\underline{\omega}$ if $\omega_1 \neq \omega_2$. The unique solution to (4) is

$$c_f = \frac{\beta}{2\kappa[1 + (1-\alpha)(\overline{\omega} - \underline{\omega})^2]}. \tag{5}$$

Inspecting (5) reveals that more favorable investment fundamentals, higher $\beta$ or lower $\kappa$, result in higher investment, as expected. Furthermore, (5) shows how policy inertia affects $C$'s equilibrium investment. In particular, investment decreases as either (i) the stability of the policy environment, $\alpha$, decreases, or (ii) the scale of policy uncertainty, $\overline{\omega} - \underline{\omega}$, increases.

Lemma 1 summarizes the unique SPE behavior under fast-track. All proofs are in the Online Appendix.

[17] In general, it is possible that $q_1$ is $P$'s optimal first-period proposal.

**Lemma 1.** *Consider the public-minded president setting. The unique SPE behavior under the fast-track institution is: (i) P proposes $x_1 = \overline{\omega}$ in the first period, and proposes $x_2 = \omega_2$ in the second period, and (ii) C invests $c_f = \frac{\beta}{2\kappa[1+(1-\alpha)(\overline{\omega}-\underline{\omega})^2]}$.*

## Supermajority Equilibrium Behavior

Next, we study equilibrium behavior under supermajority rule. The political interaction is similar to that of fast-track, with a key difference that passing policy requires approval from every political actor: $M$, $P$, as well as the two supermajority pivots, $L$ and $R$.

In the second period, each politician $i \in \{M, L, R, P\}$ votes for any policy satisfying $u_i(x) \geq q_2$. Specifically, $P$'s voting behavior depends on the realization of $\omega_2$, but each legislator votes ideologically, independent of $\omega_2$. After $\omega_2$ is realized, the set of passable policies equals the intersection of the individual acceptance sets. Consequently, there is a gridlock interval of the classic form and $q_2$ will not change if located in this interval. Because $\omega_2$ is known when $M$ proposes, $M$ simply chooses its optimal passable policy given $q_2$ and $\omega_2$. Therefore, any first-period policy, which persists as $q_2$, combines with expectations about $\omega_2$ to pin down each player's expected second-period policy payoff.

Politicians account for these expectations when making their first-period voting decision. They support any policy providing an expected dynamic payoff superior to that of $q_1$. Anticipating which policies pass, $M$ proposes its optimal passable policy.

Under the assumption that $u_i(0) \geq u_i(q_1)$ always holds for each politician $i$, the unique SPE behavior is for $M$ to propose 0 in both periods.[18] To see this, notice that 0 passes in the second period if either $q_2 = q_1$ or $q_2 = 0$. It is immediate that 0 provides every politician with a greater expected dynamic payoff than $q_1$. Because $\hat{x}_M = 0$, proposing 0 in both periods is clearly optimal for $M$.

Anticipating equilibrium political behavior, where policy is perfectly stable over time, $C$ invests to maximize $\beta c - \kappa c^2$. Consequently, $C$'s equilibrium investment under the supermajority institution is

$$c_s = \frac{\beta}{2\kappa}. \tag{6}$$

Comparing (6) to (5) reveals $c_s > c_f$, as $\alpha > 0$ and $\underline{\omega} \neq \overline{\omega}$. Thus, policy stability arising from equilibrium play under supermajority induces higher investment.

Lemma 2 summarizes the unique SPE behavior under supermajority rule.

[18] See Model Discussion for why this assumption is not crucial for our main results.

**Lemma 2.** *Consider the public-minded president setting. The unique SPE behavior under the supermajority institution is: (i) M proposes* 0 *in both periods, and (ii) C invests* $c_s = \frac{\beta}{2\kappa}$.

## Comparison of Citizen Welfare

We now compare equilibrium citizen welfare. Under fast-track, $P$ matches the state in each period. Thus, $C$'s equilibrium policy utility is zero and citizen welfare is

$$\alpha(\beta c_f - \kappa c_f^2) + (1-\alpha)\Big(\beta c_f - [1 + (\overline{\omega} - \underline{\omega})^2]\kappa c_f^2\Big). \tag{7}$$

In the supermajority institution, $M$ enacts 0 in both periods and equilibrium citizen welfare is

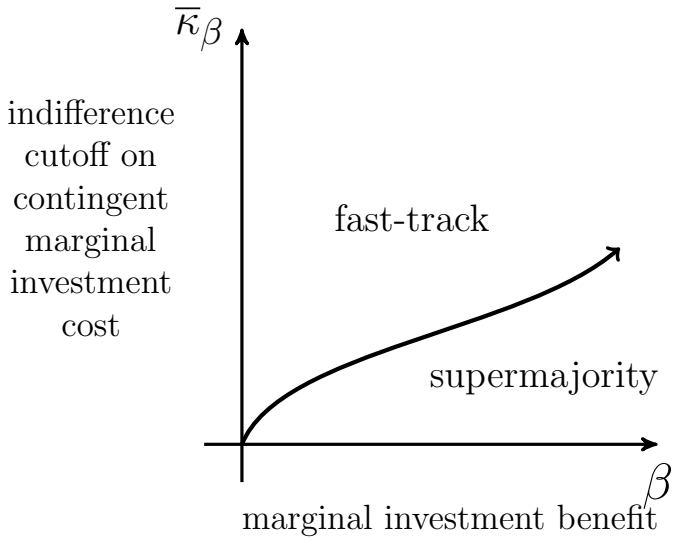
$$-(1-\delta)\overline{\omega}^2 - \delta[\alpha\overline{\omega}^2 + (1-\alpha)\underline{\omega}^2] + \beta c_s - \kappa c_s^2. \tag{8}$$

Using (5) to substitute for $c_f$ in (7), and (6) to substitute for $c_s$ in (8), we solve for the conditions under which $C$ strictly prefers supermajority rule. If the policy environment is perfectly stable, $\alpha = 1$, or if investment yields no positive returns, $\beta = 0$, then fast-track is always superior. On the other hand, Proposition 1 shows that positive investment returns, $\beta > 0$, and an unstable policy environment lead $C$ to strictly prefer supermajority rule if and only if the contingent marginal investment cost, $\kappa$, is sufficiently low.

**Proposition 1.** *Consider the public-minded president setting. If there are positive returns to investment,* $\beta > 0$*, then there exists a cutpoint* $\overline{\kappa}_\beta > 0$ *on the citizen's contingent marginal investment cost,* $\kappa$*, such that the citizen strictly prefers supermajority rule if and only if* $\kappa < \overline{\kappa}_\beta$*. Furthermore,* $\overline{\kappa}_\beta$ *strictly increases in* $\beta$*.*

As noted, and unsurprisingly, if $\beta = 0$, then fast-track is superior to supermajority rule. As the citizen cannot profitably invest to create additional gains that depend on policy stability, gridlock produces no benefits and the flexibility enjoyed by a public-minded president under fast-track dominates. It is important to note, however, that increasing $\beta$ does not mechanically improve welfare under supermajority. Investment fundamentals change in exactly the same way under both institutions, but the policy stability endogenously arising under supermajority dampens private investment's marginal cost relative to fast-track. Figure 3 illustrates the conditions in which fast-track or supermajoritarianism is preferred per Proposition 1.

Figure 3. Supermajority vs. fast-track (public-minded president)




Note: Proposition 1 is illustrated by plotting the contingent marginal investment cost $\overline{\kappa}_\beta$ that makes the citizen indifferent between supermajority and fast-track, as a function of marginal investment benefit, $\beta$.

The indifference cutpoint $\overline{\kappa}_\beta$ has an explicit characterization. This allows us to obtain comparative statics on the restrictiveness of the conditions for supermajority superiority. First, $\overline{\kappa}_\beta$ decreases in the policy environment's stability, $\alpha$. Second, if we impose a symmetry assumption on the state space, so that $\overline{\omega} = -\underline{\omega}$, then $\overline{\kappa}_\beta$ decreases in the scale of policy uncertainty, $\overline{\omega} - \underline{\omega}$.

**Proposition 2.** *Consider the public-minded president setting. The conditions for the citizen to prefer supermajority rule are more restrictive as the following increase:*

1. *the stability of the policy environment, $\alpha$, or*
2. *the scale of policy uncertainty, given $\overline{\omega} = -\underline{\omega}$.*

Increasing $\alpha$ affects citizen welfare in two ways. First, it increases the probability that $\omega_2 = \overline{\omega}$. This effect weakly decreases $C$'s expected policy payoff under the supermajority institution because $\overline{\omega}$ is weakly farther than $\underline{\omega}$ from the second-period supermajority policy, $\hat{x}_M = 0$. Second, greater policy stability increases private investment under fast-track. Together, these effects increase the attractiveness of fast-track relative to supermajority rule.

Increasing the scale of policy uncertainty, $\overline{\omega} - \underline{\omega}$, initially has unclear consequences due to two countervailing effects: $C$'s expected policy payoff decreases under supermajority rule, but $C$'s fast-track investment also decreases. Although it is not *a priori* obvious which effect dominates, our formal analysis yields a clear relationship. By Proposition 2, the policy loss

under supermajority is more severe than the foregone fast-track investment, and consequently fast-track becomes more attractive relative to supermajority.

## Model Discussion

Above, $P$ perfectly shares $C$'s policy preferences but legislators do not. As noted, this assumption aligns with a prominent view that presidents are more public-minded than congressmen. Our stark version of this distinction highlights that fast-track can be less appealing than supermajority even under benign assumptions about presidential interests. The welfare consequences of reducing $P$'s public-mindedness depend on assumptions about $P$'s parochial preferences, but institutional welfare differences decrease under broad conditions. Later on, we analyze a setting with *presidential particularism*, in which presidents are not more public-minded than legislators.

Before proceeding to further analyze investment fundamentals, we discuss three simplifying assumptions maintained thus far. In each instance, relaxing these assumptions does not change the inferences drawn from our baseline analysis.

First, what if $q_1$ is not so bad for $M$? A general feature important for our results is that supermajority produces more policy stability than fast-track. If $M$ is not so dissatisfied with the first-period status quo, does this feature still hold? Yes. To see this, first note that if $q_1 \in [\hat{x}_L, \hat{x}_R]$, then $q_1$ will be inside the second-period gridlock interval and in both periods any policy change will be opposed by at least one of $L$ or $R$. Thus, the unique SPE policies under supermajority are $x_1^* = q_1$ and $x_2^* = q_1$.

Alternatively, suppose $q_1 \notin [\hat{x}_L, \hat{x}_R]$ and at least one of $L$ or $R$ prefers $q_1$ to $\hat{x}_M$. Supermajority produces full policy stability under the empirically reasonable assumptions that $\hat{x}_L \leq \underline{\omega}$ and $\overline{\omega} \leq \hat{x_R}$, which amount to assuming the supermajority pivots bound socially optimal policies. In both cases, full policy persistence ensures that $C$'s equilibrium investment equals $c_s$. If this enacted policy is distinct from the baseline setting, then the particular parameters under which supermajority is superior may differ, but a result analogous to Proposition 1 holds.

Second, what if $\omega_1$ is better for $M$ than the other possible state of the world? Under fast-track, $P$ has an incentive to preserve some flexibility in the first period by choosing a policy farther from $\hat{x}_M$ than $\omega_1$. Thus, $P$ trades off some first-period policy utility to maintain slack to achieve better second-period policy. Although strategically interesting, this behavior does not qualitatively affect our main welfare results, as expected policy change is still larger under fast-track.

Additionally, assuming $\omega_1 \geq |\omega_2|$ combines with our assumption on $q_1$ to produce $P$

always matching the state in equilibrium. We focus on these conditions in part because they yield stark behavior clearly illustrating key tradeoffs for citizen investment and welfare. Other arrangements can force $P$ to optimally propose fast-track policies not perfectly matching the state, but as close as the legislature will tolerate. Key welfare insights remain.

Third, what if $P$ places some value on citizen investment? Certainly, fast-track is weakly preferred if $P$ and $C$ weight investment relative to policy identically. Our main results go through, however, if $P$ values private investment to a sufficiently lower degree than policy. Therefore our baseline analysis can be viewed as a convenient normalization for a world where citizens place sufficiently greater value on their private investment returns vis-à-vis policy than do politicians.

## Presidential Competence — Effects and Variance

Thus far, we have assumed that investment fundamentals, $\beta$ and $\kappa$, are unaffected by whether the president has fast-track authority or the legislature makes policy via supermajority. Beyond providing a useful benchmark, this assumption captures the possibility that politicians adjust their effort and attention toward facilitating private investment depending on their influence over policy. Under fast-track for example, legislators may slack off in fostering friendly investment conditions, while the president may exert more effort. Under supermajoritian rule this behavior could be reversed.

Several objections could be raised. For one, our assumption reflects the case where these competing forces balance each other, so that investment fundamentals are equivalent. Yet, some scholars suggest that presidents create more favorable investment conditions because they are less parochial than legislators. Furthermore, we have assumed that all presidents are equally able to foster investment. Clearly, this is a strong assumption, as it is widely agreed that presidents vary in their competence on many dimensions.[19]

To address these concerns, we generalize the baseline setting in three ways. First, we assume investment conditions are always weakly more favorable under fast-track, consistent with (i) presidents being better at facilitating investment than legislators, and (ii) presidential effort being greater and legislative effort lower relative to a supermajoritarian world. Second, we allow fast-track investment parameters to vary across time to capture heterogeneous presidential competence. Finally, we allow investment to yield first-period returns, which reflects citizens integrating short-term and long-term investment considerations.

Recall that investment fundamentals are the marginal investment benefit $\beta$, which reflects efficiency, and $\kappa$, the contingent marginal investment costs. To capture the possibility that

[19] See Neustadt (1960) for the canonical work.

some presidents provide a greater marginal benefit from investment, we assume there are *competent* and *incompetent* presidents. To analyze the case most favorable to fast-track, we assume the president is competent in the first period and remains competent with probability $\eta$ in the second. Substantively, we can think of $\eta$ as capturing changes in presidential competence resulting from presidential turnover.

Competent presidents provide better investment fundamentals, increasing the efficiency of investment under fast-track by $\tau > 0$. Specifically, private returns from investing $c$ are scaled by $\beta + \tau$ in any period a competent president holds office under fast-track. On the other hand, incompetent presidents provide the same investment fundamentals as legislators. Thus, private returns from investing $c$ are scaled by $\beta$ if the president is incompetent under fast-track, which is equivalent to supermajority rule.

These modifications address the aforementioned restrictions of the benchmark setup. Fast-track investment parameters are always at least as favorable as those of supermajority rule; the presence of competent presidents introduces the possibility that fast-track provides a strictly more favorable investment environment; and $C$ internalizes present and future returns when investing. We assess whether these changes alter the principal inferences drawn from the baseline setting and show that none affects the main conclusion of Proposition 1.

Equilibrium policy choices under fast-track match those of the benchmark setting, as the president matches in the state in both periods, so $C$'s equilibrium fast-track investment is

$$c'_f = \frac{\beta + \tau[1 - \delta(1-\eta)]}{2\kappa(1 + \delta(1-\alpha)(\underline{\omega} - \overline{\omega})^2)}, \tag{9}$$

We see that $c'_f$ strictly increases in the investment advantage from a competent president, $\tau$; stability of the policy environment, $\alpha$; probability of electing a competent president, $\eta$; and marginal investment benefit, $\beta$. On the other hand, $c'_f$ strictly decreases in the scale of policy uncertainty, $\overline{\omega} - \underline{\omega}$, and emphasis on the future, $\delta$. Using (9), $C$'s equilibrium welfare under fast-track simplifies to $\frac{c'_f}{2}(\beta + \tau[1 - \delta(1-\eta)])$.

Under supermajority rule, equilibrium behavior and welfare are identical to the setting with homogeneous competence.

Comparing equilibrium citizen welfare across institutions yields a result which parallels Proposition 1, again showing that conditions under which citizens strictly prefer supermajority rule always exist if investment fundamentals are sufficiently favorable.

**Proposition 3.** *Consider the public-minded president setting with heterogeneous competence. If there are positive returns to investment, $\beta > 0$, then there exists a cutpoint $\underline{\beta} > 0$ on the marginal investment benefit and a cutpoint $\overline{\kappa}^1_\beta > 0$ on the conditional marginal investment*

*cost such that the citizen strictly prefers the supermajority institution if and only if* $\beta > \underline{\beta}$ *and* $\kappa < \overline{\kappa}^1_\beta$.

Proposition 3 shows Proposition 1 is not a knife-edge result. In the current setting, the president shares the citizen's policy preferences and provides a fundamentally more favorable investment environment. Yet, it would be erroneous to infer that the fast-track institution must be better for citizen welfare. Supermajority rule can be superior for citizen welfare even if the president provides fundamental investment advantages.

Proposition 3 is driven by the same forces as Proposition 1. It can be visualized by shifting the curve in Figure 3 rightward. The president's desire and capacity to adapt to changes in the policy environment endogenously creates policy instability under fast-track, depressing citizen investment. This occurs even though investment fundamentals are weakly superior under fast-track. Although the fast-track's policy flexibility has virtues, its chilling effect on private investment can be so severe that citizens prefer supermajority gridlock.

Our sharp scope conditions allow us to characterize how various features make supermajority rule more, or less, favorable. Analyzing comparative statics, we find that the cutoff on marginal investment benefit, $\underline{\beta}$, increases with the presidential investment benefit, $\tau$; the probability of electing a competent president, $\eta$; and the stability of the policy environment, $\alpha$. Conversely, it decreases with the scale of policy uncertainty, $\overline{\omega} - \underline{\omega}$. The cutoff on the conditional marginal investment cost, $\overline{\kappa}^1_\beta$, increases with $\beta$, but decreases with $\tau$, $\eta$, $|\overline{\omega} - \underline{\omega}|$, $\alpha$.

To characterize how these changes affect the relative attractiveness of fast-track versus supermajority, we must examine when $\underline{\beta}$ and $\overline{\kappa}_\beta$ move together. Specifically, conditions for supermajority rule become more favorable when $\underline{\beta}$ decreases and $\overline{\kappa}^1_\beta$ increases. Proposition 4 collects the preceding observations and presents their consequences for supermajority superiority.

**Proposition 4.** *Consider the public-minded president setting with heterogeneous competence. The conditions for the citizen to prefer supermajority rule are more restrictive if any of the following features increase:*

1. *the investment benefit from a competent president,* $\tau$*;*
2. *the probability of electing a competent president,* $\eta$*; or*
3. *the stability of the policymaking environment,* $\alpha$*.*

The two comparative statics in Proposition 4 concerning presidential competence, on $\tau$ and $\eta$, work entirely through changes in fast-track private investment, which increases

with either feature, because supermajority investment is unaffected. Neither feature affects the distribution of policy outcomes under either institution. Thus, increasing $\tau$ or $\eta$ makes fast-track more attractive because citizen welfare improves under fast-track and remains constant under supermajority.

Intuitively, increasing $\tau$ increases private investment under fast-track by partially offsetting the lower level of policy persistence. Consequently, supermajority superiority requires even better investment fundamentals. Increasing the probability of electing a competent president has a similar effect because the citizen is more confident that the second-period president will be able to mitigate the downside of policy change.

Finally, the comparative static on the stability of the policymaking environment, $\alpha$, is analogous to Proposition 2. More stable conditions make supermajority relatively less attractive.

# Presidential Particularism

We now study a setting in which presidents are not innately more public-minded than legislators. Our setup is in the spirit of work questioning whether presidents successfully remain above the fray and instead contending they cater to particular interests (Kriner and Reeves, 2015). It is also consistent with popular and scholarly depictions of chief executives as having different ideologies and policy agendas.

In the following analysis, citizens and presidents continue to evaluate policy spatially, but policy preferences are now fixed over time.[20] Therefore we no longer use the state of the world to summarize policy preferences, instead we simply used fixed ideal points.

The key departure from the public-minded setting is that preferences can vary between presidents. To capture possibly consequential presidential turnover, where the new office-holder's preferences differ from the incumbent's, we denote the first-period president as $P_1$ and denote the second-period president as $P_2$. Specifically, we incorporate ideological heterogeneity by allowing presidents to have one of two ideal points, $\underline{x}$ and $\overline{x}$, and we assume that $P_2$'s ideal point differs from $P_1$'s ideal point with probability $\pi \in (0, \frac{1}{2})$. That is, $Pr(\hat{x}_{P_1} \neq \hat{x}_{P_2}) = \pi$.

Substantively, this environment reflects a world where presidents vary in their ideology and hold office for relatively short periods of time. In practice, $\hat{x}_{P_1}$ and $\hat{x}_{P_2}$ may differ for one of two reasons. First, $P_2$ could be a challenger successfully defeating $P_1$ with probability $\pi$ in an election. Alternatively, $P_1$ may be term limited in the first period and, therefore, $P_2$

[20]The intermediate settings, e.g. fixed presidential preferences and varying citizen preferences, yield analogous tradeoffs and takeaways without additional insight. We bypass them for brevity.

is the newly elected officeholder.

As in our baseline public-minded president setting, all players receive policy payoffs in both periods and $C$ reaps investment returns in the second period. Legislator preferences are identical to the previous two settings. For the first-period president, $P_1$, the policy sequence $(x_1, x_2)$ provides a dynamic payoff analogous to (1) with $P_1$'s ideal point fixed at $\hat{x}_{P_1}$ in both periods.[21] Additionally, $C$ receives an expected dynamic payoff analogous to the expression in (3), with $C$'s ideal point fixed at $\hat{x}_C$ in both periods.

To focus on salient features and reflect party turnover, we assume possible presidential ideologies are symmetric about $\hat{x}_M = 0$, so $\underline{x} = -\overline{x}$. Moreover, the supermajority pivots, $\hat{x}_L$ and $\hat{x}_R$, are symmetric about $\hat{x}_M$ and more extreme than the president. Consequently, $\hat{x}_L < \underline{x} < 0 < \overline{x} < \hat{x}_R$ and $\hat{x}_L = -\hat{x}_R$. Substantively, this ordering reflects the empirical regularity that the president's ideology is often skewed relative to the median legislator.[22]

We ease discussion by assuming $u_L(\overline{x}) > u_L(q_1)$, and $u_R(\underline{x}) > u_R(q_1)$.[23] Finally, to focus on the more difficult case, we assume $\hat{x}_C = \hat{x}_{P_1}$.

We now compare fast-track and supermajority equilibrium behavior and assess welfare implications.

## Fast-track

In this setting, the presidential fast-track institution is closely related to a special case of the model studied by Buisseret and Bernhardt (2017) with a fixed veto player, to which we add private citizen investment. Accordingly, we briefly explain equilibrium behavior and encourage interested readers to see Buisseret and Bernhardt (2017) for more details.

Working backwards, equilibrium second-stage voting behavior is analogous to the public-minded president setting. $M$ compares policy against $q_2$ and votes accordingly. $P_2$ then proposes the policy closest to $\hat{x}_{P_2}$ that $M$ accepts. Continuing backwards, first-period voting behavior is also analogous to the preceding setting: $M$ supports policies providing weakly greater expected dynamic payoffs than $q_1$.

The considerations underlying $P_1$'s first-period policy choice are distinct from the public-minded setting. Specifically, $P_1$ anticipates the possibility of ideological turnover, that is $\hat{x}_{P_1} \neq \hat{x}_{P_2}$, and faces a trade-off: more favorable policy today against more favorable policy tomorrow. In equilibrium, $P_1$ balances these incentives by moderating first-period policy towards $M$ to constrain $P_2$, who may be ideologically opposed to $P_1$. Notably, this trade-off is

[21] The dynamic payoff for $P_2$ is analogous, but strategically unimportant.

[22] There is some empirical evidence that presidents are occasionally extreme relative to supermajority pivots. Such an ordering complicates our analysis, but does not qualitatively affect the main results.

[23] This assumption is not crucial, for reasons similar to those discussed earlier in the public-minded president setting.

present only if $\overline{x} - \underline{x}$ is large enough, as otherwise $P_1$ cannot profitably constrain $P_2$. We focus on when this trade-off exists, both in light of evidence that presidents from different parties have substantial ideological differences and to highlight that the endogenous moderation emerging under fast-track does not eliminate the possibility that supermajority provides greater social welfare.[24]

To be precise, the unique SPE behavior under our maintained assumptions is: (i) $P_1$ successfully proposes $x_1^* = \hat{x}_{P_1}(1 - 2\delta\pi)$ in the first period, (ii) $P_2$ passes $x_1^*$ in the second period if $\hat{x}_{P_2} = \hat{x}_{P_1}$, and $P_2$ passes $-x_1^*$ otherwise, and (iii) $C$ invests

$$c_f'' = \frac{\beta}{2\kappa[1 + \pi(2x_1^*)^2]}. \tag{10}$$

Notably, $C$'s fast-track investment can differ from the public-minded setting under analogous fundamentals because $P_1$ endogenously moderates policy in the current setting. To facilitate direct comparison across settings, assume (i) the public-minded setting is symmetric, so that $\underline{\omega} = -\overline{\omega}$, and (ii) the scope of uncertainty is the same across settings, so $\overline{\omega} = \overline{x}$. Finally, note that $\pi$ is the analogue to $1 - \alpha$ from the previous setting. Under these conditions, $C$'s equilibrium fast-track investment is strictly greater in the particularistic president setting if $\pi = 1 - \alpha$.

## Supermajority Rule

Under supermajority, equilibrium behavior is identical to the public-minded president setting. Specifically, $M$ enacts 0 in both periods, and $C$ invests $c_s = \frac{\beta}{2\kappa}$. As in the previous setting, $C$ invests more under supermajority than fast-track.

## Welfare Comparison

Under fast-track, using (10) to simplify $C$'s equilibrium welfare yields

$$(1 - \delta)u_C(x_1^*) + \delta\Big(\pi u_C(-x_1^*) + (1 - \pi)u_C(x_1^*)\Big) + \frac{\beta}{2}c_f''. \tag{11}$$

Under supermajority, $C$'s equilibrium welfare simplifies to

$$u_C(0) + \frac{\beta^2}{4\kappa}. \tag{12}$$

[24] If this trade-off is not present, then results are analogous to the public-minded president setting.

By substituting for $c_f''$ in (11), Proposition 5 characterizes when $C$ strictly prefers supermajority rule.

**Proposition 5.** *Consider the setting with heterogeneous presidential ideology. If there are positive returns to investment, $\beta > 0$, then there exists a cutpoint $\tilde{\kappa}_\beta > 0$ on the contingent marginal investment cost such that the citizen strictly prefers supermajority rule if and only if $\kappa < \tilde{\kappa}_\beta$.*

As in the public-minded setting, fast-track dominates if investment is infeasible. Unlike the previous setting, however, $P_1$ does not choose $C$'s ideal policy in each period. Yet, $P_1$ does enact $C$'s dynamically optimal first-period policy because $\hat{x}_{P_1} = \hat{x}_C$. Thus, $C$ always prefers the fast-track institution if $\beta = 0$. If investment yields returns, however, then $C$ prefers supermajority if $\kappa$ is low enough. Since results are analogous, see Figure 3 for an illustration of Proposition 5's implications.

The welfare comparison in Proposition 5 is analogous to those of Propositions 3 and 1. In both settings, $C$'s welfare consists of utility from policy and investment. In the public-minded setting, the state of the world is $C$'s ideal policy in each period. Although $C$'s ideal policy is now stable over time, the spatial interpretation is equivalent.

Next, Proposition 6 characterizes how the conditions for supermajority's superiority change with the environment.

**Proposition 6.** *Consider the setting with heterogeneous presidential ideology. The conditions for the citizen to prefer supermajority rule are more restrictive as either:*

1. *the probability of ideological turnover, $\pi$, decreases; or*

2. *the presidential ideology gap, $\overline{x} - \underline{x}$, expands symmetrically about the median legislator.*

The effect of $\pi$, the probability of ideological turnover, is not obvious at first glance, but our analysis shows that more turnover favors supermajority. This reflects the net effect of several forces. First, increasing $\pi$ causes $P_1$ to propose more moderate policy because there is a greater threat that $P_2$ is ideologically opposed. This decreases $C$'s ex ante policy payoff from fast-track and, in turn, shrinks fast-track's policy advantage relative to supermajority rule. Second, increasing $\pi$ has an ambiguous effect on $C$'s equilibrium investment returns because policy persistence decreases but the amount of policy change that will arise also decreases. Thus, while the total impact of increasing $\pi$ on $C$'s fast-track welfare is unclear without our formal analysis, per Proposition 6 greater turnover makes supermajority rule relatively more attractive.

The second comparative static in Proposition 6 shares the same logic as the result from Proposition 2 concerning the scale of policy uncertainty in the public-minded president setting. Shrinking the ideological gap between potential presidents decreases the policy advantage of fast-track, which outweighs the increase in fast-track investment also resulting from this change. Substantively, supermajority rule is more attractive when ideological polarization is lower.

# Conclusions — Societal Welfare, Political Structure, and Private Investment

There are long-standing concerns about allowing parochial legislators to address societal problems. Such concerns have generated much discussion about whether a less constrained executive might improve welfare. Yet, our analysis — starting from one prominent proposal to strengthen the president — suggests no simple affirmative or negative answer to whether we are better-off with a weaker or a stronger president. Rather, in a world where citizen-investment is relevant, there are broad conditions under which society is better served by a supermajoritarian separation-of-powers setup. These results hold even if we accept the premise that presidents are more public-regarding than their legislative counterparts and otherwise analyze contexts representing charitable cases for delegating authority to the chief executive. The investment benefits generated by policy stability arising endogenously from supermajoritarian institutional rules can be sufficiently welfare enhancing that they dominate the appeal of strengthening the president.

Our analysis comparing fast-track against supermajority rule produces results that are largely robust and go beyond simply acknowledging that political volatility can depress politically-sensitive investment. The general inference that strengthening presidential influence can backfire on society if we assume (i) private investment can supplement policy and (ii) policy persistence is beneficial for inducing investment, holds in many contexts and for assumptions about preferences, information, and investment fundamentals that are in line with prominent substantive work. Varying the stability of the policy environment, the scale of policy uncertainty, presidential competence or ideology, and the sensitivity of investment to specific actions all condition the restrictiveness of conditions where a supermajoritarian system is preferable. Yet, they fail to undermine our basic finding about presidential influence.

Thus, our scope conditions for when supermajority rule is superior to fast-track, even when fundamentals appear favorable for the latter, allow us to go beyond simply concluding that "it depends" which institutional framework is better. Rather, we provide characterizations,

explore underlying logic, and offer comparative statics demonstrating how these scope conditions depend on changes in substantive features that are part of popular and scholarly real world debates.

Admittedly, our model can be critiqued as not incorporating every implication of a stronger presidential system. Such arrangements could produce larger government presence in society, which is not well-captured in our analysis but is feared by many who oppose strengthening the chief executive, as well as the desire of those fretting about the unwillingness of government to address societal problems. Nor do we integrate the possibility that strengthening the presidency could facilitate the emergence of authoritarian regimes. Future research could build such considerations into a dynamic framework.

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# A Proofs

**Proof of Lemma 1.**

PROOF. Consider the fast-track institution in the public-minded president setting and assume $\omega_1 = \overline{\omega}$. Let $\sigma$ denote an SPE. In the second period, $M$ accepts any proposal $x_2$ such that $u_M(x_2) \geq u_M(q_2)$. Thus, $\sigma$ must be equivalent to a strategy profile in which $P$ proposes its optimal acceptable policy in the second period. Because $u_M(\overline{\omega}) > u_M(q_1)$ and $u_M(\underline{\omega}) > u_M(q_1)$, if $M$ rejects $x_1$ then $P$ passes $x_2 = \underline{\omega}$ for $\omega_2 = \underline{\omega}$ and otherwise passes $x_2 = \overline{\omega}$. Therefore $M$'s continuation value from rejecting any first-period proposal is $\alpha u_M(\overline{\omega}) + (1-\alpha)u_M(\underline{\omega})$. Next, if $M$ accepts $x_1 = \overline{\omega}$, then $u_M(\overline{\omega}) \leq u_M(\underline{\omega})$ implies that $P$ passes $x_2 = \underline{\omega}$ if $\omega_2 = \underline{\omega}$ and otherwise passes $x_2 = \overline{\omega}$. Consequently, $M$'s continuation value from accepting $x_1 = \overline{\omega}$ equals $M$'s continuation value of rejecting. Since $u_M(\overline{\omega}) > u_M(q_1)$, $M$ accepts $x_1 = \overline{\omega}$. Thus, the sequence of enacted policies under $\sigma$ is such that $P$ successfully proposes $x_1 = \overline{\omega}$ and $x_2 = \omega_2$.

Finally, we characterize $C$'s equilibrium investment under fast-track. Because $x_1 = \overline{\omega}$ and $x_2 = \omega_2$, $C$ receives her ideal policy in each period and chooses $c$ to maximize

$$\alpha(\beta c - \kappa c^2) + (1-\alpha)\Big(\beta c - [1 + (\overline{\omega} - \underline{\omega})^2]\kappa c^2\Big). \tag{A.1}$$

Solving the first order condition yields $c_f = \frac{\beta}{2\kappa[1+(1-\alpha)(\overline{\omega}-\underline{\omega})^2]}$, which uniquely maximizes (A.1) because it is strictly concave. □

**Proof of Lemma 2.**

PROOF. Consider the supermajority institution in the public-minded president setting. Assume $\omega_1 = \overline{\omega}$ without loss of generality. Let $\sigma$ denote an SPE. In period 2, each voter $i \in \{M, L, R, P\}$ accepts any proposal $x_2$ satisfying $u_i(x_2) \geq u_i(q_2)$. Second-period policy under $\sigma$ is equivalent to $M$ proposing its optimal acceptable policy, given $q_2$. Since $u_i(0) > u_i(q_1)$ always holds for each $i \in \{M, L, R, P\}$, it follows that if some $i$ rejects $x_1$ then $M$ successfully passes $x_2 = 0$ regardless of the realized $\omega_2$. Therefore, $i$'s continuation value from rejecting a proposal is $u_i(0)$. Next, if all $i$ accept $x_1 = 0$, then $q_2 = 0$ and $M$ successfully passes $x_2 = 0$ in period 2. Then, $i$'s continuation value from accepting $x_1 = 0$ equals $i$'s continuation value of rejecting. Thus, each $i \in \{M, L, R, P\}$ accepts $x_1 = 0$ because $u_i(0) > u_i(q_1)$. The sequence of enacted policy under $\sigma$ must be $x_1 = 0$ and $x_2 = 0$.

Next, we characterize $C$'s equilibrium investment. Because the sequence of policies is

$x_1 = 0 = x_2$, $C$ chooses $c$ to maximize

$$\beta c - \kappa c^2. \tag{A.2}$$

Solving the first order condition yields $c_s = \frac{\beta}{2\kappa}$, which uniquely maximizes (A.2) because it is strictly concave. □

To facilitate the following proofs, define the following:

$$\Delta = \underline{\omega} - \overline{\omega}, \tag{A.3}$$

$$\Gamma = \tau[1 - \delta(1 - \eta)], \text{ and} \tag{A.4}$$

$$\Upsilon = \delta(1 - \alpha)\Delta^2. \tag{A.5}$$

**Proof of Proposition 1.**

PROOF. Consider the public-minded president setting and assume $\omega_1 = \overline{\omega}$ without loss of generality.

From Lemma 1, $C$'s equilibrium fast-track investment is $c_f = \frac{\beta}{2\kappa[1+(1-\alpha)(\overline{\omega}-\underline{\omega})^2]}$. Substituting $c_f$ into (A.1) and rearranging, $C$'s equilibrium welfare under fast-track is $\frac{\beta}{2}c_f$.

Next, we characterize $C$'s equilibrium welfare under the supermajority institution. From Lemma 2, $C$'s supermajority investment is $c_s = \frac{\beta}{2\kappa}$. Substituting $c_s$ into (A.2) and rearranging, $C$'s equilibrium welfare under supermajority is

$$(1 - \delta)u_C(0; \overline{\omega}) + \delta[\alpha u_C(0; \overline{\omega}) + (1 - \alpha)u_C(0; \underline{\omega})] + \frac{\beta}{2}c_s. \tag{A.6}$$

Finally, we compare $C$'s equilibrium welfare under the two institutions. The supermajority institution is strictly better for $C$ if and only if (A.6) is strictly greater than $\frac{\beta}{2}c_f$, which holds if and only if

$$\kappa < \frac{\beta^2(1 - \alpha)\Delta^2}{4[1 + (1 - \alpha)\Delta^2][\overline{\omega}^2(1 - \delta(1 - \alpha)) + \delta(1 - \alpha)\underline{\omega}^2]} \equiv \overline{\kappa}_\beta, \tag{A.7}$$

which is strictly positive if $\beta > 0$, $\alpha < 1$, and $\Delta \neq 0$. Furthermore, it strictly increases in $\beta$, as desired. □

**Proof of Proposition 2.**

PROOF. Consider the setting with policy uncertainty. By Proposition 1, $C$ strictly prefers supermajority rule if and only if $\kappa < \overline{\kappa}_\beta$, where $\overline{\kappa}_\beta$ is defined as in (A.7).

*1.* The partial derivative of $\overline{\kappa}_\beta$ with respect to $\alpha$ yields

$$\frac{\partial \overline{\kappa}_\beta}{\partial \alpha} = \frac{\beta^2\Delta^2\Big(\delta(1-\alpha)^2(\underline{\omega}+\overline{\omega})\Delta^3 - \overline{\omega}^2\Big)}{\Big(2[1+(1-\alpha)\Delta^2]\,[\overline{\omega}^2(1-\delta(1-\alpha)) + \delta(1-\alpha)\underline{\omega}^2]\Big)^2} < 0. \tag{A.8}$$

*2.* Assume $\overline{\omega} = -\underline{\omega}$. Therefore increasing $\overline{\omega}$ symmetrically increases the scale of policy uncertainty, $|\overline{\omega} - \underline{\omega}|$. The partial derivative of $\overline{\kappa}_\beta$ with respect to $\overline{\omega}$ yields

$$\frac{\partial \overline{\kappa}_\beta}{\partial \overline{\omega}} = -\frac{\overline{\omega}\,\beta^2\,(1-\alpha)^2}{2\Big(1+(1-\alpha)\overline{\omega}^2\Big)^2} < 0. \tag{A.9}$$

□

**Proof of Proposition 3.**

PROOF. Assume $\omega_1 = \overline{\omega}$ without loss of generality.

First, we characterize $C$'s equilibrium investment and welfare under fast-track. Policymaking is unaffected by heterogeneous presidential competence. Therefore Lemma 1 implies the unique SPE sequence of policies is $x_1 = \overline{\omega}$ and $x_2 = \omega_2$. Thus, $C$ receives her ideal policy in each period and chooses $c$ to maximize

$$(1-\delta)\Big((\beta+\tau)c - \kappa c^2\Big) + \delta\Big(\eta(\beta+\tau)c + (1-\eta)\beta c - \alpha\kappa c^2 - (1-\alpha)[1+(\overline{\omega}-\underline{\omega})^2]\kappa c^2\Big). \tag{A.10}$$

Solving the first order condition yields

$$c_f = \frac{\beta+\Gamma}{2\kappa(1+\Upsilon)}, \tag{A.11}$$

which uniquely maximizes (A.10) by strict concavity. Substituting $c_f$ into (A.10) and simplifying yields $C$'s equilibrium welfare under fast-track, $\frac{c_f}{2}(\beta+\Gamma)$.

For the supermajority institution, equilibrium behavior and citizen welfare match Proposition 1.

Finally, we compare $C$'s equilibrium welfare. Substituting $c_f$ into (A.10) and comparing

against (A.6) shows that $C$ strictly prefers the supermajority institution if and only if

$$\kappa < \frac{\Upsilon\beta^2 - \Gamma[2\beta + \Gamma]}{4[1+\Upsilon][\overline{\omega}^2(1-\delta(1-\alpha)) + \delta(1-\alpha)\underline{\omega}^2]} \equiv \overline{\kappa}^1_\beta, \tag{A.12}$$

which is strictly positive if and only if

$$\beta > \frac{\Gamma}{\Upsilon}[1 + (1+\Upsilon)^{\frac{1}{2}}] \equiv \underline{\beta}, \tag{A.13}$$

Note that $\underline{\beta} > 0$, as desired. □

**Proof of Proposition 4.**

PROOF. By Proposition 1, $C$ strictly prefers supermajority if and only if $\kappa < \overline{\kappa}^1_\beta$ and $\beta > \underline{\beta}$. For each parameter, we verify that $\overline{\kappa}^1_\beta$ decreases and $\underline{\beta}$ increases.

*1.* The partial derivative of $\overline{\kappa}^1_\beta$ with respect to $\tau$ is

$$\frac{\partial \overline{\kappa}^1_\beta}{\partial \tau} = -\frac{(\beta+\Gamma)[1-\delta(1-\eta)]}{2[1+\Upsilon][\overline{\omega}^2(1-\delta(1-\alpha)) + \delta(1-\alpha)\underline{\omega}^2]} < 0. \tag{A.14}$$

The partial derivative of $\underline{\beta}$ with respect to $\tau$ is

$$\frac{\partial \underline{\beta}}{\partial \tau} = \frac{[1-\delta(1-\eta)]}{\Upsilon}\left(1 + [1+\Upsilon]^{\frac{1}{2}}\right) > 0. \tag{A.15}$$

*2.* The partial derivative of $\overline{\kappa}^1_\beta$ with respect to $\eta$ is

$$\frac{\partial \overline{\kappa}^1_\beta}{\partial \eta} = -\frac{\delta\,\tau\,(\beta+\Gamma)}{2[1+\Upsilon][\overline{\omega}^2(1-\delta(1-\alpha)) + \delta(1-\alpha)\underline{\omega}^2]} < 0. \tag{A.16}$$

The partial derivative of $\underline{\beta}$ with respect to $\eta$ is

$$\frac{\partial \underline{\beta}}{\partial \eta} = \frac{\tau}{(1-\alpha)\Delta^2}\left(1 + [1+\Upsilon]^{\frac{1}{2}}\right) > 0. \tag{A.17}$$

*3.* The partial derivative of $\underline{\beta}$ with respect to $\alpha$ is

$$\frac{\partial \underline{\beta}}{\partial \alpha} = \frac{\Gamma}{(1-\alpha)\Upsilon}\left(\frac{2+\Gamma+2(1+\Gamma)^{\frac{1}{2}}}{2(1+\Gamma)^{\frac{1}{2}}}\right) > 0. \tag{A.18}$$

Define $\Lambda = \delta[\Upsilon\beta^2 - \Gamma(2\beta+\Gamma)]$ and $\Xi = 4(1+\Upsilon)\left(\overline{\omega}^2(1-\delta(1-\alpha)) + \delta(1-\alpha)\underline{\omega}^2\right)$. The partial

derivative of $\overline{\kappa}^1_\beta$ with respect to $\alpha$ is

$$\frac{\partial \overline{\kappa}^1_\beta}{\partial \alpha} = \frac{\Delta}{\Xi}\left(\frac{\Lambda(\underline{\omega}+\overline{\omega})}{\overline{\omega}^2(1-\delta(1-\alpha))+\delta(1-\alpha)\underline{\omega}^2} + \frac{\Lambda\Delta}{1+\Upsilon} - \delta\beta^2\Delta\right), \tag{A.19}$$

which is strictly negative for $\beta > \underline{\beta}$. □

**Proof of Proposition 5.**

PROOF. Consider the setting with heterogeneous presidential ideology. Assume $\hat{x}_{P_1} = \overline{x}$ without loss of generality.

First, we characterize $C$'s equilibrium investment amount and welfare under fast-track. Under the maintained assumptions, it follows from Buisseret and Bernhardt (2017) that the unique SPE sequence of policies is $x_1^* = \overline{x}(1-2\delta\pi)$ in the first period, and $x_2 = x_1^*$ in the second period if $\hat{x}_{P_2} = \overline{x}$ and otherwise $x_2 = -x_1^*$ .

Thus, $C$ chooses $c$ to maximize

$$(1-\pi)(\beta c - \kappa c^2) + \pi\left(\beta c - [1-(2x_1^*)^2]\kappa c^2\right). \tag{A.20}$$

Solving the first order condition yields

$$c_f = \frac{\beta}{2\kappa[1+\pi(2x_1^*)^2]}, \tag{A.21}$$

which uniquely maximizes (A.20) by strict concavity. Using (A.21) to simplify (A.20), $C$'s equilibrium welfare under fast-track is

$$(1-\delta)u_C(x_1^*) + \delta\left((1-\pi)u_C(x_1^*) + \pi u_C(-x_1^*)\right) + \frac{\beta^2}{4\kappa[1+\pi(2x_1^*)^2]}. \tag{A.22}$$

Next, $C$ equilibrium welfare under supermajority is

$$u_C(0) + \frac{\beta^2}{4\kappa}. \tag{A.23}$$

Using (A.22) and (A.23), $C$'s ex ante equilbrium welfare is higher under supermajority if and only if

$$\kappa < \frac{\pi\beta^2}{1+\pi(2x_1^*)^2} \equiv \tilde{\kappa}_\beta, \tag{A.24}$$

which is strictly positive. □

**Proof of Proposition 6.**

PROOF. Assume $\beta > 0$. By Proposition 5, $C$ strictly prefers supermajority rule if and only if $\kappa$ satisfies (A.24).

*1.* Because $\pi < \frac{1}{2}$, the partial derivative of $\tilde{\kappa}_\beta$ with respect to $\pi$ is

$$\frac{\partial \tilde{\kappa}_\beta}{\partial \pi} = \frac{\beta^2[1 + \delta\,\overline{x}\,x_1^*(4\pi)^2]}{[1 + \pi\,(2x_1^*)^2]^2} > 0. \tag{A.25}$$

*2.* Recall $\overline{x} = -\underline{x}$. The partial derivative of $\tilde{\kappa}_\beta$ with respect to $\overline{x}$ is

$$\frac{\partial \tilde{\kappa}_\beta}{\partial \overline{x}} = -2\overline{x}\left(\frac{2\beta\,\pi\,(1 - 2\delta\pi)}{1 + \pi\,(2x_1^*)^2}\right)^2 < 0. \tag{A.26}$$

*3.* Inspection of (A.24) reveals $\tilde{\kappa}_\beta$ strictly increases in $\beta$.

*4.* The partial derivative of $\tilde{\kappa}_\beta$ with respect to $\delta$ is

$$\frac{\partial \tilde{\kappa}_\beta}{\partial \delta} = \frac{\pi\,\overline{x}\,x^*(4\beta\,\pi)^2}{[1 + \pi\,(2x_1^*)^2]^2} > 0. \tag{A.27}$$

□