

Does it Pay to Tinker with a Relic? Analyzing Proposals to Reform the Separation of Powers

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Abstract

There is frequently unhappiness voiced about the impact of legislatures in presidential systems, such as the United States Congress, on societal welfare. In response, there have been proposals, most notably by Howell and Moe (2016), to reform the separation of powers system so that presidents are allowed to control the legislative agenda and prevent the application of rules such as the filibuster. In this analysis, we formally examine what such changes toward a more executive-centric world would be expected to produce in terms of policy and social welfare. We show that, when we integrate reasonable assumptions about legislative and executive incentives into a dynamic model of decision-making, there are a variety of conditions under which a world with a more advantaged executive does not produce better outcomes. These findings are consistent with empirical observations that policy outputs are not necessarily worse in countries like the United States than in nations where executives have authority that more closely approximates what is being proposed by populist-oriented reformers.

1 Introduction: How Strong a President?

To many, the November 2016 election of Donald Trump signaled a widespread disaffection with the American political system and the ability of officials to respond effectively to the pressing issues of the day. Having selected a liberal Senator advertised to be a candidate of change eight years previously in Barack Obama (e.g. Abramowitz, 2008), the nation's voters, albeit a minority of those actually casting ballots (46 percent), remained unhappy with the functioning of politics and settled on a populist candidate with conservative leanings without an iota of governmental experience. Trump famously promised to drain the swamp of Washington, D.C. by eliminating the alleged pernicious effects of narrowly focused career politicians and their allies, and to act decisively and with great competence in addressing real or perceived American problems. This appeal appeared to resonate as, according to Gallup polls, even roughly a quarter of those viewing Trump as unqualified to be the nation's leader voted for him, seemingly on the grounds that he would bring about major change (Newport, 2016; also see Abramowitz, 2016).

While Trump's ascension was widely interpreted as a stunning reflection of citizen disaffection with government, academics have been wrestling with what facilitates and undermines the American political system's capacity to confront societal problems for a long time. Some decry changes in recent decades, such as enhanced polarization and politicization (see, e.g., McCarty, Poole and Rosenthal, 2016; Hetherington and Rudolph, 2015; Coglianesi, forthcoming) or the pernicious effects of campaign dollars, particularly in the wake of *Citizens United* (La Raja and Schaffner, 2015). This would imply, in turn, that more moderate preferences or more severe restrictions on campaign spending, neither easy to effectuate but potentially malleable, would significantly ameliorate the problems at hand.

Alternatively, there are scholars who concentrate more on American presidentialism itself. They emphasize a belief that the checks and balances

structure of the presidential system constitutes a poor match for addressing contemporary societal problems (for a more positive assessment, see Melnick 2015). For example and perhaps most notably, building on one of the two author’s long-standing advocacy of the Westminster system and the trumpeting of presidential virtues as juxtaposed against the narrow and self-centered perspectives of legislators, Howell and Moe (2016) argue that the Constitution is outdated and propose that the president be delegated fast-track authority akin to that employed for trade agreements¹ (in which Congress finds it in its best interest to delegate to the president such authority for a specific period; for discussions of when such incentives exist as a function of import and export sensitivity, see Conconi, Facchini and Zanardi, 2012; see also Celik, Karabay and McLaren, 2015). Under fast-track, trade agreements must be voted on and are either ratified or not by majority vote, with neither filibusters nor amendments allowed.

In the variant proposed by Moe and Howell, the president is essentially provided comparable but permanent closed rule agenda control in the legislature where rule-based obstruction is not an option. Executive proposals are voted up or down in both chambers with majoritarian rules and without potential for amendment and, if passed, the new status quo can only be altered by the legislature enacting new statutes in the traditional way with all the possibilities for obstruction, including a presidential veto, in place.

Many initial reactions to such proposals seem as much philosophical or legalistic as analytic given that these recommendations are conceptualized as a call for greater government intervention in society and an attack on the Madisonian Constitution. Yet, as the hesitancy of many to putting Trump in the White House highlights, there are other reasons, both empirical and theoretical, for being cautious about accepting the idea that dramatically ceding authority, when such delegation to the chief executive is permanent and not the choice of the legislature à la the use of fast-track to date, will

¹See Moe and Caldwell (1994) and Moe and Wilson (1994) for earlier statements

routinely buttress societal welfare.

Empirically, in broad scope it is hard to infer that countries utilizing parliamentary setups, which permanent fast-track is supposed to more closely approximate than supermajoritarianism (and certainly the ideal that its advocates are championing), consistently do better than the United States (e.g. Mayhew, 2015). For example, although the global financial crisis of the first decade of the 21st century had its origins in the United States, America did better than Europe in recovering from its aftermath (e.g. Wen et al., 2015). Or at a more policy-specific level, when standard analyses of environmental outcomes are matched against gross domestic product the United States' performance lies right on the regression line, i.e., it does no better or worse than its economic activity suggests it should. While either of these relationships are only suggestive, and may potentially be countered by alternative examples and general analyses of bureaucratic competence (e.g. Kettl, 2016), they do imply that we might need to do more than accept the superiority of a system where the executive has far greater control without careful analytical foundation. And the observation, illustrated by the real-world contrast of Obama and Trump, that successive presidents may vary wildly in ideological predispositions and skill sets provides reasons to stop and analyze the situation carefully rather than to accept assertions about the chief executives' competency and desire to enhance social welfare as given.

Put differently, the view that the president is the best available hope for dealing with societal ills and improving social welfare has received a great deal of attention and is intuitive in myriad respects (but see Kriner and Reeves, 2015; Hudak, 2014). Nonetheless, there is considerable room for incorporating many of the assumptions made—such as that the president cares more about efficiency than geographically-elected legislators—into a systematic, dynamic, theoretical model of policy-making to assess claims that have been made regarding institutional structure and social welfare. Doing so allows us to build in related features that are often thought to be

key for government performance, such as the ability to match policy with the state of the world and the need to overcome potential hold-up problems to induce the investment necessary for policy success. This will allow us to investigate if, or under what conditions, an exogenously-dictated fast-track world will be superior for social welfare to a more traditional 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.

Thus, in our analysis we contrast the performances of fast-track and conventional separation of powers institutions in a dynamic policymaking environment where policy is made repeatedly over time, the status quo policy persists until new policy passes, presidents care more about social welfare than legislators, and citizens in their roles as private economic actors make policy-contingent investments. In different variants of our model, the state of the world changes, the ideological preferences of the chief executive vary, and the competence of the incumbent administration fluctuates.

Overall, we find that even in a world where the president cares more about social welfare than the legislature, there are reasonable conditions in which the conventional separation of powers setup is better for society. Much of this is driven by the often-recognized need for policy to induce private sector investment and related features such as the marginal costs and benefits of investment, but fluctuations in the state of the world—both its likelihood of change and the amount that it might change—presidential ideology, and executive competence play important roles.

Specifically, given the assumptions that the president is more focused on efficiency and is at least as competent as the legislature, while fast-track is always weakly superior in a world with no investment, when investment is added into the equation things get more complicated. For example, if the state of the world can change across periods, then if there are marginal benefits from investment supermajoritarian systems will be preferred if the

marginal costs of investment are not too high. If the likelihood of policy change increases, conditions for the citizenry to prefer a supermajority system will be less restrictive, but if the scale of policy uncertainty increases then such conditions will be more restrictive. These basic results are robust if we incorporate the more realistic assumptions that some presidents are more competent than others, as reflected by their abilities to match policies to the state of the world, or that different presidents have different ideologies. Conversely, the more competent presidents are, the more stable the policy environment is, and the greater the investment benefit from a competent president the more a fast-track world would be preferred.

2 Related Literature

Beyond analyses that evaluate separation of powers systems per se, our study relates to a number of different streams of research. One is the well-established literature studying the tradeoffs between commitment and flexibility in political institutions. On the one hand, citizens value policy and want politicians to enact laws and regulations that are favorable. Consequently, a large literature highlights the respective costs and benefits of commitment and flexibility from a policy perspective (Kydland and Prescott, 1977; Rogoff, 1985; Dal Bo, 2006). On the other hand, citizens also value their returns from private investment, which are affected by public policy. In this vein, Coate and Morris (1999) demonstrate that dynamic investment considerations can create an endogenous preference for policy stability.

In particular, our analysis follows previous research by demonstrating how policy flexibility can produce a hold-up problem for private investment (Grout, 1984; Tirole, 1986; Hart and Moore, 1988). However, in contrast to the canonical literature addressing hold-up problems, we do not assume that politicians have an intrinsic interest in expropriating the citizenry's in-

vestment.² Moreover, we do not explicitly aim to propose a solution to the hold-up problem.³ Instead, we simply show that the stability of supermajority rule can mitigate the hold-up problem in the context of policy-dependent private investment.

Also, given our focus on private investment, our analysis relates to the literature on *political risk* (Shotts, 2016; Gehlbach and Keefer, 2012; Jensen, 2008). But, while these models analyze foreign investment and demonstrate how the threat of expropriation or instability of weak institutions can create a hold-up problem, we focus on well-developed institutions in which there is no threat of expropriation. In our setting, the hold-up problem is purely a by-product of policy dynamics.

Additionally, the supermajority institution we analyze builds upon the canonical static settings studied in Krehbiel (1998, 1996) and Brady and Volden (2005). In particular, we allow for simple dynamics and study a two-period setting that features policy persistence. In this regard, our study is similar to Callander and Krehbiel (2014), who demonstrate that supermajority rule encourages legislatures to delegate policymaking power to bureaucratic agencies and consequently results in superior outcomes. However, in contrast to our analysis of statutory shifts in policy, they study discretion delegated to a bureaucratic agency, and allow policy to *drift* over time. Furthermore, they do not study private investment while, for our analysis, investment occupies a central role.

With respect to investment, our analysis is in the spirit of existing work that incorporates some form of investment into the context of U.S. political institutions, such as Gilligan and Krehbiel (1987) and Hirsch and Shotts (2015). These papers study settings in which politicians can invest to improve policy, either via better information or higher quality, and compare

²Although, see Che and Hausch (1999) for a prominent example studying the hold-up problem in a setting with *cooperative* investments.

³Proposed solutions include vertical integration (Williamson, 1979) and contracts, both formal and informal (Rogerson, 1992; Aghion et al., 1994; Chung, 1991).

the respective merits of open and closed rule procedures. Both demonstrate how procedural choices can lead to different levels of political investment. Conversely, in our model, private investment does not affect policy quality and thus does not substantially influence the calculus of future politicians who will choose whether to alter existing policy. Additionally, in contrast to Hirsch and Shotts (2012) but consistent with many findings regarding policy uncertainty (e.g. Baker et al., 2016), in the settings which we study policy flexibility depresses investment.

Technically, the settings we analyze are related to recent work that builds upon Romer and Rosenthal (1979) to allow for intertemporal policy persistence via an endogenous status quo.⁴ Specifically, in one of the settings we study, which allows presidential ideology to vary over time, 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. The major difference is that we add private policy-dependent citizen investment to this framework.

Finally, our analysis is related to Forand (2014). While Forand studies ideological competition between two parties over an infinite horizon with a fixed median voter, in one variant of our dynamic game we incorporate changing presidential ideology with a fixed median.

3 Analysis

We study two institutions: a presidential *fast-track* system, where the president has agenda control and only requires 50 percent approval from the legislature, and a supermajoritarian alternative where a minority can maintain the status quo. Specifically, we examine the performance of each institution in a dynamic policymaking environment where policy is made repeatedly over time, the status quo policy persists until new policy passes, and there is the

⁴See, e.g., Baron (1996) for an early work with an endogenous status quo.

potential for citizens acting as private economic agents to make investments that are affected by policy.

We compare the two systems in two settings that differ in the nature of their exogenous dynamics. First, we study a setting in which the underlying policy environment can change over time, so that each player's optimal policy may change; we also extend this analysis to allow for differences in the investment environment across the two systems, as well as between presidents over time. Alternatively, we turn our attention to a setting in which the president may be replaced by a challenger who has different ideological preferences, for example when a chief executive from one political party is succeeded by a member of another. As integrating the two settings, allowing both the policy environment and the chief executive to change in the same model, yields results analogous to studying these changes in isolation, we examine each separately for clarity.

Before analyzing each specific setting, we introduce the fundamental institutional structure that we employ to model each policymaking system. In both settings, the players consist of a citizen, C , and four politicians: a president, P ; a median legislator, M ; and two supermajority pivots, L and R . Policymaking occurs over two periods and involves the politicians enacting policy in a one-dimensional policy space $X \subseteq \mathbb{R}$ (although the supermajoritarian pivots are superfluous in the fast-track version). 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 , then persists as the second-period status quo. To ease exposition and reflect policies that are widely agreed to be deficient, thereby attracting attention from policymakers, we assume that there is a unanimous desire to make a change rather than continuing q_1 .

While the politicians make policy, the citizen, C , makes an investment decision in the first period that generates returns in the second period. The citizen cares about both policy and investment returns. A key feature is that C 's return from investment is policy specific to some degree. For example,

the government makes a choice regarding how to allocate health care, and the citizen makes a choice on how to invest to improve economic rewards, and should this policy be changed the return from that investment is impacted. Specifically, C 's benefit from investment deteriorates as the distance increases between the first-period policy, x_1 , and the second-period policy, x_2 . To capture this feature explicitly, we parameterize C 's investment payoff as $\frac{\kappa c}{1+(x_2-x_1)^2} - \beta c^2$, where the first term reflects the rewards from investment accrue to C and the second term reflects investment costs.⁵ The parameters $\kappa \geq 0$ and $\beta \geq 0$ affect C 's marginal return and marginal cost, respectively, of investment.

Each player i has quadratic utility over policy and thus has an associated ideal point $\hat{x}_i \in X$. Throughout, we normalize the median legislator's ideal point to zero, that is $\hat{x}_M = 0$. All players value the future, relative to the present, at the rate $\delta \in (0, 1)$. Thus, the dynamic payoff to politician i from the sequence of policies (x_1, x_2) is $(1 - \delta)u_i(x_1) + \delta u_i(x_2)$. Similarly, C 's total payoff from (x_1, x_2) and investment amount c is

$$(1 - \delta)u_C(x_1) + \delta u_C(x_2) + \frac{\kappa c}{1 + (x_2 - x_1)^2} - \beta c^2. \quad (1)$$

In this dynamic setting, politicians account for their expectations about second-period play when participating in policymaking during the first period. Similarly, C accounts for her expectations about second-period play in her investment decision.

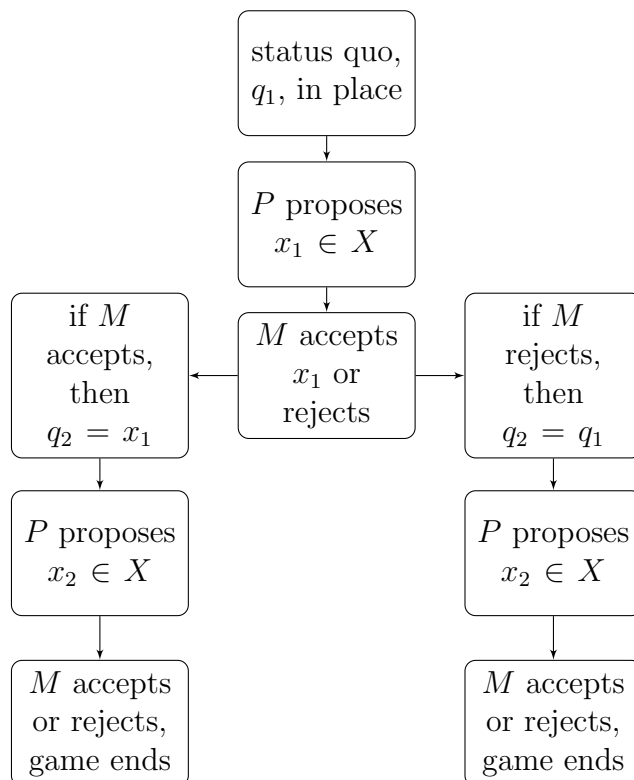
Presidential Fast-Track Institution

We first introduce the details of the presidential fast-track institution. Our stylized representation corresponds to a system in which the president has

⁵In the analysis to follow, we assume that C receives first-period investment returns only in the setting with varying presidential competence, as it does not change the welfare analysis in the other two settings.

proposal power in each period, and proposes a policy under closed rule that is voted on and enacted if it receives the support of a simple majority of legislators, represented by the median legislator.⁶

Figure 1: Fast-Track Institution



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 , chooses whether to accept x or reject. If M

⁶Although Howell and Moe (2016) suggest that adding an additional 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, integrating this option would only complicate our analysis without changes to the inferences being drawn.

accepts, then x is enacted in the first period and becomes the second-period status quo. If M rejects, then q_1 is enacted in the first period and persists as the second-period status quo. After the first-period policy is set, the citizen, C , chooses an investment level $c \geq 0$. First-period payoffs accrue once first-period policy is in place. In the second period, P again proposes policy that passes if and only if M votes in its favor. Once the second-period policy is in place, C receives the returns on her first-period investment, and the game ends.

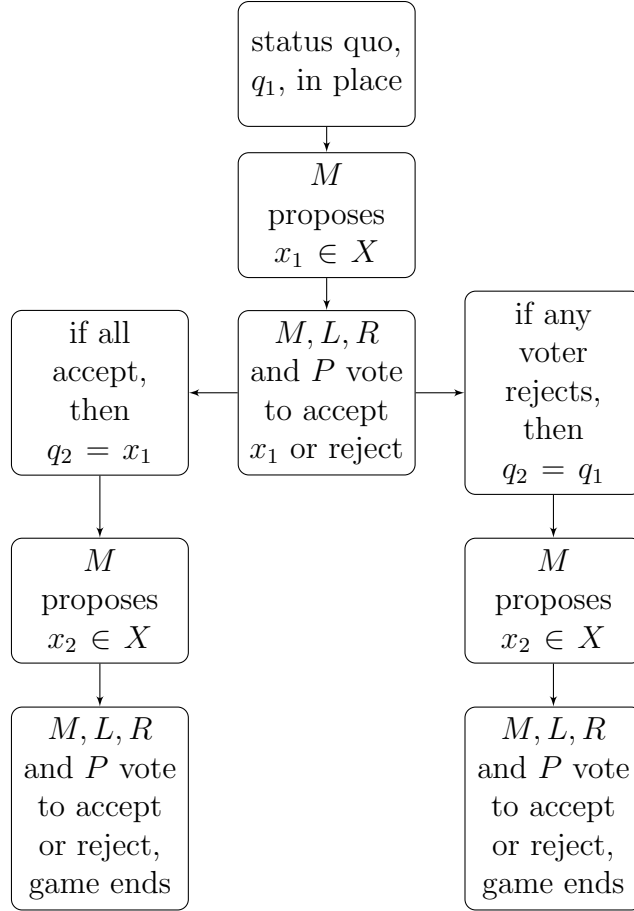
Supermajority Institution

With the fundamental features of the fast-track institution established, we now describe our stylized supermajority institution. Our formalization reflects a system that provides proposal power to the legislature, requires the approval of a supermajority of legislators, and gives veto power to the president (see Figure 2).⁷

At the beginning of the first-period, the status quo, q_1 , is in place and the incumbent president holds office. The median legislator, M , proposes a policy $x \in X$. Next, each legislator, as well as the president, votes whether to accept or reject x . Votes are cast simultaneously and x passes if and only if it receives support of M , P , and the needed supermajority pivot, L or R . If x passes, then it is enacted in the first period and persists as the second-period default policy. Otherwise, q_1 is enacted and remains the default policy into the second period. First-period payoffs materialize after first-period policy is decided, and C makes an investment decision. 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 returns and the game concludes.

⁷Adding the ability of the chief executive to veto a proposal approved by the median and the legislature to override this action with a supermajority complicates the analysis without providing further insight.

Figure 2: Supermajority Institution



Changing Policy Environment

With the basic structure of each institution in place, we now introduce the first setting we study.

This setting allows the underlying policy environment to change across time, capturing the idea that exogenous changes in the world can cause today's optimal policy to be suboptimal tomorrow. Specifically, we introduce a state of the world $\omega_t \in X$ for each period $t = 1, 2$. In each period, the

state of the world is the best policy for society. For simplicity, we study a two-state world in which the state space is $\Omega = \{\underline{\omega}, \bar{\omega}\}$. The second-period state is the same as the first-period state with probability $\alpha \in (0, 1)$, that is $Pr(\omega_1 = \omega_2) = \alpha$, and we will refer to α as the stability of the policy environment. To reflect substantial changes in the underlying policy environment, we assume that $\underline{\omega} < 0 < \bar{\omega}$, and we will refer to $\bar{\omega} - \underline{\omega}$ as the scale of policy uncertainty.

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

As expressed previously in (1), the citizen, C , cares about both policy and investment. In the current setting, C prefers policy that is closer to the state in each period. Formally, C 's period- t payoff from policy x_t , conditional on state ω_t , is $u(x_t; \omega_t) = -(x_t - \omega_t)^2$.

To capture the benchmark setting in which the president is public minded, P simply prefers to match the state in each period and thus shares C 's policy preferences. In contrast, all legislators are purely ideologically motivated, so their preferences do not depend on the state of the world. In particular, each legislator i 's ideal policy is fixed across both periods and unrelated to the state of the world. This assumption reflects the widely held belief that legislators are more parochial than the president, and is the key distinction between legislators and the president in this setting. As mentioned, we normalize M 's ideal point to zero for convenience.

We first characterize equilibrium policies and investment under the fast-track institution in the current setting. Without loss of generality, assume that the first-period state of the world is $\omega_1 = \bar{\omega}$. Furthermore, assume for

ease of exposition that $\bar{\omega} \geq -\underline{\omega}$.⁸ Substantively, this assumption ensures that P can enact C 's optimal policy in each period. The unique SPE behavior⁹ is as follows: (i) P proposes $x_1^* = \bar{\omega}$ in the first period, and proposes $x_2^* = \omega_2$ in the second period; and (ii) C invests

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

Our characterization of C 's equilibrium investment reveals the effect of policy stability on her investment returns. In particular, C reduces investment as either (i) the stability of the policy environment, α , decreases or (ii) the scale of policy uncertainty, $\bar{\omega} - \underline{\omega}$, increases.

Next, we analyze equilibrium behavior under supermajority rule in this setting. The unique SPE behavior¹⁰ is such that (i) M successfully passes $x_t = \hat{x}_M$ in both periods and (ii) C invests $c_s = \frac{\kappa}{2\beta}$. Notice that C invests more under supermajority rule than in the fast-track case, which follows from $\alpha < 1$.

Our main objective is to compare equilibrium citizen welfare across both policymaking institutions. Recall that c_f denotes C 's equilibrium investment in the fast-track model and c_s denotes C 's equilibrium investment in the supermajority model. First, C 's equilibrium welfare in the fast-track setting is

$$c_f \left\{ \alpha(\kappa - \beta c_f) + (1 - \alpha) \left(\frac{\kappa}{1 - (\bar{\omega} - \underline{\omega})^2} - \beta c_f \right) \right\}, \quad (3)$$

because P matches the state in both periods so that C 's policy utility is zero in each period. For the supermajority model, M enacts $x_t = \hat{x}_M = 0$ in both

⁸Relaxing this assumption complicates the characterization of equilibrium policies, but does not affect the main results.

⁹See Lemma 1 in the appendix for details.

¹⁰See Lemma 2 in the appendix for details.

periods, so equilibrium citizen welfare is

$$-(1 - \delta)\bar{\omega}^2 - \delta[\alpha\bar{\omega}^2 + (1 - \alpha)\underline{\omega}^2] + c_s(\kappa - \beta c_1^s). \quad (4)$$

By substituting for c_f in (8) and c_s in (9), we can solve for the conditions under which the citizen strictly prefers the supermajority institution. The following proposition shows that if there are returns to investment, $\kappa > 0$, then C strictly prefers supermajority rule if and only if the investment cost parameter β is sufficiently low. All proofs are provided in the appendix.

Proposition 1. *Consider the setting with policy uncertainty. For all $\kappa > 0$, there exists $\bar{\beta}_\kappa > 0$ such that the citizen strictly prefers the supermajority institution if and only if $\beta < \bar{\beta}_\kappa$. Furthermore, $\bar{\beta}_\kappa$ is strictly increasing in κ .*

Unsurprisingly, if the citizen has no reason to invest, that is $\kappa = 0$, then the fast-track institution is guaranteed to be superior to supermajority rule. As the citizen cannot use investment to create additional gains that depend on policy stability, there is no benefit from gridlock and the flexibility enjoyed by a public minded president associated with fast-track dominates. Figure 3 illustrates these conditions in which fast-track or supermajoritarianism is preferred per Proposition 1.

Our functional form assumptions on policy utility and investment costs allow for an explicit characterization of the cutpoint for the marginal cost of investment, $\bar{\beta}_\kappa$. Thus, we can easily obtain comparative statics on the restrictiveness of the conditions for the citizen to prefer supermajority rule. In particular, if we impose a symmetry assumption on the state space, so that $\bar{\omega} = -\underline{\omega}$, then $\bar{\beta}_\kappa$ is strictly increasing in the scale of policy uncertainty, $\bar{\omega} - \underline{\omega}$. We also obtain a comparative static with respect to the stability of the policy environment, α . Specifically, $\bar{\beta}_\kappa$ is decreasing in α .

Proposition 2. *Consider the setting with policy uncertainty.*

Figure 3: Citizen Prefers Supermajority Rule if Marginal Investment Costs are Low

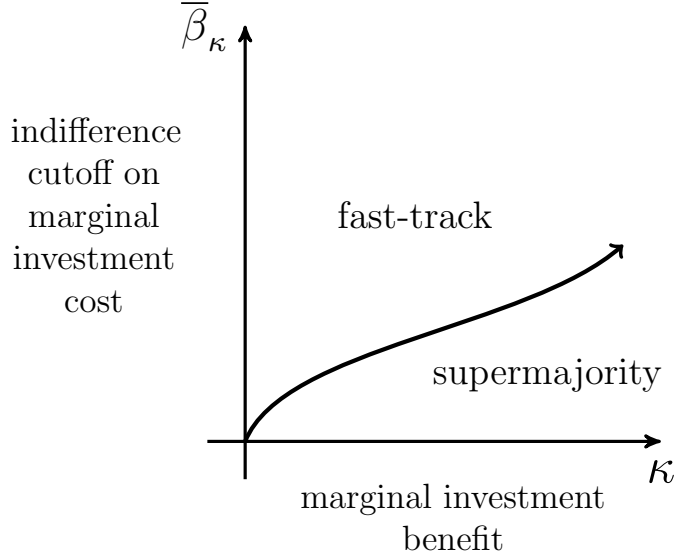


Figure 3 illustrates Proposition 1 by plotting the investment cost that makes the citizen indifferent between fast-track and supermajority rule, $\bar{\beta}_\kappa$, as a function of the investment benefit parameter, κ . For any $\kappa > 0$, the citizen strictly prefers the supermajority institution if $\beta < \bar{\beta}_\kappa$.

1. *If the stability of the policy environment increases, then the conditions for the citizen to prefer supermajority rule are more restrictive.*
2. *Assume $\bar{\omega} = -\underline{\omega}$. If the scale of policy uncertainty increases, then the conditions for the citizen to prefer supermajority rule are more restrictive.*

Increasing the stability of the policy environment has two effects on citizen welfare. First, it increases the probability that the first-period state, $\bar{\omega}$, persists as the second-period state. This effect weakly decreases C 's expected policy payoff under the supermajority institution because $\bar{\omega}$ is further from the second-period supermajority policy, $\hat{x}_M = 0$, than $\underline{\omega}$. Second, in

the fast-track institution, greater policy stability increases private investment and thus increases citizen welfare. Together, these effects decrease the attractiveness of supermajority rule relative to the fast-track institution.

The effect of increasing the scale of policy uncertainty is less clear. First, it decreases C 's expected policy payoff from the supermajority institution. Second, it depresses investment in the fast-track system. Thus, it not *a priori* obvious which effect dominates. Proposition 2 establishes that the adverse effect on citizen welfare in the supermajority institution is more severe, and consequently the fast-track institution becomes more attractive.

Presidential Competence — Effects and Variance

Thus far, we have assumed that the investment parameters, κ and β , are the same regardless of whether the president has fast-track authority or the legislature makes policy via supermajority rule. In addition to providing a useful benchmark, this assumption captures the possibility that that politicians adjust their effort and attention towards facilitating private investment depending on their influence over policy. For example, under the fast-track institution legislators may slack off in fostering friendly conditions for private investment, while the president exerts more effort. On the other hand, this behavior could be reversed under supermajority rule. The benchmark setting reflects the case in which these competing forces balance each other, so that the fundamentals for investment are equivalent under both institutions. Yet, some scholars suggest that presidents are more capable of creating favorable conditions for investment because they are less parochial than legislators.

Furthermore, the benchmark setting assumes that presidents do not vary in their competence at fostering investment. Clearly, this is a strong assumption. It has long been widely agreed that presidents vary in their ability on many dimensions.¹¹

In this section, we address both of these concerns by modifying the bench-

¹¹See, e.g., Neustadt (1960) for the canonical work.

mark setting in two ways. First, investment conditions are always weakly more favorable under fast-track to reflect the assumptions that presidents are better at facilitating investment and that presidential effort is greater and legislative effort is less relative to a supermajoritarian world. Second, the president's investment parameters can vary across time to capture variation in competence.

Recall that the investment fundamentals are κ , which affects the benefits of investment and reflects efficiency, and β , which affects the costs of investment. To capture the possibility that some presidents provide a greater marginal benefit from investment, we assume that there are two types of presidents, *competent* and *incompetent*. Competent presidents provide more favorable investment conditions. Specifically, competent presidents increase the efficiency of investment in the fast-track institution by the amount $\tau > 0$. Consequently, private returns from the investment amount c are $(\kappa + \tau)c - \beta c^2$ in any period that a competent president holds office under fast-track. On the other hand, incompetent presidents provide the same investment fundamentals as the legislators. That is, private returns from the investment amount c are $\kappa c - \beta c^2$ if the president is incompetent in the fast-track institution, which is equivalent to the returns under supermajority rule.

These modifications address the aforementioned restrictions of the benchmark. First, the investment parameters under fast-track are always at least as favorable as those of supermajority rule. Second, the presence of competent presidents introduces the possibility that the fast-track setting provides a strictly more favorable investment environment. We show that neither of these modifications affects the main conclusion of Proposition 1.

To analyze the case most favorable to fast-track, we assume that the first-period president is competent. In the second period, the president remains competent with probability η . Substantively, changes in competence result from presidential turnover. Furthermore, we now allow for investment to yield first-period returns, which is consequential in the modified setting

owing to differences in fundamental investment conditions between the two institutions.

As before, let c_f denote the citizen equilibrium investment amount under fast-track, which is equal to

$$c_f = \frac{\tau \left([1 - \delta(1 - \eta)] + [1 - \delta(1 - \alpha\eta)](\underline{\omega} - \bar{\omega})^2 \right) + \kappa \left(1 + [1 - \delta(1 - \alpha)](\underline{\omega} - \bar{\omega})^2 \right)}{2\beta[1 + (\underline{\omega} - \bar{\omega})^2]}. \quad (5)$$

Notably, c_f is strictly increasing in (i) the investment advantage from a competent president, τ , (ii) policy stability, α , (iii) the probability of electing a competent president, η , and (iv) baseline investment marginal benefit, κ . On the other hand, c_f is strictly decreasing in (i) the scale of policy uncertainty, $\bar{\omega} - \underline{\omega}$, and (ii) the emphasis on the future, δ .

The equilibrium policy choices under fast-track are identical to those of the benchmark setting: the president matches in the state in both periods. Thus, the citizen's equilibrium welfare under fast-track is equivalent to

$$\left((1 - \delta)(\kappa + \tau) + \frac{\delta(\kappa + \eta\tau)(1 + \alpha(\bar{\omega} - \underline{\omega})^2)}{1 + (\bar{\omega} - \underline{\omega})^2} \right) c_f - \beta c_f^2. \quad (6)$$

Comparing equilibrium citizen welfare across the two institutions yields the following result, which shows that there are always conditions under which citizens strictly prefer supermajority rule if there are nonzero benefits from investment.

Proposition 3. *Consider the setting with policy uncertainty and varying presidential competence. For all $\kappa > 0$, there exists $\bar{\tau}_\kappa > 0$ and $\bar{\beta}_\kappa > 0$ such that the citizen strictly prefers the supermajority institution if and only if $\tau < \bar{\tau}_\kappa$ and $\beta < \bar{\beta}_\kappa$.*

Proposition 3 demonstrates that the conclusion of 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. These features would seemingly indicate that the fast-track institution must be better for citizen welfare. Yet, Proposition 3 demonstrates that supermajority rule can be superior for citizen welfare despite the president's advantages over the legislature.

Figure 4: Citizen Prefers Supermajority Rule if Marginal Investment Costs and Presidential Competence Benefit are Low

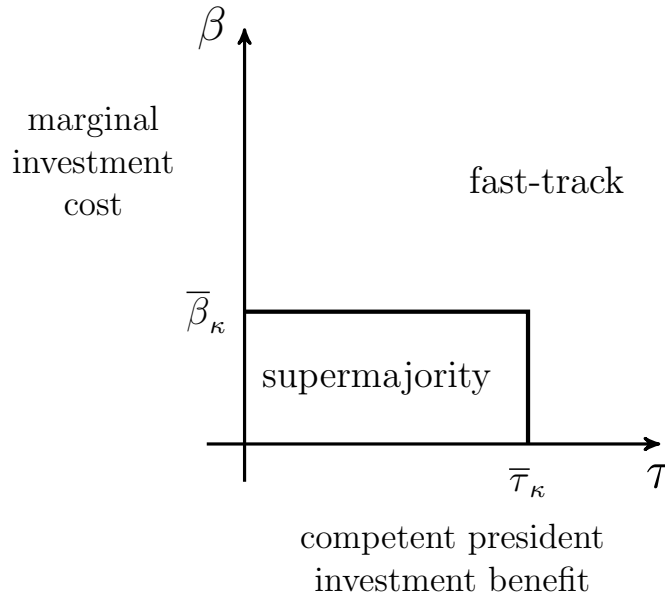


Figure 4 illustrates Proposition 3 by plotting the regions in which the citizen strictly prefers fast-track and supermajority rule, respectively, for a fixed level of investment benefit, κ . For any $\kappa > 0$, the citizen strictly prefers the supermajority institution if $\beta < \bar{\beta}_\kappa$ and $\tau < \bar{\tau}_\kappa$.

This result is driven by the same forces as in Proposition 1. The president's interest in adapting the changes in the policy environment creates policy instability under the fast-track institution that depresses citizen investment. This effect arises even though the president provides weakly superior investment conditions in the fast-track institution. Although the policy flexi-

bility of fast-track has its virtues, it has a chilling effect on private investment that can be large enough so that citizens prefer the gridlock of supermajority rule. Thus, Proposition 3 demonstrates that the flexibility of fast-track can be a substantial drawback under even very favorable conditions.

Furthermore, we can characterize how these conditions become more or less restrictive as other parameters change. We initially discuss comparative statics for each condition individually, then we highlight instances in which both conditions move in tandem. First, $\bar{\tau}_\kappa$ increases in (i) the baseline investment marginal benefit, κ , (ii) the players' patience, δ , and (iii) the scale of policy uncertainty, $\bar{\omega} - \underline{\omega}$. On the other hand, $\bar{\tau}_\kappa$ decreases in (i) the stability of the policy environment, α , and (ii) the probability of electing a competent president, η . Next, $\bar{\beta}_\kappa$ increases in the baseline investment marginal benefit. In contrast, $\bar{\beta}_\kappa$ decreases in the stability of the policy environment. Similarly, it decreases as the investment benefit of a competent president, τ , increases.

Together, the comparative statics on $\bar{\tau}_\kappa$ and $\bar{\beta}_\kappa$ characterize whether the conditions for the citizen to prefer supermajority rule become more or less restrictive. Proposition 4 collects the preceding observations and presents their consequences for supermajority superiority. Each comparative static can be visualized as expanding or shrinking, respectively, the supermajority region illustrated in Figure 4.

Proposition 4. *Consider the setting with policy uncertainty and varying presidential competence.*

1. *If the baseline investment marginal benefit increases, then the conditions for the citizen to prefer supermajority rule are less restrictive.*
2. *If the stability of the policy environment increases, then the conditions for the citizen to prefer supermajority rule are more restrictive.*
3. *If the investment benefit from a competent president increases, then the conditions for the citizen to prefer supermajority rule are more restrictive.*

Changing Presidential Ideology

Next, we analyze the setting in which the ideology of the president may change over time. Substantial changes in presidential ideology typically result from executive turnover, so we denote the first-period president as P_1 and denote the second-period president as P_2 . For simplicity, the president's ideal point takes one of two possible values in each period, \underline{x} and \bar{x} . To capture the possibility that the president's ideology varies across time, we assume that P_2 's ideal point differs from P_1 's ideal point, that is $\hat{x}_{P_1} \neq \hat{x}_{P_2}$, with probability $\pi \in (0, \frac{1}{2})$.

There are two main interpretations for P_2 . First, P_2 could be a challenger running against P_1 in an election that occurs between the first and second periods. Alternatively, P_1 may be unable to run for re-election due to a term limit, and, therefore, P_2 is the newly elected officeholder. The key feature is that the ideology of the president changes with probability π , and remains unchanged with probability $1 - \pi$. Substantively, the environment reflects that presidents vary in their ideology and hold office for relatively short periods of time.

To focus on the model's salient features and reflect party turnover, we assume that the president's possible ideologies are symmetric about the median legislator's ideal point, $\hat{x}_M = 0$, so that $\underline{x} = -\bar{x}$. Moreover, the supermajority pivots, \hat{x}_L and \hat{x}_R , are symmetric about \hat{x}_M and more extreme than the president. Consequently, $\hat{x}_L < \underline{x} < \hat{x}_M < \bar{x} < \hat{x}_R$ and $\hat{x}_L = -\hat{x}_R$. Substantively, this ordering reflects the empirical regularity that the president is often skewed relative to the median senator. For convenience, we assume that the citizen shares the incumbent's policy preferences, that is $\hat{x}_C = \hat{x}_{P_1}$.

In this setting, the presidential fast-track institution is closely related to a special case of the setting studied by Buisseret and Bernhardt (2017) with a fixed veto player, to which we add the twist of private citizen investment. Under our maintained assumptions, the unique SPE behavior is such that (i) P_1 proposes $x_1^* = \hat{x}_{P_1}(1 - 2\delta\alpha)$ in the first period, which passes; (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

$$c_f = \frac{\kappa[1 + (1 - \pi)(2x_1^*)^2]}{2\beta[1 + (2x_1^*)^2]}. \quad (7)$$

In the supermajority institution, equilibrium behavior is identical to that of the previous setting. Specifically, (i) M chooses $x_t = \hat{x}_M$ in both periods and (ii) C invests $c_s = \frac{\kappa}{2\beta}$. As in the previous setting, C invests more under supermajority rule than fast-track, which follows from $\pi < 1$. Furthermore, C 's investment decreases in the probability of ideological turnover, π .

Notably, C 's investment under supermajority rule in this setting is identical to her investment under supermajority rule in the previous setting. On the other hand, C 's investment under fast-track can differ across the two settings because P_1 proposes more moderate policy in the current setting. To illustrate, assume that the policy uncertainty environment is symmetric, so that $\underline{\omega} = -\bar{\omega}$, and that the scope of uncertainty is the same in each setting, that is $\bar{\omega} = \bar{x}$. Under these conditions, if the stability of the policy environment, α , is sufficiently low then C 's equilibrium fast-track investment is strictly greater in the present setting.

With equilibrium behavior established, we next compare equilibrium citizen welfare across both policymaking institutions. Without loss of generality, assume that $\hat{x}_{P_1} = \bar{x}$. In the fast-track institution, C 's equilibrium welfare is

$$(1 - \delta\pi)u_C(x_1^*) + \delta\pi u_C(-x_1^*) + c_f \left\{ \alpha(\kappa - \beta c_f) + (1 - \alpha) \left(\frac{\kappa}{1 - (\bar{\omega} - \underline{\omega})^2} - \beta c_f \right) \right\}. \quad (8)$$

For the supermajority institution, M enacts $x_t = \hat{x}_M = 0$ in both periods, so C 's equilibrium welfare is equivalent to

$$-(1 - \delta)\bar{x}^2 - \delta[\alpha\bar{x}^2 + (1 - \alpha)\underline{x}^2] + c_s(\kappa - \beta c_s). \quad (9)$$

By substituting for c_f in (8) and c_s in (9), we can solve for the conditions under which the citizen strictly prefers the supermajority institution. Specifically, the following proposition establishes conditions under which the citizen strictly prefers supermajority rule.

Proposition 5. *Consider the setting with varying presidential ideology. For all $\kappa > 0$, there exists $\bar{\beta}_\kappa > 0$ such that the citizen strictly prefers the supermajority institution if and only if $\beta < \bar{\beta}_\kappa$.*

For an illustration of the contents of Proposition 5, see Figure 3, as the results are analogous. As in the setting with a changing policy environment, fast-track dominates if there are no returns from investment. Unlike the previous setting, the president does not choose C 's ideal policy in each period. Yet, the first-period president does select C 's dynamically optimal first-period policy because they share the same ideal point. Thus, C always prefers the fast-track institution if there is no upside from investment.

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

Worries about the deleterious impacts of parochial legislators for addressing societal problems are long-standing. Yet, despite much discussion about whether an arrangement where the executive is less fettered by the legislature is preferred, our analysis — with the starting point of one prominent proposal to strengthen the chief executive's hand — demonstrates that there is no simple affirmative or negative answer to whether we are better-off with a weaker or a stronger president. Rather, even accepting the premise that presidents are more public-regarding than their legislative counterparts, which our analysis does throughout, in a world where citizen-investment is relevant there are quite reasonable conditions under which society is served in better fashion by a supermajoritarian separation-of-powers setup. The benefits stemming

from policy stability offered by supermajoritarian institutional rules can be sufficiently welfare enhancing that they dominate the appeals of ceding additional authority to the chief executive.

This general inference, that strengthening presidential influence can backfire on society if we assume that investment is key for policy success and that policy stability is crucial for inducing investment, is robust. Varying the likelihood of policy change, the scale of policy uncertainty, changes in presidential competence, the stability of the policy environment, and the sensitivity of investment to specific actions will all condition the restrictiveness of the conditions in which a supermajoritarian system world is preferable. However, our basic finding about presidential influence holds.

Admittedly, our model can be critiqued as not incorporating all the implications of a stronger presidential system. Such an arrangement could lead to a larger government presence in society, which is not well-captured in our analysis but is the worry of many opponents of strengthening the chief executive as well as the desire of those fretting about the unwillingness of government to address societal problems. Nor is the possibility that buttressing the position of the chief executive could increase the likelihood of authoritarian regimes emerging well-integrated. Future research could aim to build such considerations and more into a dynamic framework of the sort that we have utilized here.

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5 Appendix

Lemma 1. *Consider the setting with policy uncertainty. Assume $\omega_1 = \bar{\omega}$. Under the fast-track institution, the unique sequence of SPE policies is $x_1 = \bar{\omega}$ and $x_2 = \omega_2$.*

Proof. Consider the fast-track institution in the setting with policy uncertainty and assume $\omega_1 = \bar{\omega}$. We proceed by backwards induction. In the second period, M accepts any proposal x_2 such that $u_M(x_2) \geq u_M(q_2)$. Thus, any SPE is equivalent to an SPE in which P proposes its optimal acceptable policy in the second period. Since $u_M(\bar{\omega}) > u_M(q_1)$ and $u_M(\underline{\omega}) > u_M(q_1)$, it follows that if M rejects x_1 in an SPE then P successfully passes $x_2 = \underline{\omega}$ if $\omega_2 = \underline{\omega}$ and successfully passes $x_2 = \bar{\omega}$ otherwise. Therefore M 's continuation value from rejecting any proposal is the same in every SPE, $\alpha u_M(\bar{\omega}) + (1 - \alpha)u_M(\underline{\omega})$. Next, if M accepts $x_1 = \bar{\omega}$ in an SPE, then $u_M(\bar{\omega}) < u_M(\underline{\omega})$ implies that P successfully passes $x_2 = \underline{\omega}$ if $\omega_2 = \underline{\omega}$ and successfully passes $x_2 = \bar{\omega}$ otherwise. Consequently, in every SPE M 's continuation value from accepting $x_1 = \bar{\omega}$ is equal to M 's continuation value of rejecting it. It follows that M accepts $x_1 = \bar{\omega}$ in every SPE because

$$(1 - \delta)u_M(\bar{\omega}) + \delta \left(\alpha u_M(\bar{\omega}) + (1 - \alpha)u_M(\underline{\omega}) \right) > (1 - \delta)u_M(q_1) + \delta \left(\alpha u_M(\bar{\omega}) + (1 - \alpha)u_M(\underline{\omega}) \right). \quad (10)$$

It is immediate that in every SPE P proposes $x_1 = \bar{\omega}$ and $x_2 = \omega_2$. \square

Lemma 2. *Consider the setting with policy uncertainty. Under the supermajority institution, the unique sequence of SPE policies is $x_1 = \hat{x}_M$ and $x_2 = \hat{x}_M$.*

Proof. Consider the supermajority institution in the setting with policy uncertainty. Without loss of generality, assume $\omega_1 = \bar{\omega}$. We proceed by backwards induction. In the second period, each voter $i \in \{M, L, R, P\}$ accepts

any proposal x_2 such that $u_i(x_2) \geq u_i(q_2)$. Thus, second period policy in any SPE is equivalent to an SPE in which M proposes its optimal acceptable policy in the second period. Since $u_i(\hat{x}_M) > u_i(q_1)$ for all $i \in \{M, L, R, P\}$, it follows that if any i rejects x_1 in an SPE then M successfully passes $x_2 = \hat{x}_M$. Therefore i 's continuation value from rejecting any proposal is the same in every SPE, $u_i(\hat{x}_M)$. Next, if i accepts $x_1 = \hat{x}_M$ in an SPE, then $q_2 = \hat{x}_M$ and M successfully passes $x_2 = \hat{x}_M$ in the second period. Consequently, in every SPE i 's continuation value from accepting $x_1 = \hat{x}_M$ is equal to i 's continuation value of rejecting it. It follows that every $i \in \{M, L, R, P\}$ accepts $x_1 = \hat{x}_M$ in every SPE because

$$(1 - \delta)u_i(\hat{x}_M) + \delta u_i(\hat{x}_M) > (1 - \delta)u_M(q_1) + \delta u_i(\hat{x}_M). \quad (11)$$

It is immediate that M proposes $x_1 = \hat{x}_M$ and $x_2 = \hat{x}_M$ in every SPE. \square

Proposition 1 *Consider the setting with policy uncertainty. For all $\kappa > 0$, there exists $\bar{\beta}_\kappa > 0$ such that the citizen strictly prefers the supermajority institution if and only if $\beta < \bar{\beta}_\kappa$. Furthermore, $\bar{\beta}_\kappa$ is strictly increasing in κ .*

Proof. Consider the setting with policy uncertainty and, without loss of generality, assume $\omega_1 = \bar{\omega}$.

First, we characterize C 's equilibrium investment amount and welfare under the fast-track institution. Lemma 1 implies that the unique SPE sequence of policies is $x_1 = \bar{\omega}$ and $x_2 = \omega_2$. Thus, C receives her ideal policy in each period and chooses c to maximize

$$\alpha(\kappa c - \beta c^2) + (1 - \alpha) \left(\frac{\kappa c}{1 - (\bar{\omega} - \underline{\omega})^2} - \beta c^2 \right). \quad (12)$$

Solving the first order condition yields $c_f = \frac{\kappa[1 + \alpha(\bar{\omega} - \underline{\omega})^2]}{2\beta[1 + (\bar{\omega} - \underline{\omega})^2]}$. Substituting c_f into (12) and rearranging reveals that C 's equilibrium welfare under fast-track is equal to c_f^2 .

Next, we characterize C 's equilibrium investment amount and welfare under the supermajority institution. Lemma 2 implies that the unique SPE sequence of policies is $x_1 = \hat{x}_M$ and $x_2 = \hat{x}_M$. Thus, C chooses c to maximize

$$(1 - \delta)u_C(\hat{x}_M; \bar{\omega}) + \delta[\alpha u_C(\hat{x}_M; \bar{\omega}) + (1 - \alpha)u_M(\hat{x}_M; \bar{\omega})] + \kappa c - \beta c^2. \quad (13)$$

Solving the first order condition yields $c_s = \frac{\kappa}{2\beta}$. Substituting c_s into (13) and rearranging reveals that C 's equilibrium welfare under supermajority is equal to

$$(1 - \delta)u_C(\hat{x}_M; \bar{\omega}) + \delta[\alpha u_C(\hat{x}_M; \bar{\omega}) + (1 - \alpha)u_M(\hat{x}_M; \bar{\omega})] + \left(\frac{\kappa}{2\beta}\right)^2. \quad (14)$$

Finally, we compare C 's equilibrium welfare under the two institutions. Specifically, C strictly prefers the supermajority institution if and only if (14) is strictly greater than c_f^2 , which holds if and only if

$$\beta < \frac{\kappa^2(1 - \alpha)(\bar{\omega} - \underline{\omega})^2[2 + (1 + \alpha)(\bar{\omega} - \underline{\omega})^2]}{4[1 + (\bar{\omega} - \underline{\omega})^2][\bar{\omega}^2 + \delta(1 - \alpha)(\underline{\omega} - \bar{\omega})(\underline{\omega} + \bar{\omega})]}. \quad (15)$$

Let $\bar{\beta}_\kappa$ denote the right-hand side of (15), which is strictly positive if $\kappa > 0$ and strictly increasing in κ , as desired. \square

Proposition 2 *Consider the setting with policy uncertainty.*

1. *If the stability of the policy environment increases, then the conditions for the citizen to prefer supermajority rule are more restrictive.*
2. *Assume $\bar{\omega} = -\underline{\omega}$. If the scale of policy uncertainty increases, then the conditions for the citizen to prefer supermajority rule are more restrictive.*

Proof. Consider the setting with policy uncertainty. By Proposition 1, it follows that C strictly prefers the supermajority institution if and only if $\beta < \bar{\beta}_\kappa$, where $\bar{\beta}_\kappa$ is defined as in (15).

1. To obtain the desired result, we take the partial derivative of $\bar{\beta}_\kappa$ with respect to α , which yields

$$\frac{\partial \bar{\beta}_\kappa}{\partial \alpha} = \frac{\kappa^2(\bar{\omega} - \underline{\omega})^2[\delta(1 - \alpha)^2(\underline{\omega} - \bar{\omega})^3(\underline{\omega} + \bar{\omega}) - 2\bar{\omega}^2(1 + \alpha(\underline{\omega} - \bar{\omega})^2)]}{4[1 + (\underline{\omega} - \bar{\omega})]^2[\bar{\omega}^2 + \delta(1 - \alpha)(\underline{\omega} - \bar{\omega})(\underline{\omega} + \bar{\omega})]^2} < 0. \quad (16)$$

Thus, $\bar{\beta}_\kappa$ is strictly decreasing in α , as desired.

2. Assume $\bar{\omega} = -\underline{\omega}$, which implies that increasing $\bar{\omega}$ increases the scale of policy uncertainty, $|\bar{\omega} - \underline{\omega}|$. To obtain the desired result, we take the partial derivative of $\bar{\beta}_\kappa$ with respect to $\bar{\omega}$, which yields

$$\frac{\partial \bar{\beta}_\kappa}{\partial \bar{\omega}} = -\frac{8\kappa^2(1 - \alpha)\underline{\omega}[3 - \alpha + 4(1 + \alpha)\bar{\omega}^2]}{(1 + 4\bar{\omega})^3} < 0. \quad (17)$$

Thus, if $\bar{\beta}_\kappa$ is strictly decreasing in $|\bar{\omega} - \underline{\omega}|$, as desired. \square

Proposition 3 *Consider the setting with policy uncertainty and varying presidential competence. For all $\kappa > 0$, there exists $\bar{\tau}_\kappa > 0$ and $\bar{\beta}_\kappa > 0$ such that the citizen strictly prefers the supermajority institution if and only if $\tau < \bar{\tau}_\kappa$ and $\beta < \bar{\beta}_\kappa$.*

Proof. Consider the setting with policy uncertainty and changing presidential competence. Without loss of generality, assume $\omega_1 = \bar{\omega}$.

First, we characterize C 's equilibrium investment amount and welfare under the fast-track institution. The policymaking environment is not affected by varying presidential competence, so Lemma 1 implies that the unique SPE sequence of policies is $x_1 = \bar{\omega}$ and $x_2 = \omega_2$. Thus, C receives her ideal policy in each period and chooses c to maximize

$$(1 - \delta)(\kappa + \tau)c + \delta \left(\eta(\kappa + \tau)c + (1 - \eta)\kappa c \right) \left(\alpha + \frac{(1 - \alpha)}{1 - (\bar{\omega} - \underline{\omega})^2} \right) - \beta c^2. \quad (18)$$

Solving the first order condition yields

$$c_f = \frac{\tau[1 - \delta(1 - \eta)] + \kappa[1 + (1 - \delta(1 - \alpha))(\underline{\omega} - \bar{\omega})^2] + \tau[1 - \delta(1 - \alpha\eta)](\underline{\omega} - \bar{\omega})^2}{2\beta[1 + (\bar{\omega} - \underline{\omega})^2]}.$$
(19)

Substituting c_f into (18) and rearranging reveals that C 's equilibrium welfare under fast-track is equal to c_f^2 .

Next, notice that the supermajority institution is analogous to the setting with fixed presidential competence. Therefore equilibrium behavior and citizen welfare is identical to that case.

Finally, we compare C 's equilibrium welfare under the two institutions. For convenience, let \bar{c}_f denote the numerator of c_f , as defined in (19). Specifically, C strictly prefers the supermajority institution if and only if c_f^2 is strictly less than (14), which holds if and only if

$$\beta < \frac{\kappa^2 - \bar{c}_f^2}{4[\bar{\omega}^2 + \delta(1 - \alpha)(\underline{\omega} - \bar{\omega})(\underline{\omega} + \bar{\omega})]}.$$
(20)

Let $\bar{\beta}_\kappa$ denote the right-hand side of (15), which is strictly positive if and only if $\kappa > 0$ and

$$\tau < \frac{\kappa[1 + (1 + \delta(1 - \alpha))(\underline{\omega} - \bar{\omega})^2]}{1 - \delta[1 - \eta(1 + \alpha(\underline{\omega} - \bar{\omega})^2) - (\underline{\omega} - \bar{\omega})^2] + (\underline{\omega} - \bar{\omega})^2},$$
(21)

which is strictly positive. Let $\bar{\tau}_\kappa$ denote the right-hand side of (21) to get the desired result. \square

Proposition 4 *Consider the setting with policy uncertainty and varying presidential competence.*

1. *If the baseline investment marginal benefit increases, then the conditions for the citizen to prefer supermajority rule are less restrictive.*
2. *If the probability of electing a competent president increases, then the*

conditions for the citizen to prefer supermajority rule are more restrictive.

3. If the investment benefit from a competent president increases, then the conditions for the citizen to prefer supermajority rule are more restrictive.

Proof. Consider the setting with policy uncertainty. By Proposition 1, it follows that C strictly prefers the supermajority institution if and only if $\beta < \bar{\beta}_\kappa$ and $\tau < \bar{\tau}_\kappa$, where $\bar{\beta}_\kappa$ is defined as in (20) and $\bar{\tau}_\kappa$ is defined by (21).

1. The partial derivative of $\bar{\beta}_\kappa$ with respect to κ yields

$$\frac{\partial \bar{\beta}_\kappa}{\partial \kappa} = \frac{\kappa - c_f^2 [1 + (1 - \delta(1 - \alpha))(\underline{\omega} - \bar{\omega})^2]}{2[\bar{\omega}^2 + \delta(1 - \alpha)(\underline{\omega} - \bar{\omega})(\underline{\omega} + \bar{\omega})]} > 0. \quad (22)$$

Similarly, the partial derivative of $\bar{\tau}_\kappa$ with respect to κ is

$$\frac{\partial \bar{\tau}_\kappa}{\partial \kappa} = \frac{[1 + (1 + \delta(1 - \alpha))(\underline{\omega} - \bar{\omega})^2]}{1 - \delta[1 - \eta(1 + \alpha(\underline{\omega} - \bar{\omega})^2) - (\underline{\omega} - \bar{\omega})^2] + (\underline{\omega} - \bar{\omega})^2} > 0. \quad (23)$$

Thus, $\bar{\beta}_\kappa$ and $\bar{\tau}_\kappa$ are both strictly increasing in κ , as desired.

2. Recall that \bar{c}_f denotes the numerator of c_f , as defined in (19). The partial derivative of $\bar{\beta}_\kappa$ with respect to η yields

$$\frac{\partial \bar{\beta}_\kappa}{\partial \eta} = -\frac{[\delta\tau(1 + \alpha(\underline{\omega} - \bar{\omega})^2)]\bar{c}_f}{[\bar{\omega}^2 - \delta(1 - \alpha)(\underline{\omega} - \bar{\omega})(\underline{\omega} + \bar{\omega})][8(1 + (\underline{\omega} - \bar{\omega})^2)]^2} < 0. \quad (24)$$

Next, the partial derivative of $\bar{\tau}_\kappa$ with respect to η is

$$\frac{\partial \bar{\tau}_\kappa}{\partial \eta} = -\frac{\delta\kappa[1 + \alpha(\underline{\omega} - \bar{\omega})^2][1 + (1 - \delta(1 - \alpha))(\underline{\omega} - \bar{\omega})^2]}{[1 - \delta[1 - \eta(1 + \alpha(\underline{\omega} - \bar{\omega})^2) - (\underline{\omega} - \bar{\omega})^2] + (\underline{\omega} - \bar{\omega})^2]^2} < 0. \quad (25)$$

Thus, $\bar{\beta}_\kappa$ and $\bar{\tau}_\kappa$ are both strictly decreasing in η , as desired.

3. Recall that \bar{c}_f denotes the numerator of c_f , as defined in (19). The

partial derivative of $\bar{\beta}_\kappa$ with respect to τ yields

$$\frac{\partial \bar{\beta}_\kappa}{\partial \tau} = -\frac{[(1 - \delta(1 - \eta) + (1 - \delta(1 - \alpha\eta))(\underline{\omega} - \bar{\omega})^2)\bar{c}_f]}{[\bar{\omega}^2 + \delta(1 - \alpha)(\underline{\omega} - \bar{\omega})(\underline{\omega} + \bar{\omega})][8(1 + (\underline{\omega} - \bar{\omega})^2)]^2} < 0. \quad (26)$$

Thus, $\bar{\beta}_\kappa$ is strictly decreasing in τ , as desired. \square

Proposition 5 *Consider the setting with varying presidential ideology. For all $\kappa > 0$, there exists $\bar{\beta}_\kappa > 0$ such that the citizen strictly prefers the supermajority institution if and only if $\beta < \bar{\beta}_\kappa$.*

Proof. Consider the setting with varying presidential ideology.

First, we characterize C 's equilibrium investment amount and welfare under the fast-track institution. Under our maintained assumptions, it follows from Buisseret and Bernhardt (2017) that the unique SPE sequence of proposals is $x_1^* = \hat{x}_{P_1}(1 - 2\delta\alpha)$ in the first period, and $x_2 = x_1^*$ in the second period if $\hat{x}_{P_2} = \hat{x}_{P_1}$ and $-x_1^*$ otherwise.

Thus, C chooses c to maximize

$$(1 - \pi)(\kappa c - \beta c^2) + \pi \left(\frac{\kappa c}{1 - (2x_1^*)^2} - \beta c^2 \right). \quad (27)$$

Solving the first order condition yields

$$c_f = \frac{\kappa[1 + (1 - \pi)(2x_1^*)^2]}{2\beta[1 + (2x_1^*)^2]}. \quad (28)$$

Substituting c_f into (18) and rearranging reveals that C 's equilibrium welfare under fast-track is equal to c_f^2 .

The rest of the proof is analogous to that of Proposition 1 \square