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Drain the swamp: A theory of anti-elite populism

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DRAIN THE SWAMP: A THEORY OF ANTI-ELITE POPULISM

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We study a model of popular demand for anti-elite populist reforms that *drain the swamp*: replace experienced public servants with novices that will only acquire experience with time. Voters benefit from experienced public servants because they are more effective at delivering public goods and more competent at detecting emergency threats. However, public servants' policy preferences do not always align with those of voters. This tradeoff produces two key forces in our model: public servants' incompetence spurs disagreement between them and voters, and their effectiveness grants them more power to dictate policy. Both of these effects fuel mistrust between voters and public servants, sometimes inducing voters to drain the swamp in cycles of anti-elite populism. We study which factors can sustain a responsive democracy or induce a technocracy. When instead populism arises, we discuss which reforms may reduce the frequency of populist cycles, including recruiting of public servants and isolating them from politics. Our results support the view that a more inclusive and representative bureaucracy protects against anti-elite populism. We provide empirical evidence that lack of trust in public servants is a key force behind support for anti-elite populist parties and argue that our model helps explain the rise of anti-elite populism in large robust democracies.

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Drain the Swamp: A Theory of Anti-Elite Populism

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Abstract

We study a model of popular demand for anti-elite populist reforms that *drain the swamp*: replace experienced public servants with novices that will only acquire experience with time. Voters benefit from experienced public servants because they are more effective at delivering public goods and more competent at detecting emergency threats. However, public servants' policy preferences do not always align with those of voters. This tradeoff produces two key forces in our model: public servants' incompetence spurs disagreement between them and voters, and their effectiveness grants them more power to dictate policy. Both of these effects fuel mistrust between voters and public servants, sometimes inducing voters to drain the swamp in cycles of anti-elite populism. We study which factors can sustain a responsive democracy or induce a technocracy. When instead populism arises, we discuss which reforms may reduce the frequency of populist cycles, including recruiting of public servants and isolating them from politics. Our results support the view that a more inclusive and representative bureaucracy protects against anti-elite populism. We provide empirical evidence that lack of trust in public servants is a key force behind support for anti-elite populist parties and argue that our model helps explain the rise of anti-elite populism in large robust democracies.

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1 Introduction

Modern economies rely upon experienced state bureaucracies to effectively deliver public goods and services and to competently adjust policy to a changing world. Experienced public servants inform policymakers about financial, economic, and environmental threats, and play a crucial role in devising policies to competently respond to these threats. In democracies, voters choose representatives to work with the state bureaucracy and oversee its operations. But sometimes they elect populist leaders who *drain the swamp*: replace experienced public servants with less effective and incompetent novices.¹ For example, scholars in public administration and political science have noted how President Trump “sidelined administrative expertise and scientists in many areas, selecting senior leaders whose lack of qualification is frequently matched only by their disdain for their organizational mission” (Bauer, Peters, Jon, Yesilkagit and Becker, 2021).² These actions hindered progress towards combating key threats that public servants had long warned about, such as global warming.

Since draining the swamp is costly for the economy, voters’ demand for it is puzzling. One possibility is that draining the swamp arises purely from voters’ desire to replace current public servants with more ideologically-aligned personnel. However, populist leaders, such as President Trump, do not simply appoint ideologically-aligned bureaucrats. In many cases, they replace experienced public servants with distinctly inexperienced personnel, or even leave positions vacant. This view also contrasts with elite commentators’ widespread criticism of draining the swamp. Many maintain that the dismissed bureaucrats are humble servants of the voters, unfairly replaced by less competent novices. Some advocate for reforms, introduced in some countries, that protect top-level bureaucrats from dismissals. However, outside elite circles, many voters applaud the dismissal of experienced public servants, arguing that elite public servants are too powerful and cannot be trusted to devise policies—such as green policies—that agree with what voters really need.³

¹Conservatives, such as Ronald Reagan, also use the expression “drain the swamp.” They mean it as a call for reducing waste and inefficiencies in the bureaucracy. Populist leaders mean it as a call for a change of personnel: elite public servants should be replaced by personnel drawn from outside the bureaucracy.

²Moynihan (2021) discusses several high-profile cases. Beyond such cases, President Trump also appointed Ben Carson to the post of Secretary of Housing and Urban Development, a man without any previous bureaucratic experience and who stated that having him “as a federal bureaucrat would be like a fish out of water” (Costa, 2016).

³As reported by Massimo Calabresi in Time magazine, Susan Rose Ackerman’s (Yale Law School) view on Trump’s war on the bureaucracy is that it is a “war on the core responsibility of the bureaucracy to make sure the laws as passed are carried out.” Yet, “for many of Trump’s followers [it is] exactly what they asked for [...] “he was given a mandate with the election to go up there and correct and fix Washington and drain that swamp. That is exactly what I see him doing,” says Janice Westmoreland, 69, of Milledgeville,

In this paper, we develop a theoretical framework to conceptualize the forces that create mistrust between voters and public servants. We use this framework to gain insights into the causes of popular support for anti-elite populist leaders and propose institutional reforms to reduce its frequency. We further discuss the empirical relevance of our framework in explaining the rise of anti-elite populist movements across Western democracies.

Our framework reconciles the view that experienced public servants are motivated by interests broadly aligned with those of the voters with the idea that voters may rationally support leaders who drain the swamp. Our approach is motivated by two factors. First, if draining the swamp is purely about ideological differences, then anti-elite populism is no different from other forms of democratic politics. Perhaps most voters oppose the policies suggested by expert public servants and so a democracy should simply not pursue them. Yet, many commentators argue that anti-elite populism is different. That issues such as combating global warming are divisive largely because of a lack of information and transparency. That voters' opposition is fueled by misinformed mistrust towards the very experts who are working in the voters' best interest. According to this view, democratic institutions could be adjusted to build up trust and deliver better policies for all voters. Our model captures this idea and evaluates how differing reforms may or may not help.

Second, our approach allows us to characterize how anti-elite populism may arise from differing causes, and thus suggest differing remedies. In some cases, voters may become informed that public servants have indeed reported misleading information and attempted to implement policies that voters did not prefer. For example, media coverage of revolving doors between financial regulator offices and banks in the wake of the Global Financial Crisis fueled widespread mistrust towards those experts that had favored and engineered financial liberalizations. In other cases, voters have demanded the removal of public servants who they did not trust but that, according to most expert commentators, were serving them well. For example, push-back against expert advice at the onset of the Covid pandemic was widely condemned as unjustified mistrust of public health experts. Our model captures these different roots of anti-elite populism and shows that preventing them may require different approaches.

To capture these ideas, we build a theory based on two premises. First, voters need experienced public servants to effectively provide public goods and competently detect and respond to new threats and opportunities. Second, voters and experienced public servants fundamentally agree on policymaking objectives. However, when threats are

Ga" (Calabresi, 2017). More favorable reviews of President Trump's action notice that "for years, unelected bureaucrats have been allowed largely unchecked power over the daily lives of Americans. This president is trying to change that" (Bovard, 2019).

uncertain, public servants' preferred response may not perfectly align with voters' preferences. For example, experts and voters concord that if human economic activities endanger civilization as we know it, then curbing emissions is a first order policy priority, even at the cost of significantly reducing economic activity today. However, elite public servants and experts in academia are less affected by the reduction of economic activity, as their jobs are more secure. As a result, compared to voters, public servants may prefer to curb economic activity at lower levels of existential risk.⁴

In Section 3, we formalize our ideas in a dynamic agency model. In each period, the voter inherits an incumbent agent who is either *experienced* or a *novice* that will acquire experience over time. An experienced agent is both more *effective* in providing public goods⁵ and *competent*: she can detect uncertain threats that could be countered by triggering costly emergency policies. There is no ideological conflict between the voter and the agent: once uncertainty is resolved, their policy preferences are (cardinally) identical. Ex ante, from the point of view of the voter, the optimal policy—what we refer to as the agent's *mandate*—is to trigger emergency policies if and only if the agent detects a threat. However, agents are more *hawkish* than voters: their cost of triggering an emergency policy is smaller.⁶ Whether she detects a threat is an experienced agent's private information, but if she triggers an emergency policy, oversight institutions that enforce *transparency* (e.g., the media or parliamentary inquiries) may reveal the agent's information to the voter. The only tool available to the voters to avoid a triggered emergency policy is to replace the agent—to drain the swamp. Draining the swamp may serve to discipline the agent but is costly for the voter: it replaces an experienced agent with a novice that will only acquire effectiveness and competence over time.

While our focus is on the rise of anti-elite populism, we believe this model may provide useful insights in other contexts in which a principal chooses whether to hire or dismiss agents that acquire experience over time. For example, our model finds a natural application in the study of agency problems between a firm's board and its manager.

⁴Other examples may include public pensions reforms or policies of fiscal austerity aimed at improving fiscal sustainability and stability. When the risks sufficiently likely, both voters and elite public servants agree such policies may be necessary. But elite public servants pay a relatively smaller cost for such policies.

⁵As we discuss later, effectiveness may also include the agent's performance in any other task—including responding to other emergencies—in which disagreement between voters and public servants does not arise. Returning to our global warming example, effectiveness may be thought of as the experienced public servants' competence in addressing other non-divisive environmental issues.

⁶The agent's hawkishness may also encompass other incentives, including capture or bribery by interest groups. We only require that the policy mistake associated with triggering an emergency policy when the threat does not realize is relatively more costly for the agent than the policy mistake of not triggering the emergency policy when the threat realizes. However, while in our benchmark model a perfectly competent agent and a voter never disagree, in a model with bribery, a sufficiently large bribe induces disagreement for any level of competence.

Like public servants, managers also acquire firm-specific experience with time. Experienced managers are both more effective in managing the normal operations of the firm and more competent in detecting opportunities in new markets that fit the firm's potential and design products that seize such opportunities. Both the board and the manager wish to seize opportunities when they arise but know that attempting to seize false opportunities is costly. However, the manager's career is further boosted if she successfully seizes an opportunity, so that, compared to the board, she is more averse to missing a true opportunity than seizing a false one. When the manager pursues an aggressive policy in new markets, the board can choose to fire her (draining the swamp—in our language), but this is costly, as it replaces an experienced manager with a novice who is both less effective and less competent and will only acquire experience over time.

We show in Section 4 that our theoretical framework produces two key forces that determine equilibrium behavior. First, we show that *incompetence spurs disagreement*: only sufficiently incompetent agents ever have an incentive to deviate from their mandate and trigger emergency policies without having detected a threat. In fact, a very competent agent would detect threats with very high probability, and thus has no reasons to trigger an emergency policy when she does not detect one. Second, we show that *effectiveness begets power* to the agent: more effective agents are more costly to replace and thus need not to bother with the voter's threat to drain the swamp.

These two effects drive the conditions that determine which regime arises in the unique equilibrium we characterize in Section 5. A sufficiently powerful agent establishes a *technocracy*, whereby she dictates policymaking at will, independently of the voter's mandate. Otherwise, less intense disagreement between the voter and the agent supports a *responsive democracy* in which the agent always abides by her mandate. But more intense disagreement induces cycles of anti-elite populism, whereby the agent violates her mandate and the voter drains the swamp on the equilibrium path. We show that the power of the agent determines which of two types of populist cycles arise. In *informed populism*, the voter only drains the swamp when he becomes informed that the agent has indeed violated her mandate and acted against the voter's interest. In contrast, in *preemptive populism*, the voter drains the swamp with positive probability even when uninformed. In fact, an expert commentator, able to access and assess the information available to the agent, would sometimes conclude that the voter is replacing an agent he does not trust but that is serving him well.

Our theory allows us to shed some light on both the potential reasons for why populism is on the rise in the past decades and what, if anything, can be done to mitigate its frequency and impact. In Section 6 we argue that our model suggests that well-

functioning democracies may plunge into populism as a result of four possible shocks. A decrease in the competence of public servants, an increase in their hawkishness or in the frequency of threats all can induce populist cycles by exacerbating disagreement. In addition, populist cycles may also be brought upon by a decrease in the transparency of institutions that breaks the trust relation between voters and public servants.

Our model sharpens the intuition that managing populism is a difficult task. We show in Section 7 that the optimal response depends on several factors, including whether the size of the shock that induced populism in the first place is reversible. When this is not possible, a reformer may attempt to at least reduce the frequency of populist cycles in which voters drain the swamp. In this case the optimal policy depends on whether the country has plunged into an informed or preemptive populist regime. Reducing the frequency of cycles of informed populism—perhaps counterintuitively—requires reforms that decrease transparency and select less competent public servants. Reducing cycles of preemptive populism, instead, requires increasing transparency or selecting less hawkish public servants. Changing public servants’ competence may instead backfire as it may both increase or decrease the frequency with which voters drain the swamp. In fact, the only policy that unambiguously (albeit weakly) reduces the frequency of populist cycles is a reduction in the underlying cause of the public servants’ hawkishness—for example, by reducing labor protection differences between private and public sectors, or selecting bureaucrats with preferences that are more aligned with those of the average voter. Thus, our theory suggests that the most robust remedy against anti-elite populism is the design of a more inclusive and representative bureaucratic elite, perhaps through the design of meritocratic systems that favor the selection of personnel from a broader and more inclusive set of socio-economic backgrounds. Finally, our model warns against the technocratic peril of attempting to solve anti-elite populism by increasing the effectiveness of public service.

We also discuss how other approaches to avoid or manage populism may perform. One approach is to increase the independence of the bureaucracy, so to insulate public servants from politically motivated dismissals. In some cases, only some sectors of the bureaucracy may be insulated, perhaps targeting those in which disagreement between voters and public servants is more intense or there is less transparency. However, we show that in our framework such a reform, if implemented in a well-functioning democracy, may actually induce anti-elite populist cycles. Thus our model warns against the idea that bureaucratic independence is the solution to popular demand for anti-elite populism: by making it harder for voters to discipline public servants, bureaucratic independence may fuel demand for more drastic measures. We note that, if introduced in

a country that has already plunged into populism, bureaucratic independence may indeed reduce the frequency of populist cycles. However, rather than moving the country towards a more functional relation between voters and public servants, bureaucratic independence induces a dysfunctional populist regime in which bureaucrats constantly violate their mandate and voters constantly try to drain the swamp, but rarely succeed. Another approach is to allow the bureaucracy to self-regulate. We highlight cases in which this approach may be successful, but also warn against its drawbacks. For example, we show that bureaucrats may prefer to sabotage their own competence to induce a technocracy, because in our framework *effectiveness begets greater power to incompetent agents*.

In Section 8, we argue that our theoretical framework helps make sense of individual- and aggregate-level phenomena in the real world. We discuss how to interpret our results in light of social, political, and technological trends in Western democracies in the last decades. We combine empirical evidence in the existing literature with new individual-level evidence to show that our model offers plausible mechanisms for the determinants of voters' support for anti-elite populist leaders. To provide a more complete narrative of how our mechanism may have been activated, we focus on two recent cases in which anti-elite populism has won national elections and drained the swamp: Italy and the United States. In both cases, we highlight how a deterioration of the quality of the state bureaucracy reduced voters' trust in public servants, fueling demand for populist leaders who drained the swamp. Beyond these two salient cases, we use data from the joint World Values Survey and European Values Study (2017-2022) and the Chapel Hill Expert Survey (2019) to study individual-level support for anti-elite populist parties across Europe. We uncover strong evidence—albeit only correlational—in favor of the idea that lack of trust in public servants is the key robust predictor of voters' support for anti-elite populist parties.

We conclude in Section 9 by connecting our theoretical framework with a long tradition of scholarly work on the long-run determinants of the relation between citizens and the state.

2 Related literature

Both our theory and empirical focus seek to explain voters' demand for anti-technocratic and anti-bureaucratic populist reforms. Populism is an elusive concept to define and not all populist movements are anti-bureaucratic.⁷ However, mistrust for the elites governing

⁷For example, some populist leaders, such as Ecuadorian president Rafael Correa, have taken technocratic approaches to governing, promising to employ 'outsider' expertise to make the bureaucracy more

democratic policymaking is common to many populist movements. In fact, [Mudde and Rovira Kaltwasser \(2017\)](#) define populism as an ideology that separates society into “the pure people” and the “the corrupt elite” and, in contrast to elitism, expresses the view that the will of the pure people should trump that of the elite.

A growing literature has highlighted a series of possible (and likely complementary) causes of populism, focusing on political competition and politicians’ policy platforms: policy distortions induced by citizen elites and interest groups ([Acemoglu, Egorov and Sonin, 2013](#); [Bellodi, Morelli, Nicolò and Roberti, 2023b](#)); increasing misalignment between common voters and a better informed elite ([Agranov, Eilat and Sonin, 2023](#); [Auriol, Bonneton and Polborn, 2023](#); [Bräuning and Marinov, 2022](#); [Crutzen, Sisak and Swank, 2020](#)); crises that increase voters’ demand for spending and policy reform ([Bernhardt, Krasa and Shadmehr, 2022](#); [Prato and Wolton, 2018](#)); and psychological traits of voters, such as betrayal aversion ([Di Tella and Rotemberg, 2018](#)) or simplistic world views ([Herrera and Trombetta, 2024](#); [Levy, Razin and Young, 2022](#)). This literature has highlighted the importance of voters’ lack of trust in the political elite. We offer a complementary perspective by highlighting, both theoretically and empirically, the importance of voters’ lack of trust in the public servants who advise politicians, design policies, and run the day-to-day operations of the state. Because our focus is on public servants, we do not adopt a model of political accountability (or selection) whereby (i) voters seek to select the right type of politician and (ii) politicians’ reputation concerns drive accountability and discipline politicians whose preferences are misaligned with those of the voters. Instead, in our model: (i) voters cannot select more or less aligned public servants—instead, they only possess a blunt tool to control them: elect anti-elite populist leaders who antagonize experienced public servants and replace them with inexperienced and ineffective personnel; (ii) public servants are homogeneous and—in the language of the information aggregation literature—share *common values* with voters. Therefore, our mechanism is one of moral hazard and costly prevention rather than one of selection. We abstract from the source of a supply for anti-elite populist leaders and focus on what drives voters to demand the replacement of elite bureaucrats with less experienced ones who implement the people’s will. Our model provides insights into when disagreement is more likely to arise between the people and the public service elites, and when these elites may become powerful enough to dictate policy. We argue that a well-functioning democracy governs disagreement so that the elite serves the people well. In contrast, when the elite is less competent, populism arises as an ideology that prefers inexperienced public servants to

competent and more effective (see, e.g., [Bauer et al., 2021](#); [Panizza, Peters and Ramos Larraburu, 2019](#); [Postel, 2007](#)).

elite bureaucrats.

In our model, inexperienced public servants implement default policies while experienced ones claim to competently enact policies that respond to a changing world. We share this view of populism with [Bellodi, Morelli, Nicolò and Roberti \(2023b\)](#), who argue that demand for populism arises from a desire for politicians who commit to simpler policies that can be more easily monitored. An alternative perspective offered by [Auriol et al. \(2023\)](#) is that electing such populist politicians serves as a disciplining tool for misbehaving elite politicians and may be used in a voter's optimal retention strategy.

Demand for populism may come for other reasons: economic insecurity or other threats to voters' welfare ([Algan, Guriev, Papaioannou and Passari, 2017](#); [Ananyev and Guriev, 2019](#); [Autor, Dorn, Hanson and Majlesi, 2020](#); [Colantone and Stanig, 2018](#); [Gratton and Lee, 2024](#); [Guiso, Herrera, Morelli and Sonno, 2017, 2019, 2020](#); [Rodrik, 2018](#)), or other sources of mistrust in institutions ([Norris and Inglehart, 2019](#)) (see [Guriev and Papaioannou, 2020](#), for a review). Our analysis complements this literature by providing a mechanism through which populism addresses voters' economic and cultural concerns. In particular, in our model, greater economic insecurity increases the disagreement between the bureaucratic elite and the voters, thus increasing the demand for leaders who promise to drain the swamp. Furthermore, our theory endogenizes the source of mistrust between voters and bureaucrats, identifying under which circumstances elite bureaucrats disagree with voters and the determinant of their power to dictate policy.

An emerging literature has documented the negative effects of populist governments on the quality of national bureaucracies ([Bellodi, Morelli and Vannoni, 2023a](#); [Moynihan, 2021](#)). [Sasso and Morelli \(2021\)](#) study a model in which populist politicians implement reforms that decrease the quality of the bureaucracy because they prefer bureaucrats who implement their platforms. Our theory provides insights into why voters may demand such costly reforms and elect leaders who promise to drain the swamp and implement the policy voters want, independently of the expert advice of experienced public servants.

Our paper contributes to a broader literature on bureaucratic control in democracies (see [Gailmard and Patty, 2012a](#), for an overview) and how politics affects the quality of the bureaucracy (e.g., [Denisenko, Hafer and Landa, 2022](#); [Gratton, Guiso, Michelacci and Morelli, 2021](#); [Nath, 2016](#); [Ting, 2021](#)). Implicit in our theory is the idea that bureaucrats have discretionary power that voters and politicians can control only with blunt instruments such as replacing personnel. We share this idea with, e.g., [Banks and Weingast \(1992\)](#) and [Bendor and Meirowitz \(2004\)](#). [Gailmard and Patty \(2012b\)](#) highlight that bureaucrats are given discretionary power because it creates incentives to acquire expertise (see also [Alesina and Tabellini, 2007, 2008](#); [Callander and Krehbiel, 2014](#); [Huber and](#)

Shipan, 2002; Maskin and Tirole, 2004; Ting, 2002, who provide other explanations for the discretionary power of bureaucrats). We depart from this literature in two directions. First, we explicitly model the observation that “expertise development takes time” (Gailmard and Patty, 2012b, p. 26). Second, we highlight the interaction between two features of expertise—competence and effectiveness—and show that each plays a distinct role in the relationship between voters and public servants.

Our model shares some features with models of both bureaucratic control and political accountability stemming from the seminal work of Holmström (1980, 1982), Barro (1973), and Ferejohn (1986) (e.g., Huber and McCarty, 2004; Morris, 2001; Dewan and Squintani, 2018; Fox and Jordan, 2011; Besley, 2006; Fox and Shotts, 2009; Ashworth, Bueno de Mesquita and Friedenber, 2018; Ashworth and Bueno de Mesquita, 2014; Kartik, Van Weelden and Wolton, 2017; Duggan and Martinelli, 2017). Most of this literature focuses on disagreement that arises between a principal and an agent because the principal and the agent want different things. In contrast, we assume that voters and public servants essentially want the same thing, but when there is uncertainty about which option is best, disagreement arises because of their differing tolerances for different types of mistakes. This view yields our result that incompetence spurs disagreement.

Our formal model abstracts from the role of political leaders. In this sense, we offer a theory of the relation between the citizens and the state. It posits that robust, well-functioning democratic institutions only survive in a “narrow corridor” in which the state is sufficiently competent but not too powerful (echoing arguments in Acemoglu and Robinson, 2019; Stasavage, 2020) and that democracy is inherently vulnerable to technological and social shocks that increase disagreement between different classes of citizens (Przeworski, 2019).

3 The model

3.1 Summary

We study a model with a forward-looking and infinitely lived voter. In each period, the voter either inherits an effective and competent state organization with experienced public servants or one with inexperienced novices. We call the organization of the state an *agent* and say that the agent is either *experienced* or a *novice*. Compared to a novice, an experienced agent is more *effective* at producing public goods and services, as well as more *competent* at detecting emergency threats.

We model the experienced agent’s competence as the precision of a signal that she

observes as the new period begins. The signal is binary: she either detects a threat or not. The agent can then trigger an *emergency policy*. The voter's preference is for the agent to trigger the emergency policy if and only if she has detected a threat. We refer to this strategy as the *agent's mandate*. However, agents are *hawkish*: compared to the voter, agents have a greater aversion to emergencies that are not covered by emergency policies so that, for some parameters of the model, an agent may prefer to trigger the emergency policy even when she detects no threat. When this is the case, we say that the voter and the agent *disagree*.

Triggering an emergency policy raises public attention to possible threats so that the voter has a chance to observe directly the information available to the agent. This chance naturally increases with the quality and *transparency* of the bureaucracy, the media, and the public debate.

Whether the voter observes the information or not, she can avoid the emergency policy by *draining the swamp*: replace the incumbent, experienced agent with a novice, unable to detect threats or implement emergency policies. Draining the swamp is costly as it deteriorates the ability of the state to produce goods and services and, for the time being, generates a state unable to detect threats and respond to them with appropriate emergency policies. However, novices acquire experience over time so that, after a number of periods, a novice becomes experienced.

3.2 Formal setup

A forward-looking voter lives for infinitely many periods $t \in \{1, 2, \dots\}$. In each period t , there is an incumbent agent who is either *experienced* or a *novice*, and either an *emergency* occurs, $\theta_t = 1$, or not, $\theta_t = 0$, with $\pi \equiv \Pr[\theta_t = 1] < 1/2$.⁸

An experienced agent privately observes a binary signal $s_t \in \{0, 1\}$ about whether an emergency has occurred, where $s_t = 1$ means that the agent *detects an emergency threat*. The *competence* of an experienced agent is captured by the precision of the signal s_t , $\kappa \equiv \Pr[s_t = \theta_t \mid \theta_t] > 1/2$.

Upon observing the signal, the agent chooses whether to trigger an *emergency policy*, $p_t = 1$, or not, $p_t = 0$. If the agent triggers an emergency policy, then the voter observes the agent's signal s_t with probability equal to the *transparency* of the system $\tau > 0$. Whether she observes the signal or not, the voter chooses whether to *drain the swamp*: replace the experienced agent with a *novice* that does not detect threats and never triggers emergency

⁸The assumption that $\pi < 1/2$ means that emergencies are less likely than non-emergencies.

policies.⁹ Let $d_t = 1$ denote the decision to drain the swamp in period t and $d_t = 0$ its complement. The policy implemented equals $i_t = p_t(1 - d_t)$.

Agents acquire experience over time so that an agent first hired at time t is a *novice* at time $s \geq t$ if $s < t + T$ and *experienced* thereafter. In our benchmark model we assume $T = 1$ so that a novice becomes experienced in one period.¹⁰ For simplicity, we assume that at $t = 1$ the incumbent agent is experienced.

The voter discounts future payoffs with factor $\delta < 1$. Her period- t payoff is given by the sum of the public goods produced in that period and a payoff equal to 1 if $i_t = \theta_t$ and 0 if $i_t \neq \theta_t$. The extra amount of public goods and services afforded by an experienced agent compared to a novice equals the experienced agent's *effectiveness*, $\eta > 0$.

If the voter does not drain the swamp in period t , the incumbent agent receives a policy payoff and a continuation payoff; otherwise her payoff is 0. In our benchmark model, the agent is myopic so that the continuation payoff equals $\delta V > 0$.¹¹ Like the voter, the agent also prefers to implement emergency policies only in an emergency. However, the agent is *hawkish*: relative to the voter, the agent has a greater opportunity cost, normalized to 1, when an emergency policy is not triggered in an emergency (a type-II policy error) than her opportunity cost $1 - \alpha < 1$ when an emergency policy is triggered without an emergency (a type-I error). Naturally, a greater α means that the agent is more hawkish. Summarizing, if the voter does not drain the swamp in period t , the incumbent agent receives a period- t payoff equal to $1 + \delta V$ if $i_t = \theta_t = 1$, $(1 - \alpha) + \delta V$ if $i_t = \theta_t = 0$, and δV if $i_t \neq \theta_t$. Otherwise her payoff equals 0.

To focus on interesting cases, we assume that an experienced agent is sufficiently competent so that the *agent's mandate*, if carried out optimally for the voter, is to choose a policy equal to the signal observed by the agent: $\kappa > 1 - \pi$.

Assumption 1 (The agent's mandate). *It is optimal for the voter to implement a policy equal to the signal observed by an experienced agent: $\kappa > 1 - \pi$.*

We characterize the perfect Bayesian equilibrium in Markovian strategies that survive divinity (henceforth, equilibrium).¹² In Appendix A, we provide a formal definition of

⁹As shall be clear, the assumption that a novice agent is a non-strategic player can be naturally micro-founded. For example, if a novice agent has no competence ($\kappa = 1/2$) and no effectiveness ($\eta = 0$), then in equilibrium the voter would drain the swamp whenever a novice triggers the emergency policy and a novice agent would never trigger it.

¹⁰In Section 5.1 we discuss the case when $T > 1$ so that a novice becomes experienced only after more than one period (see also Appendix D).

¹¹In Section 5.1 we discuss an extension of the model in which the agent is forward-looking so that V is endogenously determined by the expected present discounted sum of policy payoffs for the agent until the voter drains the swamp and dismisses her (see also, Appendix C).

¹²Divinity (Banks and Sobel, 1987; Cho and Kreps, 1987) is a standard refinement in the signaling litera-

the equilibrium. With the exception of knife-edge cases, this equilibrium is unique. All proofs are in Appendix B.

4 Disagreement and power

In this section, we study the key tradeoffs faced, in each period, by the strategic players of our model: the voter and the incumbent experienced agent. We show how the parameters of the model affect two key endogenous tensions between the voter and the agent: how much the agent and the voter *disagree* about policymaking and the agent's *power* to dictate policy. These two tensions will drive the characterization of the equilibrium in Section 5.

4.1 Competence and disagreement

In our model, the voter and the agent both want to match the policy with the state, but the informed party—an experienced agent—is more hawkish. However, this does not imply that, for a given realization of the signal s_t , the agent and the voter would disagree on the optimal policy. For example, were $\kappa = 1$ so that the agent is perfectly informed about the state, the voter and the agent would never disagree, for any level of hawkishness α . Lemma 1 says that disagreement arises if and only if the agent is sufficiently incompetent.

Lemma 1 (Incompetence spurs disagreement). *There exists $\bar{\kappa}(\alpha, \pi)$ such that if $\kappa > \bar{\kappa}(\alpha, \pi)$, then both the voter and an experienced agent strictly prefer to implement the emergency policy if and only if the agent detects a threat; otherwise the two disagree and the agent prefers to implement the emergency policy independently of whether she detects a threat.*

Intuitively, a sufficiently incompetent agent is less confident in her signal. Therefore, even upon observing $s_t = 0$, she is still primarily concerned by the possibility of a type-II policy error and prefers to trigger the emergency policy. However, were the voter to observe the same signal, he would instead prefer not to implement the emergency policy. Naturally, the disagreement threshold $\bar{\kappa}(\alpha, \pi)$ depends on both how hawkish the agent is and the underlying frequency of emergencies. So while incompetence spurs disagreement, its effects are exacerbated by other elements in our model that contribute to disagreement: the agent's hawkishness and the frequency of emergencies.

From now onward, we focus on the interesting case in which there is disagreement.

ture. In our context it requires the voter to attribute a deviation to triggering an emergency policy (when in equilibrium the agent is always expected not to do so) to the type of informed agent who would choose it for the widest range of voter's responses.

Assumption 2 (Disagreement). *The voter and an experienced agent disagree: $\kappa < \bar{\kappa}(\alpha, \pi)$.*

As we show in Appendix B.3, whenever this assumption is violated, in the unique equilibrium the agent optimally carries out her mandate and the voter never drains the swamp on the equilibrium path. Instead, when there is disagreement, it is possible that the agent may prefer to *violate her mandate*: choose to trigger the emergency policy even when she does not detect a threat (when $s_t = 0$).

In reality, public servants carry out multiple tasks, triggering a variety of emergency policies in response to differing threats. Disagreement is likely to arise only in a subset of these tasks. Our model may be interpreted as follows. Effectiveness η captures the payoff of having an experienced agent optimally carrying out their mandate on all tasks on which disagreement never arises. Therefore, η equals the agent's (possibly task-specific) competence multiplied by the relative importance for the voter of tasks with no disagreement. Assumption 2 can then be interpreted as assuming that there exists one task in which, for some information available to the public service, voters and public servants disagree.

4.2 Drain the swamp

We now describe the tradeoff faced by the voter when the agent triggers the emergency policy. The voter needs to choose whether to let the agent implement the emergency policy or to drain the swamp. Draining the swamp is costly for two reasons. First, it replaces an experienced agent with a less effective novice that produces η fewer public goods. Second, the agent may have triggered the emergency policy because she has competently detected a threat ($s_t = 1$). In this case, the voter would indeed prefer to implement the emergency policy. However, draining the swamp may also be beneficial. The agent may have triggered the emergency policy but there is no actual emergency ($\theta_t = 0$).

Let ν_t be the voter's belief that an emergency has occurred. Lemma 2 says that the voter optimally drains the swamp whenever ν_t is sufficiently small and the agent is not too effective.

Lemma 2 (Voter's optimal strategy). *In any equilibrium, the voter drains the swamp if and only if*

$$\nu_t < \frac{1 - \eta}{2}.$$

The voter's belief ν_t that an emergency has occurred depends both on the agent's strategy and on whether the voter observes the agent's signal s_t . Naturally, if the voter observes

the agent's signal, her belief is greatest when the signal equals 1 and smallest when it equals 0. Lemma 3 says how the voter optimally chooses in these two extreme cases.

Lemma 3 (The optimal choice of an informed voter). *In any equilibrium, if the voter observes the agent's signal s_t , then*

- (i) *when $s_t = 1$, the voter never drains the swamp;*
- (ii) *when $s_t = 0$, there exists $\bar{\eta}(\pi, \kappa)$ such that the voter drains the swamp if and only if $\eta < \bar{\eta}(\pi, \kappa)$.*

Intuitively, if the voter is informed that the agent has indeed detected a threat ($s_t = 1$), then the voter knows that the agent has optimally carried out her mandate and he prefers not to drain the swamp. If instead the voter is informed that the agent has not detected a threat ($s_t = 0$), then the voter knows that the agent has violated her mandate. He then chooses to drain the swamp if and only if the agent is sufficiently ineffective, so that the cost of replacing her with a novice is not too large. Notice that this means that a sufficiently effective agent can expect not to be replaced even when the voter is informed that she has indeed violated her mandate. As we shall see, this affords an effective agent actual *power* to dictate policy.

When the voter is not informed of the agent's signal, her choice depends on her trust in the agent. If the voter trusts the agent to abide by her mandate, then the voter should never drain the swamp: if the agent has triggered the emergency policy, then it is because she has detected a threat and responded optimally. However, because the agent may disagree with the voter, the voter may not trust her and believe that she has triggered the emergency policy without having detected a threat. This lack of trust in the agent is what may trigger the voter to *preemptively* drain the swamp even if she is *not* informed.

4.3 Effectiveness and power

Whether the agent can be trusted to abide by her mandate depends on her choice when she does not detect a threat ($s_t = 0$). By Assumption 2, the agent prefers to implement the emergency policy. Therefore, she would like to trigger the emergency policy so that she may be able to implement it if the voter does not drain the swamp. But triggering the emergency policy is risky: the voter may drain the swamp so that the agent is replaced.

Lemma 4 says that this tradeoff is resolved in two steps. First, a sufficiently effective agent does not bother with the voter because the voter will not drain the swamp even if he is informed that the agent violated her mandate. We say that in this case the agent

is “powerful” enough to dictate policy and violate her mandate if she wishes to do so. Otherwise, the agent trades off the costs and benefits of triggering an emergency policy, including the possibility that the voter will drain the swamp. The voter may do so either because, with probability τ , he becomes informed that the agent has violated her mandate or because he does not trust the agent and chooses to preemptively drain the swamp.

Lemma 4 (Effectiveness begets power). *Let $\mu(s_t)$ be the agent’s belief that an emergency has occurred when she observes signal s_t . In any equilibrium, if $\eta > \bar{\eta}(\pi, \kappa)$, the agent always triggers the emergency policy. If $\eta < \bar{\eta}(\pi, \kappa)$, the agent triggers the emergency policy with certainty when she detects a threat and otherwise with strictly positive probability only if*

$$(1 - \alpha)(1 - \mu(0)) + \delta V \leq (1 - \tau)(1 - d^*)(\mu(0) + \delta V)$$

where d^* is the equilibrium probability that the voter preemptively drains the swamp when she is not informed.

The last inequality in Lemma 4 is intuitive. When the agent does not detect a threat, she believes that an emergency has occurred with probability $\mu(0)$. Therefore, her expected policy payoff from implementing the emergency policy is $\mu(0)$ while her expected payoff from not implementing it is $(1 - \alpha)(1 - \mu(0)) < \mu(0)$. However, because the agent is not powerful enough, the voter may drain the swamp if the agent triggers the emergency policy. So, not triggering the emergency policy yields to the agent a less preferred policy but guarantees the continuation payoff V . Triggering the emergency policy results in a more preferred policy and the continuation payoff if the voter does not drain the swamp—otherwise the agent’s payoff is 0. The probability with which the voter drains the swamp depends on the transparency of the system τ , which leads the voter to be informed, and the probability d^* with which the voter preemptively drains the swamp.

5 Technocracy, democracy, and populism

We now discuss how the two forces that we have identified—that incompetence spurs disagreement and that effectiveness begets power—drive equilibrium behavior and induce one of four different regimes.

Technocracy. In this regime, in every period, the agent violates her mandate: she always triggers the emergency policy. The agent is so powerful that she does not need to bother with the voter: the voter never drains the swamp, even if he becomes informed that the agent violated her mandate.

Responsive democracy. In this regime, in every period, the agent abides by her mandate and the voter drains the swamp if and only if he becomes informed that the agent violated her mandate. On the equilibrium path, the voter never drains the swamp.

Informed populism. In this regime, in every period, the agent violates her mandate: she always triggers the emergency policy. The voter drains the swamp if and only if he becomes informed that the agent violated her mandate. On the equilibrium path, the voter drains the swamp with probability $\tau \Pr[s_t = 0]$.

Preemptive populism. In this regime, in every period, the agent violates her mandate: she triggers the emergency policy with certainty when she detects a threat and with probability $p^* > 0$ otherwise. The voter drains the swamp both when informed and preemptively: he does so with certainty when he becomes informed that the agent violated her mandate and with probability $d^* > 0$ otherwise. On the equilibrium path, the voter drains the swamp with probability $\tau \Pr[s_t = 0]p^* + (1 - \tau)d^*(1 - \Pr[s_t = 0](1 - p^*))$.

Proposition 1 characterizes the unique equilibrium. It says that a sufficiently powerful agent establishes a technocracy. Otherwise, less intense disagreement between the voter and the agent supports a responsive democracy. But when disagreement is more intense, the voter drains the swamp on the equilibrium path and the power of the agent determines whether cycles of informed or preemptive populism arise. Figure 1 provides an illustration.¹³

Proposition 1 (Technocracy, democracy, and populism). *There exists cutoffs $\underline{\kappa}(\pi, \alpha, \tau) < \bar{\kappa}(\pi, \alpha)$ and $\underline{\eta}(\pi) < \bar{\eta}(\pi, \kappa)$ such that, in the unique equilibrium*

- (i) $\bar{\eta}(\pi, \kappa) < \eta$ induces a technocracy;
- (ii) $\eta < \bar{\eta}(\pi, \kappa)$ and $\underline{\kappa}(\pi, \alpha, \tau) < \kappa$ induces a responsive democracy;
- (iii) $\underline{\eta}(\pi) < \eta < \bar{\eta}(\pi, \kappa)$ and $\kappa < \underline{\kappa}(\pi, \alpha, \tau)$ induces informed populism;
- (iv) $\eta < \underline{\eta}(\pi)$ and $\kappa < \underline{\kappa}(\pi, \alpha, \tau)$ induces preemptive populism.

Intuitively, when the agent is very effective, she is sufficiently powerful that she can dictate policy without fear of being replaced, giving rise to a technocracy. Otherwise, the agent's competence determines whether a responsive democracy may be sustained. In a

¹³For completeness, we recall that when Assumption 2 is relaxed, so the voter and the agent do not disagree, the agent carries out her mandate optimally and, on the equilibrium path, the voter never drains the swamp. This regime is observationally equivalent to a "responsive democracy."

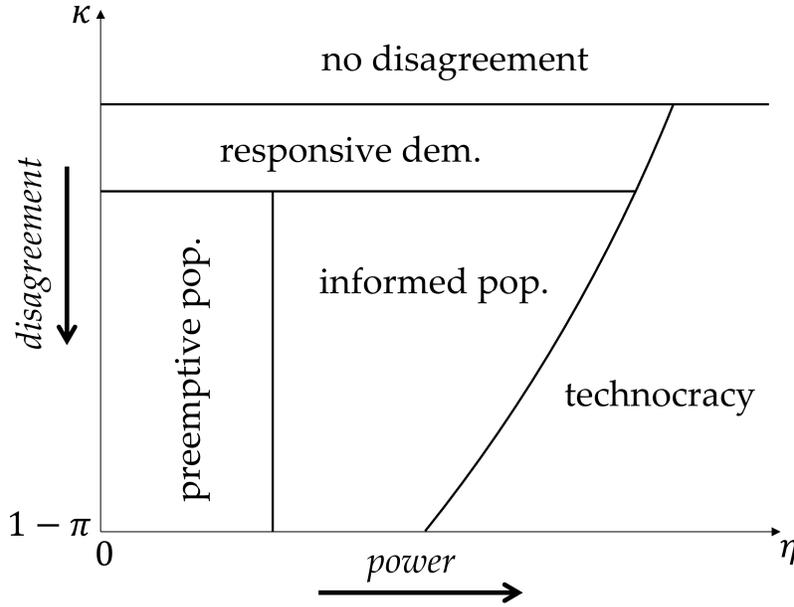


Figure 1: Typology of regimes. Parameter values: $\pi = 0.4, \tau = 0.35, \delta = 0.05, \alpha = 0.95, V = 1$.

responsive democracy, the voter drains the swamp when he becomes informed that the agent violated her mandate. This induces the agent to abide by her mandate, but only if she does not disagree too intensely. Therefore, only a sufficiently competent agent can sustain a responsive democracy. When the agent is less competent, so that disagreement is more intense, her effectiveness matters in determining behavior. This is because when the agent is more effective, the voter is only willing to drain the swamp when she becomes informed that the agent violated her mandate. This empowers the agent to always trigger the emergency policy. When the agent is less effective, the voter is in addition willing to preemptively drain the swamp so to discipline the agent and the agent only sometimes violates her mandate.

A key feature that characterizes preemptive populism is that the voter decision to drain the swamp may result in policies that are worse for the voter. In fact, when the voter drains the swamp preemptively, it may well be the case that the agent has not violated her mandate: she triggered the emergency policy because she has indeed detected a threat. A competent external observer who can see the agent's signal will therefore conclude that the voter is draining the swamp against his own interest.

A key lesson from Proposition 1 is that more intense disagreement causes populism. The agent's incompetence spurs disagreement, but its effect is exacerbated by the agent's hawkishness, α , and the frequency of emergencies, π . The combined effect of these three factors in determining disagreement underscores the results in the following Sections 6

and 7. In these sections we show that our equilibrium characterization is a useful framework for addressing two sets of questions. First, we show that it provides insights into which shocks to the political and social environment may break the trust relation between voters and public servants. When this occurs, a well-functioning democracy—one in which public servants work in the interest of voters—may become dysfunctional: public servants routinely betray voters and voters do not trust public servants, plunging the country into cycles of anti-elite populism. Second, we show that our framework also helps in understanding which reforms, by manipulating the power of public servants and the level of disagreement between them and the voters, may alleviate the frequency of populist cycles when the trust relation between voters and public servants has broken.

5.1 Discussion of the model

We now briefly pause our analysis of anti-elite populism to discuss how our model may be used to study the more general problem of choosing to hire or dismiss agents that acquire experience over time. Doing so allows us to clarify the implications of two simplifying assumptions that greatly improve the tractability and sharpen the analysis of our benchmark model.

Forward-looking agent. Our benchmark model assumes that an experienced agent receives a payoff V for being retained (or, equivalently, suffers a cost V when the voter drains the swamp), but the agent is not forward-looking in the sense that she does not care about future policies even if retained. This is a natural assumption in our main application if periods are understood to be sufficiently long. In fact, experienced public servants are routinely replaced by new cohorts in the next period. This turnover does not compromise the effectiveness and competence of the organization as the exiting cohort trains and transmits know-how to the new one. Therefore, when voters do not drain the swamp, they retain an experienced organization, but the current members of the public service do not individually participate in future decisions. In contrast, draining the swamp prematurely dismisses the current public service leadership, interrupting the process of transmission of know-how, and causing both a destruction of organizational experience and a personal cost for the current members of the public service.

However, in other applications, or if the periods in our model are supposed to be shorter, it is more reasonable to think that the agent values future policy decisions she may be able to take in the future. We can extend our analysis to incorporate agents that are forward-looking and (potentially) infinitely-lived. In this setup, the agent's continuation

payoff V is endogenously given by the agent’s discounted future policy payoffs until the next time the voter drains the swamp (and the agent is replaced by a new one).

Appendix C characterizes equilibrium behavior in this extended model. Allowing for a forward-looking agent introduces a further strategic tradeoff to the ones in our benchmark model. In fact, in the extended model, when the voter attempts to discipline the agent by draining the swamp more often, he needs to take into account that now draining the swamp is a double-edged sword. On the one hand, draining the swamp reduces the agent’s expected payoff when she triggers the emergency policy. This has a disciplining effect. However, now there is also a dynamic effect: draining the swamp more often reduces the agent’s expected payoff of being retained, thus reducing the benefit of abiding by her mandate. While this new tradeoff complicates the analysis significantly, we show in Appendix C that our results carry on under a technical assumption that guarantees a unique solution to the voter’s problem in preemptive populism.¹⁴

Multi-period accumulation of experience ($T > 1$). In our benchmark model, a novice hired in period t becomes experienced in period $t + T = t + 1$. If the periods in our model are sufficiently short, it may be more reasonable to assume that a new agent may need $T > 1$ periods before she accumulates sufficient experience to enhance her effectiveness and competence.¹⁵

Appendix D studies this extended model. We show that, as in our benchmark model, the incompetence of experienced agents spurs disagreement between them and the voter, and that their effectiveness begets power. As a consequence, the main results of Proposition 1 continue to hold under a technical assumption that guarantees a unique solution to the voter’s problem in preemptive populism. As in our benchmark model, a sufficiently powerful agent establishes a technocracy, and a responsive democracy requires less intense disagreement. When disagreement does not allow for a responsive democracy, populism arises, and a less powerful agent will induce the voter to preemptively drain the swamp.

However, the lapse of time required for the agent to acquire experience is not inconsequential. In fact, when $T > 1$, draining the swamp is more costly for the voter, as he knows that replacing an experienced agent with a novice induces a cost for several periods. Importantly, this cost of draining the swamp is greater if experienced agents abide by their mandate. Intuitively, if the voter expects an experienced agent to abide by her

¹⁴A sufficient condition for the technical assumption is that δ is not too large. Therefore, the assumption is also satisfied at the limit when δ is arbitrarily small so that our benchmark and extended model coincide. When the technical assumption is not satisfied, the model is analytically intractable.

¹⁵The analysis is essentially unchanged if T is stochastic and distributed over $\mathcal{T} \subseteq \mathbb{N}$.

mandate, then he knows that she will provide both more public goods and better policies than a novice. In contrast, if he expects the agent to violate her mandate, then the benefit of an experienced agent is limited to the provision of public goods and, in fact, experienced agents provide worse policies, on average, than novices. This implies that the power of the agent increases with T .

This increase in the power of the agent makes technocracy more likely and preemptive populism and responsive democracy less likely. Furthermore, a new form of power-induced informed populism may arise. In fact, as we show in Proposition D.2 in Appendix D, for some parameters, the agent is at the same time sufficiently powerful so that the voter is unable to fully discipline her and yet not so powerful that she can establish a technocracy. In equilibrium the agent sometimes violates her mandate and the voter, when he becomes informed of the violation, sometimes, but not always, drains the swamp. In this regime, draining the swamp occurs with positive probability, but only if the voter is informed. However, the agent is so powerful that sometimes the voter does not drain the swamp even when informed that the agent violated her mandate.

6 The four horsemen of populism

In this section we study how our model may help in understanding why functional democracies sometimes develop strong popular demand for anti-elite populism. A key feature of our model is that even a shock that barely moves a country from a responsive democracy into a populist regime causes a discrete jump in the probability that the agent violates her mandate, thus breaking the trust relation between the voter and the agent.¹⁶

Proposition 2 identifies two types of shocks that, if sufficiently large, may plunge a responsive democracy into either an informed or a preemptive populist regime. One type of shocks induces populism by intensifying disagreement between the voter and the agent. This may be brought upon by either a fall in the agents' competence, an increase in their hawkishness, or more frequent emergencies. A second type of shock that may cause populism occurs when the transparency of the system drops.

Proposition 2 (The four horsemen of populism). *A responsive democracy may lead to informed or preemptive populism in response to shocks that decrease the agent's competence, κ , increase her hawkishness, α , or the frequency of emergency threats, π , or decrease transparency, τ .*

¹⁶In particular, in all populist regimes, at the limit as $(\kappa, \pi, \alpha, \tau)$ approach $\kappa = \underline{\kappa}(\pi, \alpha, \tau)$, the probability p^* that the agent triggers the emergency policy when not detecting a threat is bounded away from zero. In contrast, the probability d^* with which the voter preemptively drains the swamp approaches zero as the parameters approach this threshold.

In particular, if $\kappa, \alpha, \pi, \tau$ induce a responsive democracy, then:

- (i) There exists $\kappa' \in (1 - \pi, \kappa)$ that induces populism if and only if $1 - \pi < \underline{\kappa}(\pi, \alpha, \tau)$ and $\eta < \bar{\eta}(\pi, \underline{\kappa}(\pi, \alpha, \tau))$.
- (ii) There exists $\alpha' \in (\alpha, 1)$ that induces populism if and only if $\kappa < \underline{\kappa}(\pi, 1, \tau)$.
- (iii) There exists $\pi' \in (\pi, 1/2)$ that induces populism if and only if $\kappa < \underline{\kappa}(\pi_\eta, \alpha, \tau)$, where π_η is defined as the unique value $x \in (\pi, 1/2)$ such that $\eta = \bar{\eta}(x, \kappa)$ whenever it exists and, otherwise, $\pi_\eta = 1/2$.
- (iv) There exists $\tau' \in (0, \tau)$ that induces populism if and only if $\kappa < \underline{\kappa}(\pi, \alpha, 0)$.

Intuitively, a responsive democracy requires two essential conditions. First, the agent and the voter must not disagree too intensely, so that the agent's incentive to violate her mandate is not too strong. Second, the system must be sufficiently transparent, so that the agent is deterred from violating her mandate by the threat that the voter will become informed.

Naturally, each of the effects caused by the four shocks in Proposition 1 interact with each other. Points (ii)–(iv) say that if the agent is sufficiently competent, then even large shocks in the other three parameters cannot spur sufficient disagreement to cause populism. However, if the agents are not too competent, then there always exist a shock in α , π , or τ that will plunge a responsive democracy into a populist regime. The two further conditions in points (i) and (iii) guarantee that the shocks in κ and π lead to populism rather than technocracy (see Section 7).

Which type of populism is induced by each of these four shocks depends on the power of the agent. When the agent is more powerful, the voter's cost of draining the swamp preemptively is too large and the shocks in Proposition 2 result in informed populism. Otherwise, the agent drains the swamp preemptively.

Corollary 1 (Power and populism). *Let $\kappa, \alpha, \pi, \tau$ induce a responsive democracy. If a shock in any of the four parameters leads to a populist regime, then the resulting regime is informed populism if $\eta > \underline{\eta}(\pi')$ and preemptive populism otherwise, where π' equals the post-shock value of π (including, possibly $\pi' = \pi$).*

In Section 8 we discuss how to map these four shocks that can plunge a responsive democracy into cycles of anti-elite populism to empirically relevant trends in Western democracies over the last decades.

Beyond these four shocks, our model also offers insights into other possible dynamics. For example, a straightforward implication of Proposition 1 is that a negative shock in η

may move the equilibrium from a technocracy to informed populism or from informed populism to preemptive populism. Intuitively, a less effective agent is less powerful, so that the voter is willing to drain the swamp at least when informed that the agent violated her mandate. Further decreases in the agent's power leads the voter to discipline the agent by draining the swamp not only when informed that the agent violated her mandate, but also preemptively.

7 Managing populism

7.1 Reforming the Bureaucracy

In this section we discuss which reforms may be put in place to address the problem of anti-elite populism after the country has plunged into a populist regime. Naturally, *large* reforms that reverse the course of the shock (or shocks) that have led the country into populism will suffice. For example, by Proposition 2, if the country has plunged into populism because public servants have become less competent, then reforms that restore their previous level of competence (e.g., more effective selection of bureaucrats or strengthening collaborations with scientists who can help detect threats) will inevitably restore a responsive democracy. However, such large reforms may not be possible. For example, the fall in competence may be due to technological shocks or changes in the international environment that are beyond the reach of domestic reforms. In such cases, a reformer concerned about populism may be constrained to only implement *small* reforms that cannot eliminate populism altogether but may nonetheless at least reduce its frequency.

The following propositions inform the choice of a reformer concerned about populism, who knows that large reforms that eliminate it are not feasible, and desires to know the effects of small reforms on how frequently the voter drains the swamp (the frequency of populist cycles).¹⁷ We divide the analysis in two cases: informed and preemptive populism. Therefore our results inform the choice of a reformer as follows. The reformer may have observed that the voter is sometimes draining the swamp against his own interest (for example, the reformer may know that the agent has detected a threat and yet the voter drained the swamp). In this case the reformer should confidently apply Propo-

¹⁷Our approach is aligned with robustness concerns. Our focus on marginal reforms implies that the effects we uncover hold at the margin *and* for larger reforms; in contrast, the effect of large reforms may not hold if the size of the reform is short of what is necessary to eliminate populism altogether. In fact, as we show in Propositions 3 and 4, attempting large reforms that would eliminate populism if large enough may increase the frequency of populist cycles if too small.

sition 4. Otherwise, the reformer may be convinced that the voter is only draining the swamp when informed that the agent has violated her mandate. In this case the reformer should only apply Proposition 3. Finally, if the reformer is unsure, a prudent approach is to seek for policies that reduce the frequency of populist cycles across the two propositions.

We begin by stating our results concerning informed populism.

Proposition 3 (Managing informed populism). *In informed populism, marginal increases in transparency, τ , or the agent's competence, κ , increase the frequency with which the voter drains the swamp. There is no marginal effect of changes in the agent's hawkishness, α .*

In informed populism, the agent always triggers the emergency policy and the voter drains the swamp if and only if he becomes informed that the agent violated her mandate. As transparency increases, the voter becomes informed more often, therefore increasing the frequency with which she drains the swamp. Because emergencies are unlikely ($\pi < 1/2$), the unconditional probability that the agent detects a threat decreases with the agent's competence. But the agent always triggers the emergency policy anyway. So, with a more competent agent, the probability that the voter becomes informed that the agent violated her mandate (i.e., the agent triggered an emergency policy without having detected a threat) increases, increasing the frequency with which the voter drains the swamp. Finally, the agent's hawkishness affects neither the agent's probability of detecting a threat nor the probability that the voter becomes informed, and therefore has no effect on the frequency of informed populist cycles.

Proposition 4 states our results concerning preemptive populism.

Proposition 4 (Managing preemptive populism). *In preemptive populism, a marginal increase in the agent's hawkishness, α , increases the frequency with which the voter drains the swamp; a marginal increase in transparency, τ , decreases it; and a marginal increase in the agent's competence, κ , may both increase or decrease it, or even have a non-monotonic effect.*

In preemptive populism, the voter drains the swamp both when he becomes informed that the agent has violated her mandate and sometimes preemptively. A more hawkish agent is more inclined to violate her mandate, thus intensifying her disagreement with the voter. Therefore, disciplining her requires the voter to preemptively drain the swamp more frequently. In contrast, transparency affects the probability with which the voter drains the swamp through two effects. Mechanically, more transparency increases the probability that the voter will become informed that the agent has violated her mandate—and, as a consequence, drain the swamp. However, this also implies that the voter's

informed choice to drain the swamp is a more powerful disciplining tool for the agent. This reduces the frequency with which the voter needs to drain the swamp preemptively. Proposition 4 says that this strategic effect dominates the mechanical one.

The marginal impact of a more competent agent is a combination of three distinct effects. A more competent agent detects threats less often, as emergencies are unlikely. Mechanically, keeping all strategies fixed, the agent is then triggering the emergency policy more rarely, thus reducing the frequency with which the voter drains the swamp. Furthermore, because disagreement is now less intense, there is less need to discipline the agent: as the agent is violating her mandate less often, the voter would prefer to preemptively drain the swamp less, thus further reducing the frequency of populist cycles. However, such a reduction in discipline would induce the agent to increase the frequency with which she violates her mandate, thus—all else equal—increasing the frequency of populist cycles. Proposition 4 says that the cumulative effect of these three forces can both result in an increase or in a decrease in the frequency of populist cycles, depending on the agent's competence, κ , itself, and on the value of other parameters.

Returning to the reformer's problem, our results can be summarized as follows. If the reformer has evidence that the country has plunged into informed populism, our results recommend to—perhaps counterintuitively—reduce transparency (for example, by decreasing the resources afforded to oversight agencies) or reduce the average competence of experienced public servants. If instead the reformer has evidence that the country is experiencing cycles of preemptive populism, then the reformer should try to increase transparency or decrease disagreement by reducing the hawkishness of public servants (for example, by reducing labor protection differences between private and public sectors). In this case, reforms that attempt to manipulate disagreement through changes in the competence of public servants may backfire if their marginal effect cannot be carefully calculated. Finally, if the reformer is unsure as to whether the country is in informed or preemptive populism, the only prudent reform is to reduce the hawkishness of public servants. This result suggests that the most robust response against anti-elite populism is a more representative bureaucracy, which better interprets and represents the preferences of voters. However, this result may hide potential tradeoffs if more representative public servants are necessarily less competent or less effective.¹⁸

The reformer has indeed one further lever that could be pulled to affect the frequency of populist cycles, and also to eliminate populism altogether: increasing the power of

¹⁸In our model, this amounts to assuming that there is a negative correlation between α and κ or η . In this case, a greater α may in fact cause the voter to drain the swamp more frequently. However, this is only the case in preemptive populism and only if α negatively correlates with κ .

public servants by means of increasing their effectiveness, η . This could be achieved by, for example, increasing the resources available to them in the production of public goods. Proposition 5 informs us in two ways about the result of such a reform. First, it says that marginal increases in the agent's effectiveness in preemptive populism result in more frequent cycles of preemptive populism. Second, in informed populism, increases in effectiveness have no effect, until they indeed produce the disappearance of populism. However, rather than yielding a responsive democracy in which public servants abide by their mandate to serve the voters, such a reform leads to a technocracy in which powerful public servants are not disciplined at all and are able to dictate policy.

Proposition 5 (Managing effectiveness). *In preemptive populism, a marginal increase in the agent's effectiveness, η , increases the frequency with which the voter drains the swamp. In informed populism, it has no effect on the frequency with which the voter drains the swamp until it induces a technocracy.*

Intuitively, in preemptive populism, greater effectiveness begets greater power, so that the voter is less willing to drain the swamp and replace an experienced agent with a novice, mechanically decreasing the frequency of populist cycles. However, this enables the agent to violate their mandate more often, therefore triggering the emergency policy with greater frequency, causing the voter to drain the swamp more often—more frequent cycles. The first part of Proposition 5 says that in fact in equilibrium this strategic effect dominates so that an increase in effectiveness brings about more frequent cycles of populism.

Returning to the reformer's problem, the result above says that when in a regime of preemptive populism, the reformer would benefit from less effective public servants. On the contrary, in informed populism, the reformer could consider increasing the effectiveness of public servants. However, only large reforms would have any effect and they would lead to technocracy rather than a well-functioning democracy.

7.2 Insulating the bureaucracy

A different approach to managing anti-elite populism is to insulate the bureaucracy: limit politicians' ability to drain the swamp. In fact, the degree by which governments and executives can dismiss or appoint top bureaucrats varies across countries and even across different sectors of a country's bureaucracy. For example, "Britain has just over 100 government appointees while the U.S. has over one thousand subject to Senate approval and many more not subject to confirmation" (Eisen, 2012). India's All India Services Act establishes minimum tenures for top bureaucrats. In other cases, entire bureaucratic agencies

have been granted constitutional protections. For example, the independence of the European Central Bank is laid down in the Statute of the European System of Central Banks and the Treaty on the Functioning of the European Union. In the United States, bipartisan legislation (Saving the Civil Service Act, introduced February 2023) has recently been proposed to further insulate the bureaucracy and provide stronger job protections to federal employees.

In this Section we extend our model to study the effect of reforms that insulate the bureaucracy. We introduce a parameter ι capturing the level of independence of the bureaucracy from political interference. In this extension, the voter cannot directly choose to drain the swamp; he can only *try*: whenever he tries to drain the swamp, he successfully replaces the agent with a novice with probability $1 - \iota$. Increasing ι has the effect of reducing the ability of the voter to discipline the agent by threatening to drain the swamp were he to become informed that the agent violated her mandate. Proposition 6 says that this effect makes sustaining a responsive democracy harder.¹⁹

Proposition 6 (Bureaucratic independence induces populism). *For any $\kappa, \alpha, \pi, \tau, \iota$ that induces a responsive democracy, there exists $\underline{\iota} \in (\iota, 1)$ such that*

- (i) *if $\iota' < \underline{\iota}$, then $\kappa, \alpha, \pi, \tau, \iota'$ induce a responsive democracy.*
- (ii) *if $\iota' > \underline{\iota}$, then $\kappa, \alpha, \pi, \tau, \iota'$ induce populism.*

Intuitively, sustaining a responsive democracy requires the agent to be sufficiently concerned with the possibility that triggering the emergency policy will result in the voter draining the swamp. By Proposition 1, Point (ii), this occurs when $\kappa > \underline{\kappa}(\pi, \alpha, \tau)$. In this extended model, even when the voter chooses to (try to) drain the swamp, this only occurs with probability $1 - \iota$. Therefore, the threshold $\underline{\kappa}$ is an increasing function of ι , because greater bureaucratic independence weakens the effectiveness of the voter's threat. As a result, a more independent agent violates her mandate. If she is sufficiently powerful ($\eta > \underline{\eta}(\pi)$) then the voter only tries to drain the swamp when she becomes informed that the agent has indeed violated her mandate. Otherwise, the voter preemptively tries to drain the swamp.

Reforms aimed at insulating the bureaucracy are perhaps more often enacted in response to anti-elite populist cycles, so it is logical to study what their effects would be in a country that has already plunged into populism. Proposition 7 says that bureaucratic

¹⁹We give the full characterization of the equilibrium in an analogous result to Proposition 1 in Appendix B.2. The essential difference is that the threshold value of competence that induces populist cycles is an increasing function of ι .

independence may in fact reduce the frequency of populist cycles, but may lead to a perverse populist regime in which the agent always triggers the emergency policy and the voter constantly attempts to drain the swamp.

Proposition 7 (Managing populism with bureaucratic independence). *In informed populism, a marginal increase in bureaucratic independence reduces the frequency with which the voter drains the swamp. In preemptive populism, there exists $\bar{\iota}(\kappa, \alpha, \pi, \tau)$ such that,*

- (i) *if $\iota < \bar{\iota}(\kappa, \alpha, \pi, \tau)$, a marginal increase in bureaucratic independence increases both the frequency with which the voter tries to drain the swamp and that with which he successfully drains the swamp;*
- (ii) *if $\iota \geq \bar{\iota}(\kappa, \alpha, \pi, \tau)$, in every period, the agent violates her mandate and the voter tries to drain the swamp in all cases except for when he becomes informed that the agent has indeed detected an emergency; a marginal increase in bureaucratic independence reduces the frequency with which the voter successfully drains the swamp.*

Intuitively, in informed populism, the voter tries to drain the swamp if and only if he becomes informed that the agent violated her mandate. Mechanically, greater bureaucratic independence reduces the frequency with which the voter actually manages to do so. In preemptive populism, the voter tries to drain the swamp both when informed and preemptively. He does so as frequently as needed to keep an agent who has not detected a threat indifferent between triggering and not triggering the emergency policy. More bureaucratic independence reduces the rate at which the voter succeeds in draining the swamp, which would increase the agent's temptation to violate her mandate. Therefore, to discipline the agent, in equilibrium the voter needs to increase the frequency with which he tries to drain the swamp. Since he already does so with certainty when informed, the increased frequency must all derive from a greater probability d^* of draining the swamp preemptively. Conditional on the agent not detecting a threat, the total probability with which the voter drains the swamp if the agent triggers the emergency policy $C := [(1 - \tau)d^* + \tau](1 - \iota)$ must remain constant. However, when the voter preemptively drains the swamp, he is not aware of whether the agent indeed has detected a threat. As a result, the total probability with which he drains the swamp

$$\Pr[s_t = 0]p^*C + \Pr[s_t = 1](1 - \tau)d^*(1 - \iota)$$

increases as ι increases. Therefore, with greater bureaucratic independence, in equilibrium the voter increases both the probability with which he tries to drain the swamp and that with which he succeeds in doing so. But this process is naturally bounded because

the voter cannot try to drain the swamp preemptively with probability greater than one. Hence, there exists a value of ι , $\bar{\iota}(\kappa, \alpha, \pi, \tau)$, above which, even if the voter tries to preemptively drain the swamp any time the agent triggers the emergency policy, the total probability of succeeding is too small to discipline the agent, so that she strictly prefers to violate her mandate. From then on, more bureaucratic independence achieves the result of mechanically reducing the probability with which the voter succeeds in draining the swamp. Indeed, as ι approaches 1, the democracy almost never experiences cycles of anti-elite populism. However, rather than a well-functioning responsive democracy, this regime of *bureaucratic independent preemptive populism* features an agent that always chooses to violate her mandate and a voter that always tries to drain the swamp, but his attempts are frustrated by the constitutional obstacles that do not allow him to do so.

7.3 A self-regulating bureaucracy?

In our framework, voters and public servants essentially want the same thing—only when public servants are sufficiently incompetent, uncertainty about which option is best fuels disagreement between them and the voters. Furthermore, public servants are likely to wish to avoid periods of anti-elite populist demands to drain the swamp. Therefore, one may ask whether bureaucracy itself may choose organizational structures and procedures that avoid populism.

In this section, we briefly evaluate this possibility. One possibility is that the bureaucracy may be able to choose its own level of effectiveness, by restructuring its organization or streamlining procedures. This would provide voters with greater amounts of public goods and services. However, in our framework, the agent would then always prefer to increase effectiveness to increase her own power and in turn achieve a technocracy.

A second possibility is for the bureaucracy to be given the ability to only manipulate its own competence, for example by hiring and training more or less talented personnel. In our framework, this has potential benefits and drawbacks. On the one hand, if the agent is freely able to choose any level of competence, then it would choose the maximal one: $\kappa = 1$. This ensures that the correct policy for the voter (and the agent) is chosen in every period. On the other hand, such an increase in competence may be impossible to achieve because of technological constraints. The following proposition says that in fact the agent may prefer lower levels of competence in order to make responsive democracy less viable and establish a technocracy.

Proposition 8 (Agent induced technocracy). *There exists κ and $\kappa' < \kappa$ such that $\kappa, \alpha, \pi, \tau$ induce a responsive democracy, $\kappa', \alpha, \pi, \tau$ induce a technocracy, and the agent strictly prefers κ' to*

κ .

In a responsive democracy, the voter disciplines the agent by threatening that, were he to be informed that the agent violated her mandate, he will drain the swamp. For the threat to be credible, it requires that the agent, upon being informed, actually prefers to drain the swamp. By Proposition 1, Point (i), this occurs when $\eta < \bar{\eta}(\pi, \kappa)$, where $\bar{\eta}$ increases in κ , so that a more incompetent agent may discourage the voter from draining the swamp even when informed. Intuitively, an informed voter drains the swamp because doing so implements the default policy instead of the emergency policy. The voter knows he prefers the default policy, because he has observed that the agent has not detected a threat. However, how much the voter is sure that there is indeed no emergency depends on the competence of the agent. With a more incompetent agent, the voter's desire to implement the default policy is lower, and so his desire to drain the swamp decreases, to the point that the voter may never drain the swamp if the cost of doing so—the agent's effectiveness—is sufficiently large. Thus, effectiveness begets greater power to incompetent agents.

We have so far established that the agent may prefer to manipulate its own competence to induce a technocracy. However, the agent may also prefer to enact reforms that, by either manipulating her own competence or the transparency of the system, induce informed populism.

Proposition 9 (Agent induced populism). *There exists κ and $\kappa' < \kappa$ and τ and $\tau' < \tau$ such that $\kappa, \alpha, \pi, \tau$ induce a responsive democracy, $\kappa', \alpha, \pi, \tau$ and $\kappa, \alpha, \pi, \tau'$ induce informed populism, and the agent strictly prefers κ' to κ and τ' to τ .*

Intuitively, violating her mandate has both costs and benefits for the agent. On the one hand, the voter will drain the swamp whenever he becomes informed that the agent violated her mandate. This probability increases with both transparency τ and competence κ , because the agent is less likely to detect an emergency the more she is competent (her signal is more precise). So the cost for the agent of violating her mandate increases with both transparency τ and competence κ . On the other hand, whenever the voter does not drain the swamp, the agent implements her preferred (emergency) policy instead of abiding by her mandate. The expected payoff of always implementing the emergency policy does not depend on either τ nor κ , but the agent's expected payoff of abiding by her mandate increases in her competence κ . So the net benefit of violating her mandate is decreasing in the agent's competence κ .

Reducing transparency so to induce informed populism is always beneficial. In fact, the agent retains the option of abiding by her mandate, but chooses to violate it because

the lower transparency decreases the cost of doing so. Reducing competence so to induce informed populism is beneficial for sufficiently small κ . For κ sufficiently close (but greater than) $\underline{\kappa}(\pi, \alpha, \tau)$, so that in the responsive democracy the agent is almost indifferent between abiding by her mandate and always implementing the emergency policy, a sufficiently large drop in competence to $\kappa' < \kappa$ will lead to an informed populism in which the net benefit of always implementing the emergency policy is large and the probability with which the voter drains the swamp small, so that benefits exceed costs.

8 Empirical relevance

We now discuss how to connect our theoretical framework and our results about which shocks can lead to the rise of anti-elite populism to historical and empirical evidence. Attacks on the state bureaucracy are commonplace among populist regimes and “before entering government, most populists will likely rail against the bureaucracy, which is, almost by definition, part of the opposed establishment” (Bauer and Becker, 2020). However, as we discussed in Section 2, not all populist movements drain the swamp. Bauer and Becker (2020) argue that populist movements with negative views of the state will aim to either dismantle or sabotage the state bureaucracy depending on whether democratic institutions and the state bureaucracy are fragile or robust.²⁰ The act of draining the swamp to sabotage the state bureaucracy, rather than replacing existing bureaucrats with more ideologically-aligned personnel, is the distinctive mark of Trump’s administration, compared to previous post-New Deal Republican administrations, from Eisenhower to Bush, including, as we noted above, Reagan (Milks, 1993). Recently, anti-elite populist movements with negative views of the state have won national elections in robust democracies, including the United States and Italy, the world’s first and seventh largest democratic economies. We begin this section with an overview of how our theory helps make sense of these two cases.

The Italian case. The Italian case offers the clearest empirical picture.²¹ Proposition 2 offers a theoretical mechanism by which the deterioration of bureaucratic competence and effectiveness can induce rational voters to support anti-elite populist movements that drain the swamp. We argue that this connection helps in understanding the rise of anti-

²⁰Among historical examples that aimed at dismantling a fragile state bureaucracy, the first years of government of Fujimori in Peru “brought extensive layoffs of public sector employees” (Bauer and Becker, 2020).

²¹In contrast with the United States, in the Italian case it is easier to identify when and where anti-elite populists have won local elections, allowing for standard econometric approaches to causal inference.

elite populism in Italy in light of recent empirical literature. As documented by [Gratton et al. \(2021\)](#), the Italian bureaucracy deteriorated starting in the late 1990s and its ineffectiveness and incompetence became a major public concern by the mid 2010s.²² The anti-elite populist Five Star Movement party, founded by ex-comedian Beppe Grillo in 2009, rapidly gained public support for its platform against what it labeled the “caste” in Rome and in Brussels. In 2018 it became Italy’s largest party and formed a coalition government with the Northern League. Beyond anecdotal evidence, [Boffa, Mollisi and Ponzetto \(2023\)](#) provide causal evidence that less competent and less effective local governments at the municipal level fueled popular support for the Five Star Movement in national and European elections, confirming the link between the drop in the quality of the services provided by the state and popular support for anti-elite populism. Finally, [Bellodi et al. \(2023a\)](#) provide causal evidence that anti-elite populist parties in Italy, such as the Five Star Movement and the Northern League, when elected, indeed drained the swamp: it increased forced departures of top bureaucrats and sharply decreased the percentage of bureaucrats with graduate degrees.

Donald Trump. Our model highlights how different factors may have contributed to the 2016 election of President Donald Trump. First, the Global Financial Crisis of 2007-2009 led to scandals exposing weaknesses in the structure of financial regulatory agencies and to a widespread conviction that leading macroeconomic models underestimated or misunderstood systemic risks. This eroded the voters’ trust in the ability of Western national bureaucracies to address the demand for economic stability, as well as increased the perceived probability of threats to the financial system. The shock in voters’ trust in financial regulators was particularly strong in the United States and United Kingdom, where even Queen Elizabeth II questioned the competence of elite regulators and economists who did not “notice” the crisis coming.²³ In the United States, Google search interest for “bureaucracy” and “bureaucrat” doubled in the decade between the beginning of the Global Financial Crisis and the election of Trump (Figure 2). In our model, this shock to the voter’s trust in the competence of regulators and the likelihood of crises corresponds to a drop in the agent’s competence, κ , and an increase in the frequency of emergency threats, π , respectively. Proposition 2 says that each of these shocks intensifies disagreement between voters and public servants and, if sufficiently large, can plunge the country

²²Interestingly, mentions of the word “bureaucracy” on the first page of Italian newspapers spiked in the three years immediately preceding the Five Star Movement electoral victory ([Gratton et al., 2021](#)).

²³In his written reply, Tim Besley conceded that “in summary, Your Majesty, the failure to foresee the timing, extent and severity of the crisis and to head it off, while it had many causes, was principally a failure of the collective imagination of many bright people, both in this country and internationally, to understand the risks to the system as a whole.”



Figure 2: Annual United States Google search interest for “bureaucracy,” “bureaucrat,” and “bureaucrats.” 100 equals annualized monthly peak 2004-2022. Data source: Google Trends (<https://www.google.com/trends>).

into cycles of populism.

The Global Financial Crisis, together with the expansion of import substitution from China, also impacted the effectiveness and competence of the United States bureaucracy through a direct effect on the government budget. [Ihlanfeldt and Mayock \(2015\)](#) and [Feler and Senses \(2017\)](#) document how foreclosures during the Global Financial Crisis and increasing import competition from China significantly reduced local public budgets and the provision of public goods and services.²⁴ [Hall, Yoder and Karandikar \(2021\)](#) and [Autor et al. \(2020\)](#) further connect the impact of foreclosures and Chinese import competition with support for Trump in the 2016 elections. While there are many possible mechanisms linking the impact of the Global Financial Crisis and Chinese import competition with support for Trump, our model offers a new mechanism in which the decline of bureaucratic effectiveness and competence acts as a mediator.

Long-term causes of anti-elite populism. Another factor that may have contributed to the rise of anti-elite populism are labor reforms. Across the Atlantic, starting in the last two decades of the 20th Century, labor reforms have increased the disparity in employment conditions between private and public sector, with unionization and permanent

²⁴In fact, as reported by the U.S. Senate Joint Economic Committee, the cost of a foreclosure to local government budgets is more than twice the cost to the homeowners ([U.S. Senate Joint Economic Committee, 2007](#)).

jobs increasingly present only in the public sector. This pattern has exacerbated disagreement between public servants—who are less likely to lose their job in a recession—and voters. In our model this corresponds to a more hawkish agent (higher α). Further, professionalization of the public service has increased the disparity in average educational attainments between public and private workers, reducing the representation of less educated voters and workers within the state bureaucracy. For example, in the United States, the share of federal employees with at least a Masters degree has increased from less than 15 percent in 1992 to over 30 percent in 2017, and then stabilized; equivalent figures for private sector employees are 8 and 12, respectively (White House, 2023). A less representative bureaucracy is more likely to be out of touch with some of the risks involved in changing policy that affect the average voter—in the language of our model, the agent is more hawkish. Finally, the information technology revolution has exposed voters to a multitude of sources offering a cacophony of fake news, reducing the ability of voters to assess the effective risk associated with differing policies, and therefore reducing the accountability of public servants. In our model, this is captured by a drop in transparency τ . Proposition 2 says that each of these factors, in isolation or together, has the potential to plunge a responsive democracy into informed or even preemptive populist cycles.

Confidence in the civil service and voters’ support for anti-elite populism. We have so far argued that our model helps connecting aggregate-level technological, legal, and political shocks to average support for anti-elite leaders who drain the swamp. We use World Values Survey and European Values Study (2017-2022) data to support the view that, at the individual level, lower trust in the state bureaucracy increases voters’ support for anti-elite populist movements.²⁵ To quantify voters’ support, we follow Wike, Silver, Fetterolf, Huang, Austin, Clancy and Gubbala (2022) and classify as anti-elite populists the parties that score at least 7 when averaging across the “people vs the elite” and the “salience of anti-elite rhetoric” measures in the 2019 Chapel Hill Expert Survey (Jolly, Bakker, Hooghe, Marks, Polk, Rovny, Steenbergen and Vachudova, 2022).²⁶ Table 1 shows that more negative replies to a question about “confidence” in the public service strongly correlate with greater intention to vote for anti-elite populist parties after controlling for country-year fixed effects. The result is robust to (Column 1) including or (Columns 2-4) excluding respondents who answered “I don’t know” who they intended to vote for

²⁵Appendix E details the variables we use in our analysis.

²⁶The 2019 Chapel Hill Expert Survey includes all members of the European Union (including the United Kingdom) plus Iceland, Norway, Switzerland, and Turkey. Ireland and Belgium are not included in our wave of World Values Survey or European Values Survey. This yields at least one anti-elite populist party per each country in our dataset bar Denmark, Hungary, Romania, Turkey, Malta, Luxembourg, Cyprus, Slovenia, and Iceland. Table E.1 in Appendix E lists all the parties classified as “anti-elite.”

	(1)	(2)	(3)	(4)	(5)
	Support for anti-elite party				
Lack of confidence in Civil Service	3.796*** (0.752)	4.403*** (0.864)	5.633*** (0.922)	5.845*** (0.946)	5.336*** (0.851)
Constant	8.334*** (1.787)	7.074*** (2.053)	7.235*** (2.176)	6.899*** (2.233)	7.935 (5.483)
Observations	38,599	34,602	31,242	30,761	26,937
R-squared	0.0784	0.0827	0.118	0.119	0.140
Excludes 'Don't know'		✓	✓	✓	✓
Excludes 'No vote'			✓	✓	✓
Excludes 'Other'/'unlisted'				✓	✓
Demographic controls					✓
Country-year fixed effects	✓	✓	✓	✓	✓

Weighted regression. Robust standard errors in parentheses (clustered at country-year level).

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 1: Lack of confidence in Civil Service and support for anti-elite populist parties.

and/or stated they did not intend to vote or intended to vote for “other” parties; and (Column 5) adding socio-demographic controls.²⁷ While our analysis cannot establish any causal relation, the data support the view that lower trust in the state bureaucracy correlates with greater support for anti-elite populist movements on aggregate and at the individual level.

Stated lack of confidence in the public service may be the byproduct of other politically-relevant views. For example, voters with conservative economic views may prefer European governments to reduce their responsibilities or increase privatizations. Or lack of confidence in the civil service may reflect views on inequality or left-right ideological divides. Obviously, each of these views may directly affect the intention to vote for anti-elite populist parties, so that our results in Table 1 would not indicate, as we suppose, that negative views of bureaucrats is a key force behind popular support for anti-elite populist parties; they would merely indicate that voters who support these parties for other reasons also have negative views of bureaucrats. While we cannot identify a causal mechanism, we can run a “horse-race” between various factors that may directly explain support for anti-elite parties. We report the results in Table 2. Perhaps surprisingly, views on economic inequality do not help explain support for anti-elite parties, suggesting that the “elite” is not “the rich.” Instead, albeit only correlational, the evidence in the data

²⁷Age, gender, education, income, and immigrant status.

	(1)	(2)	(3)	(4)
	Vote for anti-elite party			
Lack of confidence in Civil Service	5.794*** (0.958)	5.536*** (0.831)	2.858*** (0.644)	2.259*** (0.572)
View: Competition good	-0.181 (0.163)			-0.266* (0.154)
View: Reduce Gov. responsibility	-0.209 (0.149)			-0.354** (0.141)
View: More privatization	0.439* (0.228)			0.0558 (0.217)
View: Inequality is good	0.235 (0.191)			-0.0954 (0.121)
Left-right ideology		2.454*** (0.740)		2.653*** (0.742)
Lack of confidence in parties			0.640 (0.583)	0.553 (0.628)
Lack of confidence in parliament			5.050*** (0.914)	5.520*** (0.865)
Constant	5.223 (4.297)	-4.788 (5.253)	-0.607 (3.664)	-9.743 (6.227)
Observations	28,700	28,900	29,952	26,807
R-squared	0.123	0.138	0.129	0.153
Country-year fixed effects	✓	✓	✓	✓

Weighted regression. Robust standard errors in parentheses (clustered at country-year level). * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 2: Lack of confidence in Civil Service, support for anti-elite populist parties, political views, ideology, and confidence in parties and parliament. Excludes non-voters or respondents who answered “I don’t know” or that intended to vote for “other” party.

strongly supports the view that, as in our model, low trust in public servants is a key robust force behind popular support for anti-elite populism, second only to lack of confidence in politicians.

9 Conclusion

We have studied a theoretical framework that can rationally explain why voters may want to replace experienced public servants with less effective and less competent novices. Our theory offers insights into what institutional and technological factors may fuel mistrust between voters and public servants. When mistrust is too intense, voters demand to replace public servants who are actually working in the best interest of the voters. This dynamic may be particularly dangerous when it hinders progress towards shared, existential goals, such as combating climate change.

In our model, when the state bureaucracy is not too powerful and disagrees enough with the voters, draining the swamp always arises. But more power for the bureaucracy does not deliver a more responsive state. Instead, it yields a technocracy in which bureaucrats govern for themselves rather than to serve the voters. A responsive democracy, in which the state works for the citizens and the citizens trust the state only works in a “narrow corridor” ([Acemoglu and Robinson, 2019](#)) where the public servants’ disagreement with the voters and their power are both moderate.

We showed that our theory offers insights into which technological and political shocks can intensify disagreement between voters and public servants and weaken the implicit power of public servants, thus causing voters to drain the swamp. Our results help explaining recent voters’ support for anti-elite populist movements. In the Italian case, we argued that a deterioration of the quality of the state bureaucracy has intensified disagreement between voters and civil servants, eventually leading to cycles of anti-elite populism. [Drezner \(2019\)](#) argues that populist governments may negatively affect the quality of the bureaucracy beyond the short run. We do not model long-run effects of populism, but instead argue that worse bureaucratic quality may induce populism. Together, these arguments point to a possible spiral by which bad bureaucracy fuels demand for anti-elite populism which further degrades the quality of the bureaucracy (see also [Docquier, Peluso and Morelli, 2022](#)).

Some of the shocks that can plunge a country into cycles of populism may be irreversible even for skillful reformers. We showed that in our model some reforms aimed at combating populism may backfire—increasing, instead of decreasing, the frequency with which voters drain the swamp—if not well calibrated. Furthermore, we argued that reforms that increase bureaucratic independence, shielding public servants from voters, may in fact induce cycles of anti-elite populism.

The only reform that unambiguously reduces voters’ inclination to drain the swamp is one that reduces disagreement in the most direct way: it reduces the differences in

preferences between bureaucrats and voters. A more inclusive and representative state bureaucracy thus is the best guarantee against populism, as it induces voters to trust the state more and reduces their need to “control” the state by draining the swamp. This result echoes arguments that link the historical development of merit-based bureaucracies in China with greater trust in the central state. However, as our model warns us, even if representative, a too effective state is also one that can make democracy unsustainable and establish a powerful technocracy by which the state governs for itself (see, e.g., [Stasavage, 2020](#)).

References

- Acemoglu, Daron and James A Robinson**, *The narrow corridor: How nations struggle for liberty*, Penguin UK, 2019.
- Acemoglu, Daron, Georgy Egorov, and Konstantin Sonin**, “A political theory of populism,” *The quarterly journal of economics*, 2013, 128 (2), 771–805.
- Agranov, Marina, Ran Eilat, and Konstantin Sonin**, “Information Aggregation in Stratified Societies,” Technical Report, National Bureau of Economic Research 2023.
- Alesina, Alberto and Guido Tabellini**, “Bureaucrats or politicians? Part I: a single policy task,” *American Economic Review*, 2007, 97 (1), 169–179.
- Alesina, Alberto and Guido Tabellini**, “Bureaucrats or politicians? Part II: Multiple policy tasks,” *Journal of Public Economics*, 2008, 92 (3-4), 426–447.
- Algan, Yann, Sergei Guriev, Elias Papaioannou, and Evgenia Passari**, “The European trust crisis and the rise of populism,” *Brookings Papers on Economic Activity*, 2017, 2017 (2), 309–400.
- Ananyev, Maxim and Sergei Guriev**, “Effect of income on trust: evidence from the 2009 economic crisis in Russia,” *The Economic Journal*, 2019, 129 (619), 1082–1118.
- Ashworth, Scott and Ethan Bueno de Mesquita**, “Is voter competence good for voters?: Information, rationality, and democratic performance,” *American Political Science Review*, 2014, 108 (3), 565–587.
- Ashworth, Scott, Ethan Bueno de Mesquita, and Amanda Friedenberg**, “Learning about voter rationality,” *American Journal of Political Science*, 2018, 62 (1), 37–54.
- Auriol, Emmanuelle, Nicolas Bonneton, and Mattias Polborn**, *Shaking Up the System: When Populism Disciplines Elite Politicians*, Centre for Economic Policy Research, 2023.
- Autor, David, David Dorn, Gordon Hanson, and Kaveh Majlesi**, “Importing Political Polarization? The Electoral Consequences of Rising Trade Exposure,” *American Economic Review*, 2020, 110 (10), 3139–3183.
- Banks, Jeffrey S and Barry R Weingast**, “The political control of bureaucracies under asymmetric information,” *American Journal of Political Science*, 1992, 36 (2), 509–524.
- Banks, Jeffrey S and Joel Sobel**, “Equilibrium selection in signaling games,” *Econometrica*, 1987, pp. 647–661.
- Barro, Robert J**, “The control of politicians: an economic model,” *Public Choice*, 1973, pp. 19–42.
- Bauer, Michael W and Stefan Becker**, “Democratic backsliding, populism, and public administration,” *Perspectives on public management and governance*, 2020, 3 (1), 19–31.
- Bauer, Michael W, B Guy Peters, Pierre Jon, Kutsal Yesilkagit, and Stefan Becker**, *Introduction: Populists, democratic backsliding, and public administration*, Cambridge University Press, 2021.

- Bellodi, Luca, Massimo Morelli, and Matia Vannoni**, "A Costly Commitment: Populism, Government Performance, and the Quality of Bureaucracy," *American Journal of Political Science*, 2023.
- Bellodi, Luca, Massimo Morelli, Antonio Nicolò, and Paolo Roberti**, "The shift to commitment politics and populism: Theory and evidence," *BAFFI CAREFIN Centre Research Paper*, 2023, (204).
- Bendor, Jonathan and Adam Meirowitz**, "Spatial models of delegation," *American Political Science Review*, 2004, 98 (2), 293–310.
- Bernhardt, Dan, Stefan Krasa, and Mehdi Shadmehr**, "Demagogues and the economic fragility of democracies," *American Economic Review*, 2022, 112 (10), 3331–3366.
- Besley, Timothy**, *Principled agents?: The political economy of good government*, Oxford University Press on Demand, 2006.
- Boffa, Federico, Vincenzo Mollisi, and Giacomo AM Ponzetto**, "Do incompetent politicians breed populist voters? evidence from italian municipalities," *CEPR Press Discussion Paper*, 2023, (17997).
- Bovard, Rachel**, "The Trump administration's successful war against bureaucratic bullies," *USA Today*, 2019, (October 16).
- Bräuninger, Thomas and Nikolay Marinov**, "Political elites and the "War on Truth"," *Journal of Public Economics*, 2022, 206, 104585.
- Calabresi, Massimo**, "Inside Donald Trump's War Against the State," *Time Magazine*, 2017, (March 20).
- Callander, Steven and Keith Krehbiel**, "Gridlock and delegation in a changing world," *American Journal of Political Science*, 2014, 58 (4), 819–834.
- Cho, In-Koo and David M Kreps**, "Signaling games and stable equilibria," *The Quarterly Journal of Economics*, 1987, 102 (2), 179–221.
- Colantone, Italo and Piero Stanig**, "The Trade Origins of Economic Nationalism: Import Competition and Voting Behavior in Western Europe," *American Journal of Political Science*, 2018, 62 (4), 936–953.
- Costa, Robert**, "Ben Carson is unlikely to serve in Trump's Cabinet," *Washington Post*, 2016, (November 15).
- Crutzen, Benoît SY, Dana Sisak, and Otto H Swank**, "Left Behind Voters, Anti-Elitism and Popular Will," 2020.
- Denisenko, Anna, Catherine Hafer, and Dimitri Landa**, "Competence and Advice," 2022.
- Dewan, Torun and Francesco Squintani**, "Leadership with trustworthy associates," *American Political Science Review*, 2018, 112 (4), 844–859.
- Di Tella, Rafael and Julio J Rotemberg**, "Populism and the return of the "paranoid style": Some evidence and a simple model of demand for incompetence as insurance against elite betrayal," *Journal of Comparative Economics*, 2018, 46 (4), 988–1005.
- Docquier, Frédéric, Eugenio Peluso, and Massimo Morelli**, "Democracies in Danger: How Can We break the Vicious Circle of Populism?," *LISER Policy Brief*, 2022, (05).
- Drezner, Daniel W**, "Present at the destruction: The Trump administration and the foreign policy bureaucracy," *The Journal of Politics*, 2019, 81 (2), 723–730.
- Duggan, John and César Martinelli**, "The political economy of dynamic elections: Accountability, commitment, and responsiveness," *Journal of Economic Literature*, 2017, 55 (3), 916–984.
- Eisen, Mark**, "Who's Running This Place-A Comparative Look at the Political Appointment System in the United States and Britain, and What the United States Can Learn," *BU Int'l LJ*, 2012, 30, 295.

- Feler, Leo and Mine Z Senses**, "Trade shocks and the provision of local public goods," *American Economic Journal: Economic Policy*, 2017, 9 (4), 101–143.
- Ferejohn, John**, "Incumbent performance and electoral control," *Public Choice*, 1986, pp. 5–25.
- Fox, Justin and Kenneth W Shotts**, "Delegates or trustees? A theory of political accountability," *The Journal of Politics*, 2009, 71 (4), 1225–1237.
- Fox, Justin and Stuart V Jordan**, "Delegation and accountability," *The Journal of Politics*, 2011, 73 (3), 831–844.
- Fudenberg, Drew and Jean Tirole**, "Perfect Bayesian Equilibrium and Sequential Equilibrium," *Journal of Economic Theory*, 1991, 53 (2), 236–260.
- Gailmard, Sean and John W Patty**, "Formal models of bureaucracy," *Annual Review of Political Science*, 2012, 15, 353–377.
- Gailmard, Sean and John W Patty**, *Learning while governing: Expertise and accountability in the executive branch*, University of Chicago Press, 2012.
- Gratton, Gabriele and Barton E Lee**, "Liberty, security, and accountability: The rise and fall of illiberal democracies," *Review of Economic Studies*, 2024, 91 (1), 340–371.
- Gratton, Gabriele, Luigi Guiso, Claudio Michelacci, and Massimo Morelli**, "From Weber to Kafka: Political instability and the overproduction of laws," *American Economic Review*, 2021, 111 (9), 2964–3003.
- Guiso, Luigi, Helios Herrera, Massimo Morelli, and Tommaso Sonno**, "Populism: Demand and Supply," 2017.
- Guiso, Luigi, Helios Herrera, Massimo Morelli, and Tommaso Sonno**, "Global Crises and Populism: The Role of Eurozone Institutions," *Economic Policy*, 2019, 34 (97), 95–139.
- Guiso, Luigi, Helios Herrera, Massimo Morelli, and Tommaso Sonno**, "Economic Insecurity and the Demand of Populism in Europe," *Einaudi Institute for Economics and Finance Working Paper*, 2020.
- Guriev, Sergei and Elias Papaioannou**, "The Political Economy of Populism," *CEPR Discussion Paper No. DP14433*, 2020.
- Hall, Andrew B, Jesse Yoder, and Nishant Karandikar**, "Economic distress and voting: evidence from the subprime mortgage crisis," *Political Science Research and Methods*, 2021, 9 (2), 327–344.
- Herrera, Helios and Federico Trombetta**, "Alternative Worldviews, Distrust, and Populism," *Working Paper*, 2024.
- Holmström, Bengt**, "On the theory of delegation," *Northwestern University, Center for Mathematical Studies in Economics and Management Science Discussion Paper No. 438*, 1980.
- Holmström, Bengt**, "Managerial incentive problems: A dynamic perspective," *Essays in Economic and Management in Honor of Lars Wahlbeck. Reprinted in The Review of Economic Studies* 1999, 1982, 66, 169–182.
- Huber, John D and Charles R Shipan**, *Deliberate discretion?: The institutional foundations of bureaucratic autonomy*, Cambridge University Press, 2002.
- Huber, John D and Nolan McCarty**, "Bureaucratic capacity, delegation, and political reform," *American Political Science Review*, 2004, 98 (3), 481–494.
- Ihlanfeldt, Keith and Tom Mayock**, "Foreclosures and local government budgets," *Regional Science and Urban Economics*, 2015, 53, 135–147.
- Jolly, Seth, Ryan Bakker, Liesbet Hooghe, Gary Marks, Jonathan Polk, Jan Rovny, Marco Steenbergen, and Milada Anna Vachudova**, "Chapel Hill expert survey trend file, 1999–2019," *Electoral studies*, 2022, 75, 102420.
- Kartik, Navin, Richard Van Weelden, and Stephane Wolton**, "Electoral ambiguity and political

- representation," *American Journal of Political Science*, 2017, 61 (4), 958–970.
- Levy, Gilat, Ronny Razin, and Alwyn Young**, "Misspecified politics and the recurrence of populism," *American Economic Review*, 2022, 112 (3), 928–962.
- Maskin, Eric and Jean Tirole**, "The principal-agent relationship with an informed principal, II: Common values," *Econometrica*, 1992, 60 (1), 1–42.
- Maskin, Eric and Jean Tirole**, "The politician and the judge: Accountability in government," *American Economic Review*, 2004, 94 (4), 1034–1054.
- Milkis, Sidney**, *The president and the parties: The transformation of the American party system since the New Deal*, Oxford University Press, 1993.
- Morris, Stephen**, "Political correctness," *Journal of Political Economy*, 2001, 109 (2), 231–265.
- Moynihan, Donald**, *Populism and the Deep State: The Attack on Public Service Under Trump*, Cambridge University Press,
- Mudde, Cas and Cristóbal Rovira Kaltwasser**, *Populism: A Very Short Introduction*, Oxford University Press, 2017.
- Nath, Anousha**, "Bureaucrats and politicians: Electoral competition and dynamic incentives," *Unpublished working paper. Boston University*, 2016.
- Norris, Pippa and Ronald Inglehart**, *Cultural backlash: Trump, Brexit, and authoritarian populism*, Cambridge University Press, 2019.
- Panizza, Francisco, B Guy Peters, and Conrado R Ramos Larraburu**, "Roles, trust and skills: A typology of patronage appointments," *Public Administration*, 2019, 97 (1), 147–161.
- Postel, Charles**, *The populist vision*, Oxford University Press, 2007.
- Prato, Carlo and Stephane Wolton**, "Rational ignorance, populism, and reform," *European Journal of Political Economy*, 2018, 55, 119–135.
- Przeworski, Adam**, *Crises of democracy*, Cambridge University Press, 2019.
- Rodrik, Dani**, "Is populism necessarily bad economics?," in "AEA Papers and proceedings," Vol. 108 2018, pp. 196–99.
- Sasso, Greg and Massimo Morelli**, "Bureaucrats under populism," *Journal of Public Economics*, 2021, 202, 104497.
- Stasavage, David**, *The Decline and Rise of Democracy: A Global History from Antiquity to Today*, Vol. 96, Princeton University Press, 2020.
- Ting, Michael M**, "A theory of jurisdictional assignments in bureaucracies," *American Journal of Political Science*, 2002, pp. 364–378.
- Ting, Michael M**, "The political economy of governance quality," *American Political Science Review*, 2021, 115 (2), 667–685.
- U.S. Senate Joint Economic Committee**, "Sheltering Neighborhoods from the Subprime Foreclosure Storm," Technical Report 2007.
- White House**, "Analytical perspectives, budget of the United States government, fiscal year 2024," 2023.
- Wike, Richard, Laura Silver, Janell Fetterolf, Christine Huang, Sarah Austin, Laura Clancy, and Sneha Gubbala**, "Social Media Seen as Mostly Good for Democracy Across Many Nations, But US is a Major Outlier," 2022.

Appendix

A Equilibrium definition

We study the unique perfect Bayesian equilibrium (Fudenberg and Tirole, 1991) in Markovian strategies that survives divinity. A Markovian strategy for the agent is a mapping p from the signal realization, $s_t \in \{0, 1\}$, to a probability of triggering the emergency policy. A Markovian strategy for the voter is a mapping d from the observed signal (or lack thereof), $\hat{s}_t \in \{\emptyset, s_t\}$, to a probability of draining the swamp (if the agent has triggered the emergency policy). We denote by μ_t the agent's belief that $\theta_t = 1$ —a mapping from the signal realization, s_t , into a probability. We denote by ν_t the voter's belief that $\theta_t = 1$ when the agent has triggered the emergency policy and upon observing the signal (or lack thereof)—a mapping from the observed signal, \hat{s}_t , into a probability. A Markovian assessment is a tuple $\sigma = (p, d, \{\mu_t\}_{t=1}^{\infty}, \{\nu_t\}_{t=1}^{\infty})$. Let

$$U(d_t | \sigma) := \mathbb{E} \left[\sum_{t'=t+1}^{\infty} \delta^{t'-t-1} (\mathbb{I}_{i_{t'}=\theta_{t'}} + \eta \mathbb{I}_{d_{t'}=0}) \mid \sigma \right]$$

denote the voter's expected continuation payoff from $d_t \in \{0, 1\}$, given σ . A strategy p^* for the agent is sequential rational, given σ , if it maximizes the agent's expected payoff in each period t and for each signal realization s_t , i.e.,

$$p^*(s_t) \in \arg \max_{p \in [0,1]} \left\{ \begin{array}{l} p [\tau (1 - d(s_t)) + (1 - \tau) (1 - d(\emptyset))] (\mu_t(s_t) + \delta V) \\ + (1 - p) [(1 - \alpha)(1 - \mu_t(s_t)) + \delta V] \end{array} \right\} \quad (\text{A.1})$$

A strategy d^* for the voter is sequentially rational, given σ , if it maximizes the voter's expected payoff in each period t and for each observed signal (or lack thereof) \hat{s}_t , i.e.,

$$d^*(\hat{s}_t) \in \arg \max_{d \in [0,1]} \left\{ \begin{array}{l} d [(1 - \nu_t(\hat{s}_t)) + \delta U(d_t = 1 | \sigma)] \\ + (1 - d) [\nu_t(\hat{s}_t) + \eta + \delta U(d_t = 0 | \sigma)] \end{array} \right\} \quad (\text{A.2})$$

We now discuss which beliefs are consistent with σ . The agent's beliefs are always uniquely pinned down by Bayes' rule:

$$\mu_t(0) = \mu_t^*(0) := \Pr[\theta_t = 1 \mid s_t = 0] = \frac{\pi(1 - \kappa)}{\pi(1 - \kappa) + (1 - \pi)\kappa} \quad (\text{A.3})$$

and

$$\mu_t(1) = \mu_t^*(1) := \Pr[\theta_t = 1 \mid s_t = 1] = \frac{\pi\kappa}{\pi\kappa + (1-\pi)(1-\kappa)}. \quad (\text{A.4})$$

Notice that consistency requires that the voter's beliefs are bounded: for any \hat{s}_t ,

$$\nu_t(\hat{s}_t) \in [\nu_t^*(0), \nu_t^*(1)] \quad (\text{A.5})$$

because the agent's action cannot signal information that she does not possess.²⁸ Furthermore, the voter's beliefs are also uniquely pinned down by Bayes' rule whenever she directly observes the agent's signal.²⁹

$$\nu_t(0) = \nu_t^*(0) := \mu_t^*(0) \quad \text{and} \quad \nu_t(1) = \nu_t^*(1) := \mu_t^*(1); \quad (\text{A.6})$$

and otherwise whenever the agent triggers the emergency policy with strictly positive probability (i.e., $p^*(s_t) > 0$ for some s_t):

$$\begin{aligned} \nu_t(\emptyset) = \nu_t^*(\emptyset) &:= \Pr[\theta_t = 1 \mid p_t = 1, \sigma, \hat{s}_t = \emptyset] \\ &= \frac{\pi\kappa p^*(1) + \pi(1-\kappa)p^*(0)}{(\pi\kappa + (1-\pi)(1-\kappa))p^*(1) + (\pi(1-\kappa) + (1-\pi)\kappa)p^*(0)}. \end{aligned} \quad (\text{A.7})$$

We impose a further condition on the voter's belief $\nu_t^*(\emptyset)$ when the voter does not observe the signal and, in equilibrium, the agent never triggers the emergency policy. Adopting [Cho and Kreps \(1987\)](#)'s definition (see, e.g., [Fudenberg and Tirole, 1991](#); [Maskin and Tirole, 1992](#)), we say that an equilibrium is divine if $\nu_t^*(\emptyset)$ satisfies condition D1. Formally, given sequentially rational $d^*(0)$ and $d^*(1)$, let $d_{\emptyset,s}$ be the value of $d(\emptyset)$ such that, upon observing $s_t = s$, the agent is indifferent between $p_t = 1$ and $p_t = 0$; that is,

$$[\tau d^*(s) + (1-\tau)d_{\emptyset,s}] (\mu_t^*(s) + \delta V) = (1-\alpha)(1-\mu_t^*(s)) + \delta V.$$

In our context, condition D1 says that, whenever $p^*(s_t) = 0$ for all s_t , if there exists s and s' such that $d_{\emptyset,s'} < d_{\emptyset,s}$, then $\nu_t^*(\emptyset) = \nu_t^*(s')$.

Definition A.1 (Equilibrium). *An assessment $\sigma = (p^*, d^*, \{\mu_t^*\}_{t=1}^\infty, \{\nu_t^*\}_{t=1}^\infty)$ is an equilibrium if, for each t , p^* satisfies (A.1) for $\sigma = \sigma^*$; d^* satisfies (A.2) for $\sigma = \sigma^*$; $\mu_t^*(s_t)$ satisfies (A.3)–(A.4); and $\nu_t^*(\hat{s}_t)$ satisfies (A.5)–(A.6), (A.7) if well-defined, and condition D1.*

²⁸This is essentially a version of the “no signaling what you don't know” condition (see, e.g., [Fudenberg and Tirole, 1991](#)).

²⁹Notice that this is true also off the equilibrium path.

B Proofs

B.1 Benchmark model

Proof of Lemma 1. For any signal $s_t \in \{0, 1\}$, the probability of an emergency is given by $\mu_t^*(0)$ (A.3) and $\mu_t^*(1)$ (A.4). Because $\kappa > 1 - \pi > \pi$, $\mu_t^*(0) < 1/2 < \mu_t^*(1)$. Therefore, all else equal, the voter prefers $i_t = 1$ if and only if $s_t = 1$. In contrast—and holding all else equal—the agent prefers $i_t = 1$ if and only if $\mu_t^*(\hat{s}) > (1 - \mu_t^*(\hat{s}))(1 - \alpha)$, which yields $\mu_t^*(\hat{s}) > (1 - \alpha)/[1 + (1 - \alpha)] \in (0, 1/2)$ where $\hat{s} \in \{0, 1\}$ is the agent’s signal. Because $\mu_t^*(1) > 1/2$, the last inequality holds for $\hat{s} = 1$; it holds for $\hat{s} = 0$ if and only if $\kappa < \bar{\kappa}(\alpha, \pi) := \pi/[\pi + (1 - \alpha)(1 - \pi)]$. \square

Proof of Lemma 2. Suppose $p_t = 1$. The voter’s expected payoff from $d_t = 1$ is $(1 - \nu_t) + \delta U(\sigma^*)$; his expected payoff from $d_t = 0$ is $\nu_t + \eta + \delta U(\sigma^*)$. Therefore, he chooses $d_t = 1$ if and only if $\nu_t < \frac{1 - \eta}{2}$. \square

Proof of Lemma 3. Suppose $p_t = 1$. If the voter observes $s_t = 1$. Then, by Bayes’ rule (see Definition A.1), $\nu_t(s_t) > 1/2$ and, by Lemma 2, he chooses $d_t = 0$. If instead the voter observes $s_t = 0$, then, by Bayes’ rule (see Definition A.1) and Lemma 2, the voter chooses $d_t = 1$ if and only if

$$\frac{\pi(1 - \kappa)}{\pi(1 - \kappa) + (1 - \pi)\kappa} < \frac{1 - \eta}{2} \iff \eta < \bar{\eta}(\pi, \kappa) := 1 - 2\frac{\pi(1 - \kappa)}{\pi(1 - \kappa) + (1 - \pi)\kappa}. \quad \square$$

Proof of Lemma 4. Let $\eta \geq \bar{\eta}(\pi, \kappa)$. By Lemma 3, the voter chooses $d_t = 0$ when informed that $s_t = 0$ or $s_t = 1$. When uninformed, by Definition A.1, the voter’s belief is contained in the interval $[\nu_t(s_t = 0), \nu_t(s_t = 1)]$ (see (A.5)) and, hence, also chooses $d_t = 0$. Therefore, by Assumption 2, the agent optimally chooses $p_t = 1$ for all s_t .

Let $\eta < \bar{\eta}(\pi, \kappa)$. By Lemma 3, in every equilibrium, the voter chooses $d_t = 1$ when informed if and only if $s_t = 0$. We now establish a sequence of useful auxiliary lemmas.

Lemma B.1. *Let $\eta < \bar{\eta}(\pi, \kappa)$. In every equilibrium, $p^*(0) \leq p^*(1)$.*

Proof. For sake of a contradiction, suppose $p^*(1) < p^*(0)$ and, hence, $0 < p^*(0)$ and $p^*(1) < 1$. Because $p^*(0) > 0$ is optimal for the agent, then

$$(1 - \tau)(1 - d^*)(\mu_t^*(0) + \delta V) \geq (1 - \alpha)(1 - \mu_t^*(0)) + \delta V. \quad (\text{B.1})$$

Similarly, because $p^*(1) < 1$ is optimal for the agent, then

$$(1 - \alpha)(1 - \mu_t^*(1)) + \delta V \geq (\tau + (1 - \tau)(1 - d^*))(\mu_t^*(1) + \delta V). \quad (\text{B.2})$$

Combining (B.1) and (B.2) we obtain

$$(1 - \tau)(1 - d^*)(\mu_t^*(0) + \delta V) \geq (\tau + (1 - \tau)(1 - d^*))(\mu_t^*(1) + \delta V), \quad (\text{B.3})$$

which, because $\mu_t^*(0) < \mu_t^*(1)$, is a contradiction. \square

Lemma B.2. *Suppose $\eta < \bar{\eta}(\pi, \kappa)$. There is no equilibrium with $p^*(0) \in (0, 1)$ and $p^*(1) \in (0, 1)$.*

Proof. Similar to the proof of Lemma B.1: Inequalities (B.1) and (B.2), implies the same contradiction (i.e., Inequality (B.3)). \square

Lemma B.3. *Let $\eta < \bar{\eta}(\pi, \kappa)$. If in equilibrium $p^*(0) = 0$ and $p^*(1) > 0$, then $p^*(1) = 1$.*

Proof. For sake of a contradiction, suppose $p^*(0) = 0$ and $p^*(1) \in (0, 1)$. By Definition A.1, $\nu_t^*(\emptyset) = \nu_t^*(1) = \mu_t^*(1)$ and therefore $d^* = 0$. Then, when $s_t = 1$ the agent's expected payoff from $p_t = 1$ is $\mu_t^*(1) + \delta V > (1 - \alpha)(1 - \mu^*(1)) + \delta V$, which is their expected payoff from $p_t = 0$. Therefore, the agent optimally chooses $p^*(1) = 1$ —a contradiction. \square

Lemma B.4. *Let $\eta < \bar{\eta}(\pi, \kappa)$. There is no equilibrium with $p^*(0) = p^*(1) = 0$.*

Proof. For sake of a contradiction, suppose $p^*(0) = p^*(1) = 0$. The voter's belief when uninformed, $\nu_t^*(\emptyset)$, is off the equilibrium path. We apply the D1 condition: suppose $d^* = d'$ for some d' . When $s_t = 0$, the agent will be indifferent between $p_t = 1$ and $p_t = 0$ if and only if

$$(1 - \alpha)(1 - \mu^*(0)) + \delta V = (1 - \tau)(1 - d')(\mu^*(0) + \delta V). \quad (\text{B.4})$$

When $s_t = 1$, the agent will be indifferent if and only if

$$(1 - \alpha)(1 - \mu^*(1)) + \delta V = (\tau + (1 - \tau)(1 - d'))(\mu^*(1) + \delta V). \quad (\text{B.5})$$

Because $\mu^*(1) > \mu^*(0)$, the value of d' such that (B.4) holds is strictly greater than the value of d' such that (B.5) holds. Thus, the D1 condition requires $\nu_t^*(\emptyset) = \nu_t^*(s_t = 1)$. But then, by Lemma 2, $d^* = 0$, which immediately leads to a contradiction: when $s_t = 1$, the agent strictly prefers to choose $p_t = 1$. \square

Together Lemmas B.1–B.4 imply that, in equilibrium, one of three must hold: (i) $p^*(0) = 0$ and $p^*(1) = 1$; (ii) $p^*(0) \in (0, 1)$ and $p^*(1) = 1$; or (iii) $p^*(0) = 1$ and $p^*(1) = 1$. We can then conclude that in every equilibrium, the agent chooses $p_t = 1$ when $s_t = 1$ and, by sequential rationality, when $s_t = 0$, the agent chooses $p_t = 1$ with strictly positive probability only if

$$(1 - \alpha)(1 - \mu^*(0)) + \delta V \leq (1 - \tau)(1 - d^*)(\mu^*(0) + \delta V). \quad \square$$

Proof of Proposition 1. **Part (i)** follows immediately from Lemmas 2–4. **For Parts (ii)–(iv)**, we begin with an auxiliary lemma (Lemma B.5) that characterizes the strategies that can be sustained in equilibrium when excluding a measure-zero set of parameters. Notice that Parts (i)–(iii) in Lemma B.5 correspond to a responsive democracy, preemptive populism, and informed populism, respectively.

Lemma B.5. *Let $\eta < \bar{\eta}(\pi, \kappa)$. In equilibrium, $p^*(1) = 1$, $d^*(0) = 1$ and $d^*(1) = 0$ and, with the exception of a measure-zero set of parameters,³⁰ one of following three must hold:*

(i) $p^*(0) = 0$ and $d^*(\emptyset) = 0$;

(ii) $p^*(0) \in (0, 1)$ and $d^*(\emptyset) \in (0, 1)$;

(iii) $p^*(0) = 1$ and $d^*(\emptyset) = 0$.

Proof. Let $\eta < \bar{\eta}(\pi, \kappa)$. By Lemmas 3 and 4, $p^*(1) = 1$, $d^*(0) = 1$ and $d^*(1) = 0$.

Part (i). Suppose $p^*(0) = 0$. By Definition A.1, $\nu_t^*(\emptyset) = \nu_t^*(1)$ and, hence, by Lemmas 2 and 3, $d^*(\emptyset) = 0$.

Part (ii). Suppose $p^*(0) \in (0, 1)$. Because $p^*(0) \in (0, 1)$ is optimal for the agent,

$$(1 - \alpha)(1 - \mu^*(0)) + \delta V = (1 - \tau)(1 - d^*(\emptyset))(\mu^*(0) + \delta V).$$

When $d^*(\emptyset) = 1$, the above equality is not satisfied. Therefore, $d^*(\emptyset) < 1$. Furthermore, $d^*(\emptyset) = 0$ can hold in equilibrium only if $(1 - \alpha)(1 - \mu^*(0)) + \delta V = (1 - \tau)(\mu^*(0) + \delta V)$. Therefore, for $(1 - \alpha)(1 - \mu^*(0)) + \delta V \neq (1 - \tau)(\mu^*(0) + \delta V)$, $d^*(\emptyset) \in (0, 1)$.

³⁰In particular, $\pi \neq \frac{1-\eta}{2}$ and $(1 - \alpha)(1 - \mu^*(0)) + \delta V \neq (1 - \tau)(\mu^*(0) + \delta V)$.

Part (iii). Suppose $p^*(0) = 1$. Because $p^*(0) > 0$ is optimal for the agent,

$$(1 - \alpha)(1 - \mu^*(0)) + \delta V \leq (1 - \tau)(1 - d^*(\emptyset))(\mu^*(0) + \delta V).$$

When $d^*(\emptyset) = 1$, the above inequality is not satisfied. Therefore, $d^*(\emptyset) < 1$. Furthermore, by Definition A.1, $\nu_t^*(\emptyset) = \pi$ and, hence, $d^*(\emptyset) \in (0, 1)$ can hold in equilibrium only if $\pi = \frac{1-\eta}{2}$. Therefore, for $\pi \neq \frac{1-\eta}{2}$, $d^*(\emptyset) = 0$. \square

We now characterize the set of parameters for which each regime (described in Lemma B.5) exists. The interior of each set of parameters will be distinct and, hence, it follows that the equilibrium is unique with the exception of a measure-zero set of parameters.

Part (ii). In a responsive democracy, $d^*(\emptyset) = 0$ and $p^*(0) = 0$. By Definition A.1, $\nu_t^*(\emptyset) = \nu_t^*(1)$, so that $d^*(\emptyset) = 0$. $p^*(0) = 0$ is optimal if and only if

$$(1 - \alpha)(1 - \mu_t^*(0)) + \delta V \geq (1 - \tau)(\mu_t^*(0) + \delta V). \quad (\text{B.6})$$

Both sides of (B.6) are continuous in κ and the left (resp., right) hand side is increasing (resp., decreasing) in κ . Furthermore, at $\kappa = \bar{\kappa}(\pi, \alpha)$ (see Proof of Lemma 1), we have

$$(1 - \alpha)(1 - \mu(0)) = \mu(0) \implies (1 - \alpha)(1 - \mu(0)) + \delta V > (1 - \tau)(\mu(0) + \delta V).$$

Define $\underline{\kappa}(\pi, \alpha, \tau) \in (1 - \pi, \bar{\kappa}(\pi, \alpha))$ as the value of κ for which (B.6) holds with equality or, if such a value does not exist, $\underline{\kappa}(\pi, \alpha, \tau) = 1 - \pi$. Therefore, a responsive democracy is an equilibrium if and only if $\eta < \bar{\eta}(\pi, \kappa)$ and $\underline{\kappa}(\pi, \alpha, \tau) \leq \kappa$.

Part (iii). In informed populism, $d^*(\emptyset) = 0$ and $p^*(0) = 1$. By Definition A.1, $\nu_t^*(\emptyset) = \pi$ so that, by Lemma 2, $d^*(\emptyset) = 0$ is optimal if and only if

$$\pi \geq \frac{1 - \eta}{2} \iff \eta \geq \underline{\eta}(\pi) := 1 - 2\pi. \quad (\text{B.7})$$

$p^*(0) = 1$ is optimal if and only if

$$(1 - \alpha)(1 - \mu(0)) + \delta V \leq (1 - \tau)(\mu(0) + \delta V), \quad (\text{B.8})$$

which is the reversed inequality of (B.6) and therefore, for $\kappa > 1 - \pi$, (B.8) holds if and only if $\kappa \leq \underline{\kappa}(\pi, \alpha, \tau)$. Thus, informed populism is an equilibrium if and only if $\underline{\eta}(\pi) \leq \eta \leq \bar{\eta}(\pi, \kappa)$ and $\kappa \leq \underline{\kappa}(\pi, \alpha, \tau)$.

Part (iv): In preemptive populism, $d^*(\emptyset) \in (0, 1)$ and $p^*(0) \in (0, 1)$. By Definition A.1,

$$\nu_t^*(\emptyset) = \frac{\pi\kappa + \pi(1 - \kappa)p^*(0)}{\Pr[s_t = 1] + \Pr[s_t = 0]p^*(0)},$$

so that, by Lemma 2, $d^*(\emptyset) \in (0, 1)$ is optimal if and only if

$$\frac{\pi\kappa + \pi(1 - \kappa)p^*(0)}{\Pr[s_t = 1] + \Pr[s_t = 0]p^*(0)} = \frac{1 - \eta}{2}. \quad (\text{B.9})$$

The left hand side of (B.9) is continuous and decreasing in $p^*(0)$. It ranges from π (at $p^*(0) = 1$) to $\mu_t^*(1) > (1 - \eta)/2$ (at $p^*(0) = 0$), where the last inequality follows because $\mu_t^*(1) > 1/2$ and $\eta > 0$. Thus, a (unique) solution $p^*(0) \in (0, 1)$ to (B.9) exists if and only if $\pi < (1 - \eta)/2$: $\eta < \underline{\eta}(\pi)$.

Furthermore, $p^*(0) \in (0, 1)$ is optimal if and only if

$$(1 - \alpha)(1 - \mu_t^*(0)) + \delta V = (1 - \tau)(1 - d^*(\emptyset))(\mu_t^*(0) + \delta V). \quad (\text{B.10})$$

The right hand side is continuous and decreasing in $d^*(\emptyset)$. It ranges from $0 < (1 - \alpha)(1 - \mu_t^*(0)) + \delta V$ (when $d^*(\emptyset) = 1$) to $(1 - \tau)(\mu(0) + \delta V)$ (when $d^*(\emptyset) = 0$). Thus, a (unique) solution $d^*(\emptyset) \in (0, 1)$ to (B.10) exists if and only if

$$(1 - \alpha)(1 - \mu(0)) + \delta V < (1 - \tau)(\mu(0) + \delta V), \quad (\text{B.11})$$

which is the reverse inequality of (B.6) and therefore, for $\kappa > 1 - \pi$, (B.11) holds if and only if $\kappa < \underline{\kappa}(\pi, \alpha, \tau)$. Therefore, preemptive populism is an equilibrium if and only if $\eta < \underline{\eta}(\pi)$ and $\kappa < \underline{\kappa}(\pi, \alpha, \tau)$. \square

Proof of Proposition 2. Let $\kappa, \alpha, \pi, \tau$ induce a responsive democracy:

$$\eta < \bar{\eta}(\pi, \kappa) \text{ and } \underline{\kappa}(\pi, \alpha, \tau) < \kappa < \bar{\kappa}(\pi, \alpha), \quad (\text{B.12})$$

where

$$\underline{\kappa}(\pi, \alpha, \tau) = \frac{\pi((1 - \tau) - \tau\delta V)}{\pi((1 - \tau) - \tau\delta V) + (1 - \pi)((1 - \alpha) + \tau\delta V)}. \quad (\text{B.13})$$

Note that, because $\pi < 1/2$, the denominator of (B.13) is positive and, hence,

$$\underline{\kappa}(\pi, \alpha, \tau) > 0 \iff (1 - \tau) - \tau\delta V > 0. \quad (\text{B.14})$$

Part (i). Sufficiency. Let $1 - \pi < \underline{\kappa}(\pi, \alpha, \tau)$ and $\eta < \bar{\eta}(\pi, \underline{\kappa}(\pi, \alpha, \tau))$ and take $\kappa' = \underline{\kappa}(\pi, \alpha, \tau) - \varepsilon$, where $\varepsilon > 0$. For ε sufficiently small, $\kappa' \in (1 - \pi, \kappa)$ and, by continuity of $\bar{\eta}$, $\eta < \bar{\eta}(\pi, \kappa')$. Therefore, κ' induces populism. Necessity. Let $\kappa' \in (1 - \pi, \kappa)$ induce (preemptive or informed) populism: $\eta < \bar{\eta}(\pi, \kappa')$ and $\kappa' < \underline{\kappa}(\pi, \alpha, \tau)$. Because $\kappa' > 1 - \pi$, the second inequality implies that $1 - \pi < \underline{\kappa}(\pi, \alpha, \tau)$. Furthermore, because

$$\frac{\partial \bar{\eta}(\pi, \kappa)}{\partial \kappa} = \frac{2(1 - \pi)\pi}{(\kappa(1 - \pi) + \pi(1 - \kappa))^2} > 0 \quad (\text{B.15})$$

and $\kappa' < \underline{\kappa}(\pi, \alpha, \tau)$, we have that $\eta < \bar{\eta}(\pi, \kappa') < \bar{\eta}(\pi, \underline{\kappa}(\pi, \alpha, \tau))$.

Part (ii). Sufficiency. Let $\kappa < \underline{\kappa}(\pi, 1, \tau)$. Take $\alpha' = 1 - \varepsilon$, where $\varepsilon > 0$. If ε is sufficiently small, then $\alpha' \in (\alpha, 1)$ and, by continuity of $\underline{\kappa}$, $\kappa < \underline{\kappa}(\pi, \alpha', \tau)$. Then, because $\bar{\eta}(\pi, \kappa)$ is independent of α and, by (B.12), $\eta < \bar{\eta}(\pi, \kappa)$, α' induces populism. Necessity. Let $\alpha' \in (\alpha, 1)$ induce populism: $\eta < \bar{\eta}(\pi, \kappa)$ and $\kappa < \underline{\kappa}(\pi, \alpha', \tau)$. Because $\kappa > 0$, the second inequality implies that $\underline{\kappa}(\pi, \alpha', \tau) > 0$. Using by (B.14), we then obtain

$$\frac{\partial \underline{\kappa}(\pi, \alpha, \tau)}{\partial \alpha} = -\frac{-(1 - \pi)\pi((1 - \tau) - \tau\delta V)}{((1 - \alpha)(1 - \pi) + \pi + \tau(\delta V - \pi(1 + 2\delta V)))^2} > 0.$$

Thus, $\kappa < \underline{\kappa}(\pi, \alpha', \tau) < \underline{\kappa}(\pi, 1, \tau)$.

Part (iii). Sufficiency. Let $\kappa < \underline{\kappa}(\pi_\eta, \alpha, \tau)$. Notice that because (B.12) holds and

$$\frac{\partial \bar{\eta}(\pi, \kappa)}{\partial \pi} = \frac{-2(1 - \kappa)\kappa}{(\kappa(1 - \pi) + \pi(1 - \kappa))^2} < 0, \quad (\text{B.16})$$

the definition of π_η implies that $\pi < \pi_\eta$. Take $\pi' = \pi_\eta - \varepsilon$, where $\varepsilon > 0$. If ε is sufficiently small, then $\pi' \in (\pi, 1/2)$ and, by continuity of $\underline{\kappa}$, $\kappa < \underline{\kappa}(\pi', \alpha, \tau)$. Since $\eta \leq \bar{\eta}(\pi_\eta, \kappa) < \bar{\eta}(\pi', \kappa)$, π' induces populism. Necessity. Let $\pi' \in (\pi, 1/2)$ induce populism: $\eta < \bar{\eta}(\pi', \kappa)$ and $\kappa < \underline{\kappa}(\pi', \alpha, \tau)$. Because $\kappa > 0$, the second inequality implies that $\underline{\kappa}(\pi, \alpha', \tau) > 0$. Using by (B.14), we then obtain

$$\frac{\partial \underline{\kappa}(\pi, \alpha, \tau)}{\partial \pi} = \frac{((1 - \alpha) + \tau\delta V)((1 - \tau) - \tau\delta V)}{((1 - \alpha)(1 - \pi) + \pi + \tau(\delta V - \pi(1 + 2\delta V)))^2} > 0. \quad (\text{B.17})$$

Because $\bar{\eta}(\pi', \kappa)$ is decreasing in π' and $\eta < \bar{\eta}(\pi', \kappa)$, then $\pi_\eta > \pi'$. Therefore, $\kappa < \underline{\kappa}(\pi', \alpha, \tau) < \underline{\kappa}(\pi_\eta, \alpha, \tau)$.

Part (iv). Sufficiency. Let $\kappa < \underline{\kappa}(\pi, \alpha, 0)$. Take $\tau' = \varepsilon$, where $\varepsilon > 0$. If ε is sufficiently small, then $\tau' \in (0, \tau)$ and, by continuity of $\underline{\kappa}$, $\kappa < \underline{\kappa}(\pi, \alpha, \tau')$. Then, because $\bar{\eta}(\pi, \kappa)$ is independent of τ and, hence, by (B.12), $\eta < \bar{\eta}(\pi, \kappa)$, τ' induces populism. Necessity. Let $\tau' \in (0, \tau)$ induce populism: $\eta < \bar{\eta}(\pi, \kappa)$ and $\kappa < \underline{\kappa}(\pi, \alpha, \tau')$. Because

$$\frac{\partial \underline{\kappa}(\pi, \alpha, \tau)}{\partial \tau} = \frac{-(1-\pi)\pi((1-\alpha) + \delta V + (1-\alpha)\delta V)}{((1-\alpha)(1-\pi) + \pi + \tau(\delta V - \pi(1+2\delta V)))^2} < 0,$$

then $\kappa < \underline{\kappa}(\pi, \alpha, \tau') < \underline{\kappa}(\pi, \alpha, 0)$. □

Proof of Proposition 3. Let $\kappa, \alpha, \pi, \tau$ induce informed populism:

$$\underline{\eta}(\pi) < \eta < \bar{\eta}(\pi, \kappa) \text{ and } \kappa < \underline{\kappa}(\pi, \alpha, \tau). \quad (\text{B.18})$$

Whenever (B.18) holds, in each period, the voter drains the swamp with probability

$$\tau \Pr[s_t = 0] = \tau(\pi(1-\kappa) + (1-\pi)\kappa). \quad (\text{B.19})$$

Marginal changes of α such that (B.18) continues to hold will have no effect on the probability (B.19). Taking the derivatives of (B.19) with respect to κ and τ yields $\tau(1-2\pi) > 0$ and $\pi(1-\kappa) + (1-\pi)\kappa > 0$, respectively. Thus, marginal decreases in κ or τ such that (B.18) continues to hold decrease (B.19). □

Proof of Proposition 4. Let $\kappa, \alpha, \pi, \tau$ induce preemptive populism:

$$\eta < \underline{\eta}(\pi) \text{ and } \kappa < \underline{\kappa}(\pi, \alpha, \tau). \quad (\text{B.20})$$

Whenever (B.20) holds, in each period, the voter drains the swamp with probability

$$\begin{aligned} & \Pr[s_t = 0]p^*(0)(\tau + (1-\tau)d^*(\emptyset)) + \Pr[s_t = 1](1-\tau)d^*(\emptyset) \\ & = \tau \Pr[s_t = 0]p^*(0) + (1-\tau)d^*(\emptyset)(\Pr[s_t = 1] + \Pr[s_t = 0]p^*(0)). \end{aligned} \quad (\text{B.21})$$

where, by (B.10),

$$d^*(\emptyset) = 1 - \frac{(1-\alpha)(1-\mu_t^*(0)) + \delta V}{(1-\tau)(\mu_t^*(0) + \delta V)} \in (0, 1)$$

and, by (B.9),

$$p^*(0) = \frac{\pi\kappa - \frac{1-\eta}{2} \Pr[s_t = 1]}{\frac{1-\eta}{2} \Pr[s_t = 0] - \pi(1-\kappa)} \in (0, 1).$$

Substituting $d^*(\emptyset)$ into (B.21) gives that the probability that in each period the voter drains the swamp is

$$\tau \Pr[s_t = 0]p^*(0) + \left((1-\tau) - \frac{(1-\alpha)(1-\mu^*(0)) + \delta V}{(\mu^*(0) + \delta V)} \right) (\Pr[s_t = 1] + \Pr[s_t = 0]p^*(0)). \quad (\text{B.22})$$

The derivative of (B.22) with respect to τ and α are $-\Pr[s_t = 1] < 0$ and $\frac{(1-\mu_t^*(0))+\delta V}{(\mu_t^*(0)+\delta V)} (\Pr[s_t = 1] + \Pr[s_t = 0]p^*(0)) > 0$, respectively. Thus, marginal increases in τ or marginal decreases in α , such that (B.20) continues to hold, decrease (B.22).

Now we consider the effect of marginal changes in κ . Taking the derivative of (B.21) gives

$$\tau \frac{\partial \Pr[s_t = 0]p^*(0)}{\partial \kappa} + (1-\tau) \frac{\partial \left(d^*(\emptyset) (\Pr[s_t = 1] + \Pr[s_t = 0]p^*(0)) \right)}{\partial \kappa} \quad (\text{B.23})$$

where $\frac{\partial \Pr[s_t=0]}{\partial \kappa} = 1 - 2\pi > 0$,

$$\frac{\partial d^*(\emptyset)}{\partial \kappa} = \frac{(1-\alpha + (2-\alpha)\delta V)}{(1-\tau)(\delta V + \mu_t^*(0))^2} \frac{\partial \mu_t^*(0)}{\partial \kappa} < 0,$$

and, because $\eta < \underline{\eta}(\pi) = 1 - 2\pi$,

$$\frac{\partial p^*(0)}{\partial \kappa} = \frac{(1-2\pi-\eta)(1-\eta(1-2\pi))}{(\kappa - (1+\eta)\pi - \kappa\eta(1-2\pi))^2} > 0.$$

While maintaining conditions (B.20), the derivative (B.23) may be either increasing, decreasing, or non-monotonic in κ . We illustrate these comparative statics with three specific parameter values—via a continuity argument, it follows that these three comparative statics hold for a neighborhood of parameter values. First, when $(\alpha, \pi, \delta, \tau, V, \eta) = (0.85, 0.45, 0.25, 0.7, 0.05, 0.025)$, Condition (B.20) becomes $\eta = 0.025 < \underline{\eta} = 0.1$, and $\kappa < \underline{\kappa} \approx 0.61863$, and (B.23) is positive for all $\kappa \in (1-\pi, \underline{\kappa})$. Second, when $(\alpha, \pi, \delta, \tau, V, \eta) = (0.95, 0.25, 0.25, 0.01, 0.25, 0.05)$, Condition (B.20) becomes $\eta = 0.05 < \underline{\eta} = 0.5$ and $\kappa < \underline{\kappa} \approx 0.868121$, and (B.23) is negative for all $\kappa \in (1-\pi, \underline{\kappa})$. Third, when $(\alpha, \pi, \delta, \tau, V, \eta) = (0.95, 0.4, 0.25, 0.1, 0.2, 0.05)$, Condition (B.20) becomes $\eta = 0.05 < \underline{\eta} = 0.2$ and $\kappa < \underline{\kappa} \approx$

0.915601, and (B.23) is humped-shaped for $\kappa \in (1 - \pi, \underline{\kappa})$. \square

Proof of Proposition 5. From (B.19), it is immediate that, in informed populism, marginal changes to η have no effect on the frequency that the voter drains the swamp. In preemptive populism, in each period, the voter drains the swamp with probability (B.21). The derivative of (B.21) with respect to η is $\Pr[s_t = 0](\tau + (1 - \tau)d^*(\emptyset)) \frac{\partial p^*(0)}{\partial \eta}$, where

$$\frac{\partial p^*(0)}{\partial \eta} = \frac{2(2\kappa - 1)(1 - \pi)\pi}{(\kappa - (1 + \eta)\pi - \kappa\eta(2\pi - 1))^2} > 0.$$

Thus, marginal increases in η such that (B.20) continues to hold increase the probability (B.21). \square

Proof of Proposition 8. In responsive democracy, the agent's expected payoff is

$$\Pr[s_t = 0](1 - \alpha)(1 - \mu_t^*(0)) + \Pr[s_t = 1]\mu_t^*(1) + \delta V = (1 - \alpha)(1 - \pi)\kappa + \pi\kappa + \delta V. \quad (\text{B.24})$$

In a technocracy, it is

$$\Pr[s_t = 0]\mu_t^*(0) + \Pr[s_t = 1]\mu_t^*(1) + \delta V = \pi + \delta V.$$

By Assumption 2, for all $\kappa \in (1 - \pi, \bar{\kappa}(\pi, \alpha))$, the second expression is greater. Therefore, it suffices to show that a technocracy can be induced by decreasing κ for some $\kappa, \alpha, \pi, \tau$ that induce a responsive democracy: $\eta < \bar{\eta}(\pi, \kappa)$ and $\underline{\kappa}(\pi, \alpha, \tau) < \kappa$. Let $\eta = \bar{\eta}(\pi, \kappa) - \varepsilon$ for some $\varepsilon > 0$. Because $\frac{\partial \bar{\eta}(\pi, \kappa)}{\partial \kappa} > 0$, for sufficiently small $\varepsilon > 0$, there exists $\kappa' \in (\underline{\kappa}(\pi, \alpha, \tau), \kappa)$ such that $\bar{\eta}(\pi, \kappa') < \eta$. \square

Proof of Proposition 9. In informed populism, the agent's expected payoff is

$$\begin{aligned} & \Pr[s_t = 0](1 - \tau)(\mu_t^*(0) + \delta V) + \Pr[s_t = 1](\mu_t^*(1) + \delta V) \\ & = \pi - \tau\pi(1 - \kappa) + (1 - \tau\Pr[s_t = 0])\delta V. \end{aligned} \quad (\text{B.25})$$

For κ : let $\underline{\eta}(\pi) < \eta < \bar{\eta}(\pi, \underline{\kappa}(\pi, \alpha, \tau))$ and $\kappa = \underline{\kappa}(\pi, \alpha, \tau) + \varepsilon$ for some $\varepsilon > 0$. As $\varepsilon \rightarrow 0$ (i.e., $\kappa \rightarrow \underline{\kappa}(\pi, \alpha, \tau)$), the expected payoff (see (B.24) approaches the agent's expected payoff in informed populism (B.25). There exists κ' that induces informed populism: $\kappa' < \underline{\kappa}(\pi, \alpha, \tau)$, $\eta < \bar{\eta}(\pi, \kappa')$. Because (B.25) decreases with the competence of the agent, for ε sufficiently small, the agent prefers $\kappa', \alpha, \pi, \tau$ to $\kappa, \alpha, \pi, \tau$.

For τ : let $\underline{\eta}(\pi) < \eta < \bar{\eta}(\pi, \kappa)$ and $\underline{\kappa}(\pi, \alpha, \tau) < \kappa$. There exist $\tau' < \tau$ and $\tilde{\tau} \in (\tau', \tau)$ such that $\kappa = \underline{\kappa}(\pi, \alpha, \tilde{\tau})$ and τ' induces informed populism: $\kappa < \underline{\kappa}(\pi, \alpha, \tau')$ (existence is guaranteed at $\tau = 0$). Notice that the agent's expected payoff from responsive democracy and

informed populism are equal at $\tilde{\tau}$. Furthermore, the agent's payoff from informed populism is decreasing in τ (see (B.25)), and the agent's payoff from responsive democracy is independent of τ . Therefore, the agent prefers τ' to τ . \square

B.2 Insulating the bureaucracy: Propositions 6 and 7

We begin by showing that the equilibrium characterization of the benchmark model extends to this new setting. First, Lemmas 1–3 hold verbatim. We now prove a result analogous to Lemma 4:

Lemma B.6. *Let $\mu(s_t)$ be the agent's belief that an emergency has occurred when she observes signal s_t . In any equilibrium, if $\eta > \bar{\eta}(\pi, \kappa)$, the agent always triggers the emergency policy. If $\eta < \bar{\eta}(\pi, \kappa)$, the agent triggers the emergency policy with certainty when she detects a threat and otherwise with strictly positive probability only if*

$$(1 - \alpha)(1 - \mu(0)) + \delta V \leq (\iota\tau + (1 - \tau)(1 - (1 - \iota)d^*))(\mu(0) + \delta V)$$

where d^* is the equilibrium probability that the voter preemptively drains the swamp when she is not informed.

Proof. The proof follows the one of Lemma 4 and differs only in the right hand side of the inequality because now whenever the voter tries to drain the swamp, he succeeds with probability $1 - \iota$. \square

Proposition B.1 characterizes the equilibrium.

Proposition B.1 (Technocracy, democracy, and populism). *There exists cutoffs $\underline{\kappa}_\iota(\pi, \alpha, \tau) < \bar{\kappa}(\pi, \alpha)$, $\underline{\eta}(\pi) < \bar{\eta}(\pi, \kappa)$, and $\bar{\iota}(\kappa, \alpha, \pi, \tau)$ such that, in the unique equilibrium*

- (i) $\bar{\eta}(\pi, \kappa) < \eta$ induces a technocracy;
- (ii) $\eta < \bar{\eta}(\pi, \kappa)$ and $\underline{\kappa}_\iota(\pi, \alpha, \tau) < \kappa$ induces a responsive democracy;
- (iii) $\underline{\eta}(\pi) < \eta < \bar{\eta}(\pi, \kappa)$ and $\kappa < \underline{\kappa}_\iota(\pi, \alpha, \tau)$ induces informed populism;
- (iv) $\eta < \underline{\eta}(\pi)$ and $\kappa < \underline{\kappa}_\iota(\pi, \alpha, \tau)$ induces preemptive populism with

- $p^*(0) \in (0, 1)$ and $d^*(\emptyset) \in (0, 1)$ if $\iota < \bar{\iota}(\kappa, \alpha, \pi, \tau)$
- $p^*(0) = 1$ and $d^*(\emptyset) = 1$ if $\bar{\iota}(\kappa, \alpha, \pi, \tau) < \iota$.

Proof of Proposition B.1. **Part (i)** follows immediately from Lemmas 1–3 and Lemma B.6. **For Parts (ii)–(iv)**, we begin with an auxiliary lemma (Lemma B.7) that characterizes the strategies that can be sustained in equilibrium when excluding a measure-zero set of parameters.

Lemma B.7. *Let $\eta < \bar{\eta}(\pi, \kappa)$. In equilibrium, $p^*(1) = 1$, $d^*(0) = 1$ and $d^*(1) = 0$ and, with the exception of a measure-zero set of parameters,³¹ one of following three must hold:*

- (i)** $p^*(0) = 0$ and $d^*(\emptyset) = 0$;
- (ii)** $p^*(0) \in (0, 1)$ and $d^*(\emptyset) \in (0, 1)$;
- (iii)** $p^*(0) = 1$ and $d^*(\emptyset) \in \{0, 1\}$.

Proof. Let $\eta < \bar{\eta}(\pi, \kappa)$. By Lemmas 3 and B.6, $p^*(1) = 1$, $d^*(0) = 1$ and $d^*(1) = 0$.

Part (i). Suppose $p^*(0) = 0$. By Definition A.1, $\nu_t^*(\emptyset) = \nu_t^*(1)$ and, hence, by Lemmas 2 and 3, $d^*(\emptyset) = 0$.

Part (ii). Suppose $p^*(0) \in (0, 1)$. Because $p^*(0) \in (0, 1)$ is optimal for the agent,

$$(1 - \alpha)(1 - \mu^*(0)) + \delta V = (\iota\tau + (1 - \tau)(1 - (1 - \iota)d^*(\emptyset)))(\mu^*(0) + \delta V).$$

When $d^*(\emptyset) \in \{0, 1\}$, the above equality is satisfied only for a measure-zero set of parameters, i.e.,

$$(1 - \alpha)(1 - \mu^*(0)) + \delta V = (\iota\tau + (1 - \tau))(\mu^*(0) + \delta V)$$

and

$$(1 - \alpha)(1 - \mu^*(0)) + \delta V = \iota(\mu^*(0) + \delta V).$$

Therefore, when neither of the above equalities hold, $d^*(\emptyset) \in (0, 1)$.

Part (iii). Suppose $p^*(0) = 1$. By Definition A.1, $\nu_t^*(\emptyset) = \pi$ and, hence, $d^*(\emptyset) \in (0, 1)$ can hold in equilibrium only if $\pi = \frac{1-\eta}{2}$. Therefore, for $\pi \neq \frac{1-\eta}{2}$, $d^*(\emptyset) \in \{0, 1\}$. \square

We now characterize the set of parameters for which each regime (described in Lemma B.7) exists. The interior of each set of parameters will be distinct and, hence, it follows that the equilibrium is unique with the exception of a measure-zero set of parameters.

³¹In particular, $\pi \neq \frac{1-\eta}{2}$, $(1 - \alpha)(1 - \mu^*(0)) + \delta V = (\iota\tau + (1 - \tau))(\mu^*(0) + \delta V)$, and $(1 - \alpha)(1 - \mu^*(0)) + \delta V = \iota(\mu^*(0) + \delta V)$.

Part (ii). In a responsive democracy, $d^*(\emptyset) = 0$ and $p^*(0) = 0$. By Definition A.1, $\nu_t^*(\emptyset) = \nu_t^*(1)$, so that $d^*(\emptyset) = 0$. $p^*(0) = 0$ is optimal if and only if

$$(1 - \alpha)(1 - \mu_t^*(0)) + \delta V \geq (\iota\tau + (1 - \tau))(\mu_t^*(0) + \delta V). \quad (\text{B.26})$$

Both sides of (B.26) are continuous in κ and the left (resp., right) hand side is increasing (resp., decreasing) in κ . Furthermore, at $\kappa = \bar{\kappa}(\pi, \alpha)$ (see Proof of Lemma 1), we have

$$(1 - \alpha)(1 - \mu_t^*(0)) = \mu_t^*(0) \implies (1 - \alpha)(1 - \mu_t^*(0)) + \delta V > (\iota\tau + (1 - \tau))(\mu_t^*(0) + \delta V).$$

Define $\underline{\kappa}_\ell(\pi, \alpha, \tau) \in (1 - \pi, \bar{\kappa}(\pi, \alpha))$ as the value of κ for which (B.26) holds with equality or, if such a value does not exist, $\underline{\kappa}_\ell(\pi, \alpha, \tau) = 1 - \pi$. Therefore, a responsive democracy is an equilibrium if and only if $\eta < \bar{\eta}(\pi, \kappa)$ and $\underline{\kappa}_\ell(\pi, \alpha, \tau) \leq \kappa$.

Part (iii). In informed populism, $d^*(\emptyset) = 0$ and $p^*(0) = 1$. By Definition A.1, $\nu_t^*(\emptyset) = \pi$ so that, by Lemma 2, $d^*(\emptyset) = 0$ is optimal if and only if

$$\pi \geq \frac{1 - \eta}{2} \iff \eta \geq \underline{\eta}(\pi) := 1 - 2\pi. \quad (\text{B.27})$$

$p^*(0) = 1$ is optimal if and only if

$$(1 - \alpha)(1 - \mu_t^*(0)) + \delta V \leq (\iota\tau + (1 - \tau))(\mu_t^*(0) + \delta V), \quad (\text{B.28})$$

which is the reversed inequality of (B.26) and therefore, for $\kappa > 1 - \pi$, (B.28) holds if and only if $\kappa \leq \underline{\kappa}_\ell(\pi, \alpha, \tau)$. Thus, informed populism is an equilibrium if and only if $\underline{\eta}(\pi) \leq \eta \leq \bar{\eta}(\pi, \kappa)$ and $\kappa \leq \underline{\kappa}_\ell(\pi, \alpha, \tau)$.

Part (iv). In this extended model (and unlike the benchmark model), preemptive populism can arise in two forms: $d^*(\emptyset) \in (0, 1)$, $p^*(0) \in (0, 1)$ and also $d^*(\emptyset) = 1$, $p^*(0) = 1$.

First, we consider the case of $d^*(\emptyset) \in (0, 1)$ and $p^*(0) \in (0, 1)$. By Definition A.1,

$$\nu_t^*(\emptyset) = \frac{\pi\kappa + \pi(1 - \kappa)p^*(0)}{\Pr[s_t = 1] + \Pr[s_t = 0]p^*(0)},$$

so that, by Lemma 2, $d^*(\emptyset) \in (0, 1)$ is optimal if and only if

$$\frac{\pi\kappa + \pi(1 - \kappa)p^*(0)}{\Pr[s_t = 1] + \Pr[s_t = 0]p^*(0)} = \frac{1 - \eta}{2}. \quad (\text{B.29})$$

The left hand side of (B.29) is continuous and decreasing in $p^*(0)$. It ranges from π (at

$p^*(0) = 1$) to $\mu_t^*(1) > (1 - \eta)/2$ (at $p^*(0) = 0$), where the last inequality follows because $\mu_t^*(1) > 1/2$ and $\eta > 0$. Thus, a (unique) solution $p^*(0) \in (0, 1)$ to (B.29) exists if and only if $\pi < (1 - \eta)/2$: $\eta < \underline{\eta}(\pi)$.

Furthermore, $p^*(0) \in (0, 1)$ is optimal if and only if

$$(1 - \alpha)(1 - \mu_t^*(0)) + \delta V = (\iota\tau + (1 - \tau)(1 - (1 - \iota)d^*(\emptyset)))(\mu_t^*(0) + \delta V). \quad (\text{B.30})$$

The right hand side is continuous and decreasing in $d^*(\emptyset)$. It ranges from $\iota(\mu_t^*(0) + \delta V)$ (when $d^*(\emptyset) = 1$) to $(\iota\tau + (1 - \tau))(\mu_t^*(0) + \delta V)$ (when $d^*(\emptyset) = 0$). Thus, a (unique) solution $d^*(\emptyset) \in (0, 1)$ to (B.30) exists if and only if

$$\iota(\mu_t^*(0) + \delta V) < (1 - \alpha)(1 - \mu_t^*(0)) + \delta V < (\iota\tau + (1 - \tau))(\mu_t^*(0) + \delta V). \quad (\text{B.31})$$

The second inequality of (B.31) is the reverse inequality of (B.26); therefore, for $\kappa > 1 - \pi$, a necessary condition for (B.31) to hold is that $\kappa < \underline{\kappa}_\iota(\pi, \alpha, \tau)$. The first inequality of (B.31) requires that ι is sufficiently small, i.e.,

$$\iota < \bar{\iota}(\kappa, \alpha, \pi, \tau) := \frac{(1 - \alpha)(1 - \mu_t^*(0)) + \delta V}{(\mu_t^*(0) + \delta V)}. \quad (\text{B.32})$$

Therefore, preemptive populism with $d^*(\emptyset) \in (0, 1)$ and $p^*(0) \in (0, 1)$ is an equilibrium if and only if $\eta < \underline{\eta}(\pi)$, $\kappa < \underline{\kappa}(\pi, \alpha, \tau)$, and $\iota < \bar{\iota}(\kappa, \alpha, \pi, \tau)$.

Second, we consider the case of $d^*(\emptyset) = 1$ and $p^*(0) = 1$. By Definition A.1, $\nu_t^*(\emptyset) = \pi$, so that, by Lemma 2, $d^*(\emptyset) = 1$ is optimal if and only if

$$\pi \leq \frac{1 - \eta}{2}, \quad (\text{B.33})$$

i.e., $\eta \leq \underline{\eta}(\pi)$. Furthermore, $p^*(0) = 1$ is optimal if and only if

$$(1 - \alpha)(1 - \mu_t^*(0)) + \delta V \leq \iota(\mu_t^*(0) + \delta V), \quad (\text{B.34})$$

i.e., $\bar{\iota}(\kappa, \alpha, \pi, \tau) \leq \iota$. Therefore, preemptive populism with $d^*(\emptyset) = 1$ and $p^*(0) = 1$ is an equilibrium if and only if $\eta \leq \underline{\eta}(\pi)$ and $\bar{\iota}(\kappa, \alpha, \pi, \tau) \leq \iota$. Notice, however, that

$$\bar{\iota}(\kappa, \alpha, \pi, \tau) \leq \iota \implies \kappa < \underline{\kappa}_\iota(\pi, \alpha, \tau).$$

To see this, simply observe that $\iota(\mu_t^*(0) + \delta V) < (\iota\tau + (1 - \tau))(\mu_t^*(0) + \delta V)$ and, hence,

$\bar{\iota}(\kappa, \alpha, \pi, \tau) \leq \iota$ implies that

$$(1 - \alpha)(1 - \mu_t^*(0)) + \delta V < (\iota\tau + (1 - \tau))(\mu_t^*(0) + \delta V). \quad \square$$

Proof of Proposition 6. By Assumption 2, (B.26) does not hold at $\iota = 1$. Therefore, it suffices to show that $\underline{\kappa}_\iota(\pi, \alpha, \tau)$ is monotonically increasing in ι . The right hand side of (B.26) is increasing in ι and the left hand side is constant in ι , while the left (resp., right) hand side is increasing (resp., decreasing) in κ . Therefore, if (B.26) continues to hold for ι', κ' with $\iota' > \iota$, then $\kappa' > \kappa$. Because (B.26) always holds at $\kappa = \bar{\kappa}(\pi, \alpha)$, it is immediate that such a $\kappa' < \bar{\kappa}(\pi, \alpha)$ exists. Finally, notice that if (B.26) does not hold with equality for any $\kappa \in (1 - \pi, \bar{\kappa}(\pi, \alpha))$ (i.e., $\underline{\kappa}_\iota(\pi, \alpha, \tau) = 1 - \pi$), then, by construction, $\underline{\kappa}_\iota(\pi, \alpha, \tau) \leq \underline{\kappa}_{\iota'}(\pi, \alpha, \tau)$ for all $\iota < \iota'$, as required. \square

Proof of Proposition 7. In informed populism, the voter drains the swamp with probability $(1 - \iota)\tau \Pr[s_t = 0]$, which decreases with ι .

In preemptive populism: for Part (i), the voter attempts to drain the swamp with probability

$$\Pr[s_t = 0]p^*(0)(\tau + (1 - \tau)d^*(\emptyset)) + \Pr[s_t = 1](1 - \tau)d^*(\emptyset)$$

and is successful with probability

$$(1 - \iota) \Pr[s_t = 0]p^*(0)(\tau + (1 - \tau)d^*(\emptyset)) + (1 - \iota) \Pr[s_t = 1](1 - \tau)d^*(\emptyset), \quad (\text{B.35})$$

where, using (B.30), (B.31), and Assumption 2, $p^*(0)$ is independent of ι and

$$\frac{\partial d^*(\emptyset)}{\partial \iota} = \frac{\mu_t^*(0) - (1 - \alpha)(1 - \mu_t^*(0))}{(1 - \tau)(1 - \iota)^2(\mu_t^*(0) + \delta V)} > 0.$$

Therefore, the probability that the voter attempts to drain the swamp is increasing in ι . Using (B.31) to substitute $d^*(\emptyset)$ in (B.35) verifies that (B.35) is increasing in ι .

For Part (ii), the voter attempts to drain the swamp with probability $\Pr[s_t = 0] + \Pr[s_t = 1](1 - \tau)$, which is independent of ι , and is successful with probability $(1 - \iota)(\Pr[s_t = 0] + \Pr[s_t = 1](1 - \tau))$, which decreases with ι . \square

B.3 The case of agreement

Proposition B.2. *Let $\kappa > \bar{\kappa}(\alpha, \pi)$. In the unique equilibrium, in every period, the agent abides by her mandate and the voter never drains the swamp on the equilibrium path.*

Proof. Let $\kappa > \bar{\kappa}(\alpha, \pi)$. Existence is straightforward. The voter's strategy is such that: (i)

if $\eta < \bar{\eta}(\pi, \kappa)$, the voter drains the swamp if and only if she is informed that $s_t = 0$; (ii) if $\eta > \bar{\eta}(\pi, \kappa)$, the voter never drains the swamp. We prove that in each case this is the unique equilibrium.

First notice that Lemmas 2 and 3 hold verbatim but Lemma 4 does not—instead, we have Lemma B.8.

Lemma B.8. *Let $\kappa > \bar{\kappa}(\alpha, \pi)$. In any equilibrium, in every period, the agent abides by her mandate.*

Proof of Lemma B.8. Suppose $\eta > \bar{\eta}(\pi, \kappa)$. By Lemma 3, the voter never drains the swamp when informed. By Lemma 2 and (A.5), the voter never drains the swamp when uninformed. Therefore, by Lemma 1, the agent optimally chooses to abide by her mandate. Otherwise, by Lemma 3, in every equilibrium $d^*(0) = 1$ and $d^*(1) = 0$. The auxiliary lemmas in the proof of Lemma 4, Lemmas B.1–B.4, hold verbatim in the current setting. Therefore, one of three must hold: (i) $p^*(0) = 0$ and $p^*(1) = 1$; (ii) $p^*(0) \in (0, 1)$ and $p^*(1) = 1$; or (iii) $p^*(0) = 1$ and $p^*(1) = 1$. However, $p^*(0) > 0$ is not sequentially rational for any strategy of the voter. Therefore, $p^*(0) = 0$ and $p^*(1) = 1$: the agent abides by her mandate. \square

By Lemma B.8, the voter’s belief when uninformed is $\nu_t(\emptyset) = \nu_t(1)$ and, by Lemma 2, he prefers not to drain the swamp. Thus, on the equilibrium path, the voter never drains the swamp. \square

C Endogenous V

We now study the model introduced in Section 5.1 and in which the agent is forward looking and (potentially) infinitely lived. We maintain the assumption that, if the voter drains the swamp, the incumbent agent ceases to live and is immediately replaced by a new (novice) agent. The agent’s continuation payoff if the voter does not drain the swamp is then given by

$$V_t(\sigma) := \mathbb{E} \left[\sum_{t'=t+1}^{\infty} \delta^{t'-t-1} \mathbb{I}_{(d_{\tilde{t}}=1 \forall \tilde{t} \in \{t+1, \dots, t'\})} \left(\mathbb{I}_{i_{t'}=\theta_{t'}=1} + (1 - \alpha) \mathbb{I}_{i_{t'}=\theta_{t'}=0} \right) \mid \sigma \right].$$

In this extension, the only dynamic consequence of the agent’s action is via the voter’s decision to drain the swamp. Once the voter drains the swamp, the incumbent agent is replaced by a new agent and, hence, obtains payoff zero in all future periods. Thus, for a

given set of parameters and Markovian assessment σ , the agent's continuation payoff is a fixed value and can be treated as an exogenous parameter $V(\sigma)$. Thus, Lemmas 2–4 hold verbatim in this extension and the proof arguments are identical.

We prove that an analogous result to Proposition 1—Proposition C.1—holds under a technical assumption: Assumption 3. Per Remark C.1, this assumption is satisfied whenever δ is sufficiently small.

Assumption 3. Let $f(x) = \frac{\Pr[s_t=1](\tau+(1-\tau)(1-x))\mu^*(1)+\Pr[s_t=0](1-\tau)(1-x)\mu^*(0)}{1-\delta(\Pr[s_t=1](\tau+(1-\tau)(1-x))+\Pr[s_t=0](1-\tau)(1-x))}$. The function

$$\Phi(x) := (1 - \alpha)(1 - \mu(0)) + \delta f(x) - (1 - \tau)(1 - x)(\mu(0) + \delta f(x)) \quad (\text{C.1})$$

is increasing in x .

Remark C.1. By Lemma C.1 (below), Assumption 3 holds if

$$\delta < \bar{\delta}(\alpha, \tau) := \frac{1 - \alpha}{2 - \alpha} \frac{\tau^2}{(2 + \tau)}. \quad (\text{C.2})$$

Proposition C.1. Under Assumption 3, there exists cutoffs $\underline{\kappa}_{RD}(\pi, \alpha, \tau) < \bar{\kappa}(\pi, \alpha)$ and $\underline{\eta}(\pi) < \bar{\eta}(\pi, \kappa)$ such that, in equilibrium,

- (i) $\bar{\eta}(\pi, \kappa) < \eta$ induces a technocracy;
- (ii) $\eta < \bar{\eta}(\pi, \kappa)$ and $\underline{\kappa}_{RD}(\pi, \alpha, \tau) < \kappa$ induces a responsive democracy;
- (iii) $\underline{\eta}(\pi) < \eta < \bar{\eta}(\pi, \kappa)$ and $\kappa < \underline{\kappa}_{RD}(\pi, \alpha, \tau)$ induces informed populism;
- (iv) $\eta < \underline{\eta}(\pi)$ and $\kappa < \underline{\kappa}_{RD}(\pi, \alpha, \tau)$ induces preemptive populism.

Note that the cutoff values $\bar{\kappa}(\pi, \alpha)$, $\underline{\eta}(\pi)$, and $\bar{\eta}(\pi, \kappa)$ in Proposition C.1 are the same as in Proposition 1.

Proof.

Part (i). Follows from Lemmas 2–4.

For Parts (ii)–(iv), $\eta < \bar{\eta}(\pi, \kappa)$. By Lemma 4, the agent chooses $p_t = 1$ when $s_t = 1$ and, by Lemma 3, the voter chooses $d_t = 1$ (resp., $d_t = 0$) when informed that $s_t = 0$ (resp., $s_t = 1$).

For Parts (ii)–(iv), we characterize the set of parameters for which each regime exists. The interior of each set of parameters will be distinct.

Part (ii). In a responsive democracy, $d^* = 0$ and $p^* = 0$. By Bayes' rule, $\nu_t^*(\emptyset) = \nu_t^*(1)$ and, hence, the voter optimally does not drain the swamp when uninformed. For the agent, $p^* = 0$ is optimal if and only if

$$(1 - \alpha)(1 - \mu(0)) + \delta V(\sigma^*) \geq (1 - \tau)(\mu(0) + \delta V(\sigma^*)), \quad (\text{C.3})$$

where

$$\begin{aligned} V(\sigma^*) &= V_{RD} := \Pr[s_t = 1]\mu^*(1) + \Pr[s_t = 0](1 - \alpha)(1 - \mu^*(0)) + \delta V_{RD} \\ &= \frac{\pi\kappa + (1 - \alpha)(1 - \pi)\kappa}{1 - \delta}. \end{aligned} \quad (\text{C.4})$$

Substituting (C.4) into (C.3) and rearranging gives an equivalent condition for (C.3):

$$(1 - \alpha)(1 - \mu(0)) + \delta\tau\kappa \frac{\pi + (1 - \alpha)(1 - \pi)}{1 - \delta} \geq (1 - \tau)\mu(0). \quad (\text{C.5})$$

Both sides of Inequality (C.5) are continuous in κ and the left hand side (resp., right hand side) is increasing (resp., decreasing) in κ . Furthermore, at $\kappa = \bar{\kappa}(\pi, \alpha)$, we have

$$(1 - \alpha)(1 - \mu(0)) = \mu(0),$$

and, hence, (C.5) holds strictly. Define $\underline{\kappa}_{RD}(\pi, \alpha, \tau) \in (1 - \pi, \bar{\kappa}(\pi, \alpha))$ as the value of κ such that (C.5) holds with equality and, if such value does not exist, $\underline{\kappa}_{RD}(\pi, \alpha, \tau) = 1 - \pi$. Therefore, the interval $[\underline{\kappa}_{RD}(\pi, \alpha, \tau), \bar{\kappa}(\pi, \alpha))$ is not empty and a responsive democracy is an equilibrium if and only if $\underline{\kappa}_{RD}(\pi, \alpha, \tau) \leq \kappa < \bar{\kappa}(\pi, \alpha)$ and $\eta < \bar{\eta}(\pi, \kappa)$.

Part (iii). In informed populism, $d^* = 0$ and $p^* = 1$. By Bayes' rule $\nu_t^*(\emptyset) = \pi$. By Lemma 2, $d^* = 0$ is optimal if and only if

$$\pi \geq \frac{1 - \eta}{2} \iff \eta \geq \underline{\eta}(\pi) = 1 - 2\pi. \quad (\text{C.6})$$

The agent's strategy $p^* = 1$ is optimal if and only if

$$(1 - \alpha)(1 - \mu(0)) + \delta V(\sigma^*) \leq (1 - \tau)(\mu(0) + \delta V(\sigma^*)), \quad (\text{C.7})$$

where

$$\begin{aligned} V(\sigma^*) &= V_{IP} := \Pr[s_t = 1]\mu^*(1) + \delta V_{IP} + \Pr[s_t = 0](1 - \tau)(\mu^*(0) + \delta V_{IP}) \\ &= \frac{\pi\kappa + (1 - \tau)\pi(1 - \kappa)}{1 - \delta(1 - \tau(\pi(1 - \kappa) + (1 - \pi)\kappa))}. \end{aligned} \quad (\text{C.8})$$

The difference between the left hand side and the right hand side of (C.7) is increasing in κ . To see this, substitute (A.3), (A.4), and (C.8) into (C.7) and rearrange to obtain the difference between sides as:

$$\Psi(\kappa) := (1 - \alpha) - (2 - \alpha - \tau) \frac{\pi(1 - \kappa)}{\pi(1 - \kappa) + (1 - \pi)\kappa} + \tau\delta \frac{\pi\kappa + (1 - \tau)\pi(1 - \kappa)}{1 - \delta(1 - \tau(\pi(1 - \kappa) + (1 - \pi)\kappa))}.$$

Taking the derivative gives

$$\frac{\partial\Psi(\kappa)}{\partial\kappa} = \frac{(1 - \alpha)(1 - \pi)\pi}{(\kappa(1 - 2\pi) + \pi)^2} + \frac{(1 - \pi)\pi(1 - \tau)}{(\kappa(1 - 2\pi) + \pi)^2} + \frac{\delta\pi(1 - \delta(1 - \pi)(2 - \tau))\tau^2}{(1 - \delta + \delta(\kappa(1 - 2\pi) + \pi)\tau)^2}. \quad (\text{C.9})$$

We prove that $\frac{\partial\Psi(\kappa)}{\partial\kappa} > 0$. For sake of contradiction, suppose (C.9) is non-positive. Since the first 2 terms of (C.9) are positive,

$$\frac{\delta\pi(1 - \delta(1 - \pi)(2 - \tau))\tau^2}{(1 - \delta + \delta(\kappa(1 - 2\pi) + \pi)\tau)^2} < 0. \quad (\text{C.10})$$

Because (C.10) holds, $(1 - \delta(1 - \pi)(2 - \tau)) < 0$. Because $(1 - \pi)(2 - \tau) > 0$ and the denominator is decreasing in δ , (C.10) is bounded below by (C.10) when evaluated at $\delta = 1$. Therefore, since δ only appears in the last term of (C.9), (C.9) is bounded below by (C.9) evaluated at $\delta = 1$, which equals

$$\begin{aligned} &\frac{(1 - \alpha)(1 - \pi)\pi}{(\kappa(1 - 2\pi) + \pi)^2} + \frac{(1 - \pi)\pi(1 - \tau)}{(\kappa(1 - 2\pi) + \pi)^2} + \frac{\pi(1 - (1 - \pi)(2 - \tau))}{(\kappa(1 - 2\pi) + \pi)^2} \\ &= \frac{(1 - \alpha)(1 - \pi)\pi}{(\kappa(1 - 2\pi) + \pi)^2} + \frac{\pi^2}{(\kappa(1 - 2\pi) + \pi)^2} > 0, \end{aligned}$$

a contradiction.

Thus Ψ is increasing. Furthermore, notice that $\Psi(\bar{\kappa}(\pi, \alpha)) > 0$. Define $\kappa_P(\pi, \alpha, \tau)$ as the value of κ for which (C.7) holds with equality and, when such value does not exist, $\kappa_P(\pi, \alpha, \tau) = 1 - \pi$. Therefore, informed populism is an equilibrium if and only if $\kappa \leq \kappa_P(\pi, \alpha, \tau)$ and $\underline{\eta}(\pi) \leq \eta < \bar{\eta}(\pi, \kappa)$.

Part (iv). In preemptive populism, $d^* \in (0, 1)$ and $p^* \in (0, 1)$. By Bayes' rule,

$$\nu_t^*(\emptyset) = \frac{\pi\kappa + \pi(1 - \kappa)p^*}{\Pr[s_t = 1] + \Pr[s_t = 0]p^*}.$$

and, hence, by Lemma 2, the voter's strategy $d^* \in (0, 1)$ is optimal if and only if $p^* \in (0, 1)$ satisfies

$$\frac{\pi\kappa + \pi(1 - \kappa)p^*}{\Pr[s_t = 1] + \Pr[s_t = 0]p^*} = \frac{1 - \eta}{2}. \quad (\text{C.11})$$

The left hand side of (C.11) is continuous and decreasing in p^* with range $(\pi, \Pr[\theta_t = 1 \mid s_t = 1])$, and strictly greater than the right hand side at $p^* = 0$. Thus, a (unique) solution $p^* \in (0, 1)$ to (C.11) exists if and only if the left hand side is strictly less than the right hand side at $p^* = 1$:

$$\eta < \underline{\eta}(\pi).$$

The agent's strategy $p^* \in (0, 1)$ is optimal if and only if $d^* \in (0, 1)$ satisfies

$$(1 - \alpha)(1 - \mu(0)) + \delta V(\sigma^*) = (1 - \tau)(1 - d^*)(\mu(0) + \delta V(\sigma^*)), \quad (\text{C.12})$$

where

$$\begin{aligned} V(\sigma^*) &= V_{PP} := \Pr[s_t = 1](\tau + (1 - \tau)(1 - d^*))(\mu^*(1) + \delta V_{PP}) \\ &\quad + \Pr[s_t = 0](1 - \tau)(1 - d^*)(\mu^*(0) + \delta V_{PP}) \\ &= \frac{\Pr[s_t = 1](\tau + (1 - \tau)(1 - d^*))\mu^*(1) + \Pr[s_t = 0](1 - \tau)(1 - d^*)\mu^*(0)}{1 - \delta \left(\Pr[s_t = 1](\tau + (1 - \tau)(1 - d^*)) + \Pr[s_t = 0](1 - \tau)(1 - d^*) \right)} \\ &= f(d^*). \end{aligned} \quad (\text{C.13})$$

Then, by Assumption 3, the difference between the left hand side and right hand side of (C.12) is increasing in d^* . Since the left hand side exceeds the right hand side at $d^* = 1$, Equation (C.12) has a unique solution in $d^* \in (0, 1)$ if and only if at $d^* = 0$ the left hand side is strictly less than the right hand side:

$$(1 - \alpha)(1 - \mu(0)) + \delta f(0) < (1 - \tau)(\mu(0) + \delta f(0)). \quad (\text{C.14})$$

But notice that

$$f(0) = V_{IP}. \quad (\text{C.15})$$

Thus, (C.14) simplifies to

$$(1 - \alpha)(1 - \mu(0)) + \delta V_{IP} < (1 - \tau)(\mu(0) + \delta V_{IP}),$$

i.e., Inequality (C.7) holds strictly. As implied by the arguments of the proof of Part (iii), for $\kappa \in (1 - \pi, \bar{\kappa}(\pi, \alpha))$, the cutoff $\underline{\kappa}_P(\pi, \alpha, \tau)$ is such that the inequality (C.7) holds strictly if and only if $\kappa < \underline{\kappa}_P(\pi, \alpha, \tau)$. Therefore, preemptive populism is an equilibrium if and only if $\eta < \underline{\eta}(\pi)$ and $\kappa < \underline{\kappa}_P(\pi, \alpha, \tau)$.

Final step. To complete the proof, we show $\underline{\kappa}_{RD}(\pi, \alpha, \tau) = \underline{\kappa}_P(\pi, \alpha, \tau)$. First we prove $\underline{\kappa}_{RD}(\pi, \alpha, \tau) \leq \underline{\kappa}_P(\pi, \alpha, \tau)$. Let $\kappa = \underline{\kappa}_P(\pi, \alpha, \tau)$. By definition, then

$$(1 - \alpha)(1 - \mu(0)) + \delta V_{IP} \geq (1 - \tau)(\mu(0) + \delta V_{IP}).$$

By Assumption 3, (C.15), and the arguments in part (iv), (C.12) has no solution $d^* \in (0, 1)$. Therefore, since the left hand side of (C.12) is strictly greater than the right hand at $d^* = 1$, it must be that, at $d^* = 0$, we also have:

$$(1 - \alpha)(1 - \mu(0)) + \delta f(0) \geq (1 - \tau)(\mu(0) + \delta f(0)). \quad (\text{C.16})$$

Using the fact that in preemptive populism the agent is indifferent between actions when not detecting a threat, then the continuation payoff V_{PP} must also satisfy

$$V_{PP} = V_{PP'} := \frac{\Pr[s_t = 1](\tau + (1 - \tau)(1 - d^*))\mu^*(1) + \Pr[s_t = 0](1 - \alpha)(1 - \mu^*(0))}{1 - \delta \left(\Pr[s_t = 1](\tau + (1 - \tau)(1 - d^*)) + \Pr[s_t = 0] \right)}. \quad (\text{C.17})$$

Therefore, we note that, at $d^* = 0$,

$$f(0) = V_{PP} = V_{PP'} = V_{RD}. \quad (\text{C.18})$$

Thus, substituting (C.18) into (C.16), we have

$$(1 - \alpha)(1 - \mu(0)) + \delta V(\sigma^*) \geq (1 - \tau)(\mu(0) + \delta V(\sigma^*)),$$

i.e., (C.3) holds. Thus, using the definition of $\underline{\kappa}_{RD}(\pi, \alpha, \tau)$, we have that $\underline{\kappa}_P(\pi, \alpha, \tau) = \kappa \geq \underline{\kappa}_{RD}(\pi, \alpha, \tau)$.

We now prove $\underline{\kappa}_P(\pi, \alpha, \tau) \leq \underline{\kappa}_{RD}(\pi, \alpha, \tau)$. For sake of contradiction, suppose $\underline{\kappa}_P(\pi, \alpha, \tau) > \underline{\kappa}_{RD}(\pi, \alpha, \tau)$. Let $\kappa \in (\underline{\kappa}_{RD}(\pi, \alpha, \tau), \underline{\kappa}_P(\pi, \alpha, \tau))$, so that

$$(1 - \alpha)(1 - \mu(0)) + \delta V_{RD} \geq (1 - \tau)(\mu(0) + \delta V_{RD}) \quad (\text{C.19})$$

and

$$(1 - \alpha)(1 - \mu(0)) + \delta V_{IP} < (1 - \tau)(\mu(0) + \delta V_{IP}). \quad (\text{C.20})$$

Recalling (C.15) and (C.18), Inequality (C.20) becomes:

$$(1 - \alpha)(1 - \mu(0)) + \delta V_{RD} < (1 - \tau)(\mu(0) + \delta V_{RD}),$$

which contradicts (C.19). □

Lemma C.1. Suppose $\delta < \bar{\delta}(\alpha, \tau) := \frac{1-\alpha}{2-\alpha} \frac{\tau^2}{(2+\tau)}$. Equation (C.1) is increasing in x .

Proof. Suppose $\delta < \bar{\delta}(\alpha, \tau)$. We prove that $\frac{\partial \Phi(x)}{\partial x} > 0$ by taking a sequence of inequalities that establish a positive lower bound on the derivative. First note that

$$\begin{aligned} \frac{\partial \Phi(x)}{\partial x} &= \delta \frac{\partial f(x)}{\partial x} + (1 - \tau)\mu(0) + (1 - \tau)\delta f(x) - (1 - \tau)(1 - x)\delta \frac{\partial f(x)}{\partial x} \\ &= (1 - \tau)\mu(0) + (1 - \tau)\delta f(x) + (1 - (1 - \tau)(1 - x))\delta \frac{\partial f(x)}{\partial x} \\ &> (1 - \tau)\mu(0) + (1 - (1 - \tau)(1 - x))\delta \frac{\partial f(x)}{\partial x}, \end{aligned} \quad (\text{C.21})$$

since $f(x) > 0$. Furthermore, we have

$$\frac{\partial f(x)}{\partial x} = -\frac{\pi(1 - \tau)(1 + \delta(2\kappa - 1)(1 - \pi)\tau)}{(1 - \delta + \delta x - \delta(x - \pi - \kappa(1 - 2\pi))\tau)^2} < 0; \quad (\text{C.22})$$

thus, the lower bound (C.21) can be lowered to:

$$\frac{\partial \Phi(x)}{\partial x} > (1 - \tau)\mu(0) + \delta \frac{\partial f(x)}{\partial x}. \quad (\text{C.23})$$

Furthermore, we have

$$\frac{\partial^2 f(x)}{\partial (x)^2} = \frac{2\delta\pi(1 - \tau)^2(1 + \delta(2\kappa - 1)(1 - \pi)\tau)}{(1 - \delta + \delta x - \delta(x - \pi - \kappa(1 - 2\pi))\tau)^3} > 0$$

and, hence,

$$\frac{\partial f(x)}{\partial x} \geq \frac{\partial f(x)}{\partial x} \Big|_{x=0} = -\frac{\pi(1-\tau)(1+\delta(2\kappa-1)(1-\pi)\tau)}{(1-\delta(1-(\pi+\kappa(1-2\pi))\tau))^2}.$$

Noting that $\frac{\partial f(x)}{\partial x} \Big|_{x=0}$ is decreasing in δ , we obtain that

$$\frac{\partial f(x)}{\partial x} > \frac{\partial f(x)}{\partial x} \Big|_{x=0} \Big|_{\delta=1} = -\frac{\pi(1-\tau)(1+(2\kappa-1)(1-\pi)\tau)}{((\pi+\kappa(1-2\pi))\tau)^2}.$$

The derivative of $\frac{\partial f(x)}{\partial x} \Big|_{x=0} \Big|_{\delta=1}$ with respect to π is

$$\frac{-(1-\tau)(\kappa-\pi+2\kappa\pi+(2\kappa-1)(\kappa-\pi)\tau)}{(\kappa+\pi-2\kappa\pi)^3\tau^2} < 0;$$

thus, $\frac{\partial f(x)}{\partial x} \Big|_{x=0} \Big|_{\delta=1}$ is decreasing in π and

$$\frac{\partial f(x)}{\partial x} > \frac{\partial f(x)}{\partial x} \Big|_{x=0} \Big|_{\delta=1} \Big|_{\pi=1/2} = -\frac{(1-\tau)(2+(2\kappa-1)\tau)}{\tau^2}.$$

Notice that $\frac{\partial f(x)}{\partial x} \Big|_{x=0} \Big|_{\delta=1} \Big|_{\pi=1/2}$ is decreasing in κ and so

$$\frac{\partial f(x)}{\partial x} > \frac{\partial f(x)}{\partial x} \Big|_{x=0} \Big|_{\delta=1} \Big|_{\pi=1/2} \Big|_{\kappa=1} = -\frac{(1-\tau)(2+\tau)}{\tau^2}.$$

Thus, (C.23) can be lowered to $\frac{\partial \Phi(x)}{\partial x} > (1-\tau)\mu(0) - \delta\frac{(1-\tau)(2+\tau)}{\tau^2}$. Since $\mu(0)$ is decreasing in κ and $\kappa < \bar{\kappa}(\pi, \alpha)$,

$$\mu(0) > \mu(0) \Big|_{\kappa=\bar{\kappa}(\pi, \alpha)} = \frac{1-\alpha}{2-\alpha}.$$

Thus, we have

$$\frac{\partial \Phi(x)}{\partial x} > (1-\tau)\frac{1-\alpha}{2-\alpha} - \delta\frac{(1-\tau)(2+\tau)}{\tau^2}. \quad (\text{C.24})$$

It follows that $\frac{\partial \Phi(x)}{\partial x} > 0$ for all $\delta < \frac{1-\alpha}{2-\alpha}\frac{\tau^2}{(2+\tau)} = \bar{\delta}(\alpha, \tau)$, as required. \square

D Multi-period accumulation

We now study the model introduced in Section 5.1 and in which a novice agent accumulates experience (effectiveness and competence) only after $T \geq 1$ periods.

In this extension, Lemma 1 holds verbatim and the proof is unchanged. However, after draining the swamp period t , the voter obtains expected payoff $(1 - \pi)$ in each of the next T periods because the agent produces no public goods and cannot detect threats nor devise emergency policies. At the beginning of period $t + T$, the agent is experienced. Abusing notation slightly, let $U(\sigma^*)$ be the voter's expected continuation payoff *from an experienced agent*—which we simply refer to as the voter's continuation payoff. If the voter drains the swamp in period t , then the voter's expected payoff is

$$1 - \nu_t + \sum_{t'=1}^{T-1} \delta^{t'} (1 - \pi) + \delta^T U(\sigma^*).$$

Lemma D.1 bounds $U(\sigma^*)$.

Lemma D.1. *In every equilibrium σ^* , $\frac{1-\pi}{1-\delta} \leq U(\sigma^*) \leq \frac{\kappa+\eta}{1-\delta}$.*

Proof. The maximum payoff for the voter is obtained when the agent abides by her mandate and the voter never drains the swamp:

$$U(\sigma^*) \leq \frac{\Pr[s_t = 0](1 - \mu(0)) + \Pr[s_t = 1]\mu(1) + \eta}{1 - \delta} = \frac{\kappa + \eta}{1 - \delta}.$$

For the lower bound, first notice that sequential rationality implies

$$\begin{aligned} U(\sigma^*) &\geq \Pr[p_t = 0 \mid \sigma^*](\Pr[\theta_t = 0 \mid p_t = 0, \sigma^*] + \eta + \delta U(\sigma^*)) \\ &\quad + \Pr[p_t = 1 \mid \sigma^*] \left(\Pr[\theta_t = 0 \mid p_t = 1, \sigma^*] + \sum_{t'=1}^{T-1} \delta^{t'} (1 - \pi) + \delta^T U(\sigma^*) \right). \end{aligned} \quad (\text{D.1})$$

We now establish that

$$1 - \nu_t + \eta + \delta U(\sigma^*) > 1 - \nu_t + \sum_{t'=1}^{T-1} \delta^{t'} (1 - \pi) + \delta^T U(\sigma^*). \quad (\text{D.2})$$

For sake of a contradiction, suppose otherwise. Then

$$\eta + \delta U(\sigma^*) \leq \sum_{t'=1}^{T-1} \delta^{t'} (1 - \pi) + \delta^T U(\sigma^*). \quad (\text{D.3})$$

Substituting (D.3) in (D.1) gives

$$\begin{aligned} U(\sigma^*) &\geq \Pr[p_t = 0 \mid \sigma^*](\Pr[\theta_t = 0 \mid p_t = 0, \sigma^*] + \eta + \delta U(\sigma^*)) \\ &\quad + \Pr[p_t = 1 \mid \sigma^*](\Pr[\theta_t = 0 \mid p_t = 1, \sigma^*] + \eta + \delta U(\sigma^*)) \\ &= 1 - \pi + \eta + \delta U(\sigma^*). \end{aligned}$$

Recursively applying the above inequality, we obtain

$$\begin{aligned} U(\sigma^*) &\geq \sum_{t'=1}^{T-1} \delta^{t'-1} (1 - \pi + \eta) + \delta^{T-1} U(\sigma^*) \\ \iff \delta U(\sigma^*) &\geq \sum_{t'=1}^{T-1} \delta^{t'} (1 - \pi + \eta) + \delta^T U(\sigma^*) > \sum_{t'=1}^{T-1} \delta^{t'} (1 - \pi) + \delta^T U(\sigma^*), \end{aligned}$$

which contradicts (D.3).

Returning to (D.1) and applying (D.2) gives

$$\begin{aligned} U(\sigma^*) &\geq \Pr[p_t = 0 \mid \sigma^*](\Pr[\theta_t = 0 \mid p_t = 0, \sigma^*] + \sum_{t'=1}^{T-1} \delta^{t'} (1 - \pi) + \delta^T U(\sigma^*)) \\ &\quad + \Pr[p_t = 1 \mid \sigma^*](\Pr[\theta_t = 0 \mid p_t = 1, \sigma^*] + \sum_{t'=1}^{T-1} \delta^{t'} (1 - \pi) + \delta^T U(\sigma^*)) \\ &= 1 - \pi + \sum_{t'=1}^{T-1} \delta^{t'} (1 - \pi) + \delta^T U(\sigma^*). \end{aligned}$$

Applying the above inequality recursively gives $U(\sigma^*) \geq (1 - \pi)/(1 - \delta)$. \square

Lemma D.2 establishes an analogous result to Lemma 2. However, because now draining the swamp lowers the voter's expected payoff in subsequent periods, the voter has less incentive to do so. The size of this effect depends on the equilibrium behavior of both the voter and agents.

Lemma D.2 (Voter's optimal strategy). *In any equilibrium, the voter drains the swamp if and only if*

$$\nu_t < \frac{1 - \eta}{2} - \delta \frac{1}{2} (1 - \delta^{T-1}) \left(U(\sigma^*) - \frac{1 - \pi}{1 - \delta} \right),$$

where $U(\sigma^*) - \frac{1 - \pi}{1 - \delta} \geq 0$.

Proof. The voter's expected payoff from draining the swamp is

$$(1 - \nu_t) + \sum_{t'=1}^{T-1} \delta^{t'} (1 - \pi) + \delta^T U(\sigma^*) \quad (\text{D.4})$$

and their expected payoff from not doing so is

$$\nu_t + \eta + \delta U(\sigma^*). \quad (\text{D.5})$$

Thus, the voter prefers to drain the swamp if and only if

$$\begin{aligned} \nu_t &< \frac{1 - \eta}{2} - \delta \frac{1}{2} \left((1 - \delta^{T-1}) U(\sigma^*) - \sum_{t'=1}^{T-1} \delta^{t'-1} (1 - \pi) \right) \\ &= \frac{1 - \eta}{2} - \delta \frac{1}{2} (1 - \delta^{T-1}) \left(U(\sigma^*) - \frac{(1 - \pi)}{1 - \delta} \right) \quad \square \end{aligned} \quad (\text{D.6})$$

Lemma D.3 establishes an analogous result to Lemma 3.

Lemma D.3 (The optimal choice of an informed voter). *In any equilibrium, if the voter observes the agent's signal s_t , then*

- (i) *when $s_t = 1$, the voter never drains the swamp;*
- (ii) *when $s_t = 0$, there exists*

$$\bar{\eta}_{MP}(\sigma^*) := 1 - 2 \frac{\pi(1 - \kappa)}{\pi(1 - \kappa) + (1 - \pi)\kappa} - \delta(1 - \delta^{T-1}) \left(U(\sigma^*) - \frac{1 - \pi}{1 - \delta} \right).$$

such that the voter drains the swamp if $\eta < \bar{\eta}_{MP}(\sigma^)$ and does not drain the swamp if $\eta > \bar{\eta}_{MP}(\sigma^*)$.*

Notice that $\bar{\eta}_{MP}(\sigma^*) \leq \bar{\eta}(\pi, \kappa)$, where $\bar{\eta}(\pi, \kappa)$ is defined as per the benchmark model.

Proof. Suppose $s_t = 1$. Because $\kappa > 1 - \pi$, $\nu_t^*(1) > 1/2$ and hence, by Lemma D.2, the voter chooses $d_t = 0$ when observing the signal. Suppose $s_t = 0$. By Lemma D.2, the voter chooses $d_t = 1$ if

$$\nu_t^*(0) = \frac{\pi(1 - \kappa)}{\pi(1 - \kappa) + (1 - \pi)\kappa} < \frac{1 - \eta}{2} - \delta \frac{1}{2} (1 - \delta^{T-1}) \left(U(\sigma^*) - \frac{1 - \pi}{1 - \delta} \right).$$

Rearranging the above inequality completes the proof. □

Lemma D.4 establishes an analogous result to Lemma 4.

Lemma D.4 (Effectiveness begets power). *Let $\mu(s_t)$ be the agent's belief that an emergency has occurred when she observes signal s_t . In any equilibrium, if $\eta > \bar{\eta}_{MP}(\sigma^*)$, the agent always triggers the emergency policy. If $\eta < \bar{\eta}_{MP}(\sigma^*)$, the agent triggers the emergency policy with certainty when she detects a threat and otherwise with strictly positive probability only if*

$$(1 - \alpha)(1 - \mu(0)) + \delta V \leq (1 - \tau)(1 - d^*)(\mu(0) + \delta V) \quad (\text{D.7})$$

where d^* is the equilibrium probability that the voter preemptively drains the swamp when she is not informed.

Proof. After replacing $\bar{\eta}(\pi, \kappa)$ with $\bar{\eta}_{MP}(\sigma^*)$, the proof argument is identical to Lemma 4 and, hence, omitted. \square

Notice that Lemmas D.3 and D.4 do not completely characterize what the voter and the agent do when $\eta = \bar{\eta}_{MP}(\sigma^*)$. Before turning to the full characterization of the equilibrium, we establish some preliminary lemmas that hold for any η , including $\eta = \bar{\eta}_{MP}(\sigma^*)$.

Lemma D.5. *In any equilibrium, when $s_t = 1$, the agent chooses $p_t = 1$.*

Proof. Given an equilibrium and for $s \in \{0, 1, \emptyset\}$, let $d(s)^*$ be the voter's probability of choosing $d_t = 1$ when observing that $s_t = s$. By Part (i) of Lemma D.3, for any η , $d(1)^* = 0$ and, hence, $d(1)^* \leq d(0)^*$. It can be shown that $d(1)^* \leq d(0)^*$ implies that the agent chooses $p_t = 1$ when $s_t = 1$. The proof follows a similar argument as in Lemmas B.1–B.4; however, the argument must be adapted for the possibility that, when $\eta = \bar{\eta}_{MP}(\sigma^*)$, the voter may drain the swamp with non-unit probability $d(0)^* < 1$ when informed that $s_t = 0$. For brevity's sake, we omit these details. \square

Lemma D.6. *In every equilibrium σ^* , $\frac{\pi + \eta}{1 - \delta} \leq U(\sigma^*)$.*

Proof. Recall that p^* is the probability that the agent chooses $p_t = 1$ when $s_t = 0$. If $p^* = 1$, then, by sequential rationality and Lemma D.5, it is immediate that

$$U(\sigma^*) \geq \pi + \eta + \delta U(\sigma^*) \iff U(\sigma^*) \geq \frac{\pi + \eta}{1 - \delta}.$$

Otherwise, suppose $p^* \in [0, 1)$. Then, by sequential rationality and Lemma D.5,

$$\begin{aligned}
U(\sigma^*) &\geq \Pr[p_t = 0 \mid \sigma^*](\Pr[\theta_t = 0 \mid p_t = 0, \sigma^*] + \eta + \delta U(\sigma^*)) \\
&\quad + \Pr[p_t = 1 \mid \sigma^*]\left(\Pr[\theta_t = 1 \mid p_t = 1, \sigma^*] + \eta + \delta U(\sigma^*)\right) \\
&= \eta + \delta U(\sigma^*) + (1 - p^*)(1 - \pi)\kappa + \pi\kappa + \pi(1 - \kappa)p^* \\
&\geq \eta + \delta U(\sigma^*) + (1 - p^*)\pi(1 - \kappa) + \pi\kappa + \pi(1 - \kappa)p^* \\
&= \eta + \delta U(\sigma^*) + \pi \\
\iff U(\sigma^*) &\geq \frac{\pi + \eta}{1 - \delta},
\end{aligned}$$

where the second inequality follows because $\kappa > 1 - \pi$. \square

We prove that an analogous result to Proposition 1—Proposition D.1—holds under a technical assumption: Assumption 4. Per Remark D.1, this assumption is satisfied whenever δ is sufficiently small.

Assumption 4. Let $g(x) = \frac{\eta + \pi x + \kappa(1-x) + \Pr[s_t=0]\tau x((1-\mu(0)) + \sum_{t'=1}^{T-1} \delta^{t'}(1-\pi) - \mu(0) - \eta)}{1 - \delta + \Pr[s_t=0]\tau x(1 - \delta^{T-1})\delta}$. The function

$$X(x) := \frac{\pi\kappa + \pi(1 - \kappa)x}{\Pr[s_t = 1] + \Pr[s_t = 0]x} - \frac{1 - \eta}{2} + \delta \frac{1}{2}(1 - \delta^{T-1})\left(g(x) - \frac{1 - \pi}{1 - \delta}\right) \quad (\text{D.8})$$

is decreasing in x .

Remark D.1. By Lemma D.8 (below), Assumption 4 holds if $\delta < \tilde{\delta}(\pi, T)$, where $\tilde{\delta}(\pi, T)$ is the unique value in $(0, 1)$ such that $\tilde{\delta}(\pi, T) = \frac{2\pi(1-\pi)(1-2\pi)(1-\tilde{\delta}(\pi, T))^2}{4+(T-1)(1-\pi)}$.

Proposition D.1 (Technocracy, democracy, and populism). *Under Assumption 4, there exists cutoffs $\underline{\kappa}(\pi, \alpha, \tau) < \bar{\kappa}(\pi, \alpha)$ and $\bar{\eta}_{RD}(\pi, \kappa, T) \leq \underline{\eta}_P(\pi, \kappa, T) < \bar{\eta}_T(\pi, \kappa, T)$ such that, in equilibrium,*

- (i) $\bar{\eta}_T(\pi, \kappa, T) < \eta$ induces a technocracy;
- (ii) $\eta < \bar{\eta}_{RD}(\pi, \kappa, T)$ and $\underline{\kappa}(\pi, \alpha, \tau) < \kappa$ induces a responsive democracy;
- (iii) $\underline{\eta}_P(\pi, \kappa, T) < \eta < \bar{\eta}_T(\pi, \kappa, T)$ and $\kappa < \underline{\kappa}(\pi, \alpha, \tau)$ induces informed populism;
- (iv) $\eta < \underline{\eta}_P(\pi, \kappa, T)$ and $\kappa < \underline{\kappa}(\pi, \alpha, \tau)$ induces preemptive populism.

Proof.

Part (i). In a technocracy, the voter's continuation payoff from an experienced agent is

$$U(\sigma^*) = \frac{\pi + \eta}{1 - \delta}$$

and, hence,

$$\bar{\eta}_{MP}(\sigma^*) = 1 - 2 \frac{\pi(1 - \kappa)}{\pi(1 - \kappa) + (1 - \pi)\kappa} - \delta \frac{1 - \delta^{T-1}}{1 - \delta} \left(\eta - (1 - 2\pi) \right).$$

The voter's strategy is optimal if and only if $\bar{\eta}_{MP}(\sigma^*) \leq \eta$:

$$1 - 2 \frac{\pi(1 - \kappa)}{\pi(1 - \kappa) + (1 - \pi)\kappa} + \delta \frac{1 - \delta^{T-1}}{1 - \delta} (1 - 2\pi) \leq \left(1 + \delta \frac{1 - \delta^{T-1}}{1 - \delta} \right) \eta = \frac{1 - \delta^T}{1 - \delta} \eta.$$

Rearranging gives the condition

$$\frac{1 - \delta}{1 - \delta^T} + \delta \frac{1 - \delta^{T-1}}{1 - \delta^T} (1 - 2\pi) - 2 \frac{1 - \delta}{1 - \delta^T} \frac{\pi(1 - \kappa)}{\pi(1 - \kappa) + (1 - \pi)\kappa} := \bar{\eta}_T(\pi, \kappa, T) \leq \bar{\eta}$$

Part (ii). In a responsive democracy, the voter's continuation payoff is

$$U(\sigma^*) = \frac{\Pr[s_t = 0](1 - \mu_t^*(0)) + \Pr[s_t = 1]\mu_t^*(1) + \eta}{1 - \delta} = \frac{\kappa + \eta}{1 - \delta}$$

and hence

$$\bar{\eta}_{MP}(\sigma^*) = 1 - 2 \frac{\pi(1 - \kappa)}{\pi(1 - \kappa) + (1 - \pi)\kappa} - \delta(1 - \delta^{T-1}) \frac{\kappa + \eta - (1 - \pi)}{1 - \delta}.$$

The voter's strategy to drain the swamp when informed that the agent violated her mandate is optimal if and only if $\eta \leq \bar{\eta}_{MP}(\sigma^*)$:

$$\eta \left(1 + \frac{\delta(1 - \delta^{T-1})}{1 - \delta} \right) \leq 1 - 2 \frac{\pi(1 - \kappa)}{\pi(1 - \kappa) + (1 - \pi)\kappa} - \delta(1 - \delta^{T-1}) \frac{\kappa - (1 - \pi)}{1 - \delta}.$$

Rearranging yields:

$$\eta \leq \bar{\eta}_{RD}(\pi, \kappa, T) := \frac{1 - \delta}{1 - \delta^T} - 2 \frac{1 - \delta}{1 - \delta^T} \frac{\pi(1 - \kappa)}{\pi(1 - \kappa) + (1 - \pi)\kappa} - \frac{\delta(1 - \delta^{T-1})(\kappa - (1 - \pi))}{1 - \delta^T}.$$

Rearranging shows that

$$\begin{aligned}\bar{\eta}_{RD}(\pi, \kappa, T) &= \frac{1 - \delta}{1 - \delta^T} - 2 \frac{1 - \delta}{1 - \delta^T} \frac{\pi(1 - \kappa)}{\pi(1 - \kappa) + (1 - \pi)\kappa} + \frac{\delta(1 - \delta^{T-1})(1 - 2\pi)}{1 - \delta^T} - \frac{\delta(1 - \delta^{T-1})(\kappa - \pi)}{1 - \delta^T} \\ &= \bar{\eta}_I(\pi, \kappa, T) - \frac{\delta(1 - \delta^{T-1})(\kappa - \pi)}{1 - \delta^T},\end{aligned}$$

and, since $\kappa > 1 - \pi > \pi$, we have that $\bar{\eta}_{RD}(\pi, \kappa, T) < \bar{\eta}_I(\pi, \kappa, T)$.

The agent's strategy is optimal if and only if

$$(1 - \alpha)(1 - \mu_t^*(0)) + \delta V \geq (1 - \tau)(\mu_t^*(0) + \delta V) \quad (\text{D.9})$$

which, as in Proposition 1, holds if and only if $\kappa \geq \underline{\kappa}(\pi, \alpha, \tau)$.

Finally, notice that because $p^* = 0$, the voter optimally does not drain the swamp when uninformed. Therefore, a responsive democracy is an equilibrium if and only if

$$\underline{\kappa}(\pi, \alpha, \tau) \leq \kappa < \bar{\kappa}(\pi, \alpha) \text{ and } \eta \leq \bar{\eta}_{RD}(\pi, \kappa, T) \quad (\text{D.10})$$

Part (iii). In informed populism, the voter's continuation payoff is

$$\begin{aligned}U(\sigma^*) &= \Pr[s_t = 1](\mu_t^*(1) + \eta + \delta U(\sigma^*)) + \Pr[s_t = 0](1 - \tau)(\mu_t^*(0) + \eta + \delta U(\sigma^*)) \\ &\quad + \Pr[s_t = 0]\tau \left(1 - \mu_t^*(0) + \frac{(1 - \pi)(1 - \delta^T)}{1 - \delta} + \delta^T U(\sigma^*)\right) \\ &= (1 - \Pr[s_t = 0]\tau)\eta + \pi\kappa + (1 - \tau)\pi(1 - \kappa) + \tau(1 - \pi)\kappa \\ &\quad + \delta U(\sigma^*)(1 - \Pr[s_t = 0]\tau) + \Pr[s_t = 0]\tau\delta^T U(\sigma^*) \\ &\quad + \Pr[s_t = 0]\tau \left(\frac{(1 - \pi)(1 - \delta^T)}{1 - \delta}\right)\end{aligned}$$

and, hence,

$$\begin{aligned}U(\sigma^*) &= \frac{1}{1 - \left(\delta(1 - \Pr[s_t = 0]\tau) + \Pr[s_t = 0]\tau\delta^T\right)} \\ &\times \left((1 - \Pr[s_t = 0]\tau)\eta + \pi\kappa + (1 - \tau)\pi(1 - \kappa) + \tau(1 - \pi)\kappa + \Pr[s_t = 0]\tau \left(\frac{(1 - \pi)(1 - \delta^T)}{1 - \delta}\right) \right),\end{aligned}$$

which gives

$$\begin{aligned}\bar{\eta}_{MP}(\sigma^*) &= 1 + \delta(1 - \delta^{T-1})\frac{1 - \pi}{1 - \delta} - 2\frac{\pi(1 - \kappa)}{\pi(1 - \kappa) + (1 - \pi)\kappa} \\ &\quad - \frac{\delta(1 - \delta^{T-1})(1 - \Pr[s_t = 0]\tau)}{1 - \left(\delta(1 - \Pr[s_t = 0]\tau) + \Pr[s_t = 0]\tau\delta^T\right)}\eta \\ &\quad - \delta(1 - \delta^{T-1})\frac{\left(\pi\kappa + (1 - \tau)\pi(1 - \kappa) + \tau(1 - \pi)\kappa + \Pr[s_t = 0]\tau\left(\frac{(1-\pi)(1-\delta^T)}{1-\delta}\right)\right)}{1 - \left(\delta(1 - \Pr[s_t = 0]\tau) + \Pr[s_t = 0]\tau\delta^T\right)}.\end{aligned}$$

It is optimal for the voter to choose $d_t = 1$ when informed that $s_t = 0$ if and only if $\eta \leq \bar{\eta}_{MP}(\sigma^*)$:

$$\begin{aligned}\eta &\leq \frac{1}{1 + \frac{\delta(1-\delta^{T-1})(1-\Pr[s_t=0]\tau)}{1 - \left(\delta(1-\Pr[s_t=0]\tau) + \Pr[s_t=0]\tau\delta^T\right)}} \\ &\quad \times \left(1 + \delta(1 - \delta^{T-1})\frac{1 - \pi}{1 - \delta} - 2\frac{\pi(1 - \kappa)}{\pi(1 - \kappa) + (1 - \pi)\kappa} \right. \\ &\quad \left. - \delta(1 - \delta^{T-1})\frac{\left(\pi\kappa + (1 - \tau)\pi(1 - \kappa) + \tau(1 - \pi)\kappa + \Pr[s_t = 0]\tau\left(\frac{(1-\pi)(1-\delta^T)}{1-\delta}\right)\right)}{1 - \left(\delta(1 - \Pr[s_t = 0]\tau) + \Pr[s_t = 0]\tau\delta^T\right)}\right) \\ &:= \bar{\eta}_P(\pi, \kappa, T)\end{aligned}\tag{D.11}$$

By Lemma D.2 and because $\nu_t^*(\emptyset) = \pi$, $d^* = 0$ is optimal if and only if

$$\pi \geq \frac{1 - \eta}{2} - \delta\frac{1}{2}(1 - \delta^{T-1})\left(U(\sigma^*) - \frac{1 - \pi}{1 - \delta}\right).\tag{D.12}$$

Substituting for $U(\sigma^*)$ gives

$$\begin{aligned}
\pi &\geq \frac{1-\eta}{2} + \delta \frac{1}{2} (1-\delta^{T-1}) \frac{1-\pi}{1-\delta} \\
&\quad - \frac{\delta \frac{1}{2} (1-\delta^{T-1})}{1 - \left(\delta(1 - \Pr[s_t = 0]\tau) + \Pr[s_t = 0]\tau\delta^T \right)} \times \left((1 - \Pr[s_t = 0]\tau)\eta + \pi\kappa \right. \\
&\quad \left. + (1-\tau)\pi(1-\kappa) + \tau(1-\pi)\kappa + \Pr[s_t = 0]\tau \left(\frac{(1-\pi)(1-\delta^T)}{1-\delta} \right) \right) \\
&= \frac{1}{2} + \delta \frac{1}{2} (1-\delta^{T-1}) \frac{1-\pi}{1-\delta} \\
&\quad - \left(\frac{1}{2} + \frac{\delta \frac{1}{2} (1-\delta^{T-1})(1 - \Pr[s_t = 0]\tau)}{1 - \left(\delta(1 - \Pr[s_t = 0]\tau) + \Pr[s_t = 0]\tau\delta^T \right)} \right) \eta \\
&\quad - \frac{\delta \frac{1}{2} (1-\delta^{T-1}) \left(\pi\kappa + (1-\tau)\pi(1-\kappa) + \tau(1-\pi)\kappa + \Pr[s_t = 0]\tau \left(\frac{(1-\pi)(1-\delta^T)}{1-\delta} \right) \right)}{1 - \left(\delta(1 - \Pr[s_t = 0]\tau) + \Pr[s_t = 0]\tau\delta^T \right)}
\end{aligned}$$

and, hence,

$$\begin{aligned}
\eta &\geq \frac{1}{\left(\frac{1}{2} + \frac{\delta \frac{1}{2} (1-\delta^{T-1})(1 - \Pr[s_t = 0]\tau)}{1 - \left(\delta(1 - \Pr[s_t = 0]\tau) + \Pr[s_t = 0]\tau\delta^T \right)} \right)} \\
&\quad \times \left(\frac{1}{2} - \pi + \delta \frac{1}{2} (1-\delta^{T-1}) \frac{1-\pi}{1-\delta} \right. \\
&\quad \left. - \frac{\delta \frac{1}{2} (1-\delta^{T-1}) \left(\pi\kappa + (1-\tau)\pi(1-\kappa) + \tau(1-\pi)\kappa + \Pr[s_t = 0]\tau \left(\frac{(1-\pi)(1-\delta^T)}{1-\delta} \right) \right)}{1 - \left(\delta(1 - \Pr[s_t = 0]\tau) + \Pr[s_t = 0]\tau\delta^T \right)} \right) \\
&:= \underline{\eta}_P(\pi, \kappa, T). \tag{D.13}
\end{aligned}$$

Notice that

$$\underline{\eta}_P(\pi, \kappa, T) < \bar{\eta}_P(\pi, \kappa, T). \tag{D.14}$$

To see this, suppose σ^* induces informed populism and η is such that $\eta = \bar{\eta}_P(\pi, \kappa, T)$. By Part (ii), Lemma D.3,

$$\begin{aligned} \eta &= 1 - \delta(1 - \delta^{T-1}) \left(U(\sigma^*) - \frac{1 - \pi}{1 - \delta} \right) - 2 \frac{\pi(1 - \kappa)}{\pi(1 - \kappa) + (1 - \pi)\kappa} \\ \iff \frac{\pi(1 - \kappa)}{\pi(1 - \kappa) + (1 - \pi)\kappa} &= \frac{1 - \eta}{2} - \delta \frac{1}{2} (1 - \delta^{T-1}) \left(U(\sigma^*) - \frac{1 - \pi}{1 - \delta} \right). \end{aligned} \quad (\text{D.15})$$

The right hand side of (D.15) is exactly the right hand side of (D.12) and the left hand side of (D.15) is strictly less than π . Thus, (D.12) is satisfied and, hence, $\underline{\eta}_P(\pi, \kappa, T) < \eta = \bar{\eta}_P(\pi, \kappa, T)$.

The agent's strategy $p^* = 1$ is optimal if and only if

$$(1 - \alpha)(1 - \mu_t^*(0)) + \delta V \leq (1 - \tau)(\mu_t^*(0) + \delta V), \quad (\text{D.16})$$

which, as in Proposition 1, holds only if $\kappa \leq \underline{\kappa}(\pi, \alpha, \tau)$. Thus, informed populism is an equilibrium if and only if $\underline{\eta}_P(\pi, \kappa, T) \leq \eta < \bar{\eta}_P(\pi, \kappa, T)$ and $\kappa \leq \underline{\kappa}(\pi, \alpha, \tau)$

Part (iv). In preemptive populism, whenever the agent triggers the emergency policy, the voter is indifferent between draining the swamp and not doing so. Therefore, the voter's continuation payoff is

$$\begin{aligned} U(\sigma^*) &= \Pr[s_t = 0](1 - p^*)[1 - \mu_t^*(0) + \eta + \delta U(\sigma^*)] \\ &+ (\Pr[s_t = 0]p^* + \Pr[s_t = 1])(1 - \tau)(\nu_t^*(\emptyset) + \eta + \delta U(\sigma^*)) \\ &+ \Pr[s_t = 1]\tau(\mu_t^*(1) + \eta + \delta U(\sigma^*)) \\ &+ \Pr[s_t = 0]\tau p^*((1 - \mu_t^*(0)) + \sum_{t'=1}^{T-1} \delta^{t'}(1 - \pi) + \delta^T U(\sigma^*)). \end{aligned}$$

Adding and subtracting $\Pr[s_t = 0]\tau(\mu_t^*(0) + \eta + \delta U(\sigma^*))$ to the right hand side, substituting (using Bayes' rule) for $(1 - \mu_t^*(0))$ and

$$\nu_t^*(\emptyset) = \frac{\pi\kappa + \pi(1 - \kappa)p^*}{\Pr[s_t = 1] + \Pr[s_t = 0]p^*},$$

and simplifying gives

$$\begin{aligned}
U(\sigma^*) &= \eta + \delta U(\sigma^*) + (1 - p^*)(1 - \pi)\kappa + (1 - \tau)\pi(\kappa + (1 - \kappa)p^*) \\
&\quad + \tau\pi\kappa + \tau p^*\pi(1 - \kappa) + \Pr[s_t = 0]\tau p^*((1 - \mu(0)) + \sum_{t'=1}^{T-1} \delta^{t'}(1 - \pi) - \mu(0) - \eta) \\
&\quad - \Pr[s_t = 0]\tau p^*(1 - \delta^{T-1})\delta U(\sigma^*).
\end{aligned}$$

Simplifying and solving for $U(\sigma^*)$ yields

$$U(\sigma^*) = \frac{\eta + \pi p^* + \kappa(1 - p^*) + \Pr[s_t = 0]\tau p^*((1 - \mu(0)) + \sum_{t'=1}^{T-1} \delta^{t'}(1 - \pi) - \mu(0) - \eta)}{1 - \delta + \Pr[s_t = 0]\tau p^*(1 - \delta^{T-1})\delta}. \quad (\text{D.17})$$

Notice that $U(\sigma^*)$ does not depend on d^* .

By Lemma D.2 and Bayes' rule, an uninformed voter optimally mixes between draining the swamp and not doing so if and only if $p^* \in (0, 1)$ satisfies:

$$\frac{\pi\kappa + \pi(1 - \kappa)p^*}{\Pr[s_t = 1] + \Pr[s_t = 0]p^*} = \frac{1 - \eta}{2} - \delta \frac{1}{2}(1 - \delta^{T-1}) \left(U(\sigma^*) - \frac{1 - \pi}{1 - \delta} \right). \quad (\text{D.18})$$

At $p^* = 0$, the left hand side of (D.18) equals $\nu_t^*(1) > 1/2$ and hence exceeds the right hand side. Furthermore, by Assumption 4, the difference between the left hand side and right hand side of (D.18) is decreasing in p^* . Therefore, a unique solution $p^* \in (0, 1)$ to (D.18) exists if and only if, at $p^* = 1$, the right hand side of (D.18) exceeds the left hand side:

$$\pi < \frac{1 - \eta}{2} - \delta \frac{1}{2}(1 - \delta^{T-1}) \left(U(\sigma^*)|_{p^*=1} - \frac{1 - \pi}{1 - \delta} \right). \quad (\text{D.19})$$

But, at $p^* = 1$, using the fact that $U(\sigma^*)$ does not depend on d^* , the continuation payoff of the voter under informed and preemptive populism are equal. Thus, (D.19) is the same as (D.12) with the inequality reversed and strict—hence, (D.19) holds if and only if $\eta < \underline{\eta}_P(\pi, \kappa, T)$ (see derivation from (D.19) to (D.13)).

The agent optimally mixes if and only if $d^* \in (0, 1)$ satisfies:

$$(1 - \alpha)(1 - \mu_t^*(0)) + \delta V = (1 - \tau)(1 - d^*)(\mu_t^*(0) + \delta V). \quad (\text{D.20})$$

The right hand side (resp., left hand side) of (D.20) is decreasing (resp., constant) in d^* . The range of the right hand side is $(0, (1 - \tau)(\mu_t^*(0) + V))$. At $d^* = 1$, the left hand side exceeds the right hand side. Therefore, a (unique) solution $d^* \in (0, 1)$ to (D.20) exists if

and only if at $d^* = 0$ the right hand side exceeds the left hand side:

$$(1 - \alpha)(1 - \mu_t^*(0)) + \delta V \leq (1 - \tau)(\mu_t^*(0) + \delta V). \quad (\text{D.21})$$

which, as in Proposition 1, holds only if $\kappa \leq \underline{\kappa}(\pi, \alpha, \tau)$. Thus, preemptive populism is an equilibrium if and only if $\eta < \underline{\eta}_P(\pi, \kappa, T)$ and $\kappa \leq \underline{\kappa}(\pi, \alpha, \tau)$.

Final steps. Recall that $\bar{\eta}_{RD}(\pi, \kappa, T)$ and $\bar{\eta}_T(\pi, \kappa, T)$ are the values of η , $\bar{\eta}_{MP}(\sigma^*)$, that keeps a voter who observes $s_t = 0$ indifferent between draining the swamp and not doing so, respectively when σ^* is a responsive democracy and when it is a technocracy. Notice that $\bar{\eta}_{MP}(\sigma^*)$ is decreasing in $U(\sigma^*)$ and that the upper and lower bound of $U(\sigma^*)$ (see Lemmas D.1 and D.6) are achieved, respectively when σ^* is a responsive democracy and when it is a technocracy. Therefore, in every equilibrium σ^* ,

$$\bar{\eta}_{MP}(\sigma^*) \in [\bar{\eta}_{RD}(\pi, \kappa, T), \bar{\eta}_T(\pi, \kappa, T)]. \quad (\text{D.22})$$

Combined with (D.14), we have

$$\bar{\eta}_{RD}(\pi, \kappa, T) \leq \underline{\eta}_P(\pi, \kappa, T) < \bar{\eta}_P(\pi, \kappa, T) \leq \bar{\eta}_T(\pi, \kappa, T).$$

Finally, we prove that $\bar{\eta}_P(\pi, \kappa, T) = \bar{\eta}_T(\pi, \kappa, T)$. To see this, suppose that σ^* induces informed populism and $\eta = \bar{\eta}_P(\pi, \kappa, T)$. Then, by construction, the voter is indifferent between draining the swamp and not doing so when becoming informed that $s_t = 0$. Thus, the voter's continuation payoff can be simplified to

$$\begin{aligned} U(\sigma^*) &= \Pr[s_t = 1](\mu(1) + \eta + \delta U(\sigma^*)) + \Pr[s_t = 0](1 - \tau)(\mu(0) + \eta + \delta U(\sigma^*)) \\ &\quad + \Pr[s_t = 0]\tau(\mu(0) + \eta + \delta U(\sigma^*)), \end{aligned}$$

which is the same continuation obtained under technocracy. It is then immediate that $\bar{\eta}_{IP}(\pi, \kappa, T) = \bar{\eta}_T(\pi, \kappa, T)$. \square

We now study the remaining case when $\bar{\eta}_{RD}(\pi, \kappa, T) < \eta < \bar{\eta}_T(\pi, \kappa, T)$. We first give a lemma establishing preliminary results and then a full equilibrium characterization.

Lemma D.7. *Suppose $\eta = \bar{\eta}_{MP}(\sigma^*)$ and $\eta \notin \{\bar{\eta}_{RD}(\pi, \kappa, T), \bar{\eta}_T(\pi, \kappa, T)\}$. In any equilibrium, $d^* = 0$, $p^* > 0$, and the voter drains the swamp with strictly positive probability only when informed that $s_t = 0$. Furthermore, if $\underline{\kappa}(\pi, \alpha, \tau) < \kappa$,*

- (i) the voter drains the swamp with probability strictly between 0 and 1 when informed that $s_t = 0$;
- (ii) $p^* \in (0, 1)$.

Proof. Let $d(s)^*$ be the voter's equilibrium probability of draining the swamp when observing $s_t = s \in \{0, 1\}$. Similarly, let $p^*(1)$ be the agent's equilibrium probability of triggering the emergency policy when $s_t = 1$. The first part of the Lemma says that, when $\eta = \bar{\eta}_{MP}(\sigma^*)$ and $\eta \notin \{\bar{\eta}_{RD}(\pi, \kappa, T), \bar{\eta}_T(\pi, \kappa, T)\}$, $d(1)^* = d^* = 0$, $p^* > 0$, and $d(0)^* > 0$. By Part (i) of Lemma D.3 and Lemma D.5, $d(1)^* = 0$ and $p(1)^* = 1$.

We now show that $d(0)^* > 0$. For sake of contradiction, suppose $d(0)^* = 0$. By Bayes' rule and Lemma D.2 and because $p(1)^* = 1$, it must be that $d^* = 0$. But then, by Assumption 2, the agent optimally chooses $p(0)^* = 1$. Therefore, the voter's continuation payoff equals the payoff he obtains in a technocracy and $\eta = \bar{\eta}_{MP}(\sigma^*) = \bar{\eta}_T(\pi, \kappa, T)$ —a contradiction.

We now show that $p^* > 0$. For sake of contradiction, suppose $p^* = 0$. By Bayes' rule and Lemma D.2, it must be that $d^* = 0$. Therefore, the voter's continuation payoff equals the payoff he obtains in a responsive democracy and $\eta = \bar{\eta}_{MP}(\sigma^*) = \bar{\eta}_{RD}(\pi, \kappa, T)$ —a contradiction.

We finally show that $d^* = 0$. To see this, notice that $\eta = \bar{\eta}_{MP}(\sigma^*)$ is equivalent to requiring that

$$\nu_t^*(0) = \frac{1 - \eta}{2} - \delta \frac{1}{2} (1 - \delta^{T-1}) \left(U(\sigma^*) - \frac{1 - \pi}{1 - \delta} \right).$$

Because $p^* > 0$ and $p(1)^* = 1$, it follows that $\nu_t^*(0) < \nu_t^*(\emptyset)$ and hence

$$\nu_t^*(\emptyset) > \frac{1 - \eta}{2} - \delta \frac{1}{2} (1 - \delta^{T-1}) \left(U(\sigma^*) - \frac{1 - \pi}{1 - \delta} \right),$$

i.e., the voter strictly prefers to not drain the swamp when uninformed: $d^* = 0$.

For Parts (i) and (ii), suppose $\underline{\kappa}(\pi, \alpha, \tau) < \kappa$. First, we show that $d(0)^* < 1$. For sake of contradiction, suppose $d(0)^* = 1$. Because $p(0)^* > 0$,

$$(1 - \alpha)(1 - \mu(0)) + \delta V \leq (1 - \tau)(\mu(0) + \delta V).$$

But, by construction, $\underline{\kappa}(\pi, \alpha, \tau) < \kappa$ implies that the above inequality does not hold (see the proof of Part (ii) of Proposition D.1)—a contradiction.

Finally, we show that $p^* < 1$. For sake of contradiction, suppose $p(0)^* = 1$. Because $d(0)^* \in (0, 1)$, the voter is indifferent between draining the swamp and not doing so when observing $s_t = 0$. Therefore, the voter's continuation payoff equals the payoff he obtains

in a technocracy and $\eta = \bar{\eta}_{MP}(\sigma^*) = \bar{\eta}_T(\pi, \kappa, T)$ —a contradiction. \square

Proposition D.2 (Power-induced informed populism). *Suppose $\underline{\kappa}(\pi, \alpha, \tau) < \kappa$ and $\bar{\eta}_{RD}(\pi, \kappa, T) < \eta < \bar{\eta}_T(\pi, \kappa, T)$. In equilibrium, in every period, the agent violates her mandate with strictly positive probability and the voter drains the swamp with probability strictly between 0 and 1 if he becomes informed that the agent violated her mandate and does not drain the swamp otherwise.*

Proof. Suppose $\underline{\kappa}(\pi, \alpha, \tau) < \kappa$ and $\bar{\eta}_{RD}(\pi, \kappa, T) < \eta < \bar{\eta}_T(\pi, \kappa, T)$. Using the notation in the proof of Lemma D.7, we want to show that there always exists an equilibrium with $d(0)^* \in (0, 1)$, $d^* = 0$ and $p^* \in (0, 1)$. The voter's strategy $d(0)^* \in (0, 1)$ is optimal if and only if $p^* \in (0, 1)$ satisfies

$$\nu_t^*(0) = \frac{1-\eta}{2} - \delta \frac{1}{2} (1 - \delta^{T-1}) \left(U(\sigma^*) - \frac{1-\pi}{1-\delta} \right). \quad (\text{D.23})$$

Voter's strategy $d^* = 0$ is optimal if and only if $p^* \in (0, 1)$ satisfies

$$\nu_t^*(\emptyset) \geq \frac{1-\eta}{2} - \delta \frac{1}{2} (1 - \delta^{T-1}) \left(U(\sigma^*) - \frac{1-\pi}{1-\delta} \right). \quad (\text{D.24})$$

Because $\nu_t^*(0) < \nu_t^*(\emptyset)$ for all $p^* \in (0, 1)$, (D.24) is implied by (D.23).

The agent's strategy $p^* \in (0, 1)$ is optimal if and only if $d^*(0) \in (0, 1)$ satisfies

$$(1-\alpha)(1-\mu(0)) + \delta V = ((1-\tau) + \tau(1-d(0)^*))(\mu(0) + \delta V). \quad (\text{D.25})$$

At $d^*(0) = 1$ and because $\kappa > \underline{\kappa}(\pi, \alpha, \tau)$, we have

$$(1-\alpha)(1-\mu(0)) + \delta V > (1-\tau)(\mu(0) + \delta V), \quad (\text{D.26})$$

i.e., the left hand side of (D.25) exceeds the right hand side. At $d^*(0) = 0$ and because $\kappa < \bar{\kappa}(\pi, \alpha)$, we have

$$(1-\alpha)(1-\mu(0)) + \delta V < \mu(0) + \delta V, \quad (\text{D.27})$$

i.e., the right hand side of (D.25) exceeds the left hand side. Given (D.26) and (D.27) and because the left hand side of (D.25) is independent of $d(0)^*$ and the right hand side is decreasing in $d(0)^*$, there exists a unique solution $d(0)^* \in (0, 1)$ satisfying (D.25).

It only remains to prove that there exists $p^* \in (0, 1)$ satisfying (D.23). Recalling Lemma D.3,

(D.23) is equivalent to $\eta = \bar{\eta}_{MP}(\sigma^*)$. The voter's continuation payoff is

$$\begin{aligned} U(\sigma^*) &= \Pr[s_t = 0](1 - p^*)((1 - \mu_t^*(0)) + \eta + \delta U(\sigma^*)) \\ &\quad + (p^* \Pr[s_t = 0] + \Pr[s_t = 1])(1 - \tau)(\nu_t^*(\emptyset) + \eta + \delta U(\sigma^*)) \\ &\quad + \Pr[s_t = 1]\tau(\mu_t^*(1) + \eta + \delta U(\sigma^*)) \\ &\quad + p^* \Pr[s_t = 0]\tau(\mu_t^*(0) + \eta + \delta U(\sigma^*)), \end{aligned}$$

which, after substituting and rearranging yields

$$\begin{aligned} U(\sigma^*) &= \eta + \delta U(\sigma^*) + (1 - p^*)(1 - \pi)\kappa + (1 - \tau)(\pi\kappa + \pi(1 - \kappa)p^*) + \tau\pi\kappa + \tau p^*\pi(1 - \kappa) \\ \iff U(\sigma^*) &= \frac{\eta + \pi p^* + \kappa(1 - p^*)}{1 - \delta}. \end{aligned}$$

Notice that $U(\sigma^*)$ is continuous and decreasing in p^* . At $p^* = 0$ (resp., $p^* = 1$), it equals the continuation payoff in a responsive democracy, so that $\bar{\eta}_{MP}(\sigma^*) = \bar{\eta}_{RD}(\pi, \kappa, T)$ (resp., technocracy, so that $\bar{\eta}_{MP}(\sigma^*) = \bar{\eta}_T(\pi, \kappa, T)$). Thus, there exists a unique $p^* \in (0, 1)$ such that $\eta = \bar{\eta}_{MP}(\sigma^*)$, i.e., there is a unique $p^* \in (0, 1)$ that satisfies (D.23). \square

Lastly, we prove the claim made in Remark D.1.

Lemma D.8. *Suppose $\delta < \tilde{\delta}(\pi, T)$, where $\tilde{\delta}(\pi, T)$ is defined in Remark D.1. Equation (D.8) is decreasing in x .*

Proof. We now prove that $X(x)$ is decreasing in x . Taking the derivative:

$$\frac{\partial X(x)}{\partial x} = \frac{\partial \left(\frac{\pi\kappa + \pi(1-\kappa)x}{\Pr[s_t=1] + \Pr[s_t=0]x} \right)}{\partial x} + \delta \frac{1}{2} (1 - \delta^{T-1}) \frac{\partial g(x)}{\partial x}. \quad (\text{D.28})$$

The first term is negative

$$\frac{\partial \left(\frac{\pi\kappa + \pi(1-\kappa)x}{\Pr[s_t=1] + \Pr[s_t=0]x} \right)}{\partial x} = \frac{\pi(\Pr[s_t = 1] - \kappa)}{(\Pr[s_t = 1] + \Pr[s_t = 0]x)^2} = \frac{-\pi(1 - \pi)(2\kappa - 1)}{(\Pr[s_t = 1] + \Pr[s_t = 0]x)^2} < 0 \quad (\text{D.29})$$

Taking the derivative of $g(x)$, we obtain

$$\begin{aligned} \frac{\partial g(x)}{\partial x} &= \frac{1}{(1 - \delta + \delta \Pr[s_t = 0]x\tau(1 - \delta^{T-1}))^2} \times \\ &\left(\pi - \delta\pi - \kappa + \Pr[s_t = 0]\tau + \delta^T \Pr[s_t = 0]\tau(\kappa + \eta) + \Pr[s_t = 0]\tau(-2\mu(0) - \eta + \sum_{t'=1}^{T-1} \delta^{t'}(1 - \pi)) \right. \\ &\quad \left. + \delta(\kappa - \Pr[s_t = 0]\tau(1 + \kappa - 2\mu(0) + \sum_{t'=1}^{T-1} \delta^{t'}(1 - \pi))) \right); \end{aligned}$$

if the numerator is non-positive, then $\frac{\partial g(x)}{\partial x} \leq 0$ and, by (D.29), the right hand side of (D.28) is negative and the proof is complete. Thus, we suppose that the numerator is positive and proceed to construct an upper bound on $\frac{\partial g(x)}{\partial x}$. First notice that

$$\begin{aligned} \frac{\partial g(x)}{\partial x} &\leq \frac{1}{(1 - \delta)^2} \left(\pi + \Pr[s_t = 0]\tau + \delta^T \Pr[s_t = 0]\tau(\kappa + \eta) + \Pr[s_t = 0]\tau(-\eta + \sum_{t'=1}^{T-1} \delta^{t'}(1 - \pi)) + \delta\kappa \right) \\ &\leq \frac{1}{(1 - \delta)^2} \left(\pi + \Pr[s_t = 0]\tau + \Pr[s_t = 0]\tau(1 + \eta) + \Pr[s_t = 0]\tau(-\eta + \sum_{t'=1}^{T-1} \delta^{t'}(1 - \pi)) + \delta\kappa \right) \\ &= \frac{1}{(1 - \delta)^2} \left(\pi + \Pr[s_t = 0]\tau + \Pr[s_t = 0]\tau + \Pr[s_t = 0]\tau \sum_{t'=1}^{T-1} \delta^{t'}(1 - \pi) + \delta\kappa \right) \\ &\leq \frac{1}{(1 - \delta)^2} \left(\pi + 2 + \tau \sum_{t'=1}^{T-1} \delta^{t'}(1 - \pi) + \delta \right) \\ &\leq \frac{1}{(1 - \delta)^2} \left(3 + (T - 1)(1 - \pi) + \delta \right) \end{aligned}$$

Furthermore,

$$\begin{aligned} \delta \frac{1}{2}(1 - \delta^{T-1}) \frac{\partial g(x)}{\partial x} &\leq \delta \frac{1}{2}(1 - \delta^{T-1}) \frac{1}{(1 - \delta)^2} \left(3 + (T - 1)(1 - \pi) + \delta \right) \\ &\leq \delta \frac{1}{2} \frac{1}{(1 - \delta)^2} \left(4 + (T - 1)(1 - \pi) \right). \end{aligned}$$

Returning to (D.28), we have that $\frac{\partial X(x)}{\partial x} < 0$ if

$$-\pi(1 - \pi)(1 - 2\pi) + \delta \frac{1}{2} \frac{1}{(1 - \delta)^2} \left(4 + (T - 1)(1 - \pi) \right) < 0$$

which simplifies to

$$\delta < \frac{2\pi(1-\pi)(1-2\pi)(1-\delta)^2}{(4+(T-1)(1-\pi))} \quad (\text{D.30})$$

Let $\tilde{\delta}(\pi, T) \in (0, 1)$ be the value of δ that solves (D.30) with equality. There exists a unique value because at $\delta = 0$ (resp., $\delta = 1$) the left hand side is less (resp., greater) than the right hand side and the difference between the two sides is monotonic in δ . It follows that, for all $\delta < \tilde{\delta}(\pi, T)$, $X(x)$ is decreasing in x , which completes the proof. \square

E Data appendix

We summarize the key variables used in our empirical analysis (Section 8, and in particular Tables 1 and 2). All data is sourced from the Joint European Value Study/World Values Survey (henceforth, EVS/WVS) 2017-2022 and the Chapel Hill Expert Survey (henceforth, CHES) datasets.

Support for anti-elite party. Following [Wike, Silver, Fetterolf, Huang, Austin, Clancy and Gubbala \(2022\)](#), we classify as anti-elite populists the parties that score above or equal to 7 when averaging across the “people vs the elite” (Q34) and the “salience of anti-elite rhetoric” (Q35) measures in the 2019 CHES ([Jolly, Bakker, Hooghe, Marks, Polk, Rovny, Steenbergen and Vachudova, 2022](#)). The complete list of anti-elite parties according to this classification are listed in Table E.1. The first measure (“people vs the elite” Q34) corresponds to an average of the surveyed experts’ response to the following question:

“Some political parties take the position that ‘THE PEOPLE’ should have the final say on the most important issues, for example, by voting directly in referendums. At the opposite pole are political parties that believe that ELECTED REPRESENTATIVES should make the most important political decisions. Where did the parties fall on this dimension during 2019?”

Responses are recorded on an 11-point scale (with an additional option to respond “Don’t know”), where 0 corresponds to “Elected office holders should make the most important decisions” and 10 corresponds to “‘The people’, not politicians, should make the most important decisions.” The second measure (“salience of anti-elite rhetoric” Q35) corresponds to an average of the surveyed experts’ response to the following question:

“How salient has ANTI-ESTABLISHMENT and ANTI-ELITE RHETORIC been to each party during 2019?”

Responses are recorded on an 11-point scale (with an additional option to respond “Don’t know”), where 0 corresponds to “Not important at all” and 10 corresponds to “Extremely important.”

Our “Support for anti-elite party” variable is then constructed by analyzing whether a respondent in the EVS/WVS stated that they would support an anti-elite party (as defined above). Specifically, we analyze questions E179_WVS7 and E181_EVS5 (each respondent was asked only one of these questions). Question E179_WVS7 asks:

“If there were a national election tomorrow, for which party on this list would you vote? If DON’T KNOW: Which party appeals to you most?”

and Question E181_EVS5 asks:

“Which (political) party appeals to you most?”

Subjects were then given a list of political parties to choose from (with additional options to not answer, respond “Don’t know”, choose an unlisted or no party, choose not to vote, choose to cast a blank ballot or null vote, or state that they do not have the right to vote).

Lack of Confidence in Civil Service. This variable corresponds to E069_08 in the joint EVS/WVS. Subjects are asked

“Tell me, for each item listed, how much confidence do you have in them, is it a great deal, quite a lot, not very much or none at all?”

We focus on the answer to the question about the item “Civil service.” The responses are coded as a value 1 if the subject responds “A great deal”; 2 if the subject responds “Quite a lot”; 3 if the subject responds “Not very much”; 4 if the subject responds “None at all.” Other responses such as “No answer” and “Don’t know” are excluded from our analysis.

View: competition is good. This variable corresponds to E039 in the EVS/WVS. Subjects are asked “How would you place your views on this scale?”

1 (“Competition is good”),
2, . . . , 9,
10 (“Competition is harmful”)

Other responses such as “No answer” and “Don’t know” are excluded from our analysis. For our analysis, we invert the response scale.

View: reduce gov. responsibility. This variable corresponds to E037 in the EVS/WVS. Subjects are asked “How would you place your views on this scale?”

- 1 (“People should take more responsibility”),
- 2, . . . , 9,
- 10 (“The government should take more responsibility”)

Other responses such as “No answer” and “Don’t know” are excluded from our analysis. For our analysis, we invert the response scale.

View: more privatization. This variable corresponds to E036 in the EVS/WVS. Subjects are asked “How would you place your views on this scale?”

- 1 (“ Private ownership of business should be increased”),
- 2, . . . , 9,
- 10 (“Government ownership of business should be increased”)

Other responses such as “No answer” and “Don’t know” are excluded from our analysis. For our analysis, we invert the response scale.

View: inequality is good. This variable corresponds to E035 in the EVS/WVS. Subjects are asked “How would you place your views on this scale?”

- 1 (“Incomes should be made more equal”),
- 2, . . . , 9,
- 10 (“We need larger income differences as incentives”)

Other responses such as “No answer” and “Don’t know” are excluded from our analysis.

Left-right ideology. This variable corresponds to E033 in the EVS/WVS. Subjects are asked “In political matters, people talk of ‘the left’ and ‘the right’. How would you place your views on this scale, generally speaking?”

- 1 (“Left”),
- 2, . . . , 9,
- 10 (“Right”)

Other responses such as “No answer” and “Don’t know” are excluded from our analysis.

Country	Party
Austria	Freedom Party of Austria
Belgium	Workers' Party of Belgium
Belgium	Flemish Interest
Bulgaria	Attack
Bulgaria	National Front for the Salvation of Bulgaria
Bulgaria	Bulgarian National Movement
Bulgaria	Party of Slavi Trifonov
Bulgaria	Will
Croatia	Bridge of Independent Lists
Croatia	Human Shield
Croatia	Croatian Conservative Party
Czech Republic	Freedom and Direct Democracy Tomio Okamura
Estonia	Conservative People's Party
Finland	The Finns Party
France	Unbowed France
France	National Rally
Germany	Alternative for Germany
Germany	Human Environment Animal Protection
Germany	Pirate Party of Germany
Greece	European Realistic Disobedience Front [MeRa25]
Greece	Greek Solution
Greece	Popular Association—Golden Dawn
Ireland	Solidarity—People Before Profit
Italy	Five Star Movement
Italy	Northern League
Italy	Brothers of Italy
Latvia	Who owns the state?
Lithuania	Lithuanian Centre Party
Netherlands	Forum for Democracy
Netherlands	Party for Freedom
Norway	Progress Party
Poland	Kukiz '15
Poland	Confederation Liberty and Independence
Portugal	Left Bloc
Portugal	Ecologist Party "The Greens"
Portugal	People—Animals—Nature
Portugal	Portuguese Communist Party
Portugal	Democratic Unitarian Coalition
Slovakia	We are family—Boris Kollar
Slovakia	Ordinary People and Independent
Slovakia	People's Party—Our Slovakia
Slovenia	The Left
Spain	We Can
Sweden	Sweden Democrats
Switzerland	Swiss People's Party
United Kingdom	United Kingdom Independence Party

Table E.1: Classification of anti-elite parties in CHES. For full set of parties in CHES, please refer to the CHES codebook (available at: <https://www.chesdata.eu/ches-europe>).

Notes: The EVS-WVS questions on support for parties do not list all parties appearing in the CHES. The following parties from the table above are missing: for Germany, Pirate Party of Germany and Human Environment Animal Protection; for Greece, Greek Solution and European Realistic Disobedience Front [MeRa25]; for Portugal, Democratic Unitarian Coalition and Ecologist Party "The Greens"; for Bulgaria, Party of Slavi Trifonov; for Slovenia, The Left; for Croatia, Croatian Conservative Party.