Political Pandering and Bureaucratic Influence[†]

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Abstract

This paper examines the impact of bureaucracy on policy implementation in environments where electoral incentives generate pandering. A two-period model is developed to analyze the interactions between politicians and bureaucrats, who are categorized as either aligned—sharing the voters' preferences over policies—or intent on enacting policies that favor elite groups. The findings reveal equilibria in which aligned politicians resort to pandering, whereas aligned bureaucrats either support or oppose such behavior. The analysis further indicates that, depending on parameters, any level of bureaucratic influence can maximize the voters' welfare, ranging from scenarios with an all-powerful to a toothless bureaucracy.

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Something I've learnt not only during my time as Attorney, but also during my time as a Brexit minister, is that some of the biggest battles that you face as a minister are, in the nicest possible way, with Whitehall and internally with civil servants, as opposed to your political battles in the chamber. [...] Don't take this as an opportunity to bash the civil service. But what I have seen time and time again, both in policymaking and in broader decision making, [is] that there is a Remain bias. I'll say it. I have seen resistance to some of the measures that ministers have wanted to bring forward.

> Suella Braverman, then Attorney General of the UK. Interview with The Sunday Telegraph, July 3, 2022.

1 Introduction

National bureaucracies are an essential part of modern states, with bureaucrats—nonelected public employees or civil servants—playing a significant role in designing and implementing policies alongside elected politicians. The interaction, and sometimes conflict, between bureaucrats and politicians is interesting from both economic and social perspectives, as it may decrease the accountability of elected politicians, potentially harming voters. Additionally, it can alter the intended policies of politicians, resulting in more or less beneficial outcomes for society. While politicians may not always possess extensive policymaking experience when they assume office, bureaucrats tend to be highly educated with specialist knowledge, especially those operating at the highest levels of a state's bureaucracy. They can tap into the bureaucracy's institutional memory and know-how, all of which are crucial assets for policymaking. However, these assets can also lead to bureaucracies becoming overly powerful to the extent that they can extract rents.

Political agency models, examining how elections discipline politicians, offer a framework for exploring the role of bureaucrats in policymaking. These models reveal elections as imperfect instruments: sometimes, bad politicians imitate good politicians to get re-elected. Furthermore, even good politicians may propose sub-optimal policies for reelection purposes. The existence of bureaucrats introduces complexity in the policymaking process, potentially diminishing the effectiveness of elections as disciplining instruments.

In this article, we explore a two-period model of political agency with "good" or "bad" politicians and "good" or "bad" bureaucrats. One of two states of the world realizes, which politicians and bureaucrats—but not voters—observe. Politicians then propose a policy, and bureaucrats can attempt to change it. Given the state of the world, good politicians and good bureaucrats prefer the socially optimal policy. Their preferences over policies are aligned with those of voters. By contrast, bad politicians and bad bureaucrats

are corrupt and captured by some elites: they consistently prefer a particular policy that yields extra—albeit uncertain—rent. Voters, unable to observe the state of the world directly, can re-elect or replace incumbent politicians based on implemented policies.

Our analysis focuses on pandering equilibria, where good politicians sometimes propose policies they know are not socially optimal given the state of the world but can aid their re-election. That is, they *pander*. Voters view the implementation of such policies as a signal that politicians are good. We identify an equilibrium where good bureaucrats consistently attempt to correct current policymaking to align the policy with the state of the world. These corrections may lead to the re-election of bad politicians, who would otherwise be replaced, and could result in the removal of good politicians, who would otherwise be re-elected. Good bureaucrats assess the social costs of implementing a policy-state mismatch. If the mismatch under the state of the world in which good politicians aim to pander is relatively more socially costly than under the other state, then the good bureaucrat would seek to correct pandering behavior. This class of equilibria reflects the surviving conflict of interest between a good elected politician and a good appointed bureaucrat.

Our analysis examines pandering equilibria, where good politicians sometimes propose socially sub-optimal policies to increase their re-election chances despite understanding that such policies are not the most beneficial for society. In this scenario, voters interpret the adoption of such policies as evidence that incumbent politicians are good. We identify an equilibrium in which good bureaucrats strive to correct the politician's actions to reflect actual societal needs. This adjustment process, however, may favor the re-election of bad politicians and the ousting of good ones. Before adjusting policymaking, good bureaucrats evaluate the societal costs associated with policy misalignment. When the cost of pandering by good politicians in certain situations is significantly high, these bureaucrats work to counteract such behavior. This equilibrium highlights the ongoing conflict between good politicians' and good bureaucrats' interests.

The good bureaucrats' equilibrium behavior changes when the relative cost of policy mismatch substantially differs across states. In these cases, the good bureaucrat accommodates pandering behavior, hoping that, by doing so, a good politician will be re-elected. By contrast, bad bureaucrats do not always accommodate pandering, potentially leading to the replacement of both good and bad politicians. Both bad politicians and bad bureaucrats compare their realized rents of the first period to the expected rents of the next period before making their choices.

The general idea behind equilibrium behavior is as follows. Voters understand that politicians may be influenced or captured by certain elites. They associate policies such as reduced taxes for high-income brackets, lower corporate taxes, or salary increases for unionized workers with these elites, as such measures often align with elite interests yet are generally unpopular with the broader public. To sidestep the negative image of corruption or elite capture, a forward-looking politician may strategically choose to avoid these policies, even if they are socially optimal, opting instead to engage in pandering to secure re-election. Upon securing another term, good politicians can aim to implement policies that are truly beneficial for society. However, this strategy can be disrupted by the bureaucrats.

Several studies have investigated pandering, a phenomenon where politicians, who have more information than the electorate, choose policies that may not best suit the current circumstances but are selected to improve their re-election chances. These policy choices serve as signals to voters, indicating either the politician's alignment with societal interests (Maskin & Tirole, 2004, 2019; Merzoni & Trombetta, 2022; Trombetta, 2020) or their competence (Bils, 2023; Canes-Wrone, Herron, & Shotts, 2001; Stephenson & Fox, 2011). In our framework, pandering is primarily about demonstrating shared preferences with voters.

In recent years, the topic of bureaucrats' ability to influence policy has garnered increasing attention.¹ Bureaucrats can impact policy not only by voting in elections (Forand, 2022) but also through the effort they exert (Blumenthal, 2023; Li, Sasso, & Turner, 2020, 2023; Slough, 2022; Yazaki, 2018), or by directly altering politicians' policies (Martin & Raffler, 2021). This line of work connects to the concepts of judicial review—where the judiciary has the power to overturn executive decisions (see Stephenson & Fox, 2011)—and hierarchical accountability, where elected intermediaries can remove policymakers on behalf of voters (Vlaicu & Whalley, 2016). Related research on bureaucracy primarily focuses on how bureaucratic actions influence political accountability. Elections allow voters to hold politicians accountable for their policies; however, this mechanism does not apply to bureaucrats and politicians on policy hinders effective political oversight. This absence of efficient monitoring undermines the accountability of elected officials.

Conversely, bureaucrats serve as vital components in the policy-making process. Their expertise is essential for policy implementation and can act as a bulwark against the whims of populist leaders (Sasso & Morelli, 2021). Additionally, bureaucratic efficiency can bolster voter confidence in the effective use of tax revenues, despite concerns over bureaucratic size (Forand, 2019). However, it is also common for politicians to blame bureaucrats for policy failures or their own inadequacies (Awad, Karekurve-Ramachandra, & Rothenberg, 2023; Miller & Reeves, 2022).

The closest work to ours is Martin and Raffler (2021). In both studies, policies are

¹Readers can turn to Gailmard and Patty (2012) for a review of formal models of bureaucracy.

jointly determined by a politician and a bureaucrat, with the possibility of either being "good" or "bad." Similar to our work, a "bad" bureaucrat is not an incompetent official but one whose choices dispense with any consideration of voter welfare. Martin and Raffler (2021) focus on the politicians' re-election probabilities when bureaucrats gain more influence at their expense. Unlike their approach, where bureaucrats and politicians always select their preferred policies, our model treats these decisions as endogenous. This distinction is crucial, broadening the scope for applications and outcomes of our model, including the study of pandering and collusion.

The rest of this article is structured as follows: Section 2 introduces the model. Section 3 outlines and examines two types of pandering equilibria and discusses their existence and implications. Section 4 explores two benchmarks: an all-powerful and a toothless bureaucracy. In Section 5, we analyze the comparative statics of bureaucratic influence on the voters' welfare. Finally, Section 6 concludes. Proofs are in the Appendix.

2 The Model

We analyse a two-period political agency model. There are three players: a politician in charge, P, a bureaucrat, B, and a representative voter, V. Politicians and bureaucrats are policy-makers: in each period $t \in \{1, 2\}$, the incumbent politician and the bureaucrat put forward a policy proposal $q_t^j \in \{x, y\}, j \in \{P, B\}$. Between periods, there is an election where the voter decides whether to replace the incumbent politician with a challenger.²

Policymaking. — The period-t implemented policy, p_t , depends on the policy-makers proposals in the following way: when the politician and the bureaucrat propose the same policy, then p_t will coincide with their proposals, i.e., $p_t = q_t^P = q_t^B$. Otherwise, the implemented policy will coincide with the bureaucrat's proposal with probability $\lambda \in (0, 1)$, and with the politician's proposal with probability $1 - \lambda$. The score λ represents the bureaucrat's ability to override the politician's proposals. This score may denote institutional structures granting bureaucrats autonomy from elected officials or reflect bureaucrats' superior policy enactment abilities.

Elections.— The representative voter's electoral decision after observing the period-1's implemented policy is $\nu(p_1) \in [0, 1]$, where ν represents the probability that the voter re-elects the incumbent politician.

Information. — A policy-relevant state of the world, $s_t \in \{x, y\}$, is drawn at the beginning of each period. With probability $\rho \in (0, 1)$, the state of the world in period t is

²The challenger is not considered a formal player as it takes no action. Should the incumbent be voted out, the challenger assumes office, becoming the incumbent for the second period. Therefore, we denote the acting politician in both periods as P.

equal to x. The policy-makers perfectly observe s_t before choosing a policy proposal in period t. The voter does not observe s_1 or any state-dependent payoffs before the election takes place. Moreover, the voter does not observe the policy-makers proposals, q_1^j . This lack of access may result from the confidential nature of government operations or the untimely release of information to the public. Lastly, the bureaucrat observes q_t^P before setting forth their proposal.

Types.— Policy-makers can be either good (g) or bad (b). The bureaucrat's type, $\theta^B \in \{g, b\}$, is good with probability $\beta \in (0, 1)$. The first-period politician's type, $\theta_1^P \in \{g, b\}$, is good with probability $\pi \in (0, 1)$. The second-period politician's type, $\theta_2^P \in \{g, b\}$, depends on the voter's decision. If the voter re-elects the first-period incumbent, then the politician's type remains constant across periods, i.e., $\theta_2^P = \theta_1^P$. Otherwise, θ_2^P is drawn at the beginning of the second period according to the same distribution as θ_1^P . Policy-makers P and B privately know only their own type. The voter does not know the policymakers' types. A good policymaker is distinguished not by her competence but by her alignment with the voters' interests. Conversely, a bad policymaker seeks to extract rents regardless of the state of the world, indicating capture by special interests. Finally, the bureaucrat's type remains constant across both periods

Payoffs.— The payoffs players obtain from the policy implemented in period t depend on their own type and the period-t state of the world. The voter's payoff is

$$v(p,s) = v_1(p_1,s_1) + \delta v_2(p_2,s_2)$$

where $p = (p_1, p_2)$, $s = (s_1, s_2)$, and $\delta \in (0, 1]$ is a common time-discount factor. With some abuse of notation, we define $p_t = s_t$ as a policy that matches the realized state, and $p_t \neq s_t$ as one that does not. The voter prefers the implemented policy to match the same-period state, i.e.,

$$v_t(p_t = s_t, s_t) > v_t(p_t \neq s_t, s_t)$$
 for every $s_t \in \{x, y\}$ and $t \in \{1, 2\}$.

Good policy-makers $(\theta_t^P = g \text{ and } \theta^B = g)$ share the same preferences over policies as the voter. This remains true for good politicians who are not in office, as they become voters themselves. By contrast, bad policy-makers $(\theta_t^P = b \text{ and } \theta^B = b)$ favour policy yindependently of the state: they extract rents $r_t^j \ge 0$ if implemented policy is $p_t = y$, with $j \in \{P, B\}$ and $t \in \{1, 2\}$. If $p_t = x$, their period-t rents are zero. Rents r_t^j are distributed according to a cumulative distribution F_t^j , with mean μ_t^j and full support in $[0, \bar{R}_t^j]$, and are private information of policy-maker j only. Bad policy-makers are more interested in extracting rents than in the effect of the policy itself. To simplify our analysis, we maintain the assumption that their payoff is zero when out of office.³ Policy-makers, similarly to voters, discount future payoffs by δ . Furthermore, both types of politicians get office rents $E \geq 0$ in every period they are in charge.

Timeline.— To sum up, the timing of the game is as follows. In period 1,

- 1. s_1 , θ_1^P , θ^B , r_1^P , and r_1^B are realized. The state s_1 is observed only by the policymakers, P and B, but not by the voter, V. θ_1^P and r_1^P are private information of the politician, P. Likewise, θ^B and r_1^B are private information of the bureaucrat, B;
- 2. *P* and *B* sequentially choose policy proposals q_1^j , $j \in \{P, B\}$. *B* observes the choice of *P* before making their choice. Policy proposals are not observed by the voter, *V*. Given proposals (q_1^P, q_1^B) , the implemented policy p_1 is publicly realized;
- 3. V observes p_1 and decides whether to re-elect or replace P with a challenger whose type is drawn from the same distribution as the incumbent's;
- 4. Period-1 payoffs are paid.

In period 2,

- 1. s_2 , r_2^P , and r_2^B are realized. As before, the state s_2 is observed by the policy-makers, P and B, but not by the voter, V. If P has been replaced with a challenger, then θ_2^P is realized and is private information of the politician in office. Rents r_2^B and type θ^B are private information of the bureaucrat, B;
- 2. *P* and *B* sequentially choose policy proposals q_2^j , $j \in \{P, B\}$. *B* observes the choice of *P* before making their choice. Given proposals (q_2^P, q_2^B) , the implemented policy p_2 is publicly realized;
- 3. Period-2 payoffs are paid, and the game ends.

Strategies. — We focus on pure strategies. A politician's proposal in period-t is a function $q_t^P : \{g, b\} \times \{x, y\} \times [0, \bar{R}_t^P] \to \{x, y\}$ such that $q_t^P (\theta_t^P, s_t, r_t^P)$ is P's policy proposal in period-t when her type is θ_t^P , the state is s_t , and realized rents are r_t^P . A bureaucrat's proposal in period-t is a function $q_t^B : \{g, b\} \times \{x, y\} \times [0, \bar{R}_t^B] \times \{x, y\} \to \{x, y\}$ such that $q_t^B (\theta^B, s_t, r_t^B, q_t^P)$ is B's policy proposal in period-t when her type is θ^B , the state is s_t , the realized rents are r_t^B , and the politician's proposal is q_t^P . When policymakers are good ($\theta_t^P = g$ and $\theta^B = g$), their proposals do not depend on the realized rents. We will often use q_t^j as a shortcut to denote the above strategies, with $j \in \{P, B\}$ and $t \in \{1, 2\}$. The voter's electoral decision is a function $\nu : \{x, y\} \to \{0, 1\}$ such that $\nu(p_1)$ denotes V's electoral choice⁴ after observing policy p_1 . A posterior belief function for the voter is a

³See Besley (2006) and Merzoni and Trombetta (2022) for a similar treatment of out-of-office payoffs.

⁴Specifically, ν denotes the probability of re-election. Since we restrict attention to equilibria where the realized policy is informative about the politician's type (see Definition 1), restricting ν to be either 0 or 1 is without loss of generality.

mapping $\Pi_V : \{x, y\} \to [0, 1]$ such that $\Pi_V(p_1)$ denotes the V's posterior belief that the politician type is good after observing the realized policy p_1 . Similarly, $\Pi_B : \{x, y\} \to [0, 1]$ denotes B's posterior belief that the politician's type is good after having observed q_1^P .

Solution concept. — The equilibrium concept is pure-strategy perfect Bayesian equilibrium (PBE).⁵ The analysis focuses on *pandering* equilibria, which are defined in the following section.

3 Equilibrium Analysis

In pandering equilibria, a good politician may propose a policy they know to be suboptimal for the voter to signal their type and increase their chances of re-election. In our setup, a pandering equilibrium is characterized by the fact that, in the first period, the good politician consistently proposes policy x regardless of the state of the world. In the second period, as there is no longer an impending election, the need for pandering disappears. Considering the incentives of all policymakers in the second period, we find that, in any perfect Bayesian equilibrium (PBE), their strategies for the second period are as follows:

$$q_2^j = \begin{cases} s_2 & \text{if } \theta_2^j = g \\ y & \text{if } \theta_2^j = b \end{cases}$$
(1)

for $j \in \{P, B\}$. We can now define our pandering equilibria.

Definition 1. A pandering equilibrium (PE) is a pure-strategy PBE where, in period-1,

- i) good politicians propose policy x in state y, that is, $q_1^P(g, y, r_1^P) = x$;
- ii) the implemented policy is informative, that is, $\Pi_V(p_1) \neq \pi$ for $p_1 \in \{x, y\}$; in particular, $\Pi_V(x) > \pi$;
- iii) voters re-elect the incumbent if and only if $p_1 = x$. That is, $\nu(x) = 1$ and $\nu(y) = 0$.

The voter prefers a policy aligned with the state of the world. In period 2, only a good politician is assured of selecting a policy that matches the state consistently. Consequently, the voter benefits from ensuring a good politician's tenure. To make this choice, voters seek an informative signal that the incumbent's type is good. Observing $p_1 = x$ in period 1 serves as such a signal, compelling the voter to favor re-electing the incumbent.

At the same time, a good politician would only engage in pandering if such behavior informatively signals their type, given that voters cannot directly observe such a characteristic. Instead, voters only witness the policy enacted in the first period. For the

⁵For a textbook definition of perfect Bayesian equilibrium, see Fudenberg and Tirole (1991).

implemented policy to be informative, it must convey specific information about the politician's type. Because of bureaucratic interference, the implemented policy, p_1 , does not necessarily coincide with the politician's proposal, q_1^P . Characterizing the bureaucrats' behavior is an essential next step.

Definition 1 describes pandering equilibria through the behaviours of politicians and voters. Such a definition aligns with the approach taken by most related papers which focus on the interaction between voters and politicians. To this literature, we add the role of bureaucrats. Consequently, we must characterize pandering equilibria based on the behaviour of bureaucrats as well. The next definition completes the equilibrium description by including the behavior of bureaucrats and bad politicians.

Definition 2. A pandering equilibrium with correcting bureaucracy (PECB) is a PE where,

• good bureaucrats always propose a policy that matches with the state of the world regardless of the politician's proposal. That is,

$$q_1^B \left(\theta^B = g, s_1, r_1^B, q_1^P \right) = s_1$$

for every $s_1 \in \{x, y\}$, $r_1^B \in [0, \bar{R}_1^B]$, and $q_1^P \in \{x, y\}$;

• bad bureaucrats always propose policy y after politicians propose policy x. That is,

$$q_1^B \left(\theta^B = b, s_1, r_1^B, q_1^P = x \right) = y$$

for every $s_1 \in \{x, y\}$ and $r_1^B \in \left[0, \overline{R}_1^B\right]$;

 the bad bureaucrats' proposal after politicians propose y is state-independent and depends on realized rents r₁^B. That is,

$$q_1^B \left(\theta^B = b, s_1 = x, r_1^B, q_1^P = y \right) = q_1^B \left(\theta^B = b, s_1 = y, r_1^B, q_1^P = y \right)$$

for every $r_1^B \in [0, \overline{R}_1^B]$. From the voter's and politician's viewpoint, and in every state $s_1 \in \{x, y\}$, the probability that a bad bureaucrat proposes x after the politician has proposed y is represented by ξ , where

$$\xi := Pr(q_1^B = x \mid \theta_B = b, q_1^P = y, s_1);$$

 the bad politicians' proposal is state-independent and depends on realized rents r₁^P. That is,

$$q_1^P\left(\theta_1^P = b, s_1 = x, r_1^P\right) = q_1^P\left(\theta_1^P = b, s_1 = y, r_1^P\right)$$

for every $r_1^P \in [0, \bar{R}_1^P]$. From the voter's and bureaucrat's viewpoint, and in every

state s_1 , the probability that a bad politician proposes x is represented by γ , where

$$\gamma \coloneqq Pr\left(q_1^P = x \mid \theta_1^P = b, s_1\right).$$

In PECB, good bureaucrats aim to align policy with the state of the world, employing a "correcting" strategy that may diverge from incumbent politicians' goals. A scenario of particular interest arises when a good bureaucrat and a good politician simultaneously hold office. In such instances, both policymakers and voters agree that the optimal policy corresponds with the state of the world. However, the concurrence of two good policymakers is insufficient to guarantee the adoption of the socially optimal policy. The potential influence of bad politicians and the electoral concerns of good ones may result in the selection of an incorrect policy. In PECB, this situation can occur when the state of the world is the captured one, i.e., y.

The behavior of bad policymakers in PECB is driven by their indifference to aligning policy with the state of the world. Their primary concern is accruing rents. Upon observing a politician's proposal of $q_1^P = x$, the bureaucrat infers that this politician is more likely to be good than bad.⁶ By attempting to shift the policy to y, the bad bureaucrat maximizes the chances of obtaining rents in period 1 while simultaneously pushing the voter to oust a good politician. Conversely, a politician's proposal of $q_1^P = y$ fully reveals that the politician is bad. In this case, the bad bureaucrat faces the following trade-off: either to confirm policy y, secure immediate rents and facilitate the replacement of the surely bad politician; or to challenge the politician's proposal, aiming to keep the bad politician in power for future rent opportunities, thereby sacrificing immediate gains for assured future benefits. This decision hinges on the value of period 1's rents, r_1^B .

Lastly, the bad politicians' decision in PECB also depends on their realized rents, r_1^P . If period 1 rents from proposing $q_1^P = y$ are sufficiently high (resp. low) compared to the expected rents they can garner in period 2, then bad politicians opt to propose $q_1^P = y$ (resp. $q_1^P = x$).

3.1 Belief updating in a PECB

The voter expects a proposal $q_1^P = x$ $(q_1^P = y)$ to materialize in the same policy $p_1 = x$ $(p_1 = y)$ with some probability $X_V(Y_V)$, and to convert to $p_1 = y$ $(p_1 = x)$ with the remaining probability. Similarly, the politician expects a proposal $q_1^P = x$ $(q_1^P = y)$ to materialize in the same policy $p_1 = x$ $(p_1 = y)$ with some probability $X_P(s_1)$ $(Y_P(s_1))$, and to convert to $p_1 = y$ $(p_1 = x)$ with the remaining probability. The probabilities $X_P(s_1)$

⁶This assessment follows from the observation that, in pandering equilibria, good politicians always propose x, whereas bad ones do not.

and $Y_P(s_1)$ depend on the realized state, whereas X_V and Y_V do not.⁷

As an example, consider the probability $X_P(x)$. When politicians propose a statematching policy, say x, (i.e., $q_1^P = s_1 = x$), they expect that the implemented policy, p_1 , will surely remain equal to x if the bureaucrat is good, which happens with probability β . This expectation aligns with the behavior prescribed by PECB, whereby good bureaucrats seek to align policies with states. By contrast, bad bureaucrats always attempt to change a proposal $q_1^P = x$ into an implemented policy of $p_1 = y$. In doing so, they succeed with probability λ and fail with the remaining probability. As a result, the politician's proposal remains equal to x if a bad bureaucrat fails to overturn it, which happens with probability $(1 - \beta)(1 - \lambda)$. It follows that $X_P(x) = \beta + (1 - \beta)(1 - \lambda)$.

The probabilities $X_P(\cdot)$ and $Y_P(\cdot)$ will be instrumental in calculating the politicians' equilibrium strategy. They incorporate the politician's knowledge of the state. Differently, voters cannot condition their assessments on the state. From the voter's viewpoint,⁸

$$X_V = \beta \rho \lambda + (1 - \lambda),$$
$$Y_V = \beta (1 - \rho \lambda) + (1 - \beta) (1 - \xi \lambda)$$

Given these probabilities, and upon observing an implemented policy $p_1 = x$, voters use Bayes' rule to update their posterior belief that the politician's type is good:

$$\Pi_V(x) = \frac{\pi X_V}{\pi X_V + (1 - \pi) \left[\gamma X_V + (1 - \gamma) (1 - Y_V)\right]}.$$

The voter's posterior is consistent with the PECB outlined by Definition 2 provided that $\Pi_V(x) > \pi > \Pi_V(y)$. Indeed, the voter re-elects the incumbent after observing $p_1 = x$, and ousts the incumbent otherwise. Moreover, the implemented policy must be informative about the politician's type, which is a requirement for our definition of PE (Definition 1).

The inequalities $\Pi_V(x) > \pi > \Pi_V(y)$ hold true when $X_V > 1 - Y_V$. Using the expressions for X_V and Y_V , we can see that this last condition is satisfied provided that

$$\xi < \frac{1-\lambda}{\lambda(1-\beta)}$$

Observation 1. Existence of a PECB requires $\xi < \frac{1-\lambda}{\lambda(1-\beta)}$.

The above observation indicates that, in expectation, the bad bureaucrat should not

⁷In PECB, the probabilities from the politician's viewpoint are the following: $X_P(x) = \beta + (1-\beta)(1-\lambda)$, $X_P(y) = 1 - \lambda$, $Y_P(x) = \beta(1-\lambda) + (1-\beta)[\xi(1-\lambda) + (1-\xi)]$, and $Y_P(y) = \beta + (1-\beta)[\xi(1-\lambda) + (1-\xi)]$. ⁸In their expanded form, we have $X_V = \beta[\rho + (1-\rho)(1-\lambda)] + (1-\beta)(1-\lambda)$ and $Y_V = \beta[\rho(1-\lambda) + (1-\rho)] + (1-\beta)[\xi(1-\lambda) + (1-\xi)]$.

try to convert proposals $q_1^P = y$ into a policy $p_1 = x$ too often. If the probability ξ were to be excessively high, then the implemented policy $p_1 = x$ would no longer constitute an informative signal that the politician is good. In that case, sequential rationality would imply that voters replace politicians when the implemented policy turns out to be x. If the condition in Observation 1 is satisfied with equality, then $p_1 = x$ would not change the voter's prior, making the equilibrium non-informative.

We now turn our attention to the bureaucrat's posterior beliefs about the politician's type. After observing $q_1^P = x$, B's posterior belief that P's type is good is,

$$\Pi_B(x) = \frac{\pi}{\pi + (1 - \pi)\gamma}.$$

We obtain that $\Pi_B(x) > \pi$ as long as the probability that the bad politician proposes x in the first period is $\gamma < 1$. Since in our pandering equilibria only the bad politician proposes $q_1^P = y$ with positive probability, we also have that

$$\Pi_B(y) = 0$$

3.2 Existence of the PECB

The previous section shows that, for PECB to exist, we need a condition on the endogenous probability ξ (see Observation 1). The current section is dedicated to finding conditions that are necessary and sufficient for the existence of PECB. Before we proceed, it is instrumental to first define the *ratio of policy-state mismatch costs* (hereafter, referred simply as to relative mismatch costs) as

$$\Delta \coloneqq \frac{v(y,y) - v(x,y)}{v(x,x) - v(y,x)} > 0.$$

We shall refer to v(y, y) - v(x, y) as the mismatch costs in state y, and to v(x, x) - v(y, x) as the mismatch costs in state x. When $\Delta > 1$ (resp. $\Delta < 1$), the mismatch costs are larger in state y (resp. x) than in state x (resp. y). The next result outlines necessary and sufficient conditions under which PECB exist.

Proposition 1. A PECB exists if and only if

i) the politicians' office rents are sufficiently high,

$$\delta E \ge v(y,y) - v(x,y) - \delta \rho (1-\pi)(1-\lambda) \left[v(x,x) - v(y,x) \right];$$

ii) the relative mismatch costs are relatively high,

$$\Delta \ge \delta \rho (1 - \lambda) \left(\Pi_B(x) - \pi \right);$$

iii) the maximum of the support of the bad politician's rent distribution function in period 1 has to be relatively large,

$$\bar{R}_1^P > \delta\left(\mu_2^P + E\right) - \frac{\delta\beta\rho\lambda(1-\lambda)}{1-\lambda\left[1+\xi(1-\beta)\right]}\mu_2^P \triangleq \left(F_1^P\right)^{-1}(\gamma);$$

iv) the bad bureaucrat's rent distribution function in period 1 is not excessively skewed and it has a sufficiently large support,

$$\bar{R}_1^B > \delta \pi \rho (1-\lambda) \mu_2^B \text{ and } \frac{1-\lambda}{\lambda(1-\beta)} > F_1^B \left(\delta \pi \rho (1-\lambda) \mu_2^B\right) \triangleq \xi.$$

The proof is in the Appendix. The first condition indicates that pandering requires office rents to be high enough to incentivize good politicians to propose a sub-optimal policy for re-election purposes. The second condition influences the behavior of a good bureaucrat and is inherently met when mismatch costs in state y exceed those in state x or when relative mismatch costs are approximately symmetric. For example, the second condition is always satisfied when:

$$v(y,y) - v(x,y) \cong v(x,x) - v(y,x).$$

The final two conditions, iii) and iv), ensure that bad policymakers are motivated by short-term gains. If the rents for the first period are not high enough, the equilibrium policy fails to convey useful information about the politician's type. In such scenarios, a bad politician would always aim for re-election by proposing $q_1^P = y$ to secure higher rents in the subsequent period. Likewise, bad bureaucrats would persistently strive to influence policies to ensure the re-election of bad politicians. Consequently, the implementation of policy $p_1 = y$ would cease to serve as a reliable signal that the politician is good.

3.3 Discussion of the PECB

The previous section outlines necessary and sufficient conditions for the existence of a the pandering equilibrium with correcting bureaucracy (PECB) as described by Definition 2. This section discusses the players' equilibrium behavior in relation with those conditions.

The good politician's choice when the state is x is simple: they propose x. Doing so simultaneously ensures a policy-state match and re-election. However, in state y, the situation is more complicated because the good politician weighs the immediate policy

impact, the desire for re-election, and the benefits of office rents. Proposing y aligns with the state, but it implies losing the election, missing out on future office rents, and risking a policy-state mismatch in the following period. The significance of office rents becomes evident here. If high enough, the politician might prioritize re-election over selecting the accurate policy, as outlined in condition i) of Proposition 1.

Interestingly, condition i) may be satisfied even without office rents (i.e., when $E \leq 0$), provided the mismatch cost in state x significantly outweighs that in state y. The occurrence of pandering reduces with a lower probability of state x (ρ), a higher chance of electing a good politician (π), and greater bureaucratic capability (λ). Even if ousted, good politicians can be confident of avoiding a policy-state mismatch in period-2 when state x is relatively unlikely, and the chance of having a good successor is relatively high.

On the other hand, the bad politician's proposal is determined by a comparison between realized and expected rents, with no regard for the state of the world. If the period-1 realized rents, r_1^P , are relatively lower than period-2 expected rents, then the bad politician prefers to propose $q_1^P = x$ in the hope of getting re-elected and seizing possibly larger rents in period-2. Higher office and expected rents (E and μ_2^P) increase the chance that bad politicians propose policy x in every state. Similarly, an increase in bureaucratic power (λ), a higher likelihood of the state being x (ρ), and a greater inclination of bad bureaucrats to reject a proposal $q_1^P = y$ (ξ) diminish the likelihood of bad politicians proposing policy x.

Good bureaucrats genuinely care about policy and at the same time are unmotivated by re-election considerations. They employ a "correcting" strategy when the state of the world is x: should the politician propose $q_1^P = y$, they try to challenge such a proposal. A successful challenge ensures the immediate implementation of the appropriate policy (i.e., $p_1 = x$) and secures the re-election of an undoubtedly bad politician. Nonetheless, the good bureaucrat is aware that, should the need arise, they can oppose policy mismatches again in the future. Conversely, if policy x—the apt choice for the current state—is observed, the good bureaucrat endorses it. The decision-making process is equally clear-cut when the state of the world is y and the observed policy matches this state. Endorsing policy ynot only aligns with the correct course of action for the given state but also facilitates the dismissal of a bad politician.

The decision for the good bureaucrat is more involved in scenarios where the state of the world is y, but the politician's proposal is $q_1^P = x$. Contesting proposal x can ensure the implementation of an accurate policy for the current period, yet it risks displacing a potentially good politician. The good bureaucrat opts to challenge the incorrect proposal provided that the negative impacts of a policy-state mismatch in state x do not significantly exceed those in state y (see the second condition in Proposition 1). This decision is underpinned by the rationale that the immediate cost of endorsing an inappropriate policy (x in a y state) is justified by the potential to correct such mismatches in the future. Moreover, there is the possibility of electing a good politician for the next term, coupled with the bureaucrat's opportunity to amend any future policy mismatches.

An increase in the probability that an incoming politician will be good, or a decrease in the likelihood that a bad politician will opt for policy x (manifested as a reduction in γ), enhances the informativeness of observing policy x: specifically, $\Pi_B(x)$ rises. This development diminishes the disposition of the good bureaucrat to contest policy x when the realized state is y, due to a heightened presumption that the politician's type is good. Furthermore, a lower probability of state $x(\rho)$ increases the bureaucrat's motivation to oppose an incorrect policy in the first period. This is firstly because the scenario likely to present challenges tomorrow becomes less probable. Secondly, a reduced ρ implies an increased γ , which subsequently lowers the bureaucrat's posterior belief that the politician is good, $\Pi_B(x)$. The influence of the bureaucrat's ability to affect policy (λ) on their willingness to challenge an erroneous policy is ambiguous. On the one hand, a higher λ enhances their capability to amend a policy mismatch in the future, encouraging a proactive stance in challenging inaccuracies immediately. On the other hand, a higher λ implies a reduced γ and, consequently, an increased $\Pi_B(x)$. As a result, observing $q_1^P = x$ is stronger evidence that the politician is good, decreasing the appeal of contesting their proposal.

Bad bureaucrats are indifferent to the state of the world; their actions are solely motivated by the pursuit of immediate rents (r_1^B) and the anticipation of future rents (μ_2^B) . Upon observing a proposal $q_1^P = x$, they try to turn it into y, thereby securing today's rents and ensuring the removal of a politician who is likely to be good. However, the situation becomes more complex when politicians propose $q_1^P = y$. Despite recognizing that the incumbent politician is surely bad, and that their re-election would ensure future rents for the bureaucrat, they do not necessarily confirm policy y. The rationale behind this is that confirming policy y might lead to the displacement of the bad politician, paving the way for a potentially good successor in the next term. Consequently, if period-1's rents are significantly higher compared to the anticipated future rents, the bad bureaucrat opts to endorse policy y, prioritizing the immediate financial gain while remaining open to the uncertainties of the future political landscape.

As the influence of bad bureaucrats increases (i.e., λ increases), they become more inclined to endorse proposals $q_1^P = y$ (i.e., ξ decreases), which leads to the removal of the incumbent politician. Despite the possibility of a good politician assuming office in the subsequent term, these bad bureaucrats are confident in their ability to influence policy changes as necessary. Additionally, the likelihood of a bad bureaucrat confirming policy y decreases with an increase in the probability of electing a good politician in the next term or an increase in the probability that the forthcoming state will be x. The rationale behind this behavior is twofold: firstly, the prospect of securing future rents diminishes with the higher likelihood of a good politician's election, following the removal of the current bad one; secondly, the chance of extracting rents in the second period decreases with the likelihood of state x occurring, which poses challenges from the perspective of the bad bureaucrat, further discourages the confirmation of policy y.

In PECB, it is crucial that the upper bound in the support of the bad bureaucrat's rent distribution function is sufficiently large, as stipulated by the first part of the fourth condition in Proposition 1. Absence of this requirement would result in a scenario where the bad bureaucrat deems it non-beneficial to contest a policy proposal $q_1^P = x$ when the state of the world is y, culminating in a situation where $\xi = 1$. Such an outcome is incompatible with the established framework of our PECB. Furthermore, the essential condition that $\xi < \frac{1-\lambda}{\lambda(1-\beta)}$ imposes a specific limitation on the distribution function of the bad bureaucrat's rents (F_1^B) , as delineated in the latter portion of the fourth condition in Proposition 1.

3.4 Pandering equilibrium with pandering bureaucracy

The discussion of PECB highlights how the bureaucrats' behavior is sustained by sufficiently high relative mismatch costs, Δ . This observation is relevant for the "good" type of bureaucrat, who has preferences over policies aligned with the voters' and, in addition, is not motivated by re-election concerns. If the mismatch costs in state x are relatively high compared to those in state y, the equilibrium behaviour of the good bureaucrat changes with respect to that prescribed by PECB. Specifically, in the first period and given a sufficiently low Δ , they are willing to support policy proposals $q_1^P = x$ even when the state of the world is y. In this case, good bureaucrats are concerned about a bad politician holding office in the second period, especially if the state of the world will be x. A policy proposal $q_1^P = x$ signals that the incumbent politician is more likely to be a good than bad. Consequently, the bureaucrat would rather confirm such a proposal regardless of the state of the world, in the hope of minimizing mismatch costs in period-2.

Building on the previous observation, this section analyzes a scenario where, in the first period, the good bureaucrat supports the politician's policy proposal $q_1^P = x$ even if the initial state of the world is $s_1 = y$.

Definition 3. A pandering equilibrium with pandering bureaucracy (PEPB) is a PE where

• when politicians propose $q_1^P = y$, good bureaucrats propose $q_1^B = s_1$ for every $s_1 \in \{x, y\}$. When politicians propose $q_1^P = x$, good bureaucrats always propose

 $q_1^B = x$ regardless of the state of the world. That is,

$$q_1^B\left(\theta^B = g, s_1, r_1^B, q_1^P = x\right) = x \text{ for } s_1 \in \{x, y\}.$$

• the bad policy-makers' strategies are the same as in Definition 2.

We can recalculate the probabilities from the voters' viewpoint as follows.⁹

$$X_V = \beta \lambda + (1 - \lambda),$$

$$Y_V = \beta (1 - \rho \lambda) + (1 - \beta) (1 - \xi \lambda).$$

In PEPB, X_V equals $X_P(s_1)$ for every $s_1 \in \{x, y\}$ because the good bureaucrat's best reply to $q_1^P = x$ is the same regardless of the state.¹⁰

The voters' beliefs are consistent with the strategies outlined in PEPB if and only if $\Pi_V(x) > \pi > \Pi_V(y)$, which holds true when $X_V > 1 - Y_V$. Compared to PECB, PEPB applies a less stringent condition on the ex-ante likelihood that bad bureaucrats attempt converting a proposal $q_1^P = y$ into policy $p_1 = x$. This softening occurs because, in PEPB, a good bureaucrat supports policy proposals $q_1^P = x$ under any circumstance, making policy x a stronger indicator of the politicians' type, as such proposals are more often made by good politicians. The condition for consistent beliefs is given by Observation 2.

Observation 2. Existence of a PEPB requires $\xi < \frac{1-\lambda}{\lambda(1-\beta)} + \frac{\beta(1-\rho)}{(1-\beta)}$.

The previous observation establishes a necessary but not sufficient condition. Incorporating the good politician's equilibrium behavior in the analysis refines this condition, making it as stringent as the one applicable in PECB. Moreover, like PECB, the existence of PEPB depends on additional requirements on rents. The following proposition details all the necessary and sufficient conditions for PEPB to exist, refining Observation 2.

Proposition 2. A PEPB exists if and only if

i) the politicians' office rents are sufficiently high,

$$\delta E \ge v(y,y) - v(x,y) - \delta \rho (1-\pi)(1-\lambda) \left[v(x,x) - v(y,x) \right];$$

ii) the relative mismatch costs are relatively low,

$$\Delta < \delta \rho (1 - \lambda) \left(\Pi_B(x) - \pi \right) \right)$$

⁹In their extended form, $X_V = \beta + (1 - \beta)(1 - \lambda)$ and $Y_V = \beta[\rho(1 - \lambda) + (1 - \rho)] + (1 - \beta)[\xi(1 - \lambda) + (1 - \xi)].$

¹⁰In a PEPB, the probabilities from the politician's viewpoint the same as in PECB, with the exception of $X_P(y)$, which in PEPB takes a larger value because the good bureaucrat accommodates pandering. That is, $X_P(y) = \beta + (1 - \beta)(1 - \lambda)$.

iii) the maximum of the support of the bad politician's rent distribution function in period 1 has to be relatively large,

$$\begin{split} \bar{R}_1^P > \max \left\{ \delta \left(\mu_2^P + E \right) - \frac{\delta \beta \rho \lambda \mu_2^P}{1 - \lambda (1 + \xi) (1 - \beta)}, \\ \delta \left(\mu_2^P + E \right) - \frac{\delta \beta \rho \lambda (1 - \lambda) \mu_2^P}{1 - \lambda [1 + \xi (1 - \beta)]} \right\} &\triangleq F_1^{P, -1} \left(\gamma \right); \end{split}$$

iv) the bad bureaucrat's rent distribution function in period 1 is not excessively skewed and it has a sufficiently large support,

$$\bar{R}_1^B > \delta \pi \rho (1-\lambda) \mu_2^B \quad and \quad \frac{1-\lambda}{\lambda(1-\beta)} > F_1^B \left(\delta \pi \rho (1-\lambda) \mu_2^B \right) \triangleq \xi.$$

The proof of Proposition 2 is in the Appendix, and it follows analogous steps to the proof of Proposition 1. The key condition for the existence of PEPB is the second one in Proposition 2, which requires the relative mismatch costs to be sufficiently low.¹¹ As mentioned before, such a condition is not satisfied under approximately symmetric mismatch costs, that is, when $\Delta \approx 1$. More generally, it is not satisfied when the mismatch costs in state y are sufficiently larger than those in state x. In equilibrium, the good bureaucrat can accommodate political pandering only if avoiding future mismatches when the state is x is sufficiently profitable.

The third condition in Proposition 2 establishes that the support of the bad politician's period-1 rent distribution should be relatively large. In particular, it should be greater than the maximum between two expressions that contain the expected future rents, μ_2^P . Which of the two expression is greater depends only on whether ξ is greater than $\frac{1-\lambda}{\lambda}$. If ξ is larger, then the first expression is greater than the second; otherwise, the second expression is greater. Importantly, the second expression is identical to the one outlined in the third condition of Proposition 1. As a result, the lowest \bar{R}_1^P supporting PEPB is at least as large as the one supporting PECB.¹² This stronger requirement on the rents' support is a consequence of the good bureaucrats' different equilibrium behavior. In PEPB, they endorse $q_1^P = x$ even when the state of the world is $s_1 = y$. This equilibrium strategy provides relatively stronger incentives for the bad politician to propose $q_1^P = x$ in the first period. As a result, the bad politician must obtain higher rents in PEPB than in PECB to propose $q_1^P = y$.

¹¹This condition is the natural complement of condition ii) in Proposition 1.

¹²A sufficiently high \bar{R}_1^P ensures that bad politicians do not always propose $q_1^P = x$, thus rendering the equilibrium uninformative.

4 Bureaucracy benchmarks

In the equilibria we analyze, the bureaucracy has the power to contest the politicians' proposals, though its authority is not unlimited. If the bureaucracy were entirely powerless, or *toothless*, we would have $\lambda = 0$, effectively mirroring a traditional pandering model without any bureaucratic influence. In such a scenario, bureaucrats' decisions are irrelevant, and voters are aware that politicians' choices directly dictate the implemented policy, leading to $X_V = Y_V = 1$. Consequently, the voters' posterior beliefs are

$$\Pi_V(x) = \frac{\pi}{\pi + (1 - \pi)\gamma}.$$

The implemented policy, p_1 , constitutes an informative signal that politicians are good (i.e., $\Pi_V(x) > \pi$) as long as the bad politician has sufficiently strong incentives to choose $q_1^P = y$ in the first period (i.e., $\gamma < 1$). The good politician's incentive to choose x when the state of the world is x does not change in this equilibrium benchmark. By contrast, when the state of the world is y, the good politician chooses x as long as:

$$\delta E \ge v(y,y) - v(x,y) - \delta \rho(1-\pi) \left[v(x,x) - v(y,x) \right].$$

This condition is the same as the first one in Proposition 1 and 2 for $\lambda = 0$. Ceteris paribus, the condition is less stringent when $\lambda = 0$. A good politician knows that, if they are re-elected, a good state-policy match is guaranteed in the next term. They are not concerned that a potentially bad bureaucrat might disrupt their future actions.

Within this benchmark, the necessary condition on the bad politician's rents is

$$\bar{R}_1^P > \delta(\mu_2^P + E).$$

The above is a more demanding condition compared to the analogous requirement for the existence of PECB and PEPB. When bureaucracy is *toothless*, bad politicians do not have to worry about the next period's state being x and bureaucrat being good. They know that, in the next period, they will be able to enforce whatever policy they want. Hence, they only need to assess how period-1 rents compare with period-2's expected ones. Since future rents are comparatively more valuable, bad politicians require higher rents in period-1 to give up re-election prospects.

While we can recover a pandering equilibrium when bureaucracy is toothless, the same is not true if bureaucracy is all-powerful, i.e. when $\lambda = 1$. In such a *dictatorship of the bureaucracy*, the decisions of politicians become irrelevant and, consequently, so do those of the voters. In this benchmark, the good bureaucrat matches the policy with the state of the world, whereas the bad one always chooses y. We proceed by calculating and comparing the voter's ex-ante utility in each of the two benchmarks, that is, dictatorship of the bureaucracy and toothless bureaucracy. We obtain that

$$EU^{V}|_{\lambda=0} = [v(y,y) - v(x,y)] [(\rho - 1)(\pi + (1 - \pi)\gamma)] + [v(x,x) - v(y,x)] [\rho(\pi(1 + \delta) + \gamma(1 - \pi) + \pi\delta(1 - \pi)(1 - \gamma)] + v(y,y)(1 + \delta)(1 - \rho) + v(y,x)\rho(1 + \delta),$$

$$EU^{V}|_{\lambda=1} = [v(x,x) - v(y,x)] \beta \rho(1+\delta) + v(y,y)(1+\delta)(1-\rho) + v(y,x)\rho(1+\delta),$$

and

$$\Delta EU_{\lambda}^{V} := EU^{V}|_{\lambda=0} - EU^{V}|_{\lambda=1}.$$

Using the expressions above, we can show that, unsurprisingly, when bureaucrats are surely good (i.e., $\beta \to 1$) it is better for the voter to be under the dictatorship of the bureaucracy, while when bureaucrats are surely bad (i.e., $\beta \to 0$), it is better for the voter to have a toothless bureaucracy. Importantly, the difference in utility between the two benchmarks, ΔEU_{λ}^{V} , is strictly decreasing in β . Therefore, there exists a unique threshold on the probability of having a good bureaucrat, above which the voter would prefer dictatorship of the bureaucracy and below which they would prefer to have toothless bureaucracy. We show explicitly this threshold in the next section.

Furthermore, as the event in which the realized state is x becomes impossible (i.e., $\rho \to 0$), the voter prefers a dictatorial bureaucracy to a toothless one: toothless bureaucracy can lead to political pandering, which is harmful to the voter as the pandering state almost never realizes. As the occurrence of state x becomes certain (i.e., $\rho \to 1$), the outcome is not as clear-cut. Under toothless bureaucracy, a bad politician may propose $q_1^P = y$ in state x, and under dictatorship a bad bureaucrat that may generate a policy-state mismatch. In this case, a sufficient condition for the voter to prefer a toothless than a dictatorial bureaucracy is that good politicians are more likely than good bureaucrats (i.e., $\pi > \beta$). The same condition ensures that ΔEU_{λ}^V strictly increases in ρ .

Finally, in the absence of good politicians (i.e., $\pi \to 0$), the voter would naturally prefer a dictatorship of the bureaucracy, as only in this case they could enjoy—*ceteris*

paribus—a policy-sate match. By contrast, when all politicians are good (i.e., $\pi \to 1$), the outcome is again ambiguous. Pandering behavior and the potential presence of bad bureaucrats imply that a policy-state mismatch remains possible also in this case. Voters prefer a toothless than a dictatorial bureaucracy when the mismatch costs under state x are relatively large compared to those under state y.

5 Bureaucratic influence and voter's welfare

Due to the many parameters in our model, performing comparative statics is not a trivial task, and the calculations are often intractable. In this section, we analyse how the voter's ex-ante equilibrium welfare varies with bureaucratic influence, represented by the parameter λ . Since the expression for the voter's welfare is rather convoluted, we employ numerical and graphical analyses. To do so, we first introduce some assumptions about the model's parameters. In the Appendix, we demonstrate that this choice of parameters allows us to analyse the voter's ex-ante welfare for all values of λ . We perform this analysis for multiple values of β , π , and ρ .

Assumptions. To perform comparative statics, we assume

• the rents obtained by bad policy makers for implementing y follow a uniform distribution. That is,

$$F_t^j \sim \mathcal{U}[0,2]$$
 for every $t = \{1,2\}$ and $j = \{P,B\}$;

- $E = \delta = v(y, y) = 1$, and v(x, y) = v(y, x) = 0;
- to analyze PECB, we set v(x, x) = 1; to analyze PEPB, v(x, x) = 500.

Section 4 shows two important benchmarks, consisting in the cases where the bureaucracy is toothless ($\lambda = 0$) and where it is dictatorial ($\lambda = 1$). Under our assumptions, we obtain that $EU^V|_{\lambda=0} = 1 + \pi\rho$ and $EU^V|_{\lambda=1} = 2[1 - \rho(1 - \beta)]$. Therefore, voters prefer toothless to dictatorial bureaucracy provided that

$$\beta > \frac{\pi}{2} - \left(\frac{1-2\rho}{2\rho}\right) =: \tilde{\beta}.$$
(2)

However, reality typically stands in between those two extremes, i.e., bureaucrats have positive but limited influence over policymaking. It therefore becomes relevant to understand what are the possible effects of increased bureaucratic interference. The following analysis concerns the intermediate cases where $\lambda \in (0, 1)$. The Appendix contains multiple figures showing how the voters' ex-ante welfare is affected by bureaucratic interference for (relatively) low, medium, and high levels of β , π , and ρ .



Figure 1: Effect of bureaucratic influence on voter welfare in a PECB. Bureaucratic influence, represented by λ , can have a non-monotonic effect on the voter's welfare. Depending on parameters, intermediate values of λ can maximize or minimize welfare.

We begin by analysing PECB. The left-hand side panel of Figure 1 depicts the case where β takes values around $\tilde{\beta}$. When $\beta = \tilde{\beta}$, voters are indifferent between full bureaucratic and full political control over policymaking. The figure shows that, in these cases, voter welfare is maximized for an intermediate level of bureaucratic interference. This result highlights an inherent trade-off: higher bureaucratic influence mitigates the detrimental effects of pandering, but at the same time it weakens accountability. The right-hand side panel of Figure 1 shows that the effects of such a trade-off on the voters' welfare can be non-trivial. In some cases, intermediate levels of bureaucratic interference can yield local maxima and global minima in the voters' welfare.



Figure 2: Effect of bureaucratic influence on voter welfare in a PECB. Bureaucratic influence can have a monotonic effect on the voter's welfare. Intermediate values of λ may never maximize or minimize welfare, which can be always convex in λ .

Figure 2 tells different stories. The left-hand side panel displays situations where increased bureaucratic influence has a monotonic effect – positive or negative – on the voters' welfare. The right-hand side panel shows situations where the welfare function is always convex in λ . Moreover, the right-hand side panel of Figure 1 and the left-hand side panel of Figure 2 (in green) depict situations whereby the voters' welfare is maximized under a dictatorial bureaucracy, even though bureaucrats are more or equally likely to be corrupted than politicians. On the other hand, the right-hand side panel of Figure 2 shows a case where the voters' welfare is maximized under a toothless bureaucracy, even though bureaucrats are less likely to be corrupted than politicians.¹³

To analyse the PEPB, we need to change the relative mismatch costs, Δ . We do so by setting v(x, x) = 500. The condition on Δ , ensuring we are analysing a PEPB, requires λ taking intermediate values. Figure 3 shows two qualitatively different cases. In the left-hand side panel, increased bureaucratic influence always damages voters. The voter's welfare is maximized under full political control, where the equilibrium is a PECB. In the right-hand side panel, the voters' welfare is convex in λ and reaches a global minimum for an intermediate value of bureaucratic influence, under which the equilibrium is a PEPB.



Figure 3: Effect of bureaucratic influence on voter welfare in PECB and PEPB. The voter's equilibrium welfare is depicted in blue for those values of λ under which the equilibrium is a PEPB, and in red when the equilibrium is a PECB.

6 Conclusions

The influence of modern bureaucracies on policymaking is indisputable. However, the nature of this impact—whether consistently positive or not—remains uncertain. Bureaucrats, akin to politicians, may range from being corrupt or ineffectual to being upright and effective. The complex interplay of incentives between politicians and bureaucrats can diminish the effectiveness of elections as a means to hold politicians accountable. Yet, this same interplay has the potential to yield policies that are optimally beneficial for society. The inability to regulate bureaucrats through electoral means serves as a double-edged sword, offering both challenges and advantages.

In our model, good politicians share the same preferences over policy as the voters.

¹³From equation (2), we can see that $\tilde{\beta} > \pi$ provided that $\pi < \frac{2\rho - 1}{\rho}$, which is possible only if $\rho > \frac{1}{2}$.

However, electoral pressures compel them to engage in pandering—intentionally selecting an inappropriate policy to secure re-election. Conversely, bad policymakers prioritize obtaining benefits from enacting specific policies without regard to their suitability. Good bureaucrats face the following dilemma: whether to tolerate an undesirable policy today to increase the likelihood of a beneficial policy tomorrow or to advocate for a beneficial one today at the risk of enabling an undesirable one tomorrow. Because of the politician's electoral motivations, the presence of two good policymakers who support the socially optimal policy does not guarantee its consistent implementation across all periods and states.

Our model categorizes policymakers as "bad" because they are influenced by external entities: certain elites or interest groups offer incentives for selecting a specific policy under all situations. This assumption reflects real-world dynamics. Nonetheless, the model's validity extends to scenarios where bad policymakers might benefit from uncertain gains by implementing a specific policy, possibly through mechanisms like insider trading or manipulation of state contract awards. The findings would still apply even if we dispensed with rents for bad policymakers and instead portrayed them as purely ideological, adhering to a one-size-fits-all approach to policy. Provided that these policymakers are assumed to gain uncertain utility from enacting their preferred policy, voters would continue to favor the flexible good politician over the inflexible bad one.

This paper contributes to the body of research on the influence of bureaucracy in shaping policy and, indirectly, electoral results. Bureaucrats can either be perceived as, for example, unelected interlopers or as protectors against populist tendencies. While a competent and aligned bureaucracy is undoubtedly more desirable than a corrupt or ineffective one, especially in opposing ineffectual politicians, our analysis indicates that even such bureaucracies face the difficult choice of whether to oppose well-meaning politicians.

Appendix

Proofs

Proof of Proposition 1. We prove the proposition using a series of steps. We examine, in order, the behaviours of the good bureaucrat, the bad bureaucrat, the good politician, and the bad politician.

First, we calculate the good bureaucrat's expected payoff in different scenarios. If a good politician is re-elected, a good bureaucrat expects to get

$$\delta\left[\rho v(x,x) + (1-\rho)v(y,y)\right] \rightleftharpoons \delta V_{qB}^{gP}.$$

If a bad politician is re-elected, a good bureaucrat expects to get

$$\delta\left[\rho\left(\lambda v(x,x) + (1-\lambda)v(y,x)\right) + (1-\rho)v(y,y)\right] \rightleftharpoons \delta V_{aB}^{bP}.$$

However, recall that the bureaucrat does not know the politician's type. If the politician is removed in favour of the challenger (which, in a PECB, happens when $p_1 = y$), a good bureaucrat expects to get

$$\delta \left[\pi V_{gB}^{gP} + (1-\pi) V_{gB}^{bP} \right] \eqqcolon \delta V_{gB}^{\pi}.$$

Step 1. Consider the case where $\theta_B = g$, $s_1 = q_1^P = x$. Upon observing $q_1^P = x$ in $s_1 = x$, proposing $q_1^B = x$ (thereby confirming the politician proposal and inducing $p_1 = x$) grants the bureaucrat an expected payoff of

$$v(x,x) + \delta \left[\Pi_B(x) V_{gB}^{gP} + (1 - \Pi_B(x)) V_{gB}^{bP} \right].$$

Alternatively, the bureaucrat can contest the politician's proposal by setting forth $q_1^B = y$, obtaining

$$\lambda \left[v(y,x) + \delta \left(\pi V_{gB}^{gP} + (1-\pi) V_{gB}^{bP} \right) \right] + (1-\lambda) \left[v(x,x) + \delta \left(\Pi_B(x) V_{gB}^{gP} + (1-\Pi_B(x)) V_{gB}^{bP} \right) \right]$$

Since v(x,x) > v(y,x), $\Pi_B(x) > \pi$, and $V_{gB}^{gP} > V_{gB}^{bP}$, we obtain that in a PECB, a good bureaucrat's best reply to $q_1^P = s_1 = x$ is $q_1^B(g, x, r_1^B, x) = x$.

Step 2. Consider the case where $\theta_B = g$, $q_1^P = y$, and $s_1 = x$. Proposing $q_1^B = y$ yields the bureaucrat a bad outcome today, but guarantees that the surely bad politician is removed from office and replaced with a random challenger. The bureaucrat's expected

payoff from proposing $q_1^B = y$ in this case is

$$v(y,x) + \delta \left[\pi V_{gB}^{gP} + (1-\pi) V_{gB}^{bP} \right] = v(y,x) + \delta V_{gB}^{\pi}.$$

Differently, proposing $q_1^B = x$ may yield to the bureaucrat a better outcome in period 1, at the cost of potentially inducing the re-election of a surely bad politician. The bureaucrat's expected payoff from proposing $q_1^B = x$ in this case is

$$\lambda \left[v(x,x) + \delta V_{gB}^{bP} \right] + (1-\lambda) \left[v(y,x) + \delta \left(\pi V_{gB}^{gP} + (1-\pi) V_{gB}^{bP} \right) \right]$$

The bureaucrat's expected payoff from proposing $q_1^B = x$ is higher than that from proposing $q_1^B = y$ if

$$v(x,x) - v(y,x) > \delta\pi \left(V_{gB}^{gP} - V_{gB}^{bP} \right) = \delta\pi \left[\rho(1-\lambda) \left(v(x,x) - v(y,x) \right) \right],$$

which is always true as $\delta, \pi, \rho, \lambda \in (0, 1)$. Therefore, in a PECB, a good bureaucrat's best reply to $q_1^P = y \neq s_1 = x$ is $q_1^B(g, x, r_1^B, y) = x$.

Step 3. Consider the case where $\theta_B = g$, $q_1^P = x$, and $s_1 = y$. The good bureaucrat prefers a realized policy $p_1 = y$ in state y. Confirming $q_1^B = x$ yields the bureaucrat a bad policy outcome in the first period. However, it also yields the re-election of a politician that is more likely to be good than the challenger, as $\Pi_B(x) > \pi$. The bureaucrat's expected payoff from proposing $q_1^B = x$ is

$$v(x,y) + \delta \left[\Pi_B(x) V_{gB}^{gP} + (1 - \Pi_B(x)) V_{gB}^{bP} \right]$$

Differently, proposing $q_1^B = y$ may give the bureaucrat a better policy outcome in the first period at the cost of potentially replacing a good politician. The bureaucrat's expected payoff from proposing $q_1^B = y$ is

$$\lambda \left[v(y,y) + \delta \left(\pi V_{gB}^{gP} + (1-\pi) V_{gB}^{bP} \right) \right] + (1-\lambda) \left[v(x,y) + \delta \left(\Pi_B(x) V_{gB}^{gP} + (1-\Pi_B(x)) V_{gB}^{bP} \right) \right] + (1-\lambda) \left[v(x,y) + \delta \left(\Pi_B(x) V_{gB}^{sP} + (1-\Pi_B(x)) V_{gB}^{bP} \right) \right] + (1-\lambda) \left[v(x,y) + \delta \left(\Pi_B(x) V_{gB}^{sP} + (1-\Pi_B(x)) V_{gB}^{bP} \right) \right] + (1-\lambda) \left[v(x,y) + \delta \left(\Pi_B(x) V_{gB}^{sP} + (1-\Pi_B(x)) V_{gB}^{bP} \right) \right] + (1-\lambda) \left[v(x,y) + \delta \left(\Pi_B(x) V_{gB}^{sP} + (1-\Pi_B(x)) V_{gB}^{bP} \right) \right] + (1-\lambda) \left[v(x,y) + \delta \left(\Pi_B(x) V_{gB}^{sP} + (1-\Pi_B(x)) V_{gB}^{bP} \right) \right] + (1-\lambda) \left[v(x,y) + \delta \left(\Pi_B(x) V_{gB}^{sP} + (1-\Pi_B(x)) V_{gB}^{bP} \right) \right] + (1-\lambda) \left[v(x,y) + \delta \left(\Pi_B(x) V_{gB}^{sP} + (1-\Pi_B(x)) V_{gB}^{bP} \right) \right] + (1-\lambda) \left[v(x,y) + \delta \left(\Pi_B(x) V_{gB}^{sP} + (1-\Pi_B(x)) V_{gB}^{bP} \right) \right] + (1-\lambda) \left[v(x,y) + \delta \left(\Pi_B(x) V_{gB}^{sP} + (1-\Pi_B(x)) V_{gB}^{bP} \right) \right] + (1-\lambda) \left[v(x,y) + \delta \left(\Pi_B(x) V_{gB}^{sP} + (1-\Pi_B(x)) V_{gB}^{sP} \right) \right] + (1-\lambda) \left[v(x,y) + \delta \left(\Pi_B(x) V_{gB}^{sP} + (1-\Pi_B(x)) V_{gB}^{sP} \right) \right] + (1-\lambda) \left[v(x,y) + \delta \left(\Pi_B(x) V_{gB}^{sP} + (1-\Pi_B(x)) V_{gB}^{sP} \right) \right] + (1-\lambda) \left[v(x,y) + \delta \left(\Pi_B(x) V_{gB}^{sP} + (1-\Pi_B(x)) V_{gB}^{sP} \right) \right] + (1-\lambda) \left[v(x,y) + \delta \left(\Pi_B(x) V_{gB}^{sP} + (1-\Pi_B(x)) V_{gB}^{sP} \right) \right] + (1-\lambda) \left[v(x,y) + \delta \left(\Pi_B(x) V_{gB}^{sP} + (1-\Pi_B(x)) V_{gB}^{sP} \right) \right] + (1-\lambda) \left[v(x,y) + \delta \left(\Pi_B(x) V_{gB}^{sP} + (1-\Pi_B(x)) V_{gB}^{sP} \right) \right]$$

As a result, proposing $q_1^B = y$ is optimal for the bureaucrat if and only if:

$$v(y,y) + \delta \left(\pi V_{gB}^{gP} + (1-\pi) V_{gB}^{bP} \right) \ge v(x,y) + \delta \left(\Pi_B(x) V_{gB}^{gP} + (1-\Pi_B(x)) V_{gB}^{bP} \right)$$

Rearranging, we obtain

$$v(y,y) - v(x,y) \ge \delta(\Pi_B(x) - \pi) \left[V_{gB}^{gP} - V_{gB}^{bP} \right] = \delta(\Pi_B(x) - \pi)\rho(1 - \lambda)[v(x,x) - v(y,x)].$$

Since $\Pi_B(x) > \pi$, and $\delta, \rho, \lambda, \Pi_B(x), \pi \in (0, 1)$, we have that $\delta(\Pi_B(x) - \pi)\rho(1 - \lambda) \in (0, 1)$. If the condition is not satisfied, then it is optimal for the bureaucrat to propose $q_1^B(g, y, r_1^B, x) = x$. Therefore, in a PECB, a good bureaucrat's best reply to $q_1^P = x \neq s_1 = y$ is $q_1^B(g, y, r_1^B, x) = y$ if and only if:

$$v(y,y) - v(x,y) \ge \delta(\Pi_B(x) - \pi)\rho(1-\lambda)[v(x,x) - v(y,x)],$$

This condition can be re-written as:

$$\Delta \ge \delta \rho (1 - \lambda) (\Pi_B(x) - \pi).$$

When $\Delta = \delta \rho (1 - \lambda) (\Pi_B(x) - \pi)$, then the good bureaucrat is basically indifferent between proposing x and y. Here we assume that in this knife-edge case, the good bureaucrat challenges x, proposing y.

Step 4. Consider the case where $\theta_B = g$ and $q_1^P = s_1 = y$. Recall that, in a PECB, $\Pi_B(y) = 0$. In this case, that the good bureaucrat chooses to confirm policy y follows from the observation that, by proposing $q_1^B = x$, the bureaucrat generates with positive probability both a policy-state mismatch and the re-election of a surely bad politician. By contrast, proposing $q_1^B = y$ surely leads to a good policy outcome and the replacement of a bad politician. Thus, in a PECB, a good bureaucrat's best reply to $q_1^P = s_1 = y$ is $q_1^B (g, y, r_1^B, y) = y$.

Step 4 completes the description of the good bureaucrat's behaviour. Steps 5 and 6 describe the behaviour of the bad bureaucrat, but first, we calculate the bad bureaucrat's expected payoffs in different scenarios within our conjectured equilibrium. If a good politician is re-elected, the bad bureaucrat expects to obtain:

$$\delta\left[\rho\lambda\mu_2^B + (1-\rho)\mu_2^B\right] = \delta\mu_2^B\left[1-\rho(1-\lambda)\right] \eqqcolon \delta V_{bB}^{gP}.$$

If a bad politician is re-elected, the bad bureaucrat expects to obtain:

$$\delta \mu_2^B \rightleftharpoons \delta V_{bB}^{bP}.$$

If the politician is removed and replaced with an unknown challenger, the bad bureaucrat expects to get:

$$\delta \left[\pi V_{bB}^{gP} + (1-\pi) V_{bB}^{bP} \right] = \delta \mu_2^B [1 - \pi \rho (1-\lambda)] \eqqcolon \delta V_{bB}^{\pi}$$

We can now proceed with checking the bad bureaucrats' best replies.

Step 5. Consider the case where $\theta_B = b$ and $q_1^P = x$. The bureaucrat's posterior about the politician's type being good is $\Pi_B(x) > \pi$. The bad bureaucrat's expected utility when proposing $q_1^B = x$ is:

$$\delta \left\{ \Pi_B(x) \left[\rho \lambda \mu_2^B + (1-\rho) \mu_2^B \right] + (1-\Pi_B(x)) \mu_2^B \right\} = \delta \mu_2^B \left[1 - \Pi_B(x) \rho (1-\lambda) \right].$$

On the other hand, their expected utility when proposing $q_1^B = y$ is:

$$\lambda \left(r_1^B + \delta V_{bB}^{\pi} \right) + (1 - \lambda) \delta \mu_2^B \left[1 - \Pi_B(x) \rho(1 - \lambda) \right].$$

After some simplification, we see that when $q_1^P = x$, the bad bureaucrat is better off when proposing y rather than x when

$$r_1^B \ge \delta \mu_2^B \rho(1-\lambda) \left(\pi - \Pi_B(x)\right).$$

The right-hand side of this inequality is negative (since $\Pi_B(x) > \pi$). As a result, the above condition is always satisfied, implying that in a PECB the bad bureaucrat's best response to $q_1^P = x$ is always $q_1^B = y$ (for every $s_1 \in \{x, y\}$).

Step 6. Consider the case where $\theta_B = b$ and $q_1^P = y$. The bureaucrat's posterior about the politician's type being good is $\Pi_B(y) = 0$. The bad bureaucrat's expected utility when proposing $q_1^B = x$ is:

$$\lambda \delta V_{bB}^{bP} + (1 - \lambda) \left(r_1^B + \delta V_{bB}^{\pi} \right).$$

The bad bureaucrat's expected utility when proposing $q_1^B = y$ is:

$$r_1^B + \delta V_{bB}^{\pi}.$$

Therefore, in a PECB, and for every $s_1 \in \{x, y\}$, the bad bureaucrat's best response to $q_1^P = y$ is $q_1^B = x$ if and only if:

$$r_1^B < \delta \pi \rho (1 - \lambda) \mu_2^B.$$

Since the left-hand side of the above inequality is stochastic, and its right-hand side is not, the following observation is in order.

Observation 3. In our conjectured equilibrium, $\xi = 1$ unless the bad bureaucrats' rents upper bound satisfies

$$\bar{R}_1^B > \delta \pi \rho (1 - \lambda) \mu_2^B.$$

If the above condition is satisfied, then $\xi < 1$. However, we have an equilibrium restriction

on this last parameter, which has to satisfy $\xi < \frac{1-\lambda}{\lambda(1-\beta)}$. In our conjectured equilibrium, the probability ξ is defined by:

$$\xi := F_1^B \left(\delta \pi \rho (1 - \lambda) \mu_2^B \right).$$

This means that for our conjectured equilibrium to exist, the following two conditions must hold:

$$\bar{R}_1^B > \delta \pi \rho (1-\lambda) \mu_2^B \text{ and}$$
$$F_1^{B,-1} \left(\frac{1-\lambda}{\lambda(1-\beta)} \right) > \delta \pi \rho (1-\lambda) \mu_2^B,$$

where $F_1^{B,-1}$ is the inverse of the distribution function F_1^B .

The next steps deal with the politicians' behaviour. Steps 7 and 8 describe the good politician' behaviour, and steps 9 and 10 the bad one's. The good politician's expected payoff from re-election with a good bureaucrat is:

$$\delta \left[\rho v(x,x) + (1-\rho)v(y,y) + E\right] \rightleftharpoons \delta V_{gP}^{gB}.$$

The good P's expected payoff from re-election with a bad bureaucrat is:

$$\delta\left\{\rho\left[\lambda v(y,x) + (1-\lambda)v(x,x)\right] + (1-\rho)v(y,y) + E\right\} \rightleftharpoons \delta V_{gP}^{bB}.$$

Notice that $V_{gP}^{bB} = V_{gP}^{gB} - \rho \lambda \left(v(x, x) - v(y, x) \right).$

The good politician's expected payoff from being replaced with an unknown challenger and with a good bureaucrat is:

$$\begin{split} &\delta\{\pi \left[\rho v(x,x) + (1-\rho)v(y,y)\right] \\ &+ (1-\pi) \left[\rho \left(\lambda v(x,x) + (1-\lambda)v(y,x)\right) + (1-\rho)v(y,y)\right]\} \eqqcolon \delta U_{gP}^{gB}. \end{split}$$

The above expression can be written as:

$$U_{gP}^{gB} = \rho[\pi + (1 - \pi)\lambda]v(x, x) + (1 - \rho)v(y, y) + (1 - \pi)(1 - \lambda)\rho v(y, x).$$

The good politician's expected payoff from being replaced with an unknown challenger and with a bad bureaucrat is:

$$\delta\{\pi \left[\rho \left(\lambda v(y,x) + (1-\lambda)v(x,x)\right) + (1-\rho)v(y,y)\right] + (1-\pi) \left[\rho v(y,x) + (1-\rho)v(y,y)\right]\} \rightleftharpoons \delta U_{aP}^{bB}.$$

The above equation can be written as:

$$U_{gP}^{bB} = \pi \rho (1 - \lambda) v(x, x) + (1 - \rho) v(y, y) + \rho [(1 - \pi) + \pi \lambda] v(y, x).$$

We can further notice that $U_{gP}^{bB} = U_{gP}^{gB} - \rho \lambda [v(x, x) - v(y, x)]$. Together with the previous equivalence on V's, we obtain the following:

$$V_{gP}^{gB} - V_{gP}^{bB} = U_{gP}^{gB} - U_{gP}^{bB} = \rho\lambda[v(x,x) - v(y,x)].$$

This result will prove useful later in the proof. Further, notice that $V_{gP}^{gB} > V_{gP}^{bB}$, $U_{gP}^{gB} > U_{gP}^{bB}$, and $V_{gP}^{gB} > U_{gP}^{gB}$.

Step 7. Suppose that $\theta^P = g$ and $s_1 = x$. By selecting $q_1^P = x$, the good politician obtains in expectation:

$$\beta \left[v(x,x) + \delta V_{gP}^{gB} \right] + (1-\beta) \left[\lambda \left(v(y,x) + \delta U_{gP}^{bB} \right) + (1-\lambda) \left(v(x,x) + \delta V_{gP}^{bB} \right) \right].$$

By selecting $q_1^P = y$, the good politician obtains:

$$\begin{split} \beta \left\{ \lambda \left[v(x,x) + \delta V_{gP}^{gB} \right] + (1-\lambda) \left[v(y,x) + \delta U_{gP}^{gB} \right] \right\} \\ + (1-\beta) \xi \left[\lambda \left(v(x,x) + \delta V_{gP}^{bB} \right) + (1-\lambda) \left(v(y,x) + \delta U_{gP}^{bB} \right) \right] \\ + (1-\beta)(1-\xi) \left[v(y,x) + \delta U_{gP}^{bB} \right]. \end{split}$$

Recall that v(x,x) > v(y,x), $V_{gP}^{gB} > U_{gP}^{gB}$, and $V_{gP}^{bB} > U_{gP}^{gB}$. After re-arranging and simplifying, the first utility $(q_1^P = x)$ is always greater than the second $(q_1^P = y)$ when:

$$\begin{split} [(1-\lambda) - (1-\beta)\xi\lambda] \left(v(x,x) - v(y,x)\right) \\ \geq (1-\beta)[\xi\lambda - (1-\lambda)]\delta \left(V_{gP}^{bB} - U_{gP}^{bB}\right) - \beta(1-\lambda)\delta \left(V_{gP}^{gB} - U_{gP}^{gB}\right). \end{split}$$

Finally, by isolating ξ , we get the following inequality

$$\xi \le \frac{1-\lambda}{\lambda(1-\beta)} \frac{[v(x,x) - v(y,x)] + \delta \left[\beta \left(V_{gP}^{gB} - U_{gP}^{gB}\right) + (1-\beta) \left(V_{gP}^{bB} - U_{gP}^{bB}\right)\right]}{[v(x,x) - v(y,x)] + \delta \left(V_{gP}^{bB} - U_{gP}^{bB}\right)}.$$

The second fraction of the right-hand side is equal to 1 if:

$$V_{gP}^{gB} - U_{gP}^{gB} = V_{gP}^{bB} - U_{gP}^{bB},$$

which, as we have already shown, it holds true. Therefore, the inequality simply boils

down to $\xi \leq \frac{1-\lambda}{\lambda(1-\beta)}$, which we know is satisfied in our equilibrium by the conditions we are imposing. Therefore, in a PECB, when the state is x the good politician prefers to propose x.

Step 8. Suppose that $\theta^P = g$ and $s_1 = y$. By selecting $q_1^P = x$, the good politician obtains in expectation,

$$\begin{split} \beta \left\{ \lambda \left[v(y,y) + \delta U_{gP}^{gB} \right] + (1-\lambda) \left[v(x,y) + \delta V_{gP}^{gB} \right] \right\} \\ + (1-\beta) \left\{ \lambda \left[v(y,y) + \delta U_{gP}^{bB} \right] + (1-\lambda) \left[v(x,y) + \delta V_{gP}^{bB} \right] \right\}. \end{split}$$

By selecting $q_1^P = y$, the good politician obtains in expectation:

$$\beta(v(y,y) + \delta U_{gP}^{gB}) + (1-\beta) \left[\xi(\lambda(v(x,y) + \delta V_{gP}^{bB}) + (1-\lambda)(v(y,y) + \delta U_{gP}^{bB})) + (1-\xi)(v(y,y) + \delta U_{gP}^{bB}) \right]$$

We have that the good politician prefers proposing x to y when:

$$\begin{split} \beta \left\{ \lambda \left[v(y,y) + \delta U_{gP}^{gB} \right] + (1-\lambda) \left[v(x,y) + \delta V_{gP}^{gB} \right] \right\} \\ &+ (1-\beta) \left\{ \lambda \left[v(y,y) + \delta U_{gP}^{bB} \right] + (1-\lambda) \left[v(x,y) + \delta V_{gP}^{bB} \right] \right\} \geq \\ \beta (v(y,y) + \delta U_{gP}^{gB}) \\ &+ (1-\beta) \left[\xi (\lambda (v(x,y) + \delta V_{gP}^{bB}) + (1-\lambda) (v(y,y) + \delta U_{gP}^{bB})) + (1-\xi) (v(y,y) + \delta U_{gP}^{bB}) \right] \end{split}$$

Under the assumption that $\xi \leq \frac{1-\lambda}{\lambda(1-\beta)}$, this condition simplifies to:

$$\delta E \ge v(y,y) - v(x,y) - \delta \rho (1-\pi)(1-\lambda) \left[v(x,x) - v(y,x) \right].$$

Therefore, in a PECB, the good politician's optimal proposal in state $s_1 = y$ is $q_1^P = x$ if and only if office rents satisfy the above inequality. The right-hand side of the inequality is of course non-negative if:

$$v(y,y) - v(x,y) - \delta\rho(1-\pi)(1-\lambda) [v(x,x) - v(y,x)] \ge 0$$

Rearranging, and using the definition of Δ the condition becomes:

$$\Delta \ge \delta \rho (1 - \pi) (1 - \lambda)$$

Recall that in our conjectured equilibrium, the following condition holds: $\Delta > \delta (\Pi_B(x) - \pi) \rho(1 - \lambda)$. Notice that the former implies the latter, and that, under payoff symmetry ($\Delta = 1$), both are trivially satisfied.

Lastly, we can rearrange the condition on office rents and express it in terms of Δ . We obtain that, to have our conjectured pandering equilibrium, we need:

$$\Delta \le \frac{\delta E}{v(x,x) - v(y,x)} + \delta \rho (1-\pi)(1-\lambda).$$

Then for the conjectured equilibrium to exist we need that:

$$\frac{\delta E}{v(x,x) - v(y,x)} + \delta \rho(1-\pi)(1-\lambda) \ge \Delta > \delta \left(\Pi_B(x) - \pi\right) \rho(1-\lambda).$$

which trivially holds for $E \ge 0$, and may even hold for some negative values of E.

We finally turn our attention to bad politicians. The re-election utility a bad politician gets when there is a good bureaucrat is:

$$\delta\left\{\rho\left[\lambda\cdot 0 + (1-\lambda)\mu_2^P\right] + (1-\rho)\mu_2^P + E\right\} = \delta\left[(1-\rho\lambda)\mu_2^P + E\right] =: \delta V_{bP}^{gB}$$

The re-election utility a bad P gets when there is a bad bureaucrat is:

$$\delta\left[\mu_2^P + E\right] \eqqcolon \delta V_{bP}^{bB}.$$

We further assume that the expected utility a bad politician gets when replaced is normalized to zero (since a bad politician does not care about policy):

$$U_{bP}^{gB} = U_{bP}^{bB} = 0.$$

Step 9. Suppose $\theta^P = b$ and $s_1 = x$. By proposing $q_1^P = x$, the bad politician's expected payoff is

$$\beta \delta V_{bP}^{gB} + (1 - \beta) \left[\lambda r_1^P + (1 - \lambda) \delta V_{bP}^{bB} \right].$$

By proposing $q_1^P = y$, their expected payoff is:

$$\beta \left[\lambda \delta V_{bP}^{gB} + (1-\lambda)r_1^P \right] + (1-\beta) \left\{ \xi \left[\lambda \delta V_{bP}^{bB} + (1-\lambda)r_1^P \right] + (1-\xi)r_1^P \right\}.$$

Therefore, the bad politician prefers to propose x in state x when the former payoff is at least as high as the latter. By isolating rents r_1^P , and invoking $\xi \leq \frac{1-\lambda}{\lambda(1-\beta)}$ this is the case when:

$$r_1^P \le \delta\left(\mu_2^P + E\right) - \frac{\delta\beta\rho\lambda(1-\lambda)}{1-\lambda\left[1+\xi(1-\beta)\right]}\mu_2^P.$$

Rearranging, we find that the right-hand side of the inequality is strictly positive

provided that

$$\xi < \frac{1-\lambda}{\lambda(1-\beta)} + \underbrace{\left(\frac{\beta}{1-\beta}\right)\frac{(1-\lambda)\rho\mu_2^P}{\mu_2^P + E}}_{>0}.$$

Since $\xi < \frac{1-\lambda}{\lambda(1-\beta)}$, the above inequality is automatically satisfied.

Therefore, in a PECB, the bad politician's optimal proposal in state $s_1 = x$ is $q_1^P = x$ if and only if

$$r_1^P \le \delta(\mu_2^P + E) - \frac{\delta\beta\rho\lambda(1-\lambda)}{1-\lambda\left[1+\xi(1-\beta)\right]}\mu_2^P.$$

Moreover, the right-hand side of the above inequality is strictly positive.

Step 10. Suppose $\theta^P = b$ and $s_1 = y$. Proposing x gives the bad politician (in expectation):

$$\beta \left[\lambda r_1^P + (1-\lambda) \delta V_{bP}^{gB} \right] + (1-\beta) \left[\lambda r_1^P + (1-\lambda) \delta V_{bP}^{bB} \right].$$

Proposing y in state y gives the bad politician in expectation

$$\beta r_1^P + (1 - \beta) \left\{ \xi \left[\lambda \delta V_{bP}^{bB} + (1 - \lambda) r_1^P \right] + (1 - \xi) r_1^P \right\}.$$

We obtain that in state y the bad politician prefers to propose x when, by isolating the rents r_1^P ,

$$\beta(1-\lambda)\delta V_{bP}^{gB} + (1-\beta)[1-\lambda(1+\xi)]\delta V_{bP}^{bB} \ge \{1-\lambda[1+\xi(1-\beta)]\}r_1^P.$$

The above is exactly the same condition we have found in state x. Therefore, in a PECB, the bad politician's optimal proposal in state $s_1 = y$ is $q_1^P = x$ if and only if

$$r_1^P \le \delta(\mu_2^P + E) - \frac{\delta\beta\rho\lambda(1-\lambda)}{1-\lambda\left[1+\xi(1-\beta)\right]}\mu_2^P.$$

Similarly to the case of a bad bureaucrat, the following observation is in order.

Observation 4. For the conjectured equilibrium to exist, we need that

$$\bar{R}_1^P > \delta\left(\mu_2^P + E\right) - \frac{\delta\beta\rho\lambda(1-\lambda)}{1-\lambda\left[1+\xi(1-\beta)\right]}\mu_2^P.$$

If the condition did not hold, then the bad politician would always choose x, resulting in $\gamma = 1$ rendering the equilibrium uninformative because, in this case, we would have $\Pi_V(x) = \Pi_B(x) = \pi$.

Proof of Proposition 2. The proof of the existence of PEPB follows analogous steps to that of PECB. As a matter of fact, Steps 1, 2, 4, 5, 6, 7 and 9 are the same. The Steps in PEPB that differ from PECB are,

Step 3'. (Instead of Step 3.) In PEPB, the pandering good bureaucrat confirms x, when $s_1 = y$ and $\theta^P = x$ if and only if,

$$\Delta < \delta \rho (1 - \lambda) (\Pi_B(x) - \pi).$$

Therefore, it reverses the sign wrt. the condition in PECB. When $\Delta = \delta \rho (1-\lambda) (\Pi_B(x) - \pi)$, we assume the good bureaucrat proposes y.

Step 8. (Instead of Step 8.) Suppose that $\theta^P = g$ and $s_1 = y$. By selecting $q_1^P = x$, the good politician obtains in expectation,

$$\beta \left[v(x,y) + \delta V_{gP}^{gB} \right] + (1-\beta) \left\{ \lambda \left[v(y,y) + \delta U_{gP}^{bB} \right] + (1-\lambda) \left[v(x,y) + \delta V_{gP}^{bB} \right] \right\}$$

The reason is that now the good bureaucrat panders, i.e., she confirms x. By selecting $q_1^P = y$, the good politician obtains in expectation:

$$\beta(v(y,y) + \delta U_{gP}^{gB}) + (1-\beta) \left[\xi(\lambda(v(x,y) + \delta V_{gP}^{bB}) + (1-\lambda)(v(y,y) + \delta U_{gP}^{bB})) + (1-\xi)(v(y,y) + \delta U_{gP}^{bB}) \right]$$

We have that the good politician prefers proposing x to y when:

$$\begin{split} \beta \left[v(x,y) + \delta V_{gP}^{gB} \right] + (1-\beta) \left\{ \lambda \left[v(y,y) + \delta U_{gP}^{bB} \right] + (1-\lambda) \left[v(x,y) + \delta V_{gP}^{bB} \right] \right\} \geq \\ \beta (v(y,y) + \delta U_{gP}^{gB}) \\ + (1-\beta) \left[\xi (\lambda (v(x,y) + \delta V_{gP}^{bB}) + (1-\lambda) (v(y,y) + \delta U_{gP}^{bB})) + (1-\xi) (v(y,y) + \delta U_{gP}^{bB}) \right] \end{split}$$

Under the assumption that $\xi \leq \frac{1-\lambda}{\lambda(1-\beta)}$, this condition simplifies to:

$$\delta E \ge v(y,y) - v(x,y) - \delta \rho (1-\pi)(1-\lambda) \left[v(x,x) - v(y,x) \right].$$

which is the same for PEPB and PECB.

Step 10'. (Instead of step 10.) Suppose $\theta^P = b$ and $s_1 = y$. Proposing x gives the bad politician (in expectation):

$$\beta \delta V_{bP}^{gB} + (1 - \beta) \left[\lambda r_1^P + (1 - \lambda) \delta V_{bP}^{bB} \right].$$

Proposing y in state y gives the bad politician in expectation

$$\beta r_1^P + (1 - \beta) \left\{ \xi \left[\lambda \delta V_{bP}^{bB} + (1 - \lambda) r_1^P \right] + (1 - \xi) r_1^P \right\}.$$

We obtain that in state y the bad politician prefers to propose x when, by isolating the rents r_1^P ,

$$\beta \delta[(1-\rho\lambda)\mu_2^P + E] + (1-\beta)[1-\lambda(1+\xi)]\delta[\mu_2^P + E] \ge \{1-\lambda[(1-\beta)(1+\xi)]\}r_1^P.$$

Therefore, in a PEPB, the bad politician's optimal proposal in state $s_1 = y$ is $q_1^P = x$ if and only if

$$r_1^P \leq \delta(\mu_2^P + E) - \frac{\delta\beta\rho\lambda}{1 - \lambda(1 + \xi)(1 - \beta)}\mu_2^P.$$

Similarly to the case of a bad bureaucrat, the observation below follows.

Observation 5. In the PEPB, there are two different conditions over \bar{R}_1^P in the form of lower bounds. Therefore, the greater will be binding. As a result, for the bad politician to choose x with probability $\gamma < 1$, it must be that

$$\bar{R}_1^P > \max\left\{\delta\left(\mu_2^P + E\right) - \frac{\delta\beta\rho\lambda}{1 - \lambda(1 + \xi)(1 - \beta)}\mu_2^P, \delta\left(\mu_2^P + E\right) - \frac{\delta\beta\rho\lambda(1 - \lambda)}{1 - \lambda[1 + \xi(1 - \beta)]}\mu_2^P\right\}$$

Further on comparative statics

This section elaborates on the choice of parameters and conditions underpinning the analysis conducted in Section 5. We begin by selecting the policymakers' rents distribution.

Assumption. $F_t^j \sim \mathcal{U}[0,2]$ for every $t = \{1,2\}$ and $j = \{P,B\}$.

From the above assumption, it follows that $\mu_t^j = 1$ for every $t = \{1, 2\}$ and $j = \{P, B\}$. Recall that, in both PECB and PEPB, the score ξ is defined by $\xi := F_1^B \left(\delta \pi \rho (1-\lambda) \mu_2^B\right)$. Under our assumptions on the rents' distribution, we obtain¹⁴

$$\xi = \frac{\delta \pi \rho (1 - \lambda)}{2} \in [0, 1/2].$$

In equilibrium, we need to satisfy $\xi < \frac{1-\lambda}{\lambda(1-\beta)}$. By substituting for ξ and rearranging, the condition becomes $\delta \pi \rho \lambda(1-\beta) < 2$, which is always satisfied for every parameter choice.

¹⁴Our distributional assumptions accommodate for the possibility that more influential bureaucrats (i.e., with higher λ) can receive higher rents. For example, the probability ξ remains the same even if $F_t^B \sim \mathcal{U}[0, 2(1+k\lambda)]$ for $t \in \{1, 2\}$ and some k > 0. In this case, $\mu_2^B = 1 + k\lambda$, and $\xi = \frac{\delta \pi \rho(1-\lambda)}{2}$.

In PECB, the score γ is defined as $\gamma := F_1^P \left(\delta(\mu_2^P + E) - \frac{\delta \beta \rho \lambda(1-\lambda)}{1-\lambda[1+\xi(1-\beta)]} \mu_2^P \right)$. By substituting for ξ and implementing our distributional assumptions, we obtain¹⁵

$$\gamma = \min\left\{1, \max\left\{0, \frac{\delta}{2}\left[1 + E - \frac{\beta\rho\lambda(1-\lambda)}{1-\lambda\left[1 + \frac{\delta\pi\rho(1-\lambda)(1-\beta)}{2}\right]}\right]\right\}\right\}.$$
(3)

To ensure that $\gamma < 1$, we need a condition on office rents E. Such a condition is¹⁶

$$E < \left(\frac{2}{\delta} - 1\right) + \frac{\beta \rho \lambda (1 - \lambda)}{1 - \lambda \left[1 + \frac{\delta \pi \rho (1 - \lambda)(1 - \beta)}{2}\right]}.$$
(4)

In PEPB, the score γ is defined differently than in PECB. However, condition *iii*) in Proposition 2 shows that the two definitions coincide, provided that $\xi \leq \frac{1-\lambda}{\lambda}$. By contrast, the score ξ remains the same in both equilibria types. As a result, we have that $\xi = \frac{\delta \pi \rho(1-\lambda)}{2} < \frac{1-\lambda}{\lambda}$ is always satisfied. Given our distributional assumptions, the condition on office rents (4) must hold in PEPB as well.

At the same time, condition i) in Propositions 1 and 2 tells us that office rents must be sufficiently high. Specifically,

$$E \ge \frac{1}{\delta} \left[v(y,y) - v(x,y) - \delta \rho (1-\pi) (1-\lambda) \left(v(x,x) - v(y,x) \right) \right], \tag{5}$$

To proceed with the analysis, we first need to set our parameters and check that all conditions are satisfied.

Assumption. We set $\delta = v(y, y) = 1$, v(x, y) = v(y, x) = 0, and $v(x, x) = k \ge 1$.

Given our parameters of choice, the two conditions over the office rents are

$$E \ge 1 - \rho(1 - \pi)(1 - \lambda)k =: g(\lambda),$$
$$E < 1 + \frac{\beta \rho \lambda (1 - \lambda)}{1 - \lambda (1 + \frac{\pi \rho (1 - \lambda)(1 - \beta)}{2})} =: f(\lambda)$$

The functions $g(\lambda)$ and $f(\lambda)$ are strictly increasing in λ and such that g(1) = f(0) = 1.¹⁷ By selecting E = 1, we can perform our numerical comparative statics exercise for every $\lambda \in [0,1)$ because $g(\lambda) < E = 1 \leq f(\lambda)$. In addition, the voter's welfare is continuous in

$$\lim_{\lambda \to 1^{-}} \gamma = \frac{\delta}{2} \left[1 + E - \frac{2\beta}{\delta \pi (1 - \beta)} \right].$$

¹⁶When $\gamma = 1$, both types of politician always propose $q_1^P = x$. As a result, policy $p_1 = x$ cannot convey information about the politician's type, violating the condition $\Pi_V(x) \neq \pi$. ¹⁷Specifically, $\frac{dg(\lambda)}{d\lambda} = \rho(1-\pi)k > 0$ and $\frac{df(\lambda)}{d\lambda} = \frac{4\beta\rho}{(2-(1-\beta)\pi\rho\lambda)^2} > 0$.

¹⁵The score γ is not defined for $\lambda = 1$. In this extreme case, the politician's choice is irrelevant. However, we obtain

 λ for all $\lambda \in [0, 1]$, with no discontinuities at $\lambda = 0$ or $\lambda = 1$. Therefore, we can perform comparative statics for the full range of $\lambda \in [0, 1]$.

Assumption. We set E = 1.

To study a PECB, we set v(x, x) = 1 to ensure that condition *ii*) in Proposition 1 is always satisfied for every value of λ . By contrast, more care is needed when studying a PEPB. Proposition 2 tells us that a necessary condition for the existence of a PEPB is

$$\Delta < \delta \rho (1 - \lambda) \left[\frac{\pi (1 - \pi)(1 - \gamma)}{\pi + (1 - \pi)\gamma} \right]$$
(6)

Since the right-hand side of the inequality is less than one, we need to set v(x, x) such that Δ is also less than one. We choose v(x, x) = 500.

Assumption. We set v(x, x) = 1 to analyse PECB, and v(x, x) = 500 to analyse PEPB.

Condition (6) is violated for certain values of λ . As $\lambda \to 1$, the right-hand side of the inequality shrinks to zero, violating the necessary condition to be in a PEPB. The same happens as $\gamma \to 1$. From (3), we can see that, under our choice of parameters, $\lim_{\lambda\to 0} \gamma = 1$. As a result, condition (6) does not hold for relatively high and relatively low values of λ . Differently, it holds for all intermediate values of λ .¹⁸ Our comparative statics exercise takes into account that, for extreme values of λ , the equilibrium we are analysing is a PECB and not a PEPB.

The following graphs plot the voter's ex-ante welfare in a PECB as a function of λ and for relatively low, intermediate, and high values of π , β , and ρ .

¹⁸The function $\delta \rho(1-\lambda) \left[\frac{\pi(1-\pi)(1-\gamma)}{\pi+(1-\pi)\gamma} \right] - \Delta$ is concave in λ . Therefore, it may give us two thresholds for λ in [0, 1]. An equilibrium is a PEPB only for values of λ between those two thresholds, if any.



Figure 4: The voter's expected welfare in a PECB as a function of bureaucratic influence and for different parameters' combination.

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