Reputation, Term Limits, and Incumbency (Dis)Advantage

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Abstract

We study a dynamic model of electoral accountability in the presence of term limits. Politicians’ policy preferences are their private information. Early-term officeholders use their actions to influence the electorate’s beliefs about their preferences and improve their re-election prospects. The resulting behavior may be socially desirable (“good reputation effects”) or undesirable (“bad reputation effects”). All else equal, under high office motivation, good reputation effects give rise to incumbency disadvantage while bad reputation effects induce incumbency advantage. We relate these results to empirical patterns on incumbency effects across democracies.

1. Introduction

This short paper concerns electoral accountability and incumbency effects. In democracies, voters delegate policy decisions to elected politicians. Such delegation poses challenges, however: there is no formal contract governing what decisions an officeholder takes (so there is moral hazard), and officeholders may have their own policy preferences that only they know (so there is adverse selection). The primary instrument that voters can use to control officeholders—to hold them accountable for their actions—is the decision of re-election. Two questions arise:

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does politicians’ desire for re-election lead to beneficial outcomes for the electorate, and does the 
resulting political behavior generate an incumbency (dis)advantage?

The theoretical literature on electoral accountability with adverse selection and moral hazard 
has largely used either one- or two-period models (Ashworth, 2012).\(^1\) In this paper, we study an 
infinite-horizon model of repeated elections in which politicians are subject to a two-term limit, 
in the tradition of Banks and Sundaram (1998). Our model focuses attention on the asymmetry 
voters face between re-electing an incumbent into his second term, when he will be electorally 
unaccountable, and electing a challenger who can be held electorally accountable in his first 
term. This issue cannot be satisfactorily addressed in one- or two-period models.

As is standard, first-term incumbents in our model choose policies based not only on their 
policy preferences, but also to affect voters’ beliefs about these preferences; i.e., politicians want 
to build a reputation that will make voters more inclined to re-elect them. Importantly, our frame-
work accommodates both good and bad reputation effects: re-election concerns (accountability) 
can alter incumbents’ policy choices in a way that is either beneficial or harmful to the elec-
torate’s welfare. Good reputation effects include higher effort, less corruption, etc. Bad reputa-
tion effects involve policy distortions, also referred to as pandering (e.g., Canes-Wrone, Herron, 
and Shotts, 2001; Maskin and Tirole, 2004). In either case, the reason an incumbent alters his 
behavior is the same—to signal to voters that he is a “good” type, viz., that he is of high ability 
and/or that his ideology is aligned with theirs. What distinguishes a setting of good reputation 
effects from one of bad reputation effects is the welfare consequences of incumbents’ signaling.

We provide a formal analysis of policymaking when politicians are strongly office motivated. 
We show that reputation concerns have large effects on the policy choices of a first-term incum-
bert.\(^2\) When reputation effects are harmful voters may prefer an unaccountable officeholder in 
his second term, even one whose policy preferences are known to be different from the elec-
torate’s, to a first-term incumbent whose preferences may be aligned but who panders because

\(^1\) Exceptions include Duggan (2000), Schwabe (2010), and papers mentioned subsequently. The seminal work of 
Barro (1973) and Ferejohn (1986) incorporated moral hazard but not adverse selection.

\(^2\) This finding contrasts with the conclusions of a stimulating paper by Duggan (2015). Duggan argues that term 
limits put a bound on how much incumbents will alter their policies due to re-election concerns, no matter the 
strength of office motivation. Duggan’s (2015) reasoning, cast in a good-reputation context, goes as follows: for 
incumbents’ policies to be affected at all by re-election concerns, the electorate’s benefit from electing a challenger 
cannot be higher than from re-electing an incumbent who is known to be the best type — if it were higher, then 
the incumbent would never be re-elected (no matter the electorate’s beliefs about his type), and hence the incum-
bent would act as if he were unaccountable even in his first term. Our analysis reveals that this logic turns on 
elections being entirely predictable. When electoral outcomes are subject to some realistic uncertainty— we model 
voters’ preferences as also depending on familiar “valence” shocks—then a first-term incumbent always benefits 
from increasing his reputation. As office motivation, and hence re-election concerns, get arbitrarily large, first-term 
incumbents will alter their policies to arbitrarily large degree.
of re-election concerns. On the other hand, when reputation effects are beneficial voters may prefer a first-term officeholder whose preferences they are uncertain about, but who is motivated to work for re-election, to any type of second-term officeholder. Consequently, voters’ expected utility from re-electing an incumbent can, on average, be higher or lower than from electing a challenger depending on the environment.

Our analysis generates new insights into the effects of incumbency. An incumbency advantage (resp., disadvantage) is said to exist when an incumbent wins re-election more (resp., less) than half the time. As we abstract from mechanisms affecting which candidates run for office, and winning an election is not informative about a candidate’s quality, incumbency (dis)advantage in our model is attributable to the effects of holding office per se. We show that incumbents’ re-election rates are higher in settings of bad reputation than under good reputation; moreover, we identify a simple condition under which there is an incumbency advantage with bad reputation but an incumbency disadvantage with good reputation. The logic derives from that mentioned earlier: under bad reputation, officeholders’ behavior is worse in their first term than in their second term; hence, all else equal, voters prefer to re-elect incumbents (who will then be in their second term) than to elect challengers (who will be in their first term). The reasoning is reversed under good reputation. It bears emphasis that, on average, the only feature distinguishing incumbents from their challengers is how term limits alter their respective political horizons: a second-term officeholder will be unaccountable while a first-time officeholder will be accountable. In other words, we are identifying a distinct effect of incumbency from “direct” effects such as better fundraising opportunities or increased visibility discussed elsewhere (e.g., Mayhew, 1974; Cain, Fiorina, and Ferejohn, 1987; Gordon and Landa, 2009).

Our results on incumbency effects may help understand cross-country variation documented by empirical research. A substantial literature has established incumbency advantage in U.S. elections (e.g., Erikson, 1971; Gelman and King, 1990; Ansolabehere and Snyder, 2002). The advantage persists even when the incumbent was initially elected in an election that was close to tied (Lee, 2008), which shows that the incumbency advantage is above and beyond any initial selection effects (cf., Ashworth and Bueno de Mesquita, 2008). A similar incumbency advantage

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3 Kartik and Van Weelden (2015) first highlighted this phenomenon of “a known devil is better than an unknown angel” in a one-period model with a different focus; see also Acemoglu, Egorov, and Sonin (2013). In some models, such as Smart and Sturm (2013), even though pandering results in inefficiency, it is not the case that voters would prefer an unaccountable officeholder whose preferences are misaligned to an accountable officeholder with uncertain preferences. Smart and Sturm (2013) study a different issue than we do; they show that, when office motivation is limited, term limits can be beneficial because of selection effects: incumbents’ behavior is altered in a way that helps voters retain only good incumbents. These selection benefits vanish as office motivation grows.

4 Many studies concern Congress, in which there are no term limits; however it has also been demonstrated that there is an incumbency advantage in U.S. state elections with term limits (Ansolabehere and Snyder, 2004; Fowler and Hall, 2014). We return to this point in the Conclusion.
has also been noted in Canada (Kendall and Rekkas, 2012) and Western Europe (Hainmueller and Kern, 2008; Eggers and Spirling, 2015). However, in other parts of the world, the incumbency advantage is smaller and may even be negative; several scholars have argued that there is an incumbency disadvantage, conditional on random election, in India (Uppal, 2009), Brazil (Klašnja and Titiunik, 2015), Zambia (Macdonald, 2014), and Eastern Europe (Klašnja, 2015a).5

Our theory accounts for differential incumbency effects based on how the effects of reputation concerns generated by accountability depend on institutional features. Electoral accountability no doubt has both beneficial and distortionary effects, with the relative magnitude of the two effects likely to vary across democracies. We find it plausible that the beneficial effects of accountability in generating desirable political behavior (e.g., less corruption and more policy effort) dominate its negative effects in places such as India, Brazil, Zambia, and Eastern Europe. Indeed, these benefits are estimated to be substantial: Ferraz and Finan (2011) conclude that re-election opportunities reduce Brazilian mayors’ misappropriation by 27%. Our model’s predictions accordingly tilt towards an incumbency disadvantage in the developing world. Concerns with corruption tend to be more muted in the U.S. and other developed countries, arguably because of institutional structures such as greater transparency, trust in the legal system, and even norms. When such institutions are more effective, the harmful policy distortions emerging from accountability become relatively more important. Hence, our model’s implications favor incumbency advantage in the U.S. and Western Europe.

We are not the first to rationalize incumbency (dis)advantage beyond initial selection. Some explanations for incumbency effects focus on voters rewarding or punishing incumbents for their past behavior (e.g., Fiorina, 1977; Uppal, 2009). However, rational prospective voters must evaluate the value of re-electing an incumbent versus replacing him with a new politician. Scholars have nevertheless shown that an incumbency advantage can emerge due to noisy signaling by incumbents using messages that are payoff irrelevant to voters (Caselli, Cunningham, Morelli, and Moreno de Barreda, 2014), voters imperfectly observing previous electoral margins (Fowler, 2015), or learning by doing (Dick and Lott, 1993) and legislative seniority rules (Muthoo and Shepsle, 2014; Eguia and Shepsle, 2015). Incumbency disadvantage can emerge when tenure in office increases a politician’s ability to secure personal rents (Klašnja, 2015b). Eggers (2015) demonstrates that either incumbency advantage or disadvantage can be generated by non-random retirements as well as by asymmetries or trends in the distribution of politicians’ quality. Prato and Wolton (2015) discuss how electoral campaigns can exacerbate or mitigate a

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5 Estimating the effect of incumbency is more complicated outside the U.S., particularly in countries where there are many parties, party switching is more prevalent, and/or incumbent retirements are more common. De Magalhaes (2015) discusses how these issues can lead to biased estimates; he advocates a specification in which he finds neither an incumbency advantage nor disadvantage in Brazil and India.
pre-existing incumbency advantage. Relative to these other papers, we develop a novel mechanism and provide a unified framework to understand both incumbency advantage and disadvantage. Our theory complements others and appears well suited to addressing cross-country variation in incumbency rates.

2. Model

We elucidate our points using a simple model. There is an infinite horizon, with discrete periods indexed \( t = 1, 2, \ldots \). In each period \( t \): (i) a policymaker (PM) is elected into office by a representative voter; (ii) the PM privately observes a state of the world, \( s_t \in \mathbb{R} \), which is drawn independently across time from a continuous distribution \( F(\cdot) \) whose support is equal to \( \mathbb{R} \); and (iii) the PM then chooses a policy action \( a_t \in \{0, 1\} \).

Elections. There is a new (representative or median) voter in each period; alternatively, there is a long-lived voter who acts myopically. At the beginning of any period \( t \), that period’s voter observes the entire history of electoral outcomes and PMs’ actions, the states \((s_1, \ldots, s_{t-2})\), and then elects the PM for period \( t \).\(^6\) PMs are subject to a two-term limit. In any period \( t > 1 \), if the incumbent PM has just completed his first term, then he competes against a new challenger. In period 1 and in any \( t > 1 \) where the incumbent has completed his second term, two new challengers compete against each other; for simplicity, we assume directly in this case that a random challenger takes office. A PM who has served two terms or who loses an election will never be a candidate for office again.

Voters’ preferences. The voter’s payoff in period \( t \) is \( g(s_t)a_t + v_t \), where (i) \( g(\cdot) \) is a non-decreasing function that is integrable with respect to \( F \) and satisfies \( g(s) > 0 \) for \( s > 0 \), and (ii) \( v_t \) is the period \( t \) PM’s valence. Thus, action 1 is optimal for the voter in any state \( s > 0 \), and possibly also in some lower states. Each politician’s valence is drawn independently from a mean-zero continuous cumulative distribution \( \Phi(\cdot) \) whose support is equal to \( \mathbb{R} \).\(^7\) A politician’s valence is persistent across his political career; it is publicly revealed at the end of his first term in office but is unknown to all players prior to that.

Politicians’ preferences. A politician can be one of two types, \( \theta \in \{0, b\} \); this is his private information and drawn from some non-degenerate distribution (independently from the state, across

\(^6\) What is important is that the voter observes the PM’s action in the previous period (we could allow for imperfect observation) while not (perfectly) observing the previous period’s state; the other observability assumptions are purely for convenience.

\(^7\) Our results hold even if the valence shock and/or the state are bounded, so long as their supports are sufficiently large.
politicians, and from a politician’s own valence). A politician’s type is persistent across his political career, and never observed by the voter. We denote the ex-ante probability of type $\theta = 0$ by $p \in (0, 1)$. A politician’s payoff if not elected into office is 0; in any period $t$, the PM’s payoff is $k + (s_t - \theta)a_t + \mu_\theta$. Here, $k > 0$ is an office-holding benefit, while the remaining sum represents policy utility. In the absence of electoral accountability—in particular, during a PM’s second-term in office, or if politicians’ types were commonly known—a period $t$ PM of type $\theta$ would choose $a_t = 1$ if and only if (ignoring indifference) $s_t - \theta > 0$. We set $\mu_\theta := -(1 - F(\theta))E[s - \theta|s \geq \theta]$, so that the expected value of being in office in a period is the same (viz., $k$) for both types of politicians in the absence of electoral accountability. This choice of $\mu_\theta$ is not essential but simplifies the subsequent algebra. A politician’s lifetime payoff is the sum of his payoffs in the (two or fewer) periods he holds office.

In the absence of accountability, a PM of type $b$ takes action 1 in a subset of states in which a PM of type 0 does; moreover, type 0 takes action 1 only when the voter would want him to. As the voter’s payoff would be higher from an unaccountable PM of type 0 than type $b$, we refer to type 0 as the good type and type $b$ as the bad type. Our framework accommodates different interpretations of why the type-$b$ PM is “bad”. The state $s$ could reflect the social benefit of action $a = 1$ over $a = 0$, with a bad PM being ideologically biased towards $a = 0$. Alternatively, $s$ could reflect the net social benefit of taking action $a = 1$ less the private cost (in terms of effort or forgone rent-seeking opportunities) to a type-0 PM from doing so; a bad PM could be less competent or more corruptible and so have a higher private cost of taking $a = 1$. In other words, a politician’s type may reflect ideology, competence, corruptibility, or other traits that affect his preferences over actions.

Solution concept. The PM in period $t$ chooses which action $a_t \in \{0, 1\}$ to take as a function of his (persistent) type, $\theta_t \in \{0, b\}$, the number of times he can still be re-elected, $r_t \in \{0, 1\}$, as well as the state $s_t \in \mathbb{R}$. We denote the period $t$ PM’s strategy by a function

$$
\alpha_t : \{0, b\} \times \{0, 1\} \times \mathbb{R} \to \{0, 1\}.
$$

We say that politicians’ strategies are stationary if, for all $(\theta, r, s)$ and all periods $t$ and $t'$,

$$
\alpha_t(\theta, r, s) = \alpha_{t'}(\theta, r, s).
$$

We study stationary perfect Bayesian equilibria in pure strategies, henceforth referred to

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8Our analysis can be extended to more types and actions by building on Kartik and Van Weelden’s (2015) Supplementary Appendix.
as stationary equilibria. In a stationary equilibrium: (i) each period’s voter optimally decides whether to retain the incumbent given politicians’ strategies and her beliefs about the incumbent’s type; (ii) voters’ beliefs are derived by Bayes’ rule on the equilibrium path; (iii) PMs choose their actions optimally given voters’ retention behavior; and (iv) politicians’ strategies are stationary.

2.1. Good and Bad Reputation

Re-election concerns can generate either beneficial or harmful reputation effects, as follows.

**Good reputation.** If \( g(s) > 0 \) for all \( s \), then the voter prefers action \( a = 1 \) no matter the state. In this case \( a = 1 \) is an unambiguously good action, while \( a = 0 \) is something undesirable such as rent-seeking behavior, corruption, low policy effort, etc. This setting corresponds to canonical agency models, such as those studied by Banks and Sundaram (1993, 1998), Duggan (2015), and Duggan and Martinelli (2015), among others. Since a PM of type 0 takes action \( a = 1 \) more often than one of type \( b \) in the absence of accountability, it is intuitive (and will be formally confirmed) that re-election concerns will affect first-term PMs’ behavior in a manner that benefits voters. Accordingly, we say that \( g(s) > 0 \) for all \( s \) is a setting of good reputation.

**Bad reputation.** If \( g(s) < 0 \) for some \( s \), then it becomes possible for accountability to induce a PM to take action \( a = 1 \) more often than desired by the voter. (As noted earlier, such behavior cannot arise without accountability.) Put differently, this is a setting in which a PM’s re-election concern may cause “pandering” that is potentially harmful to the voter, as in Acemoglu et al. (2013) and Kartik and Van Weelden (2015). In this setting, the state \( s \) captures which policy action is socially desirable. The bad type of politician, \( \theta = b \), is biased towards action \( a = 0 \), either because of ideology or competence. If

\[
\mathbb{E}[g(s)|s < b] < 0, \tag{1}
\]

then \( \mathbb{E}[g(s)] < (1 - F(b))\mathbb{E}[g(s)|s \geq b] \), and so the voter is better off with an unaccountable bad type than a PM who takes action \( a = 1 \) regardless of the state. When condition (1) is satisfied we say that the setting is one of bad reputation; the reason is that, as we will show, strong re-election concerns can lead to worse outcomes for the voter than no accountability.

We emphasize that in both cases—good and bad reputation—an accountable PM is trying to signal that he is the good type, \( \theta = 0 \). Bad (resp., good) reputation arises when the welfare effects

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\(^9\) Our main points also apply without the restrictions to pure strategies or stationarity. Focussing on pure strategies is without loss of generality: given any profile of strategies, it is a measure zero event for any player to be indifferent. Stationarity is not essential either but it simplifies the exposition substantially.
of the PM trying to signal that he is a good type are harmful (resp., beneficial) to the voter.

3. Results

As a second-term PM (one with \( r = 0 \)) faces a binding term limit, he will simply choose his myopically preferred policy, which is \( a = 1 \) if and only if \( s > \theta \). Hence the expected payoff to a voter from re-electing an incumbent when he is perceived as the good type (\( \theta = 0 \)) with probability \( \hat{p} \) and is known to have valence \( v \) is

\[
U(\hat{p}) + v := \hat{p}(1 - F(0)) \mathbb{E}[g(s)|s > 0] + (1 - \hat{p})(1 - F(b)) \mathbb{E}[g(s)|s > b] + v
\]

which is strictly increasing in \( \hat{p} \) because \( g(s) > 0 \) for all \( s \in (0, b) \) and \( F(b) > F(0) \). (Throughout this section, we drop time subscripts given that we are building towards stationary equilibria.)

Recalling that voters are short lived, and letting \( U^c \) denote the voter’s utility in a PM’s first term (which will be determined endogenously), a first-term PM (one with \( r = 1 \)) is re-elected if and only if

\[
v \geq U^c - U(\hat{p}),
\]

which happens with probability

\[
1 - \Phi(U^c - U(\hat{p})).
\]

As the voter observes the PM’s action but not the corresponding state of the world, a PM’s re-election probability does not depend on the state (but can depend on his action). However a PM’s utility from taking action 1 in any period is increasing in the state. Therefore, in any equilibrium, a first-term PM will take action 1 if and only if the state exceeds some threshold. Letting \( \hat{p}^1 \) and \( \hat{p}^0 \) be the reputations (i.e., the voter’s belief the incumbent is the good type) from choosing action 1 and action 0 respectively, a type \( \theta \) PM uses a threshold \( s^\theta \) that solves

\[
s^\theta - \theta = k[\Phi(U^c - U(\hat{p}^1)) - \Phi(U^c - U(\hat{p}^0))].
\]  

The left-hand side of this equation is the difference in policy payoff to a type \( \theta \) from taking action \( a = 1 \) and \( a = 0 \), while the right-hand side is the difference in re-election probabilities multiplied by the value of re-election. It follows from Equation 2 that given any updating rule for the voter (i.e., a specification of \( \hat{p}^1 \) and \( \hat{p}^0 \)), a first-term PM’s thresholds satisfy

\[
s^b = s^0 + b.
\]
Consequently, in any equilibrium, a type-\(b\) PM takes action 0 more frequently than a type-\(0\) PM, as would have been the case if the PM’s type were known. Moreover, a stationary equilibrium is fully characterized by a single threshold, \(s^* := s^0\). Note that \(\hat{\rho}(a, s^*)\) and \(\hat{\rho}(0, s^*)\) depend on \(s^*\). We will write \(\hat{\rho}(a, s^*)\) as the voter’s posterior when observing action \(a\) given threshold \(s^* \in \mathbb{R}\).\(^{10}\) For any \(s^*\), it holds that \(\hat{\rho}(1, s^*) > \hat{\rho}(0, s^*)\). Finally, the voter’s utility from a first-term PM is also a function of \(s^*\), which we denote by

\[
U_c(s^*) := p(1 - F(s^*))E[g(s)|s > s^*] + (1 - p)(1 - F(s^* + b))E[g(s)|s > s^* + b].
\] (4)

It follows that in any stationary equilibrium the threshold \(s^*\) solves

\[
s^* = k[\Phi(U_c(s^*) - U(\hat{\rho}(1, s^*))) - \Phi(U_c(s^*) - U(\hat{\rho}(0, s^*)))].
\] (5)

**Proposition 1 (Equilibrium Characterization).** A stationary equilibrium exists. In every stationary equilibrium there exists \(s^* < 0\) such that for all \(t\):

1. (First-term PMs.) \(\alpha_t(\theta_t, 1, s_t) = 1\) if and only if \(s_t \geq s^* + \theta_t\).
2. (Second-term PMs.) \(\alpha_t(\theta_t, 0, s_t) = 1\) if and only if \(s_t \geq \theta_t\).

Furthermore, in every sequence of stationary equilibria as \(k \to \infty\), \(\lim_{k \to \infty} s^* = -\infty\).

**Proof.** It is immediate that a second-term PM takes action \(a_t = 1\) if and only if \(s_t \geq \theta_t\). Moreover, by the preceding analysis, in any stationary equilibrium with threshold \(s^*\), a first-term PM in period \(t\) takes action \(a_t = 1\) if and only if \(s_t \geq s^* + \theta_t\) where \(s^*\) solves **Equation 5**.

Step 1: Fix any \(k > 0\). We first show that a stationary equilibrium exists and that every stationary equilibrium has \(s^* < 0\). Define

\[
T(s^*) := s^* - k[\Phi(U_c(s^*) - U(\hat{\rho}(1, s^*))) - \Phi(U_c(s^*) - U(\hat{\rho}(0, s^*)))]
\]

By **Equation 5**, \(s^*\) characterizes a stationary equilibrium if and only if \(T(s^*) = 0\). For any \(s^*\),

\[
- [\Phi(U_c(s^*) - U(\hat{\rho}(1, s^*))) - \Phi(U_c(s^*) - U(\hat{\rho}(0, s^*)))] > 0
\]

because \(\hat{\rho}(1, s^*) > \hat{\rho}(0, s^*)\) and both \(U(\cdot)\) and \(\Phi(\cdot)\) are strictly increasing. Thus, \(T(s^*) > 0\) for all \(s^* \geq 0\), which implies that any stationary equilibrium has \(s^* < 0\). As \(\Phi(U_c(s^*) - U(\hat{\rho}(1, s^*))) - \Phi(U_c(s^*) - U(\hat{\rho}(0, s^*)))\) is bounded over \(s^*\), it holds that \(\lim_{s^* \to -\infty} T(s^*) = -\infty\). Since \(T(\cdot)\) is continuous, the intermediate value theorem implies that there is a zero of \(T(\cdot)\).

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\(^{10}\) Explicitly, Bayes’ rule yields \(\hat{\rho}(1, s^*) = \frac{p(1 - F(s^*))}{p(1 - F(s^*) + (1 - p)(1 - F(s^* + b)))}\) and \(\hat{\rho}(0, s^*) = \frac{pF(s^*)}{pF(s^*) + (1 - p)(1 - F(s^* + b))}\).
Step 2: We now show that for any \( \bar{s} \in \mathbb{R} \) there exists a \( \bar{k} \) such that, for all \( k > \bar{k} \), \( s^* < \bar{s} \); this implies that \( \lim_{k \to \infty} s^* = -\infty \) in any sequence of stationary equilibria. Without loss by the previous step, we may restrict attention to \( s < 0 \). So fix any \( s < 0 \). Define

\[
\Delta(\bar{s}) := \min_{s^* \in [\bar{s}, 0]} -[\Phi(U^c(s^*) - U(\hat{p}(1, s^*)))] - \Phi(U^c(s^*) - U(\hat{p}(0, s^*))]) > 0.
\]

It follows that for any \( \tilde{s} \in [\bar{s}, 0] \), \( T(\tilde{s}) \geq \bar{s} + k\Delta(\bar{s}) \), and hence, when \( k > \bar{k} := -\bar{s}/\Delta(\bar{s}) \), that \( T(\tilde{s}) > 0 \). Thus, for \( k > \bar{k} \), any stationary equilibrium has \( s^* < \bar{s} \).

Proposition 1 reveals that in every stationary equilibrium, a first-term PM takes action \( a = 1 \) more often than he would in the absence of reputation concerns. The reason is that observing action \( a = 1 \) increases the voter’s belief that the PM is the good type, which raises the PM’s re-election probability because second-term PMs simply follow their true preferences. As office-holding benefits, and hence reputation concerns, grow arbitrarily large, the likelihood that a first-term PM chooses action \( a = 1 \) goes to one, no matter his type.

Whether such first-term behavior is beneficial to the voter or not depends on whether the voter is better off with a PM who takes \( a = 1 \) regardless of the state of world or a PM who is insulated from reputation concerns. If \( \mathbb{E}[g(s)|s < 0] > 0 \) then the voter would prefer a PM who always takes action \( a = 1 \) to a PM who only takes action \( a = 1 \) when \( s > 0 \) (as does a type \( \theta = 0 \) PM without reputation concerns); conditional on states where the actions differ, the expected benefit to the voter from \( a = 1 \) is positive. Similarly, if \( \mathbb{E}[g(s)|s < b] < 0 \), the voter’s payoff is higher from the bad PM without reputation concerns than one who always takes action \( a = 1 \). The final possibility is that \( \mathbb{E}[g(s)|s < 0] < 0 < \mathbb{E}[g(s)|s < b] \), in which case the voter’s payoff from a PM who always takes action \( a = 1 \) is higher than from a reputationally-insulated bad type but lower than from a reputationally-insulated good type. We summarize as follows.

**Corollary 1 (Welfare).**

1. If \( \mathbb{E}[g(s)|s < 0] > 0 \), then there exists a \( \bar{k} \) such that for all \( k > \bar{k} \) and in every stationary equilibrium, \( U^c > U(1) \).

2. If \( \mathbb{E}[g(s)|s < 0] < 0 < \mathbb{E}[g(s)|s < b] \) then there exists a \( \bar{k} \) such that for all \( k > \bar{k} \) and in every stationary equilibrium, \( U(0) < U^c < U(1) \).

3. If \( \mathbb{E}[g(s)|s < b] < 0 \), then there exists a \( \bar{k} \) such that for all \( k > \bar{k} \) and in every stationary equilibrium, \( U^c < U(0) \).

In particular, the effect of reputation on the behavior of first-term PMs can be arbitrarily good or arbitrarily bad: depending on whether the setting is one of good or bad reputation, an electorally accountable politician could be better than an unaccountable good type (part 1
of Corollary 1) or worse than an unaccountable bad type (part 3). The former case is the more traditional focus of moral hazard models—actions correspond to policy effort or the degree of corruption—but the latter case is readily interpreted as arising when the PM engages in excess pandering due to re-election pressures. Importantly, the asymmetry between incumbents running for their final term and electorally accountable challengers does not place a bound on first-term PMs’ actions. The reason is that—in contrast to Duggan (2015)—the presence of valence shocks (with sufficiently wide support) ensures that elections are always uncertain, which in turn induces first-term PMs to value improving their reputation regardless of how (dis)advantaged they are relative to an unknown challenger.

We now turn to implications on retention probabilities under strong office motivation. Under good reputation—when accountability’s equilibrium effects are beneficial—the voter prefers the behavior of any type of first-term PM (who is electorally accountable) to any type of second-term PM (who is unaccountable). Consequently, incumbents will be re-elected with relatively low probability. While it may seem surprising that good reputation leads to low incumbent re-election rates, the logic is compelling: when accountability has desirable effects, a rational prospective voter prefers to elect a new challenger rather than re-elect the incumbent, unless the incumbent’s valence advantage is extreme, because only the challenger will be accountable. Conversely, in a bad-reputation environment—when accountability’s equilibrium effects are harmful—the distortion from any first-term PM is worse than the behavior from any type of second-term PM. Hence, incumbents will be re-elected with relatively high probability, as, all else equal, the voter prefers to install a PM in office who is freed from re-election pressures.

**Corollary 2 (Incumbency Effects).**

1. If $\mathbb{E}[g(s)|s < 0] > 0$, there exists a $\bar{k}$ such that for all $k > \bar{k}$ and in every stationary equilibrium, a first-term incumbent is re-elected with probability less than $1 - \Phi(0)$.

2. If $\mathbb{E}[g(s)|s < b] < 0$, there exists a $\bar{k}$ such that for all $k > \bar{k}$ and in every stationary equilibrium, a first-term incumbent is re-elected with probability greater than $1 - \Phi(0)$.

As we normalized mean valence to 0, $1 - \Phi(0)$ is the fraction of incumbents with a valence advantage over an untried challenger. **Corollary 2** is a consequence of the fact that, under large office motivation, an incumbent will be re-elected if and only if his valence is sufficiently above

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11 The hypothesis needed for part 1 of Corollary 1, $\mathbb{E}[g(s)|s < 0] > 0$, is weaker than how we defined a setting of good reputation in Subsection 2.1, which required $g(s) > 0$ for all $s$. We used the latter condition to define good reputation for simplicity.

12 In the latter case, it is clear that there could be social benefits from either imposing a one-term limit or from other institutional changes that free PMs from reputation concerns, e.g., reducing transparency to make PMs’ actions unobservable. As these issues have received attention elsewhere (e.g., Maskin and Tirole, 2004; Prat, 2005), we do not pursue them here.
the mean in a good-reputation setting, whereas under bad reputation an incumbent will be re-elected even with valence below the mean (so long as it is not too low). When $\Phi(0) = 1/2$, so that the mean and median valence coincide, an incumbency disadvantage emerges under good reputation (incumbents are re-elected with probability less than $1/2$) while an incumbency advantage arises under bad reputation (incumbents are re-elected with probability greater than $1/2$). Although such a clear-cut distinction need not hold when $\Phi(0) \neq 1/2$, it is still true that incumbency rates will be higher when reputation effects are bad than when they are good.

**Corollary 2** can be related to differences in observed incumbent re-election rates. Our model deliberately sets aside selection issues among new PMs; we have instead assumed that whenever the voter elects a new PM, that PM is simply a random draw from the candidate population. Abstracting from selection effects allows us to highlight the (dis)advantages created by having already served in office. It is this sort of effect that empirical studies attempt to isolate with a regression discontinuity approach (e.g., Lee, 2008).\(^1\)

As discussed in the **Introduction**, the empirical literature has identified wide variation in incumbency effects across democracies. There is a strong incumbency advantage in the U.S. and other highly-developed countries, but a much weaker advantage, or even a disadvantage, in many democracies in Africa, Asia, Eastern Europe, and South America. Our model rationalizes these findings when good reputation effects are relatively more important than bad reputation effects in the latter countries as compared to the former. Such a difference could arise, for example, because concerns about corruption drown out concerns about pandering when institutional elements (e.g., norms or the legal system) are less conducive to mitigating political corruption.

### 4. Conclusion

This paper has studied a dynamic model of elections with term limits. We have demonstrated that, when elections involve some randomness (as is more realistic than the alternative), there is no bound on equilibrium signaling by early-term PMs. Depending on whether such signaling is beneficial or harmful to the electorate, voters may either prefer challengers or late-term officeholders on average. There can thus be contrasting incumbency effects depending on the underlying environment. Our model predicts that, all else equal, incumbents’ re-election rates will be higher when electoral accountability’s negative effects (e.g., inducing pandering) become stronger relative to its beneficial effects (e.g., inducing less corruption).

We have modeled voters as myopic or short-lived for simplicity, but our conclusions do not depend on this assumption. In particular, so long as valence shocks have sufficiently wide sup-

\(^1\) However, incumbents elected in a close election could systematically differ from challengers if there is information revealed from the fact that the previous campaign was close (Eggers, 2015).
port, an incumbent’s re-election will always be uncertain, and so equilibrium signaling will be unbounded as office motivation gets large even with forward-looking voters.

In closing, we note that although incumbency effects have been documented for offices with term limits (e.g., Ansolabehere and Snyder, 2004; Fowler and Hall, 2014), many empirical studies are in contexts without term limits. While the analysis becomes technically challenging, we conjecture that, under appropriate conditions, our conclusions about incumbency would also emerge in a repeated-election model without term limits. Moreover, the magnitude of these effects would likely increase with the number of terms in office. The key property needed is that officeholders must become less affected by reputation concerns over their tenure. This is assured by term limits, but even otherwise, it seems reasonable to expect that a politician’s ability and/or desire to build a reputation would be stronger earlier in his career. The property could emerge from an increasing likelihood of (non-strategic) retirement or because exogenous sources sometimes reveal the officeholder’s type. Even more intriguing is whether it could obtain entirely from voters’ equilibrium learning about an officeholder’s type from his history of policy actions. We hope future research will take up a formal analysis in this vein.

References


