Reputation Effects and Incumbency (Dis)Advantage

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Motivation

1. How to discipline elected policymakers?
   - main instrument: re-election decision; electoral accountability
   - early work ignores hidden preferences / adverse selection
   - some recent work in one- or two-period models
   - do conclusions extend to full-fledged dynamic model?

2. Heterogenous incumbency effects across countries
   - U.S. + developed countries: substantial incumbency advantage
   - developing (democratic) countries: little advantage; even disadvantage
   - a “unified” explanation?
This Paper

- Infinite-horizon model of electoral accountability
  - baseline: two term limit

- Politicians’ policy preferences are private info

- Signaling incentive for newly-elected PMs: reputation building

- Consequences can be beneficial: good reputation effects
  or harmful: bad reputation effects

- Good rep. effects $\Rightarrow \downarrow$ incumbency rates; sometimes disadvantage
  - more important in developing countries (e.g., corruption)

- Bad rep. effects $\Rightarrow \uparrow$ incumbency rates, sometimes advantage
  - more important in developed countries (e.g., posturing/pandering)
Literature Background

- Huge literature on incumbency effects
  - incumbency advantage in the U.S. Congress but also gubernatorial elections (with term limits) and Canada, U.K., W. Europe, Japan
  - incumbency disadvantage in India, Brazil, Zambia, Eastern Europe (Uppal 2009; Klasnja and Titiunik 2017; Macdonald 2014; Klasnja 2015)
  - varied explanations

- Good & bad reputation effects
  - familiar: reputation concerns affect behavior; help or distort
  - less familiar: “Known Devil is better than an Unknown Angel” highlighted in our paper on cheap talk in elections here, this feature drives incumbency advantage

- Our framework builds on Banks and Sundaram 1998
  - good reputation model; not about incumbency effects
Model
Basic Structure

- Discrete time, infinite horizon: \( t = 1, 2, \ldots \)
- In each period:
  - Policymaker (PM) elected by representative/median voter
  - PM privately observes state \( s_t \in \mathbb{R} \)
  - PM chooses policy action \( a_t \in \{0, 1\} \)
- Elections with a two-term limit:
  - After first term, incumbent competes against a random challenger
  - Otherwise, a random challenger is installed
Voters’ Preferences

- The period $t$ voter’s payoff is $u(s_t) a_t$
  - $a_t \in \{0, 1\}$ is action taken by PM in period $t$
  - $s_t$ i.i.d., continuous density, support $\mathbb{R}$
  - $u(\cdot)$ is continuous and $\uparrow$

- Voters are short-lived (or myopic);
  period $t$ voter observes only $a_{t-1}$, not $s_{t-1}$ (nor $t-1$ payoffs)

- Stochastic voting:
  if $I$ and $C$ are exp. payoffs from (re-)electing incumbent/challenger,
  incumbent is re-elected with probability $1 - \Phi(C - I)$
  - $\Phi$ is a continuous CDF with support $\mathbb{R}$
  - E.g.: observable “valence” shock $v \sim \Phi$ shifts expected payoff from
    incumbent to $I + v$; so incumbent is re-elected iff $v > C - I$
PMs’ Preferences

- Each politician has persistent type $\theta \in \{g, b\}$; i.i.d., $\Pr(\theta = g) \equiv p \in (0, 1)$
- A politician’s total payoff is sum of period payoffs
- Each type $\theta$’s period $t$ payoff is 0 if not in office; in office it is $k + u^\theta(s_t)a_t + \mu^\theta$
  - $k > 0$ is common office-holding benefit; will focus on $k$ large
  - $u^\theta(\cdot)$ is policy utility: continuous, ↑, range $\mathbb{R}$; define $s^\theta$ by $u^\theta(s^\theta) = 0$
  - set type-specific costs/benefits of office

\[ \mu_\theta = -(1 - F(s^\theta))\mathbb{E}[u^\theta(s) | s > s^\theta] \]

- to simplify algebra and
- so that both types’s EU from getting re-elected is the same ($= k$)

- **Assumption**: for all $s$, $u(s) \geq u^g(s) > u^b(s)$
  \[ \implies s^b > s^g \geq \text{voter’s preferred threshold} \]
  \[ \implies \text{absent accountability, voter prefers good type } g \text{ to bad type } b \]
Good Reputation

- Suppose $u(s) > 0$ for all $s$

- Interpretation:
  - $a = 1$ always good for voter, $a = 0$ is shirking/corruption/rent-seeking
  - state reflects PM’s benefit from $a = 1$
    - lower state $\implies$ more difficult task or larger rent-seeking opportunities
  - bad type: less competent (higher private cost) or more corrupt

- Similar to canonical agency models

- Reputation building by favoring $a = 1$ can only benefit voters

- In fact, a weaker condition will suffice: a PM who always plays $a = 1$ is preferred to an unaccountable good type

**Definition**

There is **good reputation** when $\mathbb{E}[u(s)|s < s^g] > 0$. 
Bad Reputation

- Suppose $u(s) < 0$ for some $s$

- Interpretation:
  - voter’s preferred action is state-dependent; PM has expertise
  - bad type likes $a = 0$ in more states than good type or voter; perhaps ideological conflict; could have $u^g = u$

- “Pandering” a la Acemoglu et al 2013, Kartik and Van Weelden 2017

- PM trying to build reputation by favoring $a = 1$ may hurt voter

**Definition**

There is **bad reputation** when $\mathbb{E}[u(s)|s < s^b] < 0$.

- Unaccountable bad type better than a PM who always chooses $a = 1$

- PM is still trying to signal that he is good type
Results
Equilibrium Characterization (1)

- **Stationary eqa**: pure-strategy PBE with PMs’ strategies stationary
  - a 2nd-term PM is unaccountable, so plays $a_t = 1$ iff $s_t > s^\theta$
  - all 1st-term PMs are required to use the same $(\theta, s_t) \mapsto \{0, 1\}$
  - pure strategies WLOG; stationarity can be relaxed

- Incumbent re-elected with prob. $1 - \Phi(U^c - U(\hat{p}))$
  - $U^c$: EU from 1st-term PM (to be determined)
  - $U(\hat{p})$: EU from 2nd-term PM who is good w.pr. $\hat{p}$

- A first-term PM plays $a_t = 1$ iff $s_t \geq s^\theta_*$, where
  \[
  u^\theta(s^\theta_*) = k [\Phi(U^c - U(\hat{p}(1))) - \Phi(U^c - U(\hat{p}(0)))]
  \]

- Hence an eqm is characterized by some $s_* \equiv s^g_*$, with
  \[
  s^b_* = (u^b)^{-1}(u^g(s^g_*)) > s^g_*
  \]

- Write $U^c(s_*)$ and $\hat{p}(a, s_*)$; note $\hat{p}(1, \cdot) > \hat{p}(0, \cdot)$
Equilibrium Characterization (2)

- Recall $k > 0$ is office-holding benefit, also PM’s EU from re-election
- Any eqm is characterized by $s^*$ that solves

$$u^g(s^*) = k[\Phi(U^c(s^*) - U(\hat{p}(1, s^*))) - \Phi(U^c(s^*) - U(\hat{p}(0, s^*)))]$$

Proposition

1. A stationary equilibrium exists.
2. In every stationary eqm there exist $s^g < s^g$ and $s^b < s^b$ s.t. a 1st-term PM plays $a_t = 1$ iff $s_t \geq s^\theta$.
3. In every sequence of stationary eqa, $\lim_{k \to \infty} s^\theta = -\infty$ for $\theta \in \{g, b\}$.

- In an eqm, 1st-term PMs play $a = 1$ more often than when unaccountable, to build reputation for being type $g$
- Large office motive $\Rightarrow$ almost always play $a = 1$ in 1st term; eqm uniqueness + selection benefits vanish
Welfare

- PM of known type (hence unaccountable) plays $a = 1$ iff $s_t \geq s^\theta$
- When office motivation is large: new PM of either type plays $a = 1$ more than known good PM
- Whether that is desirable depends on voter’s $u(\cdot)$

Corollary

1. (Good Rep.) If $\mathbb{E}[u(s)|s < s^g] > 0$, then for $k$ large, $U^c > U(1)$.
   i.e., challenger (of either type) better than either 2nd-term PM

2. (Bad Rep.) If $\mathbb{E}[u(s)|s < s^b] < 0$, then for $k$ large, $U^c < U(0)$.
   i.e., challenger (of either type) worse than either 2nd-term PM

- W/o voting shocks, cannot have $U^c > U(1)$ or $U^c < U(0)$, no matter office motivation $k$! (Duggan, 2017)
Incumbency (Dis)Advantage

Corollary

For large \( k \), the re-election prob for eligible incumbent is:

1. *(Good Rep.)* Less than \( \Phi(0) \) if \( \mathbb{E}[u(s)|s < s^g] > 0 \).
2. *(Bad Rep.)* Greater than \( \Phi(0) \) if \( \mathbb{E}[u(s)|s < s^b] < 0 \).

- So Bad (Good) Rep \( \iff \) relative incumbency (dis)advantage
- When \( \Phi(0) = 1/2 \), absolute incumbency (dis)advantage
- More generally, higher incumbent re-election rate when Bad Rep is relatively more important than Good Rep (extension in paper)
- Relation to empirical findings
  - Pandering-type concerns increase incumbency rates; shirking/corruption-type concerns reduce it
  - Latter relatively more important in developing countries
Discussion
Dropping Term Limits

- Many empirical studies on incumbency are in settings w/o term limits

- Modify baseline model
  - long-lived politicians, can hold office for any number of periods
  - after 1st term, type is revealed w.pr. $q \in [0,1)$
  - after 2nd term, type is revealed w.pr. 1
  - politicians max expected sum of period payoffs (could discount)

- “Markovian” equilibria: in any period,
  - voter’s EU from electing a politician only depends on his reputation and whether he will be in his first term (newbie, $\nu_t = 1$) or not ($\nu_t = 0$)
  - all politicians use the same pure strategy $(\theta_t, \nu_t, s_t) \mapsto \{0, 1\}$

- Natural signaling: $a = 1$ does not reduce 1st-term PM’s reputation
  - “perverse” signaling possible here $\therefore$ higher reputation more valuable for type $g$ than $b$ (more likely to be re-elected after 2nd term)

- Main results extend fully to natural-signaling Markovian equilibria
Summary

- Novel dynamic model(s) of electoral accountability
- New PMs face stronger reputation pressures than established ones
- Reputation building can either hurt or benefit electorate
  - can have “Known Devil better than Unknown Angel”
- Former case $\uparrow$ re-election rates; latter $\downarrow$
- May help understand cross-county variation in incumbency effects
  - a prediction: $\uparrow$ sanctions for corruption $\implies$ $\uparrow$ re-election rates