

# Reputation Effects and Incumbency (Dis)Advantage

Navin Kartik    Richard Van Weelden

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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  $\implies$   $\downarrow$  incumbency rates; sometimes disadvantage
  - more important in developing countries (e.g., corruption)
- Bad rep. effects  $\implies$   $\uparrow$  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:  $t = 1, 2, \dots$
- 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,  $\uparrow$ , 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  $s$ ,  $u(s) \geq u^g(s) > u^b(s)$ 
  - $\implies s^b > s^g \geq$  voter's preferred threshold
  - $\implies$  absent accountability, voter prefers good type  $g$  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  
incl. Banks and Sundaram (1993, 1998), Duggan and Martinelli (2015), Duggan (2017)
- 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 2<sup>nd</sup>-term PM is unaccountable, so plays  $a_t = 1$  iff  $s_t > s^\theta$
  - all 1<sup>st</sup>-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 1<sup>st</sup>-term PM (to be determined)
  - $U(\hat{p})$ : EU from 2<sup>nd</sup>-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 1<sup>st</sup>-term PM plays  $a_t = 1$  iff  $s_t \geq s_*^\theta$ .
- 3 In every sequence of stationary eqa,  $\lim_{k \rightarrow \infty} s_*^\theta = -\infty$  for  $\theta \in \{g, b\}$ .

- In an eqm, 1<sup>st</sup>-term PMs play  $a = 1$  more often than when unaccountable, to build reputation for being type  $g$
- Large office motive  $\implies$  almost always play  $a = 1$  in 1<sup>st</sup> 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 2<sup>nd</sup>-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 2<sup>nd</sup>-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  $\implies$  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 1<sup>st</sup> term, type is revealed w.pr.  $q \in [0, 1)$
  - after 2<sup>nd</sup> 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 1<sup>st</sup>-term PM’s reputation
  - “perverse” signaling possible here  $\because$  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