

Transparency, Protest and Autocratic Instability

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Question

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Transparency – the dissemination of credible aggregate economic data

Findings

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- distribution of discontent common knowledge – elections
- transparency improves efficiency of voting mechanism
- elections and unrest substitute mechanisms for leader removal

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- increases protest frequency if mobilization sufficiently 'hard'

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- incentive to remove leaders via protest (rather than elections) declines

Actors and Type Space

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σ_s will represent the level of transparency

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- 7 Nature chooses $\epsilon_{i,2} \forall i$. $y_{i,2}$ is realized for all citizens and the game ends.

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$$u_{L,t}(G_t, \theta) = \begin{cases} 1 & \text{if } G_t = \theta \\ 0 & \text{otherwise.} \end{cases}$$
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$$u_{i,t}(y_{i,1}, y_{i,2}, a_i; A) = y_{i,1} + a_i[R(A)\beta - \kappa] + y_{i,2}$$

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$$R(A) = \begin{cases} 1 & \text{if } A \geq T \\ 0 & \text{otherwise.} \end{cases}$$

Equilibria

- Game has multiple equilibria
 - ▶ Game does not have two-sided limit dominance
- Equilibria in which citizen behavior unconditioned by information
 - ▶ All citizens always mobilize
 - ▶ No citizen ever mobilizes
 - ▶ Implausible

Informative Equilibrium

- We focus on a third equilibrium
 - ▶ Pure strategy perfect bayesian
 - ▶ Monotone: incentive to protest is (weakly) falling in the signal.
 - ▶ Each citizen conditions their action on all available information
 - ★ a_i depends on both y_i and s .

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Citizens: cut-point strategies
set $a_i = 1$ iff $y_{i,1}$ is below some threshold
this threshold is a function of s – denote $\bar{y}(s)$

Citizens' Beliefs

- Recall the prior, $Pr(\theta = 0) = 1 - p$
- Citizens receive signals s and $y_{i,1}$
- Using Bayes' Rule, citizens compute the posterior $Pr(\theta = 0|y_{i,1}, s)$

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$$Pr(\theta = 0|y_{i,1}, s)\beta \geq \kappa$$

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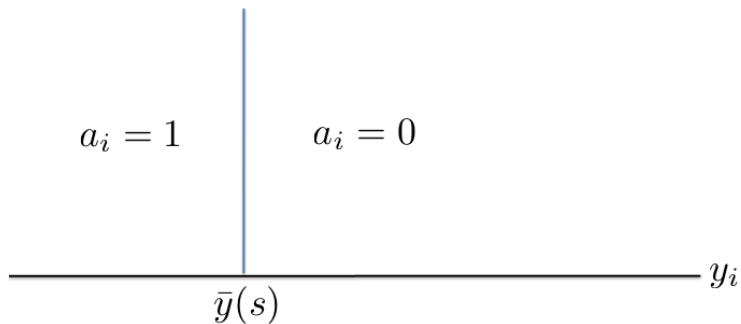
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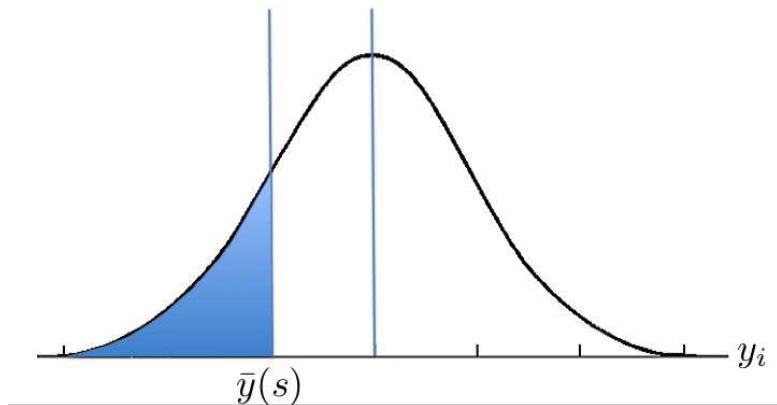
$$Pr(\theta = 0|y_{i,1}, s)\beta \geq \kappa$$

Define the value of y such that $Pr(\theta = 0|y_{i,1}, s)\beta = \kappa$ as $\bar{y}^*(s)$.

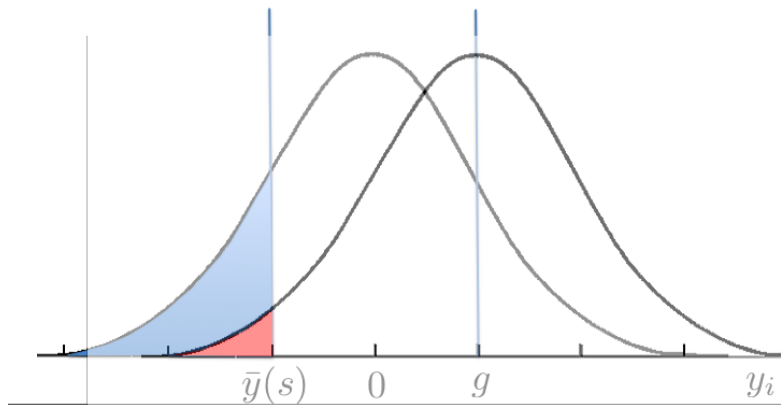
Individual Decision



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 - ▶ $\Phi\left(\frac{\bar{y}^*(s)}{\sigma_y}\right)$
 - ▶ Φ is the cdf of the standard normal
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- then good types are retained and bad types removed, and all citizens are playing a best response.

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 - ▶ leader survives

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$$\frac{\kappa}{\beta} = Pr(\theta = 0 | \bar{y}^*(s), s)$$

Leader Retention and the Public Signal

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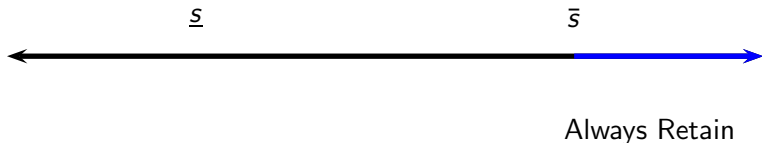
Leader Retention and the Public Signal



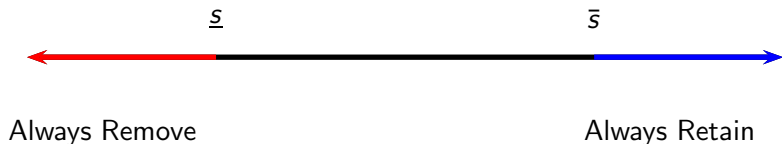
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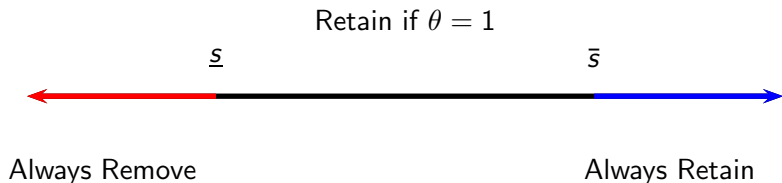
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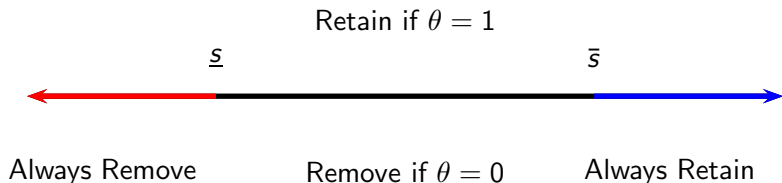
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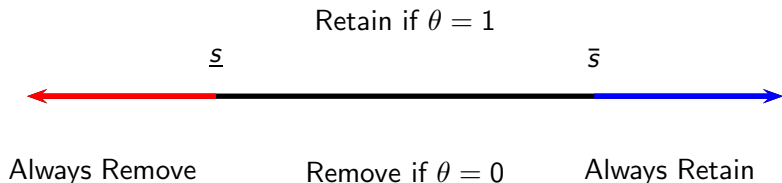
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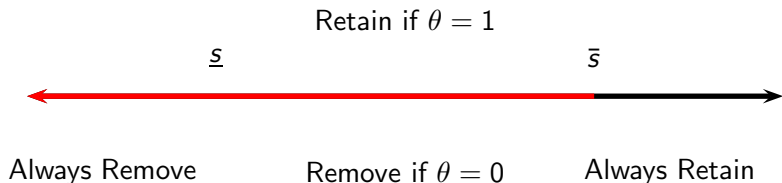


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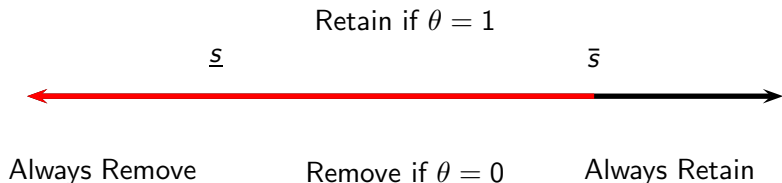
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Leader Retention and the Public Signal



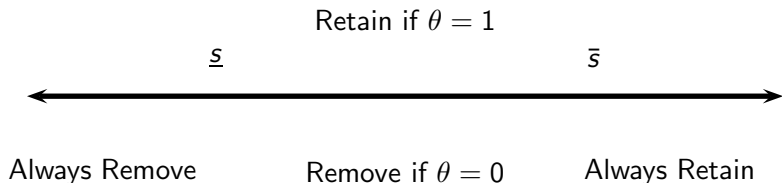
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Leader Retention and the Public Signal



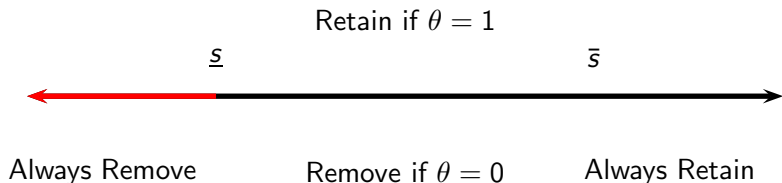
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Leader Retention and the Public Signal



$$\begin{aligned} Pr(\text{remove}|\theta = 0)? & \quad Pr(s < \bar{s}|\theta = 0) & \quad \Phi\left(\frac{\bar{s}}{\sigma_s}\right) \\ Pr(\text{remove}|\theta = 1)? & \end{aligned}$$

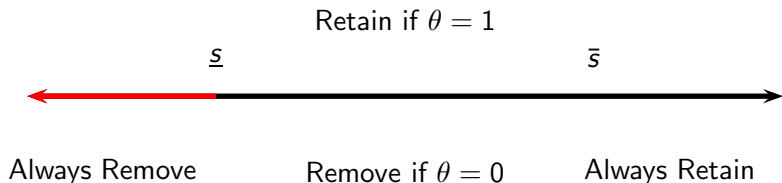
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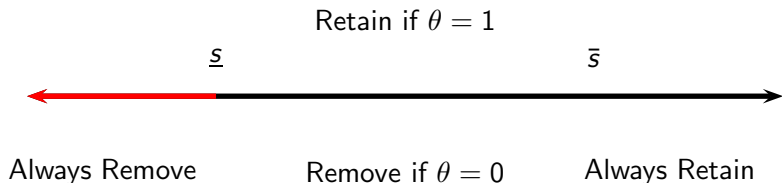
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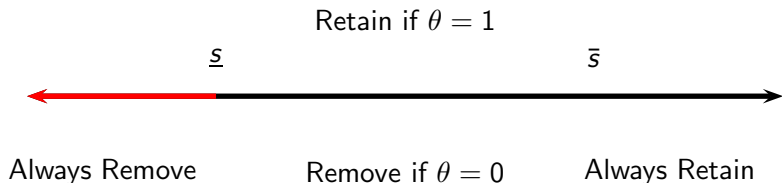
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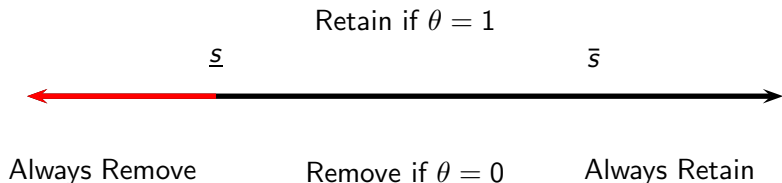


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Leader Retention and the Public Signal



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Discrimination: $\Phi\left(\frac{\bar{s}}{\sigma_s}\right) - \Phi\left(\frac{\underline{s}-g}{\sigma_s}\right)$

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The level of discrimination exhibited by the citizens is rising in transparency (falling in σ_s).

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As $\beta \rightarrow \kappa$ the probability of leader removal is rising in transparency for all $\sigma_s \in \mathbb{R}_+$ and for all $T \in (0, 1)$.

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Summarizing Empirical Results

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Democracies:

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▶ Skip to Conclusion

▶ Skip to Results

Transparency as Missing Data

Hollyer, Rosendorff & Vreeland, (forthcoming). "Measuring Transparency," *Political Analysis*.

World Development Indicators (Downloaded Dec. 2012)

Items: 240 variables from across WDI
recoded into indicator $\{0, 1\}$ equal to 1 if non-missing

Panels: 125 countries

Time: Annual obs., 1980-2010

3875 observations

Measurement Model

Item Response Model

240 equations of the form:

$$Pr(y_{j,c,t} = 1 | transparency_{c,t}) = \text{logit}(\delta_j + \beta_j transparency_{c,t})$$

$$j \in \{1, 2, \dots, 240\}$$

$$c \in \{1, 2, \dots, 124\}$$

$$t \in \{1, 2, \dots, 31\}$$

Priors:

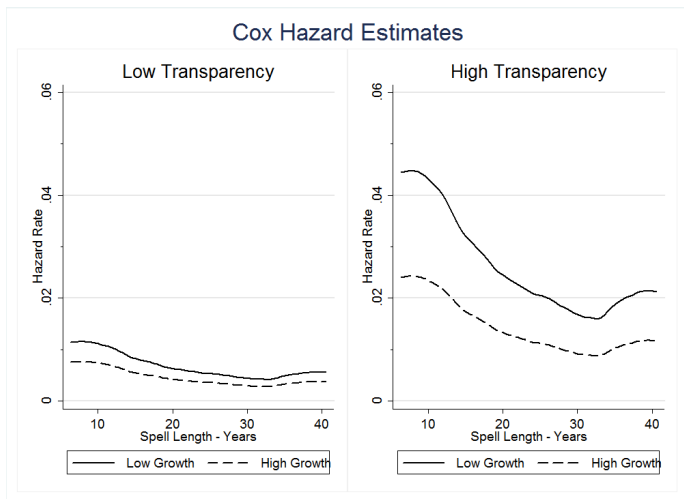
$$\begin{pmatrix} \delta_j \\ \beta_j \end{pmatrix} \sim N\left(\begin{pmatrix} 0 \\ 0 \end{pmatrix}, \begin{pmatrix} 100 & 0 \\ 0 & 100 \end{pmatrix}\right)$$

$transparency_{c,1} \sim N(0, 100)$ recentered at each iteration of the MCMC algorithm

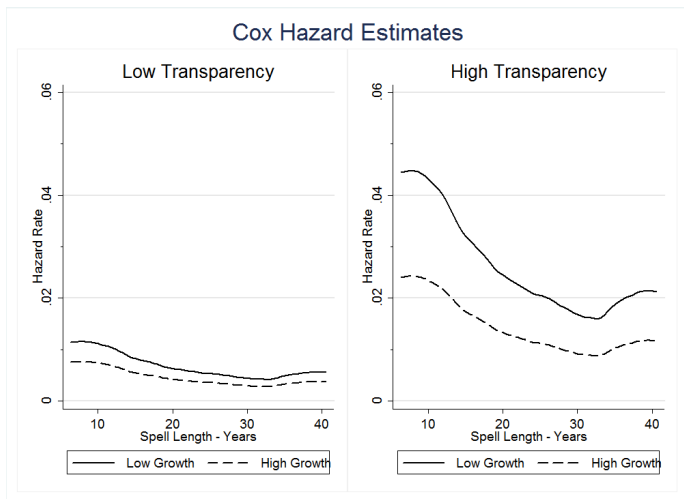
$$transparency_{c,t} \sim N(transparency_{c,t-1}, \frac{1}{\tau_c}) \quad \forall t > 1$$

Cuba constrained to be negative, Sweden positive

Hazard of Autocratic Collapse



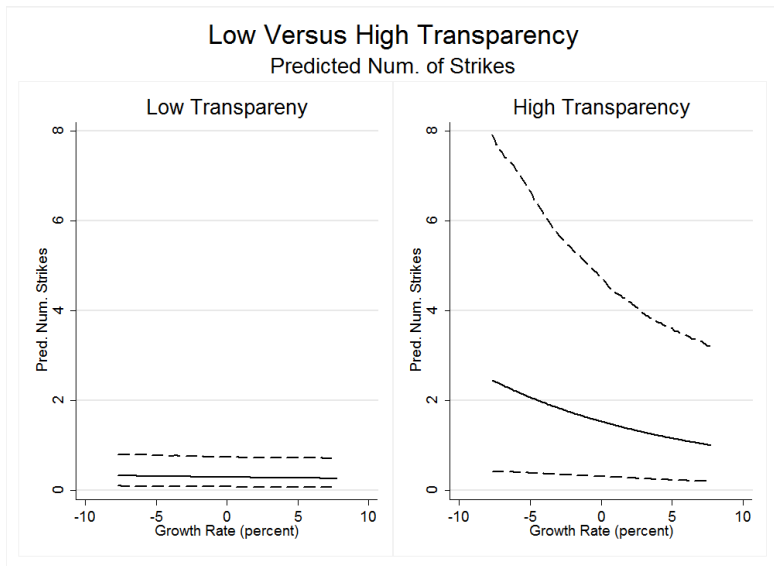
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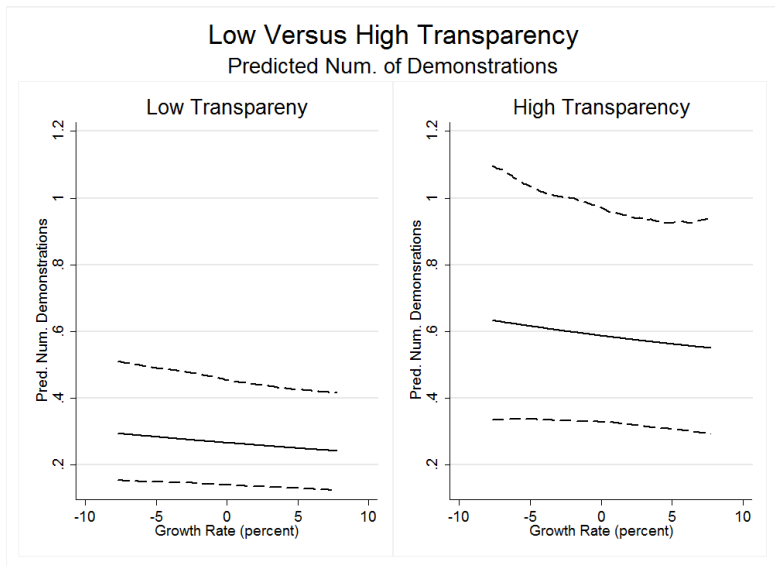
► Skip to Conclusion

► Skip to Democracy Results

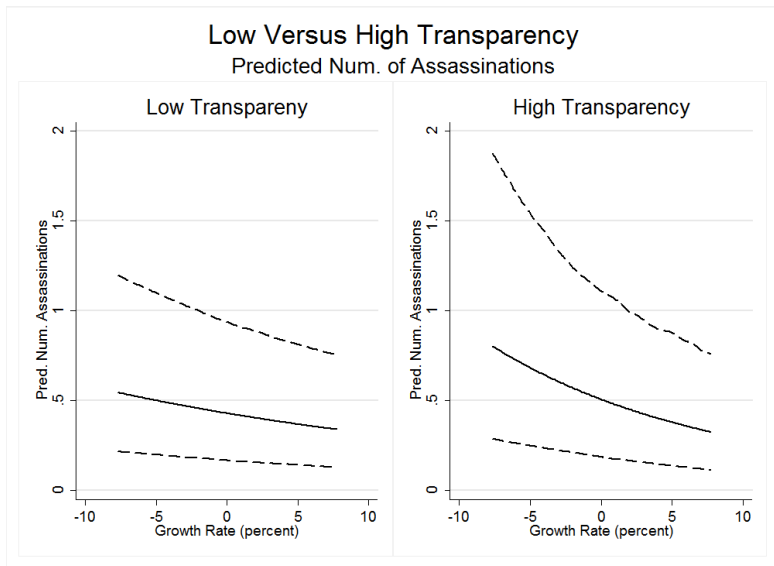
Expected Number of Strikes



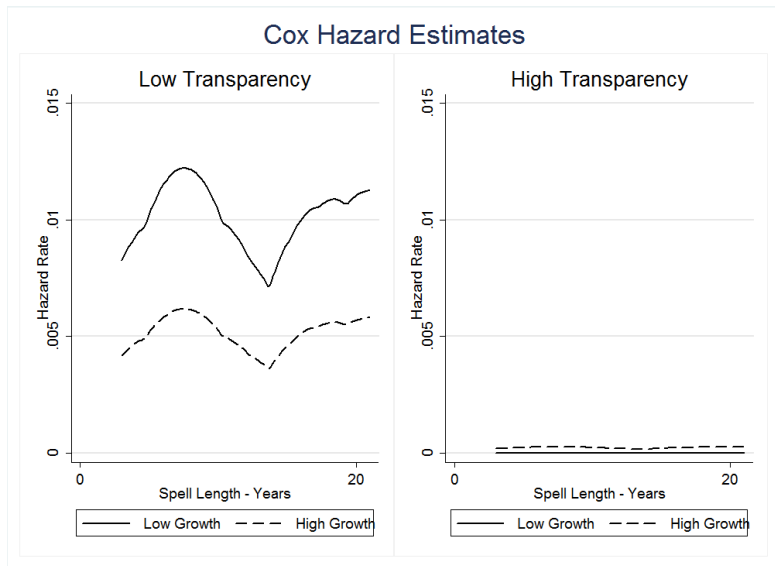
Expected Number of Anti-Gov't Demos



Expected Number of Assassinations



Hazard of Democratic Collapse



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 - b This mechanism operates via mass unrest
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