

Shaping Institutions

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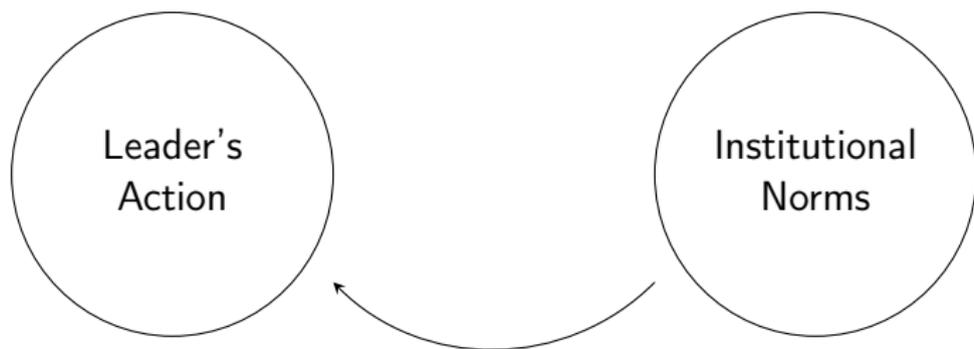
²Bocconi

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AEA Meetings

Introduction

A Model of the Evolution of Institutional Norms and the Behavior They Induce

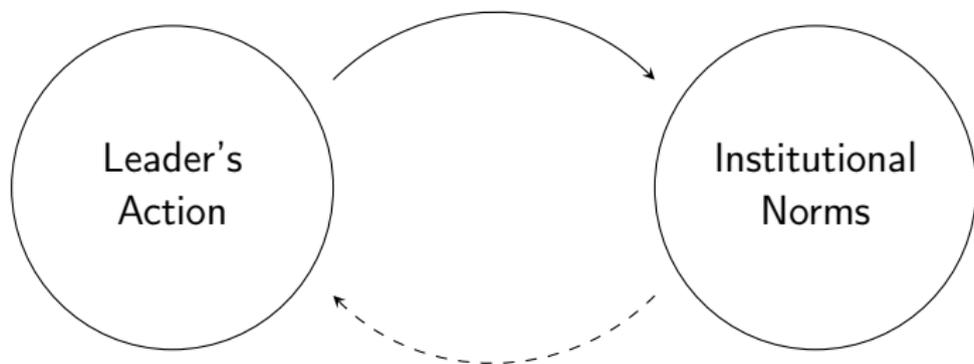


*The nature of the presidency in American constitutional governance cannot be understood without reference to **norms**. . . . Presidential power is both augmented and constrained by these **unwritten rules of legitimate or respectable behavior**. (emphasis added)*

Renan (2018)

Introduction

A Model of the Evolution of Institutional Norms and the Behavior They Induce



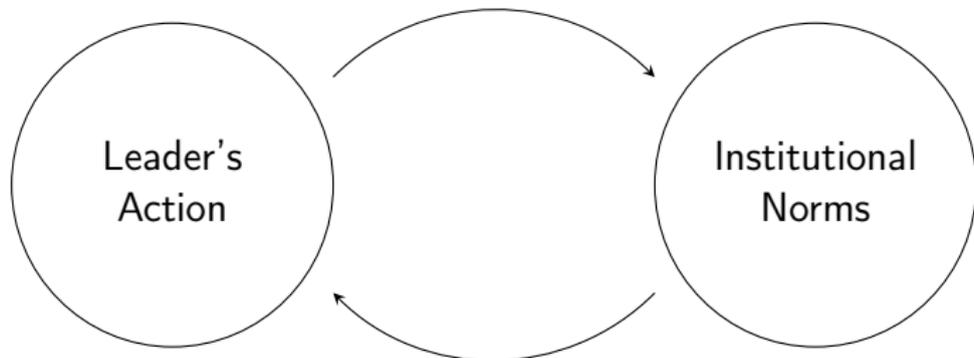
There is scarcely any part of my conduct which may not hereafter be drawn into precedent.

President George Washington

Introduction

Model Ingredients

- Every period, the leader decides to **respect** or **abuse** the position
- A leader's type and the current norm level determine the flow benefit/cost of **abusing** the position
- **Respect** strengthens the norms, while **abuse** weakens them
- The norm level and current action determine the replacement probability of the leader



Important Takeaways

- Leaders have a persistent effect on institutions and the behavior of future leaders
- The evolution of norms can lead to different long-run behavior even for institutions with the same initial formal rules
- The early history of leaders plays a crucial role in determining which outcome prevails.
- When evaluating corporate governance rules or constitutions, it is important to condition on the history of past leaders
 - ▶ Many countries modeled their constitutional law after the US but have had very different outcomes
 - ▶ Inferences about corporate governance can be made because there are more firms and CEOs switch between firms allowing for controlling CEO type

Democratic Backsliding

Our model can capture the slow erosion of institutions

- Democratic backsliding (autocratization)
- Corporate board capturing

*Growing tolerance for conflicts of interest in government, limitations on media access and accountability, and harsh treatment of minority groups can accumulate... **each norm that falls is one fewer safeguard against executive overreach than we had before.** Even if we never become an authoritarian state, our governance will suffer as a result. For now, we should recognize the precedents that are already being set and try to prevent them from becoming the new normal. (emphasis added)*

Foran (2016) on the concerns about the long-term effects of President Trump's disregard for several institutional traditions

Related Literature

Empirical support for the importance of path dependence

- Historical factors in shaping polities
 - ▶ La Porta et al. (1999), Acemoglu et al. (2001, 2008), Acemoglu and Robinson (2008), Glaeser et al. (2004)
- Persistent performance differences among seemingly similar enterprises
 - ▶ Syverson (2004) and Hsieh and Klenow (2009)
- Overview: North (1990), Pierson (2000), Acemoglu et al. (2021)

Related Literature

Political Science and Law

- Constitutional norms, informal rules/norms, ‘Political culture’
 - ▶ Bryce (1888 [1995])
 - ▶ Azari and Smith (2012), Levitsky and Way (2015), Huq and Ginsburg (2018), Levitsky and Ziblatt (2018), Renan (2018), Ahmed (2022)
 - ▶ Almond (1956), Almond and Verba (1963), Diamond (1999)
- Democratic breakdown and democratic consolidation
 - ▶ Linz (1978): the role of leaders
 - ▶ O’Donnell and Schmitter (1986), Linz (1990)
 - ▶ O’Donnell (1996): the role of informal rules
- (Formal theory on) Democratic backsliding
 - ▶ Helmke et al. (2022), Grillo and Prato (2023), Howell et al. (2023), Luo and Przeworski (2023), Gratton and Lee (Forthcoming), Invernizzi and Ting (Forthcoming)

(⇒) Formalization of Norms that complement leaders’ behavior

Related Literature

Corruption (in political and corporate settings)

- The role of the example set by the political leadership
 - ▶ Tanzi (1998): empirical
- Multiple equilibria: why the same socio-economic structure can give rise to different levels of corruption
 - ▶ Andvig and Moene (1990): static model of corruption
 - ▶ Paldman (2002): empirical (e.g. Argentina and Chile)
- Corporate board capturing
 - ▶ Laux (2008): board independence and CEO's rent-seeking

(\Rightarrow) A micro-founded process leading to different outcomes

Related Literature

Leadership and Culture

- Leadership
 - ▶ Corporations: Gibbons and Henderson (2013), Bloom et al. (2014), Bandiera et al. (2020), Graham et al. (2020)
 - ▶ Politics: Jones and Olken (2005), Myerson (2011)
- “Social capital” (Putnam, 1993; Guiso et al., 2016)
 - ▶ Persson and Tabellini (2009): “Democratic capital” (years of democracy)
 - ▶ Besley and Persson (2019)
- “Organizational capital” and “Organizational culture”
 - ▶ Guiso et al. (2015) and Dessein and Prat (2022)

(⇒) The effect of a current leader on the future leaders (instead of contemporaneous effect on employees)

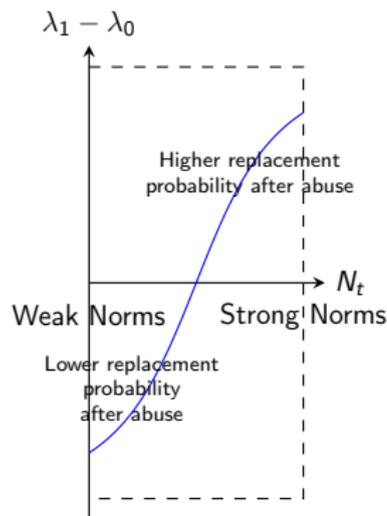
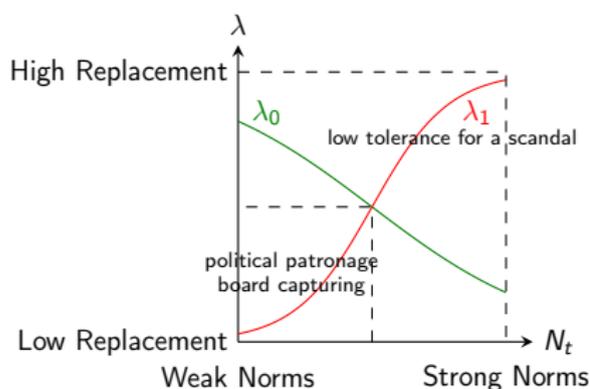
Model

- Each period $t \in \{1, 2, \dots\}$, the incumbent leader decides on $a_t \in \{0, 1\}$:
 - ▶ $a_t = 0$: **abiding** by the rules/respecting
 - ▶ $a_t = 1$: **abusing** her position/cheating
- Period-by-period utility: $u(a_t, N_t, h) := b - a_t(N_t + h)$
 - ▶ $b \geq 0$: flow benefit from being in office
 - ▶ N_t : norm level at period t
 - ▶ $h \in [\underline{h}, \bar{h}]$: the leader's type, the level of honesty

 - ▶ $a_t = 0$ (**respect**) \Rightarrow payoff b
 - ▶ $a_t = 1$ (**abuse**) \Rightarrow payoff $b - \underbrace{(N_t + h)}_{\geq 0}$
- (\Rightarrow) Norms and the leader's type determine the flow benefit/cost of abusing her position

Model

- The replacement probability at t : $\lambda(a_t, N_t)$
 - ▶ Probability: $0 \leq \lambda(a_t, N_t) \leq 1$
 - ▶ $\lambda_1(N_t) := \lambda(1, N_t)$: non-decreasing
 - ▶ $\lambda_0(N_t) := \lambda(0, N_t)$: non-increasing
- $\lambda_1 - \lambda_0$: non-decreasing
 - ▶ $\uparrow N_t \Rightarrow$ abusing leads to losing the position



Model

- The evolution of norms N_t : $N_1 = \bar{N}$ and

$$N_{t+1} = (1 - \delta)N_t + \delta\bar{N} + (1 - 2a_t)\gamma$$

- ▶ \bar{N} : the initial formal set of rules
- ▶ $\delta \in (0, 1]$: the persistence of the formal set of rules
- ▶ $\gamma \geq 0$: the short-run sensitivity of norms to behavior

- ▶ $a_t = 0$ (respect) $\Rightarrow N_{t+1} = (1 - \delta)N_t + \delta\bar{N} + \gamma$
- ▶ $a_t = 1$ (abuse) $\Rightarrow N_{t+1} = (1 - \delta)N_t + \delta\bar{N} - \gamma$

Remark

Assume $\delta < 1$.

- 1 If $a_t = 0$, then $N_{t+1} > N_t$
- 2 If $a_t = 1$, then $N_{t+1} < N_t$
- 3 $N_t \in \left(\underbrace{\bar{N} - \frac{\gamma}{\delta}}_{N_L}, \underbrace{\bar{N} + \frac{\gamma}{\delta}}_{N_H} \right)$ for all $t \in \mathbb{N}$

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A Leader's Decision

- Consider a leader with type h facing the norm level N
- The leader must choose an optimal sequence of actions

The Leader's Problem

$$V(h, N) = \max_{a \in \{0,1\}} b - a(h + N) + \beta(1 - \lambda(a, N))V(h, N')$$

$$\text{subject to } N' = (1 - \delta)N + \delta\bar{N} + (1 - 2a)\gamma$$

- Three effects of the change in N
 - 1 Flow payoff
 - 2 Replacement probability
 - 3 Continuation value

Characterization of the Leader's Decision

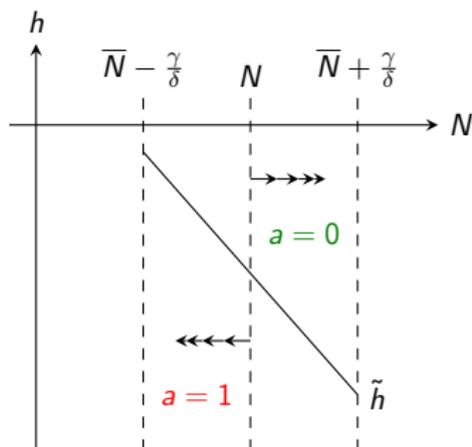
A leader with fixed h

- Suppose there exists a downward-sloping threshold function \tilde{h} such that:

- ▶ $h > \tilde{h}(N) \Rightarrow a = 0$

- ▶ $h < \tilde{h}(N) \Rightarrow a = 1$

\Rightarrow for a leader with a fixed type, her optimal action is constant over time

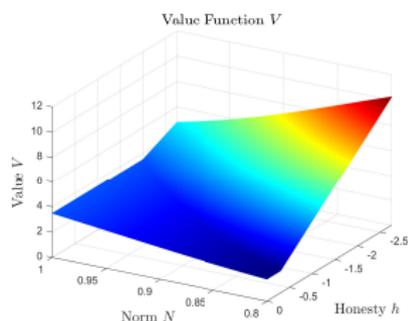
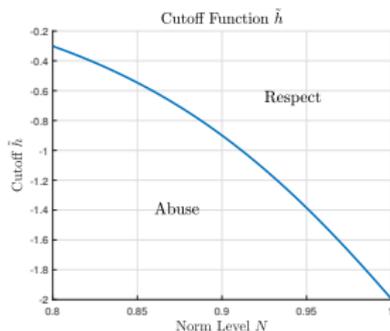
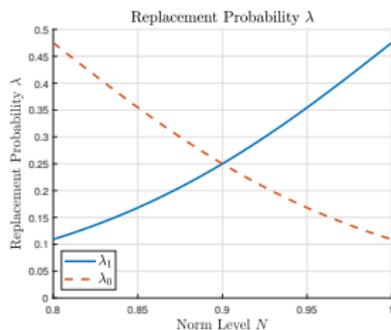


Characterization of the Leader's Decision

Theorem 1

There exists a downward-sloping threshold policy function $\tilde{h} : (N_L, N_H) \rightarrow \mathbb{R}$ such that, for each (h, N) :

- 1 if $h > \tilde{h}(N)$ then the optimal action is $a^* = 0$; and
- 2 if $h < \tilde{h}(N)$ then the optimal action is $a^* = 1$



► Closed-form Solution

► Constant Replacement Probability

Dynamics of Behavior and Norms

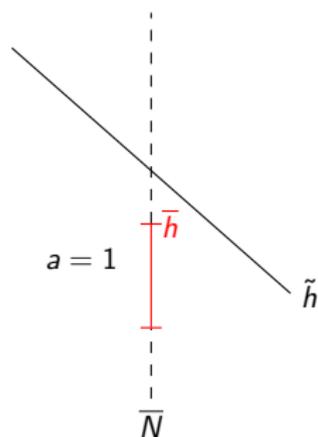
- N_t given ($N_1 = \bar{N}$)
- A leader with type $h_t \in [\underline{h}, \bar{h}]$ given

- The leader takes action $a_t = a^*(N_t, h_t)$
- Norm updated: $N_{t+1} = (1 - \delta)N_t + \delta\bar{N} + (1 - 2a_t)\gamma$
- With prob. $\lambda(a_t, N_t)$: $h_{t+1} \in [\underline{h}, \bar{h}]$ is drawn
- With prob. $1 - \lambda(a_t, N_t)$: $h_{t+1} = h_t$

Dynamics of Behavior with Fixed Norms

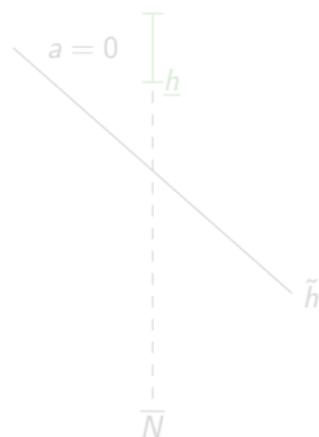
Case 1: $\tilde{h}(\bar{N}) > \bar{h}$

Always Abuse



Case 2: $\tilde{h}(\bar{N}) < \underline{h}$

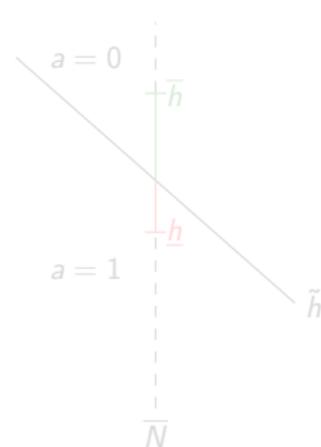
Always Respect



Case 3: $\underline{h} < \tilde{h}(\bar{N}) < \bar{h}$

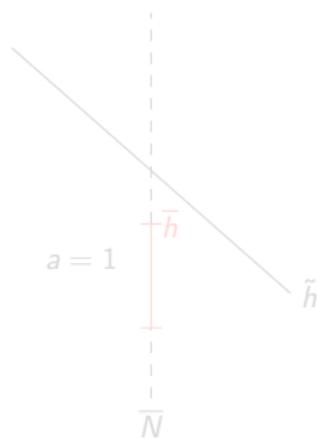
Some Abuse

Others Respect

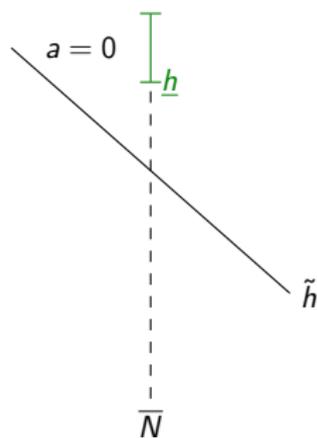


Dynamics of Behavior with Fixed Norms

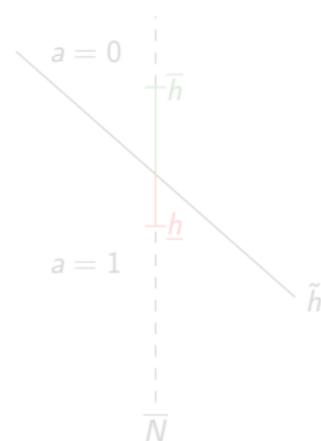
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Always Abuse



Case 2: $\tilde{h}(\bar{N}) < \underline{h}$
Always Respect

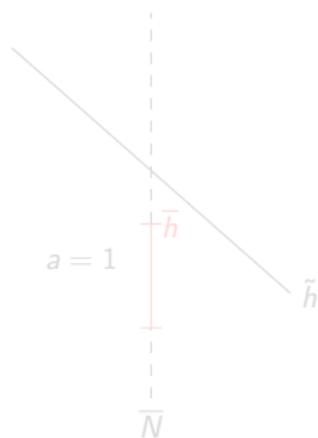


Case 3: $\underline{h} < \tilde{h}(\bar{N}) < \bar{h}$
Some Abuse
Others Respect

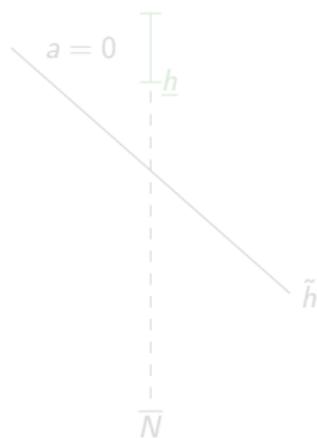


Dynamics of Behavior with Fixed Norms

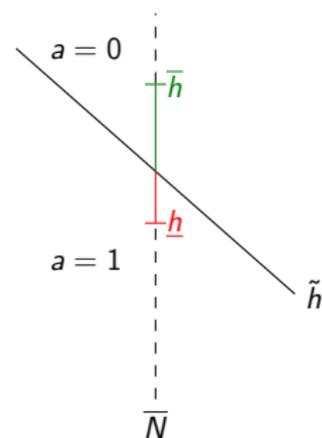
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Always Respect



Case 3: $\underline{h} < \tilde{h}(\bar{N}) < \bar{h}$
Some Abuse
Others Respect



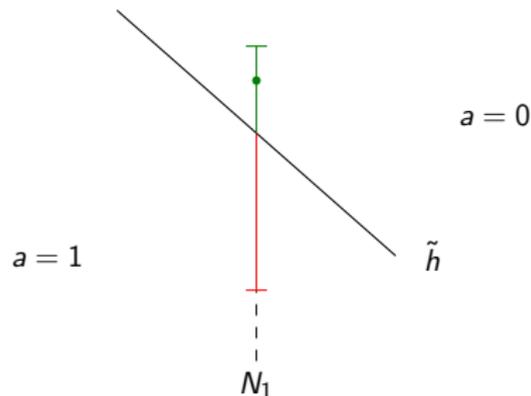
Dynamics of Behavior with Endogenous Norms

- The three cases characterized before are still possible
- Endogenous norms make Case 3 less likely
 - ▶ Case 3 can devolve into Case 1, Case 2, or a new possibility Case 4
- Case 4: the economy converges to either the high-norm/respect steady state or the low-norm/abuse steady state

Dynamics of Behavior with Endogenous Norms:

From Case 3 to Case 1

Converging to abuse

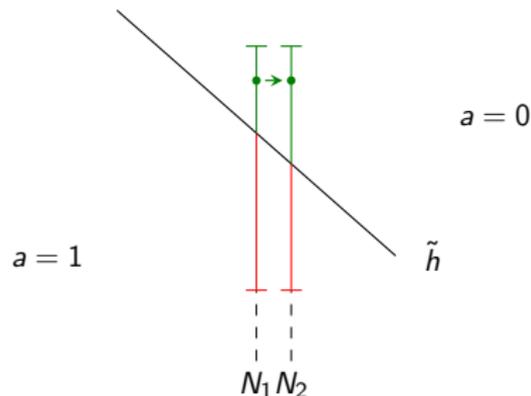


- $\bar{h} > \tilde{h}(N_1)$: Norms may improve
- $\underline{h} < \tilde{h}(N)$ for all N : Norms must eventually weaken
- There exists N_* s.t. $\bar{h} < \tilde{h}(N_*)$: Absorption when sufficiently weakened
- Case 3 to Case 2 is analogous

Dynamics of Behavior with Endogenous Norms:

From Case 3 to Case 1

Converging to abuse

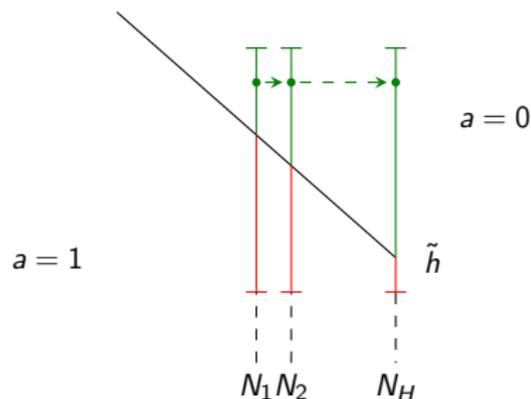


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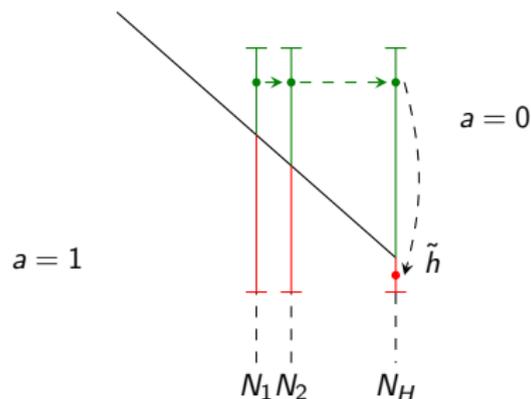


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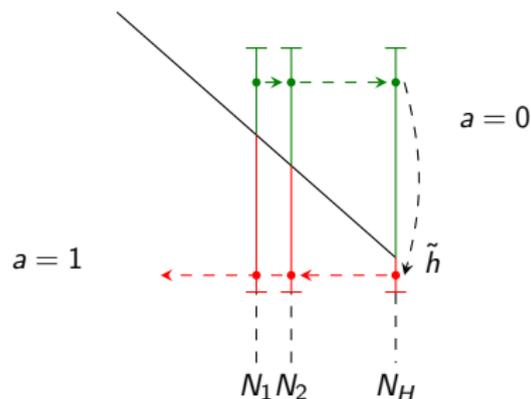


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Dynamics of Behavior with Endogenous Norms:

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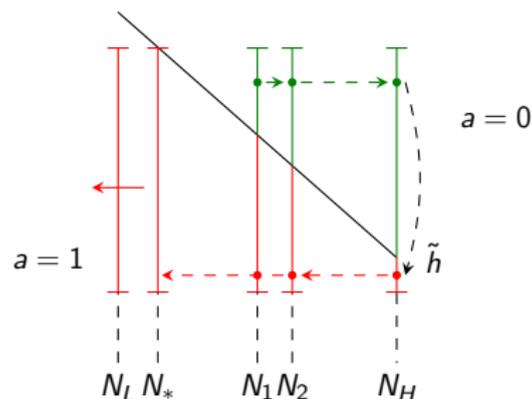


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Dynamics of Behavior with Endogenous Norms:

From Case 3 to Case 1

Converging to abuse

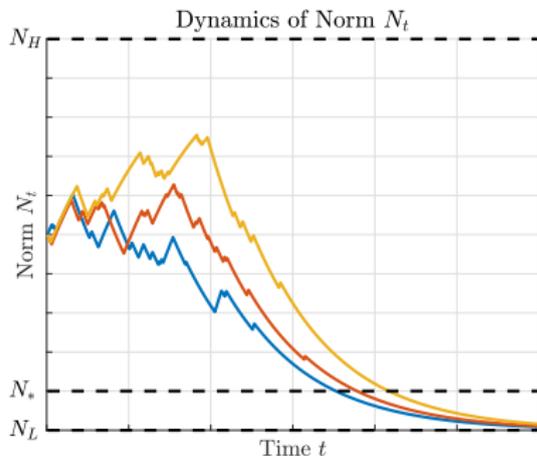
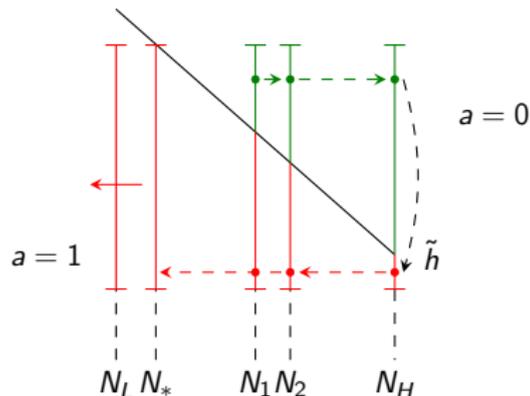


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Dynamics of Behavior with Endogenous Norms:

From Case 3 to Case 1

Converging to abuse

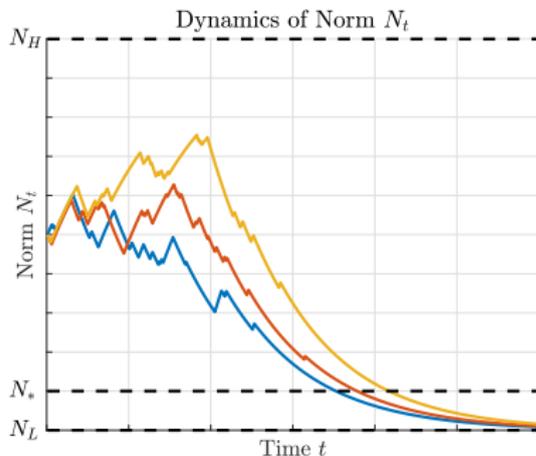
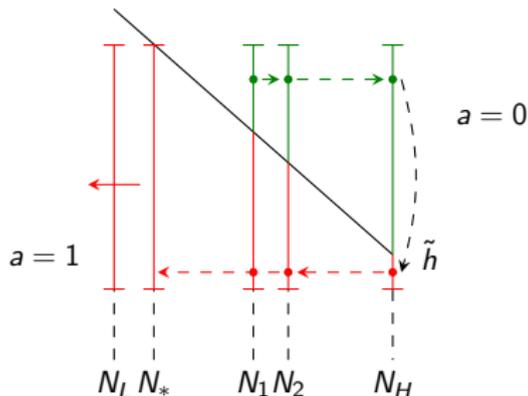


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Dynamics of Behavior with Endogenous Norms:

From Case 3 to Case 1

Converging to abuse

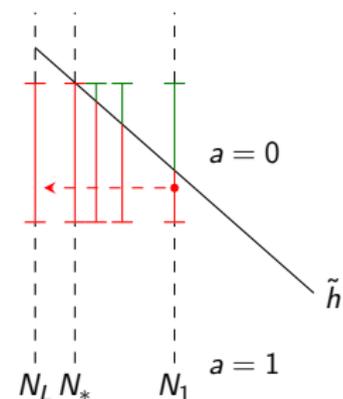


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Dynamics of Behavior with Endogenous Norms

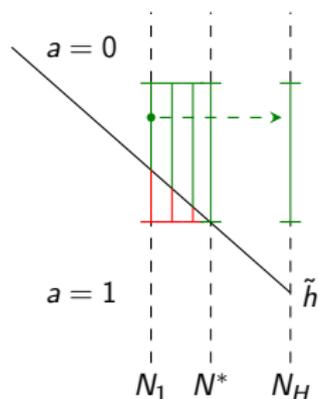
Case 4

Converging to abuse



- $\exists N$ s.t. $\underline{h} < \tilde{h}(N)$:
Norms may weaken
- $\exists N_*$ s.t. $\bar{h} < \tilde{h}(N_*)$: Absorption
when sufficiently weakened

Converging to respect



- $\exists N$ s.t. $\bar{h} > \tilde{h}(N)$:
Norms may improve
- $\exists N^*$ s.t. $\underline{h} > \tilde{h}(N^*)$: Absorption
when sufficiently strong

Dynamics of Behavior with Endogenous Norms

Case 4

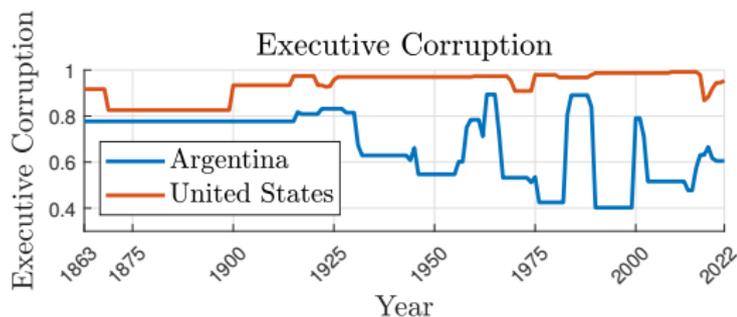
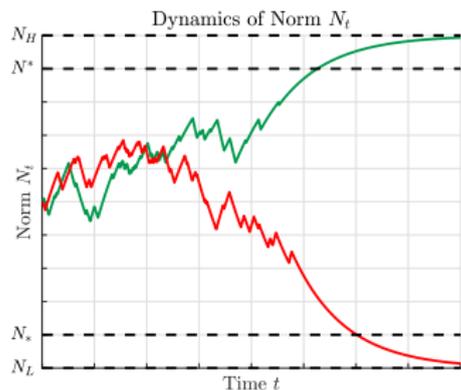
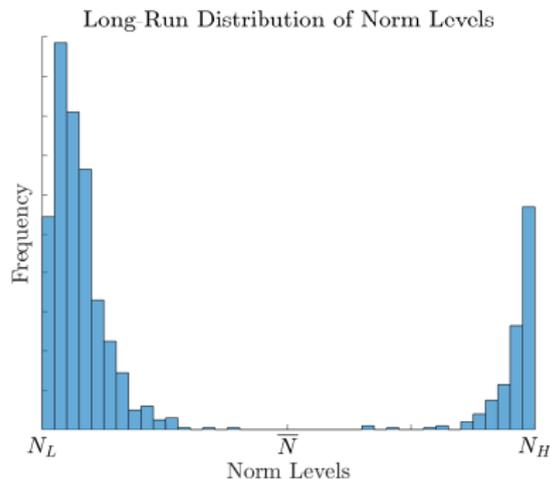
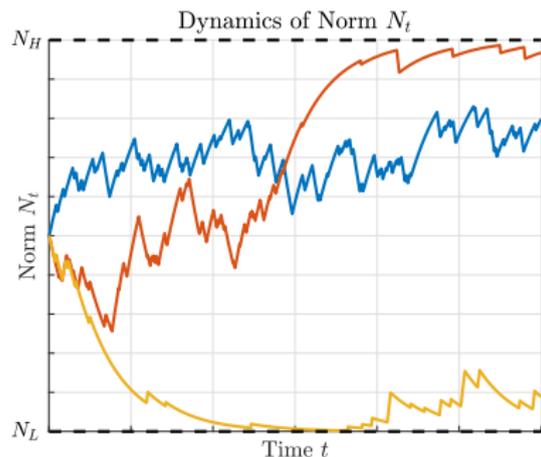


Figure: Left: Sample Paths. Right: Executive Corruption Index from V-Dem

- The early leadership plays a crucial role in determining which outcome prevails
- This is possible only when norms endogenously evolve

Dynamics of Behavior with Endogenous Norms

Case 3

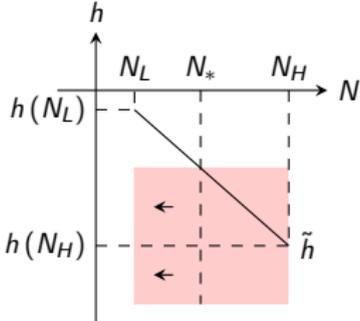


- Most of the density is in the extremes
- The distribution is skewed toward the left when replacement is low for low norm levels

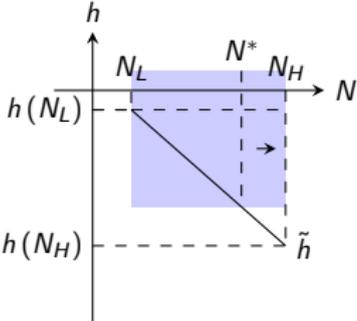
Dynamics of Behavior with Endogenous Norms

Theorem 2

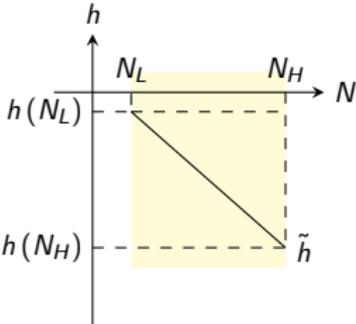
Case 1: Always Abuse



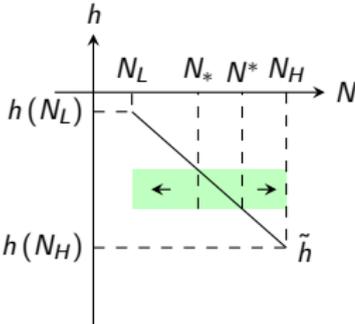
Case 2: Always Respect



Case 3: Periods of Both Abuse and Respect



Case 4: Converging to either Abuse or Respect



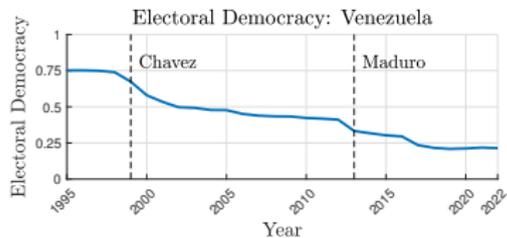
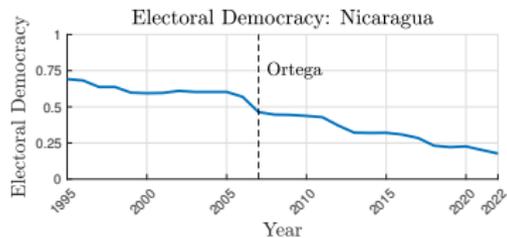
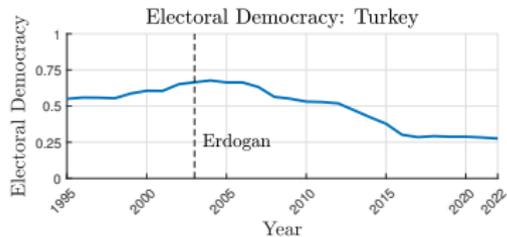
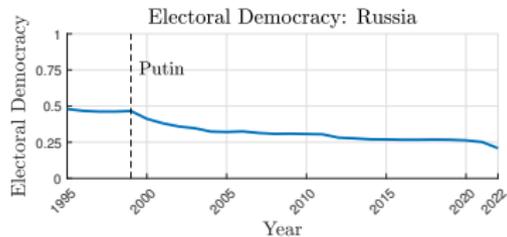
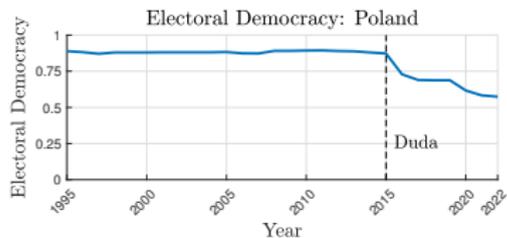
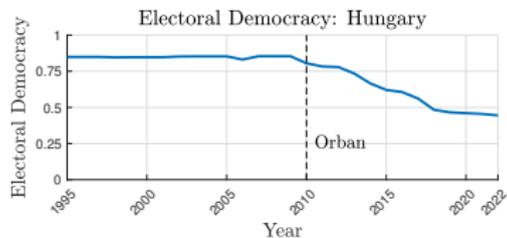
Democratic Backsliding

- Many autocracies are the result of a slow erosion of institutions
- Abuse action: replacing key figures who might limit the leader's power
 - ▶ Political setting: court packing, changing the people in charge of supervising elections
 - ▶ Corporate setting: board capturing
- Autocracy: once the norm is sufficiently eroded, no replacement
 $\lambda_1(N) = 0$

Democratic Backsliding

- Many autocracies are the result of a slow erosion of institutions
- Abuse action: replacing key figures who might limit the leader's power
 - ▶ Political setting: court packing, changing the people in charge of supervising elections
 - ▶ Corporate setting: board capturing
- Autocracy: once the norm is sufficiently eroded, no replacement
 $\lambda_1(N) = 0$

Democratic Backsliding



Restoration of Democratic Practices

- Suppose that $\lambda_1(N_t) > 0$ even though N_t is low
- A chance to recover and reestablish the necessary checks and balances
- Assume $H_t = \{h_{t-1}, h^h\}$:
 - ▶ h_{t-1} : another despot (e.g., family member or a political rival who would continue the current practice)
 - ▶ h^h : a "hero" type $h^h > \bar{h}(N_t)$
- Can help explain the difficulty in restoring democratic practices in former autocratic regimes
- This is particularly hard when such a heroic figure is absent (e.g., Egypt, Libya, and Tunisia)

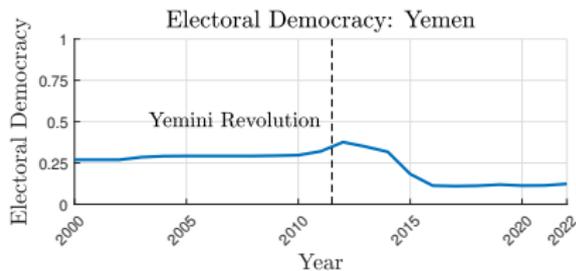
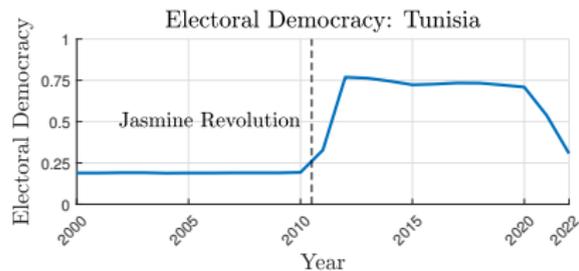
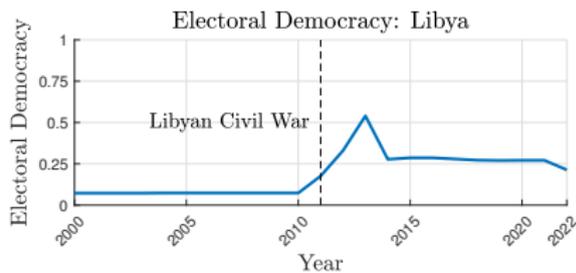
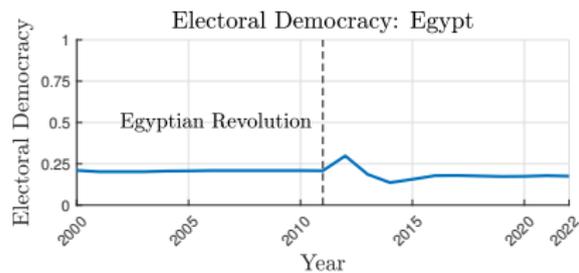
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From Spring to Winter



Discussions and Extensions

- ① Term Limits
- ② Endogenous Leader Types (Endogenous H)
- ③ Endogenizing Accountability and Leader Replacement (Endogenous λ)
- ④ Comparative Statics

Term Limits

- Finite horizon $T \Rightarrow \lambda(a_T, N_T) = 1$
- Can characterize the optimal action sequence by backward induction
- Without stationarity, a switch from Respect to Abuse is possible
- $T = 2$: (Respect, Abuse) is optimal when
 - ▶ Low type h
 - ▶ High benefit b
 - ▶ $\lambda_1(\bar{N}) > \lambda_0(\bar{N})$
- Adding a term may change the behavior of the leader
 - ▶ Both $(0, 1) \Rightarrow (0, 0, 1)$ and $(0, 1) \Rightarrow (1, 1, 1)$ are possible
- Long-run Dynamics: Similar to Theorem 2

Endogenous Leader Types

- Distribution on H : can depend on histories and norm levels
 - ▶ Higher norm level: the internal selection process may favor higher types
 - ▶ Lower norm level: lower types may be more likely to enter/succeed

⇒ The higher the norm, the higher the probability that a potential new leader is of a higher type

Endogenous Leader Types

Leaders' Decisions (Theorem 1)

- The characterization of the leaders' decision remains the same

Long-run Dynamics (Theorem 2)

- The same dynamics (Cases 1 to 4)
- Inertia: if the norm deteriorates, more likely to continue deteriorating (and vice versa)
- Faster convergence

Endogenizing Accountability and Leader Replacement

● Role of Media

- ▶ Thomas Jefferson: “Our liberty depends on the freedom of the press, and that cannot be limited without being lost”
- ▶ Media can be captured, threatened or censored: \Leftrightarrow lower N
- ▶ Weaker media \Rightarrow less accountability, $\lambda_1 - \lambda_0$ increasing in N
- ▶ Besley and Prat (2006), Guriev and Treisman (2020), Prat and Stromberg (2013)

● Political Patronage

- ▶ Lower N : more room for discretionary use of state resources
- ▶ Use of state resources for “vote buying”: $\lambda_1 - \lambda_0$ increasing in N
- ▶ Acemoglu et al. (2004)

● Political Competition

- ▶ Lower N : more room for creating an unfair playing field
- ▶ Fearon (2011)

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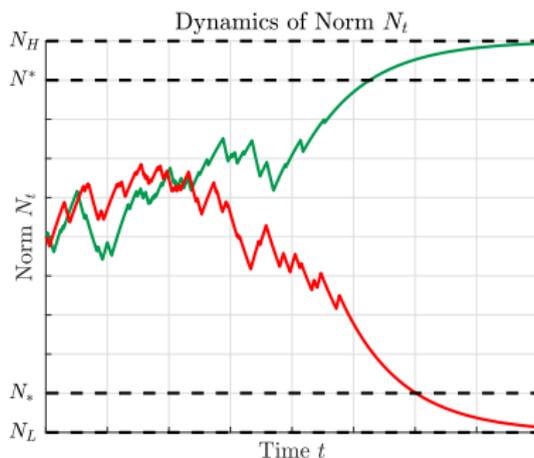
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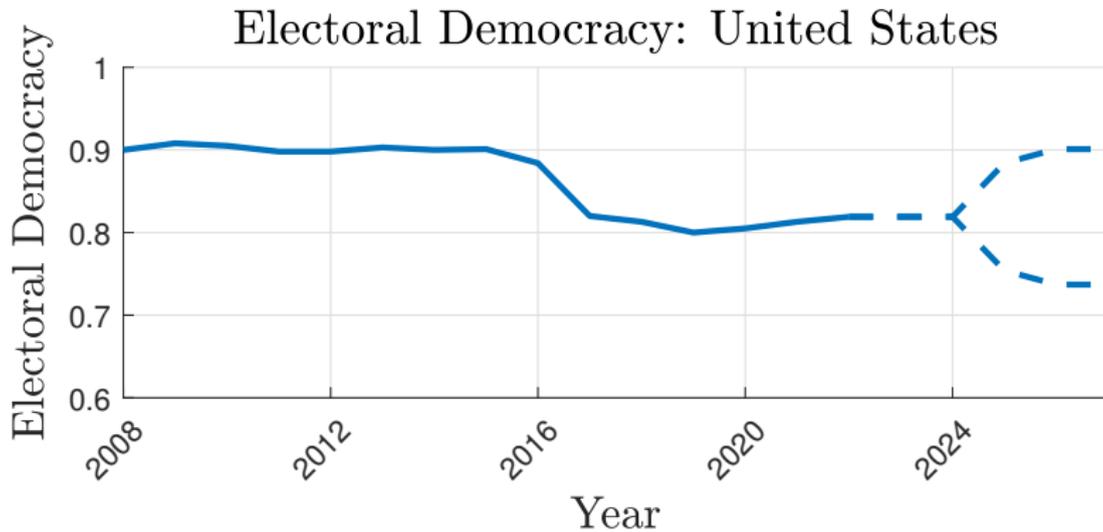
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Summary

- A simple model of the evolution of institutions through norm dynamics (polities, corporations)
- Leading to different long-run behavior even for institutions with the same formal rules
- The early leadership plays a crucial role in determining long-run outcomes
- Democratic backsliding, corporate board capturing, etc



Thank you very much!



Characterization of the Leader's Decision

Closed-form Solution

The downward-sloping threshold \tilde{h} is given by:

$$\tilde{h}(N) = \left(1 - \frac{\sum_{t=1}^{\infty} \beta^{t-1} (\prod_{s=1}^{t-1} (1 - \lambda_0(N_s^0)))}{\sum_{t=1}^{\infty} \beta^{t-1} (\prod_{s=1}^{t-1} (1 - \lambda_1(N_s^1))} \right) b - N_L \\ - \frac{\sum_{t=1}^{\infty} (\beta(1 - \delta))^{t-1} (\prod_{s=1}^{t-1} (1 - \lambda_1(N_s^1))}{\sum_{t=1}^{\infty} \beta^{t-1} (\prod_{s=1}^{t-1} (1 - \lambda_1(N_s^1))} (N - N_L),$$

and the value function is given by:

$$V(h, N) = \begin{cases} \sum_{t=1}^{\infty} \beta^{t-1} (\prod_{s=1}^{t-1} (1 - \lambda_0(N_s^0))) b & \text{if } h \geq \tilde{h}(N) \\ \sum_{t=1}^{\infty} \beta^{t-1} (\prod_{s=1}^{t-1} (1 - \lambda_1(N_s^1))) (b - (N_t^1 + h)) & \text{if } h \leq \tilde{h}(N) \end{cases},$$

where N_t^0 denotes the increasing path of norms when $a = 0$,

$$N_{t+1}^0 = (1 - \delta)N_t^0 + \delta\bar{N} + \gamma,$$

and N_t^1 the decreasing path of norms when $a = 1$,

$$N_{t+1}^1 = (1 - \delta)N_t^1 + \delta\bar{N} - \gamma$$

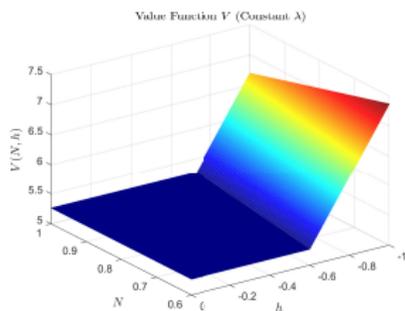
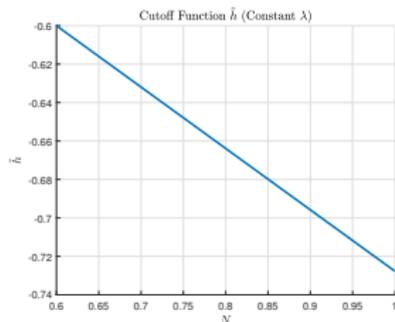
Characterization of the Leader's Decision

Suppose λ is constant. The downward-sloping threshold \tilde{h} is given by:

$$\tilde{h}(N) = -\frac{1 - \beta(1 - \lambda)}{1 - \beta(1 - \lambda)(1 - \delta)} (N - N_L) - N_L,$$

and the value function is given by:

$$V(N, h) = \begin{cases} \frac{b}{1 - \beta(1 - \lambda)} & \text{if } h \geq \tilde{h}(N) \\ -\frac{N - N_L}{1 - \beta(1 - \lambda)(1 - \delta)} + \frac{b - h - N_L}{1 - \beta(1 - \lambda)} & \text{if } h \leq \tilde{h}(N) \end{cases}.$$



Dynamics of Behavior when Norms are Endogenous

Theorem 2

In the long run:

Case 1: Leaders always abuse their position

Case 2: Leaders always respect their position

Case 3: Some leaders abuse their position while others respect their position

Case 4: Either leaders always abuse their position or they always respect their position

▶▶ A More Formal Statement

▶▶ Back

Dynamics of Behavior when Norms are Endogenous

Theorem 2

- 1 If (i) $\underline{h} < \tilde{h}(N_H)$ and (ii) $\bar{h} < \tilde{h}(N_L)$, then $N_t \downarrow N_L$ almost surely along any path.
- 2 If (i) $\underline{h} > \tilde{h}(N_H)$ and (ii) $\bar{h} > \tilde{h}(N_L)$, then $N_t \uparrow N_H$ almost surely along any path.
- 3 If (i) $\underline{h} < \tilde{h}(N_H)$ and (ii) $\bar{h} > \tilde{h}(N_L)$, then there exists a full-support limit distribution on $N_\infty \in (N_L, N_H)$.
- 4 If (i) $\underline{h} > \tilde{h}(N_H)$ and (ii) $\bar{h} < \tilde{h}(N_L)$, then almost surely along any path, either $N_t \downarrow N_L$ or $N_t \uparrow N_H$. There exists a limit distribution on $N_\infty \in \{N_L, N_H\}$.

Asymmetry between Norm-Destruction and Norm-Building

- $a_t = 1$: $N_{t+1} = (1 - \delta)N_t + \delta\bar{N} - \gamma_A$
- $a_t = 0$: $N_{t+1} = (1 - \delta)N_t + \delta\bar{N} + \gamma_R$
- $\gamma_A > \gamma_R$

Observations

- 1 The higher γ_R (resp. γ_A) is, the faster the absorption is
- 2 A higher γ_A leads to a higher cutoff \tilde{h}

Comparative Statics

Strengthening Formal Rules

- An increase in \bar{N} :
 - ① Lowers flow benefit from abusing today
 - ② Increases termination cost of abusing
 - ③ Lowers benefit of future abuse
- The threshold type $\tilde{h}(N)$ is decreasing in \bar{N}

(\Rightarrow) An increase in \bar{N} may deter a leader from abusing the position

Comparative Statics

Norms versus Formal Rules

- An increase in δ :
 - ① More importance of the formal rules in the long run
 - ② Less ability to persistently undermine institutions
- The threshold type $\tilde{h}(N)$ is decreasing in δ

(\Rightarrow) An increase in δ may deter a leader from abusing the position

Comparative Statics

Norms versus Formal Rules

- An increase in γ :
 - ① Norms are more malleable in the short run
 - ② Leaders can capture higher benefits (lower more their own standards) for the immediate future by abusing today
- The threshold type $\tilde{h}(N)$ is increasing in γ

(\Rightarrow) Leaders have more incentives to abuse their position

Comparative Statics

Termination Impact of Abuse versus Respect

- An increase in $\lambda_1 - \lambda_0$
 - ▶ Political setting: the scrutiny of media, political competition, or the independence of the supreme court
 - ▶ Corporate setting: the independence of the corporate board

(\Rightarrow) As oversight increases, the likelihood of abuse decreases

Comparative Statics

Patience

- An increase in β : continuation values are more important
 - ▶ If $\lambda_0(N) < \lambda_1(N)$
 - \Rightarrow an increase in β would induce less abuse
 - ▶ Conversely, if $\lambda_1(N) > \lambda_0(N)$
 - if abuse decreases the replacement probability
 - ▶ Leaders are more willing to “invest” in undermining the institutions

\Rightarrow The effect of β depends on the functional form of λ

Comparative Statics

Benefit from being in office

- The effect of b depends on the functional form of λ
 - ▶ See the closed-form solution for \tilde{h}
- For simplicity, assume $\lambda_1 > \lambda_0$: constant
- The abuse action is more likely to lead to losing the position
- ⇒ The leader is more likely to respect the institution for the “reelection” motives