Shaping Institutions*

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Abstract

We propose a simple model of the evolution of institutions, where leaders’ actions have a persistent effect by shaping the norms of the institutions they lead. This can lead to different long-run behavior even for institutions with the same formal rules. The early history of leaders plays a crucial role in determining which outcome prevails. Every period, leaders decide to respect or abuse their position. Respect strengthens the norms while abuse weakens them. Leaders’ type and current norms determine the benefit/cost of abusing the position. Norms also determine the replacement probability of leaders. We elucidate democratic backsliding and corporate-board capturing.

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1 Introduction

The legal framework detailing the duties and responsibilities of institutional leaders—for example, presidents and CEOs—is naturally incomplete. Thus, political and corporate norms play an important complementary role in shaping the behavior of leaders. For example, as Renan (2018) puts it: “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 respectworthy behavior.”

In turn, norms are malleable, and an important component in the evolution of norms is the behavior of those leading the institutions. Thus, the actions of past leaders have long-lasting effects on the actions of future leaders. As President George Washington wisely observed, “There is scarcely any part of my conduct which may not hereafter be drawn into precedent” (Greenstein 2009). As a result, two economies or organizations with the same formal institutions can have very different long-term outcomes because of the examples set by their early leadership. Also, importing elements from the formal legal framework of a successful nation is likely to fail if the local norms and customs are not properly accounted for.

We present a simple model to capture these ideas. In our model, the legal framework determines the initial institutional strength. Thereafter, it evolves endogenously as a function of the leader’s actions. Leaders can either abuse or respect the institution. Abuse weakens the norms. For example, what used to cause a scandal can become “normal” behavior. Conversely, norms are also strengthened after they have been respected.

In turn, the institutional strength influences the behavior of the leader in two dimensions. Firstly, the weaker the institution the larger the payoff the leader can reap from abusing it. Secondly, abusing power can affect the possibility of staying in office in two ways. First, misbehavior can be scandalous and increase the likelihood of being replaced. Second, in the opposite direction, abuse can allow for more political patronage, capturing the corporate board, or election meddling favoring the incumbent. Which of these effects dominates can itself be a function of the norms.

The leader’s behavior also depends on her type. The leader’s type determines the relative flow benefit of being in office under both actions. In our model, higher types are either more moral or less skilled at cheating and thus reap less benefits from abusing their position.

We parametrize how responsive institutional strength is to prior behavior. This allows us

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1President Trump was severely criticized for not revealing his tax records, but it is likely that similar actions by future candidates will not be similarly frowned upon since there is now a precedent. It is important to note as well that before President Ford shared his tax records in the seventies there did not used to be a norm of doing this, so we can easily return to that benchmark.
to establish our main result: endogenous norm response is crucial for obtaining two possible long-term absorbing states for a given initial condition.

For a given set of leader types, when norms do not evolve, we have three possibilities: (i) weak norms which always promote abuse; (ii) strong norms which always promote respect; or (iii) intermediate norms which elicit a different behavior depending on the leader’s type. Instead, when norms evolve endogenously, a fourth possibility arises. While a sequence of moral leaders can steer the economy into a steady state of strong norms and respect, a sequence of unethical leaders can steer the economy into a steady state of weak norms and abuse. This case is important for understanding why several countries, such as Argentina, even though they modeled their constitutions after the United States, seem to be in a very different steady state (see, for instance, Alston and Gallo, 2010). Of course, there can be many factors explaining the long-term differences, but the US might also have been somewhat lucky with the leaders it has had. Remarking on President Trump’s damage to American democracy, Kamarck (2021) points out “Fortunately, we haven’t had many of those in our 200-plus years of history.” In the corporate setting, the importance of early leadership on shaping organizational culture has been pointed out by Schein (1983).

This endogenous evolution of norms also helps rationalize the concerns about the long-term effects of President Trump’s disregard for several institutional traditions. This widely held sentiment was captured by Foran (2016): “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.”

One crucial norm that has been severely attacked is the idea of accepting the outcome of elections. The long-lasting effect of President Trump’s actions can be observed in the fact that a large fraction of the Republican electorate continued to believe the election lies years after the event. A poll requested by Newsweek on October 30th 2022 found that “40 percent of Americans believe that the 2020 presidential election... was rigged or stolen.”

Several empirical papers provide additional support to these concerns by pointing out the importance of path dependence in shaping institutions. La Porta et al. (1999) demonstrate the role of exogenous political historical factors in explaining government performance. Acemoglu et al. (2008) argue that cross-sectional relationship between democracy and income

3For a broad overview, see, for instance, North (1990), Pierson (2000), and Acemoglu et al. (2021).
today is the result of societies embarking on divergent development paths at certain historical critical junctures (e.g., the founding of a nation in the context of our paper). Papers such as Acemoglu et al. (2001), Glaeser et al. (2004), and Acemoglu and Robinson (2008) demonstrate persistence of institutional outcomes. Syverson (2004) and Hsieh and Klenow (2009) report persistent performance differences among seemingly similar enterprises.

Consistently with this evidence, our paper shows (i) how countries or corporations with similar formal institutions may end up diverging due to the early leaders’ behavior; and (ii) that there is a level of norm below (above) which the norm level persistently goes down (up). In this sense, our paper provides a dynamic micro-foundation for multiple steady states.

An important element determining the long-run properties of the model is the distribution of leader types. In the corporate context, Bertrand and Schoar (2003) document the importance of “types” by showing that individual managers’ characteristics affect corporate behavior and performance. Even with very strong norms, a very extreme type might still prefer to abuse. As Klein (2016) observed “The normal constraints, meanwhile, are failing this year. Trump does not have enough shame to check himself... He doesn’t care if he’s condemned, or called a bigot, or shown to be a liar.” Looking forward, Pfiffner (2021) points out: “The broader impact of President Trump’s behavior will depend crucially on the character of future presidents.”

The distribution of possible leader types can itself be responsive to the state of the system. We can extend our model to accommodate this possibility. For example, when there is a very poor institutional environment and abuse is more profitable, types that seek office with this purpose are more likely to enter. In addition, once a system becomes very corrupt it might become very hard to rise to power within a party/organization if one is not willing to engage in (or tolerate) corruption. As a result, the distribution of types can shift down making it more unlikely to select a sufficiently honest leader who would not abuse their position.

Another possibility we can capture with an endogenous distribution of leader type is what might arise after a long period of abuse when the current leader becomes so powerful (weak norms) that it is very unlikely to be replaced. In the political context, there could be two types replacing the current leader, another despot (perhaps the son of the current leader as it has occurred in North Korea or some rival) or we could have the emergence of patriotic heroes, types that are willing to risk their life to help restore institutions. In the corporate context, the set of types that are considered for the CEO position can respond to a previous scandal. For instance, after more than 150 years of German leadership, Siemens hired its first non-German CEO following a bribery scandal.

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4This is similar in spirit to the “prominent” agents in the model by Acemoglu and Jackson (2015) that can restore cooperative behavior.
Related Literature

The legal and political-science literature has long studied the roles of informal rules and norms that political leaders face, as early as Bryce (1888 [1995]). More recently, in the legal scholarship literature, Renan (2018) and Ahmed (2022), for instance, study how such “presidential norms” or “constitutional norms” augment and constrain presidential powers. In the political science literature, Azari and Smith (2012) and Levitsky and Ziblatt (2018), for instance, study the roles of informal rules and norms on democratization and autocratization. Levitsky and Way (2015) and Huq and Ginsburg (2018) point out that democratic backsliding in the world has been caused not by coups but by elected governments, suggesting the importance of constitutional norms. Chaves in Venezuela, Erdogan in Turkey, and Orbán in Hungary are recent prominent examples. In the literature on democratic consolidation, a process through which democratic forms are unlikely to revert to authoritarianism (e.g., O’Donnell and Schmitter, 1986; Linz, 1990), O’Donnell (1996) argues the importance of informal rules, and Linz (1978) study how political leaders’ behavior can either reinforce or diminish democracy. Almond (1956) argues the role of “political culture” on the functioning of government (see also Almond and Verba, 1963; Diamond, 1999). Our paper contributes to these strands of literature by providing a micro-founded process in which institutional norms are gradually eroded or reinforced. This allows us to obtain long-run configurations of institutional norms.

Political scientists and economists have analyzed determinants of corruption. In the theoretical literature, Andvig and Moene (1990) present a static model of corruption with multiple equilibria which tries to explain why the same socio-economic structure can give rise to different levels of corruption. In the empirical literature, Tanzi (1998) points out the role of the example provided by the political leadership. Our paper formalizes the role that the current political leadership plays on the behavior of the future leaders and thus a rationale for persistence of corruption. Also, as pointed out by Paldman (2002), countries with similar backgrounds can drift into very different corruption regimes (e.g., Argentina and Chile).

Although in our model norms of checks and balances are disembodied, one could interpret the abusive action of the leaders as placing “yes-men” in supervisory or control positions. In the political setting, supporting election deniers to the secretary of state position is such an example. In the corporate setting, this would correspond to the CEO “capturing” the board. Discussing the Volkswagen emissions scandal of 2015, Alexander Juschus, director

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at IVOX, the German proxy adviser, remarked “The scandal clearly also has to do with structural issues at VW... There have been warnings about VW’s corporate governance for years, but they didn’t take it to heart and now you see the result.”

There is a large strand of literature in accounting and corporate finance discussing this as a concern and its potentially negative effects.

There is also a broad literature on leadership. See, for instance, Gibbons and Henderson (2013) for the context of organizations and Myerson (2011) political economy. While our paper studies the role of the current leader on the behavior of future leaders, the role of leadership in our model is quite different from the one in the leadership literature, as our focus is on norms that link the behaviors of the current and future leaders. In this way we also distinguish ourselves from the broad literature that discussed leadership and culture, which is mostly focused on the contemporaneous influence of the CEOs on other employees of the organization (e.g., Ashforth and Anand 2003; Biggerstaff et al. 2015; Guiso et al. 2015).

There are a large number of papers that study the role of “social capital” on the functioning of governments (e.g., Putnam 1993; Guiso et al. 2016). In particular, Persson and Tabellini (2009) theoretically and empirically study the notion that they formulate as “democratic capital,” measured by a nation’s historical experience with democracy and the incidence of democracy in its neighborhood. They demonstrate that democratic capital reduces the exit rates from democracy and raise the exit rates from autocracy. Turning to the corporate context, Dessein and Prat (2022) study a model of “organizational capital,” an intangible asset that has to be maintained by a leader. Organizational capital affects firm performance. The leader faces whether to increase organizational capital or boost short-term profit. They characterize a steady state distribution of organizational capital in which otherwise similar firms may have persistent performance differences. Although similar long-run dynamics can arise in our model, mechanisms are very different. In particular, in our setting, a more patient leader may have less incentives to improve norms. In contrast, in their model, a more patient leader has stronger incentives to invest in organizational capital.

2 Model

Every period $t \in \{1, 2, \ldots \}$, the incumbent leader must decide on one of two actions $a_t \in \{0, 1\}$. The action $a_t = 1$ represents the leader abusing her position or cheating. In contrast,
\(a_t = 0\) represents the leader abiding by the rules. The leader’s time \(t\) payoff from taking either of these actions is determined by two elements: (i) its type, \(h\), representing the leader’s level of honesty or ability to cheat; and (ii) the norm level \(N_t\) determining the institutional strength. We assume
\[
u(a_t, N_t, h) := b - a_t(N_t + h).
\]
The first term \(b \geq 0\) is the benefit of being in power. Thus, if the leader respects the rules (i.e., \(a_t = 0\)), then the payoff is \(b\). If the leader abuses her position (i.e., \(a_t = 1\)), then the payoff is \(b - (N_t + h)\). The second term measures the incremental benefit/cost of abusing power. Note that this payoff is decreasing in the strength of norm \(N_t\) and in the honesty parameter \(h\).

Importantly, when deciding which action to take, the leader also takes into consideration how her actions affect her probability of remaining in power. We denote the replacement probability at time \(t\) by the function \(\lambda(a_t, N_t)\). We assume: (i) \(0 \leq \lambda(a_t, N_t) \leq 1\); (ii) \(\lambda_0(N_t) := \lambda(0, N_t)\) is non-increasing and continuous; and (iii) \(\lambda_1(N_t) := \lambda(1, N_t)\) is non-decreasing and continuous. The first assumption is needed since \(\lambda\) is a probability. Assumptions (ii) and (iii) imply that \(\lambda_0(N_t) - \lambda_1(N_t)\) is non-increasing in \(N_t\). This is meant to capture the idea that the higher the norms, the more likely it is that abusing power will lead to losing the position. Note that our setup allows for the existence of some norm level \(\tilde{N}\) such that for \(N_t < \tilde{N}\) abusing power enhances the probability of remaining in office \(\lambda_0(N_t) - \lambda_1(N_t) > 0\) while for \(N_t > \tilde{N}\) abusing power lowers the probability of remaining in office \(\lambda_0(N_t) - \lambda_1(N_t) < 0\). The interpretation of this is that when the norms are low abusing power allows the politician to engage in activities that might help her get re-elected such as: patronage, bread and circuses, or directly meddling with the elections, while facing little risk of a scandal. The model also allows us to contemplate the extreme possibility that when norms are sufficiently weakened a leader can guarantee remaining in power by abusing her position, i.e., \(\lambda_1(N_t) = 0\).

The strength of the norms at time \(t\), \(N_t\), is a function of some formal set of rules, \(\tilde{N}\), and the history of actions by past leaders. Formally, we assume norms evolve according to:
\[
N_{t+1} = (1 - \delta)N_t + \delta \hat{N} + (1 - 2a_t)\gamma,
\]
\(8\)Our main results extend to the case in which the benefit from being in power depends on the norm level \(N_t\), e.g., \(bN_t\).
\(9\)Our main results extend straightforwardly to the case in which the payoff from cheating is separable and decreasing in \(N_t\) and \(h\).
\(10\)In the context of a private organization, we can think of this as depicting the possibility that the CEO can “capture” the board.
with initial condition \( N_1 = \overline{N} \). If the leader respects the rules, \( a_t = 0 \), then the strength of norm increases by \( \gamma \geq 0 \). If, in contrast, the leader abuses her position, \( a_t = 1 \), then the strength of the norm decreases by \( \gamma \). Thus, \( \gamma \) measures the short-run sensitivity of norms to behavior. The parameter \( \delta \in (0, 1] \) is akin to a rate of depreciation in capital accumulation models. The first two terms, \( (1 - \delta)N_t + \delta \overline{N} \), have the effect of mean reversion to \( \overline{N} \). This highlights the sense in which the formal written rules have a more persistent role. Lower \( \delta \) implies a longer lasting impact of current actions on future norms.

Remark 1. Assume \( \delta < 1 \).

1. \( N_t \in (\overline{N} - \frac{\gamma}{\delta}, \overline{N} + \frac{\gamma}{\delta}) \) for all \( t \in \mathbb{N} \).

2. If \( a_t = 0 \), then \( N_{t+1} > N_t \).

3. If \( a_t = 1 \), then \( N_{t+1} < N_t \).

Remark 1 implies that \( N_{t+1} < N_t \) if and only if \( a_t = 1 \).

For a leader of type \( h \), if we denote the leader’s strategy at time \( t \) by \( a = (a_t, a_{t+1}, \ldots) \), then the discounted value from following strategy \( a \) given norm level \( N_t \) is:

\[
V(h, N_t | a) := \sum_{s=t}^{\infty} \beta^{s-t} \Pi_s u(a_s, N_s, h),
\]

where \( \beta \in (0, 1) \) is the leader’s discount rate and \( \Pi_s(a_{s-1}, N_{s-1} | \Pi_{s-1}) \) denotes the probability that the leader is still in power in a given future period \( s \). It can be defined recursively as:

\[
\Pi_s := \begin{cases} 
1 & \text{if } s = t \\
(1 - \lambda(a_{s-1}, N_{s-1}))\Pi_{s-1} & \text{if } s > t 
\end{cases}
\]

Lastly, if the leader gets replaced at the end of time \( t \), then a new leader can be drawn from a distribution with full support \( H_t = [\underline{h}, \overline{h}_t] \). Although the evolution of \( H_t \) plays no role in determining the optimal actions of the leader at time \( t \), it can have implications for the long-run properties of the institution. We will first consider the case \( H_t = H \) for all \( t \) and postpone to Section 4 the case of an endogenous evolution of \( H_t \).

3 Main Analysis

We divide our main analysis into two subsections. In the first, we study the optimal sequence of actions for a given leader facing a given level of norms. In principle the leader could choose
any arbitrary sequence of actions but, importantly, we are able to show that it is optimal for the leader not to switch from one action to another. This allows us to derive an explicit closed-form characterization for the cutoff type for a given norm level $N$ which we denote $\tilde{h}(N)$ and also the leader’s value function. With that important property established, we can then study the dynamics of the norms in the second subsection.

3.1 Characterization of a Leader’s Decision

Consider a leader with honesty $h \in H$ when the norm level is $N \in (\bar{N} - \frac{\gamma}{\delta}, \bar{N} + \frac{\gamma}{\delta})$. The leader’s problem can be stated recursively by the following Bellman equation:

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

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

Note that: (i) as the maximum is taken over the binary values, the right-hand side of the Bellman equation is well-defined; and (ii) since $\beta (1 - \lambda(a, \bar{N} - \frac{\gamma}{\delta})) < 1$, the operator that associates, with each candidate value function $V$, the right-hand side of the Bellman equation is a contraction mapping, as the usual Blackwell conditions are satisfied. Thus, the unique value function $V$ that satisfies the above Bellman equation exists.

To characterize the leaders’ optimal actions, consider the effects of choosing abuse versus choosing respect. Firstly, the flow payoff changes. If a leader abuses at $t$, then she gets an extra $- (N_t + h)$ flow payoff at $t$. Secondly, there are two additional effects on the continuation payoffs. First, by abusing, the probability of being in power in the next period changes from $\lambda_0(N_t)$ to $\lambda_1(N_t)$. Second, conditional on remaining in power, the continuation value changes from $V(h, (1 - \delta)N_t + \delta \bar{N} + \gamma)$ to $V(h, (1 - \delta)N_t + \delta \bar{N} - \gamma)$. Given these various effects, it is hard to solve for the optimal policy directly.

Instead, we rely on the property that, for any $N_t$, $N_{t+1} > N_t$ if and only if $a_t = 0$ (Remark 1) to make progress. This property implies that if there exists a non-increasing cutoff function $\tilde{h}$ such that the policy function $a^*$ satisfies the following: the politician of type $h$ takes $a^*(N, h) = 1$ if $h < \tilde{h}(N)$ and $a^*(N, h) = 0$ if $h > \tilde{h}(N)$, then the optimal action sequence is constant. This follows because if it is optimal for the leader to abuse today, i.e., $h < \tilde{h}(N_t)$, then $N_{t+1} < N_t$ and thus $h < \tilde{h}(N_t) \leq \tilde{h}(N_{t+1})$.

Next, we guess and verify that the cutoff function $\tilde{h}$ is non-increasing. Given the conjecture, if $h < \tilde{h}(N)$, then the leader abuses the position forever, as $h < \tilde{h}(N) \leq \tilde{h}(N^I_t)$, where
\( N_t^1 \) denotes the decreasing path of norms when \( a = (1, 1, \ldots) \). Thus,

\[
V(N, h \mid (1, 1, \ldots)) = \sum_{t=1}^{\infty} \beta^{t-1} \left( \prod_{s=1}^{t-1} (1 - \lambda_1(N_s^1)) \right) \left( b - (N_t^1 + h) \right).
\] (2)

On the other hand, if \( h > \tilde{h}(N) \), then the leader respects forever, as \( h > \tilde{h}(N) \geq \tilde{h}(N_t^0) \), where \( N_t^0 \) denotes the increasing path of norms when \( a = (0, 0, \ldots) \). Thus,

\[
V(N, h \mid (0, 0, \ldots)) = \sum_{t=1}^{\infty} \beta^{t-1} \left( \prod_{s=1}^{t-1} (1 - \lambda_0(N_s^0)) \right) b.
\] (3)

Then, the cutoff function can be simply computed by solving for

\[
V(N, \tilde{h}(N) \mid (0, 0, \ldots)) = V(N, \tilde{h}(N) \mid (1, 1, \ldots)).
\] (4)

Since the replacement probability \( \lambda_0 \) is non-decreasing in \( N \) and the flow payoff is constant when \( a = (0, 0, \ldots) \), the left-hand side is non-decreasing in \( N \) and does not depend on \( h \). Since the replacement probability \( \lambda_1 \) is non-increasing in \( N \) and the flow payoff are non-increasing in \( N \) and \( h \) when \( a = (1, 1, \ldots) \), the right-hand side is non-increasing in \( N \) and \( h \). Then, it must be the case that \( \tilde{h} \) is non-increasing in \( N \).

This allows us to obtain closed-form solutions for the value function in both cases and verify that indeed the implied optimal policy cutoff function is non-increasing in \( N \) as conjectured. Formally we have:

**Theorem 1.** The leader’s optimal action is constant over time. For any given \( N \in (\overline{N} - \frac{\gamma}{\delta}, \overline{N} + \frac{\gamma}{\delta}) \), there exists \( \tilde{h}(N) \in \mathbb{R} \) such that if \( h < \tilde{h}(N) \) the leader abuses her position and if \( h > \tilde{h}(N) \) the leader respects the rules. The threshold \( \tilde{h}(N) \) is non-increasing in \( N \) and is given by:

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

\[
- \frac{\sum_{t=1}^{\infty} \beta(1 - \delta)^{t-1} \left( \prod_{s=1}^{t-1} (1 - \lambda_1(N_s^1)) \right)}{\sum_{t=1}^{\infty} \beta^{t-1} \left( \prod_{s=1}^{t-1} (1 - \lambda_1(N_s^1)) \right)} \left( N - \left( \overline{N} - \frac{\gamma}{\delta} \right) \right),
\] (5)

and the value function satisfies:

\[
V(h, N) = \begin{cases} 
\sum_{t=1}^{\infty} \beta^{t-1} \left( \prod_{s=1}^{t-1} (1 - \lambda_0(N_s^0)) \right) b & \text{if } h \geq \tilde{h}(N) \\
\sum_{t=1}^{\infty} \beta^{t-1} \left( \prod_{s=1}^{t-1} (1 - \lambda_1(N_s^1)) \right) \left( b - (N_t^1 + h) \right) & \text{if } h \leq \tilde{h}(N),
\end{cases}
\] (6)

where \( N_t^0 \) denotes the increasing path of norms when \( a = 0 \), \( N_{t+1}^0 = (1 - \delta)N_t^0 + \delta\overline{N} + \gamma; \)
and $N_t^1$ the decreasing path of norms when $a = 1$, $N_{t+1}^1 = (1 - \delta)N_t^1 + \delta \mathcal{N} - \gamma$.

We note that if the replacement probability $\lambda$ is constant, then the threshold function $\tilde{h}$ reduces to a simple linear equation.

When there are term limits as we will discuss in Section 4.5, it is no longer the case that the optimal action sequence is constant. This is because the problem is not stationary. In particular, the leader may have an additional incentive to abuse in the last period since there is no impact on the replacement probability. Yet in this case, characterizing the optimal action is easier since we can proceed by backward induction.

3.2 Dynamics of Norms

We now study the dynamics of norms. We assume that the set from which leader types are drawn, $H$, is a compact interval $H = [\underline{h}, \overline{h}]$ and that, when a leader is replaced, the next leader’s type is drawn from a distribution $F_H$ with full support $H$. At time $t = 1$, the norm level starts with $N_1 = \mathcal{N}$. A leader with type $h_1$ is chosen according to the distribution $F_H$. Then, the leader makes her decision $a_1 = a^*(\mathcal{N}, h_1)$, which leads to the norm level $N_2 = \mathcal{N} + (1 - 2a_1)\gamma$ at the beginning of the next period. In period $t \geq 2$, with probability $1 - \lambda(a_{t-1}, N_{t-1})$, the incumbent stays in power: $h_t = h_{t-1}$. Otherwise, with probability $\lambda(a_{t-1}, N_{t-1})$, a new leader with type $h_t \in H$ is chosen (independently of histories). In either case, the politician at time $t$ takes $a^*(N_t, h_t)$, which determines the level of norm $N_{t+1}$ at the beginning of the next period and so on. For ease of presentation, this subsection assumes $\lambda(\cdot, \cdot) \in (0,1)$.[11] Below we characterize the long-run properties of norms.

To highlight the importance of the endogenous norms, we first discuss the case in which norms are constant, i.e., $N_t = \mathcal{N}$. This is the case when $(\delta, \gamma) = (1, 0)$. In this case, there are three possibilities: (i) if $\tilde{h}(\mathcal{N}) > \overline{h}$ then all types want to abuse power and that is the only outcome observed; (ii) if $\tilde{h}(\mathcal{N}) < \underline{h}$ then no type abuses power and rules are always respected; and (iii) $\underline{h} > \tilde{h}(\mathcal{N}) > \overline{h}$ then there is a subset of types that would abuse power and a subset that doesn’t. As a result, we will observe transitions from abuse to respect and vice versa as the type of the leader changes.

Importantly, note that with constant norms it is not possible for two countries to have very different long-run equilibria if they start with the same initial conditions. In contrast, when norms evolve endogenously this arises as a possibility. To see this, suppose we start in a situation as in (iii) above with $\underline{h} > \tilde{h}(\mathcal{N}) > \overline{h}$. Now suppose in one country the initial sequence of elected leaders has $h_1 > \tilde{h}(\mathcal{N})$ and thus no abuse takes place. This implies that the norm gets stronger and as a result, the cutoff type decreases $\tilde{h}(\mathcal{N}) > \tilde{h}(N_1) > \tilde{h}(N_2)$ . . .

[11] Theorem 2 can be easily modified when we allow for $\lambda(\cdot, \cdot) \in \{0,1\}$. 

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If the string of good leaders is sustained for sufficiently long, then we might reach a point in which \( \tilde{h}(N_t) < h \) and, at this point, the norms are so strong that even if the worst possible leader is elected she will still respect the rules. As a result, norms will just keep getting stronger and \( N_t \to N + \frac{\gamma}{\delta} \) and the rules will always be respected from then on. Yet, for the same initial conditions, the opposite might also be possible. A draw of bad leaders early on, who choose to abuse the norms, can lead the norms to weaken to a point at which \( \tilde{h}(N_t) > h \). If that happens, from that point on, not even the best possible leader would respect the rules. Thus, rules are never again respected and norms just keep on drifting down and \( N_t \to N - \frac{\gamma}{\delta} \). Thus, we can have two very different absorbing steady states.

Our main result formalizes this discussion. To that end, denote by \( \tilde{h}(N - \frac{\gamma}{\delta}) := \lim_{N \downarrow N - \frac{\gamma}{\delta}} \tilde{h}(N) \) and \( \tilde{h}(N + \frac{\gamma}{\delta}) := \lim_{N \uparrow N + \frac{\gamma}{\delta}} \tilde{h}(N) \).

**Theorem 2.**

1. If (i) \( h < \tilde{h}(N + \frac{\gamma}{\delta}) \) and (ii) \( h < \tilde{h}(N - \frac{\gamma}{\delta}) \), then \( N_t \downarrow N - \frac{\gamma}{\delta} \) almost surely along any paths.

2. If (i) \( h > \tilde{h}(N + \frac{\gamma}{\delta}) \) and (ii) \( h > \tilde{h}(N - \frac{\gamma}{\delta}) \), then \( N_t \uparrow N + \frac{\gamma}{\delta} \) almost surely along any paths.

3. If (i) \( h < \tilde{h}(N + \frac{\gamma}{\delta}) \) and (ii) \( \tilde{h} > \tilde{h}(N - \frac{\gamma}{\delta}) \), then there exists a full-support limit distribution on \( N_\infty \in (N - \frac{\gamma}{\delta}, N + \frac{\gamma}{\delta}) \).

4. If (i) \( h > \tilde{h}(N + \frac{\gamma}{\delta}) \) and (ii) \( \tilde{h} < \tilde{h}(N - \frac{\gamma}{\delta}) \), then almost surely along any paths, either \( N_t \downarrow N - \frac{\gamma}{\delta} \) or \( N_t \uparrow N + \frac{\gamma}{\delta} \). There exists a limit distribution on \( N_\infty \in \{N - \frac{\gamma}{\delta}, N + \frac{\gamma}{\delta}\} \).

In Case 1 depicted in the top left panel of Figure 1, almost surely along any paths, the level of norm converges to the lowest level. Put differently, the leaders’ actions satisfy \( a_t = 1 \) for all but finitely many times. For this to be the case we need two conditions to hold: (i) for any norm level, there are some types who want to abuse the position; and (ii) once the norm level is sufficiently low, even the most honest type wants to abuse. The first condition implies there is a path that takes us to lowest norm with positive probability and the second that once that point is reached it is absorbing.

In contrast, in Case 2 depicted in the top right panel of Figure 1, almost surely along any paths, the level of norm converges to the highest level. The leaders’ actions satisfy \( a_t = 0 \) for all but finitely many times. The conditions for this are the exact opposite to Case 1, in words, (i) there must always be a type willing to respect the rules and (ii) once the norms are sufficiently strong no type wants to abuse.

For a non-degenerate limiting distribution to exist, Case 3 depicted in the bottom left panel of Figure 1, it must be the case that (i) even when norms are strong there are always
types willing to abuse; and that (ii) even when norms are weak there are always some types willing to respect the rules. In this case, the leaders take $a_t = 0$ and $a_t = 1$ infinitely often.

Case 4, depicted in the bottom right panel of Figure 1, is perhaps the most interesting and highlights the importance of how leaders can shape the institutions. For this case to arise, (i) once the norms are sufficiently strong no type wants to abuse, and (ii) once the norm level is sufficiently low, even the most honest type wants to abuse. In this case, almost surely along any paths, either the norm level converges to the lowest or the norm level converges to the highest. Put differently, almost surely along any paths, either $a_t = 1$ for all but finitely many times or $a_t = 0$ for all but finitely many times. This happens because a string of very honest leaders, who respect the rules, can raise through their actions the norm value to a sufficiently high point such that when this level is reached, not even if a bad leader is elected it would want it profitable to abuse the norms. Conversely, if a sequence a bad leaders abuses the norms, then these might become so weak that even if a better leader is elected she will still be tempted to abuse the norms. This speaks to the persistent effect that early leaders
can have on institutions or the culture of organizations. Thus, young organizations must devote extra care in the selection of their leaders.

To highlight this point further it is important to reiterate that Case 4 only obtains when institutions, i.e., norms, endogenously respond to the leaders’ actions. If we let \((\delta, \gamma) = (1, 0)\), then we get \(N_t = N\) for all \(t\). In this case, Cases 1-3 are still possible but not Case 4. In fact, if we were in Case 4 before and we made \((\delta, \gamma) = (1, 0)\) then we would find ourselves in Case 3.

**Corollary 1.** If \((\delta, \gamma) = (1, 0)\), then an optimal action sequence cannot converge to two constant actions, i.e., Case 4 is not possible.

Thus, endogenous norm formation provides us with a way to conceive how two institutions with seemingly equal formal rules can converge to two very different steady states.

Figure 2 depicts the dynamics of norm. The left panel depicts Case 1 along each path, eventually the norm level is absorbed into the lowest level. The central panel depicts Case 3 in which the norm level is not absorbed. The right panel depicts Case 4 starting from the initial formal rules, an institution can converge to two very different steady states.

Evidence consistent with the particularly important role that early leadership can have in shaping institutions is presented by Simons (1994). His longitudinal study suggests that new CEOs use their first 18 months to define and measure critical performance variables and to overcome organizational inertia. It is also consistent with the fact that young or new institutions and organizations make important investments to try to select the right leadership.

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12 For our numerical simulations, we discretize \(H = \{h^1, \ldots, h^n\}\) with \(\underline{h} = h^1\) and \(\bar{h} = h^n\) and assume that \(h\) is uniformly drawn.
4 Extensions and Discussions

4.1 Endogenous Leader Types

So far we have assumed that the type distribution on $H$ is constant over time and, in particular, independent of the history and the current norm level. It is natural to think that this might not be the case. For example, when the norm level is high, the internal process of emerging as a leader inside of a political party would favor higher types. In the opposite direction, when norms deteriorate significantly, those types more willing to cheat or use patronage to buy support are more likely to enter the political process or succeed at early stages and thus be more relevant, moving the distribution of types down. An example of this could be seen in the Republican party primaries for the 2022 mid-term elections. Many of the primary winners continued to question the 2020 presidential election. Thus, the higher the norm, the higher the probability that a potential new leader is of a higher type.

We denote the support of the distribution at time $t$ by $H_t$. It is important to note that the endogeneity of $H_t$ will not change the optimal response of the current leader. This implies that the only effects will be observed on the long-run properties of the institution. The endogeneity of $H_t$ will give more “inertia” to the system: if the norm deteriorated from time $t$ to $t+1$, then with an endogenous $H_t$, it would be more likely to continue deteriorating (and vice-versa for an improvement).

If the change does not affect the support of the distributions, then Theorem 2 will continue to hold as stated. The only difference is that convergence will be faster for the cases with absorbing regions and for Case 3 with a long-run stationary distribution, we will observe more mass on the extremes of the long-run distribution. If the support moves, then, in addition, previous parametrizations that lead to having a long-run distribution (Case 3) will instead now fall into Case 4 in which the economy gets absorbed into either the high norm steady state or the low norm steady state. Thus, for a given legal framework, the early realization of its leader’s types will have more important long-term consequences. Historians debate to what extent individuals play an outsize role in shaping outcomes relative to broad forces. In our model, both play a role. Yet, when we are in Case 4 clearly individuals are more important.

4.2 Democratic Backsliding

As discussed in the political science literature, many autocracies are the result of a slow erosion of institutions. For this, it is useful to consider the “abuse” action as including ones such as replacing key figures that might play an important role in limiting the leader’s
power. In the political arena two relevant examples are: (i) changing the composition of the courts, for example by expanding the supreme court; and (ii) changing the people in charge of running/supervising elections from honest brokers to puppets. Former President Trump’s attempts to overturn the 2020 election were to a large extent derailed by honest Secretaries of State that were unwilling to do his bidding. Indeed, Trump has strongly endorsed many candidates in the 2022 election largely on the basis that they denied the outcome of the 2020 election. In the corporate world, this corresponds to the CEO being able to influence the composition of the board to people she can control. This leads to what is known as a captured board, which will fail to provide proper oversight and control over the CEO’s actions.

We can capture this in our model if we have some $N_*$ such that when norms are sufficiently eroded, $N < N_*$, we have $\lambda_1(N) = 0$. In this case, once the norms are sufficiently eroded, the leader is never replaced.

### 4.2.1 Restoration of Democratic Practices

Once an economy has fallen into a despotic regime rather than $\lambda_1(N) = 0$, we might think that there is still a very small probability of replacing the current leader. In this case, it is natural to think that the set of possible replacement types would also differ. For ease of presentation, consider $H_t = \{h_{t-1}, h^h\}$, where $h_{t-1}$ can represent the despot replaced by a family member (as in North Korea) or a political rival that would continue with the current practices (as when one war lord deposes another). Instead, $h^h$ represents a hero type that is willing to potentially risk its life to depose the current leader. There are several historic figures that we might associate with such a type. Furthermore, assume $h^h$ is such that this type would not cheat once in power. This would give institutions a chance to recover and reestablish the necessary checks and balances for a proper functioning democracy. This, of course, is not easy and can help explain the difficulty in restoring democratic practices in former autocratic regimes. This is particularly hard when such a heroic figure is absent, such as evidenced in Egypt, Iraq, and Libya in the political context.\[13\]

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\[13\]When the norm level is low, the replacement probability after respect may be high. In the corporate context, Michael Woodford was ousted within two weeks of being promoted to CEO of Olympus. This happened when he raised questions about a series of irregular acquisition payouts, which turned out to be known as the Olympus scandal.
4.3 Comparative Statics

Our clean characterization of the threshold function \( \tilde{h} \) (Equation (5)) allows us to perform comparative statics.\(^{14}\)

A stronger set of formal rules (a higher \( \overline{N} \)) implies (i) that leaders would be more likely to respect the rules; and (ii) a higher probability of getting absorbed into the steady state of respect. Although this clearly suggests we would want to start with a strong set of formal rules, this is not easy. Determining what a good set of formal rules is from observed outcomes is hard since it requires to condition on the sequence of leader types. This is particularly the case with governments. For example, while the US constitutional framework is usually regarded as being strong, there have been many examples of countries adopting very similar frameworks yet experiencing very different outcomes. In the corporate setting, the existence of a large number of firms simultaneously coexisting with different governance provisions and switches of CEOs across firms allow for some insights into what constitutes good corporate governance.\(^{15}\)

When norms are more malleable, which corresponds to a higher \( \gamma \), leaders are able to decrease the replacement probability and increase the flow payoff in the future, while the replacement probability from respect stays the same. Thus, they have more incentives to abuse their position.

In the political setting, an increase in \( \delta \), which governs the reversion to \( \overline{N} \), may be construed as conferring less flexibility to the interpretation of the constitution and thus allowing less room for the role of informal rules. When the leaders abuse the position, the norm level decreases more slowly from the initial level. Thus, leaders are less able to influence their future replacement probability and their flow payoff, while the replacement probability from respect stays the same. Hence, they are less likely to abuse the position.

In the political setting, one can interpret \( \lambda_1 \) as the scrutiny of media, political competition, or the independence of the supreme court. In the corporate setting, one can interpret \( \lambda_1 \) as the independence of the corporate board or the strength of the minority shareholder rights. As oversight increases the likelihood of abuse decreases.

Finally, we consider the effect of the discount factor \( \beta \). Let us suppose first that the leader’s action has no effect on the replacement probability, i.e., \( \lambda_1 = \lambda_0 \). It is important to note that even in such a case, the leader’s problem is not static because the future payoff from cheating is affected by its actions today. In particular, suppose that the leader is currently indifferent between abusing forever or always respecting. If we increase \( \beta \), that

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\(^{14}\) Sharper results can be obtained when the replacement probability after respect does not depend on the norm level.

\(^{15}\) See, for instance, Shleifer and Vishny (1997) and Adams et al. (2010).
would increase the benefit of abusing because the benefits of abusing are increasing over
time due to the weakening of the norms while the payoff from respect is constant over time. 
If, in addition, \( \lambda_1 \neq \lambda_0 \), then there is a further consideration arising from the change in the 
termination probability. If abusing lowers the termination probability, \( \lambda_1(N) < \lambda_0 \), then this 
effect reinforces the leaders’ incentive to abuse as we increase \( \beta \). Instead, if respect lowers 
the termination probability, \( \lambda_1(N) > \lambda_0 \), there is a countervailing force. This effect can 
dominate when \( b \) is sufficiently large.

Thus, when the replacement probability is constant over time, an increase in \( \beta \) leads to 
a higher cutoff. However, in general, the sign of the comparative statics with respect to \( \beta \) 
depends on a particular functional form of \( \lambda \).

### 4.4 Asymmetry between Norm-Destruction and Norm-Building

We could easily extend the model to capture the possibility that it is easier to destroy norms 
than to build them up. This could be done by allowing for \( \gamma_A > \gamma > \gamma_R \), where \( A \) and 
\( R \) denote abuse and respect, respectively. Since the decision to cheat only depends on \( \gamma_A \), 
we have two observations. First, the higher \( \gamma_R \) (resp. \( \gamma_A \)) is, the faster the absorption is. 
Second, we can analyze the effect of \( \gamma_A \) on the leaders’ decisions just by the comparative 
statics of \( \gamma \) on \( \tilde{h} \). A higher \( \gamma_A \) leads to a higher cutoff \( \tilde{h} \).

### 4.5 Term Limits

We consider the role of term limits. First, constant actions may no longer be optimal. In 
particular, a term limit may encourage a leader to switch her action from respect to abuse 
toward the end of the term. This is likely to arise when the benefit \( b \) is sufficiently high, the 
leader’s type is low, and the replacement probabilities satisfy \( \lambda_1(N_t) - \lambda_0(N_t) > 0 \). In this 
case, abusing in the first period is costly because of the loss of \( b \) in the second period. In 
the second period, the effect of \( \lambda \) is irrelevant, and thus the leader would take a myopically 
best action.

Second, extending the term may have opposing effects. Consider an extension from two 
to three periods. On the one hand, not to lose the benefit \( b \) of being in office, a leader may 
go from \( (a_1, a_2) = (0, 1) \) to \( (a_1, a_2, a_3) = (0, 0, 1) \). On the other hand, the leader may have 
an incentive to undermine the norms earlier since now she can reap the benefits from abuse 
longer. Thus, \( (a_1, a_2, a_3) = (1, 1, 1) \) may be optimal.

These points highlight the advantage of using the stationary model for our main analysis. 
Furthermore, even with term limits, Theorem 2 still holds. The main difference would 
be observed in the speed of absorption, particularly for Case 4 as term limits generate a
regression-towards-the-mean effect in terms of types and norms.

A Proofs

Proof of Theorem 2

1. In each period, with positive probability, \( h \) falls into \( \left( \tilde{h}, \tilde{h} \left( N + \gamma \delta \right) \right) \) and the norm level decreases. Also, there exists a threshold norm level below which \( N_t \) deterministically converges to \( N - \frac{\gamma}{\delta} \). Thus, almost surely along any paths, \( N_t \to N - \frac{\gamma}{\delta} \).

2. In each period, with positive probability, \( h \) falls into \( \left( \tilde{h} \left( N - \frac{\gamma}{\delta} \right), h \right) \) and the norm level increases. Also, there exists a threshold norm level above which \( N_t \) deterministically converges to \( N + \frac{\gamma}{\delta} \). Hence, almost surely along any path, \( N_t \to N + \frac{\gamma}{\delta} \).

3. For each \( t \) and for any \( N_t \in \left( N - \frac{\gamma}{\delta}, N + \frac{\gamma}{\delta} \right) \), we have \( N_{t+1} = (1 - \delta)N_t + \delta N + \gamma \) with strictly positive probability and \( N_{t+1} = (1 - \delta)N_t + \delta N - \gamma \) with strictly positive probability. This shows that a limit distribution, which exists, has full support.

4. There is \( N_* \) such that if \( N_t \leq N_* \) for some \( t \) then \( N_t \) deterministically converges to \( N - \frac{\gamma}{\delta} \). Likewise, there is \( N^* \) such that if \( N_t \geq N^* \) for some \( t \) then \( N_t \) deterministically converges to 1. In each period \( t \), if \( N_t \in (N_*, N^*) \), then with positive probability, either \( N_t \) decreases over time and is below \( N_* \) in some finite time or \( N_t \) increases over time and is above \( N^* \) in some finite time. Thus, the measure of paths \( (N_t)_t \) such that \( N_t \in (N_*, N^*) \) for all \( t \) is zero. This establishes the statement.

Proof of Corollary 1

Assume \((\delta, \gamma) = (1, 0)\). First, if \( \bar{h}(N) \geq \bar{h} \), then, almost surely along any path, the optimal action sequence is always to abuse, i.e., Case 1 obtains. Note that if \( \bar{h}(N) \leq \bar{h} \), then the optimal action sequence is deterministically always to abuse. Second, if \( \bar{h}(N) \leq \bar{h} \), then, almost surely along any path, the optimal action sequence is always to abide by the rules, i.e., Case 2 obtains. Note that if \( \bar{h}(N) \leq \bar{h} \), then the optimal action sequence is deterministically always to abide by the rules. Third, if \( \bar{h}(N) \in (\bar{h}, \bar{h}) \), then there exists a limit distribution on the set of action sequences, i.e., Case 3 obtains. Since these cases are exhaustive, the proof is complete.
References


