# Political Leadership Survival in the Aftermath of Coups and Overstays: From Illegitimate Ascent to Unexpected Exit

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#### Abstract

This paper delves into the duration of political leaders' tenures, focusing on two specific categories: leaders who come into power through coups and those who exceed their designated term limits. It argues that the length of political leadership tenures is not solely determined by their governing strategies but also by the means through which they ascend to power. By employing a survival model, this study demonstrates that leaders who surpass their term limits generally have longer tenures compared to those entering through coups.

Keywords: Political survival, Coups, Overstays

## 1 Introduction

The investigation into the enduring tenure of certain leaders compared to those with briefer terms has remained a focal point within the realm of political science. This probing inquiry has garnered extensive attention and undergone thorough analysis across numerous scholarly works, as highlighted in Chapter 2.

Prior research examining the longevity of political leaders has highlighted two prominent features. Firstly, scholars have primarily concentrated on general frameworks that encompass either all regime types or all autocracies, dedicating less attention to the exploration of specific leader profiles. Secondly, existing studies have predominantly revolved around analyzing the probability of irregular leader exits using country-year data, leaving a void in discussions regarding the duration of leadership tenures based on comprehensive duration data.

Due to these significant gaps, this paper aims to conduct a comparative analysis between two specific types of political leaders: those who rise to power through coups and those who exceed their designated term limits. Examining the tenures of these two irregularly ascended leaders holds particular significance for two reasons.

Firstly, irregularly ascended leaders constitute the majority of irregular exits from power. According to (Goemans et al. 2009), between 1945 and 2015, among 1472 leaders who assumed office through regular channels, around 213 exited irregularly (about 14.5%). Conversely, out of 308 leaders who assumed office through irregular means, roughly 158 (about 51.3%) experienced irregular exits. Secondly, among irregularly ascended leaders, the majority gained power through coups or overstays. As per (Goemans et al. 2009), out of 374 leaders who exited irregularly, 246 were ousted through coups, constituting 65.8% of these cases. Accordingly, there are 246 coupentry leaders. Moreover, between 1945 and 2020, there were 106 attempts to overstay in power, of which 86 were successful. This overstaying, detailed in "Determinants of Incumbent Overstay Attempts and Outcomes," can be perceived as a form of self-coup, as incumbents orchestrate tactics to prolong their rule, effectively staging coups against potential future leaders. Hence, it becomes both relevant and enlightening to delve into and compare the tenures of survival between coup-entry leaders and overstaying (self-coup) leaders.

However, while existing research extensively delves into the factors leading to coups or overstays, there remains a crucial need for more attention directed towards what occurs after these irregular ascents. Specifically, how do leaders' methods of entering power affect not only their subsequent tenures but also their departures from power? This study proposes that the manner in which leaders ascend to power significantly impacts the duration of their leadership tenure. Unlike leaders who overstay, those who enter through coups face more substantial challenges concerning legitimacy, uncertainty, instability, and power-sharing, potentially diminishing their survival duration.

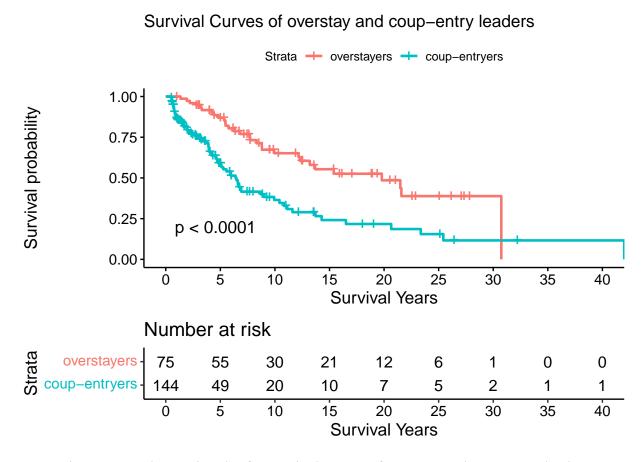


Figure 1: Kaplan-Meier plot for survival curves of overstay and coup-entry leaders

Utilizing a survival model, this paper suggests that leaders who surpass their term limits generally enjoy longer tenures compared to those who come into power through coups. Conducting a log-rank test in survival analysis on the leaders dataset (Goemans et al. 2009) and the author's incumbent overstay dataset reveals a distinct contrast: overstay leaders demonstrate notably extended survival rates in comparison to coup-entry leaders. Specifically, according to Figure 1,

the average survival time post-overstay, excluding their original term duration, is approximately 10.8 years. In contrast, leaders who gain power via coups tend to have an average survival time of 5.3 years, representing an average shortfall of 5 years in their tenure <sup>1</sup>.

This study could offer dual contributions. First, it emphasizes that the duration of survival and unexpected exits is not solely dictated by leaders' conduct after assuming power but is fundamentally shaped by their methods of gaining power. It accentuates a significant difference in tenures between overstaying leaders and coup-entry leaders. Second, it provides empirical measurements to compare the tenure duration of these two irregularly ascended leaders, offering insights into their distinct impacts on the longevity of leadership.

After the introduction, the second section encompasses a comprehensive literature review on political survival and highlighting the contributions of this paper might offer. The third chapter delves into the examination of factors influencing the survival of leaders who have ascended to power through unconstitutional means. Chapter 4 provides an account of the methodology and data employed, utilizing a survival model for a comprehensive analysis of the determinants of leaders' survival. Chapter 5 presents the findings of this analysis, facilitating an in-depth discussion of the results. Finally, in Chapter 6, the paper concludes by synthesizing these findings and exploring their broader implications.

# 2 Literature review: The dynamics of leadership survival in different scenarios

In their seminal work, Bueno de Mesquita et al. (2003) conducted a comprehensive examination of leaders spanning diverse political landscapes, encompassing democracies and autocracies, as well as parliamentary and presidential systems, while accounting for both civilian and military contexts. Their aim was to provide an general explanation for the dynamics of political leadership survival within a universal framework. Proposing a universal theoretical framework regarding the political survival is highly intriguing. However, it is crucial to acknowledge the challenges that

<sup>&</sup>lt;sup>1</sup>The data excluded leaders who survived less than 180 days.

must be addressed in order to provide a more general theory of leadership survival across all types of regimes.

First of all, the rules governing power transitions differ drastically between democracies and autocracies. In most autocratic regimes, the process of leadership selection remains shrouded in secrecy. Expressing dissenting views, whether as potential challengers or supporters of challengers, can be perilous. In Russia, despite the presence of general elections, challengers frequently face severe consequences such as assassination, poisoning, imprisonment, or exile. Due to the lack of transparent and fair conventional procedures for power transitions, it's challenging to assess who holds more power or has more supporters. A dictator could potentially survive a lengthy tenure despite weak support because the true balance of power remains undisclosed. Conversely, a powerful ruler could be ousted by a small number of guards because the army or other supporters hesitate to fight for them due to a lack of information regarding their predominant status in the power balance. Thus, accurately calculating selectorates or coalitions, as Bueno de Mesquita et al. (2003) did in their research, becomes impossible in such scenarios. In contrast, in democracies, challengers can openly vie for leadership without fear. Their support rates are easily discernible, and they can seek to gain more supporters through public speeches, TV or newspaper advertisements, or assemblies. If their support rates are not adequate to challenge the incumbents, different groups can try to collaborate, facilitating power transitions with a slightly higher level of support.

Secondly, the division of residents into different coalitions or groups may not hold as much relevance in democracies when compared to autocracies. In democratic systems, while those who support and vote for incumbents may witness their advocated policies enacted, those opposing them still experience the same policies. For instance, if a candidate advocating for lower taxes wins an election, it doesn't lead to lower taxes for the elected leaders' supporters and higher taxes for their opponents; both groups encounter identical tax levels. This dynamic differs significantly in autocratic regimes, where distinct groups benefit unequally based on their status and relationships with the rulers.

Furthermore, our interest in analyzing political survival stems from irregular and unforeseen

power transitions. Discussing regular and expected leadership tenures is neither necessary nor pertinent in this context. As previously mentioned, over 85% of leaders entering power through regular means also exited in a regular manner (Goemans et al. 2009). Many political leaders, especially in democracies and some autocracies, experience predictable and routine tenures. Consider the case of the United States, where presidents can serve up to eight years if re-elected for a second term, or at least complete a full four-year term despite underperformance. Similarly, in autocratic Mexico from 1919 to 2000, each president served a fixed six-year term without facing overthrows or overstays, as noted by (Klesner 2019). Analyzing the survival of such leaders might seem futile as their power transitions typically occur within the bounds of constitutional rules.

On the other hand, leaders who come into power through irregular means paint a more intricate and unpredictable picture. Take, for instance, Henri Namphy, who assumed the presidency of Haiti following a coup in June 1988, only to be ousted by another coup a mere three months later in September of the same year. However, Qaddafi, the dictator of Libya, seized power in a coup in 1969 and ruled for over 40 years before being killed in 2011 by NATO-backed rebel forces (Goemans et al. 2009). Certain dictators maintain an indefinite grip on power until their death, subsequently transferring authority to family members, such as sons in the cases of Syria and North Korea or brothers in the context of Cuba.

Given the distinct nature of political leadership survival in various regimes, scholars have increasingly focused on understanding the survival dynamics specific to certain regime types, such as democracies (Svolik 2014) and autocracies (Davenport et al. 2021). Notably, considerable academic attention has been drawn towards unexpected tenures, particularly those leaders who either fail to complete their original terms or overstay their terms. Scholars have predominantly revolved around two primary dimensions. The first dimension encompasses contextual conditions and resources available to leaders. These factors include elements such as the leaders' personal competence (Yu & Jong-A-Pin 2016), societal stability (Arriola 2009), economic development level (Palmer & Whitten 1999, Williams 2011), access to natural resources (Smith 2004, Quiroz Flores & Smith 2012), and external support networks (Licht 2009, Wright 2008, Thyne

et al. 2017). The second dimension delves into the strategies implemented by leaders in enacting their political and economic policies. This includes their responses to challengers and dissent within their regimes (Escribà-Folch 2013, Davenport et al. 2021), as well as strategies used in policy-making (Gandhi & Przeworski 2007, Morrison 2009).

Unsurprisingly, a considerable focus in previous studies has been directed towards coups, given their status as a prominent pathway leading to the exit of authoritarian leaders (Svolik 2008, Frantz & Stein 2016). Literature on leadership survival has examined strategies aimed at preventing coups (Powell 2017, Sudduth 2017a, De Bruin 2020), as well as analyses of how leaders extend their tenures post-surviving failed coup attempts (Easton & Siverson 2018). For instance, Sudduth (2017b), while primarily focused on purge strategies, examines the post-coup actions of a dictator. The central argument suggests that leaders ascending through coups experience a temporary surge in influence compared to elites immediately following the coups, making them less prone to subsequent ousting by coup attempts. This argument challenges the traditional notion that new leaders are generally in a weak position at the start of their tenure (Roessler 2011). Despite this distinction, both Sudduth and prior scholars concur that new leaders tend to purge rival elite groups to consolidate their power. Sudduth argues that dictators undertake purges when they can do so without significant risk, while traditional views suggest purges occur when dictators perceive imminent threats. However, it's imperative to acknowledge that new leaders, particularly those ascending through unconventional means, don't adhere to a universal pattern of inherent weakness or strength. Leadership transitions unfold in varied contexts, presenting leaders with diverse challenges.

Scholars have extensively analyzed the endurance of political leaders across various spheres, examining universal frameworks, autocratic regimes, and the aftermath of failed challenges, including coup attempts. However, there remains a notable gap in discussions surrounding the survival dynamics of leaders who consolidate power after successful coups or prolonged incumbency. Specifically, there has been limited exploration and comparison of the survival tenures between overstay leaders and coup-entry leaders. This study seeks to address this gap by scrutinizing and outlining the duration of survival among these two distinct categories of leaders.

# 3 Political survival dynamics of overstay and coup-entry lead-

#### ers

In this paper, I maintain the definition of "overstay" as delineated in my earlier paper, "Determinants of Incumbent Overstay Attempts and Outcomes", referring to situations where incumbent political leaders strive to exceed the maximum time permitted by constitutional norms or unwritten customs. A successful overstay is determined by an extension of power lasting at least six months or longer.

Regarding the definition of a "coup", I will adopt the definition outlined by Powell and Thyne: coups are characterized as "illegal and overt attempts by the military or other elites within the state apparatus to unseat the sitting executive" (Powell & Thyne 2011, p252). They categorize a coup attempt as successful if the perpetrators seize and retain power for a minimum of seven days. To align with the successful overstays discussed in this paper, I will focus on instances where the usurpation of power endures for at least six months.

Engaging in discussions on the survival strategies employed by political leaders in non-democratic systems presents a considerable challenge. This challenge is rooted in the intricate nature of power transitions within autocratic regimes, which lack a consistent and universally applicable pattern or set of conventions. In specific instances, such as Middle Eastern monarchies, the transfer of power doesn't strictly adhere to a hereditary father-to-son lineage, further complicating the landscape. Moreover, even if there are established rules governing power transitions, they are often flouted by incumbents or coup leaders.

Nevertheless, amidst the diversity in regime types and leadership styles, leaders who prolong their rule through self-coups and those who seize power through coups exhibit certain similarities. Understanding these shared tactics provides insight into their strategies for survival.

The first aspect concerns the issue of legitimacy. Leaders who ascend through coups lack legitimacy as they seize power through force or other unconventional means. While many leaders prolong their tenures through a façade of constitutional procedures, such as judgments by the Supreme Court, congressional votes, or even referendums, they often manipulate these processes

to maintain control. It's commonly understood by ruling elites, opposition parties, and the populace that these leaders lack legitimacy. This lack of legitimacy can sometimes justify the cause of those seeking their replacement, even if the means used are unconstitutional.

The second characteristic revolves around the uncertainty surrounding power transitions. This uncertainty creates ambiguity not only for ruling elites and ordinary citizens but also for the leaders themselves regarding when, how, and to whom power might be transferred. Such uncertainty breeds inherent instability. Amidst such instability, people experience a lack of security. This perception often leads to the belief that the current ruler is incompetent and should be replaced by someone more powerful or capable. Consequently, the ruling elite or opposition factions may exploit the instability as an opportunity to challenge existing power structures.

The third aspect revolves around the equilibrium of power. In autocracies, governance typically rests with a minority faction that possesses a highly structured organization, distinctly contrasting with the decentralized and disorganized subjects. Even amid protests or uprisings, ruling groups adeptly suppress such incidents individually. The possibility of overthrowing tyranny arises if the subjects can coalesce their efforts. However, the principal obstacle lies in the formidable challenge of surmounting the collective action problem. Autocratic dictators commonly adopt a ruling strategy focused on preventing unity among subjects and complicating endeavors to address collective action issues. This elucidates why dictatorships curtail free expression, assembly, and association. The absence of free public expression and association renders the power balance unclear. Consequently, rulers maintain relative power advantages over not only the elites but also the subjects.

The convergence of illegitimacy, uncertainty, and power equilibrium, as highlighted in Table 1, significantly influences the lifespan of a regime. However, when juxtaposed with leaders who seize power through coups, those who overextend their terms enjoy a relatively favorable position across these three facets.

Table 1: Key Distinctions in Survival Tenures: Overstay versus Coup-Entry Leaders

Aspect	Overstay Leaders	Coup-Entry Leaders
Legitimacy	Normally attained through	Attained unlawfully, devoid of
	lawful procedures, but	legitimacy.
	lacking recognized	
	legitimacy.	
Uncertainty in Power	Initially stable; uncertainty	Significant uncertainty initially; stability
Transitions	grows with prolonged	emerges as power is consolidated, yet
	tenure, especially without	prolonged leadership poses similar
	designated successors as	challenges as overstay, fostering
	leaders age.	instability.
Power Sharing	Fewer challenges in power	Confront power-sharing issues promised
	equilibrium due to	during coup staging, potentially
	successful overstay.	triggering dissatisfaction among
		supporters if agreements are unmet.

#### 3.1 Legitimacy

The core of a coup inherently lacks legitimacy, being deemed "illegal" due to its sudden and unconstitutional nature. Successful coups serve as a catalyst, publicly spotlighting alternate, non-constitutional paths to seize power. This visibility inadvertently encourages imitation, especially among those less inclined to ascend to power through lawful channels, leading to a surge in illegit-imate power seizures. Henri Namphy's leadership during Haiti's 1988 coup serves as an typical example, swiftly followed by his own removal through another coup. Haiti's history records instances of multiple coups within a single year—such as 3 in 1957, and 2 each in 1988, 1989, and 1991—a narrative echoed in numerous other coup-prone nations. Notable examples post-2000 include 2 coups in 2001 in Burundi, 2 in 2021 in Sudan, and 2 in 2022 in Burkina Faso (Powell & Thyne 2011). As reflected in Table 2, 15 countries have weathered at least 10 coups

Table 2: Frequency of Coups by Country (1950–2023)

Country	Coup attempts	Successful coups	
Bolivia	23	11	
Argentina	20	7	
Sudan	17	6	
Haiti	13	9	
Venezuela	13	0	
Iraq	12	4	
Syria	12	8	
Thailand	12	8	
Ecuador	11	5	
Burundi	11	5	
Guatemala	10	5	
Honduras	10	6	
Burkina Faso	10	9	
Sierra Leone	10	5	
Ghana	10	5	

Data source: Powell & Thyne(2011)

since 1950, with most exceeding 5 successful attempts (Powell & Thyne 2011). These 15 nations collectively accounted for 40% of total coup attempts and 38% of successful coups. In these frequent-coup countries, coups have even surpassed constitutionally guided power transitions in frequency. Both ruling groups and the populace have grown accustomed to coups, perceiving them as an acceptable means of power transition. Recent occurrences in Burkina Faso (2022) and Niger (2023) demonstrate this familiarity, where some individuals treated these events more akin to festive celebrations rather than coups.

Moreover, coups not only breed subsequent coups but also embolden external challengers, fostering uprisings, revolutions, and civil wars, as highlighted by Dahl & Gleditsch (2023).

For leaders surpassing their designated terms, the situation diverges. As incumbents, they abuse their power to manipulate the power transition dynamics. They might reinterpret or amend the constitution, utilizing avenues like parliamentary votes, supreme court decisions, or referen-

dums, with aspirations for prolonged or even lifelong tenure. Yet fundamentally, most instances of overstaying lack authentic legitimacy as such leaders often exploit their authority, resorting at times to illegal measures like arresting, expelling, or even assassinating opposition figures<sup>2</sup>. Consequently, these alterations in leadership tenure and power transitions do not genuinely reflect the populace's will. Nonetheless, it's notable that, on the surface, the methods employed by overstay leaders carry a semblance of legitimacy compared to coups. Even if contesting their legitimacy, challengers are normally constrained to adopt lawful means.

Additionally, overstaying might attract imitators, yet replicating overstaying differs significantly from replicating coups. While coups can happen at any moment, overstaying requires a prerequisite—those seeking to overstay must initially occupy leadership positions. Even if challengers openly reject legitimacy and attempt to employ similarly illegitimate methods, such as orchestrating coups to oust overstay leaders, it presents a far greater challenge, as it demands considerable strength or substantial support. Conversely, an overstay leader inherently possesses a position of advantage in terms of power. For instance, in 2018, China's National People's Congress sanctioned the removal of the two-term limit on the presidency—only two delegates opposed the change, and three abstained out of 2,964 votes—effectively granting Xi Jinping the potential to remain in power for life<sup>3</sup>. Similarly, in Russia's 2020 constitutional referendum, 79% of valid votes supported changes to the constitution enabling Putin to potentially rule until 2036<sup>4</sup>. While these figures may not accurately reflect genuine support from ruling groups or the populace, they do underscore the consolidation of power by the incumbents.

Hence, from the legitimacy standpoint, while both overstaying leaders and coup-entry leaders lack genuine legitimacy, the former retain an edge in superficial legitimacy and are more powerful, potentially leading to longer-lasting regimes than those initiated by coup-entry leaders.

<sup>&</sup>lt;sup>2</sup>https://www.france24.com/en/live-news/20221123-vladimir-putin-s-critics-dead-jailed-exiled: Vladimir Putin's critics: dead, jailed, exiled. Accessed on Dec 23, 2023.

<sup>&</sup>lt;sup>3</sup>https://www.bbc.co.uk/news/world-asia-china-43361276: China's Xi allowed to remain 'president for life' as term limits removed. Accessed on Dec 23, 2023.

<sup>&</sup>lt;sup>4</sup>https://www.ucl.ac.uk/news/2020/jul/analysis-vladimir-putin-secures-constitutional-changes-allowing-him-rule-until-2036: Analysis: Vladimir Putin secures constitutional changes allowing him to rule until 2036. Accessed on Dec 23, 2023.

#### 3.2 Uncertainty

As discussed earlier, both leaders who overstay their terms and those who come to power through coups contribute to uncertainty within their regimes. However, regimes led by overstay rulers generally exhibit comparatively lower levels of overall uncertainty.

In the aftermath of coups, uncertainty arises concerning the identity of the leader and the duration of their tenure. The majority of coup leaders have retained power since their coups, such as Gamal Abdel Nasser in Egypt since the 1954 coup, Muammar Gaddafi in Libya following the 1969 coup, and Idi Amin in Uganda after the 1971 coup (Geddes et al. 2018). Some coup leaders have claimed to intend to transfer power to constitutionally elected leaders but failed to honor their commitments, as seen in the case of the military junta in Myanmar after the 2021 coup. Despite promising a new election after a year-long state of emergency, the military junta extended the emergency multiple times and retained power until the end of 2023<sup>5</sup>. Moreover, within military juntas themselves, uncertainties persist. For instance, following the Chilean Coup in 1973, a military junta initially planned to rotate the presidency among the commanders-in-chief of the four military branches. However, General Pinochet consolidated his control and retained power in Chile until 1990 (Svolik 2012).

Notably, some coup leaders have honored their promises and restored power to constitutional civilian governments. For instance, after the 2010 coup in Niger, a new constitution reinstated civilian rule and implemented a strict two-term limit on the presidency within the same year (Ginsburg & Elkins 2019).

In contrast, situations involving overstaying leaders offer more straightforward answers regarding who will rule and for how long. Overstayed incumbents remain in power for extended periods, often aiming to prolong their tenures as much as possible. For instance, leaders like Putin in Russia and Xi Jinping in China are less inclined to voluntarily relinquish power unless forcibly removed. Even in cases like President Menem of Argentina, who successfully overstayed his term until 1993 but failed in his attempt for another term in 1999, his extended tenure still lasted for a full five-year term (Llanos 2019).

<sup>&</sup>lt;sup>5</sup>https://thediplomat.com/2023/08/myanmar-junta-extends-state-of-emergency-for-fourth-time/: Myanmar Junta Extends State of Emergency for Fourth Time. Accessed on Dec 24, 2023.

Moreover, uncertainties not only revolve around who leads and for how long but also concerning the leadership style and governance approach. Coup-entry leaders face the need to restructure top officials and substantiate their actions by implementing substantial changes after toppling incumbents. In contrast, overstaying leaders encounter fewer obstacles, as their regimes experience fewer abrupt changes. They are less pressured to dismantle the existing ruling paradigm and establish a new order.

Hence, comparatively, the rule of overstaying leaders tends to be less uncertain than that of coup-entry leaders, aiding overstaying leaders in stabilizing their governance and increasing their likelihood of enduring longer than coup-entry leaders.

#### 3.3 Equilibrium of power

Autocratic rulers often grapple with a predicament known as the "Guardianship dilemma" in maintaining their authority. They find themselves in need of loyal subordinates while also requiring competent followers to manage intricate challenges and suppress opposition. However, these capable supporters might eventually pose a threat to their rule (Wintrobe 2012, McMahon & Slantchev 2015, Geddes et al. 2018). More often than not, heightened competence coincides with increased ambition. Hence, the art of establishing and preserving a delicate power balance becomes an intricate skill. Comparatively, leaders who come to power through coups face even more daunting challenges in navigating the perilous game of power equilibrium. They must establish a stable power equilibrium initially, whereas entrenched leaders only need to maintain an existing balance. Nonetheless, restoring a disrupted balance of power is significantly more challenging than sustaining an already established equilibrium.

Leaders who seize power through coups inevitably disrupt the existing balance of power, necessitating the establishment of a new equilibrium, even in seemingly peaceful scenarios. The removal of previous rulers mandates the dismantling of the established governing structure and a reshuffling of high-ranking officers and officials. These actions inherently sow unrest and create adversaries for the new leadership, making the restoration of order and the establishment of a balanced power structure notably challenging. In order to establish consolidate power, coup-leaders

often have to comprise to internal or external power challengers. However, more often than not, these comprises are not stable and easy to break. For instance, consider Jean-Bertrand Aristide, the president of Haiti, who was ousted in a 1991 coup and forced into exile. Despite this, his supporters retained significant political influence, ultimately facilitating Aristide's return to power in 1994 (Bermeo 2016).

Navigating internal power dynamics among coup leaders presents significant challenges. For instance, after the Chilean coup in 1973, a fleeting balance prevailed among the four branches of the military junta. However, this fragile equilibrium was short-lived as Pinochet consolidated absolute power in 1974 (Geddes et al. 2018). However, taking an uncompromising stance within the leadership does not always proceed seamlessly, as seen in Pinochet's case. Such actions may provoke backlash even from close allies. In Uganda, President Obote's attempt to undermine the army commander-in-chief, Idi Amin, resulted in Amin garnering the support of the majority of the army and ultimately ousting Obote in a military coup in 1971. Similarly, in Pakistan in 1999, shortly after Prime Minister Sharif dismissed powerful army chief General Pervez Musharraf, Sharif himself was ousted in a coup orchestrated by Musharraf and his military supporters (Sudduth 2017a). The situation becomes even more intricate when there is a risk of civil war. According to Roessler (2011), leaders may endeavor to diminish the probability of subsequent coups, potentially increasing the likelihood of societal rebellions and civil wars.

The combination of these factors contributes to a shorter expected lifespan of coup-entry leaders (Dahl & Gleditsch 2023) compared to the relatively longer tenures of overstaying leaders. As previously mentioned, the average survival period following an overstay is approximately five years longer than that of leaders entering power through coups (Figure 1). Building upon these observations, I would like to propose the following hypothesis:

**Hypothesis:** Political leaders who successfully prolong their tenure in power are more likely to experience extended regime survival compared to leaders who come to power through coups.

In the subsequent section, I will outline the research methodology utilized in this paper. I intend to introduce several control variables to determine if the hypothesis remains persistent and robust.

#### 4 Data and method

This study aims to utilize the Cox proportional hazards model (referred to as the Cox model) to assess proportional hazards concerning coup-entry leaders and overstaying leaders. Unlike the Kaplan-Meier model, the Cox model enables the estimation of the impacts of multiple factors. Although it does not directly estimate the duration of tenure in office, it evaluates the hazard rate associated with being ousted from power, which essentially represents different facets of the same phenomenon. As a leader's cumulative hazard of being ousted increases, their probability of survival in office decreases.

#### 4.1 Data

The main variables are as follows.

#### 4.1.1 Dependent variables

- Survival time: the duration of leaders' tenure in days. For coup-entry leaders, this time span initiates on the day they assume power, while overstaying leaders' tenure begins on the expiration date of their initial term. For instance, considering Xi Jinping's case, he assumed power in 2013, successfully removing term limits in 2018. However, his initial two-term tenure was due to end in 2023. Hence, his survival time commences from 2023 rather than 2013, signifying the start of his original tenure. The survival time concludes on the day the leader exits office, applying to both coup-entry and overstaying leaders.
- End point status: 0 = censored, 1 = ousted. I categorized ousting by force as 1, even in cases where some leaders "voluntarily" resigned under pressure. Other methods of leaving office are considered censored, which can encompass situations where leaders appoint their successors, opt for democratic means of overturn, face health-related issues, or encounter natural death.

#### 4.1.2 Independent variable

• Leader type: Group A = overstaying leader, Group B = coup-entry leader. This variable is the primary independent variable of interest, as it serves as the basis for comparison of survival time between the two types of leaders.

The dependent and independent data are sourced from the author's incumbent overstay dataset and the leaders dataset by (Goemans et al. 2009).

#### 4.1.3 Control variables

- Indicators of Economic Influence: To evaluate economic influence, I rely on two primary indicators: the trend in GDP growth (GDP\_growth\_trend) and the logarithm of GDP per capita (GDP\_pc\_log). The GDP\_growth\_trend is determined by contrasting the GDP growth in the year of a coup entry or overstaying with the preceding 3-year moving average of the growth rate. The dataset employed for these metrics is sourced from V-Dem Data.
- **Degree of Democracy:** The level of democracy is gauged using Polity 5 scores (polity) at the entry year for each respective country. This dataset is sourced from the Center for Systemic Peace (CSP)<sup>6</sup>.
- **Population Size:** Accounting for its potential impact on leaders' tenures, the log population size (pop\_log) is considered. This data is obtained from the V-Dem Data and is evaluated in relation to its influence on leadership survival.
- **Political Stability:** The stability of the political landscape is crucial in evaluating the survival tenures of leaders. To quantify this aspect, the Major Episodes of Political Violence Variables dataset from the CSP is utilized to measure political stability (polstab) at the leader's entry year.
- Leader's Age: The age of the leader at the entry year serves as an additional variable in the analysis, providing insight into potential correlations with leadership survival. This data is sourced from the leaders dataset by (Goemans et al. 2009).

<sup>&</sup>lt;sup>6</sup>Center for Systemic Peace: https://www.systemicpeace.org. Accessed on Dec 24, 2023.

#### 4.2 Method

Here, I employ Cox proportional hazards models to assess the likelihood of leaders being removed from office, essentially examining the hazards associated with leadership tenure termination.

$$Surv(survival\_time, status) = group +$$
 
$$GDP\_growth\_trend + GDP\_pc\_log +$$
 
$$pop\ log + polity5 + polstab + age$$
 (1)

## 5 Outcome and discussion

Table 3: Cox proportional hazards model for survival time of leaders

Characteristic	Event N	log(HR) <sup>1,2</sup>	HR <sup>2</sup>	95% CI <sup>2</sup>	p-value
Leader type	103				
Overstay leaders		0.00	1.00		
Coup-entry leaders		0.91***	2.49	1.53, 4.07	<0.001
GDP growth trend	103	0.00	1.00	1.00, 1.00	0.4
Log of GDP per capita	103	-0.32*	0.73	0.57, 0.93	0.011
Log of population	103	0.22	1.25	0.95, 1.64	0.11
Polity5 score	103	0.00	1.00	0.96, 1.05	0.9
Political stability	103	0.02	1.02	0.93, 1.13	0.6
Age of leader	103	0.01	1.01	0.99, 1.03	0.4
No. Obs.			219		
Log-likelihood			-447		
AIC			908		
BIC			926		

<sup>&</sup>lt;sup>1</sup>\*p<0.05; \*\*p<0.01; \*\*\*p<0.001

Based on the previous discussion, I test my hypothesis that overstaying leaders are more likely

<sup>&</sup>lt;sup>2</sup>HR = Hazard Ratio, CI = Confidence Interval

to experience extended regime survival compared to leaders who come to power through coups. The regression outcome of cox proportional hazards model is presented in Table 3. The Table 3 underscores the significance of leader type and GDP per capita in influencing the hazard ratios associated with leaders' ousting. Specifically, the hazard ratio for coup-entry leaders is 2.49, signifying that coup-entry leaders are 1.49 times more likely to face ousting compared to overstaying leaders, all else being equal. Additionally, the hazard ratio associated with the logarithm of GDP per capita is 0.73, suggesting that a 1% increase in GDP per capita is correlated with a 27% reduction in the hazard of being ousted. It is noteworthy that the remaining variables did not exhibit statistical significance in this analysis.

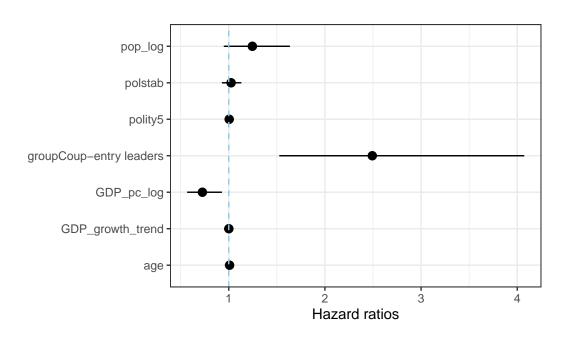


Figure 2: Hazard ratios and 95% CIs for Leader Ousting

The Figure 2 illustrates the hazard ratios and 95% confidence intervals for the variables in the Cox model. The hazard ratio for coup-entry leaders is 2.49, signifying that coup-entry leaders are 1.49 times more likely to face ousting compared to overstaying leaders, all else being equal. Additionally, the hazard ratio associated with the logarithm of GDP per capita is 0.73, suggesting that a 1% increase in GDP per capita is correlated with a 27% reduction in the hazard of being ousted. It is noteworthy that the remaining variables did not exhibit statistical significance in this analysis.

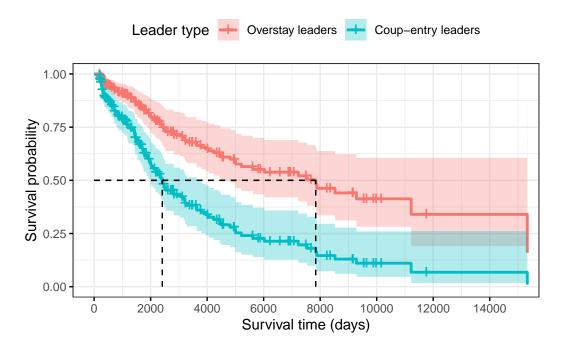


Figure 3: Cox proportional hazards model for survival time of leaders

The Figure 3 illustrates the survival curves for overstaying leaders and coup-entry leaders. The survival probability of overstaying leaders is significantly higher than that of coup-entry leaders, as the survival probability of overstaying leaders is 0.85 at 5,000 days, while that of coup-entry leaders is 0.65 at the same time point. This finding is consistent with the results of the Cox model, which indicates that overstaying leaders are more likely to experience extended regime survival compared to leaders who come to power through coups.

# 6 Conclusion

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