Resetting the Electoral Clock: A Game Theoretic Structural Hazard Model of Government Stability in India

Abstract

This paper develops a structural hazard model to evaluate how constitutional rules shape government stability. The framework treats government collapse as a strategic interaction in which potential challengers, opposition parties or coalition defectors, decide when to attempt bringing down the government, with hazards determined by two state variables: the declining value of remaining tenure and the rising option value of resetting the electoral clock. The model is estimated on a new dataset that records the tenure (in months) of 277 governments at both state and central levels in India between 1989 and 2024, the first systematic panel of government tenures of its kind. Results show that reset incentives are decisive: the coefficient on the option-value term is positive and statistically significant, confirming that the prospect of securing a fresh mandate motivates late-term challenges to sitting governments. Counterfactual simulations of India's proposed One Nation, One Election (ONOE) reform, which eliminates the reset option, predict that collapses would fall by 71%, fresh elections by 72%, and full-term completions would rise by 20.7%, with average tenure increasing by six months. Interestingly, while ONOE results in stable governments overall, it concentrates instability in Year 1, as fragile coalitions face immediate challenges rather than surviving until late-term when no-reset possibilities make toppling them unattractive. The analysis demonstrates how institutional design alters strategic incentives for both incumbents and challengers, and provides a generalizable modeling framework for assessing policy reforms that reconfigure survival horizons in parliamentary systems.

Keywords: Government stability; Hazard models; Electoral timing; Coalition bargaining; India; One Nation One Election

1 Introduction

Government instability imposes high costs on policy continuity, fiscal planning, and governance (Clements et al., 2013). Parliamentary systems are particularly exposed, since premature termination may occur either through coalition breakdowns or strategic challenges by opposition parties. India illustrates the challenge. Between 1989 and 2024, nearly one in three governments (83 of 277) collapsed before completing their constitutional term. Two

patterns stand out. First, coalitions collapse at more than twice the rate of single-party majorities (40% versus 15%). Second, instability is not evenly distributed across the cycle: failures cluster in the first two years of a government's tenure and again late in the term. These dynamics suggest that government collapse is not a random hazard but reflects underlying strategic incentives created by institutional rules.

A central feature of India's current constitutional framework is that midterm dissolution resets the five-year parliamentary clock. A government elected mid-cycle begins a fresh mandate rather than serving only the remainder of the original term. This "reset" mechanism creates late-term incentives for opportunistic challenges: opposition parties and potential coalition defectors can bring down the government with the prospect of leading a new administration for a full five-year term rather than just the residual months. The payoff to toppling a government grows as the term progresses, making late-term governments increasingly vulnerable to no-confidence motions and coalition withdrawals. The current debate on *One Nation, One Election* (ONOE), a proposal before the Indian Parliament to synchronize electoral calendars, directly engages this institutional design. While discussions have emphasized logistics and cost savings, the reform's deeper effect is to remove the reset option entirely, eliminating challengers' incentives for late-term destabilization.

This paper develops a structural hazard model of government collapse to quantify how such reforms alter incentives. The model treats collapse as a strategic interaction where potential challengers, opposition parties, or coalition partners decide when to attempt bringing down the government, with the payoff determined by two state variables: the declining residual value of the remaining tenure and the rising option value of resetting the electoral clock. A core empirical contribution is the construction of a new dataset recording the tenure in months of 277 governments, at both state and central levels, in India from 1989 to 2024. This is the first systematic panel of government tenures of its kind. Our estimates show that reset incentives are decisive: the coefficient on the option-value term is large and statistically significant. Counterfactual simulations indicate that ONOE would reduce collapses by 71%, cut fresh elections by 72%, and raise full-term completions by 20 percentage points, extending average tenure by six months. Counterintuitively, however, ONOE does not eliminate instability but re-times it: collapses concentrate in Year 1 as fragile coalitions face immediate challenges from actors who can no longer wait for the more attractive late-term reset opportunity, while mid- and late-term dissolutions nearly disappear.

The contribution is both methodological and substantive. Methodologically, we extend the hazard-model tradition by embedding option-value reasoning in a structurally grounded framework that captures strategic interactions between incumbents and challengers, allowing institutional reforms to be evaluated counterfactually. Substantively, we show how ONOE would transform government stability in India, and more broadly, how dissolution rules condition the strategic calculus of both government survival and opposition behavior in parliamentary systems. The remainder of the paper proceeds as follows. Section 2 reviews related literature on government duration, electoral timing, coalition bargaining, and institutional design. Section 3 presents the theoretical framework. Section 4 describes the dataset. Section 5 reports estimation results and counterfactual simulations. Section 6 discusses substantive implications and limitations. Section 7 concludes with reflections on institutional design and stability.

2 Literature Review

The determinants of government survival have long been central to comparative political economy. Four strands of research are particularly relevant: (i) hazard models of government duration, (ii) rational-choice models of electoral timing and dissolution powers, (iii) coalition bargaining and government formation, and (iv) institutional design within constitutional political economy. Our contribution lies in integrating these approaches within a structural hazard framework and applying it to the Indian case, where recurrent midterm instability provides a sharp test of institutional incentives.

2.1 Government Duration and Hazard Models

The formal study of government duration began with survival and hazard models, which showed that cabinet failure is not random but structured by political and institutional conditions. King et al. (1990) unified the "attributes" and "critical events" approaches, while Warwick (1994) established cabinet survival as a core comparative concern.

Subsequent debate centered on the baseline hazard's shape. Diermeier and Stevenson (1999, 2000) demonstrated that pooling all terminations masks distinct processes: cabinet replacements exhibit flat hazards, while dissolutions display increasing hazards. This insight reconciled earlier disputes and motivated competing-risks models of government failure.

The framework has since been extended across domains. Stevenson (2002) developed the "cost of ruling" model, where termination risk rises as governments lose popularity. Hazard approaches have also been applied to leaders' survival (Yu and Jong-A-Pin, 2016) and to fiscal consolidations, where sustainability depends on debt, coalition fragmentation, and decentralization (Illera and Mulas-Granados, 2008; Foremny et al., 2017).

Two lessons emerge. First, hazard models are a versatile toolkit, enriched by methods for competing risks, unobserved frailty, and event dependence (Box-Steffensmeier and De Boef, 2006; Box-Steffensmeier et al., 2007). Second, survival is endogenous: governments adjust strategies in anticipation of hazards. Our paper builds on this tradition but introduces a structural state variable, the option to reset the electoral clock, that captures the strategic calculus underlying government collapse. While most prior work focuses on OECD democracies, India's recurrent midterm collapses and coalition fragility provide a distinct hazard profile and a useful setting for institutional analysis.

Recent refinements highlight further mechanisms. Pedrazzani and Zucchini (2024) distinguish between types of inter-electoral replacements, showing that many new cabinets closely resemble their predecessors. Fiscal policy also interacts with survival: governments with shorter expected lifespans tend toward expansionary stances and weaker fiscal discipline (Fortunato and Loftis, 2018). These findings complement structural specifications that treat survival as endogenous to institutional incentives.

2.2 Electoral Timing as an Option Value

A second strand treats dissolution as an option-value problem. Balke (1990) modeled dissolution as an optimal stopping decision in Westminster systems where prime ministers possess discretionary dissolution powers. The value of calling elections rises when popularity is high

and as scheduled elections approach. Smith (2004) added that early elections signal governments' expectations of future decline, making dissolution both a timing device and an informational signal.

While this literature focuses on incumbent-initiated dissolutions, the option-value logic extends to systems where governments are brought down by challengers. In India, where governments fall through no-confidence votes or coalition withdrawals, the reset option creates incentives for *challengers* to topple governments. The value of bringing down a government at month t includes the possibility of leading a new administration for a full five-year term, an option worth up to t additional months of power. This payoff grows as the term progresses, making late-term governments increasingly vulnerable to challenges.

Empirical evidence from various contexts supports the importance of reset incentives. Diermeier and Stevenson (2000) show that only dissolutions, not replacements, exhibit duration dependence. Keppo et al. (2008), calibrating a Bayesian learning model to British polling data, estimate that flexible election timing can more than double expected tenure, though in their case through strategic calling rather than strategic toppling of governments.

Comparative evidence underscores how institutional rules shape these dynamics. Canadian provinces curtailed opportunistic dissolutions after adopting fixed-date election laws (White and Alcantara, 2019). The United Kingdom's Fixed-term Parliaments Act (2011–2022) removed prime-ministerial dissolution discretion but created legislative deadlock in minority parliaments, leading to its repeal (House of Commons Library, 2022). Sweden offers a striking parallel to India's ONOE proposal: extraordinary elections do not reset the four-year cycle, eliminating incentives for both strategic dissolution and strategic challenges.

Our framework embeds this option-value reasoning directly in a hazard model by defining $\Omega(t)$ as the expected additional tenure gained from government collapse in month t. This state variable formalizes the "reset option" that motivates late-term challenges in India. Under ONOE, we set $\Omega(t) \equiv 0$, eliminating the option value and removing challengers' incentives for opportunistic destabilization. In this way, we extend the option-value perspective into a structural hazard framework suited to systems where collapse is initiated by challengers rather than incumbents.

2.3 Coalition Bargaining and Government Formation

A third body of work emphasizes that government stability depends critically on coalition bargaining and the institutional rules of government formation. Classic models such as Laver and Shepsle (1994) formalize how portfolio and seat distributions condition coalition durability, while Diermeier et al. (2003) show that equilibrium survival depends on bargaining protocols and parties' outside options. Collapse, therefore, is not simply an electoral event but an endogenous outcome of bargaining incentives.

Empirical evidence reinforces the role of institutional design. Bäck and Dumont (2008) find that formateur rights confer advantages in shaping both composition and durability, though Laver et al. (2011) argue that negotiation structures and institutional constraints better explain observed outcomes. Debus (2009) highlight how pre-electoral commitments reduce uncertainty and stabilize coalitions, while Blockmans et al. (2016) show that ideological fragmentation and bargaining complexity lengthen formation processes and correlate with instability.

These insights map closely onto India, where many first-year collapses reflect fragile alliances rather than electoral verdicts (Sridharan, 2014). To capture this mechanism, our hazard model incorporates a "formation-failure" term concentrated in Year 1, representing the elevated probability of collapse due to unsuccessful bargaining. This extends coalition models by embedding bargaining fragility directly into a tractable hazard framework. In our empirical results, instability under ONOE is indeed compressed into Year 1 and absorbed largely through alternative governments, consistent with bargaining failure rather than opportunistic dissolution.

Recent evidence also highlights the long-run consequences of bargaining. Longer negotiations at formation increase subsequent policy productivity and mitigate intra-coalition conflict (Bäck et al., 2024). Subnational evidence from Germany shows that prior co-governance experience shortens bargaining time (Praprotnik et al., 2025), while experiments confirm counter-intuitive dynamics such as the "Strength-is-Weakness" effect, where larger parties are sometimes excluded on equity grounds (Wissink et al., 2022). These findings underscore that bargaining structures matter not only for formation but also for durability, reinforcing the rationale for modeling Year 1 instability as a structural hazard.

2.4 Institutional Design and Constitutional Political Economy

A fourth strand situates government stability within constitutional political economy, emphasizing how institutional rules structure incentives and outcomes. Stability is thus understood as endogenous to rule design rather than as a residual of electoral dynamics. Laver and Shepsle (1994) show how portfolio allocation rules condition coalition durability, while Bäck et al. (2017) find that coalition agreements can mitigate common-pool problems under weak prime-ministerial powers but exacerbate instability when executives dominate. More broadly, constitutional provisions often generate perverse incentives: expansive emergency powers, for example, correlate with higher disaster fatalities and greater rights violations (Bjørnskov and Voigt, 2022).

Dissolution powers and reset mechanisms are especially salient. Cross-national evidence shows that constraints such as constructive no-confidence rules or head-of-state assent requirements reduce early termination risks (Schleiter and Morgan-Jones, 2009). Huber (1996) demonstrates that procedural rules on confidence votes and dissolution authority alter bargaining dynamics and cabinet survival. Reforms in Canada, the United Kingdom, and Sweden provide further quasi-experiments: fixed-date election laws and Sweden's rule that extraordinary elections do not reset the parliamentary term illustrate how institutional design reshapes the incentives for both mounting and resisting challenges to sitting governments.

The Indian debate on One Nation, One Election (ONOE) falls squarely within this tradition. A constitutional amendment bill introduced in December 2024 would eliminate the possibility that midterm collapses reset the five-year mandate, fundamentally altering incentives for both incumbents and their challengers. Without the prospect of a fresh five-year term, opposition parties and potential coalition defectors lose the primary payoff from toppling late-term governments. In our framework, this reform is captured by setting the option-value term $\Omega(t)$ to zero, removing challengers' incentive for opportunistic destabilization. ONOE thus represents not only an administrative reform but a constitutional design change with direct implications for government stability. By aligning electoral timing with

a fixed horizon, it addresses a central concern of constitutional political economy: how the rules governing collapse and succession shape the dynamics of parliamentary democracy.

2.5 Integrative Contribution

Taken together, these literatures highlight complementary but often disconnected perspectives on government survival. Hazard models identify duration dependence, option-value approaches emphasize strategic timing of challenges, coalition bargaining models explain early fragility, and constitutional political economy situates survival in rule design. What is still missing is a unified account that embeds these mechanisms in a single structure, and one that does so in a federal, coalition-dense context beyond the OECD cases that dominate the field. India provides a sharp test: frequent collapses and the reset mechanism that rewards successful challenges magnify the structural incentives at work, making it an ideal setting to stress-test theories of government stability.

Our contribution is twofold. Methodologically, we integrate the strands into a structural hazard framework that remains empirically tractable. The key innovation is an explicit option-value term, $\Omega(t)$, capturing the payoff to challengers from toppling a government and potentially securing a fresh mandate. Unlike prior option-value models, which established the intuition of strategic timing but did not embed it in estimable hazard specifications, our model links $\Omega(t)$ directly to observed hazards. We also incorporate an explicit formation-failure risk in Year 1, drawing on coalition bargaining theory, while treating reforms such as synchronized elections as shifts in the institutional constraint set. This allows for structural counterfactual evaluation of constitutional design in a way previous work has not.

Substantively, we apply this unified framework to India, where fragile coalitions and the reset mechanism generate recurrent midterm instability. Coalition governments face threats from both external opposition and internal defectors, all of whom can benefit from the reset option. By operationalizing both reset incentives and formation failure, we explain India's distinctive hazard profile and assess the impact of One Nation, One Election (ONOE). The analysis shows that eliminating the reset option would reduce collapses by 71%, eliminate nearly all late-term challenges, and raise full-term completion rates by more than 20 percentage points. While the reset mechanism has broader relevance, the Indian case illustrates how its magnitude depends on federal structure and coalition norms, providing comparative leverage for the study of parliamentary democracies.

In sum, the paper advances the rational-choice institutional tradition in two directions: methodologically, by embedding option-value reasoning and bargaining dynamics within a structural hazard model, and substantively, by demonstrating how constitutional reforms like ONOE can transform government stability by altering challengers' incentives.

3 Model

We model government stability as a dynamic hazard process on the electoral clock. Each government faces, in every month of its tenure, a probability that challengers, opposition parties or coalition defectors, will attempt to bring it down. The hazard depends on both structural factors, such as the declining value of toppling the government and the rising op-

tion value of resetting the clock, and contextual factors captured by year-specific effects. The key innovation is to embed the option value of securing a fresh mandate through successful challenges as a formal state variable, enabling a counterfactual evaluation of synchronized elections under a One Nation, One Election (ONOE) regime.

3.1 Setup

Let $t = 1, \ldots, 60$ index the months of a government's five-year tenure. At each t, challengers decide whether to attempt bringing down the government. The hazard rate of a collapse attempt is specified as:

$$h_A(t) = \sigma\Big(\alpha_0 + \sum_{j=2}^{5} \alpha_j \mathbf{1}_{Y_j}(t) + \alpha_b\, b(t) + \alpha_\Omega\, \Omega(t)\Big),$$

where $\sigma(\cdot)$ is the logistic function, α_0 is a baseline risk parameter, α_j are year-specific effects, $b(t)$ is the residual tenure value, and $\Omega(t)$ is the option value of resetting the electoral clock.

The residual tenure value declines linearly with time:

$$b(t) = \frac{60 - t}{60},$$

reflecting the reduced payoff to challengers from displacing the incumbent as the term nears completion, there are fewer months of power to capture.

The reset option $\Omega(t)$ is defined as:

$$\Omega(t) = t \cdot e(t),$$

where $e(t)$ is the observed probability that a collapse attempt at t leads to fresh elections. Intuitively, $\Omega(t)$ captures the expected number of additional months challengers can gain by successfully toppling the government and potentially leading a new one. A high $\Omega(t)$ late in the term implies strong incentives for challengers to mount challenges, as they could secure a fresh five-year mandate rather than just the residual months.

ONOE counterfactuals are implemented by imposing $\Omega(t) \equiv 0$, thereby eliminating the reset option while leaving the baseline hazard and year-specific risks unchanged. This removes challengers' primary incentive for late-term destabilization and allows us to isolate the structural effect of ONOE on government stability.

3.2 Microfoundations

We model government stability as a strategic interaction where potential challengers, opposition parties or coalition defectors, decide whether to attempt bringing down the government. In each month $t = 1, \ldots, 60$, challengers weigh the expected payoff from mounting a challenge against the value of waiting. This optimization problem yields the structural hazard specification estimated in subsequent sections.

3.2.1 Value Functions

Let $W(t)$ denote the value function of a potential challenger at the start of month t. If the challenger does not attempt to topple the government, the payoff is

$$W_w(t) = \beta W(t+1),$$

where the challenger waits and retains the option to challenge in the future with discounted value. Here $\beta \in (0, 1]$ represents the effective discount factor, which we set close to unity given the short time horizons involved.[1] We impose the terminal condition $W(61) = 0$, reflecting that the option to challenge expires at the end of the term.

If the challenger attempts to bring down the government, the expected payoff is

$$W_c(t) = e(t) \cdot p \cdot [t + V^{new}(1)] + s(t) \cdot q \cdot V^{alt} - c,$$

where:

- $e(t)$ is the probability that the collapse leads to fresh elections
- p is the challenger's probability of leading the new government after elections
- t represents the additional months gained by resetting the electoral clock
- $V^{new}(1)$ is the value of leading a new government with a fresh mandate
- $s(t)$ is the probability that an alternative government forms
- q is the probability of joining the alternative government
- V^{alt} is the value of participating in an alternative government
- $c > 0$ is the cost of mounting a challenge

The term $e(t) \cdot p \cdot t$ captures the reset option value, the expected additional months of power from successfully toppling the government and winning subsequent elections. This grows linearly with t, making late-term challenges increasingly attractive.

3.2.2 Optimal Decision Rule

Challengers attempt to topple the government when $W_c(t) > W_w(t)$. Define the net gain from mounting a challenge as

$$G(t) = W_c(t) - W_w(t) = e(t) \cdot p \cdot [t + V^{new}(1)] + s(t) \cdot q \cdot V^{alt} - c - \beta W(t+1).$$

To simplify, we make two assumptions. First, we parameterize the combined success probabilities as a single effective probability of capturing power: let $\pi(t) = e(t) \cdot p + s(t) \cdot q$

[1] For monthly decisions over a five-year horizon, discounting has minimal impact on the qualitative results. Setting $\beta = 0.99$ yields essentially identical hazard patterns to $\beta = 1$.

represent the overall probability of gaining executive control through either elections or alternative government formation. Second, we normalize the value of leading a new government to focus on the tenure extension: $V^{new}(1) \approx \bar{V}$ for some constant $\bar{V}$.

This yields:

$$G(t) = e(t) \cdot p \cdot t + \pi(t) \cdot \bar{V} - c - \beta W(t+1).$$

The first term, $e(t) \cdot p \cdot t$, represents the expected additional months from resetting the clock, our option value. For empirical tractability, we approximate this as $\Omega(t) = t \cdot e(t)$, absorbing the probability p into the estimated coefficient. The intuition remains clear: the payoff to challenging grows with elapsed time t when fresh elections are possible.

The second and third terms capture the baseline value of gaining power and the cost of mounting a challenge, while the fourth term represents the opportunity cost of using the challenge option now rather than waiting.

3.2.3 Empirical Implementation

To translate this decision rule into an estimable hazard, we assume that challengers observe the payoff difference $G(t)$ plus an idiosyncratic shock ε_t drawn from a Type I extreme value distribution. The probability of a challenge attempt is then

$$h_A(t) = \Pr[G(t) + \varepsilon_t > 0] = \frac{1}{1 + \exp(-G(t))}.$$

Approximating $G(t)$ with a linear index (including year effects) yields our estimable hazard specification:

$$h_A(t) = \sigma\left(\alpha_0 + \sum_{j=2}^{5} \alpha_j \mathbf{1}_{Y_j}(t) + \alpha_b b(t) + \alpha_\Omega \Omega(t)\right),$$

where:

- $b(t) = \frac{60-t}{60}$ captures the declining value of toppling the government as residual tenure shrinks
- $\Omega(t) = t \cdot e(t)$ represents the expected additional months from resetting the clock
- α_0 subsumes the constant terms in $G(t)$ including baseline challenge costs
- $\alpha_b < 0$ reflects that less residual tenure reduces the payoff from successful challenges
- $\alpha_\Omega > 0$ measures the strength of reset incentives for challengers

3.2.4 Model Extensions

The core framework is extended in two ways to match empirical patterns:

Year-specific effects. The indicators α_j for $j = 2, \ldots, 5$ capture institutional factors not explicitly modeled in the stylized framework, such as confidence-vote timing conventions, budget cycles, and pre-election positioning. These reduced-form terms acknowledge that

the hazard varies systematically across the electoral cycle beyond what the basic tenure and option-value terms predict.

Formation failure. The additional hazard $\phi/12$ in Year 1 reflects the elevated risk of government collapse due to failed coalition bargaining immediately after formation. This captures the institutional reality that many early collapses result from unsuccessful attempts to construct stable coalitions rather than strategic challenges motivated by reset incentives. In these cases, the government falls not because challengers seek to capture the reset option, but because the coalition itself cannot maintain internal cohesion.

3.2.5 ONOE Counterfactual

Under the current system, the option value $\Omega(t) = t \cdot e(t)$ creates strong incentives for challengers to mount late-term attacks on sitting governments when the probability of triggering fresh elections is high. The One Nation, One Election reform eliminates this incentive by constitutional design: any midterm election would be followed by a government serving only the remaining tenure until the next synchronized election. This sets $\Omega(t) \equiv 0$ in our framework, removing the structural payoff that motivates opportunistic late-term challenges while preserving all other determinants of government stability.

3.3 Hazard Specification

The probability of a collapse attempt at time t is governed by a logistic hazard function:

$$h_A(t) = \sigma\Big(\alpha_0 + \sum_{j=2}^{5} \alpha_j \mathbf{1}_{Y_j}(t) + \alpha_b\, b(t) + \alpha_\Omega\, \Omega(t)\Big),$$

where $\sigma(x) = \frac{1}{1+e^{-x}}$ ensures $h_A(t) \in (0, 1)$.

- α_0: baseline intercept capturing the unconditional risk of collapse.
- α_j: year-specific effects for $j = 2, \ldots, 5$, reflecting empirical patterns of heightened or dampened instability in different years of the term.
- $b(t) = \frac{60-t}{60}$: residual tenure value, representing the declining payoff to challengers from toppling the government as the electoral cycle progresses.
- α_b: slope coefficient for the tenure effect, typically negative, capturing how reduced residual tenure lowers challengers' incentives for destabilization.
- $\Omega(t)$: option value of reset, defined as the expected additional tenure gained if a successful challenge at t triggers fresh elections.
- α_Ω: coefficient on the reset option, measuring the strength of challengers' incentives for late-term attacks.

Under the ONOE counterfactual, we set $\Omega(t) \equiv 0$, thereby eliminating the reset incentive while preserving the baseline and year-specific risk structure.

3.4 Composition Probabilities

Conditional on a collapse attempt at time t, the outcome can be either the formation of an alternative government or the calling of fresh elections. We model these as competing probabilities determined by logistic splines in t:

$$s(t) = \sigma(\gamma_0 + \gamma_1 t), \quad e_{\text{raw}}(t) = \sigma(\beta_0 + \beta_1 t), \quad e(t) = (1 - s(t))\, e_{\text{raw}}(t),$$

where $s(t)$ is the probability of an alternative government, $e(t)$ the probability of fresh elections, and the residual mass $(1-s(t))(1-e_{\text{raw}}(t))$ corresponds to failed collapse attempts. In the data we only observe actual terminations, not failed attempts; the latter are a latent outcome absorbed into the survival probability.

- γ_0, γ_1 govern the propensity to form alternative governments as tenure progresses.
- β_0, β_1 govern the baseline propensity for elections, modulated by the monotone constraint $e(t) = (1 - s(t))e_{\text{raw}}(t)$.
- This specification ensures $s(t) + e(t) \leq 1$, consistent with observed institutional outcomes.

This specification ensures that the empirical patterns observed in the data are respected: early-term collapses are more likely to produce alternative governments, while late-term collapses increasingly result in elections. Under ONOE, while the hazard of collapse attempts changes due to $\Omega(t) \equiv 0$, the conditional composition mechanism is left unchanged.

3.5 Formation Failure Mass

We also incorporate a Year 1 government formation-failure mechanism. Empirically, many governments that collapse in their first year do so due to failed initial coalition bargaining.

We model this as an additional exogenous hazard of $\phi/12$ per month during months $1 \leq t \leq 12$, which is split across the two outcomes in proportion to their baseline shares. That is,

$$\lambda_{\text{alt}}(t) = h_A(t)\, s(t) + \tfrac{\phi}{12}\, s(t)\, \mathbf{1}_{\{t \leq 12\}}, \qquad \lambda_{\text{elec}}(t) = h_A(t)\, e(t) + \tfrac{\phi}{12}\, e(t)\, \mathbf{1}_{\{t \leq 12\}}.$$

This term captures the early collapses observed in the data.

3.6 Interpretation of Terms

Each component of the hazard specification has an institutional interpretation.

- **Residual tenure value, $b(t) = \frac{60-t}{60}$.** This captures the declining value to challengers of toppling the government. Early in the term, successfully bringing down the government yields substantial time in power (either through elections or alternative government formation); late in the term, the residual tenure shrinks, making challenges less rewarding unless a reset is possible.

- **Reset option value, $\Omega(t) = t \cdot e(t)$.** This is the additional payoff to challengers from successfully toppling the government and potentially securing a fresh five-year mandate through elections. Although estimated here with Indian data, the logic is general: in any system where midterm collapse can reset the calendar, such as pre-2011 UK or Canadian provinces before fixed-date reforms, the same incentive structure applies. If elections occur with probability $e(t)$, then bringing down a government in month t can secure up to t extra months of power for the challenger who leads the new government. In practice, although $\Omega(t)$ can take values up to around 60, the estimated probability of elections $e(t)$ remains small until late in the term. This ensures that the overall monthly hazard remains moderate despite the large coefficient α_Ω.

- **Year indicators, $\mathbf{1}_{Y_j}(t)$.** These dummies allow baseline instability to differ across phases of the electoral cycle (early consolidation, mid-term, pre-election bargaining). They capture residual institutional or political frictions not explained by the incentive terms.

- **Institutional linkage.** The model maps directly onto India's constitutional rules. A government may fall through a successful no-confidence vote or withdrawal of coalition support, after which the Governor/President may (i) invite an alternative coalition or (ii) dissolve the house. Dissolution with fresh elections is what activates the reset option for challengers.

The ONOE reform modifies only the reset channel: by requiring that any mid-term election be followed by a government serving only the residual tenure, the option value $\Omega(t)$ is set to zero, and challengers' incentive to mount late-term attacks is eliminated.

3.7 Estimation

The model is estimated by maximum likelihood using data on all governments formed between 1989 and 2024. For each government-month, we observe whether a collapse occurred, and if so, whether it resulted in (i) an alternative government, (ii) fresh elections, or (iii) no change (failed attempt).

The competing risks hazards are

$$\lambda_{\text{alt}}(t) = h_A(t)\, s(t) + \tfrac{\phi}{12}\, s(t)\, \mathbf{1}_{\{t \le 12\}}, \quad \lambda_{\text{elec}}(t) = h_A(t)\, e(t) + \tfrac{\phi}{12}\, e(t)\, \mathbf{1}_{\{t \le 12\}}.$$

The total hazard is $\lambda(t) = \lambda_{\text{alt}}(t) + \lambda_{\text{elec}}(t)$.

The likelihood contribution of government i with tenure T_i is:

$$\mathcal{L}_i = \prod_{t=1}^{T_i} \Big[(1 - \lambda(t))^{\mathbf{1}_{\text{NoEvent}_{it}}}\, \lambda_{\text{alt}}(t)^{\mathbf{1}_{\text{AltGov}_{it}}}\, \lambda_{\text{elec}}(t)^{\mathbf{1}_{\text{Election}_{it}}} \Big],$$

where $h_A(t)$ is the hazard of a collapse attempt and the conditional probabilities of outcomes are specified in the previous subsection.

The full-sample log-likelihood is:

$$\ell(\theta) = \sum_{i=1}^{N} \log \mathcal{L}_i,$$

where $\theta = (\alpha_0, \alpha_2, \alpha_3, \alpha_4, \alpha_5, \alpha_b, \alpha_\Omega, \gamma_0, \gamma_1, \beta_0, \beta_1, \phi)$ is the vector of model parameters.

Estimation proceeds via numerical maximization of $\ell(\theta)$. Convergence was achieved rapidly, and the resulting coefficients are well-behaved in sign and magnitude. Of particular interest is the option-value coefficient α_Ω, which is found to be positive ($\hat{\alpha}_\Omega = 1.070$, SE=0.510). This result is robust across alternative functional forms for $\Omega(t)$: whether defined linearly as $t \cdot e(t)$, quadratically, or capped at mid-term, α_Ω remains large and positive, with expected tenure gains of 4-6 months in all cases (see Table 4). This suggests that late-term collapses are driven by challengers' reset incentives, the central mechanism under examination. Standard errors are obtained via bootstrap resampling (500 replications) and reported in subsequent tables. This parameter plays a central role in evaluating the ONOE counterfactual.

In robustness checks, we extend the specification to allow for unobserved heterogeneity across governments via a shared frailty term. Specifically, we implement a logistic-normal frailty: a normally distributed random effect on the logit index of the attempt hazard, integrated out via Gauss-Hermite quadrature. The estimated frailty variance is small, indicating that unobserved heterogeneity plays a limited role once the structural incentive terms are accounted for.

4 Data

We begin our analysis in 1989 for both theoretical and practical reasons. Theoretically, 1989 marks the onset of coalition politics in India, with the first minority government at the Union level, making the reset mechanism salient. Before this period, government changes were often driven by the dominant Congress party's central leadership rather than legislative instability, blurring the distinction between calculated collapse and party management. The Emergency (1975–77) and its aftermath also involved exceptional constitutional conditions outside the scope of normal parliamentary dynamics. The post-1989 period, therefore, provides a cleaner test of dissolution incentives under regular democratic competition.

A core contribution of this paper is the construction of a novel dataset of all governments in India formed after the 1989 general election and terminating before December 2024. The dataset spans both the Union and all state governments, yielding a sample of 277 distinct government spells. Each spell is coded month-by-month from its date of formation until its termination, producing a balanced panel suitable for hazard analysis. To our knowledge, this is the first systematic panel of Indian governments at monthly frequency, enabling direct comparison with the cabinet survival literature in OECD democracies.

4.1 Sources

Primary information was drawn from official notifications of the Election Commission of India, records of state legislative assemblies, and Lok Sabha proceedings. These were cross-checked against parliamentary debates, state gazettes, and secondary compilations to ensure accuracy in start and end dates. Where inconsistencies were found, the hierarchy of sources was: official gazette > parliamentary record > secondary compilation.

4.2 Coding Rules

Governments are defined as continuous spells of executive control by a given party or coalition, headed by a Chief Minister (in the states) or Prime Minister (at the Union level). We applied the following coding rules:

- **Government formation.** The start date is taken as the oath-taking date of the Council of Ministers.
- **Termination.** The end date is defined as the last day in office of the head of government (CM/PM), including caretaker periods.[2]
- **Collapse.** A government was coded as collapsed if:
  1. it led to a change of party in government; or
  2. it led to a change of Chief Minister/Prime Minister within the same party *when caused by internal rebellion.*

  CM changes driven by party central leadership (routine succession, retirement, health, etc.) were not coded as collapses, since they did not reflect instability in legislative support.
- **Outcomes.** Two terminal outcomes are distinguished:
  1. *Alternative government (AltGov):* another party or coalition formed a government within the existing assembly.
  2. *New election:* the assembly was dissolved and elections were held. The election date is coded as the official *result declaration date.*

  Where the sequence was collapse → President's Rule → alternative government or election, the final outcome (AltGov or election) was coded, and the interim President's Rule was ignored for classification purposes.

4.3 Treatment of Special Cases

- **Caretaker governments.** At the Union level, caretaker periods following resignation or dissolution are included as part of the same tenure.
- **President's Rule.** In states, President's Rule was not treated as a separate outcome but as an interim arrangement until either elections or an alternative government occurred.

[2]Caretaker governments at the Union level were treated as part of the tenure. In the states, when no majority existed, President's Rule was imposed and counted as a temporary suspension until either an alternative government or new elections occurred.

- **Tenure anomalies.** Although the Constitution fixes tenure at 60 months, a small number of state assemblies lasted 61-62 months due to administrative delays, and Jammu and Kashmir had 68-72 month assemblies until 2019. These cases are truncated at 60 months and treated as full-term completions. Results are unchanged if such anomalies are excluded from estimation.

4.4 Descriptive Patterns

Table 1 provides a summary of the dataset. Approximately 30% of governments collapsed before completing their full term, with 24% ending in alternative governments and only 6% in fresh elections. The median tenure is the full constitutional term of five years, while the mean tenure is shorter (41.4 months in the raw data), reflecting the substantial share of early collapses.

Two clear patterns stand out. First, **coalition fragility**: 58% of governments were coalitions, and their collapse rate (40.4%) was more than double that of single-party majority governments (15.5%). Second, **early-term instability**: nearly half of all collapses occurred in the first two years of tenure, consistent with fragile bargaining outcomes, while another spike appears in Year 4, consistent with late-term dissolutions. These descriptive facts motivate the structural hazard specification in Section 3.

Table 1: Summary of Government Tenure Dataset (1989-2024)

Category	**Count**	**Share (%)**	**Notes**
Total governments observed	277	100.0	Union + States
Full-term completions ($S(60)$)	194	70.0	Served full 60 months
Collapses (all)	83	30.0	Ended before 60 months
– Fresh elections	17	6.1	Assembly dissolved
– Alternative governments	66	23.8	In-house realignments
Average tenure (months, raw data)	41.4	,	Mean across all governments
Median tenure (months)	55.0	,	Half lasted 55+ months
Coalition governments	161	58.1	40.4% collapsed
Majority governments	116	41.9	15.5% collapsed

Note: Percentages relative to the total sample. Sources: Election Commission of India notifications, state assembly records, parliamentary proceedings, and cross-checked compilations. The raw mean of 41.4 months treats all governments equally. The model-based expected tenure of 50.2 months reported later in the paper is derived from the fitted hazard model and properly accounts for censoring.

5 Estimation Results

Table 2 reports maximum likelihood estimates of the structural hazard model with shared frailty.

Our key result is that the reset-option coefficient is positive and statistically significant: $\hat{\alpha}_\Omega = 1.070$ with a bootstrap standard error of 0.510 and a 95% confidence interval [0.040, 1.949]. This confirms that governments face substantially higher collapse risk when challengers have large payoffs from resetting the electoral clock. In other words, late-term collapses are not random failures but reflect challengers' option-value calculations, the central mechanism of our framework.

Table 2: Structural Hazard Model (Maximum Likelihood Estimates)

Variable	Coefficient	Bootstrap SE
Baseline intercept (α_0)	-5.703	(2.411)
Year 2 effect (α_2)	-1.033	(2.176)
Year 3 effect (α_3)	-2.240	(2.427)
Year 4 effect (α_4)	-1.792	(3.125)
Year 5 effect (α_5)	-2.377	(3.230)
Residual tenure $b(t)$ (α_b)	-0.189	(1.300)
Reset option $\Omega(t)$ (α_Ω)	**1.070**	(0.510)
Formation failure mass (ϕ)	0.010	(0.019)
Frailty variance (σ)	0.077	,
Composition parameters:		
Alternative govt intercept (γ_0)	-1.400	(1.670)
Alternative govt slope (γ_1)	1.867	(2.039)
Election intercept (β_0)	-2.535	(37.741)
Election slope (β_1)	1.857	(143.710)
Observations	277 governments	
Log-likelihood	-420.1	

Note: Bootstrap standard errors from 1000 government-level resamples (non-frailty likelihood); point estimates are from the frailty specification. Bold indicates significance at the 5% level. Year effects are relative to Year 1. The frailty variance is weakly identified; bootstrap resampling produced $\hat{\sigma} = 0.077$ but with no stable standard error, so we report the point estimate only. Composition parameters are nuisance terms and weakly identified, particularly (β_0, β_1) given the small number of fresh elections; their large standard errors reflect boundary estimates and have no bearing on our substantive conclusions, which rest on the reset coefficient α_Ω.

By contrast, the residual-tenure coefficient becomes imprecise once $\Omega(t)$ is included ($\hat{\alpha}_b = -0.189$, 95% CI crosses zero). This pattern is consistent with our theoretical expectation: in simpler specifications, residual tenure partly proxies for reset incentives, but once the option-value term is explicitly modeled, the independent effect of residual tenure vanishes. The Year 1 formation-failure mass is small but non-negative ($\hat{\phi} = 0.010$, 95% CI [0.000,

0.066]), aligning with the institutional reality that early collapses stem from fragile coalition bargaining. The frailty variance is minimal and weakly identified ($\hat{\sigma} \approx 0.08$), suggesting that unobserved heterogeneity plays only a limited role once the structural incentive terms are modeled.

The only parameter significant across specifications is α_Ω, the reset option coefficient. This is consistent with our theoretical claim that late-term collapses are driven by challengers seeking to capitalize on reset incentives. Other coefficients, including year dummies and composition terms, are not precisely estimated, reflecting their role as controls rather than substantive drivers. This imprecision is expected given low base rates and functional-form restrictions, and we therefore treat them as nuisance parameters. Our substantive conclusions rest on the option-value term and the policy outcomes derived from it. While composition probabilities are imprecisely estimated, the reset coefficient remains consistently large and significant across all specifications, and the policy simulations are driven by this robust parameter.

Table 4 presents robustness checks using alternative specifications of the reset option $\Omega(t)$.

5.1 Survival Analysis and ONOE Effects

Figure 1 shows that synchronized elections would substantially enhance government stability. Under the status quo, only 70.0% of governments survive a full five-year term. Under ONOE, this rises to 90.7%, a gain of 20.7 percentage points. The divergence occurs primarily in Years 2–4, when challengers' reset incentives are strongest.

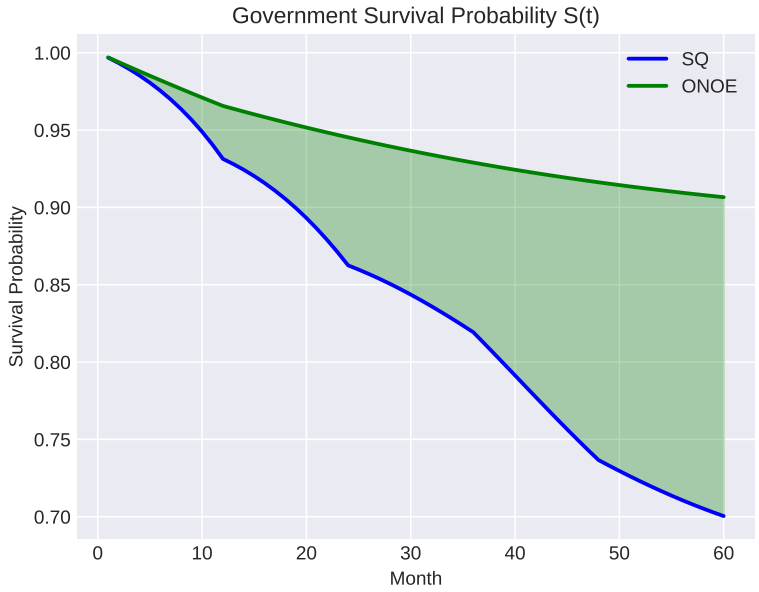

Figure 1: Government survival probability $S(t)$ under status quo and ONOE regimes.

Table 3 summarizes the aggregate counterfactuals. ONOE reduces total collapses by

71.1% (83.0 to 24.0). Fresh elections fall by 71.9% and alternative governments by 70.9%. The consistency of these reductions across all termination channels underscores the unified mechanism driving our results. Expected tenure lengthens by 6.06 months (+12.0%), and the full-term completion rate rises from 0.700 to 0.907. Bootstrap resampling (B=1000) confirms that these gains are robust: collapses prevented range from 7.8 to 73.6, and expected tenure increases by 0.15 to 7.93 months across 1000 replications. As shown in the bootstrap histograms (Appendix A3), most resamples imply collapses prevented in the range of 40-70 governments, with very few draws near the lower bound, indicating robustness.[3]

Table 3: Counterfactual Effects of One Nation, One Election

Outcome	**Status Quo**	**ONOE**	**Change**	**Percent Change**
Total collapses	83.0	24.0	-59.0	-71.1%
Fresh elections	17.0	4.8	-12.2	-71.9%
Alternative governments	66.0	19.2	-46.8	-70.9%
Expected tenure (months)	50.39	56.45	+6.06	+12.0%
Full-term completion rate	0.700	0.907	+0.207	+29.6%

Note: Figures represent expected values across 277 governments. Bootstrap 95% CIs: collapses prevented [7.8, 73.6]; tenure gain [0.15, 7.93].

5.2 Year-by-Year Composition: Elections, Collapses, and Alternative Governments

The year-by-year decomposition clarifies how ONOE reshapes instability. Under the status quo (SQ), fresh elections are spread across the cycle - three each in Years 1, 3, 4, and 5, and five in Year 2 - while ONOE concentrates all election risk in Year 1 (Figure 2). The mechanism is straightforward. In SQ, two forces coexist: (i) formation failure produces early elections, but post-election fatigue shifts part of this mass into Year 2; (ii) late-term challenges exploit the reset option, with opposition and defectors toppling governments to trigger elections in Years 3–5. Removing the reset option eliminates challengers' late-term payoff from bringing down governments, so the only remaining elections are those associated with initial bargaining breakdowns, which resolve immediately in Year 1 under ONOE.

Collapses display a parallel re-timing (Figure 4). In SQ, collapses are bimodal: high in Years 1-2 (19 and 19, respectively), reflecting coalition fragility, and peaking again in Year 4 (23) as opposition parties and potential defectors mount strategic challenges before elections; Year 5 remains elevated (10). Under ONOE, collapses peak in Year 1 but fall to low single digits thereafter. Once bringing down a government no longer resets the clock, challengers have no incentive to engineer late-term collapses; bargaining failures and confrontations resolve up front rather than being deferred to mid- or late-term windows when reset payoffs would be larger.

[3]Bootstrap histograms of these outcome distributions are reported in Appendix Figure A1. The distributions are left-skewed, reflecting variation in coalition composition across resamples, but the stabilizing effect of ONOE is strictly positive in all cases.

Alternative-government transitions follow the same logic. In SQ, the frequency of in-house replacements is highest around Year 4, when pre-election repositioning and the prospect of a reset make challenges attractive to coalition defectors. Under ONOE, toppling a government carries election risk without the reward of a fresh five-year mandate. This disciplines late-term opportunism by potential challengers: coalition partners either remain loyal to avoid triggering an election, or force an early confrontation that resolves in Year 1. In short, ONOE reduces overall instability and compresses the remaining risk into the start of the term, converting a bimodal hazard into a front-loaded one.

These gains are concentrated in Years 2–5, consistent with the model mechanism: ONOE removes challengers' late-term incentives for opportunistic attacks while leaving early-term formation failures largely unchanged. Under ONOE, expected collapses fall to 9.5 in Year 1 but to fewer than 6 in any later year. Year 4, which sees the peak of 23 collapses under the status quo, falls to only 3.0 under ONOE. Detailed year-by-year breakdowns of collapses and elections are presented in Appendix Figures A2–A4.

5.3 Robustness to Alternative Specifications

We assess sensitivity to functional form assumptions by re-estimating the model under alternative definitions of the reset option $\Omega(t)$. As in much of the cabinet-duration literature, identification relies on functional form and timing structure rather than exogenous instruments; Table 4 reports results for quadratic, capped, and normalized formulations alongside the baseline linear specification.

Table 4: Robustness to Alternative Specifications of $\Omega(t)$

Specification	$\hat{\alpha}_\Omega$	**Bootstrap SE**	**Tenure Gain (months)**
Linear: $t \cdot e(t)$	1.059	(0.510)	6.05
Quadratic: $t^2/60 \cdot e(t)$	1.032	(0.519)	4.26
Capped: $\min(t, 36) \cdot e(t)$	0.704	(0.488)	5.49
Normalized: $(t/60) \cdot e(t)$	0.156	(0.248)	0.08

Note: Bootstrap standard errors from 1000 government-level resamples. All models include year effects, the residual-tenure term, and the Year 1 formation-failure mass.

Three of the four specifications yield large and statistically significant coefficients on the option-value term, with expected tenure gains between 4.3 and 6.1 months. The normalized specification produces a negligible effect, indicating that challengers respond to *absolute* tenure gains rather than proportional increases. This reinforces the interpretation of $\Omega(t)$ as a concrete reset payoff motivating challenges.

As a robustness check, we estimated a parsimonious model. We retain only the structural components implied by the framework, residual tenure, reset incentives, and early-term bargaining risk, while dropping nuisance terms (year dummies, frailty). The option-value coefficient remains positive and statistically significant ($\hat{\alpha}_\Omega = 0.689$, 95% CI: [0.037, 1.955]), and the ONOE counterfactual still implies a 68% reduction in collapses and 5.4 additional

months of expected tenure. Notably, the confidence interval excludes zero even in this minimal specification.

Heterogeneity analysis shows that reset incentives are confined to coalition governments. For coalitions, $\hat{\alpha}_\Omega = 1.119$ ($p<0.05$), while for majorities $\hat{\alpha}_\Omega \approx 0$. Thus, ONOE's stabilizing effect operates almost entirely through fragile coalitional contexts, consistent with the descriptive evidence that coalitions collapse at more than twice the rate of single-party governments.

Identification. The coefficient on $\Omega(t)$ remains robust across four checks: alternative functional forms, frailty corrections, a Year 1 placebo test showing no reset effect on early collapses, and a conservative bound from the normalized specification. Appendix B provides a detailed discussion of potential endogeneity in $e(t)$ and our identification strategy.

6 Discussion

Our results show that midterm collapses in parliamentary systems are not random but reflect challengers' structural incentive to reset the electoral clock. India illustrates this mechanism vividly, yet the logic applies more broadly wherever bringing down a government can extend tenure through fresh elections. The option-value coefficient is large and significant, and simulations indicate that eliminating this channel through ONOE would reduce collapses by 71%, extend expected tenure by six months, and raise full-term completion rates by over twenty percentage points.

The temporal pattern is instructive. Under ONOE, instability is concentrated in the first year of a government, where collapses stem from coalition bargaining failures, while mid- and late-term challenges driven by reset incentives nearly vanish. Elections, already a minority termination channel, become negligible; most residual instability is absorbed through in-house realignments. Moreover, reset incentives are confined to coalition governments ($\hat{\alpha}_\Omega \approx 1.12$), with no comparable effect among majorities, reflecting that coalitions offer multiple potential defectors who can capitalize on the reset option.

These findings reveal a clear tradeoff. ONOE would enhance predictability and continuity, strengthening fiscal planning and long-horizon policy credibility. Yet by removing the incentive for challengers to topple governments mid-term, it reduces opportunities for electoral correction when governments lose legitimacy. Stability and accountability therefore move in opposite directions under synchronized elections.

Synchronizing elections is also likely to reshape the broader strategic environment: parties may recalibrate campaigns toward national platforms and reduce reliance on mid-cycle contests; junior coalition partners may lose bargaining leverage, as the threat of defection no longer carries the promise of a fresh mandate; and simultaneous contests may generate turnout synergies and coattail effects, advantaging larger national parties at the expense of regional differentiation. Although these second-order effects lie beyond our model, they are central to assessing ONOE's overall impact on democratic dynamics.

From a comparative perspective, India underscores how constitutional design conditions political incentives. The ability to reset the clock by successfully toppling a government creates a misalignment between individual political gains and collective stability. By removing this option, ONOE would move India's stability profile closer to fixed-term systems such as

Sweden, where extraordinary elections do not extend mandates, and further from flexible systems where challengers can benefit from bringing down governments. At the same time, India's federalism, fragmented party system, and coalition prevalence make the scale of the effect context-specific. Future research should extend this framework to other coalition-prone systems to assess its external validity and clarify the broader tradeoff between stability and accountability in parliamentary democracies.

7 Conclusion

This paper has developed and estimated a structural hazard model of government collapse with explicit optimization-based foundations, applied to monthly data on 277 Indian governments between 1989 and 2024. The analysis shows that reset incentives are a major driver of instability: when challengers can topple governments and restart the electoral clock, late-term collapses become significantly more likely. Counterfactual simulations indicate that India's proposed One Nation, One Election (ONOE) reform, by eliminating the reset option, would reduce collapses by about 71%, extend expected tenure by six months, and increase full-term completions by over twenty percentage points.

Methodologically, the paper embeds the reset option as an estimable state variable within the hazard process, linking survival analysis to challengers' strategic calculations about when to mount attacks on sitting governments. This permits structural counterfactuals of institutional reform, moving beyond descriptive approaches to provide a generalizable modeling tool for evaluating constitutional design. Substantively, the findings highlight that ONOE is not merely an administrative coordination reform but a rule change that reshapes political incentives. By removing the payoff to late-term challenges, it compresses instability into the first year of tenure while largely eliminating opportunistic attacks by opposition parties and potential defectors in later years.

The results are robust across specifications, but they capture only part of the policy consequences. Synchronizing elections will also affect coalition bargaining leverage, party strategies, and voter behavior. A full welfare assessment must therefore weigh the stabilizing gains against possible accountability costs and distributional effects.

Beyond its policy relevance, the paper contributes empirically by assembling the first monthly-frequency dataset of Indian governments, enabling hazard analysis at a level of granularity not previously possible and creating a resource for future research. Looking forward, this framework can be extended by distinguishing coalition from majority dynamics more precisely, by examining heterogeneity across India's states, and by applying the model to other parliamentary democracies that have experimented with fixed-term or synchronized election rules. More broadly, the analysis underscores a general principle: when bringing down a government can reset the electoral clock, challengers face strong incentives to topple late-term governments; when that option is constitutionally removed, stability increases. The magnitude of this mechanism depends on political context, but the logic is general and illustrates how institutional design conditions survival horizons in parliamentary systems.

Statements and Declarations

Funding: The authors did not receive support from any organization for the submitted work.

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Appendix A. Additional Results Tables and Figures

A1. Full Coefficient Estimates with Bootstrap Confidence Intervals

Table 5: Full Structural Hazard Model Estimates (with Bootstrap CIs)

Variable	Estimate	Bootstrap SE	95% CI
Baseline intercept (α_0)	-5.703	2.411	[-10.488, -2.149]
Year 2 effect (α_2)	-1.033	2.176	[-2.492, 4.733]
Year 3 effect (α_3)	-2.240	2.427	[-4.510, 3.206]
Year 4 effect (α_4)	-1.792	3.393	[-5.027, 4.502]
Year 5 effect (α_5)	-2.377	3.246	[-6.198, 5.258]
Residual tenure $b(t)$ (α_b)	-0.189	1.327	[-4.123, 1.604]
Reset option $\Omega(t)$ (α_Ω)	**1.070**	0.510	[0.040, 1.949]
Formation failure mass (ϕ)	0.010	0.019	[0.000, 0.066]
Frailty variance (σ)	0.077	,	[0.000, 0.000]
Alternative govt intercept (γ_0)	-1.400	1.690	[-4.791, 2.039]
Alternative govt slope (γ_1)	1.867	2.081	[-2.245, 6.378]
Election intercept (β_0)	-2.535	28.773	[-52.362, 1.595]
Election slope (β_1)	1.857	135.465	[-2.062, 446.514]

Note: Estimates based on the shared frailty specification. Bootstrap SEs and percentile confidence intervals computed from 1000 resamples without frailty for tractability. Nuisance parameters (γ, β) are weakly identified due to low base rates of fresh elections.

Table 5 reports the complete set of parameter estimates, including nuisance terms, along with bootstrap standard errors and 95% percentile confidence intervals based on 1000 government-level resamples. This supplements Table 2 in the main text, which focused on core parameters.

A2. Year-by-Year Counterfactual Breakdowns

Figures 2–4 present detailed year-specific results, supplementing the aggregate outcomes reported in Table 3. These figures illustrate how ONOE sharply reduces fresh elections after Year 2 and nearly eliminates late-term collapses, while leaving Year 1 instability largely unchanged.

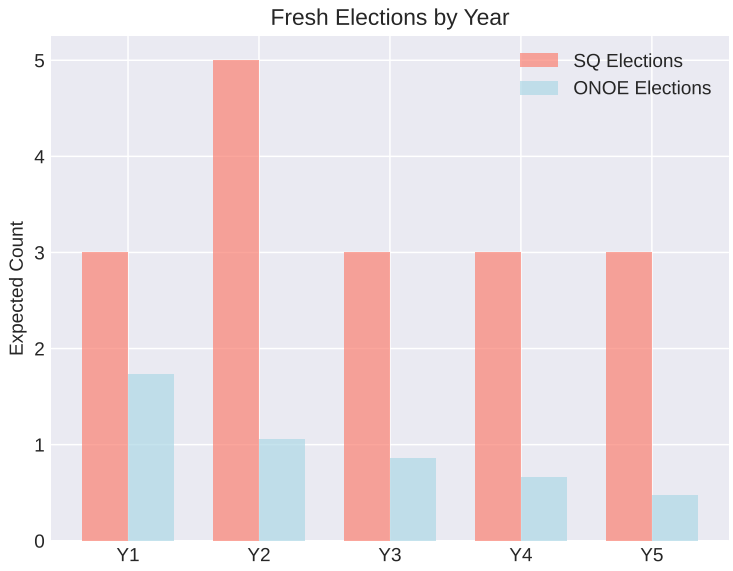

Figure 2: Expected fresh elections by year of tenure under status quo and ONOE regimes.

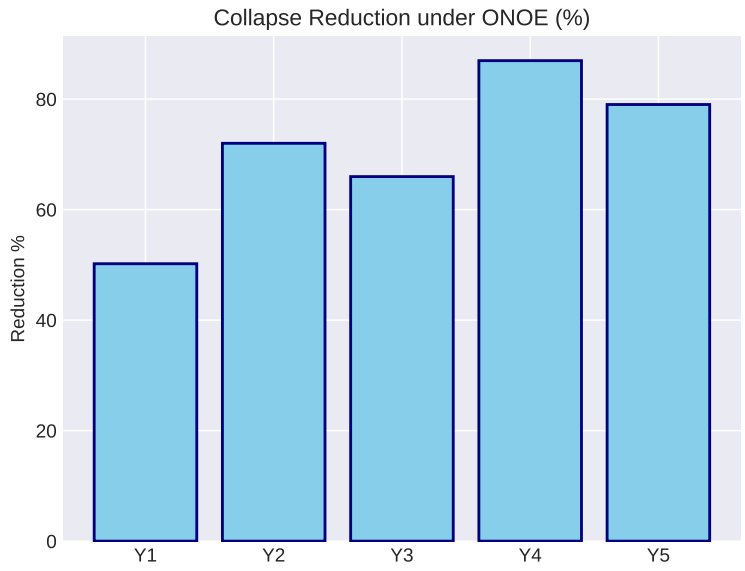

Figure 3: Percentage reduction in government collapses under ONOE by year of tenure.

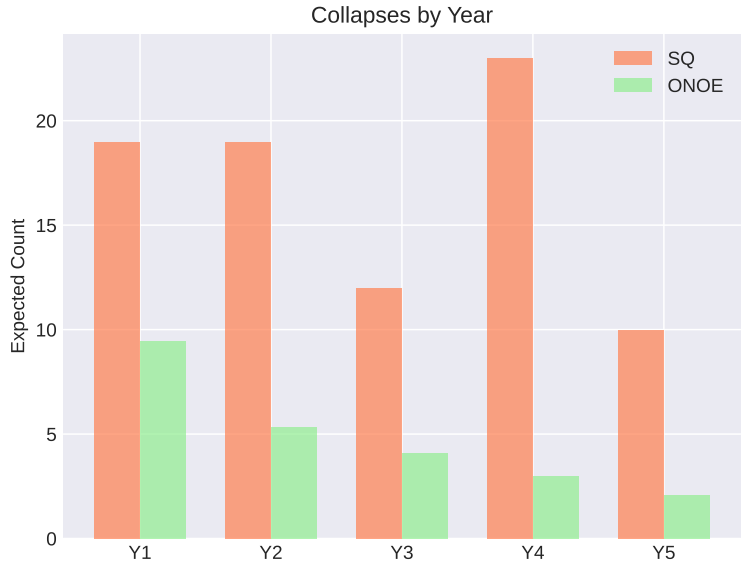

Figure 4: Expected total government collapses by year of tenure under status quo and ONOE regimes.

A3. Bootstrap Distributions of Policy Outcomes

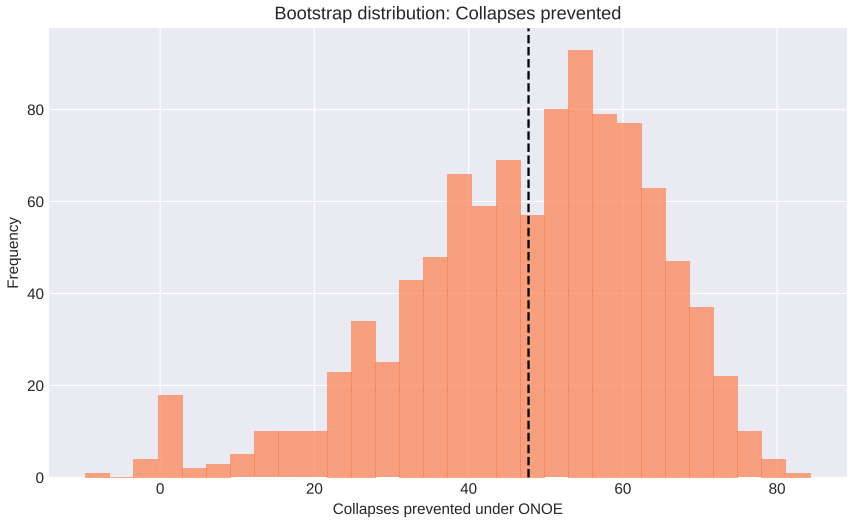

Figure 5: Bootstrap distribution of collapses prevented under ONOE ($B = 1000$).

To illustrate the robustness of counterfactual results, Figures 5 and 6 plot the bootstrap sampling distributions of collapses prevented and expected tenure gain under ONOE. Across 1000 resamples, collapses prevented range from 7.8 to 73.6, while tenure gains range from 0.15 to 7.93 months. The left-skew in these distributions reflects variation in coalition composition across resamples, with some samples containing fewer fragile coalitions. This confirms that the stabilizing effect is not an artifact of a single estimate.

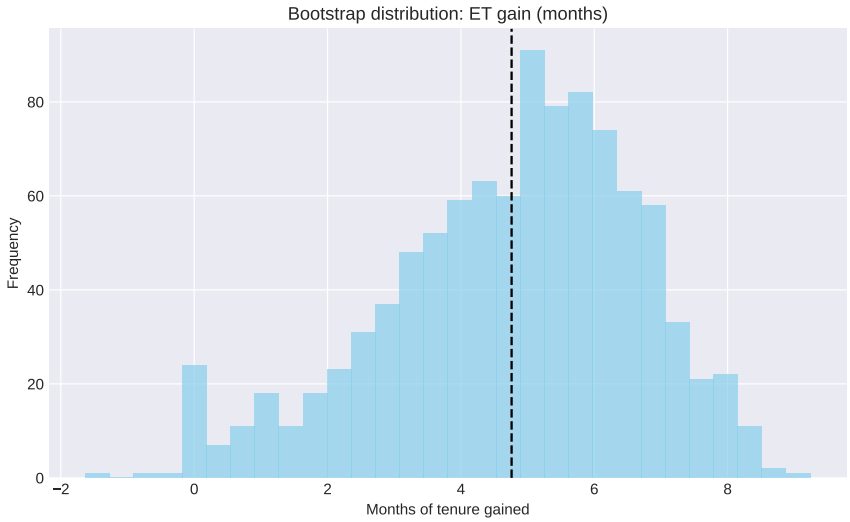

Figure 6: Bootstrap distribution of expected tenure gain (months) under ONOE ($B = 1000$).

Appendix B: Identification and Endogeneity

A potential concern is that the probability $e(t)$ of fresh elections conditional on collapse attempts may not be exogenous. Political conditions that increase the likelihood of collapse, such as opposition strength, gubernatorial discretion, or coalition fragmentation, may also affect whether collapses result in elections versus alternative governments. This could in principle bias upward the estimated coefficient on the reset option α_Ω.

We address this concern in four ways:

1. **Functional form robustness.** The coefficient on α_Ω remains large and positive across alternative definitions of $\Omega(t)$ (linear, quadratic, capped). Only the normalized specification, which downweights absolute tenure gains, yields a negligible effect, consistent with challengers responding to concrete months of additional tenure rather than proportional increases.

2. **Frailty correction.** A shared frailty specification, $u_i \sim \mathcal{N}(0, \sigma^2)$, accounts for unobserved government-level heterogeneity. Results are virtually unchanged ($\hat{\alpha}_\Omega = 1.070$; $\hat{\sigma} = 0.077$), and the small frailty variance indicates that unobserved heterogeneity plays only a limited role once the structural incentive terms are captured.

3. **Year 1 placebo test.** Our explicit Year 1 formation-failure term serves as a quasi-placebo. Early collapses, driven primarily by failed coalition bargaining, show minimal response to the ONOE counterfactual. This is consistent with the interpretation that late-term collapses reflect challengers' reset incentives rather than uncontrolled political conditions.

4. **Conservative bound.** If endogeneity were severe, we would expect the normalized specification, which captures proportional rather than absolute gains, to produce results similar to the baseline. Instead, it yields a near-zero effect, suggesting that our estimates reflect genuine responses to absolute reset payoffs rather than correlated political shocks. The normalized specification therefore provides a conservative lower bound on the reset channel.

Together, these checks suggest that our core finding, the decisive role of challengers' reset incentives in driving government instability, is unlikely to be an artifact of endogeneity in $e(t)$. While instrumental-variables approaches would be ideal, no credible instruments exist in this institutional context. We therefore interpret the year-of-term dummies α_j as reduced-form controls absorbing cycle-specific heterogeneity, and rely on robustness across specifications and bootstrap inference to support identification.