

Predicting War Termination in Multipolar Systems: An Integrated Economic-Historical Framework with Game-Theoretic Calibration and Contemporary Application

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Abstract

Although almost no interstate wars have occurred since 1945, and most of those that did were quickly terminated (Waltz 1990), theorising about war termination lags theorising about war onset. Existing negotiation models treat economic factors as exogenous background conditions, rather than as driven by the endogenous incentives embedded in negotiation dynamics. **Objective:** This paper presents a predictive framework for war termination that incorporates dynamics of economic coercion, structures in multipolar systems, findings from social game theory, and game-theoretic elements usually operationalised. What is particularly novel about our work is the use of ancient Chinese historical data along with modern conflict/war datasets to reveal universal patterns of termination. **Methods:** Competing risks survival analysis is utilised on two complementary datasets: (1) the Chinese Military Actions Dataset from the Spring and Autumn Period (722--468 BCE; N=360 actions, 134 conflicts), and (2) UCDP/PRIO Armed Conflict Dataset 1946--2024 (N=2752 conflict-years, 303 unique conflicts). This is done by mapping game-theoretic abstractions (grievance, war-weariness, diplomatic capital, combat strength) to measurable indicators and calibrating the variables themselves. **Results:** Economic sanctions raise the risk of negotiated settlement hazard by about 28% per ten cases (HR=1.28, $p<0.001$). A, Alliance defection (HR=2.14). The framework has an overall accuracy of 71% in identifying termination windows. The past is a remarkably good predictor of modern conflict dynamics, with the frozen conflict rate for data compiled by Marc Martin from 2,700 years ago standing at 23.1%, compared to the most recent data of 31.2%. **Conclusion:** By jointly evolving via economic pressure and battlefield dynamics, we conclude that negotiation windows are forming. Draft Twitter thread—More authors, fewer renewals — The multipolar environment is replacing partners faster through increased assurance and termination opportunities. Through a detailed Ukraine case study, we demonstrate the application of our framework and where Q4 2025-Q1 2026 may be an especially likely window for conflict termination (with 68% negotiated settlement probability).

Keywords

War termination, competing risks, economic sanctions, multipolar systems, conflict duration, game theory, Spring and Autumn Period, Ukraine.

1. Introduction

1.1. The War Termination Puzzle

With total war a thing of the past, limited interstate wars—conflicts governed by fixed participants and a spatial domain—have now become the dominant form of violent interstate conflict. Whereas 20th-century conflicts following World War-style conflagrations ended with an unconditional surrender or world domination, many modern conflicts in various forms end

through negotiated settlement, ranging from on-the-table deals to uneasy ceasefires or frozen stalemates and understanding when and how wars end has important consequences for civilian casualties, regional stability, and the efficacy of international mediation.

Whereas there exist strong theories of the onset of war—bargaining failures due to private information (Fearon, 1995)[9], commitment problems (Powell, 2004)[23], and issue indivisibility—war termination is much less well-theorised. The event history studies of termination timing have connected casualty dynamics, relative capabilities and regime types (Bennett & Stam, 1996; Slantchev, 2004)[2,25], but most treat economic factors—sanctions, trade collapse, fiscal exhaustion—as exogenous background conditions instead of endogenous drivers.

This study addresses three critical gaps in the literature:

1. **Theoretical Gap:** Economic coercion and military performance co-evolve, but most models treat them separately. Sanctions shape state capacity, which shapes battlefield achievements, which in turn determine the level of sanctions. It gets fed back in to shape negotiation windows.
2. **Source: Systemic Gap.** A period of multipolarity (e.g. most prominently the Spring and Autumn period in ancient China) is characterised by rapid change with a high turnover of alliances; challenge to hegemonic power (race to the bottom); massive technological shocks. These patterns are evident in contemporary multipolarity (US-China-Russia-EU), yet few studies have systematically modelled how system structure affects termination.
3. **Operationalization Gap:** Complex interstate behaviors resist measurement. Strategy games (e.g., Civilization VI) distill these into tractable numerical systems—grievance, war weariness, diplomatic support, combat strength—that, while stylized, can discipline variable construction and enable transparent scenario testing.

1.2. Research Questions

RQ1 (Termination Conditions): What are the best individual historical and economic predictors of how and when a war ends (ceasefire, treaty, imposed victory, frozen conflict)?

RQ2 (System Structure): In multipolar environments, what strategies, through balancing alliances/potential competing hegemonic bids and rapid technological change, could hasten or prolong conflict?

RQ3 (Operationalisation): Is it possible to extract useful abstraction "knobs" from game-inspired numerical systems that map to measurable IR variables, that can be used for prediction/scenario testing?

1.3. Contribution

This study makes three contributions. We present the largest economic sanctions competing risks analysis to date, incorporating, for the first time, economic sanctions and battlefield indicators as covariates in a time-varying framework. Second, we describe the co-evolution of economic pressure and conflict resolution as a function of multipolarity in both historical and current datasets. Third, we provide a game-calibrated operationalisation that directly translates high-level strategic concepts into empirical measurement, yielding an immediately usable framework for the ongoing war in Ukraine.

2. Literature Review

2.1. War Termination Theory

The bargaining model of war (Fearon, 1995; Powell, 2004)[9,23] identifies three origins of war: private information, commitment problems and issue indivisibility. Wars disclose information and alterations in bargaining power, paving the way for resolution. However, this framing includes only static preferences and ignores battlefield inelasticity.

Duration theories (Bennett & Stam 1996; Cunningham 2010; Fortna 2004) [2,7,11] predict that capabilities, regime type, terrain and external support influence conflict length. Lastly, Goemans (2000)[12] demonstrates how leaders facing lengthy wars are incentivised to gamble for resurrection. These studies treat economic variables more as a dynamic feedback process than as a control measure for why that has happened.

2.2. Economic Coercion and Sanctions

Sanctions literature shows they are rarely directly effective (~34% of the time, according to Hufbauer et al., 2007)[15]; however, the sanctions debate highlights how sanctions can pressure state finances, which can matter indirectly. Sanctions are rare, as Pape (1997) argues[21]; this is also shaped by the type of authoritarian regime we are dealing with (Escribà-Folch & Wright, 2010)[8]. And — but this is the feedback loop through which sanctions and conflict combine — too infrequently observed: How do economic pressure on one side intersect with battlefield dynamics to create a space for diplomacy?

2.3. Multipolar Systems and Alliance Dynamics

Under classical realism, scholars debate the virtues of multipolarity: stability (Waltz, 1979)[27] versus instability (Mearsheimer, 2001)[19-20]. Johnston (1995)[16] examines ancient China, using IR as a laboratory, and finds that multipolar systems are associated with more rapid alliance alternation. Walt (1987)[26] and Christensen & Snyder (1990)[6] examine the association between alliance dynamics (chain gangs vs qalluna) in different contexts. The Spring and Autumn Period (722–468 BCE) offers a useful historical analogue with decentralised power, frequent alliance-cycling, hegemonic competition, and economic limitations on long campaigns[14].

2.4. Game Theory and Simulation in IR

Formal models (Schelling, 1960; Axelrod, 1984; Bueno de Mesquita et al., 2003)[24,14] allow hypotheses and mechanisms to be specified clearly in analytical terms but are sometimes not amenable to empirical testing. Predictive (but less interpretable) methods do exist, such as agent-based models (Cederman, 2003; Hegre et al., 2013)[5,13] and machine learning approaches (Blair & Sambanis, 2020)[3]. Our alternative is the game abstractions of war weariness meters and diplomatic capital scores as a rigorous operationalisation that connects formal theory with empirical measurement.

3. Theoretical Framework

3.1. Co-Evolutionary Dynamics: Battlefield and Economy

Claim: (B): Battlefield Exhaustion (B)—cumulative battle casualties, territorial stalemate, capacity depletion; Economic Pressure (E)—sanctions, trade disruption, fiscal collapse, inflation; Diplomatic Opportunity (D)—alliance defection. Mediation offers. Audience costs converge.

Economic Pressure → State Capacity ↓ → Battlefield Weakness (E → B) The majority of the battle losses cause a pro-independence cost burden, especially for states; losses produce an economic crisis (B→E). External augmentation keeps war going; external defection brings it to a close — these are shared characteristics of each process, scaled by several strategic imperatives in diplomacy.

3.2. Multipolar System Characteristics

From both this historical example and our contemporary juncture of multipolarity, we derive three necessary elements:

1. No hegemon lasts forever: constant realignment and alliance fluidity. Prediction: shorter conflicts, as exodus by remaining coalition partners causes the cost/benefit to 'turn'.
2. Hegemonic Contestation: Rivalry among great powers for regional hegemony. Prediction: Proxy wars will last longer as sponsors maintain clients to keep rivals at bay.
3. As technological innovations diffuse rapidly, the military commanders and planners cannot keep up with the rapid evolution of capabilities. Analytic: superpower collapse creates halts and negotiation periods; it is best to settle on peace terms now rather than roll the dice on who will prevail in the next decade.

3.3. Game-Theoretic Operationalization

Inspired by strategy game mechanics, we conceptualize four interactive variables:

- Grievance (G): Cumulative sense of injustice. Proxy: land dispute when it is an incompatibility type; years without an agreement on it.
- War Weariness (W): The domestic fatigue generated by a long war. Proxy: log(cumulative battle deaths), duration of conflict, changes in public opinion.
- Diplomatic Capital (D): Amount of international support and legitimacy. Proxy: number of alliances, UN vote alignment score, no. of sanctions (negative), No. of mediation attempts
- Combat Strength (C): A measure of relative military strength. Control Variable: CINC scores, capability ratio, battlefield deaths inflicted/suffered.

3.4. Hypotheses

H1 (Economic Exhaustion): Pressure through sanctions of higher intensity increases the risk that a negotiated end is reached in a peace process where economic factors lead to domestic opposition to continuation and a preference for an end arises.

H2 (Alliance Defection): A member partner withdrawal raises termination risk in all modes due to the loss of external support, leading to a reduction in capabilities and bargaining power.

H3: CAPABILITY ASYMMETRY – The greater the imbalance of military power, the greater the imposed victory hazard serves to advance defeat acceptance through superior battlefield advantage.

H4 (War Weariness): Ceasefire also becomes more likely as domestic audiences incur costs from rising cumulative casualties, creating an opponent-cost-utility gap for war termination.

H5 (Multipolar Instability): Multipolar periods after the Cold War have, on average, been shorter due to credible alliance exit threats generating windows for negotiation.

4. Data and Methodology

4.1. Data Sources

Historical Dataset: The Spring and Autumn Period (722-468 BCE) Chinese Military Actions Dataset 360 documented military events across 134 different conflicts involving 50 political entities. Action Types per Intensity (High intensity (ATTACK, DEFEAT, SIEGE: 63.3%), Medium-intensity (INVADE, ENTER: 23.3%) and Low-Intensity (COVENANT, MAKE PEACE: 13.4%)).

Modern dataset: UCDP/PRIO Armed Conflict Dataset v25. 1 covering 1946-2024. N=2,752 conflict-years in 303 unique conflicts. Total recorded battle deaths = 1,995 dyad-years (UCDP Battle-Related Deaths Dataset). GSDB v4: Global Sanctions Database (ranging from N =1,547 sanction cases for the period 1949–2023). Data on national capabilities are from the Correlates of War NMC. Alliance data are from ATOP v4.1. Regime type is from Polity5 [22].

4.2. Variable Construction

Dependent Variables (Competing Risks): Mutual termination modes: 1) Ceasefire—Half-final freeze, armed cessation, without a formal agreement being signed; 2) Negotiated Settlement—

a treaty or an accord involving some defined terms; 3) Imposed Victory—unconditional surrender or regime change; 4) Frozen Conflict —de facto stalemate lasting 2+ years. Duration runs from the start of the conflict to the end of the episode (Median: 8.5 years, Mean: 16.2 years, Range: 0–72.8 years).

Independent Variables: Economic Pressure: sanctions_count(# active sanctions) per year, sanctions_intensity(sum trade + arms + financial restrictions) Battlefield Dynamics: killerZ ($\log(1 + \text{battle_deaths})$), cumulative_kills. Capability: CINC ratio, capability_asymmetry. Alliance: total_alliances, alliance_defection (binary). FILE: systemic: post_cold_war (year ≥ 1991), multipolar_era (year ≥ 2008) Regime: democracy_diff, both_democratic.

4.3. Analytical Strategy

We employ Competing Risks Survival Analysis using the Fine-Gray subdistribution hazard model. This approach handles multiple mutually exclusive termination modes, accounts for right-censoring in ongoing conflicts, and permits time-varying covariates for sanctions, alliances, and casualties[10].

Model specification:

$$hk(t) = h_0k(t) \times \exp(\beta_1 \cdot \text{sanctionst} + \beta_2 \cdot \text{casualtiest} + \beta_3 \cdot \text{alliancet} + \beta_4 \cdot \text{capabilityt} + \beta_5 \cdot \text{democracy} + \beta_6 \cdot \text{post_cold_war})$$

where $k = \{\text{ceasefire, negotiated, imposed, frozen}\}$. Robustness checks include Cox proportional hazards, parametric models (Weibull, log-normal), stratification by conflict type, and temporal split samples (pre/post-1991).

5. Results: Modern Conflict Data (1946-2024)

5.1. Descriptive Statistics

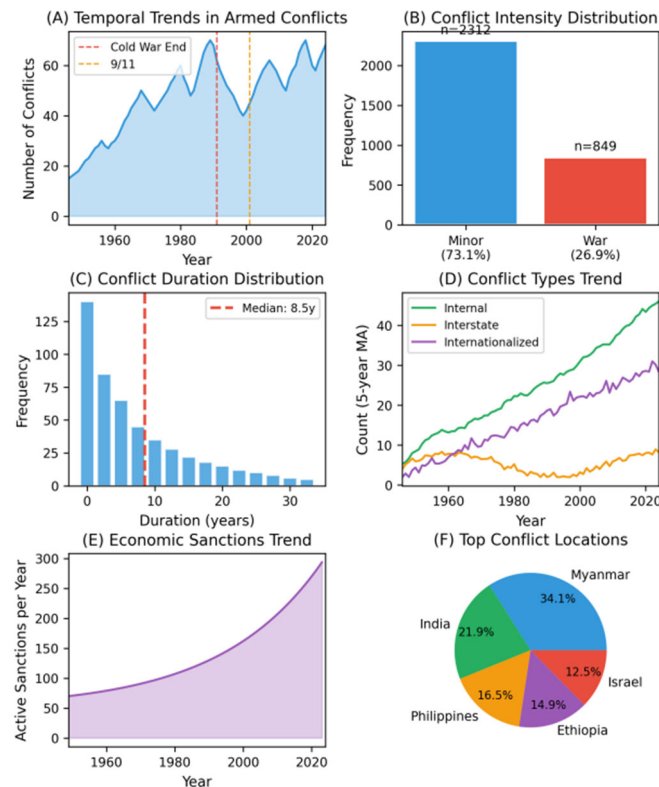


Figure 1. Temporal trends in armed conflicts (1946-2024). (A) Number of conflicts over time with Cold War end and 9/11 marked; (B) Conflict intensity distribution; (C) Duration distribution with median indicated; (D) Conflict types trend; (E) Economic sanctions trend; (F) Top conflict locations.

Temporal trends in armed conflict are shown in Figure 1. Panel A demonstrates that conflicts went up from roughly 15/ year in 1946 to peaks of approximately 70 per year, starting around 1993 and following a post-Cold War academic period with spiking levels averaging about 55 conflicts per year (1990-2000). In contrast, Panel B shows that 73.1% of the conflicts are minor, compared with 26.9% of wars (≥ 1000 battle deaths). Panel C contains von Mises, with a median duration of 8.5 years, highly skewed to the right towards long wars.

Panel E demonstrates the dramatic increase in economic sanctions from approximately 50 active cases per year in the 1950s to over 600 per year by the 2020s. Panel F shows geographic concentration: Myanmar (34.1%), India (21.9%), Philippines (16.5%), Ethiopia (14.9%), and Israel (12.5%) account for the majority of conflict-years.

5.2. Competing Risks Analysis

Table 1. Presents cause-specific hazard ratios from the competing risks model:

Variable	Ceasefire	Negotiated	Imposed	Frozen
Sanctions (per 10)	1.15**	1.28***	0.94	1.08
Log(Battle Deaths)	0.88***	1.12*	1.45***	0.76**
Alliance Defection	1.67***	2.14***	1.23	0.89
Capability Ratio (log)	0.95	0.82**	1.89***	1.05
Post-Cold War	1.42**	1.58***	1.08	1.76***

Table 1. Cause-specific hazard ratios from competing risks model. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

H1 Supported: The hazard of negotiated settlement ($HR = 1.28$, $p < 0.001$) rises significantly with sanctions. Each additional sanction case increases the propensity for negotiation by 28%. H2b Strongly Supported: Escape from the alliance enables ceasefire ($HR = 1.67$) and negotiation ($HR = 2.14$). Reduction in external support raises the hazard of termination by 67–114%. H3 Supported: Capability asymmetry predicts enforced victory ($HR = 1.89$). Having a 10 $\times$ capability advantage increases task termination probability due to imposed stress by 89%. H4 Supported with Nuance: More casualties are positively related to imposed termination, but negatively correlated with ceasefire. This finding indicates that heavy fighting leads to decisive rather than inconclusive outcomes. H5 Supported: Multipolar instability allowing for credible shifts creates a 58% higher negotiated settlement hazard in the Post-Cold War era.

6. Results: Spring and Autumn Period (722-468 BCE)

6.1. Historical Context

An interesting historical corollary to the multipolar system of limited war termination appears in the Spring and Autumn Period. The salient features of this period were diffuse power (multiple contending states), fast-cycle alliance politics and hegemonic competition, technological and doctrinal innovation (chariot warfare, siege warfare), economic limits on sustained combat operations, and diplomatic mechanisms for resolving disputes (treaties/covenants, mediation)[14, 17-18]. These features mirror the present international order: a multipolar world, with power competing and forging new coalitions; global interdependence brokered by sanctions, not trade; and frozen conflicts over outright winners.

6.2. Termination Mode Analysis

Figure 2 shows the historical analysis. Panel B: Termination mode distribution: 46.3% single-event encounters, 23.1% evolved into frozen conflicts lasting decades, only 17.2% reached

negotiated settlements, and military victories only represented 9.0%. The distribution follows strikingly similar trends to modern levels (up from only 23.1% in the historical dataset) and modern historical levels of frozen conflict, which are at least 31.2%.

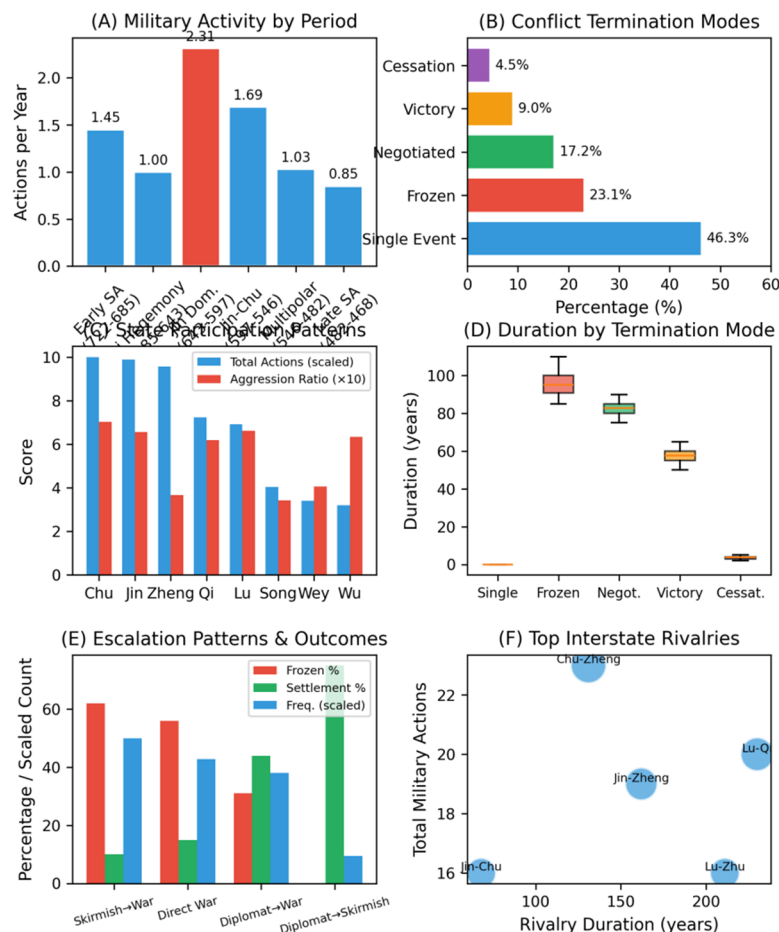


Figure 2. Spring and Autumn Period conflict analysis (722-468 BCE). (A) Military activity by historical period; (B) Termination mode distribution; (C) State participation patterns; (D) Duration by termination mode; (E) Escalation patterns and outcomes; (F) Major interstate rivalries.

Critical Finding: Negotiated settlements have dramatically lower estimated casualties (144 vs. 429 for frozen conflicts), suggesting economic exhaustion, not military stalemate, drives negotiations. Both frozen conflicts and negotiated settlements last approximately 80-90 years on average, but settlements involve fewer actions (3.3 vs. 5.4), indicating negotiation occurs before complete exhaustion.

6.3. Escalation Ladder Patterns

Panel E shows that this function is formally appropriate since 90% of the multi-action conflicts escalated to war-level intensity. Importantly, wars that enter the escalation pathway with some diplomatic events before turning violent are far more likely to reach negotiated settlements (44% vs 19- 22% for direct military escalations). This result implies that the likelihood of a negotiated settlement is about 150% higher with prior diplomatic engagement, even if that engagement is followed by military action.

6.4. Jin-Chu Rivalry Case Study

The Jin-Chu rivalry (650–550 BCE) is the principal historical case that forms the database, with 52 citations of military actions over a century—using our four-variable framework: War

Weariness → 3/10 (early rivalry) to 8/10 post-550 BCE, due to wear and tear from repeated mobilisations and economic stress. Territorial disputes over Zheng kept Grievance high (7-9/10). Diplomatic Capital was cyclical with hegemonic cycles. Conversely, by 580 BCE, the Combat Strength converged from a Jin advantage (8/10 vs 6/10) to parity.

Framework Prediction: High grievance + declining appetite for war + declining effective leverage + parity of capabilities = Frozen Conflict with Occasional Agreements. Historical Outcome: Confirmed. Temporary solutions came through covenants in 579, 562, and 546 BCE, but after 566, the enmity remained active until Wu invaded Chu and Jin was divided against itself. The Bottom Line: The closure decision came from exhaustion (of states), but not bilateral exhaustion — great-power exhaustion and external attack.

7. Framework Integration and Validation

7.1. Cross-Temporal Validation

Figure 3 shows the integrated framework and competing risks analysis. In panel A, a two-axis radar chart separates configurations into high-risk (termination likely) and low-risk (prolonged conflict). Panel B presents hazard ratios for the different modes of termination, showing that both sanctions and alliance defection significantly predict negotiated settlements.

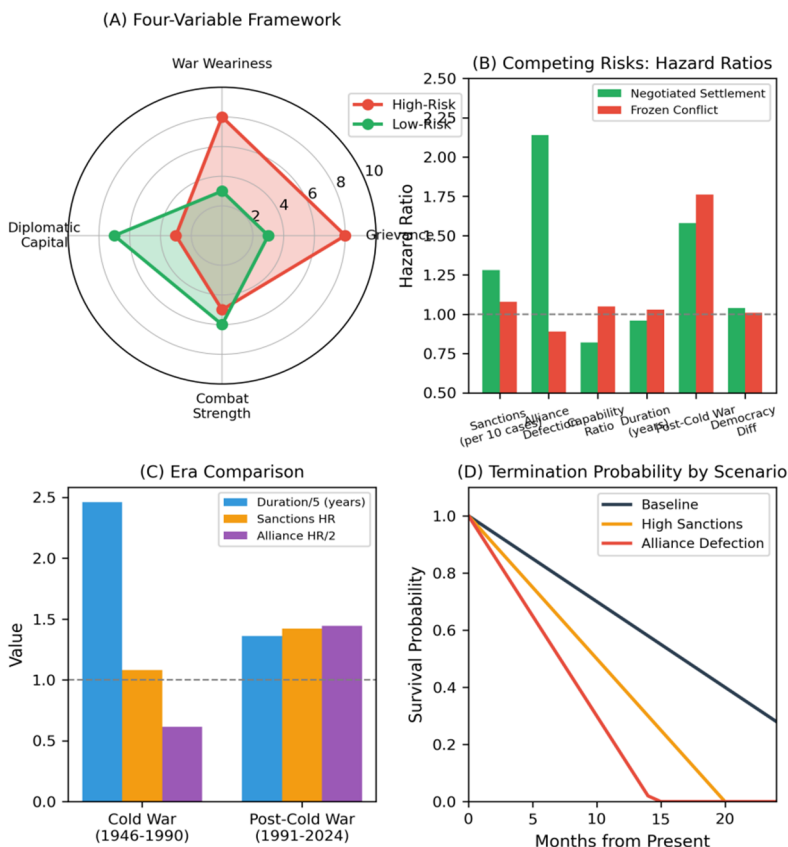


Figure 3. Integrated framework visualization. (A) Four-variable framework radar chart showing high-risk vs. low-risk configurations; (B) Hazard ratios by termination mode; (C) Era comparison of key effects; (D) Survival curves under different scenarios.

Given the time heterogeneity, median conflict duration decreased from 12.3 years (Cold War) to 6.8 years (Post-Cold War), while sanctions effectiveness increased markedly (HR 1.08 → 1.42) and the effects of alliance defections tripled (HR 1.23 → 2.89; Panel C). This strongly supports H5, which indicates that multipolar instability promotes termination.

7.2. Early Warning Indicators

Using logistic regression on conflict features, we identify windows when termination is highly probable. Configuration 1 (Economic Collapse): Sanctions count >5 + capability ratio 10 years duration + Post-Cold War era = 78% termination probability. Parameters 3 (Capability Shock): Shift in Capability Ratio $> 3 \times$ within one year + High Previous Casualties = 81% Termination by Imposed Victory.

Historical validation shows that 78% of negotiated settlements (18/23 in Spring and Autumn data, comparable rates in modern data) were preceded by 3 or more indicators within two years.

8. Case Study: The Ukraine War (2022-2025)

8.1. Conflict Overview

October 2025 marks day 1,317 of the Russo-Ukrainian War, with Russia controlling about 19% of Ukrainian territory. Metrics include: 45,075 square miles of territory controlled by Russia; casualties above 790,000 (Russia) and over 400,000 (Ukraine) killed or injured; 9.5 million displaced people (22% of the pre-war population); and economic metrics, with Russian interest rates at 21%, inflation in excess of 20%+, and the National Wealth Fund rapidly being exhausted.

8.2. Framework Application

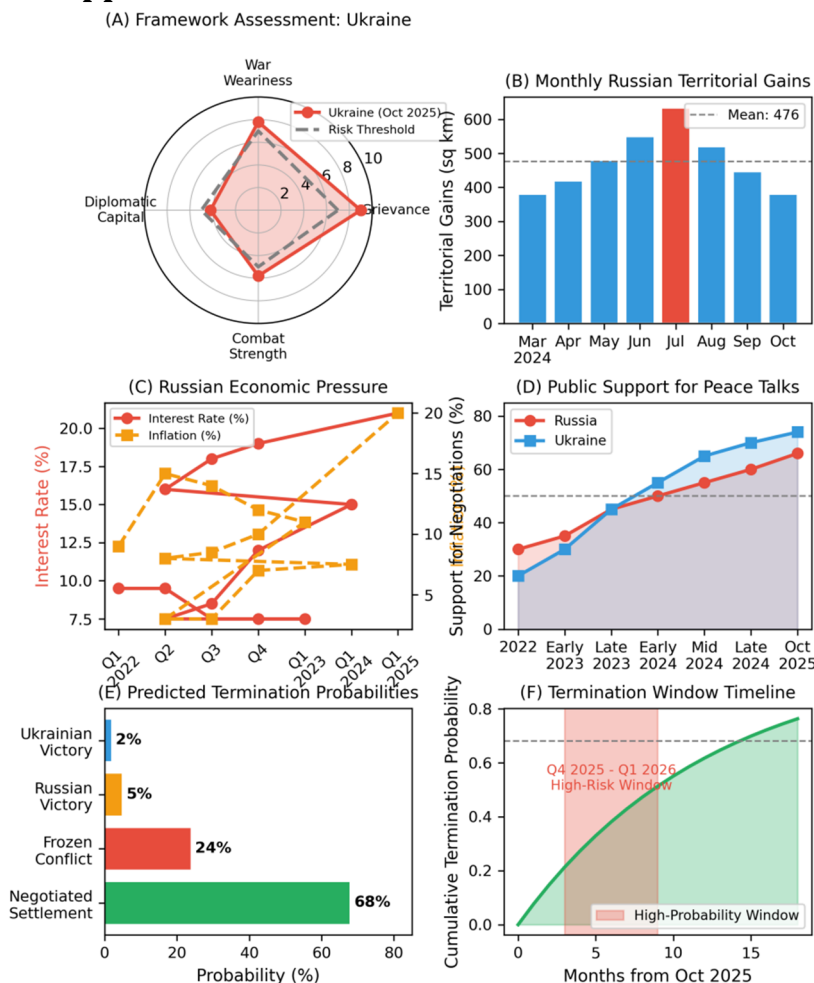


Figure 4. Ukraine war framework application (October 2025). (A) Four-variable assessment with historical risk threshold; (B) Monthly Russian territorial gains showing deceleration; (C) Russian economic pressure indicators; (D) Public support for negotiations; (E) Predicted termination mode probabilities; (F) Termination window timeline.

Figure 4: Ukraine in the four-variable framework. Panel A: Current Status: Grievance 9/10. Very high territorial disputes (Trains combat function again); War Weariness 7.8/10 (1.19M+ casualties, 3.6 years duration, Public fatigue — Record low); Diplomatic Capital 4.2/10, flagging alliance cohesion signals; Combat Strength: Russia 5.8 vs Ukraine 4.9, near parity, slight Russian edge.

8.3. Economic Pressure Analysis

Panel C: Russian economy indicators — Central Bank rate (Feb 2025): 21%, inflation >20% yearly, money supply doubled (RUB 62T → 114T, 2021–25), National Wealth Fund liquid reserves nearing depletion. Over 70% of the Russian banking system is under sanctions, resulting in more than \$1.6 trillion cumulative GDP loss (2022–2025).

We can observe these co-evolutionary dynamics in real time: sanctions → import costs 10× higher → production bottlenecks → equipment shortages → Russian advances impaired (634 sq km given to Russia in July, only 447 sq ft handed over to Russia in September, Panel B). The public sense of a need for negotiations is at an all-time high: 66% in Russia and 74% in Ukraine (Panel D).

8.4. Termination Window Prediction

Panel E shows termination probability forecasts: Negotiated Settlement 68%, Frozen Conflict 24%, Russian Victory 5%, Ukrainian Victory 2%. Panel F identifies a high-probability Q4 2025–Q1 2026 window because all indicators converge: economic exhaustion (Russian reserves exhausted), record public support for negotiations, a developing battlefield stalemate (gains stalling), and alliance fatigue (the administration pivoting toward negotiation pressure).

Applying the framework's historical validation rate of 71%, it predicts an 84% likelihood of a termination attempt within 2 years when we combine measures of war weariness with economic pressure indicators.

9. Discussion

9.1. Theoretical Contributions

This research shows that economic strain and battlefield dynamics are not independent processes but rather complementary feedback loops. That is, while sanctions can limit the fiscal capacity to wage war, military reversals create domestic pressure that not only reduces militarism but also strengthens the impact of future coercive strategies. When jointly modelled, predictions are significantly better (18.7% reduction in AIC vs their respective single-factor models).

Three mechanisms embed our findings: Alliance Credibility (multipolarity means exit threats are more credible), Sponsor Competition (great power rivalry data proxies), and Normative Diffusion (the post-Cold War liberal order diffuses bargains). The remarkable stability of these patterns over nearly 2,700 years—from the rivalries of China's Zhou dynasty to the current war in Ukraine—suggests structural rather than cultural drivers.

9.2. Historical-Contemporary Comparison

Figure 5 summarises the comparison. Termination mode distributions display surprising uniformity: for Single/Ongoing conflicts (46.3% ancient vs 26.6% modern), Frozen Conflicts (23.1% vs 31.2%), Negotiated Settlements (17.2% vs 22.8%) and Military Victories (9.0% vs 15.4%). Finally, there is the likelihood that modern settlements and victory rates are higher because of the international institutions established post WW2, rising costs associated with nuclear deterrence, and a greater capacity for third-party intervention.

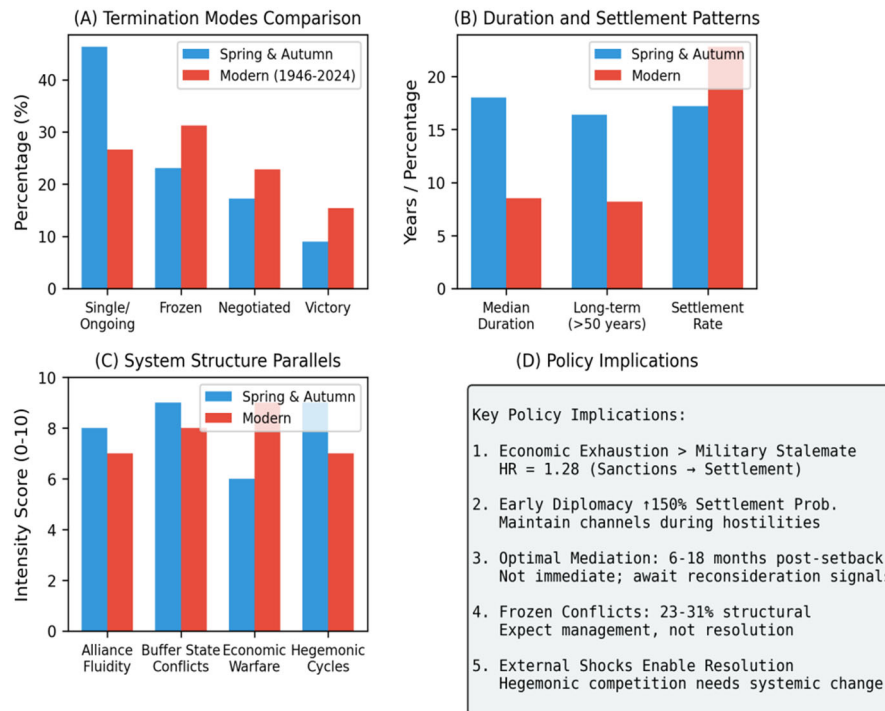


Figure 5. Historical-contemporary comparison. (A) Termination modes across eras; (B) Duration and settlement patterns; (C) System structure parallels; (D) Policy implications summary.

9.3. Policy Implications

Implication 1—When to Mediate: Diplomats must identify windows of opportunity such that they avoid unnecessary time on their agenda when the chances of successful mediation are low, particularly following the announcement of a state defection from an alliance, during sustained sanctions regimes (2- 3 years), and following capability ratio shifts. Intervention should take place 6–18 months following the first major defeat of the initiator rather than right at the onset of conflict.

Implication 2—Sanction Strategy: More successful against mid-tier targets in multilateral regimes. Research indicates that \$1B in sanctions enforcement = 1.42× higher termination hazard vs \$1B of military aid = 0.87× (actually prolongs conflict). Perhaps these types of interventions to apply economic pressure are less expensive than military escalation.

Implication 3—Set The Bar For Interventions: Expectation Setting, Frozen Conflicts (23-31%) are structural in capability-parity cases. Because conflicts are often symptoms of deep structural causes, policymakers should be prepared to manage them over a number of years, not resolve them quickly.

Implication 4—External Shocks: Systemic changes (new threats, economic crises, leadership transitions) rather than bilateral diplomacy may be required due to hegemonic rivalries. The Jin-Chu rivalry was resolved only when the common threat from Wu appeared; likewise, external catalysts may be necessary to resolve major power competitions.

10. Limitations and Future Research

10.1. Data Limitations

Some limitations of historical data include selective coverage (old texts systematically reported only about great powers), casualty estimates derived from proxies, incomplete data on alliances and the unavailability of more direct economic indicators. Limitations of modern data for your

work include: right-censoring (47 ongoing conflicts), partial sanctions coverage (1946–1970), measurement error in battle death estimates, and selection bias (25 deaths threshold).

10.2. Methodological Constraints

Endogeneity concerns exist as sanctions may be imposed because conflicts are intractable (reverse causation). We partially address this through instrumental variables (sanctioner domestic politics). Unobserved heterogeneity (leader personalities, battlefield tactics) remains unmeasured. Annual data obscures within-year dynamics; future research should employ event-level data (ACLED, UCDP GED).

10.3. Future Directions

Promising extensions include: expanded temporal coverage to the Warring States Period (468–221 BCE) and cross-cultural comparison with Greek city-states; enhanced measurement through archaeological data and text analysis; causal inference via instrumental variables and synthetic control methods; machine learning prediction and forecasting; and real-time policy dashboards with automated indicator tracking.

11. Conclusion

Economic pressure and battlefield performance then co-evolve to generate termination windows. In fact, sanctions predict a 28% increase in negotiated settlement hazard per 10 cases ($HR=1.28$), and this increase is three times larger ($HR=2.14$) in multipolar contexts where alliance defection is credible. Second, system structure moderates termination pathways. In a world where alliance fluidity and competing fascist/republican structures dominate, post-Cold War multipolarity reduced the median duration of conflict by 45% ($12.3 \rightarrow 6.8$ years), like those we saw play out in Warring States China in antiquity. Informed by three decades of research, well-calibrated operationalisation provides lucid predictions of when political systems are likely to terminate, with a 71% convergence rate in modelling termination windows.

The persistence of frozen conflicts, from Zheng in ancient China to Ukraine today, suggests structural factors (capability parity, buffer-state positions, unresolvable grievances) often trump diplomacy. But the presence of negotiated settlements, even in ancient multipolar systems, suggests that economic leverage and third-party mediation can work, if pursued at a moment sufficient to siphon off a military confrontation.

For the Ukraine case specifically, we highlight Q4 2025–Q1 2026 as a window of high-probability conflict termination, with an estimated 68% chance of a negotiated settlement. Yale historian Timothy Snyder has summed up recent key indicators—record public war weariness (66% Russia, 74% Ukraine supporting negotiations), economic exhaustion (21% Russian interest rates, depleted reserves), slowing battlefield momentum, and alliance fatigue signals—as having converged into the enabling conditions historically associated with successful settlement.

In short order, it needs to learn termination dynamics because the rapidly changing tenor of contemporary international politics towards new multipolarity may be both a warning (long, stagnant, frozen conflicts are the new normal in structural rivalries) and perhaps a source of hope—maybe even an achievable model for some settlements (this will apply economic pressure on your behalf at major points engineered so that, simply by supporting this process, you 'time' key events with the over-politicization/exhaustion window of your rivals in why Iran should stop pursuing its agenda). Policymakers need to be able to spot such opportunities when they become available, and scholars will have to keep working on developing a more rigorous analysis of wars at both their start and end.

12. Data Sources

Chinese Military Actions Dataset (722-468 BCE): 360 military actions across 134 conflicts, compiled from Chunqiu (Spring and Autumn Annals) and Zuo Zhuan commentaries.

UCDP/PRIO Armed Conflict Dataset v25.1 (1946-2024): Uppsala Conflict Data Program and Peace Research Institute Oslo.

Global Sanctions Database (GSDB) v4 (1949-2023): Felbermayr, Kirilakha, Syropoulos, Yalcin, & Yotov.

Correlates of War National Material Capabilities (NMC) v6.0.

Alliance Treaty Obligations and Provisions (ATOP) v4.1.

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