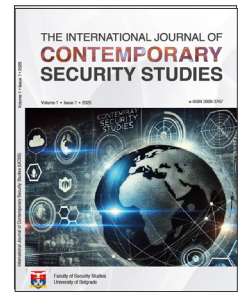




Faculty of Security Studies, University of Belgrade
**International Journal of Contemporary
Security Studies (IJCSS)**



Review article

The Balance of Power in Ukraine and Deterrence Effectiveness Against Nuclear-Armed Russia

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Received: 24 August 2025; Revised: 18 December 2025; Accepted: 5 January 2026; Published: 1 February 2026.

ABSTRACT

Russia's invasion of Ukraine has raised several significant questions regarding the impact of deterrence, the European balance of power and the ability of current security frameworks to restrict the actions of nuclear-armed revisionist powers. This paper uses an integrated theoretical framework consisting of deterrence theory, the balance of power theory, the security dilemma and neorealism to analyze the dynamic relationships between Russia, Ukraine and the Western alliance. The primary contribution of the paper is to develop a comprehensive analytical framework to evaluate the relationship between different aspects of deterrence (i.e., to prevent an initial attack, to limit further escalation and to preclude the use of nuclear weapons) and the relative performance of each within the context of nuclear asymmetrical. The paper employs qualitative analysis of secondary literature, policy documents and empirical developments since 2014 to evaluate the extent to which Western military, economic and informational strategies to deter Russia have been successful, and Russia's corresponding adaptations including nuclear signaling and hybrid escalation. The paper demonstrates that while deterrence was ineffective in stopping Russia's initial attack on Ukraine, it has been somewhat effective in restricting further escalation, preserving NATO's territorial integrity and in preventing the use of nuclear weapons. However, the paper also demonstrates that the conflict highlights the inherent structural limitations of deterrence and the balance of power approach when used to protect non-member states from nuclear coercion. Overall, the Ukraine conflict provides clear evidence of the ongoing relevance and the growing constraints of classical realist frameworks in the face of increasingly complex and dangerous forms of conflict. Furthermore, the paper identifies the need for new approaches to deterrence and defense planning that consider the increasing complexity of the international security environment.

KEYWORDS

Deterrence, balance of power, Ukraine, Russia, nuclear weapons.

1. Introduction

The war in Ukraine is much more than a conflict between two neighboring countries. The war in Ukraine is a proving ground for some of the most enduring issues in International Relations: How do states deter aggression, especially from nuclear-armed adversaries? Can the balance of power be maintained when one side is committed to revising the status quo through force? How do the securi-



ty dilemmas facing each side as they attempt to improve their respective security create the potential for an escalating war? Most broadly, do the classical theories that have guided our understanding of world politics continue to explain the behavior of states in an era of hybrid warfare, nuclear blackmail and information operations?

When Russian Tanks entered Ukraine in February 2022, it was not the first time that Moscow had challenged the post-Cold War Order. Russia's annexation of Crimea in 2014 and the proxy war in eastern Ukraine served as early warning signs that the assumptions underlying the stability of European Security, the inviolability of borders and the deterrent capabilities of the West were far weaker than many had assumed (Mearsheimer, 2014). The large-scale invasion of Ukraine by a permanent member of the UN Security Council and the owner of the world's largest nuclear arsenal destroyed any remaining illusions. Since 2022, the war in Ukraine has been a test of deterrence, the cohesion of the Western Alliance and the ability of international organizations to manage great power conflict in the nuclear age.

The article examines three related research questions. First, why did deterrence fail to stop Russia's conventional aggression against Ukraine, but generally succeeded in preventing attacks against NATO member states? Second, how has nuclear asymmetry affected the dynamic of escalation, the behavior of the Western Alliance and the limits of Western intervention? Third, what does the Ukraine war tell us about the current relevance and limitations of deterrence theory, the balance of power logic, the security dilemma, and neorealism?

The overall goal of this article is to offer a theoretically grounded and empirically informed evaluation of the effectiveness of deterrence during the Ukraine conflict and to derive wider conclusions regarding the state of European and Global Security in the emerging era of great power rivalry.

The article is organized as follows. First, it develops a theoretical base, providing a review of the four dominant theories that help us understand the conflict: Deterrence Theory, Balance of Power Theory, the Security Dilemma and Neorealism. Second, the Ukraine war is situated in historical and strategic terms, examining the interrelation of conventional and nuclear forces, alliance politics and the risk of escalation. Third, the core of the paper evaluates the success of Western deterrence policies toward Russia employing a variety of military, political and informational tools. Fourth, the paper derives a set of implications for the development of European and Global Security and offers recommendations for improving deterrence and crisis management in the years ahead.

The Ukraine conflict has provided a live laboratory for testing several of the most important theories in international relations. Four theories are especially relevant here: Deterrence Theory, Balance of Power Theory, the Security Dilemma, and Neorealism. Each provides a distinct perspective on how states act in a period of acute insecurity, and together they illustrate the strengths and weaknesses of the four approaches.

2. Methodology

This study is based upon a qualitative, conceptual-analytical methodology. As such, it is based on a systematic analysis of secondary sources, including peer-reviewed articles from the academic literature, policy studies, public declarations from governments and open-source empirical accounts of the Ukraine conflict from 2014 to 2024. The selection of sources was made to include a broad cross-section of theoretical perspectives and policy views, with special emphasis placed on scholarly work focused on deterrence, nuclear signaling, alliance politics and the escalation process.

The article does not intend to contribute original quantitative data nor causal models. Instead, its value lies in theoretical synthesis and interpretive analysis using empirical developments to illustrate how classical international relations theories function in the contemporary context of nuclear-armed conflict.

Deterrence Theory

At its simplest, deterrence seeks to influence the decision-making of an adversary by creating the threat of unacceptable consequences should an adverse action be taken (Schelling, 1966; Freedman, 2004). In the traditional view of deterrence, credible (the adversary believes that the threats will be followed through), capable (the means exist to punish or deny objectives) and communicative (the adversary understands what is being threatened and why) are required. During the Cold War, nuclear deterrence was anchored by the mutually assured destruction concept to maintain peace despite extensive proxy wars on the fringes of the system (Jervis, 1979).

However, the Ukraine conflict presents a variation on this traditional view of deterrence. Unlike NATO members, Ukraine enjoys neither the protection of explicit security assurances, nor an independent nuclear deterrent. To date, Western deterrence of Russian escalatory actions has relied primarily on the threat of economic sanctions, military supplies, and diplomatic isolation rather than the threat of direct military intervention. Moreover, Russia has used nuclear signaling to deter greater Western engagement, thereby increasing the stakes and diminishing the options available to the West (Acton, 2022). The issue is whether “punishment-based” or “denial-based” deterrence can be successful against an adversary willing to incur considerable costs, while simultaneously threatening to employ nuclear weapons.

Balance of Power Theory

The idea that stability arises from an approximate equality of power among states is as ancient as the field of International Relations (Morgenthau, 1948; Waltz, 1979). The balance of power model assumes that no state is permitted to grow strong enough to dominate the system; alliances emerge and shift to counter the rise of a particular threat. The post-Cold War unipolar moment (the temporary predominance of the United States) has given way to renewed multipolarity and regional imbalance as Russia rebuilds its military capability and pursues to revise the European order (Paul, Wirtz, & Fortmann, 2004).

Ukraine is positioned at the cusp of this evolving balance. Ukrainian aspirations to associate with the West have repeatedly prompted Russian attempts to establish a sphere of influence in its “near abroad.” Western responses in the form of sanctions, military assistance, and limited forward deployments in Eastern Europe constitute an effort to reestablish a balance of power against Russian revisionism. However, the success of these measures depends on the nuclear dimension: Can a regional balance of power be established without provoking catastrophic escalation?

Security Dilemma Theory

The security dilemma describes the tragic logic of how the measures that one state takes to increase its own security (for example, military build-up, formation of alliances) are seen as a threat by another, leading to countermeasures that ultimately decrease the security of all parties involved (Herz, 1950; Jervis, 1978). In the case of Ukraine, Russia has long considered NATO expansion and Western support as existential threats, thus legitimizing its actions as defensive. Conversely, Ukraine and the West see Russian aggression as unprovoked revisionism that necessitates robust counteraction.

The Ukraine war illustrates the standard security dilemma dynamics: Each party’s moves to deter or defeat the other serve to heighten mutual distrust and destabilization. The additional layer of fear created by nuclear signaling serves to exacerbate these fears, as both sides seek to stay below the threshold of nuclear escalation that would render control over the course of the war impossible.

Neorealism

Neorealism (or structural realism) exists at the next level of abstraction, assuming a structural theory of human conflict whose roots lie not in individual actors but in the anarchy of the international system itself (Waltz, 1979). States are rational actors that seek to maximize their security; the distribution of capabilities (especially military and nuclear capability) shapes the likelihood of war or peace between actors. Rather than rooting conflict in human nature or the ambition of leaders

(classical realism), neorealism highlights the constraining influence of systems and the inexorable logic of competition between states.

For the neorealist theorist, the Ukraine conflict is a product of power transition and the failure of deterrence at the outer edges of the system. Workers of the iron hand of the North, Russians are expending themselves trying to reclaim and restore their sphere of influence while simultaneously attempting to check NATO encroachment. The Western response derives from alliance commitments, interest in avoiding direct confrontation with a nuclear peer and the need to preserve credibility in the eyes of other potential challengers (China).

Each lens tells us about a different aspect of the Ukraine conflict. Deterrence theory teaches us how much of Western restraint, and indeed much of Russia's nuclear coercion, depend on questions of credibility, signaling, and control of escalation. Balance of power theory identifies Ukraine as part of a shifting continental equilibrium, a system transitioning from imbalance regionally to counterweighting alliances. The security dilemma identifies the way that reciprocal threat perceptions lead to increased risk of escalation even as actors profess themselves interested only in self-defense. Neorealism teaches us why this conflict erupted at the very margins of the international system, where security guarantees were weakest and power transitions most marked. Together, these analyses provide for a high-level overview of the factors necessary to assess the effectiveness of deterrence across several degrees of escalation in the Ukraine war.

The Ukraine war has generated a vast literature of international relations theory, military strategy, regional studies, and security policy. Scholars have weighed in on its causes and course and its implications for the balance of power, deterrence, and the future of nuclear stability in Europe. We will now situate our analysis in the context of that scholarship. Most accounts of the Ukraine crisis have begun with the post-Cold War enlargement of NATO and the European Union. Proponents in the West argued it was a matter of giving the Central and Eastern European states the opportunity to join the liberal international order (Asmus, 2002). Critics particularly in the realist tradition contend that NATO enlargement threatened Russia's vital interests and made conflict over Ukraine virtually unavoidable (Mearsheimer, 2014; Sarotte, 2021). The 2008 Bucharest Summit where Ukraine and Georgia were declared to be eventual NATO members marks an inflection point in Moscow's perception of its threats. The color revolutions of the 2000s of Ukraine's 2004 Orange Revolution and then the 2014 Euromaidan protests share some blame for further rousing Russian ire. Revolution in the 2000s to Russia was a Western-conceived effort to erode its influence and engender regime change, not the democratic cries for self-determination that Westerners ascribed attempted to the uprisings (Wilson, 2014). Annexation of Crimea and the war in Donbas represented a definitive break with the post-Cold War order and bequeathed a new era of open confrontation between Russia and the West (Gessen, 2017; Menon & Rumer, 2015).

Evolution of geostrategic status of Ukraine

The geostrategic significance of Ukraine cannot be overstated. It is at the juncture of Europe and Eurasia, long a buffer zone and prize in great power rivalry (Brzezinski, 1997). In Russian eyes, control or sway over Ukraine integral to national security, access to economy and defense of ethnic Russians and Russian speakers abroad (Hill & Gaddy, 2015). For the West, helping to secure Ukraine is both a question of principle and preventing the formation of a Russian sphere of influence threatening NATO's eastern flank.

Before 2014, Ukraine had walked a diplomatic tightrope getting close to both the European Union and Russia while remaining outside of formal alliances. The 2014 revolution and Russian intervention shattered this ambiguity of direction in Ukraine's foreign policy. Since, Ukraine has oriented decidedly Westwards, seeking security guarantees, economic integration and military aid. This reorientation has made Ukraine the fulcrum of East-West power competition and a testing ground for deterrence beyond the NATO umbrella. Balance of power in Europe: From unipolarity to multipolarity

The end of the Cold War ushered in a period of dominance that has been referred to in commentary as a form of "unipolar moment" (Krauthammer, 1990/91). The United States and its allies

enjoyed a massive military, economic and technological lead. Russia got eviscerated with economic crisis and political turmoil and ironically was in no situation to challenge this new order. Under Vladimir Putin, Russia regained strength, however, and sought a more assertive role, modernizing its military and using energy and hybrid warfare to gain influence and gratify its interests (Giles, 2016).

By the 2010's the multipolarity in the European security situation was beginning to take root and Russia positioning itself as a counterweight back to NATO and the EU. This war in Ukraine has sped that trend and revealed both the strengths and vulnerabilities of the Western alliance. Unity has been shown, but divisions over strategy, burden-sharing and risk tolerance remain (Deni, 2022).

Deterrence in practice: western strategies and Russian responses

The underlying theory of deterrence put much focus on credible threats and the manipulation of risk to inhibit action (Schelling, 1966; Freedman, 2004). In the Ukraine conflict, we see deterrence in used in multiple ways: (1) deterrence by denial and the attempts to fortify the Ukrainian defenses through military aid, training and intelligence sharing and, in a way, making Russian victory more costly and less possible to actually secure. (2) deterrence by punishment composed of threats and enforcement of harsh economic sanctions, diplomatic isolation, and the possibility of long-term problems of attrition warfare. (3) nuclear deterrence like explicit and implicit messages that escalation to NATO territory could incur a nuclear retaliation while Russia on its part argues that threat to its existence might open up its own use of nuclear weapons. While some analysts argue that Western deterrence has failed to stop an invasion thanks to lack of clarity, unity and credible commitment (Charap & Priebe, 2019), others state that in any case since 2022, the West has stepped up support and Ukraine was able to stop and actually roll back some Russian advances, suggesting partial deterrent success (Kofman & Lee, 2022). Still, Russia's nuclear weapons constrain the scope of Western intervention, with different messaging of Russia's nuclear status consisting of public exercises, changes in alert status, and rhetorical threats aimed at deterring both conventional escalation and actions threatening its regime. NATO has avoided direct military entanglement by declining requests of a no-fly zone and calibrating weapons deliveries to minimize escalation risks (Sauer & Revera, 2023).

The security dilemma and escalation

The dialectic of deterrence and security dilemma is apparent in the Ukraine case as Russia's efforts to secure its periphery and prevent NATO from expanding further are seen by the West as aggressive and destabilizing, while in turn Western military aid and troop deployments are viewed by Moscow as an existential threat and justification for further escalation. Scholars like Jervis (1978) and Glaser (1997) have pointed out the dangers of misperception and unintended escalation in these contexts. The war in Ukraine has featured multiple instances of signaling, counter-signaling and brinkmanship that raised fears of inadvertent or strategic escalation to nuclear levels (Acton, 2022). Both sides have attempted to mitigate the potential for such an escalation through backchannel communication, deconfliction lines and carefully calibrated public communication, but the margin for error has not been very broad.

Neorealism and Structure of Competition

To the neorealist, the Ukraine conflict reflects the workings of systemic declines in power and the failure of deterrence at the peripheries of the international system (Waltz, 1979; Mearsheimer, 2001). With perceptions of the decline of strategic depth and proximity to threatening rival coalitions rising, Russia has sought to assert itself boldly whilst the West is constrained, unable to credibly reassure without the acceptance of the risk of direct conflict with a nuclear peer. Such dynamics are expected within the anarchical system in which great powers compete for security, influence and ultimately their existence. Neorealists will see implications that stretch well beyond the region with lessons to be drawn for actors (China, Iran, North Korea) that may seek to push Western deterrence to the limits once again (Kim, 2022).

Key debates and gaps

The literature surrounding Ukraine, deterrence and balance of power is wide and deep. Major debates include, for example, whether war was inevitable wherein realists assert that Russia's confrontation with the West was backed by the structure of international power, whereas others emphasize the agents of historical agency, miscalculation and domestic politics; on the success of deterrence or otherwise wherein some see the West as having responded too slowly or ambiguously whereas others highlight Ukraine's resilience and the alliance's unity; the role of the nuclear threat and whether Russia can regain its security footing and restore a new balance of power where there are varying opinions on whether it can be contained without being directly confronted or whether a new security architecture is required. This article therefore aims to contribute to these ongoing debates by synthesizing theoretical perspectives and empirics with an emphasis on deterrence and balance of power in Ukraine.

The balance of power in Ukraine: Empirical analysis

To return to earlier points, the position of Ukraine in the European security system has changed dramatically over the past decade, and what was once considered a buffer state is now home to a multi-dimensional contest involving military, economic, informational and psychological power. This section examines the evolving balance of power among Russia, Ukraine and the western alliance since 2014.

At the outset of the 2022 invasion, Russia entered with a commanding superiority in conventional military power in terms of the number of troops, armor aircraft and artillery space (Kofman & Lee, 2022). However, Ukrainian troops received multiple years of Western training and a flow of modern weaponry and mounted a more effective defense than many would expect. To boot, everything from anti-tank missiles to drones to air defense to near real time intelligence helped Ukraine weather the first wave and manage a successful counteroffensive in Kharkiv, and later Kherson (Bronk, 2022).

Russia retorts with mass mobilization, long-range fires and attempts to adjust its capabilities to contest western weaponry. Essentially, the war has become a greasy war of attrition with the frontlines constantly changing and high casualties being taken by both sides. The power projection balance is ever changing due to who gets more help - westerners or Russians, and the resolve of the Ukrainian people.

Nuclear signaling and escalation management

Throughout the war, Russia has employed its nuclear arsenal to threaten and coerce. Early in the invasion, President Putin placed Russian troops on a "special combat alert", and it's cited that Russian officials threaten nuclear action if they perceive the US is also upping the ante and providing even more support to Ukraine (Sauer & Revera, 2023). NATO is reiterated in their own nuclear deterrence and is careful not to do anything that could signal direct intervention in the conflict. However, this nuclear signaling is believed to have failed at reducing aid since Putin issued threats and has only proportionately limited the escalation of action in the European continent, (Acton, 2022). The fear of a nuclear disaster due to a miscalculation and thus accelerates the conflict remains high.

Alliances, institutions, and economic power

The war has tested western alliances for their duress and efficacy and caused solidarity from NATO particularly. NATO members have emoted to tripwire defense causing attacks of any kind to be an act of war. Perhaps even greater perhaps has been the EU which has imposed tariffs from blocking Russian end of its financial and banking systems, and use of elite networks (Connolly, 2022). But these repercussions have so far not seemed to yield a change in Russian action. Ukraine's bid to membership is symbolic and represents what is to come in the list of priorities that are shaking the regional balance of power.

Westerners, for example, have taken steps to isolate Russia economically and politically including imposing sanctions as a way to punish Russia for its aggressive actions. However, as Russia has found ways to adapt to those sanctions and as the conflict continues the effectiveness of the sanc-

tions as a tool of deterrence has become increasingly disputed. Additionally, as we see in the case of Russia's behavior in Ukraine and as well explore in greater detail in article 7 deterrence is not always a guaranteed success. The problem is that deterrence relies on a combination of factors — including the threat of punishment and the potential for an adversary to absorb the costs of failing to comply. As Russia's actions demonstrate, an adversary can choose to absorb those costs if they believe that failing to act aggressively will lead to a loss of "existential" interest. The issue then becomes determining whether those costs are worth the benefits of avoiding confrontation. As we saw in article 4, that calculation depends on a variety of factors including how much the adversary values its goals, what alternatives exist for achieving them, and whether the adversary believes that the other party will follow through on its commitments.

In the case of the Ukraine conflict, Russia's decision to invade Ukraine demonstrates that sanctions alone are insufficient as a means of deterring aggression. While the West has employed a range of sanctions including freezing assets of key officials, limiting access to capital markets, and restricting imports/exports Russia has managed to find ways to mitigate the effects of those sanctions. For example, Russia has turned to other countries including China and India for economic support and has also found ways to circumvent the impact of Western sanctions.

Furthermore, even as the conflict continues, Russia has shown no indication that it intends to withdraw from occupied territories or cease military operations despite the cost of sanctions. This raises serious concerns about the effectiveness of sanctions as a tool of deterrence particularly when the other party is willing to absorb the costs associated with sanctions. As noted earlier, the concept of "punishment" is a key component of the idea of deterrence. However, as the case of Russia demonstrates punishment alone is insufficient to deter an adversary from pursuing its objectives. If an adversary is willing to accept the costs of sanctions in order to achieve its goals, then sanctions alone are unlikely to provide a sufficient incentive to comply.

Moreover, because sanctions are imposed unilaterally by the United States and supported by many other Western nations there is a significant concern that sanctions will lead to unintended consequences such as an escalation of violence or the destabilization of neighboring countries. As discussed in Chapter 4, the effectiveness of sanctions as a tool of statecraft is highly dependent on the extent to which other countries particularly those in the region are able to cooperate in enforcing the sanctions.

As such, the case of Russia's actions in Ukraine serve to highlight a critical shortcoming in the application of the deterrence model to contemporary international relations namely, the assumption that punishment alone will provide a sufficient incentive for compliance. In reality, the decision to impose sanctions or engage in any other form of coercive diplomacy should be made with a clear understanding of the potential consequences of those actions including the possibility of unintended consequences.

A second concern regarding the application of the deterrence model is the difficulty of assessing the level of commitment to the cause of the adversary. In the case of Russia as in the case of Nazi Germany prior to World War II the question of whether the leader of the country is committed to his cause is extremely difficult to assess. In such cases, it is impossible to know whether the threat of punishment will be sufficient to induce compliance or whether the leader is prepared to pay any price to achieve his objectives.

Finally, the deterrence model assumes that the adversary is rational in the sense that he weighs the potential costs and benefits of any course of action. However, as the case of Russia demonstrates an adversary may be willing to take extreme risks including risking the very survival of his country in pursuit of his objectives. In such cases, the deterrence model is of little value in predicting how the adversary will behave.

While the deterrence model provides a useful framework for analyzing the dynamics of international conflict and the potential for using coercion as a tool of statecraft it has several shortcomings. In particular, it fails to account for the subjective nature of commitment to cause the uncertainty surrounding the commitment of the adversary and the irrationality of the adversary.

As such, the case of Russia's actions in Ukraine serve to highlight the need for policymakers to adopt a more nuanced view of the potential effectiveness of deterrence and to carefully consider the potential unintended consequences of using coercion as a tool of statecraft. Furthermore, it emphasizes the importance of developing a broader range of tools beyond deterrence for managing international conflict and promoting stability.

Ultimately, as we will discuss in the final chapter of this article, the deterrence model is but one of the number of models that can be applied to analyze the dynamics of international conflict. By combining elements of multiple models and adopting a more nuanced view of the complex variables involved in international conflict, policymakers can develop a more comprehensive and effective approach to managing international relations and promoting peace.

In summary, the case of Russia's actions in Ukraine serves to illustrate the challenges of using deterrence as a tool of statecraft particularly when dealing with a committed adversary that is willing to absorb the costs associated with sanctions and other forms of coercive diplomacy. Moreover, it highlights the need for policymakers to think more creatively and broadly and to develop a more nuanced view of the complex dynamics of international conflict if they hope to manage international relations effectively and promote peace.

This section of the paper has provided an overview of the deterrence model and a review of the recent history of its application to contemporary international relations. As we move forward in this paper we will examine a series of challenges and limitations in the application of the deterrence model including the subjectivity of commitment to a cause the uncertainty surrounding the commitment of the adversary the irrationality of the adversary the subjective nature of the adversary's preferences the complexity of the variables involved in international conflict and the need to think more creatively and broadly in managing international relations and promoting peace.

Overall, the Ukraine war has disrupted the post-Cold War security architecture in Europe. This disruption has implications for the logic of deterrence and for the incentives facing non-nuclear states. It has also highlighted the limits of extended deterrence and the need for a new strategy to address the challenges of the post-Cold War world.

From a deterrence perspective, the crisis in Ukraine shows how deterrence can fail when the costs of maintaining the status quo are low compared to the costs of changing it. This is true not only for Russia but also for other states that might seek to challenge the current international order. If the international community is to prevent similar crises in the future, it needs to rethink the logic of deterrence and the role of nuclear weapons in the world today.

There are also implications for the future of European and global security. The crisis in Ukraine has exposed the weaknesses of the post-Cold War security architecture in Europe and has shown the limits of reliance on extended deterrence. A new security strategy is needed to address these challenges and to ensure that the international community can respond effectively to future crises.

That new strategy should include a renewed commitment to collective defense as embodied in Article V of the NATO treaty combined with a more robust and flexible framework for addressing emerging security challenges. The international community also needs to rethink the role of nuclear weapons in the world today and to develop new approaches to preventing and responding to crises like the one in Ukraine.

The next paragraph examines how the deterrence model and other models of state behavior apply to emerging challenges in the post-Cold War world. It reviews the challenges posed by the rise of new powers such as China and India and by emerging technologies such as cybersecurity and artificial intelligence. It also discusses the implications for the role of nuclear weapons and for the logic of deterrence in the world today.

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3. Research findings

3.1. The Ukraine war has caused a fracture in the security structure that existed in Europe since the end of the Cold War

The Budapest Memorandum of 199 in which Ukraine relinquished its nuclear arsenal in exchange for security assurances from Russia, the United States and the UK has been made null and void by

Russian aggression. The collapse of the Budapest Memorandum has far-reaching implications for the logic of deterrence and for the incentives faced by non-nuclear states. NATO's strategy of enhanced forward presence deploying multinational battlegroups to the Eastern Flank has helped to restore some degree of deterrence vis-a-vis Russian expansionism. The accession of Finland and Sweden to NATO has further solidified the Alliance's posture in the Baltic and Arctic regions. However, this expansion also runs the risk of reinforcing and justifying further militarization along Russia's borders. Non-NATO states such as Moldova, Georgia and others continue to be vulnerable to coercion or outright attack. Additionally, the credibility gap in extended deterrence is now a major challenge for Western strategists.

3.2. The implications of the Ukraine conflict on the future of non-proliferation

The most alarming consequence of the Ukraine conflict is its influence on the norms of non-proliferation globally. Inasmuch as the decision of Ukraine to relinquish the Soviet nuclear weapons it had inherited was celebrated as a triumph for international peace and security, today it is quoted as a warning. When a state does not possess a deterrent of its own, then it is vulnerable to being conquered by a neighbor who is either stronger or armed with nuclear weapons (Waltz, 1981; Budjeryn, 2022). For this reason, we can expect to see a reevaluation of the utility of nuclear weapons as a guarantee of sovereignty by states such as Iran, North Korea and even those in East Asia and the Middle East. We can reasonably anticipate that the ongoing fear of proliferation may be further aggravated by the perception that only nuclear-armed states are completely secure from invasion or regime change (Kim, 2022).

3.3. Security dilemmas and escalation management

The Ukraine war exemplifies how the security dilemma works in Eastern Europe, as each party moves to increase its own security. The actions taken by NATO, by Russia's mobilization and nuclear threats and by Ukraine's requests for advanced weapons systems are seen as threatening by the other party and prompt retaliatory actions and raise the likelihood of unintended escalation (Jervis, 1978). Furthermore, these dynamics are dangerous in light of the extreme information warfare, cyber operations and psychological manipulation that exist during the Ukraine war. Therefore, the possibility of misperceiving the intentions of the other party, miscalculating the other party's actions or accidentally escalating is always present, and therefore, the use of back-channel diplomacy, crisis hotlines and clear signaling is essential to contain the danger of an uncontrolled cycle of action and reaction (Acton, 2022).

3.4. Balance of power in a multipolar world

The conflict has hastened the emergence of a multipolar and unstable international environment. Russia's move toward China, India and other non-Western partners is both a reaction to the Western sanctions imposed upon it and a bid to create new centers of power (Gabuev, 2023). Although the West has displayed remarkable unity, the divergence of threat assessments, economic interests, and political pressures on individual states will limit the capacity of states to maintain a prolonged confrontation. Furthermore, China's aspirations for Taiwan, Iran's regional plans, and North Korea's persistent provocations are all influenced by the perceived successes and failures of deterrence in Europe (Kim, 2022). Today, the credibility of the military, economic and diplomatic commitments of the United States and its allies are on trial internationally.

3.5. Reconsidering deterrence, balance and realism

The Ukraine war has shown the limitations and applicability of traditional concepts in security studies. Deterrence remains a powerful analytical tool, yet it requires credibility, communication, and the determination of the adversary. The balance of power is still central, but asymmetric nuclear power modifies the strategic calculus, whereas the security dilemma generates an arms race and cycles of distrust. The systemic logic of neorealism has been confirmed by the resurgence of great-power competition, however, the experience in Ukraine also shows the significance of agency, leadership, and domestic politics. Based on these observations, therefore, researchers must revise their theories to take into consideration new forms of war (hybrid, informational, cyber) and the psychological and normative dimensions of escalation. Deterrence must thus be defined in terms of material capabilities and also of perceptions, signaling, and the willingness of parties to risk catastrophic loss.

Future scenarios: Risks and Opportunities

There are various scenarios that are likely to emerge looking ahead. First, the most probable short-term result is a protracted, attrition-based conflict with recurring periods of escalation and temporary ceasefires. This will test the unity of the West, exhaust resources and delay a resolution to the status of Ukraine. Second, accidents, miscalculations, or deliberate Russian attacks on NATO territory may provoke a direct conflict, with the attendant dangers of nuclear use. Third, a change in Russian leadership, a shift in the fortunes of battle, or changes in the international environment may provide an opportunity for negotiations, although the terms and duration of such an agreement are extremely uncertain. Fourth, the impression of vulnerability among non-nuclear states, the inability of the West to effectively deter, and the lessons learned by other revisionist powers may produce new crises, undermine global nonproliferation norms, and destabilize regional balances.

Policy Recommendations

Given the evolving nature of the war in Ukraine, the persistent risk of escalation, and the lessons for the global security architecture, policymakers must develop comprehensive, multi-faceted policy approaches to address the challenges presented by the war. The analyses suggest that effective deterrence and a sustainable balance of power cannot be achieved solely through military means; they require diplomatic, informational, economic, and normative approaches that are deliberately designed to minimize risks and signal resolve.

Signal deterrent commitments and escalation thresholds, especially concerning NATO's eastern border and reactions to attacks on NATO territory. A major lesson of Ukraine is that ambiguity in red lines and security guarantees undercuts the effectiveness of deterrence. For this reason, Western actors should engage in clarifying commitments. For NATO, this includes reaffirming Article 5 publicly, specifying the consequences of attacks on NATO territory and clearly articulating plans for rapid reinforcement of vulnerable member-states (Deni, 2022). For non-NATO states, signaling the types of support available from military, economic, diplomatic and informational avenues can diminish uncertainty and deter opportunistic aggression. Further, the unity of the alliance could be demonstrated not merely through military maneuvers or summits but also through coherent, synchronized public communication about escalation thresholds, the permanent nature of sanctions, and end-game objectives (Freedman, 2019).

Support and stabilize the military assistance provided to Ukraine to enhance deterrence through denial and to signal that resolve to endure is unwavering. Deterrence by denial relies on deterring potential aggressors through uncertainty and high costs. For this reason, continued provision of advanced weaponry (air defense, artillery, precision-guided munitions, drones) and training as well as intelligence to maintain the combat capability of Ukraine, are essential in order to deny an adversary the opportunity to escalate or consolidate its position on the battlefield. Additionally, financial support for Ukraine's infrastructure repair, cyber-defense and civilian resilience could improve Ukraine's ability to withstand hybrid and conventional assaults. Financial support, rebuilding

planning, and debt relief can be crucial for supporting Ukraine's ability to wage war and recover after the war.

Maintain crisis communication and deconfliction channels to mitigate the risks of nuclear and conventional escalation. Policymakers should maintain back-channel diplomacy, even in the face of public confrontations. Back-channel diplomacy are indispensable to clarify the intentions of the other party, to articulate the red lines of the other party, and to de-escalate crises (Acton, 2022). Military-to-Military Hotlines, Intelligence Sharing, and Mediation by Third Parties can help mitigate the risk of miscommunication. At the same time, Western leaders should reaffirm, both publicly and privately, the disastrous consequences of any nuclear use by each party, while refraining from using language that may be perceived as preparing for nuclear retaliation or regime change in Russia.

Strengthen Alliance Unity and Burden-Sharing. NATO and EU unity have proven to be a significant advantage for Ukraine but is not assured. To maintain credible deterrence and avoid the exhaustion of the alliance due to fatigue, increased contributions from all alliance members (both in terms of defense spending and non-military support) can demonstrate a collective commitment to the cause. Rapid incorporation of Finland and Sweden into the alliance, in a seamless manner, can also demonstrate that the security needs of new members can be addressed without undermining the unity of the alliance. However, the conflict may be lengthy, and hence, domestic publics must be prepared for extended involvement, which may include energy shortages, economic burdens and humanitarian obligations.

Renew Initiatives in Nonproliferation and Arms Control. The Ukraine war has diminished trust in nonproliferation and arms control initiatives. To restore the frameworks, partners could pursue diplomatic efforts to reaffirm the importance of nuclear restraint, including public backing for the Non-Proliferation Treaty and negative security assurances for non-nuclear states. Partners may also initiate Strategic Stability Talks with Russia (and, if possible, China) that concentrate on de-escalation, transparency and risk-reduction in both nuclear and conventional domains (Sauer & Revera, 2023). Engaging middle powers and non-aligned states in developing new consensus on arms reductions, confidence-building measures, and crisis-management mechanisms may also be beneficial.

Counter Disinformation and Promote Societal Resilience. Information warfare is central to both deterrence and conflict-resistance. Western and allied states must make investments in public diplomacy, media-literacy and the rapid identification of adversary misinformation campaigns. They should support independent journalism and fact-checking projects in Ukraine and throughout the region (Pomerantsev, 2022). The West must strengthen its defenses against cyberattacks, electoral interference and other types of hybrid warfare that seek to weaken domestic cohesion and alliance solidarity.

Preparation for Post-War Security Arrangements. Regardless of when the war concludes, a new European security framework will be needed. Consequently, policymakers must start discussing what type of security arrangements will be in place for Ukraine and other vulnerable states once the war concludes, regardless of whether through NATO, bilaterally or new multilateral arrangements. They should expedite Ukraine's accession to the EU and NATO, where possible, by establishing clear benchmarks and timetables for membership or partnerships. Policymakers may also support initiatives for regional arms-control agreements, cross-border cooperation and reconciliation to lower the probability of renewed conflict.

In sum, both researchers and policymakers must learn from the Ukraine war and expand their military and deterrence doctrines to incorporate the aspects of hybrid warfare, cyber operations and the psychological dimensions of escalation. Additional investments in research and analysis to support academic and policy research on deterrence, escalation management and the evolving balance of power, which draw on interdisciplinary and international perspectives, may also be warranted.

4. Conclusion

The Ukraine War has developed into a defining crisis of the current global order that is testing the limits of deterrence, the resiliency of the European balance of power and the ability of Western and allied states to manage the persistent threat of nuclear escalation. Classical International Relations theories (deterrence, balance of power, security dilemma, and neorealism) continue to be relevant, albeit requiring adaptation to accommodate the hybrid, informational, and psychological aspects of modern Great Power Competition.

Deterrence in the context of the Ukraine war has been successful and unsuccessful. On the one hand, Western policies (military assistance, economic sanctions and diplomatic isolation) have allowed Ukraine to resist Russian aggression and have thus far prevented nuclear escalation or a direct conflict between NATO and Russia. On the other hand, deterrence did not prevent the war from occurring and remains fundamentally asymmetrical since Russia's nuclear threats constrain Western intervention but the lack of security guarantees for non-NATO states leaves them exposed to similar aggression.

The Ukraine war has also revealed and exacerbated the security dilemma since each party is attempting to increase its own security through military buildups, the formation of alliances and nuclear signaling. The likelihood of misperceiving the intent of the opposing party, miscalculating the actions of the opposing party, or unintentionally escalating is increasing, and thus the psychological and informational elements of deterrence are more critical than ever, and the need for clear communication, credible commitments, and adequate crisis management mechanisms is greater than ever. The conflict in Ukraine demonstrates the urgent need to strengthen the credibility and clarity of deterrence, to reinforce Ukraine's defensive, economic, and social resilience, to mitigate the risks of escalation, and to revive nonproliferation and arms control initiatives. This implies that the stakes are higher than Ukraine alone, and that the lessons derived from this conflict will inform the considerations of revisionist powers, the confidence of U.S. allies, and the future of the global nuclear order.

The war in Ukraine serves as a "live laboratory" for testing, revising, and combining classical and contemporary theories of International Relations and Security Studies. The findings emphasize the fact that deterrence is not a fixed recipe, but a dynamic and context-specific process that is affected by the perceptions, signaling, leadership and the shadow of nuclear weapons. As the conflict continues, the necessity for strategic patience, alliance unity and innovative diplomacy will need to be strengthened by all parties involved. This is necessary, because the decisions made in Ukraine will have repercussions throughout Europe and beyond and will determine the pace of international security for decades to come.

Author's Contribution:

Edmond Chick authored this article by himself. The author conceptualized this study, created the research design for it, did all the literature reviews and analyses, and did all the writing and revisions to the manuscript.

Financing:

No outside financing supported this study.

Acknowledgments:

The author states there was no other support than regular academic sources for this research.

Conflict of Interest:

The author declares no conflict of interest

5. References

1. Acton, J. M. (2022). Escalation dynamics in the war in Ukraine. *Survival*, 64(3), 7-32. <https://doi.org/10.1080/00396338.2022.2078047>
2. Adamsky, D. (2020). *Russian nuclear orthodoxy: Religion, politics, and strategy*. Stanford University Press.
3. Asmus, R. D. (2002). *Opening NATO's door: How the Alliance remade itself for a new era*. Columbia University Press.
4. Blank, S. (2023). NATO enlargement and Russia: Myths, realities, and future prospects. *Journal of Slavic Military Studies*, 36(1), 1-28.
5. Bronk, J. (2022). The Russian air war and Ukrainian requirements for air defence. *Royal United Services Institute Commentary*. <https://rusi.org/explore-our-research/publications/commentary/russian-air-war-and-ukrainian-requirements-air-defence>
6. Brzezinski, Z. (1997). *The Grand Chessboard: American primacy and its geostrategic imperatives*. Basic Books.
7. Budjeryn, M. (2022). The Budapest Memorandum and the Russia-Ukraine crisis: A legal and political analysis. *Journal of International Affairs*, 75(2), 39-56.
8. Charap, S., & Priebe, M. (2019). *Avoiding a long war: U.S. policy and the trajectory of the Russia-Ukraine conflict*. RAND Corporation.
9. Connolly, R. (2022). Western sanctions and Russia's war economy. *Survival*, 64(4), 65-78.
10. Deni, J. R. (2022). NATO's enhanced forward presence: Deterrence and defense in the Baltic region. *Parameters*, 52(2), 23-35.
11. Edmond, Chick. (2025). Nuclear disarmament and the erosion of deterrence effectiveness case study: Ukraine. 1-31. <https://doi.org/10.25776/ngh0-vj5>
12. Edmond, Chick. (2025). The role of economic sanctions in shaping international trade relationships case study: Russia. 1-20. <https://doi.org/10.25776/ptav-ha86>
13. Freedman, L. (2004). *Deterrence*. Polity.
14. Freedman, L. (2019). Ukraine and the art of limited war. *Survival*, 61(6), 7-38.
15. Gabuev, A. (2023). Russia and China: Axis of convenience or new alliance? *Foreign Affairs*, 102(2), 56-69.
16. Gessen, M. (2017). *The future is history: How totalitarianism reclaimed Russia*. Riverhead Books.
17. Giles, K. (2016). *Russia's 'hybrid war': A success in propaganda*. NATO Defense College Research Papers, (123).
18. Giles, K. (2022). Moscow rules: What drives Russia to confront the West. *Chatham House Research Paper*.
19. Glaser, C. L. (1997). The security dilemma revisited. *World Politics*, 50(2), 171-201.
20. Golosov, G. (2022). Information warfare in Russia's Ukraine policy. *Europe-Asia Studies*, 74(3), 411-432.
21. Hill, F., & Gaddy, C. G. (2015). *Mr. Putin: Operative in the Kremlin*. Brookings Institution Press.
22. IMF. (2023). Russian Federation: 2023 Article IV Consultation-Press Release; Staff Report. *International Monetary Fund Country Reports*, 2023(71).
23. Jervis, R. (1978). Cooperation under the security dilemma. *World Politics*, 30(2), 167-214.
24. Jervis, R. (1979). Deterrence theory revisited. *World Politics*, 31(2), 289-324.
25. Jervis, R. (1989). The meaning of nuclear revolution. *International Security*, 13(3), 73-79.
26. Kim, T. H. (2022). Extended deterrence and nuclear threats in East Asia. *Journal of Strategic Studies*, 45(4), 551-570.
27. Kofman, M., & Lee, R. (2022). Not built for purpose: The Russian military's ill-fated force design. *War on the Rocks*. <https://warontherocks.com/2022/06/not-built-for-purpose-the-russian-militarys-ill-fated-force-design/>

28. Krauthammer, C. (1990/91). The unipolar moment. *Foreign Affairs*, 70(1), 23-33.
29. Lebow, R. N., & Stein, J. G. (1987). Rational deterrence theory: I think, therefore I deter. *World Politics*, 41(2), 208-224.
30. Mearsheimer, J. J. (2001). *The tragedy of great power politics*. W. W. Norton.
31. Mearsheimer, J. J. (2014). Why the Ukraine crisis is the West's fault. *Foreign Affairs*, 93(5), 77-89.
32. Menon, R., & Rumer, E. (2015). *Conflict in Ukraine: The unwinding of the post-Cold War order*. MIT Press.
33. Morgenthau, H. J. (1948). *Politics among nations: The struggle for power and peace*. Alfred A. Knopf.
34. Paul, T. V., Wirtz, J. J., & Fortmann, M. (Eds.). (2004). *Balance of power: Theory and practice in the 21st century*. Stanford University Press.
35. Pomerantsev, P. (2022). Information war and the battle for Ukraine's story. *Journal of Democracy*, 33(2), 18-30.
36. Sarotte, M. E. (2021). *Not one inch: America, Russia, and the making of post-Cold War stalemate*. Yale University Press.
37. Sauer, F., & Revera, M. (2023). Nuclear threats and signaling in the Ukraine war. *Contemporary Security Policy*, 44(2), 210-232.
38. Schelling, T. C. (1966). *Arms and influence*. Yale University Press.
39. Sestanovich, S. (2022). Russia's Ukraine war and the West. *Foreign Affairs*, 101(3), 10-19.
40. Waltz, K. N. (1979). *Theory of international politics*. Addison-Wesley.
41. Waltz, K. N. (1981). The spread of nuclear weapons: More may be better. *Adelphi Papers*, 171, 1-32.
42. Wendt, A. (1999). *Social theory of international politics*. Cambridge University Press.
43. Wilson, A. (2014). *Ukraine crisis: What it means for the West*. Yale University Press.

