



Estudios globales

From Offsetting to Emulation: A Neoclassical Realist Analysis of Russia's Internal Balancing Strategies

De la compensación a la emulación: un análisis realista neoclásico de las estrategias de contrapeso interno de Rusia

Augusto C. Dall'Agnol¹

Recibido: February 4, 2022

Aceptado: April 15, 2022

Publicado: May 31, 2022

Abstract

In 2008, Russia began to implement its largest military reform since the creation of the Red Army in 1918. Previous attempts at reforms in 1992, 1997, and 2003 did not result in fundamental transformations to the country's military. Why was the 2008 military reform successful while others were not? This article uses the comparative-historical method to identify the causal mechanisms between Russia's level of external threat, state capacity, and internal balancing strategies adopted since 1991. It advances Neoclassical Realism's systemic and unit-level variables by building on the long-established contributions from Strategic Studies and Historical Sociology instead of relying on other International Relations theories. It concludes that the success of Russia's military reforms in the post-Cold War period depended on the simultaneous existence of three conditions: the possibility of disrupting strategic stability, its ability to extract and mobilize societal resources, and the presence of some event of proven ineffectiveness. Under scenarios in which only one or two of these conditions were present, Russia carried out only partial military reforms. The article sheds light on three often-neglected drivers of Russia's military reform by Western analysts: its enduring emphasis on interstate competition, strategic stability, and mid-to-high intensity conventional warfare.

Keywords: digitization; historical sociology; military; Russia; security

Resumen

En 2008, Rusia comenzó a implementar su reforma militar más grande desde la creación del Ejército Rojo en 1918. Los intentos anteriores, en 1992, 1997 y 2003, no lograron transformaciones fundamentales en sus fuerzas armadas. ¿Por qué la reforma militar de 2008 tuvo éxito y otras no? Este artículo utiliza el método histórico comparativo para identificar los mecanismos causales entre el nivel de amenaza externa de Rusia, su nivel de capacidad estatal y sus estrategias de contrapeso interno adoptadas desde 1991. Además, este análisis avanza las variables sistémicas y unitarias del realismo neoclásico, basándose en las contribuciones de los estudios estratégicos y la sociología histórica, en detrimento de otras teorías de las Relaciones Internacionales. En síntesis, el éxito de las reformas militares en Rusia, en el período posterior a la Guerra Fría, depende de la existencia simultánea de tres condiciones: la posibilidad de perturbar la estabilidad estratégica, la capacidad del Estado ruso de extraer y movilizar recursos sociales, y la existencia de algún evento de ineficacia

¹ Universidade Federal do Rio Grande do Sul, augusto.dallagnol@ufrgs.br,  orcid.org/0000-0002-6658-4470



probada. En escenarios en que solo una o dos de estas condiciones están presentes, los rusos llevaron a cabo solo reformas parciales. Finalmente, el artículo arroja luz sobre tres impulsores de la reforma militar de Rusia, a menudo descuidados por analistas occidentales: su continuo énfasis en la competencia interestatal, la estabilidad estratégica y la guerra convencional de media y alta intensidad.

Palabras clave: digitalización; Fuerzas Armadas; Rusia; seguridad; sociología histórica

Introduction

Russia's international behavior and foreign policy have been more assertive over the past two decades as compared to the 1990s. In particular, the recent Russian involvement in the Russo-Georgian War, the Russo-Ukrainian War, and the Syrian civil war resulted in outcries of "Russian aggression" in the West (Blank 2019; Gouré 2019; Hooker Jr 2020; Persson 2021). Furthermore, large-scale military exercises like Zapad-17, Vostok-18, Tsentri-19, and Kavkaz-20 reinforced Western fears of an eventual military invasion of the Baltic countries (Lanoszka and Hunzeker 2016; Facon 2019; Radin 2019; Veebel 2018; Veebel and Ploom 2019).

Part of the explanations surrounding Russia's greater assertiveness is strongly linked to factors at the individual level, focusing on personalities such as Yevgeny Primakov (Delong 2020; Katz 2006; Rumer 2019), Vladimir Putin (Póti 2008; Spechler 2010; Van Herpen 2019), and Valery Gerasimov (Bartles 2016; Fridman 2019; Galeotti 2018). For example, it is common to notice the vast controversies surrounding Putin's personality and political aspirations—especially after the approval of the 2020 Russian constitutional referendum that allows him to remain in office until 2036

(Nuland 2020; Spiegelberger 2020). Other explanations center on the commodity price boom throughout the first decade of the 2000s (Baev 2007; Rutland 2008) or focus on ideological and cultural elements, such as Eurasianism (Morozova 2009; Shlapentokh 2014; Smith 1999).

This article addresses these questions from an in-depth analysis of the Russian state-building and internal balancing strategies. Such an analytical move is fruitful for the debate surrounding the construction of Russia's material capabilities since increased economic and military capabilities often underpin more ambitious and assertive foreign policies (Gilpin 1981; Waltz 1979; Zakaria 1998). The cornerstone of this analysis relies on the implementation of Russia's 2008 military reform—its most significant military reform since the creation of the Red Army in 1918 (Bryce-Rogers 2013). Previous attempts at reforms in 1992, 1997, and 2003 did not result in fundamental transformations to the country's military (Arbatov 1998; Orr 2003; Umbach 2003). Why was the military reform of 2008 successful, while others were not?

I argue that the success of Russia's military reforms in the post-Cold War period depended on the simultaneous existence of three conditions: first, the possibility of disruption of strategic stability; second, the ability of the Russian state to extract and mobilize resources; and, finally, the existence of some event of proven ineffectiveness. Under scenarios in which only one (or two) of these conditions were simultaneously present, large-scale military reforms in Russia were only partially carried out. Large-scale military reforms in Russia were only partially carried out in scenarios in which only one (or two) of these conditions were present.

This analysis advances Neoclassical Realist theory (Taliaferro, Ripsman and Lobell 2016) by relying on Historical Sociology and Strategic Studies contributions. While the greater share of Neoclassical Realism (NCR) studies mainly relies on previous contributions from International Relations literature—Neorealism, Classical Realism, Constructivism, and Liberalism—I aim to bridge the gap between these disciplines that pay close attention both to states' historical development and the use of military force. Against this backdrop, studies on the development of post-Soviet states in terms of taxation and coercion (Cappelli 2008; Easter 2012; Ganev 2005; Volkov 1999) and Russia's organizational culture and civil-military relations (Betz 2004; Taylor 2003) offer relevant insights to this analysis. However, neither explicitly focus on war preparation and interstate competition (Centeno 2003; Hui 2005; Schenoni 2020; Tilly 1990).

Accordingly, I use the historical-comparative method to establish the presence of particular causal mechanisms and the conditions under which they operate (Bennett and Elman 2008; Mahoney and Rueschemeyer 2003). This analysis also uses process tracing to draw descriptive and causal inferences allowing the identification of a temporal sequence of events constituting the phenomenon analyzed here (Collier 2011).

This article proceeds as follows. First, I expose the proposed analytical framework by engaging with previous discussions on theories of internal balancing. Second, I explain the absence of large-scale military reform despite an event of proven ineffectiveness during the 1990s (the First Chechen War). Third, I explain the lack of military reform despite Russia's increased external threat and state capacity levels during the first decade

of the 2000s. Finally, I analyze Russia's military reform as a large-scale military emulation strategy, linking this process to Russian state-building in the digital age.

Internal balancing, State capacity, and State-building

This analysis concerns "balancing theory", not "balance of power" or "power balances" (Nexon 2009). When faced with security challenges, states tend to mobilize their domestic resources (internal balancing) or seek external assistance from their allies (external balancing) (Posen 1984; Waltz 1979). It focuses on internal balancing strategies rather than external ones, more frequently explored by the mainstream literature (Dawood 2013). Internal balancing involves the extraction and mobilization of societal resources and their subsequent transformation into military capabilities (Resende-Santos 2007).

Conceptually, there are three alternative internal balancing strategies: innovation, emulation, and offsetting. The first two are qualitative, while the third is quantitative, and all are aimed at increasing security in response to external threats (Resende-Santos 2007). Military innovation refers to radical changes in organizational structure, resource allocation, doctrine, and strategy. It covers the process of adapting war institutions and practices to changing technological opportunities and social and political developments (Goldman 2004). Military emulation is the systematic and deliberate imitation of a country's technology, organization, and doctrine. Large-scale emulation has discernible start and endpoints, spanning years or decades, and requiring the restructuring of a country's

entire military. Finally, offsetting strategies involve quantitative increases in arms, troops, and finances to compensate for an opponent's capabilities, and they are the most commonly observed internal balancing strategy (Resende-Santos 2007).

Here I frame these internal balancing strategies through the concept of military reform. This refers to the major reorganization of troops and formations, as well as of "defense industries and war mobilization assets, recruitment and social welfare systems, the division of power among branches of government dealing with military matters, the system for funding defense and security, and the instruments for implementing defense policy, including military buildup (or build-down) and the use of force" (Arbatov 1998, 85).

Internal balancing strategies are costly and socially disruptive. They demand a greater extraction of societal resources and the continuous mobilization of state resources. Given that internal balancing may involve restructuring the fiscal-administrative-coercive state apparatus, and that military organization and war are at the center of state formation (Giddens 1985; Tilly 1990), internal balancing processes are a fruitful pathway for studying states' historical development (Hui 2005).

The organizational effects of internal balancing processes also affect state-building (Resende-Santos 2007). State-building refers to interventionist strategies and policies to restore and reconstruct the state apparatus and institutions, especially the state bureaucracy (Goldsmith 2007). Thus, state-building tasks are not exclusive to instances of state formation but rather may repeatedly occur, as triggered by significant changes in international capitalism (Schneider 2017).

In short, internal balancing and state-

building processes are mutually constituted through self-strengthening—or weakening—reforms (Hui 2005). Just as wars have formative and organizational effects, they can also have disintegrative and reformative effects (Schwarz 2012; Spruyt 2017).

More precisely, such mutual constitution stems from inserting an intervening variable (state capacity). As such, state capacity is located at the unit level and limits the efficiency of states in responding to systemic incentives and constraints (Rose 1998). In this sense, state capacity—the relative ability of the state to extract and mobilize societal resources—shapes the types of internal balancing strategies that states can adopt.

This analysis uses a definition of state capacity based on three dimensions: i) extractive capacity; ii) coercive capacity and; iii) administrative capacity (Hanson 2017; White 2018). These dimensions provide a basis for the functioning of the modern state insofar as "any state first and fundamentally extracts resources from society and deploys these to create and support coercive and administrative organizations" (Skocpol 1979, 42).

External threat and state capacity inform the particular internal balancing strategy that a state adopts. Taliaferro (2009) proposes four hypotheses regarding which trajectory a country is more likely to adopt. First, states with low state capacity and face a low external threat are more likely to maintain their existing internal balancing strategy in the short term. Second, states with low state capacity but a high level of external threat tend to have difficulty emulating. Third, states with high state capacity and a low level of external threat are likely to follow an innovation strategy. Finally, states with high state capacity and a high level of external threat are more likely

to emulate based on “proven effectiveness” (Resende-Santos 2007) (table 1).

Table 1. Taliaferro’s (2009) NCR analytical framework and hypothesis

	High external threat	Low external threat
High state capacity	Emulation	Innovation
Low state capacity	Difficulty to emulate	Offsetting

Source: Author’s elaboration.

The socially disruptive nature of internal balancing, directly and indirectly, impacts organizational effects. These organizational effects—understood as changes in state capacity—derive from the internal balancing process based on two main mechanisms. First, internal balancing processes often imply the ability of a country to indigenize “national centers of economic decision-making” (Furtado 1992). In the digital age, these concern the production of communication networks (satellites, telecommunication systems, and broadcasting) and computers (semiconductors and superconductors) (Martins 2008).

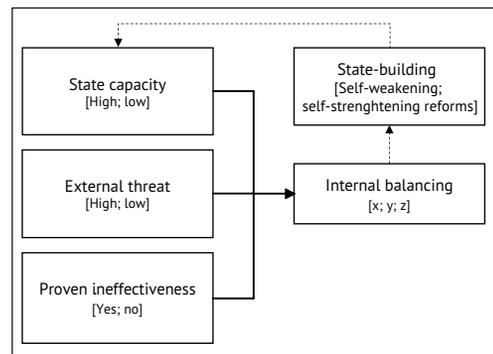
The second mechanism is indigenization. In short, it is when a country dominates and internalizes the production of equipment, platforms, and manufacturing processes. In other words, indigenization implies that a country starts to produce what it uses in war. It follows that “indigenizing the production of modernized defense equipment also greatly stimulates national production chains and generates employment and income” (Neves Jr 2015, 31).

In short, the character, scope, and durability of organizational effects will depend on the intensity and duration of the systemic in-

terstate competition (Resende-Santos 2007) and will be based on the internalization of the national centers of economic decision-making and the endogenization of sensitive technologies and processes. Such an increase in state capacity resulting from internal balancing processes ultimately increases a state’s adaptive capacity (Hobson 2000) in the face of interstate competition.

These mechanisms are framed within the concept of self-strengthening reforms (Hui 2005), since they imply “fundamental socio-economic reforms [...] to reorient the course of national economic development through state intervention” (Skocpol 1979, 31). This means that changes in a state’s economic and military capabilities are not random or accidental outcomes but rather the result of deliberate political projects (Centeno, Kohli and Yashar 2017; Spruyt 2017). Therefore, internal balancing processes and the self-strengthening reform mechanisms are structural insofar as they are compelled by systemic competition and are agential, as their successful pursuit requires institutional innovations in the state apparatus (Hui 2005) (figure 1).

Figure 1. Analytical framework



Source: Author’s elaboration.

Regarding variations in the level of systemic competition, this analysis relates to granular balancing theory (Lobell 2018), diverging from the discussion surrounding the balance of power (Waltz 1979) or balance of threats (Walt 1987). According to granular balancing theory, states regularly disaggregate their counterparts' military and material capabilities to identify which countries threaten their security. Specifically, states are pressured and encouraged to dismember power in specific elements due to structural modifiers, "such as a state's geography and shifts in relevant military technologies" and "how leaders assess power—including the fungibility of elements of power" (Lobell 2018, 594).

Given this, the structural change that encourages and constrains states—especially the great powers—to balance internally also concerns the development of particular capacities that can undermine strategic stability. Briefly put, strategic stability is based "on the inability of each of the sides to deliver a preemptive or a fixed-time strike capable of disabling the major part (if not all) of the nuclear forces that other side could use in the delivery of a retaliation strike" (Kokoshin 2011, 21).

As a result, the development of these particular capabilities in the digital age concerns technological changes directly impacting the strategic second-strike capabilities, command of space, and impregnability in the face of conventional attacks by a country (Cepik 2013; Lieber and Press 2017). In this sense, the simple possibility of disrupting strategic stability constitutes an increase in the level of external threat without the need to involve broader criteria, such as aggregate power (Waltz 1979) or threat perception (Walt 1987).

A final point must be made to address "proven ineffectiveness". While Resende-San-

tos (2007) argues that "proven effectiveness" (or victory in a major war) sets the model for other states to emulate, I conceptualize its negative version to explain the timing of a state's large-scale military reform. The advantage of such a move is twofold. It embraces the idea of critical junctures, a central element while studying changes in military organizations (Dyson 2010; Posen 1984). Although Resende-Santos (2007) indirectly mentions cases in which a military organization displays an unsatisfactory performance, the author equates it to an increase in a state's external threat level. I argue that such differentiation is fruitful for better assessing causation in large-scale military reforms analysis. Additionally, this allows the analyst to link events of proven ineffectiveness to windows of opportunity as catalysts. In a nutshell, one must look at such episodic events with a broader lens, taking into account that a structural factor (change in the external level of threat) "gives the catalyst its causal efficacy" (Goertz and Levy 2007, 36).

The Fall: Self-Weakening Expedients and Military Offsetting (1991-2001)

This section aims to analyze Russia's external threat and state capacity in the period spanning from the dissolution of the Soviet Union to the turn of the millennium. These factors help account for Russia's internal balancing strategy of compensation instead of large-scale military innovation or emulation. Throughout the period in question, Russia's nuclear arsenal became a force multiplier that allowed it to compensate for its conventional forces' inferiority (Bruusgaard 2016; Umbach 2003; Zyga 2012).

Russia's external threat level was low throughout the 1990s, as strategic stability was maintained over the period, despite the end of the Cold War and the dissolution of the Soviet Union (Kristensen 2000; Steff and Khoo 2014). Different internal balancing strategies fundamentally depend on states' external threat levels. Since there were no significant efforts to disrupt strategic stability between 1991 and 2001—mainly due to the non-development of technologies and doctrines that could undermine the credibility of Russia's second-strike capability—its level of external threat was low.

In this same period, the dismantling of the Russian state and its national centers of economic decision-making through the privatization of strategic sectors of the economy significantly reduced the country's state capacity (Steen 2003). The sale of much of the national oil industry was a way to increase government revenue at a low administrative cost. In theory, large corporations in the commodity export sector should provide for most of the state's tax revenue. However, the fiscal risks of this narrow revenue base became evident when commodity prices declined in 1998 (Easter 2012; Luong and Winthal 2004). The ensuing lack of state autonomy vis-à-vis competing elites seeking direct access to public resources for private gain (Cappelli 2008) resulted in internal disputes that weakened Russian state-building projects (Fritz 2007; Robinson 2008).

Additionally, during the Yeltsin period, oligarchs entered the power system and shaped critical areas of government policy to serve their interests. Thus, these elites emasculated the existing state institutions to extract their resources, declining the state's institutional apparatus (Cappelli 2008; Ganey

2005). Such a scenario led to a fragmentation of the state and the emergence of competing and uncontrolled sources of organized violence and alternative taxation networks under the state's legal jurisdiction (Solomon 2005; Volkov 1999).

By the end of the Yeltsin government, the Russian state could not implement major political initiatives in its provinces and regions (Holmes 2005; Stoner-Weiss 1998). Concisely, the weak state resulted from self-weakening expedients adopted by the Russian elites, which led to the deformation of the state.

Throughout the 1990s, as strategic stability was maintained, Russia did not face incentives and structural constraints to engage in a qualitative internal balancing process (emulation or innovation). During this period, Russia increasingly relied on its nuclear arsenal to counter the conventional superiority of the United States, thus guaranteeing the maintenance of strategic stability. The direct implication of this scenario was the reinforcement of the state deformation process as political elites dismantled the national centers of economic decision-making through self-weakening devices that undermined the extractive, coercive and administrative capacity of the Russian State.

Finally, it should be noted that the First Chechen War (1994-1996) was both "a disaster for the Russian Army" (Galeotti 2017, 13) and "a crisis of state formation" (Taylor 2011, 307). As will be seen below, an event of proven ineffectiveness in itself—as is the case with the 2008 Georgia War—is not a sufficient condition for triggering a large-scale military reform.

The Rise: Self-Strengthening Reforms and Difficulty to Emulate (2001-2008)

On December 13, 2001, the United States unilaterally announced its withdrawal from the Anti-Ballistic Missile (ABM) Treaty. Strategic stability stems from the mutual renunciation of intercontinental ballistic missile defenses (Ivanov 2000), as ballistic missile defense systems offer an offensive advantage, endangering the defending country's retaliatory capabilities. In other words, there is a negative relationship between the existence of anti-ballistic missile defenses and strategic stability (Kokoshin 2011). Such defenses would be destabilizing as they could incite a first strike from a country that believed its defenses could protect it from massive opponent retaliation (Ford 2013; Harvey 2003). The U.S. move compromised the maintenance of strategic stability and raised Russia's external threat level.

The 2001 Nuclear Posture Review, which introduced the "new triad" concept (Lantis 2007; Woolf 2018), and the launch of the conventional prompt global strike (CPGS) concept in 2003 (Woolf 2018), highlighted the United States' interest in using conventional weapons for precision and long-range attack missions. Against this backdrop, one must consider that a combination of ballistic missile defenses with high-precision weapons could allow the United States to attempt a disarming first strike without crossing the nuclear threshold (Acton 2013). Due to the system's potential capacity to attack and disarm a nuclear state, CPGS has been recognized as a factor that affects strategic stability (Bruusgaard 2016; Dvorkin 2012; Rojansky 2013). The increase in Russia's external threat

level after 2001, with the development of the U.S. missile defense and CPGS, affected the internal balancing strategy it adopted.

I now analyze the main elements of variation concerning Russian state capacity between 2001 and 2008. Besides corresponding with the increase in Russia's external threat level, this period also followed Boris Yeltsin's resignation and Vladimir Putin's first term as president of the Russian Federation. This point of inflection merits particular attention as the 2000s political-economic reforms became self-strengthening reforms. This process aimed to reduce the power of the former elites—regional leaders and oligarchs who undermined the state institutions and seriously limited the Russian state's fiscal-coercive-administrative capacity.

Additionally, the recovery of Russia's economy coincided with the beginning of the Putin government and a significant increase in commodities prices. However, without a change in economic policy, the simple rise in prices would not have had the desired effect by the political elites (Schutte 2011). In fact, they would have been primarily inconsequential had there not first been effective repatriation of earnings in foreign currency (Bosquet 2002). The government also re-nationalized companies in strategic sectors such as oil, aviation, shipbuilding, civil construction, atomic energy, machinery, and finance. Such a policy did not seek to purge the private sector of business but rather to regain state control over strategic sectors, as they were essential for implementing a state-building strategy. It invariably meant a conscious and planned increase in the state's role in the economy (Klimina 2014).

The role of the 1998 fiscal crisis also deserves special attention. Until then, the bar-

gaining of resources between the state and the elites offered political protection to the business and regional elites against the coercive threats of the state (Easter 2012). After the 1998 crisis, however, Yevgeny Primakov “took the first steps to change the Russian model from an emphasis on financial speculation to what Russians call the ‘real sector’, meaning the productive sector of the economy” (Segrillo 2015, 175).

In other words, although external factors—especially the increase in the oil and gas prices—are relevant, the consolidation and development of political power in Russia is the critical factor that allowed an expressive institutional change throughout the 2000s (Fritz 2007). The state-building is hereby emphasized as a political project, as illustrated by the Russian government radically altering the terms of revenue-bargaining with its business elite and, in doing so, managing to capture a larger share of corporate profits. Thus, the tax administration was reorganized to concentrate on the most profitable and revenue-generating sectors (Easter 2012).

In addition, one of the conditions for creating a capable state is the existence of an elite that is both sufficiently independent from the existing bases of social control and capable of executing large state projects (Migdal 1988). Thus, the state elite must identify its own interests with those of the state. In the early years of Putin’s administration, individuals with these characteristics massively migrated to central government agencies, regional administrations, and state-controlled corporations (Cappelli 2008; Rivera and Rivera 2006). Applying “vertical power” through administrative and bureaucratic mechanisms allowed the state to expand its control over society (Berenson 2008).

The increase in Russian state capacity is linked first to the reestablishment of the vertical power that connects central and regional administrations, second, to the replacement of the oligarchy by an equidistance between the economic elites and the government, and; third, to the decline in the old ruling party’s influence and the emergence of a new elite (Robinson 2008). In this sense, after Putin’s two presidential terms, the Russian state was no longer as weak as it had been with Yeltsin (Easter 2012; Taylor 2011). This is because it now had enough capacity to maintain a sizable coercive apparatus and extract resources from the oil and gas sector despite some limitations (White 2018).

With the combined increase in Russian levels of external threat and state capacity between 2001 and 2008, an internal balancing strategy of military emulation would be expected (Taliaferro 2009). However, Russia faced difficulties in the process of military emulation, particularly in its asymmetric incorporation of technologies and organizational structures, as represented by its anti-access and area-denial strategies. The objective of such a strategy “is to prevent the attacker from bringing its operationally superior force into the contested region or to prevent the attacker from freely operating within the region and maximizing its combat power” (Tangredi 2013, 2).

It should be noted that the leading cause for the non-occurrence of successful large-scale military reform in this period was precisely the absence of an event of proven ineffectiveness. Briefly put, the Russian understanding was that asymmetric technology and doctrine should be developed in areas where the Russian military industry had particular advantages; be significantly cheaper to

develop and produce than new Western technologies; and have a disruptive effect on new Western technologies (Bukkvoll 2011).

Large-Scale Military Emulation and State Building (2008-2021)

So far, I have focused on the relationship between different external threats and state capacity levels, and internal balancing strategies. Now I turn to the organizational effects of the large-scale military emulation internal balancing strategy represented by the implementation of Russia's most extensive military reform, taking place immediately after the 2008 Russo-Georgian War.

Literature broadly and consensually identifies the Russo-Georgian War as the leading cause of the 2008 Russian military reform (Barabanov, Makieko and Pukhov 2012; Bryce-Rogers 2013; Lannon 2011; Nichol 2011; Pallin and Westerlund, 2009). I, however, frame this reform in a broader context, as similar reforms had been discussed since the formation of post-Soviet Russia in the early 1990s (Arbatov 1998; Orr 2003; Umbach 2003) but were not adequately implemented despite attempts in 1992, 1997, and 2003 (Fernandez-Osorio 2015; Galeotti 2017) (table 2).

If cases of proven ineffectiveness, such as the Georgia War, were sufficient to cause

successful military reforms. In that case, one could expect them to have taken place after Russia's defeat in the First Chechen War (1994-1996). The performance of the Russian armed forces in the 2008 Russo-Georgian War may represent an event of proven ineffectiveness that set the timing of the reform in motion. Yet, I argue that the deep cause of the reform was the increase in Russian levels of external threat and state capacity starting in 2001. Simply put, I conceive Russia's 2008 military reform as a large-scale military emulation process. The emulated model was the U.S. large-scale military innovation represented by its Second Offset Strategy (Adamsky 2010; Kashin and Raska 2017). The U.S. strategy began to be developed after the Vietnam War, even though its conceptual, technological, and organizational innovations only became apparent in the post-Cold War period, with the Gulf War (1991), Kosovo War (1999), and the Wars in Iraq and Afghanistan (2003-2010). It was often known as the Revolution in Military Affairs (RMA) (Cohen 2004) or the digitization of warfare (Martins 2008).

Following the successful combination of long-range precision airstrikes and special forces support in the Afghanistan campaign (2001) and the initial campaign success of Operation Iraqi Freedom (2003), Secretary of Defense Donald Rumsfeld accelerated and expanded the U.S. military transformation agenda. In

Table 2. Systematization of empirical data

Variable		1991-2001	2001-2008	2008-2021
X1	External threat	Low	High	High
X2	State capacity	Low	High	High
X3	Proven ineffectiveness	Chechnya	-	Georgia
Y	Internal balancing strategy	Offsetting	Asymmetric emulation	Emulation

Source: Author's elaboration.

2003, Rumsfeld launched the Transformation Planning Guidance, which highlighted the goal of creating network-centered armed forces by 2010 (Dombrowski and Gholz 2006). This document “represented the apex of the ‘technological determinism’ that had been the hallmark of the US military reform in the post-Cold War era” (Dyson 2010, 15).

In general, digitization generated organizational changes in the armed forces, such as the Army’s “brigadization” and focus on strategic mobility; the reduction of military personnel; and the intensification of technologies for increased situational awareness, precision attack, and digital network linkage (Neves Jr 2015). The normative adoption of RMA principles in modern conventional military conflict became a widespread consensus in armed forces worldwide throughout the 1990s and 2000s (Raska 2020). This included the shift to small and highly qualified joint forces that could engage in conventional and counterinsurgency warfare; were flexible and quickly employable, and operated advanced information technologies (Adamsky 2010).

In the Russian case, the unifying theme of the 2008 military reform was the recognition that the means and methods for fighting a modern war had changed (Lannon 2011; Nichol 2011). To a large extent, this meant the adoption and integration of command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) for the armed forces, reflecting a shift from platform-based operations to network-centric warfare capabilities (McDermott 2013; Sokolsky 2017). According to McDermott (2011), the adoption of network-centric warfare capabilities provided real meaning to the 2008 military reform.

While the literature argues that the military reform of 2008 sought to prepare Russia to deal with local war and counterinsurgency scenarios in the Caucasus or Central Asia regions (Barabanov, Makieko and Pukhov 2012; Giles 2014; Lannon 2011; Nichol 2011; Pallin and Westerlund 2009), here I argue that it sought to preserve Russian retaliatory second-strike capacity in the digital age. Thus, since the survival capacity of a country’s nuclear arsenal depends on the uncertain course of technological change and on adversaries’ efforts to develop new technologies, “states will feel compelled to arms race to ensure that their deterrent forces remain survivable in the face of adversary advances” (Lieber and Press 2017, 15).

This is because technological changes in the digital age are eroding the basis of nuclear deterrence by making countries’ nuclear forces much more vulnerable than before. Consequently, some states —Russia included— will find it increasingly challenging to protect their arsenals as guidance systems, sensors, data processing, communication, and artificial intelligence continue to improve (Lieber and Press 2017).

Russia has narrowed the qualitative gap in conventional capabilities compared to the United States (Sokolsky 2017; Westerlund 2018). Hence, Russian political-military thinking focuses on balancing its conventional capabilities with a robust nuclear arsenal. Such a combination would provide Russia with more flexible response options to escalation management (Bruusgaard 2020; Renz 2019). The purpose of increasing non-nuclear deterrence options is to reduce the dependence on nuclear possibilities for dealing with conventional contingencies (Bruusgaard 2016). This comes as no surprise since Russia already has more than sufficient deterrence

capabilities when it comes to nuclear forces (IISS 2021; Kristensen and Korda 2021).

In this sense, it is necessary to consider a possible change in the balance between nuclear and conventional capabilities in Russian thought when assessing strategic stability. Conventional weapons are reducing the early compensatory role of nuclear weapons. Accordingly, nuclear weapons would no longer be Russia's only means of confrontation in a scenario where it faces a conventionally superior opponent. In light of this, in the 2000s, Russian political-military elites began to focus on how nuclear and conventional capabilities could be combined to more effectively stop threats in medium-high intensity conventional war scenarios (Bruusgaard 2020). In the meantime, Russia has been building up its conventional strength capability while also modernizing its nuclear forces to balance its armed forces (Giles 2017).

The belief in local wars and counterinsurgency as the primary embodiment of modern conflict can lead to long-term negative consequences, especially concerning the ability to compete externally (Renz 2014). Facing an increased scenario of great power competition (Haffa 2018), Russia remains aware of the importance of preparing for high-intensity interstate warfare. Its concern with modernizing its T-72 tanks, rescuing ground vehicle companies, maintaining conscription, and carrying out large-scale military exercises is telling (Radin *et al.* 2019, 64). Moreover, Russia's reversion of its initial emphasis on brigades to the detriment of divisions toward a mix of brigades and divisions demonstrates its concern with this possibility (Boston and Povlock 2019).

In addition, I argue that Western sanctions in response to the 2014 Crimean Crisis sought to undermine the material pillars

of Russia's internal balancing strategy. This is because they involved financial, institutional, and diplomatic measures aimed at the country's financial, oil, and defense industries. To this end, the West established three lines of action. First, they sought to block access to its financial markets by Russian state-owned companies in the banking, energy, and defense sectors. Second, the sanctions blocked exports of specific high-tech oil exploration and production equipment. Finally, they seized exports of military and dual-use products (Connolly 2018).

Counterintuitively, the sanctions accelerated and strengthened the endogenization of modernized defense material in Russia (Larrov 2018). This is because Russian authorities understand military modernization as acquiring new systems and modernizing existing platforms, or legacy platforms (Boston and Povlock 2019; Connolly and Boulegue 2018). Russia's maneuver ground forces, air defense, long-range strike systems, and indirect fire capabilities are examples of retaining and adapting Soviet platforms and designs. Through indigenized modernization processes, such platforms can be made almost as effective as new platforms with the addition of new components [...] at a fraction of the cost" (Radin *et al.* 2019, 51). As Flynn (2021, 14) notes, "Modernizing existing weapons can provide alternatives to an over-dependence on very high technology weapon systems, for example, by allowing existing ship guns to fire high-velocity projectiles at much greater ranges and speeds".

The adoption of Russia's State Armament Program (SAP-2020) foresaw US \$689.4 billion for the development of modernized platforms and weapons systems. Moreover, it envisaged that Russia should have 70 per-

cent of its military armaments and materials modernized by 2020 (Barabanov, Makieko and Pukhov 2012). By 2012, such numbers were around 16 percent, 47 percent in 2015, and 59.5 percent in 2017 (Lavrov 2018). As of 2019, modernized materials were at 61.5 percent (Cooper 2019) and 68.5 percent in 2020 (IISS 2021).

One of the SAP-2020 objectives was to boost the supply of microelectronic components since these are critical for all aspects of defense industrial activity (Fedorov 2014). Thus, the Russian government strengthened the country's defense industry through import substitution, nationalizing procurements, and the development of sensitive technologies (Connolly and Boulegue 2018; Oxenstierna 2019; Zysk 2020). Russia's official goal is to produce 85 % of the replaced military components and equipment nationally by around 2025 (Connolly and Boulegue 2018; Westerlund 2018). Oxenstierna (2021, 445) highlights that nearly 65-79% of Russia's rockets and space equipment—and 90% of the value added to its civilian aircraft—rely heavily on imported components.

Against this backdrop, sanctions served to build Russia's resilience and provided an essential stimulus for national industry. The Western response to Russian foreign policy pressured the military and the defense industry to seek alternative means to achieve satisfactory military results (Giles 2017), as more significant investments were being made in capacity building in the sanctioned sectors (Cooper 2016). For example, Deuber (2019) points out that Western sanctions have helped consolidate Russia's banking system. Such a quest for self-sufficiency is carried out to decrease Russia's international vulnerability, even if it may come at a cost.

Vladimir Putin claimed during a speech in the Russian Federal Assembly in 2012 that the country's defense industry should be a vector of economic development (Oxenstierna 2016). In November 2009, Dmitry Medvedev first announced the creation of the Skolkovo Innovation Center, the "Russian Silicon Valley." According to Edmonds *et al.* (2021, 65), Skolkovo is a "major institutional site for funding and hosting technology startups, a physical plant for young developers, and a coordinating entity providing support for integrating startups into wider international markets." The authors also note that Skolkovo includes five research clusters: information technologies (IT), energy, nuclear, biomedicine, and space (Edmonds *et al.* 2021, 28).

In line with the Skolkovo effort to modernize the Russian economy, in October 2012, Russia created its Advanced Research Foundation (FPI) to rival the U.S. Defense Advanced Research Projects Agency (DARPA). In a nutshell, it is an effort to foster the country's research and development (R&D) of advanced military technologies through collaboration between the Russian state, academic research institutions, and the industrial sector. Although parts of its projects are still too embryonic for immediate military use, Russia trusts that they most certainly will translate into battlefield advantages and new sources of revenue for the country's economy (Radin *et al.* 2019; Zysk 2020).

Russia also created the "Era Military Innovation Technopolis" through a presidential decree in June 2018. Briefly put, Era is an R&D center similar to Skolkovo, albeit with a specific focus on developing military technologies. Russia plans for Era to become the cornerstone in developing a scientific, edu-

cational, and industrial organization interaction model. According to Zysk (2020, 7), its R&D priorities include “AI, small spacecraft; robotics; automated control and IT systems; computer science and computer engineering; pattern recognition; information security; hydrometeorological (meteorological) and geophysical support; energy sufficiency; nanotechnology; and bioengineering.”

Russia is also seriously concerned with producing dual-use products. In September 2016, Putin mentioned his goal for the country's defense industry to increase its dual-use products from 16,8 to 30 percent by 2025 and to 50 by 2030 (Cooper 2019; Zysk 2020). By 2019, this number was 24 percent (IISS 2021, 175). Zysk (2020, 9) notes that “the Russian authorities are creating public-private consortiums to facilitate collaboration between the private high-technology sector and civilian academic institutions on the one hand and military and security institutions on the other.”

Ultimately, despite analyzing military reforms leads one to evaluate modern military technologies and platforms, it does not subsume just to it. Hence, a naïve high technological determinism (Flynn 2021; Kuo 2020) is avoided. As previously stated, old (legacy) and high-tech weapons are often complementary. Also, this analysis fits under the umbrella of what Proença Jr. and Duarte (2005) called logistical capacity: “The process of creating combatant forces and involves all matters that pertain to armament, mobilization, methods as well as all the possible products of social, economic, industrial and technological development”. In this article, such an effort is put forward by analyzing Russia's different state-building strategies and levels of state capacity—and how they relate to its internal balancing strategies.

Conclusion

In this article, I analyzed the causes of the Russian military reforms' success—and failures—since the collapse of the Soviet Union. In particular, I explained their outcomes based on the presence, or absence, of three simultaneous conditions: the disruption of strategic stability, the ability of the Russian state to extract and mobilize societal resources, and the occurrence of an event of proven ineffectiveness. Two are the main events that triggered the identified mechanisms. First, both the U.S. unilateral abrogation of the ABM Treaty and the subsequent development of CPGS threatened the maintenance of strategic stability. Second, the redefinition of coercion-capital relations in Russia after the 1998 fiscal crisis paired with the 2000s administrative and fiscal reforms engendered self-strengthening reforms.

Moreover, I explained other internal balancing strategies—namely, compensation and asymmetric emulation. This analytical framework contributes to NCR by refining its “external threat” and “state capacity” variables through contributions drawn from Strategic Studies and Historical Sociology. The benefits of this interdisciplinary approach are twofold. First, it breaks from the longstanding NCR procedure of assessing “systemic stimuli” and “unit-level variables” through Neorealism, Classical Realism, Constructivism, and Liberalism. Both Strategic Studies and Historical Sociology are well suited to advance Neoclassical Realism. Second, studies of internal balancing strategies may now also offer fruitful paths for integrating structural and unit-level elements within a dynamic theory.

The analytical framework built here makes a second contribution to Neoclassical Realism. Al-

though Taliaferro, Ripsman, and Lobell (2016) identify three ideal types of NCR dependent variables—foreign policies, grand strategies, and systemic outcomes—this is not a typical NCR study. In a nutshell, former NCR studies are primarily concerned with states' behaviors, despite the temporal range or level analysis of its dependent variables. This article comes close to Dyson's (2010) solid contribution to NCR on European military reforms after the Cold War. Mainstream NCR has so far ignored states' apparatus and structures as dependent variables and not simply as intervenient variables. Moreover, if successful, internal balancing strategies may result in systemic polarity change (Dawood 2013), advancing NCR Type III literature in the long run (Taliaferro, Ripsman and Lobell 2016).

Briefly, Russia's 2008 military reform sought to transform the Russian force structure inherited from the Soviet military model. Against this backdrop, such reform had already been considered—and had repeatedly failed—since the dissolution of the Soviet Union in 1991. Hence, the 2008 military reform was induced by enduring interstate competition instead of resulting from Russia's military underperformance in the 2008 Russo-Georgian. The war only triggered the reform. This conclusion is made possible by understanding that “proven ineffectiveness” events alone are not sufficient conditions for large-scale military reforms.

The 2008 military reform also reflects Russian concerns with high-intensity interstate competition and maintaining strategic stability. While strategic stability lasted throughout the 1990s, Russia had to rely on its nuclear capabilities mainly due to its low state capacity. Nevertheless, because warfare digitization directly affects both the nuclear and conventional realms, Russia sought to

improve its conventional deterrence options to deal with conventional contingencies. This effort was mainly put forward through the 2008 large-scale military reform and the SAP-2020. However, differently from Neorealist explanations, changes in a state's external threat level alone are not sufficient to trigger a successful large-scale military reform. Hence, one must consider the increased Russian state capacity throughout the 2000s, primarily as achieved through the self-strengthening reforms started by Primakov after the 1998 financial crisis and later completed by Putin. Accordingly, external competition and internal reforms resulted in state-building consequences during the last two decades, allowing Russia to follow a more ambitious foreign policy.

Finally, Russia's large-scale military reform solved only part of the country's heightened external threat level. As previously noted, strategic stability relates, first and foremost, to a country's second-strike capabilities and not to nuclear or conventional parity. Russia's 2008 military reform provided the country with a more robust and secure retaliatory capability without achieving parity—or symmetry—with the United States, thus denying U.S. strategic primacy (Piccolli 2019). So far, the military reform has provided Russia with advanced computer and network-based technologies related to the third industrial revolution. However, it remains to be seen how Russia will react and adapt to the emerging and disrupting technologies and processes of the fourth industrial revolution (Bowers and Kirchberger 2020; Zysk 2020).

References

- Acton, James. 2013. *Silver Bullet? Asking the Right Questions about Conventional Prompt Global Strike*. Washington, DC: Carnegie Endowment for International Peace.
- Adamsky, Dmitry. 2010. *The culture of military innovation: the impact of cultural factors on the revolution in military affairs in Russia, the US, and Israel*. Stanford: Stanford University Press.
- Arbatov, Alexei. 1998. "Reform in Russia: Dilemmas, Obstacles, and Prospects". *International Security* 22 (4): 83-134.
- Baev, Pavel. 2007. "Russia Aspires to the Status of Energy Superpower". *Strategic Analysis* 31 (3): 447-465.
- Barabanov, Mikhail, Makienko, Konstantin and Pukhov, Ruslan. 2012. *Military Reform: toward a New Look for the Russian Army*. Moscow: Valdai Discussion Club.
- Bartles, Charles. 2016. "Getting Gerasimov Right". *Military Review* 96 (1): 30-38.
- Bennett, Andrew, and Elman, Colin. 2008. "Case Study Methods". In *The Oxford Handbook of International Relations*, edited by Christian Reus-Smit and Duncan Snidal, 499-517. Oxford: Oxford University Press.
- Berenson, Marc. 2008. "Rationalizing or Empowering Bureaucrats? Tax Administration Reform in Poland and Russia". *Journal of Communist Studies and Transition Politics* 24 (1): 136-155. doi.org/10.1080/13523270701840514
- Betz, David. 2004. *Civil-Military Relations in Russia and Eastern Europe*. London: Routledge Curzon.
- Blank, Stephen. 2019. "Introduction". In *The Russian Military in Contemporary Perspective*, edited by Stephen Blank, 1-58. Carlisle: SSI.
- Bosquet, Benoit. 2002. *The role of natural resources in fundamental tax reform in the Russian Federation*. Washington, DC: World Bank.
- Boston, Scott, and Povlock, Matthew. 2019. "Maneuver Ground Forces". In *The Future of the Russian Military – Appendixes*, edited by Rand Corporation, 69-88. Santa Monica: RAND Corporation.
- Bowers, Ian, and Kirchberger, Sarah. 2020. "Not so disruptive after all: The 4IR, navies and the search for sea control". *Journal of Strategic Studies*: 1-24.
- Bruusgaard, Kristin. 2016. "Russian Strategic Deterrence". *Survival* 58 (4): 7-26. doi.org/10.1080/00396338.2016.1207945
- Bruusgaard, Kristin. 2020. "Russian nuclear strategy and conventional inferiority". *Journal of Strategic Studies*. doi.org/10.1080/01402390.2020.1818070
- Bryce-Rogers, Athena. 2013. "Russian Military Reform in the Aftermath of the 2008 Russia-Georgia War". *Demokratizatsiya* 21 (3): 339-368.
- Bukkvoll, Tor. 2011. "Iron Cannot Fight: The Role of Technology in Current Russian Military Theory". *Journal of Strategic Studies* 34 (5): 681-706.
- Cappelli, Ottorino. 2008. "Pre-Modern State-Building in Post-Soviet Russia". *Journal of Communist Studies and Transition Politics* 24 (4): 531-572. doi.org/10.1080/13523270802510487
- Centeno, Miguel. 2003. *Blood and debt: war and the Nation-State in Latin America*. Pennsylvania: Pennsylvania State University Press.
- Centeno, Miguel, Atul Kohli and Deborah Yashar. 2017. "Unpacking states in the developing world": In *States in the Developing World*, edited by Miguel Centeno,

- Atul Kohli and Deborah Yashar, 1-31. Cambridge: Cambridge University Press.
- Cepik, Marco. 2013. "Segurança Internacional: da Ordem Internacional aos Desafios para a América do Sul e para CELAC". In *Desafios estratégicos del regionalismo contemporáneo*, edited by A. Bonilla and I. Alvarez, 307-324. San José: FLACSO.
- Cohen, Eliot. 2004. "Change and Transformation in Military Affairs". *Journal of Strategic Studies*, 27 (3): 395-407.
- Collier, David. 2011. "Understanding process tracing". *Political Science & Politics* 44 (4): 823-830. doi.org/10.1017/S1049096511001429
- Connolly, Richard. 2018. *Russia's Response to Sanctions*. Moscow: Valdai Discussion Club.
- Connolly, Richard. and Boulegue, Mathieu. 2018. *Russia's New State Armament Programme*. London: Chatham House.
- Cooper, Julian. 2016. *Russia's state armament programme to 2020*. Stockholm: Swedish Defence Research Agency.
- Cooper, Julian. 2019. "Prospects for Russia's Defence Spending". *Russian Analytical Digest* 237: 2-6.
- Dawood, Layla. 2013. "China versus the United States: is bipolarity back?". PhD dissertation, PUC-RJ.
- Delong, Marek. 2020. "The Concept of Russian Federation Foreign and Security Policy by Yevgeny Primakov". *Internal Security* 12 (1): 307-318.
- Deuber, Gunter. 2019. "Five Years of Financial Market and Banking Sector Sanctions". *Russian Analytical Digest* 236: 2-5.
- Dombrowski, Peter, and Gholz, Eugene. 2006. *Buying Military Transformation*. New York: Columbia University Press.
- Dvorkin, Vladimir. 2012. "Deterrence and Strategic Stability". In *Nuclear Reset: Arms Reduction and Nonproliferation*, edited by Alexei Arbatov and Vladimir Dvorkin, 25-46. Moscow: Carnegie Moscow Center.
- Dyson, Tom. 2010. *Neoclassical Realism and Defence Reform in Post-Cold War Europe*. New York: Palgrave Macmillan.
- Easter, Gerald. 2012. *Capital, Coercion, and Post-communist States*. Ithaca: Cornell University Press.
- Edmonds, Jeffrey, Samuel Bendett, Anna Fink, Chesnut, Mary; Gorenburg, Dmitry; Kofman, Michael; Stricklin, Kasey and Waller, Julian. 2021. *AI and Autonomy in Russia*. Arlington: CNA.
- Facon, Isabelle. 2019. "Military Exercises: The Russian Way". In *The Russian Military in Contemporary Perspective*, edited by S. Blank, 219-248. Carlisle: SSI.
- Fedorov, Yuri. 2014. "Russia's Armament Program 2020". *Security Index* 20 (2): 95-101.
- Fernandez-Osorio, Andrés. 2015. "The rationale behind the 2008 Russian military reform?". *Rev. Cient. Gen. José María Córdova* 13 (15): 63-86.
- Flynn, Brendan. 2021. "The coming high-tech Sino-American War at Sea?". *Defence Studies*. doi.org/10.1080/14702436.2021.1924688
- Ford, Christopher. 2013. "Anything But Simple: Arms Control and Strategic Stability". In *Strategic stability: contending interpretations*, edited by Elbridge Colby and Michael Gerson, 201-270. Carlisle: U.S. Army War College Press.
- Fridman, Ofer. 2019. "On 'Gerasimov Doctrine': Why the West Fails to Beat Russia to the Punch". *Prism* 8 (2): 101-112.
- Fritz, Verena. 2007. *State-building: a comparative study of Ukraine, Lithuania, Belarus,*

- and Russia*. Budapest: Central European University Press.
- Furtado, Celso. 1992. *Brasil: Construção Interrompida*. Rio de Janeiro: Paz e Terra.
- Galeotti, Mark. 2017. *The Modern Russian Army: 1992–2016*. Oxford: Osprey Publishing.
- Galeotti, Mark. 2018. “The mythical ‘Gerasimov Doctrine’ and the language of threat”. *Critical Studies on Security* 7 (2): 157-161.
- Ganev, Venelin. 2005. “Post-communism as an episode of state-building: A reversed Tillyan perspective”. *Communist and Post-Communist Studies* 38 (4): 425-445. doi.org/10.1016/j.postcomstud.2005.09.008
- Giddens, Anthony. 1985. *The Nation-State and Violence*. Cambridge: Polity Press.
- Giles, Keir. 2014. “A New Phase in Russian Military Transformation”. *The Journal of Slavic Military Studies* 27 (1): 147-162.
- Giles, Keir. 2017. *Assessing Russia's reorganized and rearmed military*. Washington, DC: Carnegie Endowment.
- Gilpin, Robert. 1981. *War and change in world politics*. Cambridge: Cambridge University Press.
- Goertz, Gary, Levy, Jack. 2007. “Causal explanation, necessary conditions, and case studies”. In *Explaining war and peace: case studies and necessary condition counterfactuals*, edited by Gary Goertz and Jack Levy, 9-46. London: Routledge.
- Goldman, Emily. 2004. “Introduction”. In *The Information Revolution in Military Affairs in Asia*, edited by Emily Goldman and Thomas Mahnken, 1-22. New York: Palgrave Macmillan.
- Goldsmith, Arthur. 2007. “Does Nation-building Work?” In *Governance in Post-Conflict Societies*, edited by Derick Brinkerhoff, 25-44. New York: Routledge.
- Gouré, Daniel. 2019. “Cutting the Putian knot”. In *The Russian Military in Contemporary Perspective*, edited by Stephen Blank, 59-132. Carlisle: SSI.
- Haffa, Robert. 2018. “The Future of Conventional Deterrence”. *Strategic Studies Quarterly* 12 (4): 94-115.
- Hanson, Jonathan. 2017. “State capacity and the resilience of electoral authoritarianism”. *International Political Science Review* 39 (1): 1-16. doi.org/10.1177/0192512117702523
- Harvey, Frank. 2003. “The Future of Strategic Stability and Nuclear Deterrence”. *International Journal* 58 (2): 321-346.
- Hobson, John. 2000. *The State and International Relations*. Cambridge: Cambridge University Press.
- Holmes, Leslie. 2005. “Russian Corruption and State Weakness in Comparative Post-Communist Perspective”. In *Leading Russia: Putin in Perspective*, edited by Alex Pravda, 75-102. Oxford: Oxford University Press.
- Hooker Jr, Richard. 2020. “Major Theatre War: Russia Attacks the Baltic States”. *The RUSI Journal* 165 (7): 85-94.
- Hui, Victoria. 2005. *War and State Formation in Ancient China and Early Modern Europe*. Cambridge: Cambridge University Press.
- IISS. 2021. *The Military Balance 2021*. London: Routledge.
- Ivanov, Igor. 2000. “The Missile-Defense Mistake”. *Foreign Affairs* 7 (5): 15-20.
- Kashin, Vasily and Raska, Michael. *Countering the U.S. Third Offset Strategy*. Singapore: RSIS.
- Katz, Mark. 2006. “Primakov Redux? Putin's Pursuit of ‘Multipolarism’ in Asia”. *Demokratizatsiya* 14 (1): 144-152.

- Klimina, Anna. 2014. "Finding a Positive Vision for State Capitalism". *Journal of Economic Issues* 48 (2): 421-430. <https://doi.org/10.2753/JEI0021-3624480216>
- Kokoshin, Andrei. 2011. *Ensuring Strategic Stability in the Past and Present: Theoretical and Applied Questions*. Cambridge, MA: Belfer Center for Science and International Affairs.
- Kristensen, Hans and Korda, Matt. 2021. "Russian Nuclear Weapons, 2021". *Bulletin of the Atomic Scientists* 77 (2): 90-108.
- Kristensen, Hans. 2000. *U.S. Nuclear Strategy Reform in the 1990s*. Berkeley: The Nautilus Institute.
- Kuo, Kendrick. 2020. "Military Innovation and Technological Determinism: British and US Ways of Carrier Warfare". *Journal of Global Security Studies*: 1-19. doi.org/10.1093/jogss/ogaa046
- Lannon, Gregory. 2011. "Russia's New Look Army Reforms and Russian Foreign Policy". *The Journal of Slavic Military Studies* 24 (1): 26-54.
- Lanoszka, Alexander and Hunzeker, Michael. 2016. "Confronting the A2AD and Precision Strike Challenge in the Baltic Region". *The RUSI Journal* 161 (5): 12-18.
- Lantis, Jeffrey. 2007. "The Short Shadow of U.S. Primacy?". *International Security* 31 (3): 174-93.
- Lavrov, Anton. 2018. *Russian Military Reforms from Georgia to Syria*. Washington, DC: CSIS.
- Lieber, Keir and Press, Daryl. 2017. "The New Era of Counterforce Technological Change". *International Security* 41 (4): 9-49. doi.org/10.1162/ISEC_a_00273
- Lobell, Steven. 2018. "A Granular Theory of Balancing". *International Studies Quarterly* 62 (3): 593-605. doi.org/10.1093/isq/sqy011
- Luong, Pauline and Winthal, Erika. 2004. "Contra Coercion: Russian Tax Reform, Exogenous Shocks, and Negotiated Institutional Change". *American Political Science Review* 98 (1): 139-152.
- Mahoney, James and Rueschemeyer, Dietrich. 2003. "Comparative Historical Analysis: Achievements and Agendas". In *Comparative historical analysis in the social sciences*, edited by James Mahoney and Dietrich Rueschemeyer, 3-40. Cambridge: Cambridge University Press.
- Martins, José Miguel. 2008. "Digitalização e guerra local". PhD dissertation, UFRGS.
- McDermott, Roger. 2011. *Russian Perspective on Network-Centric Warfare*. Fort Leavenworth: Foreign Military Studies Office.
- McDermott, Roger. 2013. *Russia's Strategic Mobility*. Stockholm: FOI.
- Migdal, Joel. 1988. *Strong Societies and Weak States*. Princeton: Princeton University Press.
- Morozova, Natalia. 2009. "Geopolitics, Eurasianism and Russian Foreign Policy under Putin". *Geopolitics* 14 (4): 667-686.
- Neves Jr, Edson. 2015. "A Modernização Militar da Índia". PhD dissertation, UFRGS.
- Nexon, Daniel. 2009. "The Balance of Power in the Balance". *World Politics* 61 (2): 330-359.
- Nichol, Jim. 2011. *Russian Military Reform and Defense Policy*. Washington, DC: Congressional Research Service.
- Nuland, Victoria. 2020. "Pinning Down Putin". *Foreign Affairs*, July/August. <https://fam.ag/3uKJkCp>
- Orr, Michael. 2003. "Reform and the Russian Ground Forces: 1992-2002". In *Russian military reform: 1992-2002*, edited by A. C. Aldis and R. McDermott, 122-138. London: Frank Cass.

- Oxenstierna, Susanne. 2016. "Russia's defense spending and the economic decline". *Journal of Eurasian Studies* 7: 60-70.
- Oxenstierna, Susanne. 2019. "Russia's economy and military expenditures". In *Routledge Handbook of Russian Security*, edited by R. E. Kanet, 97-108. Abingdon; Routledge.
- Oxenstierna, Susanne. 2021. "Western Sanctions against Russia: How Do They Work?". In *Putin's Russia: Economy, Defense and Foreign Policy*, edited by S. Rosefielde, 433-452. New Jersey: World Scientific.
- Pallin, Carolina, and Westerlund, Frederik. 2009. "Russia's war in Georgia: lessons and consequences". *Small Wars and Insurgencies* 20 (2): 400-424.
- Persson, Gudrun. 2021. "On War and Peace: Russian Security Policy and Military-Strategic Thinking". In *Putin's Russia: Economy, Defense and Foreign Policy*, edited by S. Rosefielde, 347-377. New Jersey: World Scientific.
- Piccolli, Larlecianne. 2019. "Armas Estratégicas e Equilíbrio Internacional". PhD dissertation, UFRGS.
- Posen, Barry. 1984. *The Sources of Military Doctrines: France, Britain, and Germany between the World Wars*. Ithaca: Cornell University Press.
- Póti, László. 2008. "Evolving Russian Foreign and Security Policy: Interpreting the Putin-doctrine". *Acta Slavica Iaponica* 25: 29-42.
- Proença Jr, Domício and Duarte, Erico. 2005. "The concept of logistics derived from Clausewitz". *Journal of Strategic Studies* 28 (4): 645-677.
- Radin, Andrew. 2019. *Hybrid Warfare in the Baltics*. Santa Monica: RAND Corporation.
- Radin, Andrew; Davis, Lynn; Geist, Edward; Han, Eugeniu; Massicot, Dara; Povlock, Matthew; Reach, Clint; Boston, Scott; Charap, Samuel; Mackenzie, William; Migacheva, Katya; Johnston, Trevor and Long, Ausitn. 2019. *The Future of the Russian Military*. Santa Monica: RAND Corporation.
- Raska, Michael. 2020. "The sixth RMA wave: Disruption in Military Affairs?" *Journal of Strategic Studies*. doi.org/10.1080/01402390.2020.1848818
- Renz, Bettina. 2014. "Russian Military Capabilities after 20 years of reform". *Survival* 56 (3): 61-84.
- Renz, Bettina. 2019. "Russian responses to the changing character of war". *International Affairs* 95 (4): 817-834. doi.org/10.1093/ia/iiz100
- Resende-Santos, Joao. 2007. *Neorealism, states, and the modern mass army*. Cambridge: Cambridge University Press.
- Rivera, Sharon and Rivera, David. 2006. "The Russian Elite under Putin: Military or Bourgeois?". *Post-Soviet Affairs* 22 (2): 125-144. doi.org/10.2747/1060-586X.22.2.125
- Robinson, Neil. 2008. *State, Regime and Russian Political Development*. Limerick: University of Limerick.
- Rojansky, Matthew. 2013. "Russia and Strategic Stability". In *Strategic stability: contending interpretations*, edited by E. A. Colby and M. S. Gerson, 295-342. Carlisle: U.S. Army War College Press.
- Rose, Gideon. 1998. "Review: Neoclassical Realism and Theories of Foreign Policy". *World Politics* 51 (1): 144-172.
- Rumer, Eugene. 2019. *The Primakov (Not Gerasimov) Doctrine in Action*. Washington, DC: Carnegie Endowment for International Peace.

- Rutland, Peter. 2008. "Russia as an Energy Superpower". *New Political Economy* 13 (2): 203-210.
- Schenoni, Luis. 2020. "Bringing War Back in: Victory and State Formation in Latin America". *American Political Science Review* 0 (0): 1-17. doi.org/10.1111/ajps.12552
- Schneider, Aaron. 2017. *State-Building and Tax Regimes in Central America*. Cambridge: Cambridge University Press.
- Schutte, Giorgio. 2011. "Economia Política de Petróleo e Gás". In *Uma longa transição: Vinte Anos de Transformações na Rússia*, edited by A. Alves, 81-136. Brasília: IPEA.
- Schwarz, Rolf. 2012. *War and State-Building in the Middle East*. Gainesville: Florida University Press.
- Segrillo, Angelo. 2015. *De Gorbachev a Putin*. Curitiba: Prismas.
- Shlapentokh, Dmitry. 2014. "Early Duginian Eurasianism and Russia's Post-Crimean Discourse". *Contemporary Security Policy* 35 (3): 380-399.
- Skocpol, Theda. 1979. *States and Social Revolutions: a comparative analysis of France, Russia, and China*. Cambridge: Cambridge University Press.
- Smith, Graham. 1999. "The Masks of Proteus: Russia, Geopolitical Shift and the New Eurasianism". *Transactions of the Institute of British Geographers* 24 (4): 481-494.
- Sokolsky, Richard. 2017. *The New NATO-Russia Military Balance*. Washington, DC: Carnegie Endowment.
- Solomon, Peter. 2005. "The Reform of Policing in the Russian Federation". *The Australian and New Zealand Journal of Criminology* 38 (2): 230-240.
- Spechler, Dina. 2010. "Russian Foreign Policy during the Putin Presidency". *Problems of Post-Communism* 57 (5): 35-50.
- Spiegelberger, William. 2020. "Meet the New Boss, Same as the Old Boss: Putin 'Changes' the Constitution". *Orbis* 64 (3): 374-389.
- Spruyt, Hendrik. 2017. "War and State Formation: Amending the Bellicist Theory of State Making". In *Does War Make States?*, edited by L. B. Kaspersen and J. Strandsbjerg, 73-97. Cambridge: Cambridge University Press.
- Steen, Anton. 2003. *Political elites and the new Russia: the power basis of Yeltsin's and Putin's regimes*. London: RoutledgeCurzon.
- Steff, Reuben, and Nicholas Khoo. 2014. "Hard Balancing in the Age of American Unipolarity". *Journal of Strategic Studies* 37 (2): 222-258. https://doi.org/10.1080/01402390.2013.866556
- Stoner-Weiss, Kathryn. 1998. *Central Weakness and Provincial Autonomy: The Process of Devolution in Russia*. Princeton: PONARS.
- Taliaferro, Jeffrey, Ripsman, Norrin, and Lobell, Steven. 2016. *Neoclassical Realist Theory of International Politics*. Oxford: Oxford University Press.
- Taliaferro, Jeffrey. 2009. "Neoclassical realism and resource extraction: State building for future war". In *Neoclassical Realism, the State, and Foreign Policy*, edited by J. Taliaferro, N. Ripsman and S. E. Lobell, 194-226. Cambridge: Cambridge University Press.
- Tangredi, Sam. 2013. *Anti-Access Warfare Countering A2/AD Strategies*. Annapolis: Naval Institute Press.
- Taylor, Brian. 2003. *Politics and the Russian Army: Civil-Military Relations*. Cambridge: Cambridge University Press.
- Taylor, Brian. 2011. *State building in Putin's Russia*. New York: Cambridge University Press.

- Tilly, Charles. 1990. *Coercion, Capital, and European States*. Cambridge: Basil Blackwell.
- Umbach, Frank. 2003. "Nuclear versus Conventional Forces: Implications for Russia's Future Military Reform". In *Russian military reform 1992–2002*, edited by A. C. Aldis and R. McDermott, 72-96. London: Frank Cass.
- Van Herpen, Marcel. 2019. *Putin's Wars: The Rise of Russia's New Imperialism*. Washington, DC: Rowman & Littlefield Publishers.
- Veebel, Viljar, and Ploom, Illimar. 2019. "Are the Baltic States and NATO on the right path in deterring Russia in the Baltic?" *Defense & Security Analysis*. doi.org/10.1080/14751798.2019.1675947
- Veebel, Viljar. 2018. "NATO options and dilemmas for deterring Russia in the Baltic States". *Defence Studies* 18 (2): 229-251.
- Volkov, Vadim. 1999. "Violent Entrepreneurship in Post-Communist Russia". *Europe-Asia Studies* 51 (5): 741-754.
- Walt, Stephen. 1987. *The origins of alliances*. Ithaca: Cornell University Press.
- Waltz, Kenneth. 1979. *Theory of International Politics*. New York: McGraw-Hill.
- Westerlund, Fredrik. 2018. "Force or Modernization?". In *Current Russian Military Affairs*, edited by J. Deni, 35-39. Carlisle: SSI.
- White, David. 2018. "State capacity and regime resilience in Putin's Russia". *International Political Science Review* 39 (1): 130-143. doi.org/10.1177/0192512117694481
- Woolf, Amy. 2018. *Conventional Prompt Global Strike and Long-Range Ballistic Missiles*. Washington, DC: Congressional Research Service.
- Zakaria, Fareed. 1998. *From Wealth to Power: The Unusual Origins of America's World Role*. Princeton: Princeton University Press.
- Zyga, Ioanna. 2012. *NATO-Russia Relations and Missile Defense*. Moscow: Carnegie Moscow Center.
- Zysk, Katarzyna. 2020. "Defence innovation and the 4th industrial revolution in Russia". *Journal of Strategic Studies* 44: 543-571. doi.org/10.1080/01402390.2020.1856090