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THESIS

**THE GLOBAL NUCLEAR ORDER IN THE AGE
OF DEMOCRATIC DECLINE: ASSESSING THE
IMPLICATIONS FOR NUCLEAR NON-PROLIFERATION**

by

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December 2023

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ASSESSING THE IMPLICATIONS FOR NUCLEAR NON-PROLIFERATION**

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ABSTRACT

International cooperation and bilateral nuclear agreements have maintained a relatively stable nuclear world order since 1945, successfully limiting the expansion of nuclear weapons from outsized proliferation. However, the global shift toward illiberal and autocratic governance threatens this stability. The rise of autocracy worldwide has eroded liberal democratic values and institutions, resulting in a growing distrust of international institutions. This trend is particularly concerning for nuclear non-proliferation, which requires robust international cooperation to succeed. This thesis highlights the direct impact of democratic backsliding on nuclear non-proliferation efforts, connecting democratization with cooperation and compliance. It underscores the importance of international institutions and agreements, such as the International Atomic Energy Agency, in maintaining nuclear order and preventing proliferation. Ultimately, this research finds that domestic politics and regime type are tied to cooperation with the nuclear non-proliferation regime and nuclear norms, demonstrating how the global shift toward illiberal governance poses significant challenges to the liberal international order and the maintenance of nuclear non-proliferation.

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LIST OF ACRONYMS AND ABBREVIATIONS

ABM	Anti-Ballistic Missile Treaty
BRICS	Brazil, Russia, India, China, South Africa
CSA	Comprehensive Safeguards Agreement
CTBT	Comprehensive Test Ban Treaty
GATT	General Agreement on Tariffs and Trade
HEU	highly enriched uranium
IAEA	International Atomic Energy Agency
ICJ	International Court of Justice
IMF	International Monetary Fund
INF	Intermediate-Range Forces Treaty
LEU	low-enriched uranium
MTCR	Missile Technology Control Regime
NSG	Nuclear Supplier Group
NWFZ	nuclear weapon free zone
NWS	nuclear weapon state
NNWS	non-nuclear weapon state
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
SALT	Strategic Arms Limitation Treaty
SORT	Strategic Offensive Reductions Treaty
START	Strategic Arms Reduction Treaty
TTBT	Threshold Test Ban Treaty
V-Dem	Varieties of Democracy

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I. INTRODUCTION

In April 1945, Secretary of War Henry Stimson briefed President Harry Truman on the atomic weapon, soon to be completed in the Nevada desert, just two weeks after Truman assumed office. He succinctly summarized the most pressing information the new president needed to know about the weapon, the technology and knowledge it harnessed, and the possibility that the atomic bomb could overturn the world order. On the subject of international atomic arms control, Stimson was blunt:

No system of control heretofore considered would be adequate to control this menace. Both inside any particular country and between the nations of the world, the control of this weapon will undoubtedly be a matter of the greatest difficulty and would involve such thoroughgoing rights of inspection and internal controls as we have never theretofore contemplated.¹

Stimson's assessment reflected the robust early debates within the American government and among the scientists employed by the Manhattan Project about what should be done with atomic weapon technology after the end of World War II. Essentially, these policy discussions amounted to the first considerations of a post-war nuclear order. Leaders within the Roosevelt and Truman administrations, prominent civilians, and many of the nuclear scientists involved in the atomic project believed that nuclear weapons should be turned over to international control in order to guarantee a world order that could contain the threat posed by nuclear-armed sovereign states.² The newly formed United Nations seemed the ideal organization to take on this global peacekeeping mission.³

¹ Henry L. Stimson, "The Decision to Use the Atomic Bomb," *Harper's Magazine* (New York, N.Y., United States: Harper, February 1, 1947), <https://harpers.org/archive/1947/02/the-decision-to-use-the-atomic-bomb/>.

² Campbell Craig and Sergey Radchenko, *The Atomic Bomb and the Origins of the Cold War* (New Haven, Connecticut: Yale University Press, 2008); Ryan A. Musto, "'Atoms for Police': The United States and the Dream of a Nuclear-Armed United Nations, 1945–62," Nuclear Proliferation International History Project (Wilson Center, October 2020), <https://www.wilsoncenter.org/publication/atoms-police-united-states-and-dream-nuclear-armed-united-nations-1945-62>.

³ Craig and Radchenko, *The Atomic Bomb and the Origins of the Cold War*, 135–36; Musto, "'Atoms for Police,'" 7–9; "Einstein Urges World Government For Atomic Control to Avoid War; Give Bomb's Secret Not to UNO or Russia but to Body Set Up With Soviet Aid, He Says, to Bar 'Far Greater Evil,'" *The New York Times*, October 27, 1945, <https://www.nytimes.com/1945/10/27/archives/einstein-urges-world-government-for-atomic-control-to-avoid-war.html>.

Unbeknownst to those fretting over the implications of America's next steps, the first non-proliferation failure had already occurred. A young scientist named Klaus Fuchs, among others, transmitted information about the American atomic weapon program to the Soviet Union. With this information, the Soviets developed and tested a nuclear weapon in 1949—far sooner than the United States had anticipated.⁴

Despite numerous pushes for international control over nuclear weapons, each initiative failed. The United Nations Atomic Energy Commission was founded by the very first resolution of the United Nations in 1946, but none of the proposed plans to create meaningful oversight had passed.⁵ Once the Soviets completed their test in 1949, efforts began anew to conceptualize an international order to address the issues and risks associated with nuclear technology.⁶ Another UN commission, the Disarmament Commission, was formed in 1952, but accomplished nothing substantial. President Dwight Eisenhower's "Atoms for Peace" initiative would prove to be the first effort toward order and nonproliferation to move beyond the proposal stage, but it would not be the last.⁷

Nuclear proliferation remained a matter of pressing concern, particularly among the existing nuclear powers. In March 1963, President John F. Kennedy remarked, "personally I am haunted by the feeling that by 1970, unless we are successful, there may be ten nuclear powers instead of four, and by 1975, 15 or 20."⁸ The very next year, China tested its first nuclear weapon, bringing the total nuclear-armed powers to five. International efforts continued, however, and in 1968, the Treaty on the Non-Proliferation of Nuclear Weapons (commonly known as the Non-Proliferation Treaty or NPT) opened for signatures. Since

⁴ U.S. Department of Energy, "Manhattan Project: Espionage and the Manhattan Project, 1940–1945," Government, U.S. Department of Energy, accessed August 10, 2023, <https://www.osti.gov/opennet/manhattan-project-history/Events/1942-1945/espionage.htm>.

⁵ David Holloway, "The Soviet Union and the Baruch Plan," *Sources and Methods* (blog), June 11, 2020, <https://www.wilsoncenter.org/blog-post/soviet-union-and-baruch-plan>; Craig and Radchenko, *The Atomic Bomb and the Origins of the Cold War*, 127.

⁶ Sara Z. Kutchesfahani, "Three Phases of the Global Nuclear Order/Disorder Paradigm," in *Global Nuclear Order* (Routledge, 2018), 38.

⁷ Kutchesfahani, 40–41.

⁸ John F. Kennedy, The President's News Conference | The American Presidency Project, March 21, 1963, <https://www.presidency.ucsb.edu/node/237077>.

going into effect in 1970, with 43 nations initially agreeing to ratification, the NPT has grown to include 190 nations that ratified or acceded to the treaty. From 1970 to today, just five additional states (India, Israel, South Africa, Pakistan, and North Korea) have produced nuclear weapons, and only four of the five possess nuclear weapons as of 2023.⁹

A. CONTAINING THE MENACE

Maintaining a successful nonproliferation regime requires, in all aspects, international cooperation. According to the Nuclear Threat Initiative, “The nuclear nonproliferation regime is a broad international framework of agreements and organizations aimed at preventing the spread of nuclear weapons and contributing to arms control and disarmament progress.”¹⁰ There are layers of effort: diplomacy, international agreements, economic incentives and disincentives, limitations on sensitive technology and equipment, inspection regimes, nuclear fuel cycle controls, and more.¹¹ At most of these levels, there is little hope for success without a coordinated, multilateral approach.

For the entire history of nuclear weapons, the international system overseeing this regime has been the liberal order originally conceived by two democratic states (the United States and the United Kingdom) to be a rules-based order with democratic representation for all states—democracies and non-democracies alike.¹² As a result, democracies, despite being vastly outnumbered by more illiberal regimes, had an outsized impact on the formation of the new world order. The strengthening of the liberal international order and the rise in democratic states around the world occurred in parallel.¹³ Because this system is all that has ever governed nuclear weapons, there is simply no way of knowing what will happen if the rules

⁹ “Timeline of the Nuclear Nonproliferation Treaty (NPT),” Arms Control Association, August 2022, <https://www.armscontrol.org/factsheets/NPT-Timeline>.

¹⁰ Nuclear Threat Initiative, “The Nonproliferation Regime,” Nuclear Threat Initiative, 2023, <https://tutorials.nti.org/nonproliferation-regime-tutorial/nti-nuclear-nonproliferation-regime-treaties-by-country/>.

¹¹ Nuclear Threat Initiative.

¹² Hans Kundnani, “What Is the Liberal International Order?” (German Marshall Fund of the United States, 2017), 3, <https://www.jstor.org/stable/resrep18909>.

¹³ Kundnani, 2; G. John Ikenberry, “Liberal Internationalism 3.0: America and the Dilemmas of Liberal World Order,” *Perspectives on Politics* 7, no. 1 (2009): 71, <https://www.jstor.org/stable/40407217>.

and norms of the nonproliferation regime are abandoned. It is believed that, in accordance with probability theory, nuclear war becomes inevitable given enough time, unless measures are continuously taken to reduce its likelihood.¹⁴

B. RESEARCH QUESTION

Amid the worldwide trend of democratic backsliding, how are shifting national politics affecting nuclear nonproliferation? This thesis examines the extent to which shifting internal state politics alters state behavior toward the existing international relations paradigm and thus affects the norms vis-à-vis nuclear weapons and nonproliferation.

C. SIGNIFICANCE OF THE RESEARCH QUESTION

International interactions and the norms that define the world order are complex and multifaceted. Given the magnitude and consequence of international stability on the well-being of individual states and the larger global citizenry, it is in the best interests of humanity's future to understand the nuclear order, how the international order reinforces or weakens it, and the role of domestic political considerations in influencing both.

Therefore, it is important to assess the trends in state governance and international cooperation in relation to the strength of the nuclear nonproliferation regime. Since 2006, the world has experienced a gradual but unmistakable decline in freedom and democracy.¹⁵ Liberal democracy is not just stalling; it is regressing. Illiberal parties have gained ground across a wide array of weak and strong democracies, upending the norms and institutions that lay the foundation of liberal democracy.¹⁶ Often, this decline occurs surreptitiously, using

¹⁴ Dagobert L. Brito and Michael D. Intriligator, "Proliferation and the Probability of War: A Cardinality Theorem," *The Journal of Conflict Resolution* 40, no. 1 (1996): 206–14, <https://www.jstor.org.libproxy.nps.edu:2048/stable/174452>; David O. Siegmund, "Probability Theory," *Britannica*, October 22, 2023, <https://www.britannica.com/science/probability-theory>.

¹⁵ Sarah Repucci and Amy Slipowitz, "Democracy under Siege," *Freedom in the World* (Freedom House, 2021), <https://freedomhouse.org/report/freedom-world/2021/democracy-under-siege>.

¹⁶ Andrea L. P. Pirro and Ben Stanley, "Forging, Bending, and Breaking: Enacting the 'Illiberal Playbook' in Hungary and Poland," *Perspectives on Politics* 20, no. 1 (March 2022): 86–101, <https://doi.org/10.1017/S1537592721001924>; Anna Lührmann and Staffan I. Lindberg, "A Third Wave of Autocratization Is Here: What Is New about It?," *Democratization* 26, no. 7 (October 3, 2019): 1095–1113, <https://doi.org/10.1080/13510347.2019.1582029>.

democracy itself to undermine liberal values, reduce election competition, and consolidate power within the executive.¹⁷

While the root causes of rising illiberalism and increased autocracy are specific to the countries experiencing them, there are crucial common threads. Nationalist and populist political movements are on the rise across the globe, and are strongly correlated with democratic backsliding, particularly in wealthy countries.¹⁸ Of further concern, populist and nationalist leaders seem to disregard nuclear norms in ways unseen since the start of the nuclear age.¹⁹ While political blustering is often no more than a show, rhetoric matters more when those blustering possess the capability to threaten the lives of millions. Simultaneously, more and more pundits and experts are expressing concerns for the nonproliferation regime and the nuclear order in general.²⁰

¹⁷ Lührmann and Lindberg, “A Third Wave of Autocratization Is Here.”

¹⁸ See: Florian Bieber, “Is Nationalism on the Rise? Assessing Global Trends,” *Ethnopolitics* 17, no. 5 (October 20, 2018): 519–40, <https://doi.org/10.1080/17449057.2018.1532633>; William A. Galston, “The Populist Challenge to Liberal Democracy,” *Journal of Democracy* 29, no. 2 (2018): 5–19, <https://doi.org/10.1353/jod.2018.0020>; Oliver Meier and Maren Vieluf, “Upsetting the Nuclear Order: How the Rise of Nationalist Populism Increases Nuclear Dangers,” *The Nonproliferation Review* 28, no. 1–3 (June 1, 2021): 13–35, <https://doi.org/10.1080/10736700.2020.1864932>.

¹⁹ Gene Gerzhoy and Nicholas Miller, “Donald Trump Thinks More Countries Should Have Nuclear Weapons. Here’s What the Research Says,” *Washington Post*, December 7, 2021, <https://www.washingtonpost.com/news/monkey-cage/wp/2016/04/06/should-more-countries-have-nuclear-weapons-donald-trump-thinks-so/>; Donald J. Trump [@realDonaldTrump], “North Korean Leader Kim Jong Un Just Stated That the ‘Nuclear Button Is on His Desk at All Times.’ Will Someone from His Depleted and Food Starved Regime Please Inform Him That I Too Have a Nuclear Button, but It Is a Much Bigger & More Powerful One than His, and My Button Works!,” Tweet, *Twitter*, January 3, 2018, <https://twitter.com/realDonaldTrump/status/948355557022420992>; John Mecklin, “Taking Erdogan’s Critique of the Nuclear Non-Proliferation Treaty Seriously,” *Bulletin of the Atomic Scientists* (blog), November 14, 2019, <https://thebulletin.org/2019/11/taking-erdogans-critique-of-the-nuclear-non-proliferation-treaty-seriously/>.

²⁰ Michael O’Hanlon et al., “Experts Assess the Nuclear Non-Proliferation Treaty, 50 Years after It Went into Effect,” Think Tank Commentary, Brookings, March 3, 2020, <https://www.brookings.edu/articles/experts-assess-the-nuclear-non-proliferation-treaty-50-years-after-it-went-into-effect/>; Rebecca Davis Gibbons and Stephen Herzog, “Durable Institution under Fire? The NPT Confronts Emerging Multipolarity,” *Contemporary Security Policy* 43, no. 1 (January 2, 2022): 50–79, <https://doi.org/10.1080/13523260.2021.1998294>; Manseok Lee and Michael Nacht, “Challenges to the Nuclear Non-Proliferation Treaty,” *Strategic Studies Quarterly*, Fall 2020, 95–120; Daniel M. Gerstein, “Could Putin’s Speech Signal the Erosion of Nuclear Nonproliferation?,” March 7, 2018, <https://www.rand.org/blog/2018/03/could-putins-speech-signal-the-erosion-of-nuclear-nonproliferation.html>.

D. LITERATURE REVIEW

There is extensive relevant literature on the separate topics of democratic backsliding, the liberal international order and its perceived strength, and nuclear nonproliferation. This literature is the foundational work on which this thesis is built. Less well-documented are the connections between these three topics. These connections are the areas where this thesis will aim to add to the conversation.

1. Democratic Backsliding

Democratic backsliding is a phenomenon that refers to the gradual erosion of democratic institutions, norms, and values within a democratic state. This topic has attracted significant attention in the past five years, leading to a vast wealth of analysis and opinions on its root causes and likely outcomes.²¹

The evidence suggests that, while some scholars are hesitant to consider democratic backsliding a global trend, most agree that some sort of decline, variously termed “backsliding,” “regression,” “erosion,” or “decay,” is occurring globally.²² Luhmann and Lindberg produced a central paper arguing that a third wave of autocratization is underway, while Lust and Waldner attempted to define and measure the phenomenon of backsliding.²³ A seminal examination by Roberto Stefan Foa and Yascha Mounk, addresses this topic under

²¹ See, for example: Dani Rodrik, “Why Does Globalization Fuel Populism? Economics, Culture, and the Rise of Right-Wing Populism,” *Annual Review of Economics* 13, no. 1 (August 2021): 133–70, <https://doi.org/10.1146/annurev-economics-070220-032416>; Haemin Jee, Hans Lueders, and Rachel Myrick, “Towards a Unified Approach to Research on Democratic Backsliding,” *Democratization* 29, no. 4 (May 19, 2022): 754–67, <https://doi.org/10.1080/13510347.2021.2010709>; Yunus Emre Orhan, “The Relationship between Affective Polarization and Democratic Backsliding: Comparative Evidence,” *Democratization* 29, no. 4 (May 19, 2022): 714–35, <https://doi.org/10.1080/13510347.2021.2008912>.

²² David Waldner and Ellen Lust, “Unwelcome Change: Coming to Terms with Democratic Backsliding,” *Annual Review of Political Science* 21, no. 1 (May 11, 2018): 93–113, <https://doi.org/10.1146/annurev-polisci-050517-114628>; Larry Diamond, “Democratic Regression in Comparative Perspective: Scope, Methods, and Causes,” *Democratization* 28, no. 1 (January 2, 2021): 22–42, <https://doi.org/10.1080/13510347.2020.1807517>.

²³ Lührmann and Lindberg, “A Third Wave of Autocratization Is Here”; Waldner and Lust, “Unwelcome Change.”

the label of “democratic deconsolidation.”²⁴ Just one report, by Little and Meng, claimed that based on “subjective and objective” measurements, democracy remains stable.²⁵

Accepting that some form of democratic regression is occurring, scholars’ and analysts’ central argument is that democratic backsliding poses a significant threat to the liberal world order. For example, Levitsky and Ziblatt argue that the erosion of democratic norms and institutions may create a “domino effect” that can spread to other countries, leading to a decline in the quality of democracy and a rise in authoritarianism.²⁶ Bermeo similarly argues that democratic backsliding could create a ripple effect that can undermine the stability of democratic regimes and weaken the liberal international order.²⁷

Foa and Mounk define “democratic deconsolidation” as the erosion of citizens’ support for democracy and democratic institutions.²⁸ The authors argue that this trend seriously threatens the stability and longevity of established democratic systems, as it can lead to the rise of anti-democratic forces and the weakening of democratic norms and values.²⁹ They cite data from the World Values Survey, which shows a decline in the percentage of citizens who consider democracy to be a “very good” or “fairly good” system of government.³⁰ This decline is particularly pronounced among younger generations and those who are less educated, perhaps indicating that inexperience with other forms of government and their shortcomings influences a cynical view of democracy.

The impact of democratic backsliding on the liberal Western world order is reflected in the findings of empirical studies. The Varieties of Democracy (V-Dem) dataset, which

²⁴ Roberto Stefan Foa and Yascha Mounk, “The Democratic Disconnect,” *Journal of Democracy* 27, no. 3 (2016): 5–17, <https://doi.org/10.1353/jod.2016.0049>.

²⁵ Andrew Little and Anne Meng, “Subjective and Objective Measurement of Democratic Backsliding,” *SSRN Electronic Journal*, 2023, <https://doi.org/10.2139/ssrn.4327307>.

²⁶ Steven Levitsky and Daniel Ziblatt, *How Democracies Die*, First edition (New York: Crown, 2018).

²⁷ Nancy Bermeo, “On Democratic Backsliding,” *Journal of Democracy* 27, no. 1 (2016): 5–19, <https://doi.org/10.1353/jod.2016.0012>.

²⁸ Foa and Mounk, “The Democratic Disconnect.”

²⁹ Foa and Mounk.

³⁰ Foa and Mounk.

tracks the state of democracy worldwide, shows that the quality of democracy has been declining in many countries, including some Western liberal democracies.³¹ Diamond uses V-Dem and Freedom House data to demonstrate that the ratio of worldwide democratic gains to declines has dropped precipitously since 2006.³² He states, “The ratio of countries gaining in freedom to the number declining in freedom...fell to about parity in 2006, but has been only about 50 percent–70 percent every year since—exactly reversing the pattern for the fifteen years (1991–2005) following the demise of the Soviet Union.” Carothers and O’Donohue argue that the rise of polarization and the erosion of democratic norms in Western democracies have led to a decrease in public trust in institutions and a rise in populism and authoritarianism.³³

Another way in which democratic backsliding is affecting the liberal international order is through the actions of authoritarian states seeking to undermine democratic norms and institutions in Western democracies. Diamond argues that Russia and China are actively promoting their authoritarian models and working to undermine democracy in Western countries through various tactics, including disinformation campaigns, cyberattacks, and economic leverage.³⁴ These methods are used to compromise institutions and undermine liberal democratic values.³⁵

2. Liberal International Order

Opinions on the liberal international order range from those who challenge whether it ever existed to those who believe it is responsible for the world order since World War II. Among realist theorists like John Mearsheimer, the end of the liberal international order was inevitable from its start, as states always prioritize their own security and interests. Since the

³¹ Evie Papada and Staffan I. Lindberg, “Democracy Report 2023: Defiance in the Face of Autocratization,” *Varieties of Democracy* (Gothenburg, Sweden: University of Gothenburg, 2023), <https://www.v-dem.net/>.

³² Diamond, “Democratic Regression in Comparative Perspective.”

³³ Thomas Carothers and Andrew O’Donohue, eds., *Democracies Divided: The Global Challenge of Political Polarization* (Washington, D.C.: Brookings Institution Press, 2019).

³⁴ Diamond, “Democratic Regression in Comparative Perspective.”

³⁵ Diamond.

liberal international order requires relinquishing some sovereignty to the international system, Mearsheimer argues, it was bound to clash with state sovereignty and nationalist movements.³⁶ He further contends that the liberal international order did not exist until the fall of the Soviet Union, starting in 1990.³⁷ While acknowledging the existence of the liberal international order, Mehmetcik claims that it is “neither liberal, nor international, nor order.” However, he recognizes that the current world order faces both intrinsic (populist) and extrinsic (rising powers) challenges that will continue to influence the international scene.³⁸

The current state of the international order and its institutions is an area of significant concern for those who believe that the liberal international order, in some form or another, exists. Robert O. Keohane explores why states engage in such cooperation, the functions these institutions serve, and the potential costs of devaluing or destroying them.³⁹ Keohane’s analysis finds that multilateral institutions are important elements in the establishment of policy, security, and welfare, as well as critical sites for interstate discourse.⁴⁰ In much the same vein, G. John Ikenberry suggests that the existing order, characterized by open markets, international institutions, cooperative security, democratic community, progressive change, and rule of law, is under threat.⁴¹ Ikenberry analyzes the challenges posed by non-Western rising powers, the resurgence of Russia, and the populist movements in Western societies. He suggests that these challenges could lead to a fundamental restructuring of the liberal international order.⁴² Both Keohane and Ikenberry engage with the notion that the

³⁶ John J. Mearsheimer, “Bound to Fail: The Rise and Fall of the Liberal International Order,” *International Security* 43, no. 4 (April 2019): 7–50, https://doi.org/10.1162/isec_a_00342.

³⁷ Mearsheimer.

³⁸ Hakan Mehmetcik, “Introduction: Neither Liberal nor International nor Order,” *Rising Powers Quarterly* 4, no. 1 (August 2019): 7–17, <https://risingpowersproject.com/neither-liberal-nor-international-nor-order/>.

³⁹ Robert O. Keohane, “Understanding Multilateral Institutions in Easy and Hard Times,” *Annual Review of Political Science* 23, no. 1 (May 11, 2020): 1–18, <https://doi.org/10.1146/annurev-polisci-050918-042625>.

⁴⁰ Keohane.

⁴¹ G. John Ikenberry, “The End of Liberal International Order?,” *International Affairs* 94, no. 1 (January 1, 2018): 7–23, <https://doi.org/10.1093/ia/iix241>.

⁴² Ikenberry.

international order is in a state of flux, influenced significantly by the rise of populism and shifts in global power dynamics.

Shai Dothan posits that while democracies are generally more inclined to adhere to international law, they tend to eschew compliance when other states, particularly autocracies, violate these laws. International law serves as a mechanism for state cooperation in a system where cooperation is beneficial but not evolutionarily stable. This transmissibility means that when an autocracy chooses to defy international law, democracies may follow suit in response, leading to a cascade of law violations.⁴³

3. Non-Proliferation

Scholars have studied nuclear nonproliferation through various international relations lenses, including realism, liberalism, and constructivism. Unsurprisingly, the result is divergent beliefs on the motivations behind successful nonproliferation efforts. Debs and Monteiro suggest in their review of nonproliferation literature that the scholarship has occurred in three waves.⁴⁴ In the first wave, realists like Mearsheimer argued that nuclear proliferation is solely a function of security concerns. In this view, states are more or less likely to proliferate based on their external threats or the perception thereof.⁴⁵ Mearsheimer's attempt at predictions of the post-Cold War world led him to state, "I am pessimistic that proliferation can be well managed. The members of the nuclear club are likely to resist proliferation, but they cannot easily manage this tricky process while at the same time resisting it."⁴⁶ His (unrealized) fear was the dissolution of NATO with the ending of the Cold War,

⁴³ Shai Dothan, "Violating International Law Is Contagious," *Chicago Journal of International Law* 23, no. 1 (Summer 2022): 79–89, <https://www.proquest.com/docview/2724713287/abstract/31F48E0AEF904CDPQ/1>.

⁴⁴ Alexandre Debs and Nuno P. Monteiro, "Conflict and Cooperation on Nuclear Nonproliferation," *Annual Review of Political Science* 20, no. 1 (May 11, 2017): 331–49, <https://doi.org/10.1146/annurev-polisci-051215-022839>.

⁴⁵ John J. Mearsheimer, "Why We Will Soon Miss the Cold War," *The Atlantic* (Boston: Atlantic Media, Inc., August 1990), 223113977; 00639088, ProQuest Central, <https://libproxy.nps.edu/login?url=https://www.proquest.com/magazines/why-we-will-soon-miss-cold-war/docview/223113977/se-2?accountid=12702>; Bradley A. Thayer, "The Causes of Nuclear Proliferation and the Utility of the Nuclear Non-Proliferation Regime," *Security Studies* 4, no. 3 (March 1995): 463–519, <https://doi.org/10.1080/09636419509347592>.

⁴⁶ Mearsheimer, "Why We Will Soon Miss the Cold War."

and a resultant scramble for nuclear weapons within Europe. Realist theories fail to fully explain state behavior during the last 30 years, where only three states have tested nuclear weapons, none of them European.

The second wave, promulgated by liberal theorists and constructivists, considers the non-security drivers of nuclear demand. According to Hymans, political leaders and their perception of national identity increase the likelihood of nuclear proliferation, a position backed by O'Reilly, who states, "How a leader views the persistence and likelihood of conflict directly influences their use of power and the strategies necessary to achieve one's goals... These perceptions, combined with a leader's strategic preferences to dominate, settle, deadlock, or submit, generate an individualized context for the use of power in pursuit of one's goals."⁴⁷ The implications for a "human systems" concept are significant in the context of rising illiberal leaders around the world. The implications are even more pronounced considering the argument, advanced by Rublee, that the international norms surrounding nuclear acquisition have slowed down proliferation.⁴⁸ Illiberal strongman, willing to forgo the norms of democracy within their own countries, are not likely to respect international norms and boundaries of behavior.

The third wave introduces more quantitative assessments of nuclear proliferation correlates; however, these studies provide occasionally contradictory findings. Still, the works produced by Singh and Way and Jo and Gartzke are informative for variable relationships to the likelihood of proliferation.⁴⁹ Singh and Way find that "the security environment has not just a statistically significant but, more importantly, a substantively significant effect on decision to explore nuclear weapons acquisition," and that "the process of economic

⁴⁷ Jacques E. C. Hymans, *The Psychology of Nuclear Proliferation: Identity, Emotions and Foreign Policy*, 1st ed. (Cambridge University Press, 2006), <https://doi.org/10.1017/CBO9780511491412>; K. P. O'Reilly, *Nuclear Proliferation and the Psychology of Political Leadership: Beliefs, Motivations and Perceptions*, Routledge Global Security Studies (London; New York, NY: Routledge, 2015), 31.

⁴⁸ Maria Rost Rublee, *Nonproliferation Norms: Why States Choose Nuclear Restraint* (Athens, GA: University of Georgia Press, 2009), <http://ebookcentral.proquest.com/lib/ebook-nps/detail.action?docID=3038823>.

⁴⁹ Dong-Joon Jo and Erik Gartzke, "Determinants of Nuclear Weapons Proliferation," *Journal of Conflict Resolution* 51, no. 1 (February 2007): 167–94, <https://doi.org/10.1177/0022002706296158>; Sonali Singh and Christopher R. Way, "The Correlates of Nuclear Proliferation: A Quantitative Test," *The Journal of Conflict Resolution* 48, no. 6 (2004): 859–85, <https://www.jstor.org/stable/4149798>.

liberalization is associated with reduced likelihood of exploring nuclear weapons.”⁵⁰ Meanwhile Jo and Gartzke state that, “security concerns and technological capabilities are important determinants of whether states form nuclear weapons programs, while security concerns, economic capabilities, and domestic politics help to explain the possession of nuclear weapons.”⁵¹

E. POTENTIAL EXPLANATIONS AND HYPOTHESES

The existing literature does not identify a singular, comprehensive hypothesis linking democratic backsliding, the liberal international order’s stability, and nuclear nonproliferation. However, three predominant themes have crystallized from the existing body of work.

First, there is a noticeable transition from generalized democratic growth to a democratic retreat characterized by turbulent internal political dynamics, national responses to globalism, and disaffection with the elite status quo. Second, the growing influence of authoritarian states in the international arena presents a challenge to the established order and nonproliferation norms. Third, realists contend that to whatever extent an international order existed, it could not comprehensively alter the anarchical international system. In this view, regime types are irrelevant, and states will always act in their own self-interests; therefore, national politics and democratic backsliding are not significant to the international system.

The research recognizes that while much of the existing scholarship, save for realist perspectives, identifies the challenges posed by democratic backsliding to the international order and nonproliferation, it falls short of providing a definitive strategy to address these interconnected issues. This thesis endeavors to fill the gap by assessing how the interrelation between these factors can be navigated to bolster the nonproliferation regime in the face of evolving global power dynamics. The hypotheses will be explored through a multi-dimensional analysis that considers the internal political shifts within states, the changing nature of the international order, and the evolving landscape of nuclear nonproliferation.

⁵⁰ Singh and Way, “The Correlates of Nuclear Proliferation,” 876.

⁵¹ Jo and Gartzke, “Determinants of Nuclear Weapons Proliferation,” 167.

F. RESEARCH DESIGN

This thesis incorporates quantitative and qualitative approaches to comprehensively analyze the impact of shifting national politics on the international order and its implications for nuclear nonproliferation. Quantitative data will be analyzed to understand the changing international balance of power. This analysis will involve examining relevant indicators of democratic decline, such as changes in electoral integrity, civil liberties, and political rights, using the existing Varieties of Democracy dataset. For the purposes of comparing regime-type behavior, this thesis will reference four broad categories: liberal democracy, electoral democracy, electoral autocracy, and closed autocracy (electoral democracy and electoral autocracy may also collectively be referred to as “hybrid regimes”). As defined by V-Dem, these categories respectively represent states with free and fair elections and civil liberties, states with free and fair elections and satisfactory degrees of civil liberties, states with elections that may not be free or fair and insufficient levels of protection for civil liberties and, finally, states with no multiparty elections and an absence of basic civil liberties.⁵² This data is significant because it encapsulates the degree to which democracy, specifically liberal democracy, has receded from the international scene.

Qualitative analysis will complement the quantitative data by conducting case studies on Brazil from the 1980s to the present and the USSR/Russia from Mikhail Gorbachev to Vladimir Putin. These case studies aim to explore the context, causes, and consequences of democratic backsliding, providing in-depth insights into the dynamics of shifting national politics and their impact on cooperation with the international nonproliferation regime. These case studies were selected to capture the effects of democratic liberalization, in the case of Brazil and the late Soviet regime and early Russian democracy, as well as democratic deconsolidation, as in Russia during the Putin era, on the nuclear nonproliferation regime.

G. THESIS OVERVIEW

The first chapter introduces the research topic, providing background information on the start of the nuclear proliferation concern and the global trend of democratic backsliding. I

⁵² Papada and Lindberg, “Democracy Report 2023.”

explain the significance of studying the impact of shifting national politics on the international order, particularly regarding nuclear nonproliferation. I then review the pertinent literature on the critical topics covered in this thesis, the potential explanations, and the thesis organization.

Chapter II focuses on the international order and its relationship to the nuclear order. First, I demonstrate the connection between the international order and liberal and democratic norms. Next, I highlight the role of international institutions and connect the liberal international order to the nuclear order. These steps build the case to show how the multilateral cooperation inherent to the liberal international order is the foundation for successful nonproliferation efforts. To do so, I establish the overall success of the current nuclear order in preventing massive proliferation.

Chapter III examines the role of democracy in the international order, analyzes the factors influencing proliferation, and briefly reviews the evidence that democracies comply with international law more often than autocracies. I then tackle the evidence for democratic backsliding and growing illiberalism worldwide.

In Chapter IV, I delve into the core of the research question by exploring the interplay between shifting national politics, international order, and nuclear nonproliferation efforts in the context of the Brazil and USSR/Russia case studies. I demonstrate the connection between Brazilian alignment with the nonproliferation regime and its move toward democracy to understand the relationship between regime type, behavior toward the international order, and compliance with nuclear norms. I further examine how the former Soviet Union and then Russia navigated liberalization and democratization, how these changes influenced its role in the nuclear nonproliferation regime, and how its reversion to autocracy has affected that role.

The fifth and final chapter serves as a comprehensive conclusion to the thesis. I will review the essential findings and insights obtained throughout the research, emphasizing the implications of shifting national politics on the international order and nuclear nonproliferation. Finally, I highlight the significance of this research and call for further exploration in safeguarding nonproliferation efforts amidst the challenges of democratic backsliding.

II. FUSION OF FATES: THE INTERNATIONAL ORDER AND THE NUCLEAR ORDER

This chapter examines the link between the liberal international order and the nuclear order today. It starts by establishing the foundation of the international governing framework supporting these constructs and underscores the role of international institutions, like the United Nations, in shaping the world order. The chapter further demonstrates the foundational role of liberal democratic principles in these institutions. Following this, the chapter delves into the specifics of the nuclear order, focusing on key elements such as the International Atomic Energy Agency (IAEA), treaties, agreements, and export control regimes. Through empirical evidence, I highlight the substantial achievements of the nuclear order, demonstrating its effectiveness in maintaining international stability. The analysis underscores that the survival of both the liberal international order and the nuclear order hinges on active multilateral cooperation.

A. THE NEW WORLD ORDER

The dawn of the nuclear age coincided with the sunset of the British Empire and the transition of its great power mantle to the United States. Britain had long led the world as the richest and most influential nation worldwide, its naval forces dominant, its flag planted around the world in faraway colonies. Britain seemed ascendant in the closing years of the 19th century.⁵³ Then, the maladroit European balance of power faltered, leading to the successive World Wars and the end of the British world order.⁵⁴

Intimately aware that American supremacy was preferable to a German victory and reliant on U.S. assistance through lend-lease, Britain acquiesced, in some cases very reluctantly, as the United States quickly disposed of the previous international norms and

⁵³ See: Walter Russell Mead, *Special Providence: American Foreign Policy and How It Changed the World* (New York: Knopf, 2013).

⁵⁴ Gordon Alexander Craig and Alexander L. George, *Force and Statecraft: Diplomatic Problems of Our Time* (New York: Oxford University Press, 1983).

remade them to fit its preferences.⁵⁵ Relatively unscathed from World War II, resource-rich, and technologically advanced, the United States was uniquely positioned to establish a newly interconnected world order with aspirations that an international rule-based system would ensure peace and economic growth.⁵⁶ Imperfect in formation and execution, the system's flaws are often glaring and irreconcilable. However, this international order provided opportunities for deconfliction and negotiation when tensions between states overflowed.⁵⁷ In the age of the United Nations, more people have basic human rights than at any other time in history.⁵⁸ Once the centerpiece of constant interstate warfare, Europe did not see a war between states for nearly 80 years. And, through international agreement, the single most powerful weapon in the history of man has been limited to a small number of states and rejected as a legitimate form of offensive warfare.⁵⁹

B. THE INTERNATIONAL GOVERNING FRAMEWORK

Perhaps the single most critical development of the American world order is its international institutions.⁶⁰ Begun before the end of World War II, this structure started with the Atlantic Charter in 1941.⁶¹ This joint declaration by British Prime Minister Winston

⁵⁵ Mead, *Special Providence*.

⁵⁶ Mead.

⁵⁷ Scott D. Pauls and Skyler J. Cranmer, "Affinity Communities in United Nations Voting: Implications for Democracy, Cooperation, and Conflict," *Physica A: Statistical Mechanics and Its Applications* 484 (October 15, 2017): 428–39, <https://doi.org/10.1016/j.physa.2017.04.177>.

⁵⁸ Bastian Herre, Pablo Arriagada, and Max Roser, "Human Rights," *Our World in Data*, September 25, 2023, <https://ourworldindata.org/human-rights>.

⁵⁹ Robert F Turner, "Nuclear Weapons and the World Court: The ICJ's Advisory Opinion and Its Significance for U.S. Strategic Doctrine," ed. Michael Schmidt, *International Law Studies* 72 (1998).

⁶⁰ Keohane, "Understanding Multilateral Institutions in Easy and Hard Times"; Robert O. Keohane, *After Hegemony: Cooperation and Discord in the World Political Economy*, 1st Princeton classic ed, A Princeton Classic Edition (Princeton, N.J.: Princeton University Press, 2005); Stephen G. Brooks and William C. Wohlforth, "Institutionalism and the Constraint of Reputation," in *World Out of Balance*, International Relations and the Challenge of American Primacy (Princeton University Press, 2008), 148–70, <https://www.jstor.org/stable/j.ctt7sxgh.10>; Harold K. Jacobson, "International Institutions and System Transformation," *Annual Review of Political Science* 3, no. 1 (June 2000): 149–66, <https://doi.org/10.1146/annurev.polisci.3.1.149>.

⁶¹ Julius Stone, "Peace Planning and the Atlantic Charter," *The Australian Quarterly* 14, no. 2 (1942): 5–22, <https://doi.org/10.2307/20631017>.

Churchill and United States President Franklin D. Roosevelt laid out eight principles for the conduct of World War II and its aftermath.⁶² Six months later, 24 additional governments signed on to the charter, naming this new broader agreement the “Declaration by United Nations.”⁶³ These documents fired the opening salvos of the new world order and led directly to a cascade of new international organizations and agreements in the closing years and months of World War II, including the International Monetary Fund (IMF) and the World Bank, as well as the United Nations and its attendant councils.⁶⁴

Although these early efforts were created by a coalition of states with varied political systems, the undeniable normative thread of these organizations relied on the broad acceptance of a liberal, democratic worldview. The UN charter, for example, begins with a familiar turn of phrase in its preamble, “We the Peoples of the United Nations...” then goes on to state support for fundamental human rights, equal rights of men and women, justice and respect for international law, and the promotion of social progress and freedom.⁶⁵ In Article 18, the charter outlines voting procedures within the General Assembly and confers equal voting rights to each member. The very same document creates the International Court of Justice (ICJ), mandates that all UN members are parties to the ICJ statute, and establishes that statute.⁶⁶ The norms of the UN since its inception, therefore, have been support for individual rights, democratic governance, and the rule of law.⁶⁷

⁶² Stone.

⁶³ “Preparatory Years: UN Charter History,” United Nations (United Nations), accessed August 24, 2023, <https://www.un.org/en/about-us/history-of-the-un/preparatory-years>.

⁶⁴ Office of the Historian, “The Formation of the United Nations, 1945,” Government, Department of State, accessed August 18, 2023, <https://history.state.gov/milestones/1937-1945/un>.

⁶⁵ United Nations, “Charter of the United Nations and Statute of the International Court of Justice” (San Francisco, 1945), 1.

⁶⁶ United Nations, 6.

⁶⁷ Christopher C. Joyner, “The United Nations and Democracy,” *Global Governance* 5, no. 3 (1999): 333–57, <https://www.jstor.org.libproxy.nps.edu:2048/stable/27800236>; It’s worth noting that UN democracy promotion accelerated after the end of the Cold War. Starting in 1988, the UN sponsored international conferences for new and restored democracies. Numerous reports to the General Assembly on UN aid to democratizing states followed throughout the 1990s.

The liberal undertone in the international system is not limited to the UN and its many organs, either. The General Agreement on Tariffs and Trade (GATT), agreed to in 1947, redefined the international economy by reducing trade barriers.⁶⁸ Similarly, the Bretton Woods system was negotiated by (mostly) liberal parties to use (mostly) liberal means to attain (actual) liberal ends. While key components of Bretton Woods were dropped (first by the U.S. and then by a later mutual agreement with its other signatories), its two major institutions, the IMF and the World Bank, have continued.⁶⁹ The liberal monetary system and economic order shape the global economy to this day, more than 75 years after their initial inception. These systems created economic interdependence on a scale never before seen in history.⁷⁰ The interconnectedness created by the economic order tethered states' financial fates together—in both helpful and unhelpful ways. For example, economic interaction makes it possible to engage in sanctions to compel compliance with international law.⁷¹ However, it also created a global economic downturn in 2008 based on poor economic policy in the United States.⁷²

C. THE NUCLEAR ORDER

The nuclear order is the set of policies, agreements, and norms that have been created to manage nuclear-related problems, concerns, and objectives.⁷³ The four general areas

⁶⁸ Office of the Historian, “Bretton Woods-GATT, 1941–1947,” Government, Department of State, accessed August 18, 2023, <https://history.state.gov/milestones/1937-1945/bretton-woods>.

⁶⁹ Mark R Brawley, “Globalization/Deglobalization: Lessons from Liberal Monetary Orders,” *International Affairs* 97, no. 5 (September 6, 2021): 1505–20, <https://doi.org/10.1093/ia/iab089>.

⁷⁰ Rodrik, “Why Does Globalization Fuel Populism?”; Paul M. Kennedy, *The Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1500 to 2000* (New York: Random House, 1987).

⁷¹ Etel Solingen, *Sanctions, Statecraft, and Nuclear Proliferation: Sanctions, Inducements, and Collective Action* (Cambridge, UK: Cambridge University Press, 2012), <http://ebookcentral.proquest.com/lib/ebook-nps/detail.action?docID=866902>; Byungwon Woo and Daniel Verdier, “A Unifying Theory of Positive and Negative Incentives in International Relations: Sanctions, Rewards, Regime Types, and Compliance,” *Economics of Governance* 21, no. 3 (September 2020): 215–36, <https://doi.org/10.1007/s10101-020-00239-2>.

⁷² *World Economic Outlook, October 2008: Financial Stress, Downturns, and Recoveries* (International Monetary Fund, 2008).

⁷³ Sara Z. Kutchesfahani, *Global Nuclear Order* (London: Routledge, 2018), 18, <https://doi.org/10.4324/9781315277530>.

covered by the nuclear order are nuclear deterrence, arms control, non-proliferation, and disarmament.⁷⁴ According to one expert's interpretation, "global nuclear order...refers to the process by which nuclear weapons affect the world order."⁷⁵ For the purpose of this thesis, "nuclear order" refers to the international and, in some cases, unilateral, efforts since 1945 to prevent nuclear war, reduce nuclear stockpiles, prevent non-nuclear weapon states from developing a nuclear weapon, and encourage disarmament.

Inextricably linked to the fledgling United Nations, the nuclear order began its formation with the very first UN General Assembly resolution, adopted in January 1946. Titled "Establishment of a Commission to Deal with the Problems Raised by the Discovery of Atomic Energy," the resolution charged a commission with making proposals for sharing scientific information, controlling nuclear energy for peaceful purposes, eliminating nuclear weapons, and implementing inspections to protect compliant states from non-compliant states.⁷⁶ In 1953, President Dwight Eisenhower proposed an "International Atomic Energy Agency" during his famous "Atoms for Peace" speech to the UN General Assembly. Less than four years later, the statute for the IAEA went into effect.⁷⁷

1. The IAEA

Importantly, the creation of the IAEA was not solely an American venture. In the bipolar great power competition era of the Cold War, the United States convinced the Soviet Union to take part in the development and implementation of the new agency. Doing so enabled the two great powers to work in tandem toward theoretical yet still common goals—peaceful use of atomic energy and nonproliferation.⁷⁸ Further, the involvement of both

⁷⁴ Sara Z. Kutchesfahani, "What Is the Global Nuclear Order and Why Does It Matter?," in *Global Nuclear Order* (Routledge, 2018), 19.

⁷⁵ Kutchesfahani, *Global Nuclear Order*, 20.

⁷⁶ UN General Assembly (1st sess.: 1946), "Establishment of a Commission to Deal with the Problems Raised by the Discovery of Atomic Energy," Resolution A/RES/1(I), January 24, 1946.

⁷⁷ Robert L. Brown, *Nuclear Authority: The IAEA and the Absolute Weapon* (Georgetown University Press, 2015), 45–46.

⁷⁸ David Holloway, "The Soviet Union and the Creation of the International Atomic Energy Agency," *Cold War History* 16, no. 2 (April 2, 2016): 177–93, <https://doi.org/10.1080/14682745.2015.1124265>.

superpowers convinced numerous non-nuclear states that the IAEA venture may work, bringing more countries to the table and creating more legitimacy for the finalized Statute.⁷⁹

The IAEA is an independent organization; however, it does work within the auspices of the UN structure and reports periodically to the UN General Assembly and Security Council. Its mission is threefold: promoting peaceful uses of atomic energy, implementing safeguards to prevent fissionable material provided for peaceful purposes from being used to further a military program, and encouraging nuclear power plant safety.⁸⁰ Of note, it is the key international organization in ensuring states meet their obligations under the NPT, specifically Article III, which created the requirement for non-nuclear weapons states (NNWS) to submit a Comprehensive Safeguards Agreement (CSA) to the IAEA.⁸¹ As a result of this mandate, the IAEA now has safeguard agreements in place with more than 140 states.⁸²

2. Treaties and Agreements

The IAEA is not alone in creating the nuclear order. A series of bilateral and multilateral treaties and agreements have also played important roles in creating nuclear stability. The most significant of these treaties is the aforementioned NPT, which is a multilateral agreement designed to reduce the spread of nuclear weapons and decrease the number of warheads in existence.⁸³ The treaty is built on three pillars: nonproliferation by non-nuclear weapons states, disarmament by nuclear weapons states, and permitting the

⁷⁹ Elisabeth Roehrlich, “The Cold War, the Developing World, and the Creation of the International Atomic Energy Agency (IAEA), 1953–1957,” *Cold War History* 16, no. 2 (April 2, 2016): 195–212, <https://doi.org/10.1080/14682745.2015.1129607>.

⁸⁰ IAEA, “The IAEA Mission Statement,” Text, International Atomic Energy Agency, May 26, 2014, <https://www.iaea.org/about/mission>; IAEA, “Statute of the IAEA,” International Atomic Energy Agency, June 2, 2014, <https://www.iaea.org/about/statute>.

⁸¹ Brown, *Nuclear Authority*, 70.

⁸² IAEA, “IAEA Safeguards Overview,” International Atomic Energy Agency (IAEA, July 7, 2014), <https://www.iaea.org/publications/factsheets/iaea-safeguards-overview>.

⁸³ Gibbons and Herzog, “Durable Institution under Fire?”; “Timeline of the Nuclear Nonproliferation Treaty (NPT).”

peaceful use of nuclear energy for all.⁸⁴ These pillars are reinforced by the inspection regime overseen by the IAEA. Forty-three states initially joined the treaty when it opened for signatures in 1968; now 191 states have ratified the NPT. According to the UN, “More countries have ratified the NPT than any other arms limitation and disarmament agreement.”⁸⁵

Three treaties address nuclear weapons testing, the Partial Test Ban Treaty (PTBT) of 1963, the Threshold Test Ban Treaty (TTBT) of 1974, and the Comprehensive Test Ban Treaty (CTBT) of 1996.⁸⁶ The PTBT banned atmospheric, underwater, or outer space nuclear weapons testing but left in place underground testing as long as nuclear fallout remained within the boundaries of the state that conducted the test.⁸⁷ Today, 120 states are party to the PTBT, although it was initially a tripartite agreement between the U.S., USSR, and the U.K.⁸⁸ The U.S. and the USSR completed the TTBT in 1974 in order to reduce the maximum yield of underground tests to 150 kilotons.⁸⁹ Finally, the CTBT received widespread support across UN member states when it opened for signatures in 1996, with 185 current signatories. However, the CTBT cannot go into effect until all 44 “nuclear capable” states identified in

⁸⁴ Nuclear Threat Initiative, “NPT,” *Nuclear Threat Initiative* (blog), accessed December 1, 2023, <https://www.nti.org/education-center/treaties-and-regimes/treaty-on-the-non-proliferation-of-nuclear-weapons/>.

⁸⁵ “Treaty on the Non-Proliferation of Nuclear Weapons (NPT) – UNODA,” accessed October 5, 2023, <https://disarmament.unoda.org/wmd/nuclear/npt/text/>.

⁸⁶ Federation of American Scientists, “Threshold Test Ban Treaty,” Federation of American Scientists, December 8, 1990, <https://nuke.fas.org/control/ttbt/text/ttbt1.htm>; CTBT Organization, “Comprehensive Nuclear-Test-Ban Treaty (CTBT),” Comprehensive Nuclear-Test-Ban Treaty Organization, accessed December 1, 2023, <https://www.ctbto.org/our-mission/the-treaty>.

⁸⁷ Nuclear Threat Initiative, “Partial Test Ban Treaty (PTBT),” August 5, 1963.

⁸⁸ Anna Schumann, “Fact Sheet: The Limited Test Ban Treaty (LTBT),” Center for Arms Control and Non-Proliferation, May 5, 2017, <https://armscontrolcenter.org/fact-sheet-limited-test-ban-treaty-ltbt/>.

⁸⁹ Anna Schumann, “Fact Sheet: The Threshold Test Ban Treaty (TTBT),” Center for Arms Control and Non-Proliferation, May 8, 2017, <https://armscontrolcenter.org/fact-sheet-threshold-test-ban-treaty-ttbt/>.

the treaty sign and ratify.⁹⁰ Eight such states have not ratified the treaty thus far, which means it cannot enter into force.⁹¹

Additionally, multilateral treaties declaring nuclear weapons free zones (NWFZ) created regional norms that reassure and disincentivize nuclear weapons production. The Treaty of Tlatelolco, established in 1967, created a NWFZ in Latin America and the Caribbean, setting a significant precedent.⁹² Subsequently, the Treaty of Rarotonga in 1985 extended this concept to the South Pacific.⁹³ In 1995, the Treaty of Bangkok brought into effect an NWFZ in Southeast Asia, contributing to regional stability. The Treaty of Pelindaba, which came into force in 2009, established an African NWFZ.⁹⁴

Finally, bilateral agreements between the United States and the Soviet Union played a critical role in reducing the overall global nuclear threat. The Strategic Arms Limitation Talks (SALT) treaties, which encompass SALT I in 1972 and SALT II in 1979, were pioneering endeavors in nuclear arms control.⁹⁵ SALT I marked a significant milestone in arms control efforts, setting limits on strategic offensive weapons possessed by both nations. SALT II was not ratified by the U.S. Senate but marked an important step in continuing the arms control conversation. Signed concurrently with the SALT I agreement in 1972, the Anti-Ballistic Missile (ABM) Treaty limited strategic missile defenses to (initially) 200

⁹⁰ Anna Schumann, “Fact Sheet: The Comprehensive Test Ban Treaty (CTBT),” Center for Arms Control and Non-Proliferation, April 3, 2017, <https://armscontrolcenter.org/fact-sheet-comprehensive-test-ban-treaty-ctbt/>.

⁹¹ Schumann.

⁹² “Text of the Treaty of Tlatelolco – OPANAL,” accessed December 1, 2023, <https://opanal.org/en/text-of-the-treaty-of-tlatelolco/>.

⁹³ “Treaty of Rarotonga” (n.d.), https://www.nti.org/wp-content/uploads/2021/09/treaty_of_rarotonga.pdf.

⁹⁴ Farah Sonde, “Fact Sheet: Nuclear-Weapon-Free Zones,” Center for Arms Control and Non-Proliferation, March 14, 2023, <https://armscontrolcenter.org/nuclear-weapon-free-zones/>.

⁹⁵ Nuclear Threat Initiative, “SALT I Treaty Text,” Nuclear Threat Initiative, May 26, 1972, https://media.nti.org/documents/salt_1.pdf; Nuclear Threat Initiative, “SALT II Treaty Text,” Nuclear Threat Initiative, June 18, 1979, https://media.nti.org/documents/salt_2.pdf.

interceptors.⁹⁶ Another key agreement, the Intermediate-Range Nuclear Forces (INF) Treaty of 1987, resulted in the elimination of an entire class of nuclear weapons.⁹⁷ Later, the Strategic Arms Reduction Treaty (START I) of 1991 and its successors, START II in 1993 and New START in 2011, furthered the process of reducing nuclear stockpiles, with New START capping launchers and bombers at half the level of START I and capping warheads at around one-fifth of those allowed in the original START agreement.⁹⁸ These agreements, negotiated between the two largest nuclear powers, demonstrated the widespread recognition that large nuclear arsenals presented an unnecessary and profound risk to humanity. Further, they demonstrated efforts to remain in line with the NPT provision that the five recognized nuclear weapons states must work toward disarmament.

3. Epistemic Communities

The role of experts (in nuclear science, engineering, policy, etc.) in the push for nuclear caution and the formation of cooperative non-proliferation agreements is an underappreciated but critical aspect of the nuclear order. Beginning with the Russell-Einstein Manifesto of 1955, which called for disarmament and was signed by ten internationally recognized Nobel Laureates, scientists and intellectuals have played an essential role in advocating or discouraging nuclear policies.⁹⁹ Experts have informed U.S. and Soviet policy

⁹⁶ Daryl Kimball, “Fifty Years Ago, the First Strategic Arms Limitation Agreements Were Concluded,” *Arms Control Association* (blog), May 25, 2022, <https://www.armscontrol.org/blog/2022-05-25/fifty-years-ago-first-strategic-arms-limitation-agreements-concluded>; “Anti-Ballistic Missile Treaty (ABM Treaty),” U.S. Department of State, accessed October 6, 2023, [//2009-2017.state.gov/t/avc/trty/101888.htm](https://2009-2017.state.gov/t/avc/trty/101888.htm).

⁹⁷ Nuclear Threat Initiative, “INF Treaty Text,” Nuclear Threat Initiative, December 8, 1987, https://media.nti.org/documents/inf_treaty.pdf.

⁹⁸ Nuclear Threat Initiative, “START I Treaty Text,” Nuclear Threat Initiative, July 31, 1991, https://media.nti.org/documents/start_1_treaty.pdf; “Treaty between the United States of America and the Russian Federation on Further Reduction and Limitation of Strategic Offensive Arms (START II),” by United Nations Office for Disarmament Affairs, *United Nations Disarmament Yearbook*, 1993, 314–38, <https://doi.org/10.18356/e382a473-en>; Nuclear Threat Initiative, “New START Treaty,” *Nuclear Threat Initiative* (blog), accessed November 27, 2023, <https://www.nti.org/education-center/treaties-and-regimes/treaty-between-the-united-states-of-america-and-the-russian-federation-on-measures-for-the-further-reduction-and-limitation-of-strategic-offensive-arms/>; Piet de Klerk, “The End of New START: The Start of a New Beginning?,” *The Clingendael Spectator*, July 8, 2020, <https://spectator.clingendael.org/en/publication/end-new-start-start-new-beginning>.

⁹⁹ Albert Einstein and Bertrand Russell, “Russell-Einstein Manifesto” (Nuclear Museum, July 9, 1955), <https://ahf.nuclearmuseum.org/ahf/key-documents/russell-einstein-manifesto/>.

decision-making, helped conceptualize and broker bilateral arms control deals, and proposed cooperative non-proliferation agreements.¹⁰⁰ For example, a physicist and a mathematician who worked on the Manhattan Project were the first to propose the idea of limiting nuclear capabilities to a stable level in 1950—the first conception of arms control.¹⁰¹

4. Export Control Regimes

Nuclear export control regimes play a key role in curtailing the dissemination of nuclear weapons and related technologies. The Zangger Committee, created in 1971, synchronizes the implementation of the NPT export controls. The group created a “trigger list” for equipment or materials that could be used in the “processing, use, or production of special fissionable materials.”¹⁰² The Trigger List outlines items that, if intended for export to non-nuclear weapons states not party to the NPT, should trigger IAEA safeguards and guidelines. The Zangger committee started with 15 states and now has 38 members.¹⁰³

The Nuclear Suppliers Group (NSG), established in 1974 following India’s first nuclear test, created export rules for the Trigger List materials.¹⁰⁴ These rules, known as the NSG Part 1 Guidelines, were later deemed insufficient when it became clear that states with clandestine nuclear programs evaded the Trigger List by using “dual-use” materials and technology. Thus, in 1992 the NSG created the NSG Part 2 Guidelines to govern these dual-

¹⁰⁰ Kutchesfahani, “Three Phases of the Global Nuclear Order/Disorder Paradigm”; Emanuel Adler, “The Emergence of Cooperation: National Epistemic Communities and the International Evolution of the Idea of Nuclear Arms Control,” *International Organization* 46, no. 1 (1992): 101–45, <https://www.jstor.org/stable/2706953>; Sara Z. Kutchesfahani, *Politics and the Bomb: The Role of Experts in the Creation of Cooperative Nuclear Non-Proliferation Agreements* (New York: Routledge, 2013), <https://doi.org/10.4324/9780203116500>.

¹⁰¹ Adler, “The Emergence of Cooperation,” 121.

¹⁰² Nuclear Threat Initiative, “Zangger Committee (ZAC),” *Nuclear Threat Initiative* (blog), accessed October 9, 2023, <https://www.nti.org/education-center/treaties-and-regimes/zangger-committee-zac/>.

¹⁰³ Fritz W. Schmidt, “The Zangger Committee: Its History and Future Role,” *The Nonproliferation Review* 2, no. 1 (December 1994): 38–44, <https://doi.org/10.1080/10736709408436565>.

¹⁰⁴ Nuclear Suppliers Group, “About the NSG,” Nuclear Suppliers Group, accessed October 9, 2023, <https://www.nuclearsuppliersgroup.org/en/about-nsg>.

use exports.¹⁰⁵ The NSG began with six participating governments and now has representation from 48 states.¹⁰⁶

The Missile Technology Control Regime (MTCR), formed in 1987, creates guidelines for the export of missiles, rocket systems, unmanned aerial vehicles, and related technology for systems capable of delivering weapons of mass destruction or carrying payloads of 500 kilograms greater than 300 kilometers.¹⁰⁷ The MTCR has 35 member states, but also recommends “best practice” controls that states can opt into on a voluntary basis even if they are not a formal member state of the regime.¹⁰⁸

This accounting is not an exhaustive list of every agreement or organization aimed at curbing nuclear proliferation.¹⁰⁹ However, the common theme for these key elements in the nuclear order is multilateral consensus and cooperation. These facets work in tandem to shore up the legal and ethical norms of international nuclear behavior, detect rule-breaking activities, and punish the states responsible. These efforts are multifaceted and require input from elements of the international order, such as collaboration through the IAEA and UN to prevent proliferative efforts.

D. THE TRACK RECORD

There is no doubt that the international order and the nuclear order it nurtured are imperfect. Proliferation, after all, has occurred. South Africa, India, Pakistan, (presumably)

¹⁰⁵ Nuclear Suppliers Group, “Frequently Asked Questions” (Nuclear Suppliers Group, 2022), https://www.nuclearsuppliersgroup.org/images/Files/FAQ_brochure_2022.pdf.

¹⁰⁶ Nuclear Suppliers Group, “About the NSG.”

¹⁰⁷ Missile Technology Control Regime, “Objectives of the MTCR,” Missile Technology Control Regime, accessed October 9, 2023, <https://mtcr.info/deutsch-ziele/>; Jason Kelland, “Message on the Occasion of the 35th Anniversary of the MTCR,” *Missile Technology Control Regime* (blog), November 8, 2022, <https://mtcr.info/35th-anniversary-message-2/>.

¹⁰⁸ Kelland, “35th Anniversary of the MTCR.”

¹⁰⁹ Of particular note, the civilian epistemic community that detects signs of nuclear proliferation and rule-breaking via open-source intelligence is substantial and influential. See the work of Dr. Jeffrey Lewis of the James Martin Center for Nonproliferation Studies on his blog or podcast, both titled “Arms Control Wonk.”

Israel, and North Korea have all created nuclear weapons.¹¹⁰ While the advantages of going nuclear weapons-free and signing on to the NPT persuaded South Africa to surrender its nuclear weapons and dismantle its facilities, the other four non-NPT nuclear powers maintain their arsenals (and, in some cases, are expanding them).¹¹¹ However, considering that those four states, along with the five nuclear weapons states (NWS) recognized in the NPT, represent less than 5 percent of the nearly 200 recognized states in the world, it is clear the nuclear order has largely been a success.

Further, it is somewhat remarkable that none of the states known to have produced nuclear weapons since the introduction of the NPT are signatories to the treaty.¹¹² South Africa became a signatory after decommissioning its nuclear weapons program and dismantling the weapons themselves.¹¹³ Israel, India, and Pakistan never signed. North Korea acceded to the treaty in 1985, however, when the IAEA detected discrepancies in the North Korean program in the early 1990s, the Democratic People's Republic of Korea (DPRK) stated its intention to leave the NPT.¹¹⁴ After a decade of compromises and agreements to keep the DPRK in the treaty and abiding by nonproliferation restraints, North Korea withdrew from the NPT in 2003 prior to achieving nuclear weapons.¹¹⁵

In addition to the remarkable and critical fact that there has not been another nuclear weapon used in war, there is robust data showing the control and decline of numerous critical

¹¹⁰ Although the existence of an Israeli nuclear program is widely accepted as fact, Israel has never acknowledged the program or its suspected 80–90 nuclear warheads.

¹¹¹ See, for example, the SIPRI Yearbook 2023 as well as the United States' Department of Defense 2022 Report detailing China's nuclear expansion.

¹¹² "Timeline of the Nuclear Nonproliferation Treaty (NPT)."

¹¹³ "Timeline of the Nuclear Nonproliferation Treaty (NPT)"; O'Hanlon et al., "Experts Assess the Nuclear Non-Proliferation Treaty."

¹¹⁴ IAEA, "Fact Sheet on DPRK Nuclear Safeguards," International Atomic Energy Agency (IAEA, July 25, 2014), <https://www.iaea.org/newscenter/focus/dprk/fact-sheet-on-dprk-nuclear-safeguards>.

¹¹⁵ IAEA.

concerns related to nuclear weapons.¹¹⁶ The success of the nuclear order spans multiple arenas, including proliferation, stockpile reductions, and weapons testing. Of the many states that possessed the interests and capabilities to create a nuclear weapons program, relatively few did. And of the few that created programs, even fewer had nuclear weapons come to fruition (Figure 1).

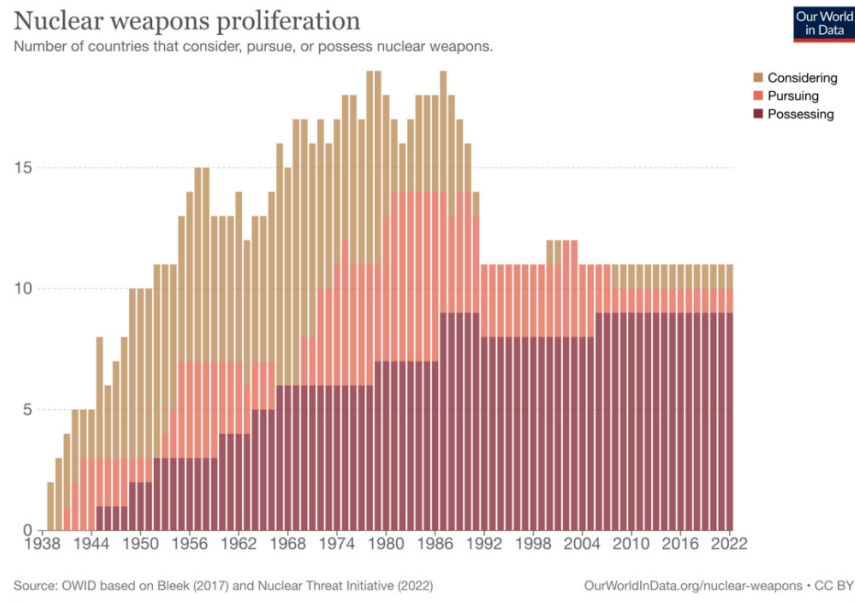


Figure 1. Number of countries that consider, pursue, or possess nuclear weapons, 1938–2022.¹¹⁷

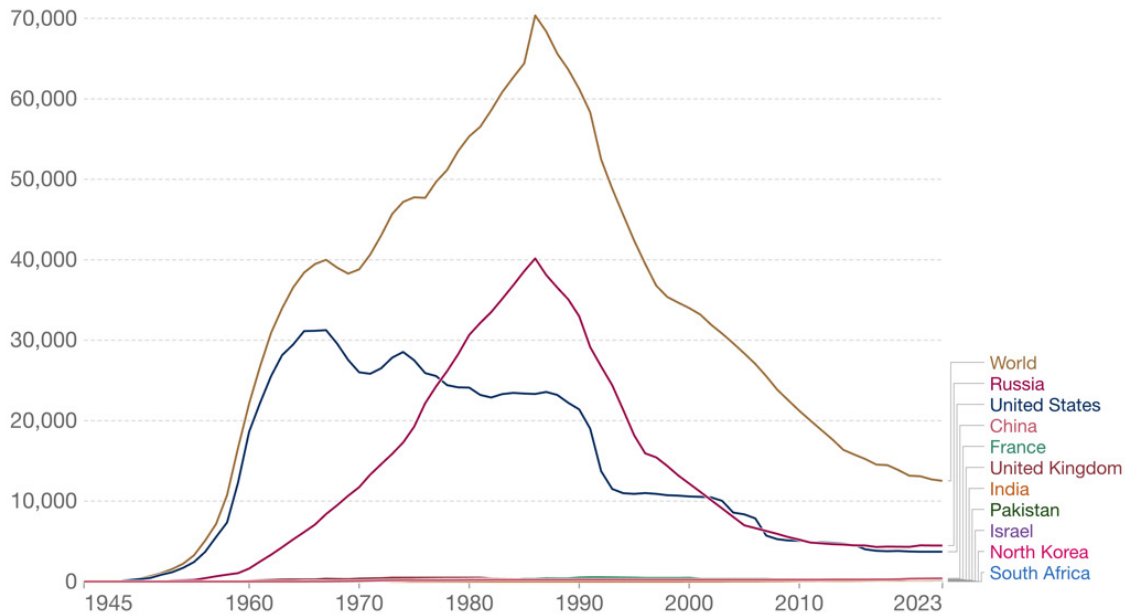
Further, bilateral agreements markedly decreased the number of nuclear weapons stockpiled by the United States and the Soviet Union/Russia (Figure 2).

¹¹⁶ See: Philipp C. Bleek, “When Did (and Didn’t) States Proliferate? Chronicling the Spread of Nuclear Weapon” (Cambridge, MA: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School and the James Martin Center for Nonproliferation Studies, Middlebury Institute of International Studies, Monterey, CA, 2017); Arms Control Association, “The Nuclear Testing Tally,” Arms Control Association, accessed November 30, 2023, <https://www.armscontrol.org/factsheets/nucleartesttally>; Hans M. Kristensen et al., “Status of World Nuclear Forces,” *Federation of American Scientists* (blog), March 31, 2023, <https://fas.org/initiative/status-world-nuclear-forces/>.

¹¹⁷ Source: Max Roser, Bastian Herre, and Joe Hasell, “Nuclear Weapons,” *Our World in Data*, August 6, 2013, <https://ourworldindata.org/nuclear-weapons>.

Estimated nuclear warhead stockpiles, 1945 to 2023

Stockpiles include warheads assigned to military forces, but exclude retired warheads queued for dismantlement.



Source: Federation of American Scientists (2022)

OurWorldInData.org/nuclear-weapons/ • CC BY

Note: The exact number of countries' warheads is secret, and the estimates are based on publicly available information, historical records, and occasional leaks. Warheads vary substantially in their power.

Figure 2. Stockpiles by states and worldwide, 1945–2023.¹¹⁸

And, significantly, multiple UN treaties addressing nuclear weapons testing have succeeded at exponentially decreasing testing—first banning atmospheric, underwater, and space testing, and then later lowering test yield thresholds, and, more recently, gaining international consensus on a comprehensive nuclear test ban (Figure 3).

¹¹⁸ Source: Roser, Herre, and Hasell.

Number of nuclear weapons tests, 1945 to 2019

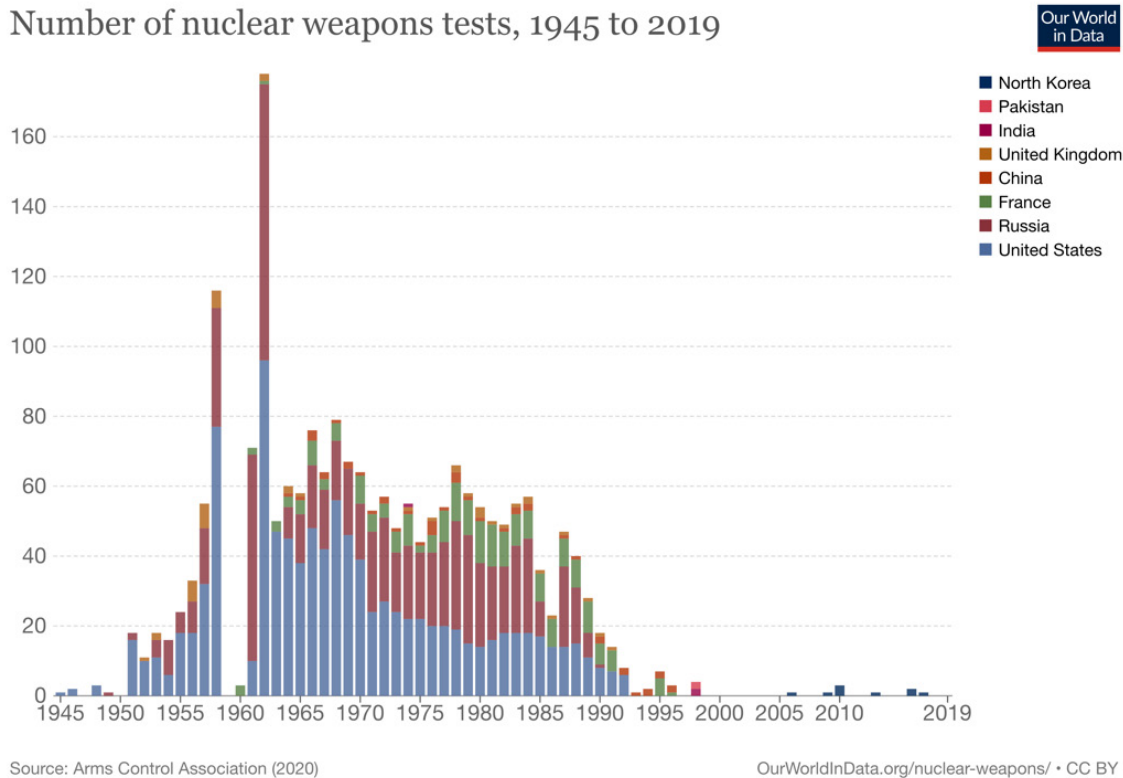


Figure 3. Nuclear weapons tests, 1945–2019.¹¹⁹

E. CONCLUSION

The successes of the nuclear order rely on a robust international structure and the multilateral cooperation it engenders. Internationally agreed norms are the foundation that provides the nuclear order with legitimacy, and the many arms of the nonproliferation regime—all of which are multinational, cooperative efforts—provide its policing capability. States recognize that favorable interstate relationships are jeopardized by clandestine nuclear programs and that a nuclear deterrent may be less beneficial to the long-term well-being of the state than the political and economic incentives of joining the nonproliferation regime.¹²⁰ Unfortunately, belief in the advantageousness of the

¹¹⁹ Source: Roser, Herre, and Hasell.

¹²⁰ Etel Solingen, *Nuclear Logics: Contrasting Paths in East Asia and the Middle East* (Princeton, N.J.: Princeton University Press, 2007), <http://ebookcentral.proquest.com/lib/ebook-nps/detail.action?docID=445551>.

international nuclear order has suffered of late due to an array of factors.¹²¹ Polarization between NPT member states, particularly the United States, China, and Russia, makes cooperation less likely, while the impression that the nuclear weapon states have failed to meaningfully move toward disarmament disillusioned nonnuclear weapon states about the benefits of abstaining from nuclear programs.¹²²

¹²¹ See: Meier and Vieluf, “Upsetting the Nuclear Order”; Gibbons and Herzog, “Durable Institution under Fire?”; Lee and Nacht, “Challenges to the Nuclear Non-Proliferation Treaty”; John Mecklin, ed., “A Time of Unprecedented Danger: It Is 90 Seconds to Midnight,” *Bulletin of the Atomic Scientists* 2023 Doomsday Clock Statement (January 24, 2023): 20, <https://thebulletin.org/doomsday-clock/current-time/>.

¹²² Lee and Nacht, “Challenges to the Nuclear Non-Proliferation Treaty,” 113.

III. DEMOCRACY IS BETTER THAN NOT-DEMOCRACY

To the extent that the world order leans liberal, or at least that it has done in the last several decades, it logically follows that the normative subtext of the international system inherently favors states that share those norms. Governments that do not, as a matter of course, extend basic human and civil rights to their people will be at odds with an overarching system promoting those rights. Conversely, states whose governing designs already fit within the internationally promoted model will experience less interference from the international community. This chapter discusses the major factors that encourage or discourage proliferation, connects democracy to greater compliance with international law than non-democratic states, and then revisits the argument that liberal democracy is receding.

A. DEMOCRACY IN THE WORLD

In 2002, Kofi Annan, then the Secretary-General of the UN, published an essay extolling the virtues and necessity of democratic states and democracy at the global institutional level. “Democracy is crucial because it affects relations among states as well as harmony and development within them. But we also require more democracy at the global level, which is what the United Nations has been about from the very beginning,” Annan wrote.¹²³ He succinctly captured many of the broadly accepted advantages of democratic governance, including its peaceful nature toward fellow democracies (citing Immanuel Kant’s *Perpetual Peace*).

The fact that Secretary-General Annan invoked Kant’s *Perpetual Peace* is a powerful indicator that, more than 200 years on, Kant still stands up in democratic theory and

¹²³ Kofi A. Annan, “Democracy as an International Issue,” *Global Governance* 8, no. 2 (2002): 135–42, <https://www.jstor.org.libproxy.nps.edu:2048/stable/27800333>.

practice.¹²⁴ Continued research on democratic peace indicates that democracies not only do not fight one another but also cooperate better than non-democracies across an array of arenas, from economics to military alliances.¹²⁵ The available evidence also suggests democracies are more likely to cooperate on nuclear issues, such as establishing regional NWFZs and bilateral nuclear cooperation agreements, due to increased transparency and trust.¹²⁶

Thus, it stands to reason that a world with more democracies would, generally, lead to more nuclear cooperation and less proliferation. And, perhaps more significantly, a larger proportion of cooperative democracies can strongly reinforce their preferred values in the international setting—creating higher costs for illiberal regimes defying international law and nuclear norms. The quantitative analyses in the following sections support these conclusions.

B. TO PROLIFERATE OR NOT TO PROLIFERATE?

Since the beginning of the nuclear age, limiting proliferation has been a major consideration for the nuclear powers specifically and the world at large. Probability analysis has determined, time and again, that “increasing the number of nuclear powers will unambiguously increase the probability of accidental or inadvertent nuclear war.”¹²⁷ While some theory modeling suggests that more nuclear weapons *may* reduce the likelihood of intentional nuclear warfare, that reduction does not exceed the much larger and definite

¹²⁴ For a comprehensive overview of the democratic peace, see: Immanuel Kant, *Perpetual Peace: A Philosophical Essay* (G. Allen & Unwin Limited, 1903); Michael W. Doyle, *Ways of War and Peace: Realism, Liberalism, and Socialism*, 1st ed (New York: Norton, 1997); Bruce Russett, *Grasping the Democratic Peace: Principles for a Post-Cold War World* (Princeton University Press, 1994); Michael E. Brown, Sean M. Lynn-Jones, and Steven E. Miller, *Debating the Democratic Peace* (MIT Press, 1996); Kosuke Imai and James Lo, “Robustness of Empirical Evidence for the Democratic Peace: A Nonparametric Sensitivity Analysis,” *International Organization* 75, no. 3 (2021): 901–19, <https://doi.org/10.1017/S0020818321000126>.

¹²⁵ Edward D. Mansfield, Helen V. Milner, and B. Peter Rosendorff, “Why Democracies Cooperate More: Electoral Control and International Trade Agreements,” *International Organization* 56, no. 3 (2002): 477–513, <https://www.jstor.org.libproxy.nps.edu:2048/stable/3078586>; Thomas Risse, *Cooperation among Democracies: The European Influence on U.S. Foreign Policy*, 2. print, Princeton Studies in International History and Politics (Princeton, NJ: Princeton Univ. Press, 1997).

¹²⁶ Etel Solingen, “The Political Economy of Nuclear Restraint,” *International Security* 19, no. 2 (1994): 134, <https://doi.org/10.2307/2539198>.

¹²⁷ Brito and Intriligator, “Proliferation and the Probability of War,” 213.

increase of the likelihood for unintentional nuclear war.¹²⁸ This section outlines three arguments for the importance of democracy in nuclear nonproliferation: the first is drivers of proliferation, the second are factors encouraging nonproliferation, and the third is compliance with international law and agreements.

1. Factors Encouraging Proliferation

There are multiple theories arguing for why states proliferate. Evidence points to external and internal factors, sometimes framed as willingness and opportunity. The security model explanation posits that states proliferate due to a perceived or real external threat that increases their willingness to pursue weapons.¹²⁹ Numerous studies have concurred that external security threats do, in fact, drive proliferation.¹³⁰ Domestic models suggest that internal political considerations also influence the decision to proliferate. At least one study found that “personalistic dictatorships,” specifically, are more prone to proliferation, while still another argues that individual leader worldviews and choices should be considered.¹³¹

Other factors encouraging proliferation are latent nuclear production capabilities and the diffusion of nuclear knowledge and materials—in other words, reaching a technological threshold that decreases the opportunity cost of developing a nuclear weapons program.¹³² Perhaps the best example of this factor at work is Pakistan and A.Q. Khan. The Pakistani nuclear program was jumpstarted by gas centrifuge blueprints stolen by Khan from his

¹²⁸ Brito and Intriligator, 212.

¹²⁹ Scott D. Sagan, “The Causes of Nuclear Weapons Proliferation,” *Annual Review of Political Science* 14, no. 1 (June 15, 2011): 225–44, <https://doi.org/10.1146/annurev-polisci-052209-131042>.

¹³⁰ Singh and Way, “The Correlates of Nuclear Proliferation,” 882; Jo and Gartzke, “Determinants of Nuclear Weapons Proliferation,” 186.

¹³¹ O’Reilly, *Nuclear Proliferation and the Psychology of Political Leadership*, 215; Matthew Fuhrmann and Michael C. Horowitz, “When Leaders Matter: Rebel Experience and Nuclear Proliferation,” *The Journal of Politics* 77, no. 1 (2015): 84, <https://doi.org/10.1086/678308>; Christopher Way and Jessica L. P. Weeks, “Making It Personal: Regime Type and Nuclear Proliferation,” *American Journal of Political Science* 58, no. 3 (2014): 705, <https://www.jstor.org/stable/24363516>.

¹³² Jo and Gartzke, “Determinants of Nuclear Weapons Proliferation,” 186; Singh and Way, “The Correlates of Nuclear Proliferation,” 876.

previous employer in the Netherlands and brought to Pakistan in December 1975.¹³³ With that information, Khan was able to purchase the needed gas centrifuge parts and build a uranium enrichment plant. Pakistan's centrifuge plant produced highly enriched uranium (HEU) within 7 years, in 1982.¹³⁴

2. Factors Discouraging Proliferation

Numerous factors have been found to have a moderating effect on proliferation. A particularly salient factor is economic liberalization. This factor is closely tied to international economic incentives such as global market access, foreign direct investment, and World Bank loans.¹³⁵ Having a great power military alliance or nuclear umbrella is also correlated with reductions in proliferation.¹³⁶ According to Singh and Way's hazard models, "a country with a great-power military alliance has a hazard rate for exploring the nuclear option that is 49 percent lower than a similar country without an alliance, as well as a risk for acquiring weapons that is 54 percent lower."¹³⁷ Interestingly, a high democracy rating does not decrease the likelihood of exploring, pursuing, or acquiring nuclear weapons; however, the process of democratization does have a moderating effect on exploring and acquiring nuclear weapons.¹³⁸ Indeed, democratization had such an effect in South Africa, Taiwan, and Argentina.¹³⁹ Further, higher percentages of democracies in the global order have a statistically significant negative impact on states' decisions to explore nuclear weapons, suggesting that states, generally, feel more secure in a world with more democracies.¹⁴⁰ This

¹³³ Atomic Heritage Foundation, "A. Q. Khan," *Atomic Heritage Foundation* (blog), accessed December 2, 2023, <https://ahf.nuclearmuseum.org/ahf/profile/q-khan/>.

¹³⁴ Atomic Heritage Foundation.

¹³⁵ Solingen, "The Political Economy of Nuclear Restraint"; Singh and Way, "The Correlates of Nuclear Proliferation," 876.

¹³⁶ Singh and Way, "The Correlates of Nuclear Proliferation," 876.

¹³⁷ Singh and Way, 875.

¹³⁸ Singh and Way, 878.

¹³⁹ Carl Levin and Jack Reed, "A Democratic View: Toward a More Responsible Nuclear Nonproliferation Strategy," *Arms Control Today* 34 (February 2004), https://www.armscontrol.org/act/2004_01-02/LevinReed.

¹⁴⁰ Singh and Way, "The Correlates of Nuclear Proliferation," 878.

stands to reason, as the number of nuclear states has remained constant for 20 years and only two of the nine nuclear states (Pakistan and North Korea) conducted their first explosion in the last 30 years—when democracy was reaching the zenith of its global power.¹⁴¹

3. Significance in the Context of Democracy

From any angle, more democracy may play a role in reducing proliferation likelihood. The single greatest external predictor of attempted proliferation is a conventional security threat; however, the democratic peace theory suggests that a democratic state whose neighbors are democratic will pose a significantly lower security threat.¹⁴² Further, there is robust evidence that, although democracies may engage in conflict as frequently as non-democracies, the degree of conflict in terms of length and casualties is far lower than autocratic states.¹⁴³ Not only that, but democracies were significantly more likely to attempt conflict resolution negotiation when faced with non-violent triggers to crises and avoid violent escalation than civil-authoritarian or military regimes.¹⁴⁴ Additionally, the evidence suggests that crises between two nondemocracies are more likely to escalate to war than crises between a nondemocracy and a democracy.¹⁴⁵

Still more advantages exist in the liberal international system, such as economic incentives in exchange for nonproliferation guarantees to mollify autocratic desires to explore nuclear capabilities and encourage economic liberalization.¹⁴⁶ As previously mentioned, democracies tend to cooperate with one another better than other states, so the influence of a

¹⁴¹ “Timeline of the Nuclear Nonproliferation Treaty (NPT).”

¹⁴² See: Imai and Lo, “Robustness of Empirical Evidence for the Democratic Peace”; Russett, *Grasping the Democratic Peace*.

¹⁴³ R. J. Rummel, “Democracies Are Less Warlike Than Other Regimes,” *European Journal of International Relations* 1, no. 4 (December 1995): 457–79, <https://doi.org/10.1177/1354066195001004003>.

¹⁴⁴ Michael Brecher, Jonathan Wilkenfeld, and Sheila Moser, *Crises in the Twentieth Century: Handbook of Foreign Policy Crises* (Pergamon Press, 1988), 197.

¹⁴⁵ David L. Rousseau et al., “Assessing the Dyadic Nature of the Democratic Peace, 1918–88,” *The American Political Science Review* 90, no. 3 (1996): 515, <https://doi.org/10.2307/2082606>.

¹⁴⁶ Solingen, “The Political Economy of Nuclear Restraint,” 162; Singh and Way, “The Correlates of Nuclear Proliferation,” 887.

great power military alliance has more relevance within a democratic dyad.¹⁴⁷ Perhaps the best way to frame this argument is with the negative view: *less* democracy does not reduce interstate tensions or broadly reduce perceptions of external threats, it does not encourage economic interdependence or economic liberalization, and it does not encourage transparent cooperation and trust between states. Therefore, it stands to reason that democratic backsliding, at the very least, does not decrease proliferation and may, in fact, lead to increased proliferation.

4. Compliance

Compliance with international law involves states adhering to the obligations and norms outlined in international treaties, conventions, and customary international law.¹⁴⁸ Compliance seems fundamental to the functioning of the international system, as it ensures predictability and stability in global relations. However, compliance is made complex due to the competing interests of cooperation and maintaining national sovereignty.¹⁴⁹ Compliance is measured in various ways, including treaty ratification, adherence to international court rulings, and the implementation of international legal standards into domestic law.¹⁵⁰ The following sections outline general compliance amongst democracies and non-democracies.

a. Liberal Democracies and Compliance

Liberal democracies generally exhibit higher compliance with international law, a trend attributed to their intrinsic governance structures characterized by the rule of law, transparency, and accountability.¹⁵¹ Studies indicate that democratic institutions are pivotal in integrating international obligations into domestic legal frameworks.¹⁵² This integration

¹⁴⁷ Risse, *Cooperation among Democracies*.

¹⁴⁸ Michael Bothe, "Compliance in International Law," *International Law*, Oxford Bibliographies, October 28, 2020, <https://doi.org/10.1093/obo/9780199796953-0213>.

¹⁴⁹ Bothe.

¹⁵⁰ Bothe.

¹⁵¹ Keohane, *After Hegemony*, 95.

¹⁵² Beth Simmons, "Treaty Compliance and Violation," *Annual Review of Political Science* 13, no. 1 (May 2010): 273–96, <https://doi.org/10.1146/annurev.polisci.12.040907.132713>; Rolf Schwarz, "The Paradox of Sovereignty, Regime Type and Human Rights Compliance," *The International Journal of Human Rights* 8, no. 2 (January 1, 2004): 199–215, <https://doi.org/10.1080/1364298042000240861>.

ensures that international legal commitments are ratified, effectively implemented, and adhered to in the long term. Furthermore, democratic states are held accountable by political parties and the electorate, and that accountability extends to international obligations, where failure to comply can have domestic political repercussions, thus incentivizing observance of international law.¹⁵³

Additionally, liberal democracies typically place a higher value than hybrid regimes and autocracies on international reputation and moral legitimacy, further encouraging compliance with international law.¹⁵⁴ The centrality of legitimacy in and to liberal democracies suggests that they are more sensitive to international norms and opinions as they seek to maintain their image as rule-abiding members of the global community.¹⁵⁵ This sensitivity is reflected in higher rates of participation among democracies in international treaties and organizations and their tendency to abide by the decisions of international courts and arbitration bodies. Again, the public in liberal democratic societies plays a role in advocating for compliance with international law, exerting pressure on their governments to uphold international commitments, especially in areas such as human rights and environmental protection.¹⁵⁶

However, compliance by liberal democracies is not absolute and varies across different domains of international law. For instance, while democracies might show high compliance in areas like human rights or trade agreements, they might be less consistent in others.¹⁵⁷ This variance can be attributed to the complexity of the issues at hand, the costs associated with

¹⁵³ Xinyuan Dai, “Why Comply? The Domestic Constituency Mechanism,” *International Organization* 59, no. 2 (2005): 363–98, <https://www.jstor.org.libproxy.nps.edu:2048/stable/3877908>.

¹⁵⁴ Robert O. Keohane, “Abuse of Power,” *Harvard International Review* 27, no. 2 (Summer 2005): 48–53, <http://libproxy.nps.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=17274883&site=ehost-live&scope=site>.

¹⁵⁵ Ian Hurd, “Legitimacy and Authority in International Politics,” *International Organization* 53, no. 2 (1999): 379–408, <https://www.jstor.org.libproxy.nps.edu:2048/stable/2601393>; Emil Andersson, “Freedom, Equality, and Justifiability to All: Reinterpreting Liberal Legitimacy,” *The Journal of Ethics* 26, no. 4 (2022): 591–612, <https://doi.org/10.1007/s10892-022-09406-5>.

¹⁵⁶ Ryan Goodman and Derek Jinks, “How to Influence States: Socialization and International Human Rights Law,” *Duke Law Journal* 54, no. 3 (December 2004), <https://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=1240&context=dlj>.

¹⁵⁷ Bothe, “Compliance in International Law”; Goodman and Jinks, “How to Influence States.”

compliance, and the domestic political considerations that may sometimes run counter to international obligations.¹⁵⁸

b. Closed Autocracies and Compliance

Closed autocratic regimes generally demonstrate lower compliance with international law compared to their democratic counterparts, a trend that can be attributed to various structural and political factors inherent in these systems. Unlike democracies, where the rule of law, transparency, and accountability are ingrained, many closed autocratic systems lack these fundamental mechanisms, which are crucial for effectively implementing international legal obligations.¹⁵⁹ The absence of independent judiciaries and legislative bodies in closed autocracies means that international agreements are less likely to be effectively integrated into the domestic legal system. Furthermore, the lack of political accountability in these systems means there is little domestic incentive for the government to adhere to international norms or rulings, especially when they conflict with the regime's interests.¹⁶⁰

Closed autocracies often strategically engage with international law, with an eye toward regime survival.¹⁶¹ As a result, the evidence suggests that autocratic governments often ratify treaties to gain international legitimacy without a genuine intention to comply. Empirical evidence suggests that this strategic methodology is most salient in states with insecure leaders, who are more likely to ignore constraints to ensure job security.¹⁶² This behavior is particularly

¹⁵⁸ George W. Downs, David M. Rocke, and Peter N. Barsoom, "Is the Good News about Compliance Good News about Cooperation?," *International Organization* 50, no. 3 (1996): 379–406, <https://www.jstor.org.libproxy.nps.edu:2048/stable/2704030>.

¹⁵⁹ Oona A. Hathaway, "Do Human Rights Treaties Make a Difference?," *The Yale Law Journal* 111, no. 8 (2002): 1935–2042, <https://doi.org/10.2307/797642>; Matthew Schipani, "Regime Completeness and Conflict: A Closer Look at Anocratic Political Systems" (Georgia State University, 2010), https://scholarworks.gsu.edu/political_science_theses/35.

¹⁶⁰ Jon C. Pevehouse, "Democracy from the Outside-In? International Organizations and Democratization," *International Organization* 56, no. 3 (2002): 515–49, <https://www.jstor.org/stable/3078587>.

¹⁶¹ Hathaway, "Do Human Rights Treaties Make a Difference?"; Hauke Hartmann, "Autocratization and the Decline of International Cooperation," The Bertelsmann Foundation, March 10, 2022, <https://bfna.org/democracy/autocratization-and-the-decline-of-international-cooperation-y5eyin93zf/>.

¹⁶² Courtenay R. Conrad and Emily Hencken Ritter, "Treaties, Tenure, and Torture: The Conflicting Domestic Effects of International Law," *The Journal of Politics* 75, no. 2 (April 2013): 397–409, <https://doi.org/10.1017/S0022381613000091>.

evident in the selective approach of authoritarian regimes toward international human rights treaties, where ratification is often not matched by implementation or respect for these rights domestically.¹⁶³ The strategic use of international law for legitimacy is often coupled with a disregard for international obligations that challenge state sovereignty or the regime's control, further diminishing compliance levels.¹⁶⁴

To be sure, closed autocracies can and do cooperate with international law. Compliance by autocracies, like that of liberal democracies, varies depending on the regime's strategic interests, international pressures, and the specific area of international law in question.¹⁶⁵

c. Hybrid Regimes and Compliance

Electoral democracies and electoral autocracies are typically less stable than either democracies or autocracies. Also known as hybrid regimes or anocracies, these states remain inherently unstable due to the tension caused by the coexistence of democratic and autocratic rules and methods.¹⁶⁶ While not always the case, hybrid regimes are often in flux—responding to circumstances by either liberalizing or autocratizing. These transitioning states, whether they are moving toward or away from democracy, experience more political violence and unrest than their stable counterparts.¹⁶⁷ Since the institutions and norms of electoral democracies and electoral autocracies exist on a broad spectrum of democratic/autocratic hybridity, these states' interactions with international law are less easily generalized and may fall closer to liberal democratic or autocratic archetypes.

¹⁶³ Beth A. Simmons, *Mobilizing for Human Rights: International Law in Domestic Politics* (Cambridge: Cambridge University Press, 2009), <https://doi.org/10.1017/CBO9780511811340>; Hathaway, "Do Human Rights Treaties Make a Difference?"

¹⁶⁴ Erik Voeten, "The Political Origins of the UN Security Council's Ability to Legitimize the Use of Force," *International Organization* 59 (July 1, 2005): 527–57, <https://doi.org/10.1017/S0020818305050198>.

¹⁶⁵ Daniel W. Drezner, "The Power and Peril of International Regime Complexity," *Perspectives on Politics* 7, no. 1 (2009): 65–70, <https://www.jstor.org/stable/40407216>.

¹⁶⁶ Steven Levitsky and Lucan Way, "The Rise of Competitive Authoritarianism," *Journal of Democracy* 13, no. 2 (2002): 51–65, <https://doi.org/10.1353/jod.2002.0026>.

¹⁶⁷ Schipani, "Regime Completeness and Conflict," 13; Levitsky and Way, "The Rise of Competitive Authoritarianism," 53.

C. DEMOCRACY'S DECLINE

Based on two key indicators, the Varieties of Democracy metrics and the Freedom House evaluations, the declines in democracy and freedom around the world are significant. Freedom House data indicates that global freedom is in its 17th year of decline, while according to V-Dem, the level of democracy the average global citizen enjoys has declined to levels not seen since 1986.¹⁶⁸ Thus, V-Dem's data indicates that 72 percent of the world's population currently live in autocracies (either electoral or closed), whereas just a decade ago, autocracies governed 46 percent of the world's population (Figure 4).¹⁶⁹

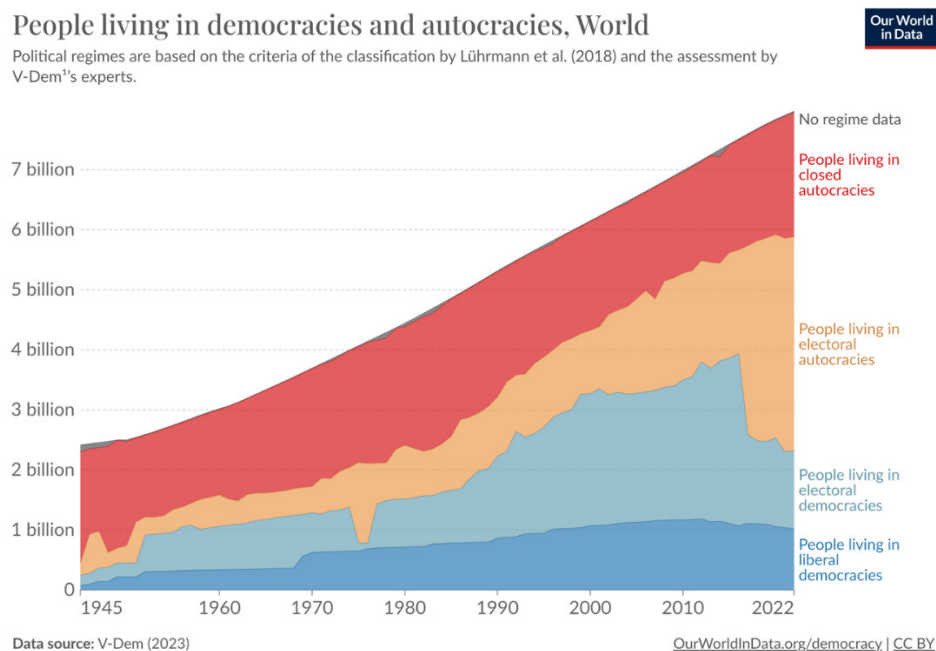


Figure 4. Population distribution by regime type from 1945 to 2022.¹⁷⁰

¹⁶⁸ Papada and Lindberg, "Democracy Report 2023"; Yana Gorokhovskaia, Adrian Shahbaz, and Amy Slipowitz, "Marking 50 Years in the Struggle for Democracy," Freedom in the World (Washington, D.C.: Freedom House, 2023), 50, <https://freedomhouse.org/report/freedom-world/2023/marking-50-years>.

¹⁶⁹ Papada and Lindberg, "Democracy Report 2023," 11.

¹⁷⁰ Source: Our World in Data, "People Living in Democracies and Autocracies," Our World in Data, accessed November 16, 2023, <https://ourworldindata.org/grapher/people-living-in-democracies-autocracies>.

While population distribution by regime type helps capture the breadth of the autocratization problem in the world, it is less significant to the premise of this thesis than the number and percentage of liberal democracies interacting at the international level. Here again, the numbers are not promising. For the first time in two decades, there are more closed autocracies (33) than liberal democracies worldwide (32).¹⁷¹ Since reaching a peak of 44 countries in 2009, liberal democracies have tumbled to their lowest point since 1992 (Figure 5).



Figure 5. Regime type by number of countries and share of world population.¹⁷²

At that 2009 peak, 25 percent of world governments were liberal democracies. Today, they represent only 18 percent of world governments (Figure 6).¹⁷³

¹⁷¹ Papada and Lindberg, “Democracy Report 2023,” 11.

¹⁷² Source: Papada and Lindberg, 11.

¹⁷³ “Countries That Are Democracies and Autocracies,” Our World in Data, accessed November 14, 2023, <https://ourworldindata.org/grapher/countries-democracies-autocracies-row>.

Countries that are democracies and autocracies, World

Political regimes based on the criteria of the classification by Lüthmann et al. (2018) and the assessment by V-Dem's experts.

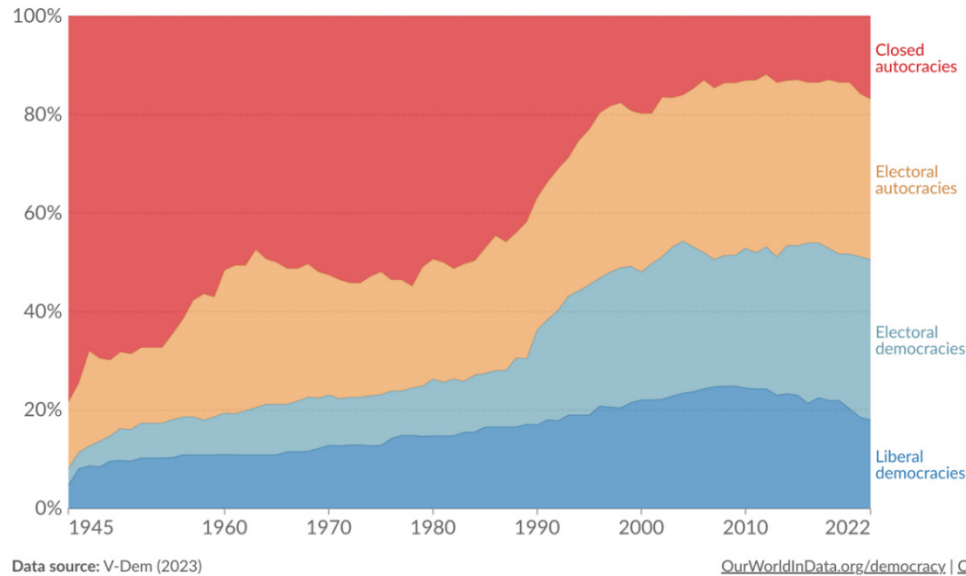


Figure 6. Distribution of political regimes from 1945–2022.¹⁷⁴

Unquestionably, the devolution toward illiberal and autocratic governance is real and ongoing. Since 1945, there has never been a year with more states autocratizing than in 2022, while only two years (1968-69) had fewer states becoming more democratic than 2022.¹⁷⁵ But should this decline really be such a cause for concern? After all, democracies, of any type, did not make up 50 percent of the world governments until 2002 and peaked at 54 percent in 2004.¹⁷⁶ For the vast majority of post-WWII history democracies have been outnumbered, yet the liberal international order and the nuclear order formed just the same. So, what makes democratic backsliding and growing illiberalism so concerning now?

I contend that three major elements create greater concern about the current international regime trend toward illiberal autocracy. First, America—existing literature

¹⁷⁴ Source: Our World in Data.

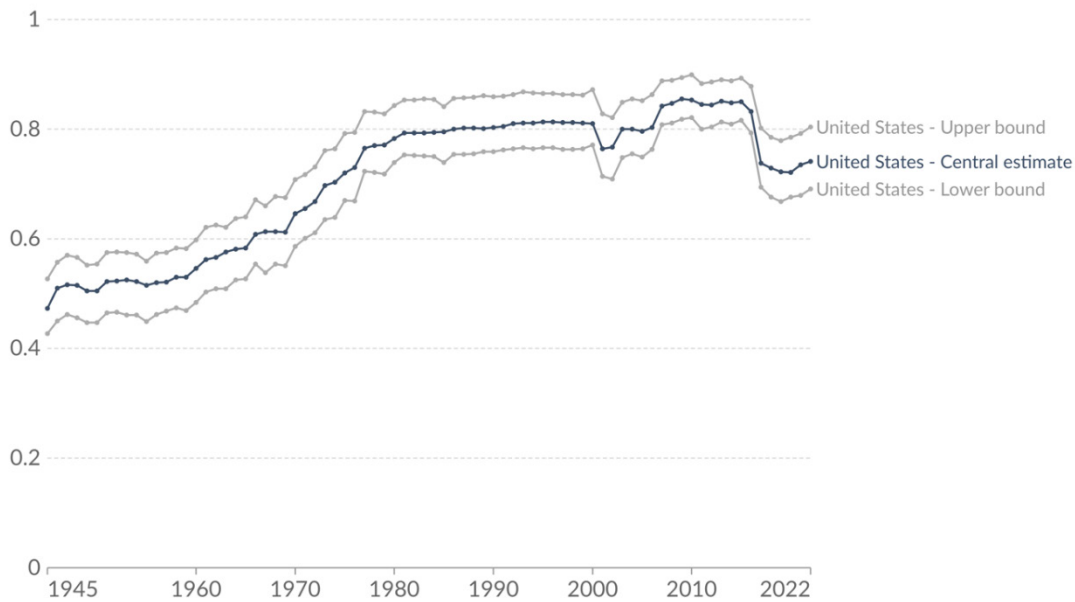
¹⁷⁵ Papada and Lindberg, “Democracy Report 2023.”

¹⁷⁶ Our World in Data, “Countries That Are Democracies and Autocracies.”

suggests that the United States played the most substantial role in creating, promoting, and maintaining the liberal international order.¹⁷⁷ With the United States experiencing its own regression in democracy and liberal values, the greatest champion of the rules-based order and its concomitant nuclear world order is diminished (Figure 7).

Liberal democracy index, United States, 1945 to 2022

Based on the expert assessments and index by V-Dem¹. It combines information on voting rights, the freedom and fairness of elections, freedoms of association and expression, civil liberties, and executive constraints. It ranges from 0 to 1 (most democratic).



Data source: V-Dem (2023)

OurWorldInData.org/democracy | CC BY

Figure 7. Liberal democracy index for the United States, 1945–2022.¹⁷⁸

¹⁷⁷ See, for example: Mead, *Special Providence*; Robert Kagan, *The Jungle Grows Back: America and Our Imperiled World*, First edition (New York: Alfred A. Knopf, 2018); Ikenberry, “Liberal Internationalism 3.0”; G. John Ikenberry, “The Future of the Liberal World Order: Internationalism After America,” *Foreign Affairs* 90, no. 3 (2011): 56–68, <https://www.jstor.org/stable/23039408>; Daniel Deudney and G. John Ikenberry, “The Nature and Sources of Liberal International Order,” *Review of International Studies* 25, no. 2 (April 1999): 179–96, <https://doi.org/10.1017/S0260210599001795>; Scott Lawless, “American Grand Strategy for an Emerging World Order,” *Strategic Studies Quarterly* 14, no. 2 (2020): 127–47, <https://www.jstor.org/stable/26915280>.

¹⁷⁸ Source: Our World in Data, “Liberal Democracy,” Our World in Data, accessed November 16, 2023, <https://ourworldindata.org/grapher/liberal-democracy-row>.

Second, fragmentation—Western cohesion and commitment to supranational organizations have faltered, and with them, the liberal international order.¹⁷⁹ With illiberal movements arising in even well-established democracies, the West must guard against internal challenges to liberal democracy and external autocratic challengers. And they must do so while lacking the liberalizing momentum and democratic unity of the Cold War era. Of note, Putin’s 2022 invasion of Ukraine has gone a long way in reestablishing unity among Western governments.¹⁸⁰ However, populist and nationalist parties remain powerful across Europe and the United States and have demonstrated a commitment to deconstructing the multilateral cooperation underpinning the international order.¹⁸¹

Third, powerful autocratic consolidation—the autocracy-heavy world of the Cold War era was consistently liberalizing and democratizing and often relied on the Soviet Union to prop up imposed puppet governments. The current wave of autocratization

¹⁷⁹ “How Brexit Happened,” *Economist*, January 2, 2021, <https://www.economist.com/britain/2021/01/02/how-brexit-happened>; Pippa Norris and Ronald Inglehart, *Cultural Backlash: Trump, Brexit, and Authoritarian Populism*, 1st ed. (Cambridge University Press, 2019), <https://doi.org/10.1017/9781108595841>; “Europe and Right-Wing Nationalism: A Country-by-Country Guide,” *BBC News*, April 27, 2016, sec. Europe, <https://www.bbc.com/news/world-europe-36130006>.

¹⁸⁰ See: Marwan Bishara, “Offensive Defence: How Putin Saved NATO,” *Al Jazeera*, July 11, 2023, <https://www.aljazeera.com/opinions/2023/7/11/offensive-defence-how-putin-saved-nato>; Thomas de Maizi re and A. Wes Mitchell, “Putin United the West—but Now Comes the Hard Part,” *Foreign Policy*, March 11, 2022, <https://foreignpolicy.com/2022/03/11/putin-war-ukraine-russia-nato-west-defense/>; Roger Cohen, “In Rebirth for NATO, Europe Unites in Face of Putin’s Ambition – The New York Times,” *The New York Times*, May 16, 2022, Online edition, sec. News Analysis, <https://www.nytimes.com/2022/05/16/world/europe/nato-putin-sweden-finland.html>.

¹⁸¹ Jorge Benitez, “Trump Confirms He Threatened to Withdraw from NATO,” *Atlantic Council* (blog), August 23, 2018, <https://www.atlanticcouncil.org/blogs/natosource/trump-confirms-he-threatened-to-withdraw-from-nato/>; Donald Trump, “Statement by President Trump on the Paris Climate Accord” (Speech, Washington, D.C., June 1, 2017), <https://trumpwhitehouse.archives.gov/briefings-statements/statement-president-trump-paris-climate-accord/>; “President Donald J. Trump Is Ending United States Participation in an Unacceptable Iran Deal,” Government, White House Archives, May 8, 2018, <https://trumpwhitehouse.archives.gov/briefings-statements/president-donald-j-trump-ending-united-states-participation-unacceptable-iran-deal/>; Gonawela A’ndre et al., “Speaking Their Mind: Populist Style and Antagonistic Messaging in the Tweets of Donald Trump, Narendra Modi, Nigel Farage, and Geert Wilders,” *Computer Supported Cooperative Work* 27, no. 3–6 (December 2018): 293–326, <https://doi.org/10.1007/s10606-018-9316-2>; Bieber, “Is Nationalism on the Rise?”; Michael Cox, “The Rise of Populism and the Crisis of Globalisation: Brexit, Trump and Beyond,” *Irish Studies in International Affairs* 28 (2017): 9–17, <https://doi.org/10.3318/isia.2017.28.12>; Vedi R Hadiz and Angelos Chrysosgelos, “Populism in World Politics: A Comparative Cross-Regional Perspective,” *International Political Science Review / Revue Internationale de Science Politique* 38, no. 4 (2017): 399–411, <https://www.jstor.org/stable/26940300>.

demonstrates a momentum reversal, putting liberalism on its heels and forcing democracies into a defensive stance for the first time since the beginning of the nuclear era (Figure 8).

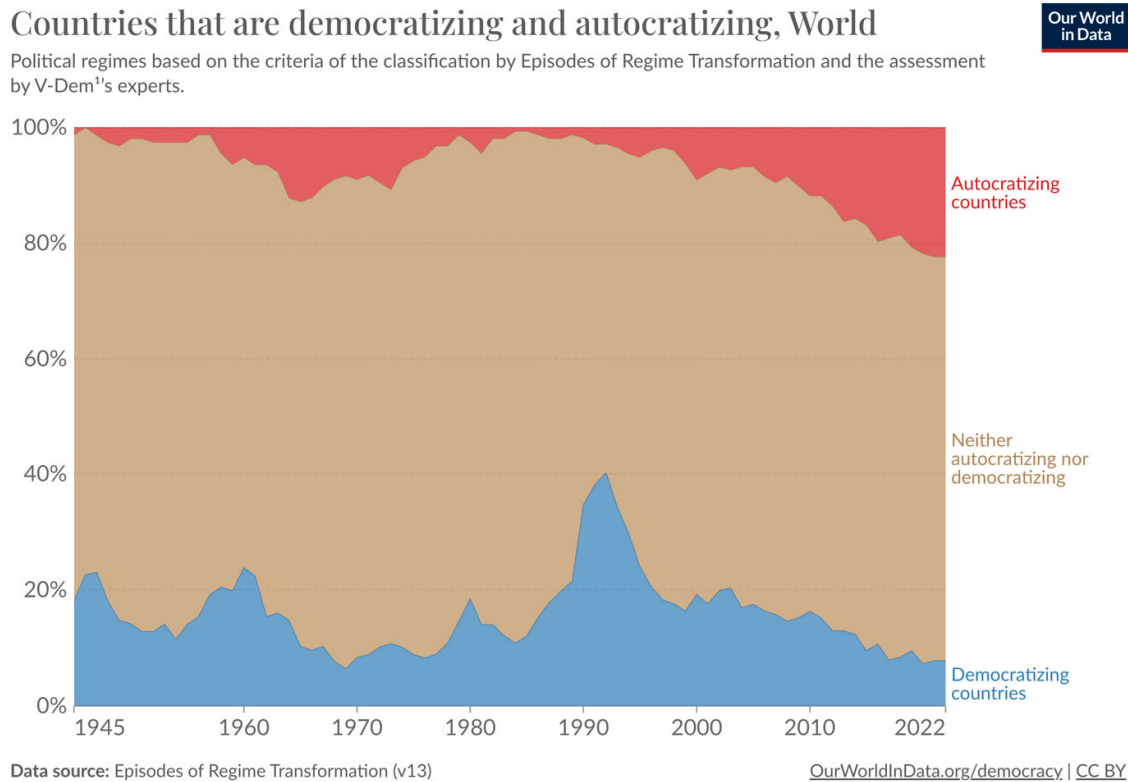


Figure 8. Share of states democratizing and autocratizing, 1945 to 2022.¹⁸²

And now, instead of a sole nuclear power propping up autocrats, both China and Russia support illiberal regimes and prop up nascent nuclear weapons states (e.g., China and North Korea) and nuclear weapon-pursuing regimes (e.g., Russia and Iran).

D. CONCLUSION

Considering the earlier finding that the most salient consideration for states to explore or pursue establishing a nuclear program is an external security threat, a world with

¹⁸² Source: Our World in Data, “Countries That Are Democratizing and Autocratizing,” Our World in Data, accessed November 16, 2023, <https://ourworldindata.org/grapher/countries-that-are-democratizing-and-autocratizing>.

less transparency and predictability naturally leads to less perceived security. Concurrently, an important factor discouraging proliferation is an alliance with a great power or inclusion in a nuclear umbrella. Fragmenting the international order, through great power nationalism and disengagement, therefore, raises the likelihood of proliferation.

IV. CASE STUDIES

The chapter utilizes two distinct case studies—Brazil and the USSR/Russia—to explore how shifts toward or away from democratic governance and economic openness can significantly influence a nation’s stance and actions toward nuclear nonproliferation. In the Brazilian case, its transition to democracy and subsequent economic liberalization played a crucial role in shaping its approach to nuclear nonproliferation. The chapter finds that Brazil’s move toward greater transparency and compliance with nuclear nonproliferation coincided with its democratization process. USSR/Russia offers an alternate narrative. Under Gorbachev’s leadership, the USSR exhibited a positive correlation between its liberalization efforts and cooperative nonproliferation. However, this trajectory changed dramatically with Putin’s rise to power and Russia’s subsequent move back toward autocratic governance.

A. BRAZIL

This case demonstrates the positive impact of democratization and economic liberalization on nonproliferation efforts. Domestic politics, not simply security considerations, encouraged Brazil to abandon its clandestine nuclear program and embrace the international nonproliferation regime.¹⁸³ Doing so aided Brazil in consolidating civilian control over the military, liberalizing its economy, and receiving advanced missile technology crucial to its space aspirations.¹⁸⁴ This case thus encapsulates the importance of democracy and the international nuclear order to nonproliferation efforts.

¹⁸³ Nuclear Threat Initiative, “Brazil Overview,” *Nuclear Threat Initiative* (blog), July 20, 2015, <https://www.nti.org/analysis/articles/brazil-overview/>.

¹⁸⁴ Nuclear Threat Initiative.

1. Initial Nuclear Efforts

Brazil initially became involved in nuclear development through a 1945 secret agreement to supply monazite sands (used to obtain thorium) to the Manhattan Project.¹⁸⁵ However, Brazilian leaders soon sought to acquire nuclear technology and knowledge for Brazilian use. In 1946, Admiral Alvaro Alberto presented a proposal to the United Nations Atomic Energy Commission (UNAEC, the precursor to the modern-day IAEA) for Brazilian nuclear development.¹⁸⁶ Admiral Alberto subsequently introduced a bill to the National Congress to create a National Research Council (*Conselho Nacional de Pesquisa*, or CNPq) with the goal of establishing a domestic nuclear energy program, which was passed and signed into law in 1951.¹⁸⁷

Subsequently, Brazil's pursuit of nuclear energy ran into starts and stops. An early effort was stymied by American interference when a quiet nonproliferation battle broke out between 1954 and 1955, with the U.S. successfully preventing West Germany from developing and shipping centrifuges to Brazil.¹⁸⁸ Later efforts were impeded upon by changing leadership priorities, with pro-American leaders briefly ascending to political control, only to be quickly replaced by Brazilian nationalists in the following elections.¹⁸⁹ The 1960s saw increased efforts to acquire nuclear technology, and in 1965, America agreed to provide a nuclear reactor to Brazil as part of a nuclear cooperation agreement.¹⁹⁰ Brazil agreed to its civilian nuclear program being subject to IAEA inspections and

¹⁸⁵ Marly Iyo Kamioji and Gildo Magalhães Dos Santos Filho, "Origins and Evolution of the Nuclear Program in Brazil: The Alliance between Scientists and Militaries for the Institutionalization of Science & Technology towards the Nuclear Technology Development," *Revista Tecnologia e Sociedade* 15, no. 37 (July 2, 2019), <https://doi.org/10.3895/rts.v15n37.7961>.

¹⁸⁶ Carlo Patti, "The Origins of the Brazilian Nuclear Programme, 1951–1955," *Cold War History* 15, no. 3 (July 3, 2015): 353–73, <https://doi.org/10.1080/14682745.2014.968557>.

¹⁸⁷ Patti.

¹⁸⁸ Patti.

¹⁸⁹ Patti.

¹⁹⁰ Joseph Cirincione, "A Brief History of the Brazilian Nuclear Program," Carnegie Endowment for International Peace, August 18, 2004, <https://carnegieendowment.org/2004/08/18/brief-history-of-brazilian-nuclear-program-pub-15688>.

safeguards. However, secret military efforts at nuclearization continued in parallel, unmonitored.¹⁹¹

2. The Secret Program

A 1964 coup d'état overthrew the democratically elected government and installed a military authoritarian government, which remained in power until 1985.¹⁹² While under military rule, Brazil pursued a secret nuclear program from 1979 until 1989, with three parallel efforts ongoing—a navy program, an air force program, and the army.¹⁹³ These three efforts pursued separate methodologies, with the Navy pursuing ultracentrifuges for uranium enrichment, the Air Force focusing on laser enrichment of uranium, nuclear weapons design, and construction of a nuclear weapon test site, and the Army developing graphite reactors to produce plutonium.¹⁹⁴ Each of these projects progressed without IAEA oversight. In tandem with its underground nuclear program, Brazil pursued research and development related to advanced missile technology, raising eyebrows and suspicions within the international community.¹⁹⁵

Available evidence suggests that while some efforts were successful, Brazil did not ultimately produce fissile material, rather focusing only on developing the capability to do so.¹⁹⁶ In 1985, Brazil held elections that began to loosen the military hold on power and initiated a move toward democratic practices. This progress culminated with the 1988 adoption of a new Federal Constitution of Brazil and Brazil's first election with universal

¹⁹¹ Cirincione.

¹⁹² Marcos Napolitano, "The Brazilian Military Regime, 1964–1985," in *Oxford Research Encyclopedia of Latin American History*, 2018, <https://doi.org/10.1093/acrefore/9780199366439.013.413>.

¹⁹³ Matias Spektor, "The Evolution of Brazil's Nuclear Intentions," *The Nonproliferation Review* 23, no. 5–6 (November 2016): 642, <https://doi.org/10.1080/10736700.2017.1345518>.

¹⁹⁴ Cirincione, "A Brief History of the Brazilian Nuclear Program."

¹⁹⁵ Spektor, "The Evolution of Brazil's Nuclear Intentions," 643.

¹⁹⁶ Cirincione, "A Brief History of the Brazilian Nuclear Program."

suffrage in 1989.¹⁹⁷ In 1990, Brazil renounced its secret program and initiated a series of steps which culminated in signing on to binding non-proliferation commitments.¹⁹⁸

3. Movement Toward Nonproliferation

Despite Brazil's resistance to the international proliferation regime, a confluence of domestic and regional changes led to reconsideration. Democratization, cooperation with its regional rival, Argentina, and domestic goals for technological advancement influenced Brazil's decision to ultimately join the international nonproliferation regime.

a. Brazil, Argentina, and the Democratic Peace

As regional neighbors, Argentina and Brazil competed for geopolitical preeminence for decades. Both states had refused to accede to the NPT based on the feeling that the nonproliferation regime favored the nuclear haves over the have-nots.¹⁹⁹ Throughout the 1960s and 1970s, there was little bilateral cooperation, minimal trust, and dispute over key water resources.²⁰⁰ Mistrust existed over each other's nuclear capabilities but was generally allayed at the unofficial level through dialogue between Argentinian and Brazilian nuclear scientists.²⁰¹ Still, there was enough mutual enmity to suggest interstate competition would continue as the status quo without an interceding factor.

The tipping point leading to collaborative efforts between Brazil and Argentina was democracy.²⁰² In 1983, Argentina's dictatorship collapsed, ushering in a new, democratic era replete with new overtures to its regional neighbors for improved relations. Despite

¹⁹⁷ Napolitano, "The Brazilian Military Regime, 1964–1985"; Spektor, "The Evolution of Brazil's Nuclear Intentions," 644.

¹⁹⁸ Cirincione, "A Brief History of the Brazilian Nuclear Program."

¹⁹⁹ Spektor, "The Evolution of Brazil's Nuclear Intentions," 638.

²⁰⁰ Spektor, 639.

²⁰¹ Spektor, 640.

²⁰² Scott D. Sagan, "Why Do States Build Nuclear Weapons?: Three Models in Search of a Bomb," *International Security* 21, no. 3 (1996): 71, <https://muse.jhu.edu/pub/6/article/447446>.

initial rebuffs, after its own turn toward democracy, Brasília met the overtures from Buenos Aires more favorably.²⁰³

This initial opening of cooperation over nuclear technology served as the opening round in a decade of moves toward openness and nonproliferation. Brazil and Argentina subsequently made public commitments, which were expressed in a series of Joint Declarations on Nuclear Policy. The five declarations, made by the Brazilian and Argentinian presidents in 1985, 1986, 1987, and twice in 1988, led to the 1990 Joint Statement of Buenos Aires and Declaration of Foz do Iguaçu.²⁰⁴ The declarations ultimately created the policies formalized in the Bilateral Agreement for the Exclusively Peaceful Use of Nuclear Energy, which went into force in December 1991.²⁰⁵ The Bilateral Agreement not only set the safeguards and accounting requirements known as the SCCC (formally, the Common System of Accounting and Control of Nuclear Materials), but it also created a joint agency to implement the SCCC measures, known as the ABACC (formally, the Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials).²⁰⁶

Interestingly, both Argentina and Brazil initially resisted the international nonproliferation regime. They continued to defend the right for states to conduct “peaceful nuclear explosions” (PNEs) and objected to the NPT on the basis that the nuclear-armed states were not disarming and their perception that the NPT aimed to corner the market for

²⁰³ Spektor, “The Evolution of Brazil’s Nuclear Intentions.”

²⁰⁴ ABACC, “Declaration of a Common Nuclear Policy, Foz Do Iguaçu,” ABACC, accessed November 30, 2023, <https://www.abacc.org.br/en/news/acordos/declaration-common-nuclear-policy-foz-iguacu/>.

For access to all of these declarations and agreements see: “ABACC Agreements and Statements,” ABACC, accessed November 30, 2023, <https://www.abacc.org.br/en/news/acordos/declaration-common-nuclear-policy-foz-iguacu/>.

²⁰⁵ Marco A. Marzo, Alfredo L. Biaggio, and Ana C. Raffo, “Nuclear Co-Operation in South America: The Brazilian-Argentine Common System of Safeguards,” IAEA Bulletin (New York, NY: International Atomic Energy Agency, 1994), 30.

²⁰⁶ Marzo, Biaggio, and Raffo, 30.

peaceful nuclear technology rather than address proliferation fears.²⁰⁷ Brazilian president, General Ernesto Geisel, best elaborated on Brazilian objections to the NPT in 1977, stating,

The NPT seeks to legitimize a distribution of power which is unacceptable, because it results from the stage at which States found themselves at the date of its signature, as regards the application of nuclear weapons technology. As a result of this stratification, the Treaty requires strict control by the IAEA over the dissemination of the peaceful uses of the atom while, in relation to the nuclear weapon countries, no barrier is erected to the vertical proliferation of nuclear armaments, as evidenced by the growth and sophistication of their nuclear weaponry. Additionally, as far as security is concerned, the NPT does not provide for any efficient system of protection for non-nuclear weapon countries.²⁰⁸

However, both Brazil and Argentina did later jointly approve a tripartite agreement with the IAEA for inspections before eventually agreeing to join the NPT.²⁰⁹

b. International Norms and Considerations

While many factors influenced Brazil's decision to join bilateral and international nonproliferation efforts, a particularly important element was a desire to liberalize the Brazilian economy.²¹⁰ The liberalizing measures adopted by President Fernando Collor de Mello between 1990 and 1992 invited an economic shock that drove down persistent inflation and opened Brazil up to a deluge of foreign investment. Concordantly, the sudden access to international markets and foreign support sensitized Brazil to the political pressures that it had resisted throughout the Cold War.²¹¹

Additional pressure to adhere to international norms was added during the Gulf War when coalition forces discovered that a Brazilian former Air Force officer was

²⁰⁷ Spektor, "The Evolution of Brazil's Nuclear Intentions," 638.

²⁰⁸ Kutchesfahani, *Politics and the Bomb*, 44.

²⁰⁹ Arturo C. Sotomayor, "Brazil and Mexico in the Nonproliferation Regime," *The Nonproliferation Review* 20, no. 1 (March 1, 2013): 81–105, <https://doi.org/10.1080/10736700.2013.769377>.

²¹⁰ Solingen, "The Political Economy of Nuclear Restraint," 161.

²¹¹ Solingen, 166.

providing sensitive technology to the Iraqis.²¹² Because Brazil lacked export control laws, this information sharing was legal. In the wake of this revelation, President Collor's successor, President Itamar Franco, announced that Brazil would abide by the Missile Technology Control Regime (MTCR) with the hopes of formally joining the organization at a later date.²¹³ Brazil harbored goals of space exploration, and it became clear that this goal could not be achieved without gaining the requisite international legitimacy to be trusted with advanced missile technology. As a result, Brazil enacted an export control law and joined the MTCR.²¹⁴

In the years since acceding to the NPT and MTCR, Brazil continued to meet its nonproliferation commitments, but became increasingly vocal about the current regime, and more specifically, American leadership of the regime.²¹⁵ In the early 2000s, under President Luiz Inácio Lula da Silva, there was talk of reviving the nuclear program and a prolonged period where IAEA inspectors were denied access to inspect centrifuges on the justification that they contained "proprietary technology."²¹⁶ One of Brazil's concerns is what it sees as a glacial pace of disarmament by the United States and other nuclear weapon states, which indicates a broader discomfort with the nuclear order.²¹⁷ Another concern was continued American resistance to Brazilian missile development in the early to mid-2000s, although Brazilian rocket launches had successfully occurred since the 1990s.²¹⁸ Brazilian reticence about the nonproliferation regime and the nuclear order has created some consternation in Argentina about what it would do in the "unlikely event" that Brazil

²¹² Jeffrey P. Marshall, "The Relationship Between Democracy and Nonproliferation: Brazil, China, and the MTCR" (Monterey, CA, Naval Postgraduate School, 1997), 19.

²¹³ Marshall, 20.

²¹⁴ Wyn Q. Bowen, "Report: Brazil's Accession to the MTCR," *The Nonproliferation Review* 3, no. 3 (September 1996): 86–88, <https://doi.org/10.1080/10736709608436642>.

²¹⁵ Spektor, "The Evolution of Brazil's Nuclear Intentions," 647.

²¹⁶ Spektor, 646–47.

²¹⁷ Spektor, 647.

²¹⁸ "EUA Tentaram Impedir Programa Brasileiro de Foguetes, Revela WikiLeaks," *O Globo*, January 25, 2011, <https://oglobo.globo.com/mundo/eua-tentaram-impedir-programa-brasileiro-de-foguetes-revela-wikileaks-2832869>; Instituto Nacional de Pesquisas Espaciais, "INPE," Instituto Nacional de Pesquisas Espaciais, November 30, 2023, https://www.gov.br/inpe/pt-br/copy41_of_capa-principal-inpe.

ever abandoned the ABACC.²¹⁹ According to Matias Spektor, as of 2019, “there are no indications or reasons to believe that Brazil will retreat from its NPT commitments, [however] its dominant position is one of caution toward the global nonproliferation regime’s growing intrusiveness.”²²⁰

B. USSR AND RUSSIA (1985-PRESENT)

In its final years, the Union of Soviet Socialist Republics and, after its dissolution, the Russian Federation that arose in its wake, demonstrated the relationship between democratization, liberalization, and the nuclear order. For as long as Russia maintained a nominal movement toward liberalization or democratization, nuclear stockpiles declined, cooperative agreements and transparency were prioritized, and joint nonproliferation efforts strengthened.²²¹ As Putin tightened his control over Russian politics and moved Russia back toward autocracy, efforts at cooperation stalled and then reverted, not just to previous levels, but back more than 30 years to a hostility not seen since the first Reagan administration.²²² This case clearly supports the connection between democracy and cooperative nonproliferation efforts.

1. Perestroika, Glasnost, and Nonproliferation

While the USSR co-authored the NPT with the United States, its actual implementation created discomfort for the communist regime. Teams of IAEA inspectors, a cornerstone of the NPT inspection arrangement, were not a warmly welcomed idea for the Soviet Union.²²³ While the USSR was generally cautious in its nuclear exports and seemed to support the nonproliferation regime, during the late 1970s and early 1980s it

²¹⁹ Spektor, “The Evolution of Brazil’s Nuclear Intentions,” 648.

²²⁰ Spektor, 648.

²²¹ Our World in Data, “Estimated Nuclear Warhead Stockpiles,” Our World in Data, accessed November 26, 2023, <https://ourworldindata.org/grapher/nuclear-warhead-stockpiles-lines>.

²²² Sarah Bidgood and William C. Potter, eds., *End of an Era: The United States, Russia, and Nuclear Nonproliferation* (Monterey, CA: James Martin Center for Nonproliferation Studies, 2021), <https://nonproliferation.org/end-of-an-era-the-united-states-russia-and-nuclear-nonproliferation/>.

²²³ George H. Quester, “Soviet Policy on the Nuclear Non-Proliferation Treaty,” *Cornell International Law Journal* 5, no. 1 (1972): 33.

committed to nuclear exports with non-NPT signatories without a safeguards agreement in place.²²⁴ By the mid-1980s, East-West relations were degraded, Soviet missiles had been deployed to Europe, and the Soviet nuclear stockpile was climbing by the hundreds each year.

Gorbachev's selection as the General Secretary in 1985 marked a critical turning point in the USSR. Gorbachev quickly realized that the planned economy of the communist party was malfunctioning.²²⁵ In hopes of correcting the economy and ending "the era of stagnation," Gorbachev introduced new policies, *perestroika* (restructuring) and *glasnost* (openness).²²⁶ These policies began the initial steps toward unprecedented economic liberalization and party openness for the Soviet Union.

Alongside his new vision for the USSR, Gorbachev sought to reform relations with the United States and the West, joining President Ronald Reagan in a 1986 public statement declaring, "nuclear war cannot be won and must never be fought."²²⁷ Part of Gorbachev's motivation for his rapprochement with the West was the Soviet Union's climbing budget deficit.²²⁸ Recognizing that Soviet military expenditures were overburdening the USSR's lagging economic power, he hoped reduced tensions with the United States would justify slowed military spending and give his policies a chance to successfully reform the economy.²²⁹ In order to save his economic reforms and bolster *perestroika*, Gorbachev

²²⁴ William C. Potter, "The Soviet Union and Nuclear Proliferation," *Slavic Review* 44, no. 3 (1985): 486–87, <https://doi.org/10.2307/2498015>.

²²⁵ Martin McCauley, *Gorbachev, Profiles in Power* (London and New York: Longman, 1998), 50–57.

²²⁶ McCauley, 50.

²²⁷ "Joint Soviet-United States Statement on the Summit Meeting in Geneva," Ronald Reagan Presidential Library, November 21, 1985, <https://www.reaganlibrary.gov/archives/speech/joint-soviet-united-states-statement-summit-meeting-geneva>.

²²⁸ McCauley, *Gorbachev*, 217.

²²⁹ William Taubman, *Gorbachev: His Life and Times* (New York, NY: Simon & Schuster, 2017), 287.

ultimately turned to the West for financial assistance—including the G7, the World Bank, and the IMF.²³⁰

Amid the social, economic, and political turmoil of the USSR in the late 1980s, Gorbachev embraced transparency with the United States and made overtures of peace. He proposed a comprehensive three-stage program for nuclear disarmament in 1986.²³¹ Although publicly dismissed by the White House, it intrigued Reagan enough to result in the Reykjavík summit later that year. Gorbachev also oversaw the first decline in the Soviet nuclear stockpile since the start of its nuclear program (Figure 9).

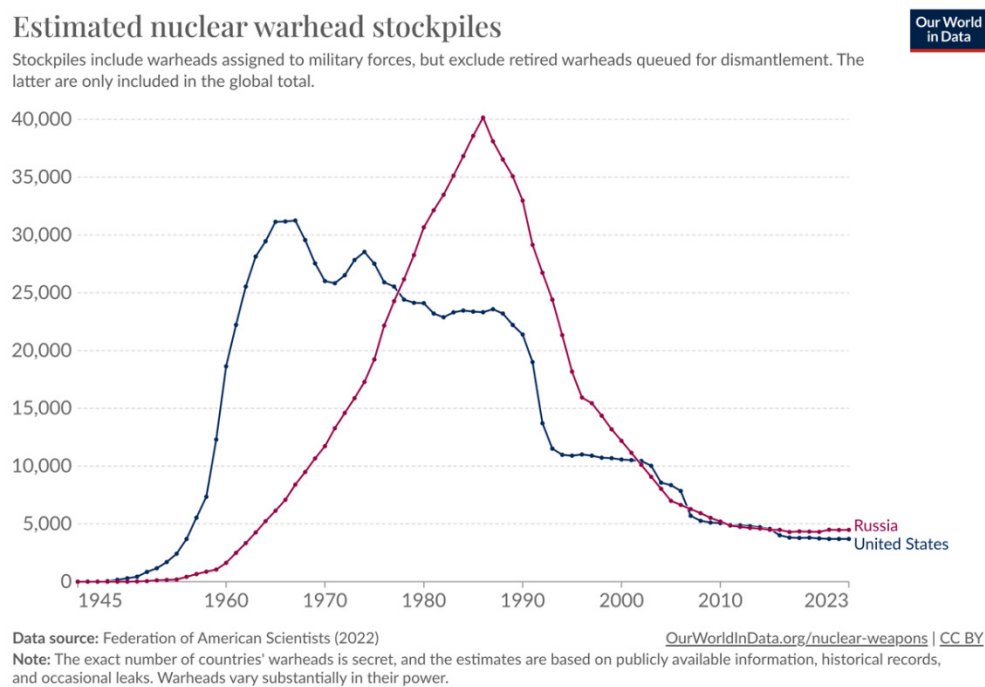


Figure 9. Nuclear stockpiles of the United States and Soviet Union/Russia, 1945–2023.²³²

²³⁰ McCauley, *Gorbachev*, 218–19; Taubman, *Gorbachev: His Life and Times*, 545.

²³¹ Svetlana Savranskaya and Thomas Blanton, “Gorbachev’s Nuclear Initiative of January 1986 and the Road to Reykjavik,” National Security Archive, October 12, 2016, <https://nsarchive.gwu.edu/briefing-book/nuclear-vault-russia-programs/2016-10-12/gorbachevs-nuclear-initiative-january-1986>.

²³² Source: Our World in Data, “Estimated Nuclear Warhead Stockpiles.”

From its high point in 1986 of an estimated 40,160 warheads, Gorbachev oversaw a decline of more than 11,000 warheads before his ouster in 1991.²³³ This decline continued beyond his leadership for over 20 years, in part due to his commitment to the Intermediate-Range Nuclear Forces Treaty in 1987 and the Strategic Arms Reduction Treaty in 1991.²³⁴

2. The Yeltsin Years

Boris Yeltsin succeeded Gorbachev as the USSR dissolved and the Russian Federation took its place. His eight years in office marked a high point of cooperation between the United States and Russia on nuclear matters.²³⁵ The United States committed millions of dollars to help Russia secure its nuclear weapons, provided technical advisers to assist where necessary, and purchased billions in highly enriched uranium (HEU) to be blended down to low enriched uranium (LEU).²³⁶ These joint efforts, known as Cooperative Threat Reduction (CTR), were signed into U.S. law in 1991 and continued on until 2013.²³⁷

In addition, the Trilateral Agreement between the United States, Russia, and Ukraine in 1994 marked a key diplomatic effort to address nuclear security after the Soviet Union's collapse.²³⁸ Initiated by the U.S. to aid stalled Ukrainian-Russian negotiations, the agreement led to Ukraine transferring its nuclear warheads to Russia for elimination.²³⁹

²³³ Our World in Data.

²³⁴ McCauley, *Gorbachev*, 212, 221.

²³⁵ Bidgood and Potter, *End of an Era*, 132.

²³⁶ Mariana Budjeryn, Simon Saradzhyan, and William Tobey, "25 Years of Nuclear Security Cooperation by the U.S., Russia and Other Newly Independent States: A Timeline," *Russia Matters*, June 16, 2017, <http://www.nap.edu/catalog/12583>.

²³⁷ Rowan Humphries, "Fact Sheet: The Nunn-Lugar Cooperative Threat Reduction Program," Center for Arms Control and Non-Proliferation, March 29, 2022, <https://armscontrolcenter.org/fact-sheet-the-nunn-lugar-cooperative-threat-reduction-program-2/>.

²³⁸ "Trilateral Statement by the Presidents of the United States, Russia, Ukraine," *Harvard Ukrainian Studies* 20 (1996): 313–16, <https://www.jstor.org.libproxy.nps.edu:2048/stable/41036699>.

²³⁹ Steven Pifer, "The Trilateral Process: The United States, Ukraine, Russia and Nuclear Weapons," Brookings, May 9, 2011, <https://www.brookings.edu/articles/the-trilateral-process-the-united-states-ukraine-russia-and-nuclear-weapons/>.

In return, Ukraine received security assurances, compensation for the highly enriched uranium the warheads contained, and U.S. assistance in dismantling its nuclear arsenal and infrastructure. This pact was crucial at the time for controlling the former Soviet Union's nuclear arsenal and helped integrate Ukraine into broader relations with the West.²⁴⁰

Despite this openness to the West, Yeltsin struggled to establish Russia's fledgling democratic system. He abolished the Russian Parliament in 1993 and created a "super-presidential system" that laid the groundwork for an authoritarian system where the parliament (Duma) could not effectively counterbalance the president's power.²⁴¹ This system was susceptible to autocratic leanings as it allowed for noncompetitive leadership selection and no clear transition path for leaders.²⁴²

3. The Putinization of Russia

The Putin era, starting in 2000, marked significant shifts in Russia's political landscape, international relations, and approaches to democratic norms and nonproliferation. Hand-selected to succeed Yeltsin, Putin's rise to power intensified the autocratic tendencies in Russia's nascent democracy.²⁴³ Despite the Russian Constitution imposing a two-consecutive-term limit on presidents, Putin has remained the de facto head of state since 2000.²⁴⁴ He circumvented the term limit by serving as prime minister under Dmitry Medvedev's presidency and then returning to the presidency in 2012.²⁴⁵ Putin's constitutional amendments strengthening presidential powers, despite some devolutions of power to the Duma, indicate a continued drift toward centralization of power.²⁴⁶

²⁴⁰ Pifer.

²⁴¹ Olga Kiyan, "Russia & Democratic Backsliding: The Future of Putinism," *Harvard International Review*, April 9, 2020, <https://hir.harvard.edu/russia-democratic-backsliding-the-future-of-putinism/>.

²⁴² Kiyan.

²⁴³ Kiyan.

²⁴⁴ Kiyan.

²⁴⁵ Kiyan.

²⁴⁶ Kiyan.

The autocratizing actions of Putin have paralleled a decrease in Russia's cooperation with nonproliferation efforts and norms. Under Putin's leadership, Russia initially continued Yeltsin's cooperation with the West on nonproliferation. Early in his presidency, Putin and U.S. President Bill Clinton agreed to establish a data exchange to share early warning missile threat information and continue the disposal of weapons-grade plutonium.²⁴⁷ In 2002, Putin signed on to the Strategic Offensive Reductions Treaty (SORT), reducing deployed warhead levels to between 2,200 and 1,700 by 2012.²⁴⁸ Putin and President George W. Bush later established the Global Initiative to Combat Nuclear Terrorism (GICNT) to increase nuclear facility security and work to prevent nuclear terrorism.²⁴⁹ In 2010, the United States and Russia signed New START, a treaty to replace and extend the limitations and transparency of the two states' nuclear arsenals.²⁵⁰

However, this cooperation dwindled and then disappeared. After observers from the Organization for Security and Cooperation in Europe (OSCE) noted irregularities in vote counting during the Russian Duma elections in 2011 and the presidential election in 2012, the United States publicly criticized the Russian electoral process, leading to angry denouncements by Putin and a rapid cooling of relations.²⁵¹ Russia terminated CTR in 2013 and most remaining bilateral nuclear security cooperation with the U.S. in 2014.²⁵² Putin went further in 2016, suspending the Plutonium Management and Disposition Agreement, signed with President Clinton in 2000, citing "unfriendly actions" by the

²⁴⁷ Mari Dugas, "Timeline of US-Russia Relations (1983-2023)," *Russia Matters*, December 2022, <https://www.russiamatters.org/facts/timeline-us-russia-relations-1983-2023>; Robert Einhorn, "Prospects for U.S.-Russian Nonproliferation Cooperation," *Brookings*, February 26, 2016, <https://www.brookings.edu/articles/prospects-for-u-s-russian-nonproliferation-cooperation/>.

²⁴⁸ Nuclear Threat Initiative, "SORT," *Nuclear Threat Initiative* (blog), accessed November 27, 2023, <https://www.nti.org/education-center/treaties-and-regimes/strategic-offensive-reductions-treaty-sort/>.

²⁴⁹ Nuclear Threat Initiative, "Global Initiative to Combat Nuclear Terrorism (GICNT)," *Nonprofit, Nuclear Threat Initiative*, accessed November 27, 2023, <https://www.nti.org/education-center/treaties-and-regimes/global-initiative-combat-nuclear-terrorism-gicnt/>.

²⁵⁰ Nuclear Threat Initiative, "New START Treaty."

²⁵¹ Jim Nichol, "Russia's March 2012 Presidential Election: Outcome and Implications," *Congressional Research Service* (Washington, D.C.: Congressional Research Service, March 2012), 1,4.

²⁵² Einhorn, "Prospects for U.S.-Russian Nonproliferation Cooperation."

United States.²⁵³ In 2022, the GICNT was suspended in light of Russia's invasion of Ukraine and mounting evidence that Russia itself was committing acts of nuclear terrorism.²⁵⁴ In February 2023, Putin announced that Russia was "suspending its participation" in New START, the final remaining nuclear arms control treaty between Russia and the United States, claiming that the inspections allowed in the treaty were a guise to further American efforts to "inflict a strategic defeat" on Russia in Ukraine.²⁵⁵

Moreover, Putin and his government representatives' counterproductive and even threatening rhetoric about nuclear weapons undermines the nuclear norms built up since the Gorbachev era. Particularly in the initial weeks of the 2022 Ukraine invasion, commentary coming from Russia amounted to veiled nuclear threats.²⁵⁶ Putin ordered Russian nuclear forces to "special combat readiness" three days after the invasion.²⁵⁷ His foreign minister, Sergei Lavrov, stated, "The danger [of nuclear war] is serious, real. And we must not underestimate it."²⁵⁸ Close Russia ally, Belarussian President Alexander Lukashenko, publicly called for nations to align with Russia and Belarus, stating, "It's very simple. You have to join the union between Belarus and Russia, and that's it: There will

²⁵³ Kingston Reif, "Russia Suspends Plutonium Agreement," *Arms Control Today* 46 (November 2016), <https://www.armscontrol.org/act/2016-10/news/russia-suspends-plutonium-agreement>.

²⁵⁴ Nuclear Threat Initiative, "Global Initiative to Combat Nuclear Terrorism (GICNT)"; Andrian Prokip, "The Russian Federation's Acts of Nuclear Terrorism Must Be Stopped," Think Tank, The Wilson Center, March 10, 2022, <https://www.wilsoncenter.org/blog-post/russian-federations-acts-nuclear-terrorism-must-be-stopped>.

²⁵⁵ Shannon Bugos, "Russia Suspends New START," *Arms Control Today* 53 (March 2023), <https://www.armscontrol.org/act/2023-03/news/russia-suspends-new-start>; Anton Troianovski, "Putin's Message to Russians: Prepare for a Long War.," *The New York Times*, February 21, 2023, sec. World, <https://www.nytimes.com/live/2023/02/21/world/russia-biden-putin-ukraine-war>.

²⁵⁶ Steven Pifer, "Russia, Nuclear Threats, and Nuclear Signaling," Brookings Institute, October 13, 2023, <https://www.brookings.edu/articles/russia-nuclear-threats-and-nuclear-signaling/>.

²⁵⁷ David E. Sanger and William J. Broad, "Putin Declares a Nuclear Alert, and Biden Seeks De-escalation," *The New York Times*, February 28, 2022, sec. U.S., <https://www.nytimes.com/2022/02/27/us/politics/putin-nuclear-alert-biden-deescalation.html>.

²⁵⁸ "Russia's Lavrov: Do Not Underestimate Threat of Nuclear War," *Reuters*, April 26, 2022, sec. World, <https://www.reuters.com/world/russia-says-western-weapons-ukraine-legitimate-targets-russian-military-2022-04-25/>.

be nuclear weapons for everyone.”²⁵⁹ In the midst of this commentary, Russia became the first foreign power to occupy another nation’s nuclear power plant after engaging in combat in the direct vicinity of the nuclear reactors, heightening concerns of upended nuclear norms.²⁶⁰

C. CONCLUSION

The Brazil and USSR/Russia cases provide a useful opportunity to compare the link between democracy, liberalization, and nonproliferation compliance across regions and in states with vastly different power statuses. These cases demonstrate that democratization and liberalization can positively influence nonproliferation efforts. However, the reverse—autocratization—can lead to a decline in such cooperation, as seen in Russia under Putin.

In both cases, economic liberalization was a critical component of democratization and cooperation with international arms control and nonproliferation efforts, particularly early on. Later, both states embraced transparency and international cooperation in order to advance domestic policy goals—in the case of Brazil, its space program aspirations and desire to consolidate civilian governing power, and for Russia in the 1990s, assistance controlling its nuclear arsenal and involving its ailing economy in the international system.

Interestingly (and worryingly, for the West), Brazil is now aligning more closely with Russia and pushing for a greater role in regional and world affairs. Brazil’s embrace of Russia and China has remained even after Brazil’s 2022 elections, which saw the transfer of executive power from right-wing populist Jair Bolsonaro to left-wing socialist (and

²⁵⁹ Yuliya Talmazan, “‘Nuclear Weapons for Everyone’ Who Joins Belarus and Russia, Putin Ally Promises,” Nonprofit, Carnegie Endowment for International Peace, May 30, 2023, <https://carnegieendowment.org/2023/05/30/nuclear-weapons-for-everyone-who-joins-belarus-and-russia-putin-ally-promises-pub-89850>.

²⁶⁰ Megan Specia, “U.N. Nuclear Official Visits Zaporizhzhia Plant to Assess Safety,” *The New York Times*, June 15, 2023, sec. World, <https://www.nytimes.com/2023/06/15/world/europe/zaporizhzhia-nuclear-plant-iaea-grossi-visit.html>; Shoko Oda and Jonathan Tirone, “Russian Operator of Occupied Ukraine Reactor Disregards IAEA Advice to Shut Down,” News, Bloomberg, July 7, 2023, <https://www.bloomberg.com/news/articles/2023-07-07/russian-operator-of-occupied-ukraine-reactor-disregards-iaea-advice-to-shut-down?embedded-checkout=true>.

previous Brazilian president) Luiz Inácio Lula da Silva.²⁶¹ Seeing itself as a rising power due greater respect on the international stage, Brazil has advocated for a more multipolar world, at least economically. Its alignment with BRICS, a coalition of five major emerging economies consisting of Brazil, Russia, India, China, and South Africa, is a manifestation of Brazil's desire to achieve greater international influence.²⁶² This aligns closely with Russian goals as it seeks to form cooperative agreements with states to oppose Western influence. Both Brazil and Russia aim to use BRICS to enhance their global standing, and their approaches reflect their domestic political ideologies and international ambitions. Brazil's focus is on economic opportunities and national prestige, whereas Russia's goal is strategic influence and counterbalancing the West.

²⁶¹ George Wright, "Ukraine War: U.S. Accuses Lula of Parroting Propaganda," *BBC News*, April 18, 2023, <https://www.bbc.com/news/world-latin-america-65307553>; euronews, "Ukraine Urged to Give up Crimea by Brazil's Lula," euronews, April 7, 2023, <https://www.euronews.com/2023/04/07/the-world-needs-tranquillity-ukraine-urged-to-give-up-crimea-by-brazils-lula>; Bruno Meyerfeld, "Biden-Lula Meeting: War in Ukraine High on the Agenda," *Le Monde*, February 10, 2023, https://www.lemonde.fr/en/international/article/2023/02/10/biden-lula-meeting-war-in-ukraine-high-on-the-agenda_6015191_4.html.

²⁶² Spektor, "The Evolution of Brazil's Nuclear Intentions," 639.

V. CONCLUSION

There has been significant backsliding on the standards related to arms control and risk reduction...These findings raise concerns that the risk of nuclear use is increasing and that critical nonproliferation and disarmament norms are eroding.²⁶³

—Arms Control Association 2019 Report

Despite dangerous periods of Cold War brinksmanship and a competitive, bipolar great power environment for more than 40 years, the absence of nuclear warfare—or even a single instance of a nuclear weapon used against an adversary since 1945—suggests that international and bilateral nuclear agreements helped create a relatively stable nuclear world order. Additionally, international institutions created in the wake of World War II, such as the United Nations and all its attendant components, provide forums for communication and grievance resolution that exist to this day, a critical component of a peaceful international environment.

To a significant degree, these conventions and institutions reflect and advance the rule of law and collaborative, stability-oriented relations among states—liberal norms that Western democracies promote and reinforce in the international order. In this light, the emergence of illiberal and authoritarian regimes, quasi-democracies, and democratic decline—and specifically the rising popular skepticism of governing institutions, political process, and peaceful international relations—may threaten the underlying values that undergird nuclear nonproliferation and non-use.

While it is obviously in the worldwide best interest to avoid nuclear proliferation and heightened tensions that could lead to nuclear conflict, how best to achieve these goals is far less obvious. For liberal democracies, global interdependence, negotiated agreements, and international law—hallmarks of the liberal international order—are the preferred methods of maintaining order. For autocracies, illiberal quasi-democracies, and even populist-led democracies, these lofty globalist goals often conflict with perceived

²⁶³ Alicia Sanders-Zakre and Kelsey Davenport, “Assessing Progress on Nuclear Nonproliferation and Disarmament: Updated Report Card 2016–2019” (Arms Control Association, July 2019).

national self-interest and sovereignty. Illiberal leaders are, therefore, more inclined to subvert international law in pursuit of national or personal advantage.

The laws and agreements that govern nuclear arms are important pillars of the international order. However, violating these documents is not a critical matter in itself. The critical concern is that violating nuclear norms creates new risks for actual nuclear weapon use. As one study found, “violating international law is contagious.”²⁶⁴ While these unspoken rules helped create a world where attacking an enemy with nuclear weapons is unthinkable, it would be folly to believe nuclear war is actually impossible.

A. SIGNIFICANT FINDINGS

Chapter I established the early circumstances influencing the deliberations around managing the dangers of the nuclear weapon. Many of the experts who had been most closely involved with the Manhattan Project were certain that an international arms race would drastically reduce the security of the entire world; however, numerous efforts to cede control of the weapon to international governance ultimately failed. The chapter further defined the nonproliferation regime and introduced its fundamental connection to the post-World War II order. The thesis identified useful literature for conceptualizing the arguments surrounding democratic backsliding, the liberal international order, and nonproliferation, but identified a gap in the literature addressing the potential for democratic backsliding to impact nonproliferation.

In Chapter II, the thesis considered the fundamental circumstances underlying the establishment of the post-WWII order and identified the key elements that set this current order apart, including foundational multilateral agreements and its institutions. The chapter further defined the parameters of the nuclear order, within which the nonproliferation regime resides, and connected it directly to the nascent liberal international order. The nuclear order is comprised of organizations, multilateral and bilateral agreements, and epistemic communities working in concert to reduce the threats posed by nuclear technology through controls on arms control and non-proliferation, and the promotion of

²⁶⁴ Dothan, “Violating International Law Is Contagious.”

deterrence and disarmament. The chapter also highlights the overall success of the nuclear order in addressing these threats. This point is essential because it connects the existing international and nuclear orders to a successful campaign to lower the nuclear risks confronting the international community.

Chapter III identifies the role of democracy within the international order and nonproliferation before providing robust evidence that democracy is receding. Further, this chapter critically assesses how democracy and democratization interact with the nonproliferation regime, suggesting that democracies are less likely to engage in nuclear proliferation due to various factors such as economic liberalization, transparent governance, and alliances with powerful nations. It contrasts this with the tendency of less democratic regimes to pursue nuclear capabilities driven by external security threats and internal political dynamics. The chapter concludes by highlighting the difference in compliance with international law between liberal democracies and closed autocracies. Liberal democracies, characterized by the rule of law, transparency, and accountability, show higher compliance, whereas autocracies exhibit lower compliance, often engaging with international law more strategically for regime survival. The central finding of the chapter, that declining democracy correlates with declining adherence to the nuclear order and, thus, the nonproliferation regime, is supported by quantitative.

Chapter IV shifts the focus to case studies, examining Brazil and the USSR/Russia to investigate the relationship between democratization, autocratization, and state interaction with the nuclear order and nonproliferation regime. The Brazilian case study meets the expectations of this thesis, demonstrating that the country's transition to democracy and subsequent economic liberalization played a pivotal role in shaping its embrace of nuclear nonproliferation. Importantly, available evaluations indicate that, despite its reservations about the current nonproliferation regime, Brazil remains committed to nonproliferation and engages in the democratic nature of the international order by leading panels dedicated to hastening disarmament. In the USSR under Gorbachev's leadership, the Soviet Union showed a positive correlation between its liberalization efforts and cooperative nonproliferation. However, this trajectory changed with Putin's rise to power, as post-Cold War Russia moved back toward autocratic

governance, influencing its withdrawal from the nuclear nonproliferation regime. Notably, both states have a history of challenging the current regime and its opposing Western (American) leadership. Their current collaboration in BRICS and shared resentment for the Western order raises concerns about an emerging anti-regime cooperative bloc.

B. POLICY RECOMMENDATIONS

Based on the findings of the research in this thesis, several policy recommendations emerge that are crucial for enhancing global nuclear nonproliferation efforts in the context of declining democratic norms.

First, democratic states must work to shore up their institutions by acting under the assumption that norms will not be upheld by all who hold office. Explicitly stated rules and laws guiding governance, ethics, and elections are imperative to reinforce and support democratic institutions nationally and globally. Therefore, individual states should prioritize initiatives that strengthen democratic processes and institutions, particularly in states currently susceptible to autocratic shifts. These initiatives should address empirically evident causes of democratic backsliding, such as reduced trust in democratic institutions among electorates, concerns about declining state sovereignty, and rising nationalist populism.²⁶⁵

Second, the United States needs to build trust with non-nuclear weapons states on its commitment to the nonproliferation regime. Perceptions of hypocrisy undermine faith in U.S. leadership and the regime at large. Moves to modernize the nuclear arsenal should accompany short-term plans to reduce the overall warheads in the inventory. By signaling a renewed commitment to its disarmament obligation unilaterally, the United States can

²⁶⁵ For an extensive set of research-based recommendations to counter democratic backsliding, see: Norman Eisen et al., “The Democracy Playbook: Preventing and Reversing Democratic Backsliding” (Washington, D.C.: Brookings Institute, November 2019), https://www.brookings.edu/wp-content/uploads/2019/11/the-democracy-playbook_preventing-and-reversing-democratic-backsliding.pdf.

encourage states like Brazil to remain in the regime and turn away from Russia's sphere of influence.²⁶⁶

Lastly, the United States should revise its nuclear launch authorization procedures from a single decision-maker to a consensus decision requirement, perhaps requiring the consent of a representative from each branch of government. Adding this constraint invokes the "checks and balances" system that the framers built into the Constitution, signals responsible launch restraints to the global community, and prevents unilateral decision-making by a leader who does not abide by nuclear norms.²⁶⁷ In an age of growing illiberalism and rejection of nuclear norms, a similar review of launch procedures would be wise for any state, but particularly those experiencing backsliding recently.

This thesis emphasizes the need to recognize and address the challenges that arise from the retreat of democratic and liberal values globally, as these are integral to the maintenance of a stable international nuclear order. These policy recommendations aim to bolster global nuclear nonproliferation efforts by reinforcing democratic governance, improving transparency, promoting regional cooperation, and addressing the underlying causes of defection from the nonproliferation regime. Active measures are critically needed to strengthen the global nuclear nonproliferation regime, and the overall nuclear order, in a rapidly changing global political landscape.

²⁶⁶ For a quick read on the comprehensive steps needed to reinforce the nuclear order, see: Rebecca Davis Gibbons, "The Future of the Nuclear Order," Arms Control Association, April 2019, <https://www.armscontrol.org/act/2019-04/features/future-nuclear-order>. For an in depth read on all things nuclear order, see: Kutchesfahani, *Global Nuclear Order*.

²⁶⁷ This particular issue has gotten more attention as of late, and it should. Currently, the only way to prevent the United States president from launching a nuclear war is through the 25th amendment. The following articles cover various aspects of this policy: Loren Thompson, "The President's Power To Launch Nuclear Weapons Highlights A Troubling Paradox In U.S. Strategy," *Forbes*, September 19, 2023, <https://www.forbes.com/sites/lorenthompson/2023/09/19/the-presidents-power-to-launch-nuclear-weapons-highlights-a-troubling-paradox-in-us-strategy/>; Rachel Traczyk, "The Real Gen. Milley Story Is the President's Sole Authority to Launch Nukes – Responsible Statecraft," *Responsible Statecraft*, September 23, 2021, <https://responsiblestatecraft.org/2021/09/23/the-real-gen-milley-story-is-the-presidents-sole-authority-to-launch-nukes/>; Lama El Baz, "Most Americans Are Uncomfortable with the Policy of Nuclear Sole Authority," *Blog Post (The Chicago Council on Global Affairs)*, August 16, 2023), <https://globalaffairs.org/commentary-and-analysis/blogs/most-americans-are-uncomfortable-policy-nuclear-sole-authority>.

C. RECOMMENDATIONS FOR FUTURE RESEARCH

This thesis argued that global democracy is linked to the global nonproliferation regime and that current threats to democracy place nonproliferation norms at risk, but it did not speak to the root causes of democratic backsliding. During the research for this thesis, evidence emerged for nationalism and populism as specific and acute causes of democratic backsliding, which, though outside the scope of this thesis, requires further analysis.

Problematically, the available evidence suggests that populism is a “clear and present danger to democracy.”²⁶⁸ Consider this quote from Kyle and Mounk’s “Populist Harm to Democracy:”

Among countries with at least \$1,000 in per capita gross domestic product (GDP), four in five democratic breakdowns since the end of the Cold War have been initiated from within. Among these, *nearly two-thirds* were brought about by populist leaders.²⁶⁹

Among Kyle and Mounk’s findings: populists remain in power longer than non-populists, often leave office in dramatic circumstances, are far more likely to damage democracy than non-populists, erode checks and balances on executive power, and decrease political rights and civil liberties.²⁷⁰ Ultimately, their data shows that populists are at least four times as likely as non-populists to initiate democratic backsliding.²⁷¹

In addition to populist attacks on democratic norms, nationalists inject anti-internationalist—that is, anti-UN, anti-NATO, anti-EU, etcetera—sentiment into their discourse.²⁷² The recent nationalist trend toward de-globalization and the reassertion of

²⁶⁸ Jordan Kyle and Yascha Mounk, “The Populist Harm to Democracy: An Empirical Assessment” (London, U.K.: Tony Blair Institute for Global Change, December 26, 2018), <https://www.institute.global/insights/geopolitics-and-security/populist-harm-democracy-empirical-assessment>.

²⁶⁹ Kyle and Mounk., italicized emphasis in the quote are mine.

²⁷⁰ Kyle and Mounk.

²⁷¹ Kyle and Mounk.

²⁷² Sam Sachdeva, “Behind the Spread of Anti-UN Sentiment,” Newsroom, March 14, 2019, <http://newsroom.co.nz/2019/03/14/behind-the-spread-of-anti-un-sentiment/>; ““Anti-System’ Sentiment Is Still Strong Around the World,” Ipsos, September 26, 2018, <https://www.ipsos.com/en-us/news-polls/Anti-System-Sentiment-Still-Strong-2018>; Norris and Inglehart, *Cultural Backlash*.

national sovereignty underlies the United Kingdom’s Brexit decision, the America First policy under Donald Trump’s administration, and the increased border controls in response to the migrant crisis in Europe.²⁷³ As states turn inward, the cohesive fabric of international relations—built on mutual interests, collective problem-solving, and shared values—begins to fray.

Further analysis on the effects of nationalists and populists on norms, inter-state cooperation, and the nuclear order may create a clearer picture of the threat to democracy. Understanding the scope of these threats may better enable democracies to counter destabilizing movements.

²⁷³ Robert Schertzer and Eric Taylor Woods, “Donald Trump and the New Nationalism in America,” in *The New Nationalism in America and Beyond: The Deep Roots of Ethnic Nationalism in the Digital Age*, ed. Robert Schertzer and Eric Taylor Woods (Oxford University Press, 2022), <https://doi.org/10.1093/oso/9780197547823.003.0005>; Norris and Inglehart, *Cultural Backlash*.

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