



NUCLEAR AMBITIONS: ECONOMIC BURDENS AND POLITICAL POWER

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Introduction

- ▶ **Definition:** An arms race is a competition where states expand military capabilities, often for superiority or deterrence. It also refers to increased military spending among groups of states.
- ▶ **Causes:** Usually driven by tensions and disputes between countries, leading to a "security dilemma"—one state's actions to improve security may make others feel less secure.
- ▶ **Focus:** The presentation examines the nuclear arms race between the US and USSR during the Cold War and its economic consequences.

History of Nuclear Arms Race: U.S. vs USSR

- ▶ **Overview:** From 1947–1991, the Cold War saw a nuclear arms race between the U.S. and USSR, driven by ideological, political, and military rivalry. Nuclear weapons symbolized the larger conflict between capitalism and communism.
- ▶ **1945:** U.S. used atomic bombs in WWII (Hiroshima, Nagasaki).
- ▶ **1949:** USSR developed its first atomic bomb.
- ▶ **1950s:** U.S. (1952) and USSR (1953) tested hydrogen bombs, escalating the arms race with ICBMs and SLBMs.
- ▶ **1962:** Cuban Missile Crisis highlighted nuclear war risks, prompting arms control efforts.
- ▶ **1963:** Partial Test Ban Treaty limited nuclear testing.
- ▶ **1970s:** Proliferation continued despite arms control treaties like SALT I & II.
- ▶ New weapons were often used as bargaining tools in diplomacy.
- ▶ **Impact:** Altered global conflict dynamics and sparked moral debates.
- ▶ Showed risks of nuclear proliferation and need for regulation.

Security Dilemma in the Nuclear Arms Race

- ▶ One state's attempt to improve security reduces others' security.
- ▶ This creates mistrust, leading to arms build-up and more insecurity.
- ▶ **Key Ideas by Scholars:**
 - ▶ **Simon Dalby:**
 - ▶ Nuclear weapons are the ultimate deterrent but increase overall insecurity.
 - ▶ Paradox: Security is based on the same threat it tries to prevent.
 - ▶ **Charles Glaser:**
 - ▶ States compete in an anarchic world, escalating conflicts.
 - ▶ Efforts to defend provoke hostile responses, fueling arms races.
- ▶ **Impact:**
 - ▶ The nuclear arms race shows how security efforts create global instability.
 - ▶ This dilemma persists today, complicating global security.

The Economic Costs of the Nuclear Arms Race

- ▶ During the Cold War, the U.S. and Soviet Union spent huge amounts on nuclear weapons, impacting their economies.
- ▶ **U.S. Costs:** Over \$6 trillion spent on nuclear weapons and related programs. This was a large part of the federal budget and took resources away from domestic needs like healthcare and education.
- ▶ **Soviet Costs:** Military spending was 15% to 20% of GDP. The economy was inefficient, and resources were mismanaged, leading to poor living standards.
- ▶ **Opportunity Cost:** High military spending reduced investments in civilian sectors. In the U.S., defense spending had lower economic returns than investments in infrastructure or public services. In the Soviet Union, the focus on military production left consumer goods and industrial growth neglected.
- ▶ **Long-term Impact:** The U.S. had to balance military spending with domestic needs, leading to fiscal policy changes post-Cold War. The Soviet Union's heavy military focus contributed to its collapse in 1991.

Addressing Nuclear Threats and a World Beyond Nuclear Weapons

- ▶ **Rising Threats:** The risk of nuclear terrorism is higher today, especially with the potential misuse of materials like highly enriched uranium (HEU) and plutonium.
- ▶ **Non-State Actors:** Terrorist groups may seek nuclear weapons, seeing them as tools for their goals, including creating 'martyrs.' The collapse of Soviet control over nuclear facilities has made this risk greater.
- ▶ **Miscommunication Risks:** Misinterpretations between nuclear-armed states can escalate conflicts. Even defensive actions can be seen as aggressive, increasing global insecurity.
- ▶ **Ineffective Deterrence:** Traditional deterrence methods are less effective today. There's a need for better intelligence sharing and preemptive actions to prevent non-state actors from obtaining nuclear materials.
- ▶ **Comprehensive Approach:** Solving nuclear risks requires technical solutions, political will, and international cooperation to build trust and ensure security.

Conclusion: Lessons from the Nuclear Arms Race

- ▶ **Cold War Rivalry:** The U.S. and Soviet Union's nuclear arms race created global insecurity, showing how power struggles and misunderstandings can escalate conflicts.
- ▶ **Economic Impact:** The arms race drained resources that could have been used for social and economic development. For the U.S., it was a balance between defense and domestic needs, while for the Soviet Union, it exposed inefficiencies in its economy, contributing to its collapse.
- ▶ **Non-State Actors:** Today, nuclear threats extend beyond states, with terrorist groups seeking nuclear weapons. This calls for new approaches like intelligence sharing, proactive measures, and international cooperation.
- ▶ **A Safer Future:** To reduce risks, we need diplomacy, trust-building, and strong security systems for nuclear materials. The Cold War shows that arms races harm global stability and highlight the importance of arms control and disarmament.

References

- ▶ Dalby, Simon. "Security, Modernity, Ecology: The Dilemmas of Post-Cold War Security Discourse." *Alternatives: Global, Local, Political* 17, no. 1 (1992): 95–134. <http://www.jstor.org/stable/40644733>.
- ▶ Glaser, Charles L. "The Security Dilemma Revisited." *World Politics* 50, no. 1 (1997): 171–201. <http://www.jstor.org/stable/25054031>.
- ▶ Higgs, Robert. *U.S. Military Spending in the Cold War Era: Opportunity Costs, Foreign Crises, and Domestic Constraints*. Cato Institute, 1988. <http://www.jstor.org/stable/resrep04986>.
- ▶ ———. "Deterrence, the Spiral Model, and Intentions of the Adversary." In *Perception and Misperception in International Politics: New Edition*, REV-Revised, 58–114. Princeton University Press, 1976. <https://doi.org/10.2307/j.ctvc77bx3.8>.
- ▶ Kibaroglu, Mustafa. "Dealing with the Threat Posed by Non-State Armed Groups Aspiring to Weapons of Mass Destruction." In *Defence Against Weapons of Mass Destruction Terrorism*, 161–169. IOS Press, 2009.
- ▶ ———. "How Can Countries Ensure That the Nuclear Security Summit Does Not Lose Momentum and Become Just Another Gathering?: Position: Kickstart Momentum with Local Review Teams and Summits with Teeth." *Bulletin of the Atomic Scientists* 68, no. 2 (2012): 81–83. <https://doi.org/10.1177/0096340212440356>.

References (Continued)

- ▶ Masters, Jonathan. "U.S.-Russia Nuclear Arms Control." Council on Foreign Relations, May 1, 2017. <https://www.cfr.org/timeline/us-russia-nuclear-arms-control>.
- ▶ Perlo-Freeman, Sam. "Arms Race." *Encyclopedia Britannica*, April 19, 2024. <https://www.britannica.com/topic/arms-race>.
- ▶ Sagan, Scott D. "The Perils of Proliferation: Organization Theory, Deterrence Theory, and the Spread of Nuclear Weapons." *International Security* 18, no. 4 (1994): 66–107. <https://doi.org/10.2307/2539178>.
- ▶ Schwartz, Stephen I., ed. "The Economic Implications of Nuclear Weapons and Nuclear Deterrence." In *Atomic Audit: The Costs and Consequences of U.S. Nuclear Weapons Since 1940*, 519–544. Brookings Institution Press, 1998. <http://www.jstor.org/stable/10.7864/jj.17497069.18>.
- ▶ Thee, Marek. "The Nuclear Arms Race." *Bulletin of Peace Proposals* 5, no. 4 (1974): 291–292. <http://www.jstor.org/stable/44480265>.
- ▶ Wivel, Anders. "Security Dilemma." *Encyclopedia Britannica*, January 7, 2019. <https://www.britannica.com/topic/security-dilemma>.



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