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# Threat inflation and the Iranian nuclear program

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ABSTRACT

Much of the debate over the Joint Comprehensive Plan of Action—the agreement on Iran's nuclear program reached in 2015 between the P5 + 1 and Iran–has centered on whether the limits the plan imposes on Iran's nuclear program are sufficient to prevent Iran from achieving a nuclear "breakout" in a year or less. However, "breakout time" is misleading: it involves implausible worst-case assumptions and ignores important factors influencing Iran's nuclear path. It also overlooks important elements of the agreement such as safeguards and transparency measures that likely do the most to prevent Iran from getting a weapon. Why, then has breakout time occupied such a central position in the debate? This paper argues this case is an example of how the over-reliance on technical threat estimates biases policy debates. Technical assessments are critical to understanding threats, but when removed from the political and strategic context can fuel worst-case estimates. Moreover,they create an illusion of precision and certainty that leads policy makers and the public to overlook important areas of uncertainty and factors that can impact policy outcomes that are difficult to measure or are not easily quantified.



Under the Joint Comprehensive Plan of Action (JCPOA) that was reached in July 2015 between Iran and the P5 + 1 (the five permanent members of the UN Security Council—the United States, the United Kingdom, France, Russia, and China—plus Germany), Iran accepted limits on its nuclear program that, according to the Obama administration, achieves the core U.S. objective of limiting the time it would take for Iran to enrich sufficient highly enriched uranium (HEU) for a single nuclear weapon —Iran's "breakout time"—to 12 months.[1] A great deal of the policy debate and public discourse over the merits of the JCPOA has focused on whether it indeed achieves this objective, or whether Iran could clandestinely produce a "significant quantity" of HEU in a shorter period of time.[2] Likewise, much of the public discourse on the Iranian nuclear threat and the requirements for a successful diplomatic settlement has focused on the question of breakout time.[3]

While a 12-month threshold provides a useful benchmark, by itself it can be misleading. It is highly unlikely that Iran could acquire nuclear weapons in a year, with or without the limits imposed by the JCPOA. More importantly, a near-exclusive focus on the technical considerations involved in calculating any breakout time—the numbers of centrifuges, stocks of UF6, and other relevant technical and material indicators—draws attention away from not only other important technical factors related to Iran's overall nuclear weapons capability, but essential strategic, political, and organizational factors that define the context on which any meaning of a breakout calculation depends. This broader context is essential to any real understanding of Iran's nuclear possibilities, yet it is frequently overlooked or downplayed in the policy debate. A heavy focus on breakout calculations thus obscures Iran's actual

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[1] For example, see Michael R. Gordon and David E. Sanger, "Negotiators Weigh Plan to Phase Out Nuclear Limits on Iran," *New York Times*, February 23, 2015; David E. Sanger and Michael R. Gordon, "Obama Vows to Defend Iran Deal," *New York Times*, July 15, 2015. For a critique of such a focus on Iran's centrifuges and other material elements of the nuclear program, see Joseph Cirincione, "Why America's Obsession with Iran's Centrifuges Could Give Tehran the Bomb," *Defense One*, February 19, 2015.

[2] A significant quantity (SQ) of weapons-grade HEU (>90% U-235) is the amount required to produce a single weapon. The IAEA considers this to be 25 kg.

[3] For example, when the initial framework for what would ultimately be the JCPOA was announced in April 2015, even though many important details were left out of the agreement, the number of centrifuges and the amount of enriched uranium that can be kept on hand in the form of uranium hexafluoride gas (UF6) was precisely specified, and the administration made these limits and the claim they would keep Iran below the 12-month breakout threshold central to their public case for the agreement. Michael R. Gordon and David E. Sanger, "Iran Agrees to Detailed Nuclear Outline, First Step Toward a Wider Deal," *New York Times*, April 2, 2015.

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nuclear potential, and has fueled a debate often divorced from the policy reality.

This ultimately led to the Obama administration's adoption of its critics' framing of the debate. In selling its negotiating strategy to the public, the administration focused heavily on its efforts to cut numbers of centrifuges and limit stocks of LEU as a way to extend Iran's breakout time to beyond 12 months. Interestingly, this allowed the administration to satisfy its critics' most vocal objections to an agreement early on, and build support for an agreement while continuing to negotiate other important details of the agreement such as the disposition of Iran's heavy-water reactor at Arak that did not receive as much attention and were not central to opponents' critiques. But it also underplayed important elements of the JCPOA that do the heaviest lifting in limiting Iran's nuclear options, such as imposing strict safeguards and increasing the nuclear program's transparency, that are not reflected in the breakout calculus. As debate continues over the wisdom of the agreement, this misleading framing of the issue around a narrow set of technical factors risks poorly informed decision making.

## 1. Scientific expertise and threat assessments

The focus on breakout times in the Iranian case illustrates a more general problem in the assessment of nuclear proliferation and other threats that involve considerable scientific and technical elements: an over-reliance on these technical components—and especially on material and quantifiable indicators—divorced from real-world political, strategic, and other less observable or measurable technical considerations.

However, instead of clarifying the nature and magnitude of threats and identifying appropriate policy choices, over-reliance on technical analyses tends to obscure policy issues and exaggerate security threats. In fact, the technical nature of the analysis can provide a veneer of sophistication and precision that may deter scrutiny by non-experts and thus prevent these implicit assumptions from being identified and discussed. This can produce threat inflation, as technical assessments necessarily focus on material capabilities, and thus implicitly assume away critical political, economic, and organizational factors that would delimit what an adversary could and would likely do with those capabilities. To put this another way, technical threat assessments that exclude non-technical factors from the analysis are worst-case scenarios: they assume an adversary can and will do its worst, while hiding this very assumption from view. As a result, a non-expert audience is led to believe they are receiving an estimate of what is most possible or likely, when in fact they are being given the worst case.

Scholars have long argued that state misperceptions and biased decision making can lead states into costly conflicts they would otherwise have preferred to avoid. Borrowing largely on the psychology literature, much of the early scholarship on misperceptions focused on cognitive biases and general decision-making and perceptual pathologies. Jervis, for example, notes that states are more likely to overestimate the hostile intentions of their adversaries than to underestimate it, and to see an adversary's actions as an indicator of their type rather than a product of circumstances.[4] Other scholars instead looked at bureaucratic competition, interest group politics, and institutional pathologies that could bias the decision-making process.[5]

More recently, a number of scholars have begun to look specifically at the problem of "threat inflation," defined in one study as "the attempt by elites to create concern for a threat that goes beyond the scope and urgency a disinterested analysis would justify."[6] These scholars argue that the foreign-policy process contains certain built-in features that either bias threat estimates toward the worst case or facilitate the deliberate exaggeration of threats by self-interested political actors that stand to gain from it. Threat inflation can originate within the process of producing intelligence estimates, stem from a failure to erect sufficient firewalls to insulate intelligence analysis from political pressure, or lie in the failure of the "free marketplace of ideas"—especially the press—to adequately subject threat claims to scrutiny (what one scholar has termed the problem of "non-self-evaluation").[7]

An important driver of threat inflation that has been largely overlooked by scholars is the privileging of scientific and technical expertise in the assessment of national security threats. Unquestionably, science is an essential tool in understanding an adversary's capabilities, and America's wealth of expertise in this area provides it with a strategic advantage over its rivals. It is also praiseworthy that scientific expertise is highly respected in national security arena, when in many other areas of public policy such as climate change and the environment scientific claims are often discounted. The problem is not the respect or even deference that is given to science. It is that threat analyses based disproportionately on the technical evaluation of an adversary's capabilities masks a set of implicit and extreme assumptions about that adversary's objectives, values, and tolerance of risk.

In other words, evaluations of security threats that rely exclusively on material and technical factors are, almost by definition, worst-case analyses, in that they are designed to consider what a state could do given an assumed material starting point, in the absence of likely organizational, political, and strategic limitations that might make those actions difficult, unlikely, or impossible. States often lack the organizational capacity or tacit knowledge to fully leverage their material technological assets.[8] They may also lack the political will to act, or there may be domestic political debate within the country creating indecision and inactivity. Strategically, a state may be deterred or otherwise discouraged from acting because of perceived external costs or the belief that its actions might provoke a negative response. Without these considerations, a purely technical threat assessment is likely to greatly

[4] Robert Jervis, *Perception and Misperception in International Politics* (Princeton, N.J.: Princeton University Press, 1976).

[5] Prominent examples of this literature are Graham T. Allison, *Essence of Decision: Explaining the Cuban Missile Crisis* (Boston: Little, Brown, 1971); Jack L. Snyder, *Myths of Empire: Domestic Politics and International Ambition* (Ithaca, N.Y.: Cornell University Press, 1991); and Stephen Van Evera, *Causes of War: Power and the Roots of Conflict* (Ithaca, N.Y.: Cornell University Press, 1999).

[6] A Trevor Thrall and Jane K. Cramer, eds, *American Foreign Policy and the Politics of Fear: Threat Inflation Since 9/11* (New York: Routledge, 2009). Also see Chaim Kaufmann, "Threat Inflation and the Failure of the Marketplace of Ideas: The Selling of the Iraq War," *International Security*, Summer 2004, 5–48.

[7] See Stephen Van Evera, 'Why States Believe Foolish Ideas: Non-Self-Evaluation by States and Societies,' unpublished manuscript, 2002, http://hdl.handle.net/1721.1/5533; Jeffrey M. Cavanaugh, "From the 'Red Juggernaut' to Iraqi WMD: Threat Inflation and How It Succeeds in the United States," *Political Science Quarterly*, Winter 2007/8, 555-84; Jane K. Cramer, "Militarized Patriotism: Why the Marketplace of Ideas Failed Before the Iraq War," *Security Studies*, July-September 2007, 489–524; and John E. Mueller, *Overblown: How Politicians and the Terrorism Industry Inflate National Security Threats, and Why We Believe Them* (New York: Free Press, 2006).

[8] Several recent studies highlight this problem. See Jacques Hymans, *Achieving Nuclear Ambitions: Scientists, Politicians, and Proliferation* (New York: Cambridge University Press, 2012); Jonathan B. Tucker, ed, *Innovation, Dual Use, and Security: Managing the Risks of Emerging Biological and Chemical Technologies* (Cambridge, Mass.: MIT Press, 2012); Gaurav Kampani, 'New Delhi's Long Journey: How Secrecy and Institutional Roadblocks Delayed India's Weaponization,' *International Security*, Spring 2014, 79–114; Sonia Ben Ouagrham-Gormley, *Barriers to Bioweapons: The Challenges of Expertise and Organization for Weapons Development* (Cornell University Press, 2014); and Kathleen M. Vogel, *Phantom Menace or Looming Danger: A New Framework for Assessing Bioweapons Threats* (Baltimore: Johns Hopkins University Press, 2013).