Ana Brown **March 14, 2025**

Iran's Nuclear Program and Strategic Intentions

Executive Summary

Iran's nuclear program is at a critical juncture, with sufficient weapons-grade uranium and ongoing warhead development. While President Pezeshkian supports JCPOA compliance, Supreme Leader Khamenei retains control and rejects "maximum pressure" policies. Iran prioritises deterrence, regional influence, and leverage against the West, making a policy shift unlikely. Russia and China maintain transactional ties with Tehran, balancing economic and security interests. The possibility of Israeli military action remains a key variable with broader regional implications.

Key Judgments

1. We assess with high confidence that Iran has accumulated sufficient weapons-grade uranium for a nuclear device and is advancing its warhead development, although key technical hurdles remain.
   - Iran's enrichment capacity has significantly accelerated. According to the Wisconsin Project's 2020 estimates, Iran could produce the fissile material for a nuclear weapon within weeks. However, completing a functional nuclear warhead and subsiquent mating it to delivery vehicles would take between 3–6 years unless Iran receives external assistance.
2. We judge with moderate confidence that Iran's Supreme Leader remains opposed to direct negotiations with the United States on rejoining the Joint Comprehensive Plan of Action (JCPOA), despite President Pezeshkian's stated willingness to restore compliance.
   - President Pezeshkian's September 2024 UN address reaffirmed Iran's readiness for nuclear diplomacy. However, the Supreme Leader maintains control over key national security decisions and has publicly rejected Western preconditions, citing the failure of prior negotiations.
3. Iran's nuclear and missile programs are critical to its broader deterrence strategy and regional influence, and we assess with high confidence that Tehran will continue to advance these capabilities regardless of diplomatic developments.
   - Iran possesses advanced missile including the Khorramshahr, Shahab-3, and Fattah-1. While capable of nuclear delivery, they have not yet been confirmed to carry nuclear warheads. Iran's efforts will likely focus on miniaturisation and warhead integration over the next several years.
4. We assess with moderate confidence that Russia's strategic relationship with Iran is transactional and not fully aligned on the nuclear issue.
   - While Russia has deepened military and economic cooperation with Iran, it does not favour a nuclear-armed Iran on its periphery. Russian mediation between the U.S. and Iran appears aimed at extracting geopolitical leverage rather than facilitating a nuclear agreement.
   - Potential increase in the Iranian oil exports would affect Russia, given their shared reliance on energy markets, particularly in China and India.
5. We judge with moderate confidence that regional actors, particularly Israel, are considering preemptive actions to counter Iran's nuclear ambitions.
   - Israel's historical pattern of targeting nuclear facilities (e.g., Osirak 1981, Al Kibar 2007) suggests that military strikes remain an option. Alternative strategies, including cyberattacks and targeted assassinations, are being evaluated.

6. The lifting of international sanctions and an increase in Iranian oil exports would have significant geopolitical and economic implications, particularly for global oil markets and OPEC+.
   - If Iran's oil exports increase, they would likely drive global oil prices down. This could challenge OPEC+ unity and reduce revenues for Russia, Saudi Arabia, and U.S. shale producers. However, OPEC+ may respond by adjusting production quotas.

Iran's national security policy is shaped by a mix of ideological, strategic, and historical factors, balancing the goals of deterring external threats, expanding regional influence, and restoring its status as a great power. The leadership seeks to prevent foreign intervention or regime change while leveraging regional conflicts to challenge a power structure that favours the United States, Israel, Saudi Arabia, and Sunni Arab states.

Under the Trump administration, the U.S. pursued a "maximum pressure" strategy, withdrawing from the 2015 nuclear deal and reinstating sanctions while working to isolate Iran diplomatically and militarily. The administration also took retaliatory actions against Iranian-backed attacks, deployed additional forces, and supported regional allies in countering Tehran's influence. In contrast, the Biden administration initially signalled a shift in approach, expressing willingness to rejoin the nuclear deal if Iran. However, these efforts did not materialise.

In September 2024, during his address to the United Nations General Assembly, Iranian President Masoud Pezeshkian expressed Iran's readiness to resolve the nuclear dispute with Western nations, reaffirming that Iran would return to compliance with the Joint Comprehensive Plan of Action (JCPOA) if the United States honours its commitments and the International Atomic Energy Agency (IAEA) concludes its ongoing safeguards investigations. However, Iran's Supreme Leader remains opposed to negotiations, rejecting the maximum pressure policy and maintaining control over key decisions. On March 2, Mr. Pezeshkian told Parliament that while he personally supports negotiations, he must adhere to Mr. Khamenei's ban. Despite the third cycle of reformist presidents, following the presidencies of Rouhani and Khatami, Iran may be showing readiness for a different political approach. However, with its nuclear programme nearing completion, it is unlikely that the country will shift toward the reformist agenda advocated by President Pezeshkian as long as the current Supreme Leader remains in power.

Iran's goal is to develop nuclear-capable missiles at any cost, seeing them as a crucial tool for strategic leverage. It would significantly enhance Iran's deterrence, making military intervention against it far riskier. This would challenge U.S. influence in the Middle East and push countries like Saudi Arabia, the UAE, and Israel to seek stronger security guarantees or expand their own military capabilities.

If all international sanctions are lifted and Iran significantly increases its oil production and exports, it could have a substantial impact on global oil prices. A rise in Iranian output would increase total supply and would typically lead to lower prices. Russia, already struggling with sanctions, could face additional pressure as Iranian oil competes in key markets like China and India. However, the extent of this impact would depend on the response of OPEC+, where Iran has been exempt from production quotas. Unless OPEC+ adjusts its own production levels to counterbalance Iran's increased output, U.S. shale oil producers could also experience lower revenues.

Despite the seemingly close relationship and newly established partnership between Russia and Iran, Russia would not want Iran to become a nuclear state, as this would pose security risks near its borders. At the same time, Russia has no interest in seeing sanctions on Iran lifted completely, as increased Iranian oil

exports could undermine its own revenues. Russia's objective is likely to mediate Iran-U.S. negotiations to improve its relations with the U.S. and strengthen its regional influence.[1][2]

According to Wisconsin Project estimates from 2020, Iran's 6,104 IR-1 Nantaz centrifuges operating at full capacity would require at least 2.3 months to produce enough fuel for one nuclear bomb and 3.5 years for five bombs.[3] However, these figures represent the minimum theoretical time and do not account for additional steps such as converting the enriched uranium gas into metallic form, machining it into bomb components, and integrating it into a functional warhead. Even with sufficient enriched uranium, Iran would still need to perfect other critical elements of a working nuclear weapon, including high-explosive components and a reliable firing mechanism.[4] In June 2024, U.S. Secretary of State Antony Blinken stated that Iran could produce the fissile material for a weapon in "one or two weeks."[5] Given these developments, it can be assumed that Iran has already accumulated sufficient weapons-grade uranium.

The real challenge, however, lies in successfully designing the nuclear warheads and mating them to delivery vehicles, requiring advanced miniaturisation, structural reinforcement, and precise detonation mechanisms to ensure reliable deployment.

Iran possesses a highly developed ballistic missile arsenal, ranking among the most advanced in the Middle East. Its missiles vary in range, accuracy, and payload capacity, with the most formidable being the Khorramshahr (2,000 km range), Shahab-3 (1,300 km), and Fattah-1 (1,400 km), all classified as medium-range ballistic missiles (MRBMs). All of the above significantly enhance Iran's regional strike capabilities, with Khorramshahr pottentially covering parts of Europe and Fattah being a major threat to Middle Eastern targets, including Israel and U.S. bases.

While these missiles are theoretically capable of nuclear delivery, there is no publically available evidence that Iran has successfully developed or tested warheads suitable for missile deployment. The next logical step would be developing miniaturisation technology and rigorous testing to ensure reliability and effectiveness. If Iran rushes development and opts for a crude, untested design, a basic nuclear warhead could be produced within 3-6 months. However, if it follows a more advanced testing and refinement process and mating to delivery vehicles, developing a fully operational nuclear-armed missile system could take three to six years.

Warhead design	**3-6 months**
- Casting and Machining the Uranium Core	a few weeks, possibly faster if Iran has pre-prepared procedures
- Integrating High Explosives and Detonators	A few weeks to a few months, depending whether Iran has developed a high-precision explosive lenses to compress the uranium core symmetrically[6]
- Firing Circuit, Neutron Initiator, and System Testing	several more weeks to months[7]
Warhead Integration & Mating to Delivery Vehicles	**3-6 years**
- Miniaturisation of the Warhead	12–24 months
- Testing & Validation	12–36 months
- Missile-Warhead Integration	12–24 months

[1] https://www.iranintl.com/en/202503090234
[2] https://www.iranintl.com/en/202503078159
[3] https://www.wisconsinproject.org/wp-content/uploads/2020/04/iran-nuclear-timetable.pdf
[4] https://www.wisconsinproject.org/irans-nuclear-timetable-the-weapon-potential/
[5] https://edition.cnn.com/2024/07/19/politics/blinken-nuclear-weapon-breakout-time/index.html
[6] https://www.osti.gov/opennet/manhattan-project-history/Science/BombDesign/high-explosives.html
[7] https://web.archive.org/web/20140607093546/https://www.youtube.com/watch?v=VTS9O0CoVng

The timeline is based on historical comparisons with countries like North Korea, Pakistan, and India, all of which took 3 to 6 years to develop this capability after obtaining weapons-grade uranium.[8][9][10][11][12]

External assistance from North Korea could significantly shorten this timeline by providing expertise and technology.

Key Intelligence Questions:

What role is Russia playing in Iranian missile and nuclear capabilities? Are there indications of material support, technology transfer, or strategic cooperation?

What intelligence indicators would confirm that Iran is moving toward warhead development and weaponisation? Would an increase in logistics activity near the Natanz facility prove that and be observable via satellite imagery?

To what extent is Iran's underground Natanz facility designed to withstand a potential airstrike, and how quickly could it resume operations after an attack?

What is the probability that Israel will unilaterally strike Iranian nuclear facilities, and what are the possible targets beyond Natanz (e.g., Fordow, Isfahan)?

What alternative Israeli military options are under consideration – cyberattacks, sabotage, targeted assassinations, or economic pressure via Gulf partners?

What is the nature of alignment between Supreme Leader Khamenei and President Pezeshkian on the nuclear issue? Is there a factional struggle over policy direction?

What indicators would signal an opportunity to intervene and influence a shift in power dynamics?

How is the Iranian economy influencing nuclear policy? Are sanctions and oil production constraints accelerating or slowing down Iran’s pursuit of nuclear capability?

How would Iran respond to the intensified economic pressure alongside the prospect of negotiations? Would it push them further toward nuclear breakout or compel them to engage?

Are there signs that Iran is preparing for an Operation True Promise 3 against Israel?

What role is China playing in restraining or encouraging Iranian nuclear ambitions, particularly given its economic ties with Tehran?

How do Tehran’s recent diplomatic engagements with Gulf states factor into its nuclear strategy?

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[8] https://www.armscontrol.org/factsheets/chronology-us-north-korean-nuclear-and-missile-diplomacy-1985-2022
[9] https://www.icanw.org/nuclear_weapons_history
[10] https://armscontrolcenter.org/countries/india-and-pakistan/
[11] https://www.globalsecurity.org/wmd/world/dprk/nuke-miniature.htm
[12] https://www.38north.org/2013/02/albright021313/

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