IRANIAN STRATEGIC VULNERABILITIES: IMPLICATIONS FOR POLICY OPTIONS TO HALT THE IRANIAN NUCLEAR PROGRAM

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Iranian President Mahmoud Ahmadinejad (center), walks with Vice President Gholamreza Aghazadeh, who also heads the Atomic Energy Organization of Iran (right), during the inauguration ceremony of a heavy-water production plant, which went into operation despite UN demands that Iran roll back its nuclear program, in the central Iranian town of Arak Aug. 26, 2006.

Ayatollah Khomeini's heirs are breathing new life into the Islamic revolution that began in 1979 in the hopes of transforming Iran into a regional power. The Iranian revolution can only point to a single achievement in the Arab world: Hizbullah and its leader Hassan Nasrallah are keeping alive the revolutionary fervor in Lebanon. This base of exported revolution, in addition to the longstanding alliance with Syria, is central to Iran's political-diplomatic efforts to achieve a higher status in the region and in the wider world. Two additional foundations of Iranian power must be added to the above:

- The Iranian nuclear program, complete with delivery systems capable of reaching targets in the Middle East and Europe.
- Iran's relative economic independence since 2003 because of the dramatic rise in revenue from oil sales.

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The Iranian Nuclear Program

The Iranian nuclear weapons program is comprised of three key elements:

- A delivery system, requiring the development of surface-to surface missiles.
- The accumulation of fissile material through uranium enrichment and plutonium production.
- Weaponization – preparing a warhead from the fissile material and fitting it to a missile.

In August 2002, Iran realized that the United States and the EU-3 (the UK, France, and Germany) had obtained hard information about the clandestine military nuclear program it was developing under civilian cover. This program was the responsibility of the Ministry of Defense, while the civilian program was the responsibility of Iran's atomic energy agency.

The European Union opened diplomatic negotiations with Iran in July 2003 to try to stop the nuclear program. By the end of that year, in the wake of the U.S. overthrow of Saddam Hussein in Iraq, Muammar Qaddafi decided to stop Libya's nuclear military program. It was this context – Western detection and the demise of Saddam Hussein – that led the Iranians to halt key elements of their nuclear program temporarily in 2003. Specifically, the cessation of Iran's nuclear weapons design and weaponization work was featured in the "Key Judgments" of the famous 2007 U.S. National Intelligence Estimate (NIE).

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At the same time, the Iranians were busy with procurement activities, with a focus on obtaining all the materials and components needed for uranium enrichment. At the beginning of 2004,

Iranian President Mahmoud Ahmadinejad visits the Natanz Uranium Enrichment Facility on April 8, 2008. Ahmadinejad announced major progress in Iran's push for nuclear power, saying that his nation was installing thousands of new uranium-enriching centrifuges and testing a much faster version of the device.

we know that Iran was attempting to procure fast high voltage switches suitable for a nuclear weapons system. The ministry of defense was also supervising the mining of uranium in southeast Iran's Kuchin mine.

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Interesting details about the continuation of the nuclear program were disclosed in the International Atomic Energy Agency report of February 2008. The report concludes that Iran conducted a series of simulations and experiments to test the use of explosives and warheads that would be suitable for nuclear weapons. As opposed to the NIE, the IAEA report notes that Iran continues to enrich uranium and build a plutonium reactor. For the first time, the report discloses details that previously were familiar only to a few intelligence bodies, which point to the continued activity of the weapons group.

The report enumerates the activities of Iranian bodies, noting:

- The Institute for Educational Research in Tehran conducts experiments, simulations and tests on assembling warheads and high powered detonators. These devices can be used in equipping missiles with a nuclear bomb.
- Uranium enrichment at Natanz continues and fast centrifuges have been installed.
- Progress on building a nuclear reactor in Arak for plutonium production continues.
- There are continuous efforts to mine and produce uranium in southeast Iran at Kuchin and Saghand.

Developing the Missiles to Deliver a Nuclear Payload

Together with developing a nuclear weapon, Iran has been developing an effective long-range delivery system. Its Shahab 3 missile can carry a warhead of approximately 700 kilograms over a distance of 1,300-1,500 km. These missiles are under the command of the Revolutionary Guards, not the Iranian military. The Revolutionary Guards report to Supreme Leader Ali Khamenei and are not under the authority of President Ahmadinejad. Iranian missile exercises showed that the missiles are aimed at both Tel Aviv and Riyadh.

In these circumstances it is important to emphasize that the years 2008-2009 are critical as a period of concentrated effort during which Iran will focus on enrichment efforts necessary to produce the fissile material for manufacturing 2-3 nuclear bombs.

Iran is continuing to develop even longer-range missiles that would be capable of traveling 3,500-5,000 km, allowing all of Europe to be targeted, while those with a range of 6,000-10,000 km could reach the east coast of the United States. The original missile technology was delivered to the Iranians by North Korea, and the Iranians have undertaken substantial efforts to improve their missile range. As we know, the Iranian ballistic missile program is part of the Iranian nuclear weapons program; Iran does not have a civilian space program and it is doubtful that it would develop ballistic missiles with a range of thousands of kilometers in order to carry only conventional warheads.

Iranian Policy as a Derivative of the Nuclear Program and Technological Developments

The sanctions imposed upon Iran and the pace of technological progress compels Iran to synchronize its diplomatic efforts to its nuclear efforts in order to safeguard the ability to persist in the nuclear program, despite the international effort to halt it.

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In these circumstances it is important to emphasize that the years 2008-2009 are critical as a period of concentrated effort during which Iran will focus on enrichment efforts necessary to produce the fissile material for manufacturing 2-3 nuclear bombs from 2010 onwards. As Iran's capabilities improve, the regime must absorb and blunt the sanctions imposed upon it. The slow consolidation of the international front against Iran and the positive results (from Iran's perspective) derived from the NIE provide Iran with a brief window of opportunity – perhaps a year and a half – in which to make technological progress and cross the necessary threshold of obtaining enough fissile material to manufacture a nuclear bomb. Subject to international pressures, the domestic response and its technological capabilities, Iran can complete building its deterrent posture as a regional power from the moment that it obtains the required fissile material.

Iranian Weak Points

Despite the image of great self-confidence that Iran displays, the regime is still susceptible to pressure from stern diplomatic measures and crippling sanctions that are backed by the credible threat of military force. There exist a number of prominent Iranian weak points:

- A domestic arena that yearns for an improvement in economic conditions and an economy that is particularly sensitive to sanctions.
- A genuine desire on the part of the regime to avoid a North Korea-level of international isolation. There is no doubt that Iran is monitoring North Korea's implementation of the Beijing agreements and the attitude of the international community toward North Korean intransigence. In this regard, the regime is aware of the permanent tension between a nuclear weapon as a tool for acquiring regional power and a nuclear weapon as a cause of international isolation.
- The very limited choice of retaliatory tools at Iran's disposal. For example, Iran frequently threatens to use the "oil weapon," but is aware of the difficulty in employing it, given the country's total economic dependence on oil exports. Likewise, Iran backed down from its threats to abandon the Nuclear Non-Proliferation Treaty, although it still brandishes this threat from time to time.

The Weak Points of the Iranian Economy

In order to focus the efforts of the international community and increase the possibility that Iran, upon its own initiative, will again suspend its nuclear program, it is important to identify the glaring weak points of the Iranian economy.

Reliance on foreign technology: In Iran, relative to other countries in the region, there are still oil, gas, electricity, and communications infrastructures whose day-to-day operation and development depend on foreign technology and supervision.

Hence, the provision of heavy equipment and some of the raw materials for Iran's industry is predicated on imports from foreign countries. Some 90 percent of Iranian imports consist of industrial goods and physical capital items.

The inability to satisfy local demand for automobile fuel: The refineries in Iran are incapable of satisfying domestic demand. Tehran thus is compelled to import nearly 40 percent of the fuel consumed in the country. It does this at an annual cost of over $10 billion (including the cost of subsidies).

The need for external finance: Development projects in the areas of oil, gas, and petrochemicals, among other fields, are critical for continued economic growth. Yet despite high income from oil exports, Iran does not have the resources to finance continued development at a desirable rate, estimated to be at least $5 billion per year.

The export of crude petroleum represents a significant source not only of the country's foreign currency but also of government income: The export of crude petroleum constitutes 90 percent of Iranian exports and 70 percent of government income.

Tens of billions of dollars in Iranian-owned assets are deposited at any given moment in banks and financial institutions around the world.

To these weak points one should add three points that Iran shares in common with other economies throughout the world:

A dependence on the international financial system: The world of international commerce mandates the use of the accepted tools of the financial system such as ensuring external commerce and credit lines.

Maintaining some economic assets and economic bodies abroad: Tens of billions of dollars in Iranian-owned assets are deposited at any given moment in banks and financial institutions around the world. The estimate is that Iranian foreign currency assets totaling $33 billion in 2005 are deposited in such a manner.

Dependence on international trade: Iran is part of the global system and does not constitute an autocratic economy or state. Some of the products (including various foodstuffs, medicines, and electrical goods) that are consumed daily in Iran originate in the international markets and have no domestic substitutes. Similarly, Iran is developing industries whose products are intended for export from its territory.

Diplomatic and Economic Pressures

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Preventing proliferation: Barring the export of dual-use equipment to Iran, preventing the passage of dual-use equipment, and preventing the use of the international financial system for conducting transactions in these areas. In tandem, preventing Iranians from participating in advanced studies, halting IAEA assistance in the nuclear field, and preventing the movement of people and assets involved in these areas.

Finance: An escalation of already-existing financial sanctions: a prohibition on granting loans to the Iranian banking system, a prohibition on opening credit lines, a freezing of Iranian assets abroad, and preventing money transfers from Iran within the international financial system.

Embargo advanced war materiel: A prohibition on concluding transactions with Iran (including those currently in progress), with an emphasis on those that have repercussions for Iran's military capabilities (anti-aircraft defenses, aircraft, etc.).

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Restrictions on the acquisition of specific items: Here there should be an emphasis on the export of fuel and steel, which constitute essential items in current economic activity (construction, energy). At the same time it should be noted that we are dealing with restrictions that will have direct repercussions on the Iranian public, and this will encumber the formation of an international consensus for implementing these measures.

Restrictions on the export of advanced technology: Primarily in the gas, petroleum, nuclear, electric, and communications industries, with a view to limiting the development of the Iranian economy.

Summary

The proposals contained in this essay should illustrate how some joint action within the international system could lead to the imposition of a series of sanctions that will compel Iran to arrest its nuclear weapons program, even if temporarily – and avert war. These pressures represents an obligation by the international system to humanity in order to minimize the prospect that Iran will obtain nuclear weapons.

The Iranian nuclear program is the main anchor of its foreign policy. As Iran's aspirations to become a regional power in the Middle Eastern and South Asia expand, it is highly doubtful that Iran can be restrained by anything but extreme and highly-coordinated international action. It is both possible and more judicious to create a situation where, in terms of costs versus benefits, the Iranian leadership will reach the conclusion that continuing its nuclear program more than anything else endangers the existence of the regime.