Iran's Nuclear Clock and World Diplomacy

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Brief Analysis

Talks with Iran in Turkey next week and in Kazakhstan next month are important, but Tehran still needs to clarify the details of its controversial nuclear program.

U.S. policy, supported by the international community, is to use diplomatic pressure along with economic and financial sanctions to convince Iran not to build nuclear weapons. The latest iteration of the policy came yesterday with President Obama's interview for Israeli television ahead of his visit next week: "We think it would take over a year or so for Iran to actually develop a nuclear weapon but obviously we don't want to cut it too close...If we can resolve it diplomatically, that's a more lasting option. But if not, I continue to keep all options on the table."

The logic of the policy was outlined in more detail on March 12, when U.S. director of national intelligence James Clapper told the U.S. Senate Select Committee on Intelligence that "Iran's nuclear decisionmaking is guided by a cost-benefit approach, which offers the international community opportunities to influence Tehran." But he also said that the United States assesses that Iran is developing capabilities "to develop nuclear weapons, should a decision be made to do so" (a caveat omitted in President Obama's remarks). Clapper noted that despite the diplomatic pressure, "Iran has made progress during the past year that better positions it to produce weapons-grade uranium using its declared facilities and uranium stockpiles, should it choose to do so." He went on: "Despite this progress, we assess Iran could not divert safeguarded material and produce a weapon-worth of WGU [weapons grade uranium] before this activity is discovered" -- a phrasing that suggests concern about Iran obtaining unsafeguarded material.

Context

The next stage of the diplomatic process begins March 18 in Istanbul, when technical experts from Iran and the major world powers -- United States, Russia, China, Britain, France, and Germany (known as the P5+1) -- are due to meet. The talks are likely to be aimed at seeking a compromise to cap Iran's increasing nuclear capabilities in return for incentives such as relaxed sanctions, thereby paving the way for a more comprehensive agreement. The next high-level meeting is planned for early April, to be held, as last time, in the Kazakhstan city of Almaty.

Iran's nuclear ambitions and the U.S. strategy to deal with them will be a major agenda item of top-level talks during Obama's Middle East trip. Israel sees itself as a likely target of an Iranian nuclear weapon, an argument implicitly accepted by Clapper when he said: "We judge Iran would likely choose a ballistic missile as its preferred method of delivering a nuclear weapon, if one is ever fielded. Iran's ballistic missiles are capable of delivering WMD [weapons of mass destruction]."

Clapper's words will likely offer little comfort to Israeli leaders, whose fears are probably shared by U.S. Arab allies, including Jordan (which Obama is also visiting) as well as the conservative Arab states of the Persian Gulf. Gulf leaders will have been concerned by the March 5 remarks made to the U.S. Senate Committee on Armed Services by retiring CENTCOM commander Gen. James Mattis, who said that American efforts to prevent Iran from obtaining a nuclear weapon were not working. They will be worried further by Clapper's perception of Iran's intent "to enhance its security, prestige and regional influence" and by his additional remark that Iran "wants to advance its nuclear and missile capabilities." The anxiety of the Gulf states about U.S. policy probably peaked on March 11, when National Security Advisor Tom Donilon stated to the Asia Society in New York that "the United States will not accept North Korea as a nuclear state," despite that country's testing of three atomic bombs, the most recent just last month.

Recent Developments

Such remarks by U.S. officials must also be seen in the context of recent developments. The latest report on Iran by the International Atomic Energy Agency (IAEA) raised a series of red flags. These included the news of a substantial increase in the number of centrifuges Iran uses to enrich uranium, as well as the introduction of a new type of centrifuge that is likely to enrich uranium more quickly and in larger quantities. Additionally, work is progressing on a heavy-water reactor capable of producing plutonium, an alternative nuclear explosive material. And questions remain unanswered about a facility near Tehran where IAEA officials have been barred from investigating possible research experiments related to military nuclear work.

It is not yet known publicly whether North Korea's latest test involved a high-enriched uranium or plutonium bomb. Pyongyang has continuing close ties with Tehran and there are fears that test data may be shared, which would be valuable to the Iranians, particularly if the test involved a uranium device. North Korea, which uses centrifuges to enrich uranium, has supplied Tehran with ballistic missiles of a type that concerns the IAEA.

Historical Perspectives

These advances should be seen in the context of Iran's progress despite ten years of increasing action by the international community. A decade ago, Iran's nuclear program was rudimentary, with only small-scale enrichment experiments (which were not fully reported to the IAEA) and only one partially constructed enrichment facility. Now, it has an operating enrichment plant at Natanz and an additional plant buried under a mountain at Fordow. In total, more than 16,000 centrifuges have been installed or are spinning, a huge number; an advanced centrifuge is being installed; and tests are being carried out on other improved designs. A considerable amount of uranium has been converted into centrifuge feedstock, and more raw material is being recovered from a uranium mine in Iran.

Technical Challenges

Although Iran continues to cap a stockpile of 20-percent-enriched uranium below the amount that could be sufficient, if enriched further, for one nuclear device, the parameters of this judgment are changing. Obama's use of the term "nuclear weapon" may even suggest to Tehran that developing a crude, testable nuclear explosive device, too bulky to be a deliverable weapon, may not cross a U.S. redline. More advanced centrifuges, with three to five times the capability of current machines, are worrisome. And Iran's conversion of some 20-percent-enriched uranium into a less controversial oxide form provides little assurance. This type of uranium could be converted back into centrifuge feedstock within a week. Additionally, Iran is assumed to have information, originating in Pakistan, that would enable changes to be made to the arrangements of the centrifuges, taking only one or two weeks and enhancing their enrichment capability. In his remarks, Clapper referred to Iran's "declared facilities." If there is a new, undeclared, yet-to-be-revealed centrifuge plant, the arithmetic changes again.

Focusing only on enrichment technology could also become increasingly misleading. Bringing into operation the heavy-water reactor at Arak could mean that concern about Iran's nuclear weapon potential would shift from high-enriched uranium to plutonium nuclear explosive by the end of 2014.

Current Rates of Progress and Crash Programs

Hoping for the best results from talks in Istanbul and Almaty must be set against technical data indicating that, unless its activities change quickly, Iran's nuclear potential will be much stronger by, say, August of this year, a consequence of talks failing to stop Iran's increased technical sophistication and mounting stockpiles of enriched material. But diplomatic and economic pressure could also force Iran to adopt a crash program (as was started in Iraq after Saddam Hussein invaded Kuwait in 1990), which would test Clapper's assertion that the United States would discover such an advance, known as a "breakout," in time. Although IAEA inspectors, who visit Iranian installations every week or two, would spot the activity, the reports of this discovery to the IAEA board and subsequent condemnation of Iran would take some time. In short, Iran could have enough nuclear explosive material for its first atomic bomb before Washington ever received the international backing it would want before taking action to--in the words of current U.S. policy--"prevent Iran from acquiring a nuclear weapon."

A few measures to be taken by Iran, quickly agreed, could set back the time line and give extra space to more detailed negotiations: capping enrichment at 3.5 percent; closing down the Fordow facility; transporting abroad Iran's stocks of both 3.5-percent (low-enriched) and 20-percent-enriched material; stopping the construction of the Arak reactor and production of fuel for it; and providing fuller explanation to the IAEA of Iran's research activities within the context of the peaceful nature it claims for its program. The upcoming talks in Istanbul and Almaty, or some even more direct diplomatic contact, provide the opportunities for such steps.

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