Diplomacy, Sanctions, and Sabotage: Putting Pressure on Iran

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Brief Analysis

On January 21-22, representatives of the United States, Britain, China, France, Germany, Iran, and Russia will meet in Istanbul for talks regarding the Islamic Republic's controversial nuclear program. The meetings -- a continuation of discussions held in Geneva in early December -- represent the diplomatic track toward a negotiated resolution of international concerns over Iran's nuclear activities. Tehran also faces a range of economic, financial, and trade sanctions imposed by the UN, European Union, and individual states. Other reported tactics -- such as viruses introduced into Iranian computers and assassination attempts on Iranian scientists, for which no state has claimed responsibility -- have created additional pressure. Although these measures appear to be slowing Iran's nuclear program, Tehran seems determined to continue its work while declining to fully explain itself.

Diplomatic Track

The Istanbul talks will be chaired by the EU's foreign policy head, British politician Catherine Ashton, and are therefore officially under the aegis of the EU3+3 (Britain, France, and Germany plus the United States, China, and Russia). The group is also frequently dubbed the P5+1, that is, the five permanent members of the UN Security Council plus Germany.

Last month's Geneva talks made little evident progress other than deciding to meet again in Turkey, a concession to Iran. At a news conference following the summit, Ashton read a brief statement noting that there had been "detailed substantive talks, focusing on the Iranian nuclear program and the need for Iran to comply with its international obligations." She declined to answer questions. By contrast, Iranian nuclear negotiator Said Jalili gave the media a detailed presentation regarding what he called "talks on cooperation to find common ground" -- a point emphasized in a lengthy question-and-answer session in which he also rejected any compromise over Iran's rights to "peaceful" nuclear activity.

Such diplomatic blustering has continued since Geneva, but without the success Tehran probably sought. Following the talks, Iran invited officials from the EU3+3 and developing countries to visit both its Natanz uranium enrichment facility and the reactor being built at Arak (which may be intended to produce plutonium). Significantly, all EU3+3 members declined, demonstrating diplomatic unity despite speculation that China and Russia might be more

conciliatory toward Iran. Pointedly, Turkey, the notional host of this week's talks, declined as well, though Ankara has seemed more sympathetic to Tehran since the EU3+3 rejected a Turkish-Brazilian compromise proposal last year.

Sanctions Track

In the wake of the Geneva talks, the United States and EU further tightened their trade and economic restrictions, making it increasingly difficult for Iran to access the global financial system. These sanctions have focused on oil (of which Iran has the second-largest reserves in the world), and particularly on Iran's import of gasoline (of which the regime cannot produce enough to satisfy domestic consumption). This has forced Tehran to increase prices at the pump, a move that has been unpopular with the public. Even so, the steady increase in world oil prices means that the country's export revenues actually increased from 2009 to 2010. And without sanctions on Iranian oil exports, they will likely increase again this year.

The sanctions also include a ban on material and equipment that can be used in a nuclear program. Recently, the *Wall Street Journal* reported that Iran's nuclear work had been delayed due to such restrictions, particularly on carbon fiber and a special material called maraging steel, which the article described as "critical inputs" for centrifuges.

Indeed, both of these materials can be used in the rotor, the vertical tube that is the principal component of a centrifuge. Strength and flexibility are crucial to successful rotor design. Faster rotors separate the isotopes in the gaseous uranium hexafluoride much more effectively. But reaching these speeds puts the rotor under tremendous stress. The engineering solution to this problem is rotor flexibility.

Currently, the P1 centrifuges that Iran uses at Natanz have rotors made from several short aluminum tubes joined together by "bellows" made of maraging steel. The regime also has designs for P2 centrifuges whose rotors are made entirely of maraging steel, which can be spun faster and therefore much more efficiently. Perhaps because of difficulty in making P2 rotors, however, Tehran does not appear to be actually manufacturing the maraging-steel P2s, instead working on a third design with rotors made of carbon fiber, a material that can be stronger than steel.

Sabotage and Assassination

Public awareness of the Iranian nuclear issue has been heightened by news that the regime's program has been affected by the "Stuxnet" worm, which the *New York Times* has called an act of deliberate U.S.-Israeli sabotage. The computer worm apparently interferes with the centrifuge control system, putting the rotors under unbearable stress by deliberately speeding them up or slowing them down. According to the International Atomic Energy Agency, which has Iran's permission to inspect the Natanz centrifuge hall, several groups of centrifuge "cascades" are now out of operation.

In addition, Iran recently announced the arrest of several people whom it said were linked to Israel and involved in a bomb attack on a nuclear scientist in January 2010. Two other nuclear scientists were attacked in Tehran last November. One died when a bomb was stuck to the door of his car and detonated. The other, who was under a UN travel ban because of his work, was badly injured. At the Geneva talks, Iran displayed a photograph of the scientist killed in November and persuaded Ashton to condemn such "terrorist" attacks.

The Problem of Defining Success

U.S. officials are confident that Iran's nuclear program has been delayed, and the outgoing head of Israel's Mossad intelligence service, Meir Dagan, reportedly stated that Tehran will be unable to build a nuclear weapon until at least 2015. In subsequent remarks to an Israeli parliamentary committee, however, Dagan warned that "under certain scenarios, [Iran] could shorten the timetable."

One concern is that Tehran could receive help in improving its centrifuges from abroad. In November, North Korea -- which has already helped Iran develop long-range missiles -- revealed to a visiting American scientist that it has a centrifuge enrichment plant equipped with P2-type machines, raising the possibility that Iran could obtain such equipment from Pyongyang. North Korea could also conceivably supply Iran with highly-enriched uranium for a nuclear bomb, allowing Tehran to delay domestic enrichment. (It should be noted that in 1982, China gave Pakistan -- the source of both Iran and North Korea's enrichment technology -- enough uranium for two nuclear bombs.)

The current position of the United States and its international colleagues at the Istanbul talks this week is that, aside from explaining past nuclear behavior, Iran should not enrich uranium to any level. The challenge is to bridge the gap between merely delaying Iran's nuclear work and changing what is widely seen as Tehran's determination to develop a nuclear weapons capacity. More diplomacy and more United Nations sanctions seem necessary; additional covert action may be judged appropriate as well.

Simon Henderson is the Baker fellow and director of the Gulf and Energy Policy Program at The Washington Institute. ❖

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