Avoiding a Nuclear Weapons-Armed Iran

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Why would a nuclear-armed Iran matter?

- Spread of nuclear weapons in general threatens international peace and security
  - more fingers on the button means more risk of use
  - would put pressure on others in region to follow (e.g., Egypt, Saudi Arabia, Syria…)
- History of U.S.-Iranian hostility dating back to revolution
- Continued Iranian refusal to acknowledge Israel's right to exist, opposition to peace process
- Iranian support for Hezbollah, other terrorist groups
- Iranian ambitions to dominate region
- *But:*
  - As in past state proliferation cases, deterrence likely to be effective
  - Very unlikely Iran would consider transferring weapons or materials to uncontrollable terrorist groups

Where are we now?

- Iran has had secret uranium enrichment and plutonium production programs for 2 decades
- Iran has concealed the effort with omissions and lies to IAEA for 2 decades (violating its safeguards agreement)
  - Including some *after* October 2003 “full transparency” decision
- U.S. approach: no engagement, attempt to cut off all nuclear technology supply, attempt to get support for int’l sanctions
- Russian approach: civilian nuclear technology trade (within limits), while insisting on safeguards, other constraints
- European approach: offer trade and technology benefits in return for Iranian openness to IAEA, enrichment and reprocessing suspension
- Intense global concern and discussion after 8/2002 revelation of Natanz enrichment plant construction

Where are we now? (II)

- October 2003: Iran and European “Big 3” (UK, France, Germany) reach deal on temporary suspension, Additional Protocol on expanded inspections
- Mid-04: Deal begins to unravel
  - Because of disputes over Iranian cooperation with the IAEA, scope of suspension, Europeans do not support closing IAEA discussion
  - Iran announces restarting centrifuge manufacture
- 11-04: Renewed deal on suspension, with agreed scope – temporary, while more permanent deal negotiated
- 11-04: Latest IAEA report suggests progress in clarifying Iran’s program – but some key issues still uncertain, no certainty there aren’t still concealed activities

Where are we now? (III)

- Within Iran:
  - Previously obscure nuclear issue has become intensely politicized – framed as "Western powers are attempting to deprive us of our technological rights"
  - Considerable suspicion U.S. seeking to undermine regime
  - *But*, senior clerics (up to and including supreme leader Khamenei) have repeatedly said that nuclear weapons are banned by Islamic law (should seek to work with this view, to reinforce norm against nuclear acquisition)
- Within United States: Bush administration adamantly opposed to engagement; broad hostility to Iran; but broad support for engagement among foreign policy elite
- Within rest of international community: post-Iraq suspicion of U.S. motives, but concern over Iranian nuclear programs veiled by concealment

Current technical status

- Debate: can Iran now produce working centrifuges quickly, without any further outside assistance, components, or materials? Do their centrifuges in fact work properly?
  - Not clear, possibly “yes.”
- 1274 assembled rotors in place at Natanz (for 3-SWU/yr P-1 centrifuges)
- If return to centrifuge production, could potentially make 100 rotors/month
- With 1000-centrifuge “pilot plant”, would take ~1-2 years to produce material for 1 bomb
- Source of estimates in 2007 range
- Suspension, if it continues, would prevent this
- Covert activities, acceleration of production, possible

Current technical status (II)

- 1 GWe light-water reactor at Bushehr, will likely go critical in 2006 – will produce large quantities of plutonium in spent fuel, which could in principle be reprocessed for weapons (though this seems unlikely)
- Iran planning 40 MWt heavy-water research reactor – would be suitable also for producing ~11 kg Pu/yr – not scheduled to be operational until 2014
- All *known* facilities under safeguards, subject to suspension (except building research reactor not suspended)
- Weaponization: may have received bomb design from A.Q. Khan network – possible explosives testing site at Parchin
  - No undisputed weaponization evidence, however

IAEA findings

- Many violations of safeguards agreement, stretching over decades
- HEU contamination plausibly consistent with Iranian explanation – from contaminated components from Pakistan, equipment from Russia (36% particles)
- Generally consistent picture of Iranian program emerging, but questions remain – especially on history of centrifuge efforts (P-1 and P-2)
- No direct evidence of weapon-specific activities
  - *But*, some past activities hard to explain (e.g., polonium-210, large scale of experiments converting U to metal)
  - No IAEA access yet to Parchin

Terms of the Iran-E3/EU deal

- Iran suspends “all enrichment related and reprocessing activities,” including
  - No production, testing, of centrifuges or components
  - No uranium conversion – even tests
  - “voluntary confidence building measure,” not legal obligation
- E3/EU accept Iran’s right to nuclear energy “without discrimination” within confines of NPT
- E3/EU pledges to negotiate agreement providing “firm guarantees on nuclear, economic, and technological cooperation” and “firm commitments” on security
- Iran has since emphasized suspension likely to be short – and said IAEA 11/25 meeting will show if promises kept
- Accord is a ceasefire, not a permanent peace – buys time, that time must now be used effectively

Options for U.S. Policy: I: Continue present no-talks course

- Refuse to engage Iran politically; continue attempting to convince others to impose sanctions; continue to try to cut off all nuclear technology flow

Likely results:

- Without United States – which is a key part of Iran's security concerns – Europeans would have much less chance of success in reaching final agreement with Iran
- No chance of gaining agreement on international sanctions as long as suspension lasts
- Maintains hostility, incentives for Iranian nuclear weapons program
- High probability of resulting in nuclear-armed Iran, or at least with fully operational enrichment, after several years

Options for U.S. Policy: II: Seek lasting deal

- To address U.S. concerns, will have to address Iranian concerns. Would require:
  - Willingness to engage Iran politically
  - Accepting civilian nuclear reactors in Iran, international guarantee of fuel supply and spent fuel management services
  - Assurances U.S. will not use, threaten to use force against Iran as long as it complies with nuclear accord
  - Accepting that terrorism, Iran's role in peace process, and democracy, while important, likely cannot be addressed in initial nuclear deal (demanding everything will get nothing)
- Chances of success much less than four years ago:
  - Iran has made much more progress, issue more politicized
  - Crucial to be seen to be giving diplomacy a serious effort, if support is to be gained for sanctions, military options if necessary

Options for U.S. Policy: III: Seek tougher sanctions

- Relatively comprehensive U.S. sanctions already in place – for additional sanctions to have much effect, would have to be international
- As long as suspension, cooperation with IAEA, continue, no serious chance of getting UNSC vote for sanctions:
  - Russia has long-term strategic and economic partnership with Iran, not likely to support sanctions
  - China just signed $100B gas deal, not likely to support sanctions
  - France has extensive ties, not likely to support sanctions
  - Likely to be little support from others also
- Even if sanctions imposed, would almost certainly lead to Iranian abandonment of suspension and Additional Protocol – maybe even Iranian pullout from NPT
  - Would inflame nationalist sentiment driving *support* for program

Options for U.S. Policy: IV: Limited military strikes

- U.S. could in principle bomb Natanz, selection of other key facilities
  - Could be substantial bombing campaign lasting days, if other key facilities included (air defense, command and control, ballistic missiles…)
- Might set back Iranian program by a few years – difficult to seriously reduce capability to produce centrifuges
- Would stir up hornet's nest:
  - Strengthen Iranian determination to get nuclear weapons, increase resources devoted to the effort – Iranian pullout from NPT likely
  - Iran has range of response options – missiles could strike U.S. bases or Israel, extensive connections with Iraqi Shia could be used to add greatly to insurgency
- Results in *increased* likelihood (though delayed timing) of an Iranian bomb

Options for U.S. Policy: V: Regime change

- Could only plausibly be accomplished with full-scale invasion, as in Iraq case
- *No* major power in the world would support U.S. invasion – global condemnation likely
- Iran much bigger, much more populous, much stronger militarily than Iraq
- U.S. military forces already overstretched with Iraq
- Even if U.S. could win militarily, occupation would be even more problematic than Iraq
- Not a realistic option

Recommendation I: Seek to negotiate a lasting nuclear deal

- Only option that has significant chance of leading to outcomes where Iran stays well away from nuclear capability
- United States and E3/EU will have to work closely together on a targeted package of carrots and sticks – ideally get Russia and China to use their substantial leverage as well
- Compromises – some painful – likely to be necessary, given the politics in Iran and the strength of Iran's hand:
  - U.S. security assurance will be needed – even without deal that includes all we want on terrorism, support for Middle East peace
  - Permanent, legally binding suspension unlikely to be possible – might consider renewable 1-year suspensions, linked to benefits Iran would receive
  - If necessary, might West accept enrichment plant located in Iran, but internationally owned and operated?

Recommendation II: Smash the A.Q. Khan network

- A.Q. Khan network was peddling centrifuge technology, even bomb designs, to North Korea, Libya, Iran, Iraq…
- Some elements of network shut down – but many participants still free, some still unidentified
- IAEA investigators concerned that centrifuge designs, production manuals, bomb designs, may still be in the hands of unidentified middlemen
- A.Q. Khan has been providing information – but not enough. Need to lean on Pakistan to ensure the world gets every name, every date, every transaction, to make it possible to permanently destroy the network
- Urgent need to help every country put in place effective export controls to prevent a recurrence – legal obligation under UNSC 1540

Recommendation III: Close the NPT loophole

- Treaty currently allows every party to have enrichment, reprocessing, even separated plutonium and HEU, as long as it is under safeguards – no longer makes sense
- *But*, states will not accept new deal framed as "giving up some of your rights under the NPT" – needs to be framed as "offering *more*" than they've been offered under NPT
- Proposal: coalition of major fuel-cycle suppliers (France, Germany, UK, US, Russia) offers every state that wants nuclear energy *lifetime guarantee* of fresh fuel supply at excellent prices, take-away of spent fuel – *if* they agree no enrichment, no reprocessing of their own
- Many states would say yes – providing much broader barrier between legal NPT status and nuclear weapons; some would say no, focusing international attention on why

Recommendation IV: Strengthen NPT enforcement

- UNSC should formally declare that acquisition of nuclear weapons by any additional state would be a threat to international peace and security, which it is prepared to act to prevent
- UNSC permanent members should outline *in advance* a menu of actions that might be taken if particular defined and observable “red lines” were crossed
- UNSC should declare that if any state withdraws from the NPT, it has a binding legal obligation to dismantle the nuclear facilities it acquired for peaceful purposes while a party to the treaty

Recommendation V: Strengthen inspections

- IAEA needs more authority, information, and resources
- Authority:
  - Pressure all states to adopt Additional Protocol – make Additional Protocol condition of nuclear supply
  - IAEA Board should approve broad-area environmental monitoring
  - Non-nuclear-weapon states pursuing enrichment or reprocessing should be strongly requested to provide additional transparency – including allowing private IAEA interviews with key participants
- Information:
  - IAEA needs more information from intelligence services
  - IAEA needs to have data on countries' attempted procurements
- Resources:
  - IAEA needs more money – effectiveness limited by lack of resources in many areas, even after small recent increase

Other recommendations

- Urgently need to deal with N. Korea as well – will also require real engagement, internationally coordinated package of carrots and sticks that makes it in their interest to give up their bomb program
- Need to secure every nuclear weapon, every kilogram of potential bomb material, worldwide, to keep them out of the hands of terrorists and hostile states
- Need to resolve regional conflicts that drive demand
- If others are going to accept tougher inspections, more stringent export controls, United States needs to be willing to accept constraints as well:
  - Ratify CTBT, end development of new weapons
  - Pursue verifiable deep reductions
  - Relegate nuclear weapons *only* to deterring nuclear attacks

Short history of Iran's nuclear program

- 1970s: Civil and military nuclear programs launched
- 1979: Iranian revolution, programs go dormant
- 1980-1988: Iran-Iraq war
- 1985: Iran decides to launch centrifuge program
- 1987: Iran gets P-1 designs and components
- 1987-1997: Work on centrifuges, major problems
- 1995: Deal with Russia to build Bushehr reactor, secret protocol – canceled under U.S. pressure – on centrifuge enrichment plant
- 1994-96: Iran gets additional P-1 information, components for 500 centrifuges, P-2 design

Short history of Iran's program (II)

- 1995: Centrifuge work moves to Kalaye Electric Co. – soon making major progress
- 1999: 1st centrifuge tests with UF6
- 2001: Construction of Natanz begins
- 2002: More centrifuge tests with UF6, testing of a small cascade
- 2002, August: Natanz publicly revealed
- 2002-2003: Centrifuge production
- 2003, October: Iran-"Big 3" deal – suspension, Add'l Prot.
- 2004, June: Iran resumes centrifuge assembly
- 2004, November: New Iran-"Big 3" deal, expanded suspension