Next for the Iran nuclear talks: agreement, extension, or collapse?

- Iran negotiating with the P5+1 to:
  - Address international concerns over Iran’s nuclear program
  - Get sanctions lifted (at least in part)

- Sides reached an interim deal, then extended it – but comprehensive agreement still in doubt

- Sides have largely agreed on some issues, remain far apart on others:
  - Close: Modify Arak reactor to reduce plutonium production
  - Close: Iran would accept Additional Protocol
  - Far: How many centrifuges, of what types, at what sites, would Iran still operate?
  - Far: What sanctions would be lifted when?
  - Medium: How long would the accord last?
  - Medium: How would Iran address concerns over “PMD”?
Iran and the United States: Much more than just nuclear issues

- **The Iranian view**
  - United States is relentlessly hostile, will never accept the Islamic Republic
  - Constant sanctions, threats – helped Iraq in Iran-Iraq war
  - Iran is a peaceful country, with only a peaceful nuclear program

- **The U.S. view**
  - Iran is a dangerous actor – sponsors terrorism (kills U.S. troops), threatens Israel, disrupts the region
  - Iran’s nuclear program offers a weapons option – could threaten the region and beyond

Iran’s nuclear program in a nutshell

- Power reactor at Bushehr
- ~19,000 centrifuges, 2 sites
  - Enough to produce material for a nuclear bomb in months (esp. w/LEU)
- Arak reactor under construction
  - Well suited for plutonium production
- Repeated violations of safeguards agreement
- Evidence of past weapons design work

Source: UN Panel of Experts on Iran Sanctions
1st step: The Joint Plan of Action

- Froze most of Iran’s nuclear program
  - No more centrifuges being installed
  - No more major construction on Arak reactor
- Rolled back 20% enriched uranium stock
  - ½ blended down, ½ converted to oxide for research fuel fabrication
- Expanded inspections, transparency
- In return:
  - ~$700M/mo of Iran’s frozen oil revenues released
- Some broad elements of final agreement agreed
  - Key point: after agreement’s term, Iran will be treated like other NPT parties

http://iranmatters.belfercenter.org/blog/iran-deal-%E2%80%93-brief-look-specifics
1st step: The Joint Plan of Action – fears not realized, long path to go

- IAEA has confirmed that Iran has fulfilled its key obligations
- Sanctions regime has not fallen apart
- Provided the basis for continued talks
- Modestly (and probably temporarily) strengthened advocates of compromise in both capitals
  - Showed that deals that actually improved the situation for both sides (if only in a limited way) were possible
- Extended twice – June and December 2014
- Current deadline:
  - Political framework: late March 2015
  - Comprehensive agreement: June 2015
- Will the deadline be met?
Domestic critics in both capitals could play the “spoiler” role

- **Washington:** Congress pushing to pass “conditional” sanctions – pass law now that would impose sanctions later if no acceptable deal reached
  - Obama administration, rest of P5+1 think this could blow up the talks
  - May be hard to hold off if no major progress by late March deadline

- **Tehran:** Hard-liners seeking to constrain compromise, undermine Rouhani and Zarif
  - Khamenei setting out impossible “red lines,” announcing United States cannot be trusted
  - Critics argue JPOA froze Iran’s program without getting much sanctions relief
  - Majlis has prepared bill to respond to any increased sanctions by moving forward again with nuclear program
The case for compromise: Reducing the chance of an Iranian bomb

- A long-term deal – even a somewhat “ugly” one – would, on balance, reduce the probability of an Iranian bomb
  - Would undermine the arguments of bomb advocates
  - Flow of benefits from lifting of sanctions would also go to powerful figures in Iran, who would not want it cut off
  - Reduced sense of threat having just signed a deal with the world’s major powers
  - Would politically benefit the advocates of compromise in Iran – show that negotiation produced real benefits

- Nevertheless, neither U.S. nor Iranian opponents would disappear
  - Controversies over charges of cheating inevitable
  - Will be advocates for new sanctions over non-nuclear issues
The case for compromise: Better than the plausible alternatives

- Without compromise (on both sides) there will be no agreement

- Alternative I: Continued extension
  - May be possible for a while, but both sides’ spoilers make it difficult to sustain – compromise advocates may lose credibility
  - Leaves very large Iranian centrifuge infrastructure in place, limited verification, heightened tensions

- Alternative II: Return to expanding sanctions
  - P5+1 and other unity on sanctions may not hold (especially if U.S. seen as to blame for no agreement)
  - Iran will return to building up centrifuge capability, stocks of medium-enriched uranium – possibly more
  - Iran may still be constrained by desire to avoid military strikes (e.g., may not go straight to 90% HEU for a bomb)
The case for compromise: Better than the plausible alternatives (II)

- Alternative III: Military strikes
  - Could cover a wide range – from a few targets in a few days to scores of targets over weeks
  - Iranian response could cover a wide range – firing missiles, Hezbollah and other attacks…
  - Could escalate to another war in the Middle East

- Negotiated deal with some “ugly” compromises may be the best of the a set of bad alternatives
The case for compromise: centrifuges

- **The dispute:**
  - Iran does not want to dismantle any of its 19,000 centrifuges, wants no limits on R&D
  - P5+1 wants Iran to cut to 4-5,000 centrifuges
  - P5+1 goal: 1 year time to produce HEU for 1 bomb

- **Why Iran should compromise:**
  - Can extend Russian fuel contract to 20-30 yrs, store large stock of fuel in case of interruption
  - Current centrifuges old, inefficient design

- **Why the P5+1 should compromise:**
  - Iran highly unlikely to make bomb material at known, inspected facilities – better to use negotiating leverage elsewhere
  - Much less than one year breakout time needed to detect, assess, and respond
The case for compromise: centrifuges

- A potential deal
  - Iran agrees to substantial reductions in its centrifuges – but not as much as the P5+1 is proposing
  - Iran agrees to eliminate stocks of 20% enriched U, stocks of 4-5% LEU beyond needed working stock at enrichment sites
  - Russia extends fuel supply contract for Bushehr reactor to 20-30 years
  - Iran (with P5+1 help) establishes 10-year supply of fuel stored at Bushehr in case of disruption
  - R&D permitted, but must be declared, done under IAEA supervision, deployments of new centrifuges only as agreed by the parties
The case for compromise: sanctions

- The dispute:
  - Iran wants all sanctions lifted right away – and wants them permanently lifted, not just waived
  - United States wants step-by-step easing to give Iran ongoing incentive to comply

- Why Iran should compromise
  - Can get large economic benefits from partial lifting of sanctions – particularly banking and oil sanctions
  - Obama administration cannot get permanent lifting legislation through Congress

- Why the P5+1 should compromise
  - If Iran clearly violates agreement, there will be strong support for reimposing sanctions
  - Some sanctions are largely on/off (e.g., access to the SWIFT bank transfer system)
Deep obstacles to a deal

- Genuinely conflicting interests
  - Iran wants as much of a bomb option as possible – if not a bomb itself
  - United States Iran to have as little of a bomb option as possible

- Deep mistrust
  - Both sides mistrust everything the other side does – interpret each action or statement in most negative light
  - Credibility of U.S. military threat in some doubt; credibility of U.S. promises in even more doubt
  - Credibility of Iranian promises in doubt

- Spoilers may be able to block
  - Both Obama and Rouhani face deal skeptics with substantial influence over the outcome
The Supreme Leader’s doubts

“Now they claim that if the Iranian nation ignores its nuclear energy, the sanctions will be lifted. They are telling a lie. They make decisions against the Iranian nation due to their long-cherished hostility.”

-- Ayatollah Khamenei, quoted in the New York Times, 10/11/12

“Any move which is made by the Americans and their allies and cohorts is for the sake of bringing the people of Iran to their knees and humiliating them… Our negotiating team… is trying to take the option of sanctions from this deceptive and treacherous enemy… which achieves its goals by breaking its promises and haggling…”

-- Ayatollah Khamenei, speech, 1/82015
A multi-level game

- For Obama:
  - Need a deal that Iran will accept
  - Need a deal that is sustainable in U.S. domestic politics
  - Need Israel and the Gulf states not to be too outraged (need them on other issues and they influence the domestic scene)
  - Need P5+1 to stay on board with negotiating strategy
  - Need all oil importers to stay on board with sanctions

- For Rouhani:
  - Need a deal that U.S. and rest of P5+1 will accept
  - Need a deal that Supreme Leader will approve, can survive against hard-line critics
  - Need a deal that strengthens, or at least does not undermine too much, his faction’s position in domestic politics

Satisfying domestic parties and allies pushes sides to more hard-line positions, makes negotiation difficult
The stakes are high – and broad

- Effects of a deal (or a collapse of talks) go far beyond the nuclear issue
- Outcome would affect:
  - Iranian politics
  - U.S. politics
  - Middle East security and politics
  - The credibility of the United Nations Security Council
  - The global effort to stop nuclear proliferation – and the credibility of the International Atomic Energy Agency
  - U.S. relations with Iran on other issues
  - U.S. relations with other parties in the Middle East – Israel, Saudi Arabia, other Arab states, Turkey…
  - Oil markets
Prognosis uncertain

- All options – deal, extension, collapse – plausible
- My bet on probabilities by June 30:
  - Comprehensive deal: 30%
  - Extension: 50%
  - Collapse: 20%
    - If collapse, “blame game” will be important – if seen as caused by U.S. intransigence, will be difficult to maintain and expand international sanctions
- Even if a deal, the issue won’t be over
  - Deal will be of fixed duration – 7-15 years – and will likely permit Iran unlimited enrichment thereafter
  - Disputes over compliance are inevitable
  - Will be a major focus of U.S. policy for years to come
For further reading…

- Belfer Center’s “Iran Matters” website
  - http://iranmatters.belfercenter.org/

- U.S. Institute of Peace “Iran Primer”
  - http://iranprimer.usip.org/

- The Iran Project
  - http://iranprojectfcsny.org/
Backup slides…
Building, slowdown, acceleration, then capping at a high level...

Source: Institute for Science and International Security
Iranian Nuclear Facilities
## Elements of Iran’s nuclear program

<table>
<thead>
<tr>
<th>Program element</th>
<th>Status</th>
<th>Safeguards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uranium mining</td>
<td>operating</td>
<td>N</td>
</tr>
<tr>
<td>Uranium conversion</td>
<td>operating</td>
<td>Y</td>
</tr>
<tr>
<td>Uranium enrichment</td>
<td>operating</td>
<td>Y</td>
</tr>
<tr>
<td>Suitable plutonium reactor</td>
<td>constr.</td>
<td>Y</td>
</tr>
<tr>
<td>Reprocessing</td>
<td>no</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

**Weaponization**

| Conversion to metal                      | tested  | Y          |
| Casting to weapons shapes               | docs.   | N          |
| Precisely timed detonators              | exper.  | N          |
| Explosives arranged to crush sphere     | exper.  | N          |
| Neutron initiator                       | materials | N         |
| Missile reentry vehicle for warhead     | docs.   | N          |
Natanz Enrichment Facility

Source: Hamed Saber, archive photo

Source: Institute for Science and International Security
Fordow Enrichment Facility

Source: Institute for Science and International Security
Arak reactor

- Construction paused by JPOA
- Capable of producing plutonium for ~2 bombs per year
- No evidence of reprocessing plant yet
- Israel has history of striking such reactors before they become operational
- If deal, likely modified to reduce Pu production to <1kg/yr

Source: Institute for Science and International Security
The U.S. narrative

- Iran’s “civil” nuclear programs is a figleaf for a weapons program – otherwise no need for enrichment
- Iran threatens U.S. and world security – supports terrorism, threatens Israel, sponsors militias that have killed U.S. soldiers, seeks to dominate the Gulf
- Iran has repeatedly violated its safeguards obligations, continues to conceal its nuclear weapons work
- Iran needs to rebuild international confidence in the peaceful nature of its program by: dismantling most of its centrifuges (so it no longer has enough to rapidly breakout); modifying the Arak reactor so that it cannot produce much weapons plutonium; revealing its past weaponization activities; and accepting wide-ranging inspections
- Iran is defying the entire international community
The Iranian narrative

- Iran’s nuclear program is entirely peaceful, within NPT
- Iran has the same rights as all other NPT members
- Iran was forced into concealment by Western efforts to stymie nuclear supply
- Iran needs nuclear power to avoid using up its valuable oil and gas, needs enrichment to fuel reactor if there’s a cutoff of supply
- Iran has given the IAEA transparency far beyond what it is obligated to provide, corrected all past issues – only remaining disagreements are over Western fabrications, in areas far beyond the IAEA’s mandate
- Sanctions are an unjust assault on Iran’s sovereignty and must be removed; problem will be solved if U.S. and Israel drop their hostility and unjust demands
The Iranian narrative (II)

- Iran does not support terrorism; it supports legitimate social movements (Hezbollah, Hamas…)
- Iran has not threatened or waged aggressive war against any other state for centuries
- Much of the world supports Iran’s legitimate rights
- The United States and Israel have waged an unrelenting campaign of threats, sabotage, murder, and intimidation, and have manipulated the IAEA and the Security Council
- Some Iranians:
  - The United States will never accept the very existence of the Islamic Republic – so no value to Iran of nuclear deal
  - The EU3 and the P5+1 have never negotiated with Iran in good faith – demanded far-reaching Iranian action for small, easily reversible Western action
The European narrative

- With 2003-2006 suspension, Europe had a major success in showing it can pull together as a team, play a leading international role.
- While hoping for more active U.S. participation, EU-3 secured U.S. backing for proposals.
- Iran negotiated in bad faith, simply strung out the talks to get maximum benefit while giving nothing up.
- Tough sanctions have been essential to getting talks to the current stage.
- Issues related to Iran’s other foreign policy behavior are more complex than the United States makes them out to be.
- Military strikes should be considered, but only as a last-ditch option.
The Russian narrative

- Iran, while sometimes annoying, is a legitimate player in the international system, with its own rights and interests that have to be addressed – and a legitimate recipient of arms sales and civil nuclear sales
- Nuclear cooperation with Iran increases Russia’s ability to influence Iran not to pursue nuclear weapons
- Iran should not enrich, but buy a share in the International Enrichment Center at Angarsk, but if Tehran insists on enriching, it is acceptable
- Sanctions will not stop the nuclear program – the only real solution is a deal that addresses Iran’s interests, as well as those of the United States and others
- Unilateral U.S. military action is unacceptable
An unspoken Russian view

- An Iran under U.S.-driven sanctions:
  - Exports less oil and gas, increasing prices
  - Resents the United States and needs to rely more on Russia
  - Hence, some advantages in status quo, no agreement (but no breakdown of talks that might threaten regional instability)

- Russia doesn’t always have to follow the U.S. lead
  - If there are options to tweak the United States without undermining Russia’s interests, probably worth pursuing
  - Example: proposed oil for food swap, undermining sanctions
  - Dynamic stronger with Ukraine crisis – though Russia has maintained P5+1 unity so far

- Russia doesn’t want an Iranian bomb
  - But may be willing to tolerate a closer approach to an Iranian bomb than the United States, Israel, the Gulf States, or Europe
The Chinese narrative

- All issues between Iran and the West should be resolved through dialogue
- The key issue is compliance with the NPT. While China would prefer much less enrichment in Iran, good enough for Iran to comply with NPT
- Sanctions are not likely to be effective
- Unilateral U.S. military action (like Iraq) is unacceptable
- The real solution is for the United States and Europe to offer Iran strong security guarantees and economic incentives, so Iran won’t feel it needs nuclear weapons
- China, as a major player in the international system, supports nonproliferation, has supported the UN resolutions, and has participated in the P5+1 effort
Facts any policy must cope with

- Iran has ~19,000 centrifuges installed at Natanz and Fordow – more advanced centrifuges in testing.
- Iran has substantial enrichment knowledge – can’t be destroyed or negotiated away.
- Major portion of Arak reactor built.
- Intense U.S.-Iranian hostility, distrust.
- U.S. has many issues with Iran – Iraq, Afghanistan, Syria, terrorism, Israel, etc. – going well beyond nuclear issue. And Iran has many issues with the United States.
  - Limits what can be offered for nuclear deal (e.g., diplomatic recognition, security assurances).
Many other states – Europe, Russia, China, Israel, Gulf states, etc. – also have major interests at stake
  – Iran has huge reserves of oil and gas – impossible to completely isolate, exclude from world economy
  – Israel, Gulf states have major concerns over growing Iranian power, will push hard for their preferred outcomes

All outcomes will have an impact on nonproliferation regime, credibility of Security Council, regional politics, and more

Iranian government has been sclerotic, factionalized, legitimacy-challenged—difficulty making hard choices
  – Deal would require giving Iranian advocates of compromise enough to convince Ayatollah Khamenei to say “yes”
  – No faction can afford to be seen as buckling to foreign pressure; some do not believe compromise would bring any benefit
Balancing objectives

- **U.S. objectives:**
  - No Iranian nuclear weapons
  - To the extent still practicable, broad and *verifiable* gap between permitted nuclear activities and a nuclear weapons capability
  - Preserving the NPT regime
  - Addressing – or at least not making worse in a nuclear deal – Iranian behavior on Iraq, terrorism, Israel, etc.

- **Iranian objectives:**
  - Preserving regime, avoiding attack
  - Repeal of sanctions
  - Status and prestige as leader of developing, Islamic worlds
  - Recognition of its regional power and role
  - Economic development
  - Civilian nuclear energy
  - Nuclear weapons option (or more?)
Plutonium, declared site

- Arak as designed: 40 MWt HWR
  - ~8 kg Pu/yr at high capacity factor
- Options for change:
  - Reduce power (~ linear, 10 MWt → 2 kg Pu/yr)
  - Modify core
    - Enriched fuel
    - More compact core
    - Can achieve same or higher neutron flux for science, isotope production with far smaller Pu production
  - 10 MWt, 5% enriched compact core, ~1/3 kg Pu/yr
- How difficult to reverse?

- Key additional elements:
  - No reprocessing plant
  - Export of spent fuel
HEU, declared sites

- Current:
  - ~19,000 centrifuges installed
    - ~1,000 IR-2m
  - ~9,000 centrifuges enriching (no IR-2m)
  - Large stocks of <5% enriched LEU
  - Stocks of <20% enriched LEU being converted to oxide or blended below 5%

- For discussion:
  - Total # of deployed centrifuges
  - Total capability of deployed centrifuges
  - Locations of centrifuges (Natanz, Fordow, other)
  - Quantity of <20% material (UF6, oxide)
  - Quantity of <5% material (UF6, oxide)
  - Centrifuge R&D
Some thoughts on centrifuge and material elements of an agreement

- Centrifuge constraints should include capability cap (total SWU), not just number of centrifuges

- Deep rollback likely to be extremely difficult to (a) negotiate, (b) sustain in Iranian domestic politics
  - Final agreement should *not* be compared to the best we might have wanted – but to the alternative of no agreement
  - Historically states that feel forced to accept humiliating agreements far more likely to cheat and/or abrogate
  - Key question: how much rollback should negotiators insist on, given the possibility of no agreement?

- Closing Fordow may be a particularly difficult demand for Iran’s domestic politics
  - May not be essential in context of other limits

- Centrifuge R&D unlikely to be prohibited
  - Plays directly into the Iranian “rights” narrative
Material:
- Iran could agree to fabricate 20% and 3.5% stocks into fuel
- Example: send 3.5% stock to Russia, fabricate into Bushehr fuel to be stored as backup stock in case of interruption of supply – would fulfill Iran’s claimed purpose for enrichment
- Example: since Abbasi said Iran wanted to get into 20% fuel supply business, P5+1 (or others) could purchase some of Iran’s stock of 20% material

Centrifuges:
- Iran could justify rollback by pointing out that IR-1s had proved to be inefficient and unreliable, so it would choose voluntarily to eliminate those and rely on IR-2Ms
- “Legitimate needs” could be fuel for Arak converted to use enriched fuel plus planned 10MWt light-water research reactor – and possibly building up backup stock of fuel for them and/or Bushehr
Covert sites

- Intelligence will continue to do the main work of making covert sites more difficult and risky for Iran.

- But an agreement can help:
  - Require data, monitoring of all production and all stocks of centrifuges and key components and materials.
  - Ban any undeclared import of centrifuges, key components, and materials.
  - Strengthen understanding of mining, stocks of mined material.
  - Get CTBO isotope collection sites established (would help detect isotopes from covert reprocessing).
  - Collaborative R&D? Multilateral staff for ongoing enrichment?

- Improved confidence on covert sites is likely more important than rollback at declared sites.