The comprehensive nuclear agreement that Iran and the P5+1 (China, France, Germany, Russia, the United Kingdom, and the United States) finalized on July 14 would verifiably block Iran’s pathways to nuclear weapons development—the uranium-enrichment route and the plutonium-separation route—and guard against a clandestine weapons program. The agreement is consistent with, and in some ways stronger than, the framework announced April 2. When implemented, it will be a net plus for nonproliferation and will enhance U.S. and regional security.

Blocking the Highly Enriched Uranium Route
The agreement will put stringent limitations on Iran’s uranium-enrichment program that would push Iran to more than 12 months away from producing enough weapons-grade uranium for one bomb. It involves a combination of measures, including:

- Cutting Iran’s enrichment capacity in half and reducing for 10 years the number of installed centrifuges from over 20,000 to 6,100 first-generation machines, of which 5,060 will be operational;
- Barring enrichment of uranium above normal reactor fuel-grade (up to 3.67 percent), eliminating 97 percent of Iran’s stockpile of low-enriched uranium (LEU) and capping it at 300 kg for 15 years;
- Limiting research and development of advanced centrifuge machines for 13 years, so that enrichment capacity remains the same;
- Converting the underground Fordow facility to a medical research facility, with less than half of the current centrifuges and a prohibition on uranium enrichment there for at least 15 years.

No Plutonium Path
The agreement will eliminate Iran’s plutonium pathway to nuclear weapons. With international assistance led by China, Iran will redesign the unfinished Arak reactor so it will not produce weapons-grade plutonium. Iran will not build any new heavy-water reactors or reprocess spent nuclear fuel, which produces plutonium.

The Impact of a Comprehensive Nuclear Deal on Iran’s Deployment of Centrifuges

![Graph showing the impact of the nuclear deal on Iran's deployment of centrifuges]

Source: International Atomic Energy Agency; Joint Comprehensive Plan of Action (JCPOA)
weapons-grade plutonium, for 15 years, and it does not intend to do so thereafter.

**Intrusive Monitoring**  
The agreement will put in place enhanced international monitoring and accountancy to promptly detect and deter Iranian noncompliance. The agreement will set up a multi-layered system to monitor and inspect every aspect of Iran’s nuclear supply chain and fuel cycle, including continuous monitoring at some sites for 20–25 years. Other elements, including access to a wider number of nuclear sites—notably centrifuge manufacturing sites—and inspections on short notice under the terms of Iran’s additional protocol, will be permanent. Inspectors will have access to any site, anywhere, including military sites, if there is evidence of suspicious nuclear activities. A special adjudication commission will ensure disputes are settled within 24 days; this will ensure prompt access when necessary. With sufficient resources, the International Atomic Energy Agency will be able to verify Iran’s commitments effectively.

**Incentives for Iranian Follow-Through**  
The structure of the nuclear deal gives Iran incentives to follow through on its commitments. No sanctions relief will be granted until Iran has taken steps to limit its uranium-enrichment program, convert the Arak heavy-water reactor, provide required transparency, and give the IAEA the information needed to resolve questions about past activities with possible military dimensions. For 10 years, if Iran violates the agreement, UN sanctions will snap back into place and the United States and the international community will have the time necessary to respond. Though the UN Security Council’s previous prohibition on nuclear-capable missile work will end after eight years, missiles without nuclear warheads are a significantly lesser threat.

**No Deal, No Limits**  
The final P5+1 agreement with Iran should not be judged on how it addresses any single element of Iran’s nuclear program. Instead, policymakers should assess its overall impact on reducing Iran’s nuclear capacity and improving international monitoring and verification. There is no better deal on the horizon.

Congressional efforts to block implementation would unravel the deal, undermine global support for the existing sanctions architecture, and allow Iran to accelerate its nuclear program and escape more-intrusive international monitoring. The risk of an Iranian nuclear weapon and a military conflict over the issue would grow.

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**Key Restrictions Will Last Well Over a Decade**

- Implementation of additional protocol, commitment not to reprocess plutonium, NPT obligations
- Continuous surveillance of uranium mines and mills
- Continuous surveillance of centrifuge production areas
- LEU stockpile capped at 300 kg, no enrichment at Fordow, no new heavy-water reactors
- Limit of 5,060 IR-1 operating centrifuges
- Very limited R&D on advanced centrifuges

**Capping Iran’s LEU Stockpile**

<table>
<thead>
<tr>
<th>Year</th>
<th>LEU Stockpile (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov. 2012</td>
<td>8,000</td>
</tr>
<tr>
<td>Nov. 2013</td>
<td>6,000</td>
</tr>
<tr>
<td>Nov. 2014</td>
<td>4,000</td>
</tr>
<tr>
<td>June 2015</td>
<td>2,000</td>
</tr>
<tr>
<td>10 Years</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: JCPOA

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