

**IRAN'S NUCLEAR PROGRAM AND INTERNATIONAL
LAW: FROM CONFRONTATION TO ACCORD**

Chapter 7

Daniel H. Joyner

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The Joint Comprehensive Plan of Action and Developments since July 2015

Let us now revisit the summary of the legal arguments of the two sides to the Iran nuclear dispute, which I laid out in Chapter 2. In light of the legal analysis and conclusions I have provided in the foregoing chapters, we can now observe that both sides were partially correct in their legal arguments made during the period of confrontation between August 2002 and July 2015.

As the West and the International Atomic Energy Agency (IAEA) had asserted, Iran was indeed in violation of its safeguards treaty obligations in 2003, when it was found to be so by the IAEA. This placed a legal burden on Iran to remedy that violation, which it did by 2008 through cooperation with the IAEA. Furthermore, while not formally a violation of a legal obligation, Iran had also failed to live up to its political commitments with regard to its 2009 declaration concerning the Fordow facility, as the IAEA had maintained. Finally, Iran's failure to suspend its uranium enrichment program had been *prima facie* noncompliance with the U.N. Security Council's command that it do so—although this last observation must come with the caveat that the legal validity of the command itself was dubious.

For its part, Iran had been correct in arguing that it had not at any time violated any provision of the Nuclear Nonproliferation Treaty (NPT). It had furthermore not violated its safeguards treaty obligations subsequent to 2003, with regard either to undeclared

nuclear material on its territory or to the declaration of new facilities. Therefore it was indeed, as it had argued, in full compliance with its safeguards obligations after 2008 and continuing up through the adoption of the Joint Comprehensive Plan of Action (JCPOA) in July 2015. And it was additionally correct that the IAEA's determinations to the contrary were based upon incorrect understandings both of IAEA safeguards law and of the implications of U.N. Security Council resolutions.

This, then, was the legal situation on the eve of the adoption of the JCPOA. Politically, the diplomatic efforts purposed in finding a political settlement to the at times dangerously tense standoff between Iran and its detractors had proceeded in fits and starts since 2003 with little real progress having been made until the diplomatic breakthrough of the Joint Plan of Action (JPOA) on November 24, 2013. As I explained at the close of Chapter 1, the JPOA was an explicitly interim agreement setting the stage for continuing negotiations, potentially leading to a final and comprehensive diplomatic resolution. Over the next twenty months, negotiators from Iran, the P5+1, and the European Union attempted to reach such a comprehensive settlement. Several extensions of tentative deadlines were agreed, and marathon negotiating sessions were held, ending with a seventeen-day final session at the Palais Coburg in Vienna.

On July 14, 2015, the agreement of the JCPOA was announced through a joint statement by E.U. High Representative Federica Mogherini and Iranian Foreign Minister Javad Zarif. When it was finally made public, the length and detail of the agreement stunned many. There had been a hope that the parties would be able to agree on a comprehensive diplomatic package of commitments, but few believed it realistic that such a diverse group of negotiating parties, with such a history of antipathetic relations among them, could produce an agreement of such scope and depth of detail, even including a dispute settlement procedure for the agreement's implementation. The agreed documents consist of 159 total pages of text, including 18 pages of the JCPOA itself, with a further 141 pages divided among 5 annexes. On July 20, 2015, the U.N. Security Council adopted

Resolution 2231, in which it unanimously endorsed the JCPOA and brought into force the measures relating to the Security Council that were agreed in the JCPOA.

I. KEY COMMITMENTS IN THE JCPOA

The key commitments in the JCPOA can be described as follows. Iran commits in the JCPOA to limit its uranium enrichment activities and to decrease its existing stockpile of low-enriched uranium (LEU). Specifically, Iran agrees to reduce its existing holdings of LEU by 98 percent, from 10,000 kg to 300 kg, and to maintain this level of LEU holdings for fifteen years. It further agrees that this remaining stockpile will be enriched to no more than 3.67 percent purity of the U235 isotope. Iran's excess LEU stockpile is to be sold to a foreign buyer in return for natural uranium delivered to Iran. This foreign buyer, though not stipulated in the JCPOA, is almost certain to be Russia. All remaining uranium oxide in Iran enriched to between 5 percent and 20 percent will be fabricated into fuel for the Tehran Research Reactor.

Iran further commits for ten years to place over two-thirds of its operating centrifuges in storage, reducing the number of centrifuges operating in the country from around 19,000 down to a total of 6,104 centrifuges, divided between the Natanz and Fordow facilities. However, the 1044 centrifuges at Fordow will only be used for continuing nuclear research purposes, and not for uranium enrichment.

Specifically with regard to its heavy-water facility at Arak, Iran commits to redesign and rebuild the facility in a manner in which it will no longer be capable of producing weapons-grade plutonium. All spent fuel produced by the Arak reactor will be shipped out of Iran for the lifetime of the reactor, and for fifteen years Iran commits not to develop spent fuel reprocessing capabilities. All of these commitments regarding the front end of Iran's nuclear fuel cycle were sought by the European Union and the P5+1 in order to reduce Iran's potential "breakout time," or the estimated time necessary for Iran

to produce enough nuclear material for a weapon, should it choose to do so.

With regard to safeguards on its nuclear program, Iran commits in the JCPOA to provisionally apply the IAEA Additional Protocol, with a view to seeking its formal ratification. Iran also agrees to fully implement the modified Code 3.1 standard in its subsidiary arrangements relative to its comprehensive safeguards agreement. In addition to these commitments, Iran also agrees in the JCPOA to yet further provisions for enhanced access by the IAEA to sites within Iran. These enhanced access provisions are found in Annex I, Section Q. Paragraph 75 of Section Q provides that “if the IAEA has concerns regarding undeclared nuclear materials or activities, or activities inconsistent with the JCPOA, at locations that have not been declared under the comprehensive safeguards agreement of Additional Protocol,” the IAEA may request access to such undeclared locations. And if the IAEA and Iran are unable to reach an access agreement or other explanatory solution satisfactory to the IAEA, the agency can submit its access request to a Joint Commission, made up of representatives from each of the JCPOA parties, including Iran. Iran then commits in Section Q to implement the Joint Commission’s majority decision on the matter. These enhanced access provisions are to remain in place for fifteen years. The JCPOA’s enhanced access provisions can be viewed as a supplement to Iran’s obligations under its comprehensive safeguards agreement (CSA) and Additional Protocol.

Independently, yet in coordinated parallel with the JCPOA, on July 14, 2015, Iran and the IAEA signed a “Roadmap Agreement” for the “clarification of past and present outstanding issues regarding Iran’s nuclear programme.” This Roadmap Agreement set out an agreed process through which Iran and the IAEA would address the agency’s long-standing possible military dimensions (PMD) concerns. It provides that by December 15, 2015, the Director General should submit to the Board of Governors a “final assessment on the resolution of all past and present outstanding issues, as set out in the annex of the 2011 Director General’s report (GOV/2011/65).” This final assessment report on the PMD issue, called for by the

Roadmap Agreement, was in fact delivered to the Board of Governors on December 2, 2015, as IAEA document GOV/2015/68 and was accepted by the Board in a resolution dated December 15, 2015. The concluding summary of the Director General's report stated:

The Agency assesses that a range of activities relevant to the development of a nuclear explosive device were conducted in Iran prior to the end of 2003 as a coordinated effort, and some activities took place after 2003. The Agency also assesses that these activities did not advance beyond feasibility and scientific studies, and the acquisition of certain relevant technical competences and capabilities. The Agency has no credible indications of activities in Iran relevant to the development of a nuclear explosive device after 2009.

The Agency has found no credible indications of the diversion of nuclear material in connection with the possible military dimensions to Iran's nuclear programme.

Finally, in Annex I, Section T of the JCPOA, Iran commits to what might be described as principles supplementing its obligations under Article II of the NPT. As I discussed at length in Chapter 3, the NPT's prohibition on horizontal proliferation of nuclear weapons to Non-Nuclear Weapon States (NNWS) parties, is limited to proscribing the manufacture or other acquisition of a nuclear explosive device. The commitments of Annex I, Section T of the JCPOA go further than this and provide that Iran will not engage in a delineated list of activities short of the manufacture or other acquisition of a nuclear weapon, yet which nevertheless "could contribute to the development of a nuclear explosive device." These activities include, *inter alia*, developing or using computer models to simulate nuclear explosions, developing or using multipoint explosive detonation systems suitable for a nuclear explosive device, developing or using explosive diagnostic systems, and developing or using explosively driven neutron sources. All of these are precursor capacities necessary for developing a functioning nuclear warhead.

While the above described commitments undertaken by Iran in the JCPOA are significant and represent serious compromise on the part of the Iranian government relative to positions they had taken in previous attempts at diplomatic settlement, it should nevertheless be noted that most of these commitments are not of permanent duration. In fact, in its recitation of the preamble and general provisions, the JCPOA makes it clear that the ultimate position of the European Union and the P5+1 toward Iran's indigenous nuclear program, including the uranium enrichment element of that program, will be one of acceptance and normalization. As paragraph iv of the general provisions states:

Successful implementation of this JCPOA will enable Iran to fully enjoy its right to nuclear energy for peaceful purposes under the relevant articles of the Nuclear Non-proliferation Treaty (NPT) in line with its obligations therein, and the Iranian nuclear program will be treated in the same manner as that of any other non-nuclear-weapon state party to the NPT.

Along with the lifting of economic sanctions, this recognition of Iran's right to maintain a peaceful nuclear energy program, inclusive of an indigenous uranium enrichment capacity, was a primary negotiating objective for Iran.

In return for all of Iran's commitments concerning its nuclear program under the JCPOA, the European Union and P5+1 parties commit themselves, through a carefully delineated schedule of reciprocal concessions, to the comprehensive lifting of all economic sanctions on Iran related to its nuclear program. These include both the sanctions imposed multilaterally by the U.N. Security Council since 2006 and the unilateral sanctions imposed unilaterally by the United States and the European Union since that time. As noted previously, in its Resolution 2231, adopted on July 20, 2015, the Security Council endorsed the JCPOA and agreed to the commitments made therein relative to its past resolutions.

Annex V of the JCPOA provides that initial sanctions relief, in the form of the termination or ceasing of application of the unilateral

nuclear sanctions measures imposed by the European Union and the United States and the termination of all U.N. Security Council nuclear sanctions, is to occur on “Implementation Day,” which is stipulated to occur upon the verification by the IAEA of Iran’s initial completion of its essential commitments. This verification by the IAEA, heralding the arrival of Implementation Day, occurred on January 16, 2016. On that date, U.S. and E.U. officials confirmed the application of their initial sanctions commitments and announced their implementation.

Annex V stipulates that the U.N. Security Council’s nuclear sanctions imposed since 2006 are to be terminated as of Implementation Day, subject to “re-imposition in the event of significant non-performance by Iran of JCPOA commitments . . .” This clause is elaborated upon in the Dispute Resolution Mechanism section of the JCPOA in paragraphs 36–37, as well as in operative paragraphs 11–13 of Security Council Resolution 2231, which describe what has been referred to as the “snapback” process of the JCPOA. The procedure outlined in these paragraphs is quite complex, but the essential gist is that any one of the JCPOA’s parties can complain that any other party is not complying with its JCPOA commitments. If this occurs, and if no accommodation can be reached to resolve the impasse, including through the facility of the Joint Commission, the complaining party can notify the Security Council of the alleged noncompliance. Paragraph 37 of the JCPOA describes what would happen next in such a scenario:

Upon receipt of the notification from the complaining participant, as described above, including a description of the good-faith efforts the participant made to exhaust the dispute resolution process specified in this JCPOA, the UN Security Council, in accordance with its procedures, shall vote on a resolution to continue the sanctions lifting. If the resolution described above has not been adopted within 30 days of the notification, then the provisions of the old UN Security Council resolutions would be re-imposed, unless the UN Security Council decides otherwise.

Assuming, however, that the snapback procedure is never triggered, the JCPOA's Implementation Plan in Annex V provides for the final termination of the unilateral nuclear sanctions of the United States and the European Union on "Transition Day," which is set to occur on October 18, 2023; and for the final termination of the U.N. Security Council's nuclear sanctions on "UNSCR Termination Day," which is set to occur on October 18, 2025.

II. GENERAL OBSERVATIONS

Before commencing a more detailed analysis of the JCPOA's legal implications, a couple of preliminary general observations need to be made. The first is that the JCPOA is not a treaty, i.e., it is not a legally binding agreement among states. It is, rather, an agreement among states constituting political commitments only. The text of the agreement is quite explicit and unequivocal on this point when on page 6, following the preamble and statement of general provisions, it leads its recitation of the commitments of each party with the statement: "Iran and the E3/EU+3 will take the following voluntary measures within the timeframe as detailed in this JCPOA and its Annexes." This statement manifests the clear intent of the parties to the agreement that it be understood as legally nonbinding. Additional evidence supporting this conclusion can be found in the fact that the JCPOA was not signed by representatives of the agreeing parties. It was simply announced jointly by the representatives of the European Union and Iran. Nor are there any provisions in the JCPOA for the agreement to be ratified or to come into force.

The reasons why the parties chose a legally nonbinding format for the JCPOA are clear. The subjects addressed in the JCPOA are extremely politically sensitive. For this reason there was an understandable interest, particularly on the part of the United States and Iran, in avoiding the requirement of securing the formal support of their respective domestic legislative bodies for the agreement, which would have been necessary had the agreement been framed as a

legally binding treaty. Furthermore, the ambitious scope and level of detail achieved in the JCPOA's text and the agreement's creative approaches to problem solving on what are sure to be a dynamic set of issues raised over the course of the JCPOA's implementation—for example, in the creation of the Joint Commission and the sanctions snapback procedure—would have almost certainly been impossible had the agreement been framed as a treaty. States are typically, and predictably, far more conservative and restrictive in their negotiations of treaty text than they are in negotiations of agreements that are politically binding only. There is an underlying psychology present in the negotiation of a legally nonbinding agreement—however weighty the issues concerned are and however serious the parties are in their intent to abide by their commitments—that takes into abiding account the at least formally available option of noncompliance with the agreement without legal consequence, should necessity so dictate at some future point. This formal possibility, even if the parties have no intention of ever availing themselves of it, allows them to agree to text that is more detailed in its terms and creative in its approach. All of these reasons underlying the choice of form for the JCPOA are in harmony with and predictable according to a well-established scholarly literature on hard and soft forms of international agreement.¹

Again, however, it must be emphasized that one should not imply from the legally nonbinding form of the JCPOA any necessary deficiency in either the seriousness of the parties with regard to the

1. See Charles Lipson, *Why Are Some International Agreements Informal?*, 45 INT'L ORGANIZATION 495, 507 (1991); Robert Keohane et al., *The Concept of Legalization*, 54 INT'L ORGANIZATION 401 (2000); Kenneth Abbot & Duncan Snidal, *Hard and Soft Law in International Governance*, 54 INT'L ORGANIZATION 429 and 440 (2000). See generally Arthur Stein, *Coordination and Collaboration: Regimes in an Anarchic World*, in NEOREALISM AND NEOLIBERALISM: THE CONTEMPORARY DEBATE (David A. Baldwin ed., 1993); Joseph Grieco, *Understanding the Problem of Institutional Cooperation*, in NEOREALISM AND NEOLIBERALISM: THE CONTEMPORARY DEBATE (David A. Baldwin ed., 1993); LISA L. MARTIN, COERCIVE COOPERATION: EXPLAINING MULTILATERAL ECONOMIC SANCTIONS (1993).

agreement or in the sincerity of the parties' intention to abide by their commitments undertaken therein. The aforementioned scholarly literature on hard versus soft (i.e., legally binding versus legally nonbinding) international agreements finds no clear correlation between the bindingness of an agreement on the one hand and the compliance of parties with that agreement on the other.² The question of when and why states comply with their international commitments is immensely complex and may include, but is certainly not limited to, the influence of this one independent variable. As Charles Lipson has explained:

High costs of self-enforcement and the dangers of opportunism are important obstacles to extralegal agreements. Indeed, the costs may be prohibitive if they leave unsolved such basic problems as moral hazard and time inconsistency. The same obstacles are inherent features of interstate bargaining and must be resolved if agreements are to be concluded and carried out. Resolving them depends on the parties' preference orderings, the transparency of their preferences and choices (asymmetrical information), and the private institutional mechanisms set up to secure their bargains. It has little to do, however, with whether an international agreement is considered "legally binding" or not.³

A second preliminary general observation about the JCPOA is that the JCPOA did not, in and of itself, change anything about the legal situation existing at the time it was agreed. Again, the JCPOA itself is a legally nonbinding agreement. However, the JCPOA does include commitments undertaken by its parties, which, when implemented by them, will in some cases have legal implications. The first of those legal implications, which I will consider in more detail below, occurred on Implementation Day: January 16, 2016. On that

2. See Martha Finnemore, *Norms, Culture and World Politics: Insights from Sociology's Institutionalism*, 50 INT'L ORGANIZATION 325 (1996); Robert Keohane et al., *The Concept of Legalization*, 54 INT'L ORGANIZATION 401 (2000).

3. Charles Lipson, *Why Are Some International Agreements Informal?*, 45 INT'L ORGANIZATION 495, 507 (1991).

day, Iran's provisional application of the IAEA Additional Protocol, and its acceptance of the modified Code 3.1 version of its comprehensive safeguards agreement subsidiary arrangements, came into effect. Also on that day, economic sanctions and other restrictions contained in U.N. Security Council resolutions and in the domestic law of the United States and the European Union terminated or ceased application. Thus to be clear, between July 14, 2015, and January 16, 2016, the JCPOA had no legal effects or implications for its parties.

It could be said that the Roadmap Agreement, concluded between Iran and the IAEA on July 14, 2015, in connection with but formally independent from the JCPOA, produced something of a legal effect in the sense that it led to the submission by the IAEA Director General to the Board of Governors of a final assessment of the PMD issue on December 2, 2015, and the acceptance of this report by the Board in a resolution dated December 15, 2015. In that resolution, the Board of Governors agreed that the PMD issue would no longer be on the Board's agenda, effectively ending the IAEA's active consideration of the PMD issue.⁴

III. MORE ON SAFEGUARDS, PMD, MISSILES, AND SANCTIONS

Having made these initial observations, I will proceed to consider in more detail a few elements of the JCPOA, the IAEA Roadmap Agreement, and Security Council Resolution 2231 that have particular legal or normative implications.

A. Safeguards

As of Implementation Day—January 16, 2016—Iran has agreed to accept modified Code 3.1 within its comprehensive safeguards

4. GOV/2015/72.

agreement subsidiary arrangements. I covered Code 3.1 at length in Chapter 4. Again, modified Code 3.1 stipulates that preliminary design information on new nuclear facilities must be reported to the IAEA “[a]s soon as the decision to construct or to authorize construction has been taken, whichever is earlier.” Significantly more importantly, as of Implementation Day Iran has also agreed to provisionally apply its Additional Protocol agreement with the IAEA. It will be recalled that Iran signed an Additional Protocol agreement with the IAEA in 2003, though it never ratified the treaty, and thus Iran’s Additional Protocol agreement never formally came into force. However, Iran did voluntarily implement the provisions of the Additional Protocol from 2003 until 2006.

In the JCPOA, Iran agrees to provisionally apply its Additional Protocol agreement, effective on Implementation Day, “pending its ratification by the Majlis (Parliament).” Later in Annex V, as part of the commitments scheduled for “Transition Day,” which will occur on October 18, 2023, Iran commits to “[s]eek, consistent with the Constitutional roles of the President and Parliament, ratification of the Additional Protocol.” So the JCPOA envisions a period of approximately eight years of Iran’s provisional application of the Additional Protocol, at which time Iran will seek its formal ratification.

The fact that Iran commits in the JCPOA only to provisionally apply the Additional Protocol has been criticized by some in the West as a weak commitment, because it means that Iran will not be legally bound to apply the Additional Protocol and could at any time cease its provisional application of the treaty. It is important to understand what the provisional application of treaties entails in order to evaluate this criticism. Article 25 of the Vienna Convention on the Law of Treaties addresses the subject of provisional application of treaties but gives little detail about related process or about the meaning and legal implications of provisional application. The jurisprudence of international tribunals and the work of scholars have provided substantial fleshing out of the principle of provisional application, and the subject is currently on the agenda of the International Law

Commission, with Special Rapporteur Juan Manuel Gómez-Robledo having produced three reports as of this writing.⁵

Article 17 of the INFCIRC/540 Additional Protocol template provides that a safeguarded state “may, at any date before this Protocol enters into force, declare that it will apply this Protocol provisionally.” Thus, the treaty comes into provisional application at the time of the state’s unilateral declaration to that effect. It is correct that, once in provisional application, the safeguarded state may at any time, through unilateral declaration, terminate the provisional application of the treaty. This termination has the same legal consequences as the termination of a treaty in force, including the cessation of all treaty obligations going forward for the state. So to this extent, the critique of the JCPOA’s commitment for Iran only to provisionally apply the Additional Protocol is correct—Iran can indeed unilaterally terminate the provisional application of the Additional Protocol at any time through unilateral declaration and by so doing withdraw from any obligation under the treaty going forward.

However, it is not correct to equate this ability to unilaterally legally terminate the provisional application of the Additional Protocol with a lack of legal effect of the Additional Protocol during the time of its provisional application. For the duration of the provisional application of the Additional Protocol, Iran will be legally bound by all of the provisions of the Additional Protocol and subject to the same regime of state responsibility and treaty law implication in the case of a breach of any provision thereof as it would be were the Additional Protocol actually in force during that time. Thus, during the period of provisional application, the terms of the Additional Protocol will, along with the terms of Iran’s comprehensive safeguards agreement, together constitute Iran’s safeguards obligations under international

5. See, e.g., ANNELIESE QUAST MERTSCH, *PROVISIONALLY APPLIED TREATIES: THEIR BINDING FORCE AND LEGAL NATURE* (2012); Denise Mathy, *Article 25*, in *THE VIENNA CONVENTIONS ON THE LAW OF TREATIES: A COMMENTARY*, Vol. I (Olivier Corten & Pierre Klein eds., 2011); Ulrich Klaus, *The Yukos Case under the Energy Charter Treaty and the Provisional Application of International Treaties*, in *POLICY PAPERS ON TRANSNATIONAL ECONOMIC LAW*, NO. 11 (Halle, Martin-Luther-University 2005).

law. And the IAEA will have the legal authority to investigate and to assess Iran's actions with regard to its nuclear program, according to the terms of both the CSA and the Additional Protocol.

It may be queried why Iran negotiated for a commitment in the JCPOA only to provisionally apply the Additional Protocol, with a view to seeking its ratification after Transition Day. The answer is likely to be found in Iran's desire to maintain some leverage itself during the phased implementation schedule articulated in Annex V. It will be recalled that the economic sanctions imposed on Iran by the Security Council are to be initially terminated on Implementation Day, but that subsequent to that point they may be reimposed through the snap-back procedure discussed previously, up until UNSCR Termination Day, which is scheduled to occur roughly ten years later. This conditionality attached to the permanent lifting of sanctions was no doubt sought by Western states parties in order to incentivize continued compliance by Iran with its commitments throughout the full term of the JCPOA's schedule. One may speculate that Iran desired some reciprocal leverage to incentivize Western states to keep the full measure of their commitments under the JCPOA, in the form of a similarly central commitment the implementation of which would be at least partially within Iran's discretion.

As discussed in Chapter 4, the Additional Protocol supplements a safeguarded state's comprehensive safeguards agreement by requiring the state to produce a more expansive declaration regarding nuclear-fuel-cycle activity being carried out within its territory and by providing for the IAEA to have "complementary access" to that which it has under the CSA. Specifically, the Additional Protocol gives the IAEA the right of access "on a selective basis in order to assure the absence of undeclared nuclear material" to "any place" on the site of a declared facility, and not only to agreed strategic points, as under the CSA. It further provides for IAEA access to all sites on which information has been provided by the state regarding research and development activities on nuclear-fuel-cycle-related technologies, in order "to resolve a question relating to the correctness and completeness of the information provided." It also provides for IAEA

access to “any location specified by the Agency” in order to carry out “location-specific environmental monitoring.” This provision enables IAEA inspectors to nominate undeclared locations at which they would like to take soil, water, and air samples in order to detect the presence of nuclear materials and thus potentially produce evidence of undeclared nuclear activities. These access supplements to the CSA significantly increase the IAEA’s ability to verify not only the correctness but also the completeness of state declarations and allow for increased confidence in the determinations of the IAEA that no undeclared nuclear-related activity is being carried out on a safeguarded state’s territory.

With the Additional Protocol in effect, whether through provisional application or through formal entry into force, there should be considerably less controversy regarding the content of Iran’s safeguards obligations and regarding the scope of the IAEA’s authority to investigate and to assess Iran’s compliance with its safeguards agreements than there was during the period of confrontation. The Additional Protocol is in most respects quite clear on these subjects. However, the provisions regarding access to undeclared sites in Article 5(b) and (c) of the Additional Protocol, and the activities that are permitted to the IAEA to be carried out at or near such sites, contain terms that have the potential for controversy between the IAEA and a safeguarded state, particularly in cases where the IAEA has requested access to sensitive sites, such as military facilities. This potential for disagreement over discrete terms of access in Article 5 of the Additional Protocol appears to be the motivation behind the negotiated inclusion in the JCPOA of provisions addressing access in Annex I, Section Q. As described previously, this section provides in paragraph 75 that “if the IAEA has concerns regarding undeclared nuclear materials or activities, or activities inconsistent with the JCPOA, at locations that have not been declared under the comprehensive safeguards agreement of Additional Protocol,” the IAEA may request access to such locations. If the IAEA and Iran are unable to reach an access agreement or other explanatory solution satisfactory to the IAEA, the Agency may then submit its access request to the

Joint Commission, and Iran is committed to implementing the Joint Commission's majority decision on the matter.

At first glance, the access provisions in Annex I, Section Q of the JCPOA do appear to give the IAEA a significant card to play in the event that concerns arise regarding activities within Iran that could be characterized as included in the quite broadly worded category of "activities inconsistent with the JCPOA" at undeclared locations. In the past, the IAEA and Iran have disagreed over specific IAEA requests to visit sensitive locations within Iran, and in particular military facilities such as Parchin. Here again, however, the fact of the legally nonbinding nature of the JCPOA, inclusive of this set of enhanced access commitments, should, it would be hoped, incentivize the parties to the agreement, and related actors including the IAEA, to be calculating and reasonable in their approach to disputes over access. The parties should be aware that excessively aggressive or unreasonable demands made by any side—such as unreasonable requests by the IAEA to visit Iranian military facilities—could result in the collapse of the entire JCPOA framework.

Paragraph 15 of the JCPOA provides that the enhanced access provisions of Annex 1, Section Q will be in effect for fifteen years from Implementation Day. It does perhaps bear mentioning by way of clarification that throughout this period and beyond, Iran's safeguards legal obligations will consist exclusively of the terms of its CSA and, as applicable (i.e., so long as it is either provisionally applied or has been brought into force), its Additional Protocol with the IAEA. The access provisions of Annex I, Section Q of the JCPOA are political commitments only and during the term of their duration are not within the authority of the IAEA or any other body to investigate or assess as a subject of safeguards obligation compliance.

B. PMD

As mentioned previously, the Roadmap Agreement concluded between Iran and the IAEA in connection with the JCPOA led to the submission by the IAEA Director General to the Board of Governors

of a final assessment of the PMD issue in December 2015 and the acceptance of this report by the Board. The sixteen pages of the Director General's report are quite technical in its review of the IAEA's findings of fact concerning the various PMD allegations made by the IAEA, most notably in its November 2011 report. However, the conclusion section sums up the IAEA's final assessment of the PMD issue:

The Agency assesses that a range of activities relevant to the development of a nuclear explosive device were conducted in Iran prior to the end of 2003 as a coordinated effort, and some activities took place after 2003. The Agency also assesses that these activities did not advance beyond feasibility and scientific studies, and the acquisition of certain relevant technical competences and capabilities. The Agency has no credible indications of activities in Iran relevant to the development of a nuclear explosive device after 2009.

The Agency has found no credible indications of the diversion of nuclear material in connection with the possible military dimensions to Iran's nuclear programme.

Some excellent technical and political analyses of the IAEA's final PMD report have been offered.⁶ I will limit my comments to a brief consideration of the report's legal implications for Iran and its institutional implications for the IAEA.

It will be recalled that at the end of Chapter 3, I said that I was personally persuaded by the view of Robert Kelley regarding the subject of past nuclear weaponization work conducted by Iran. This is the view that while Iran likely did conduct research and development activities on technologies and capabilities necessary for building a knowledge of how to construct a nuclear warhead following its war with Iraq in the 1980s, Iran likely never constructed a complete nuclear explosive device, or any of its primary components, and likely

6. See, e.g., Robert Kelley, *IAEA: Most PMD Claims Groundless*, LOBELOG, Dec. 10, 2015; Peter Jenkins, *Iran's Nuclear Aberration*, LOBELOG, Dec. 7, 2015.

never conducted any of these activities using nuclear material. It also likely stopped any active nuclear weapon research and development programs by 2003.

The IAEA's final PMD report is significant in essentially confirming this view of Iran's past nuclear weaponization efforts. This is at least normatively important in constituting the IAEA's own determination of the facts of Iran's nuclear weaponization research activities, at a level that does not constitute a violation of NPT Article II's prohibition on the manufacture or other acquisition of a nuclear explosive device. And it is legally important in constituting the IAEA's determination that no diversion of nuclear material to military uses occurred in the process of these research activities. Again, under Articles 1 and 2 of Iran's comprehensive safeguards agreement, the exclusive purpose of IAEA safeguards on Iran's nuclear facilities is to verify that no nuclear material is diverted from peaceful to military uses. The PMD report's conclusions thus represent the IAEA's formal determination that nothing in Iran's past nuclear weaponization research activities constituted noncompliance with Iran's safeguards agreement with the IAEA.

The IAEA's final report on the PMD issue also has, in my view, important institutional implications for the IAEA itself. The report, and its acceptance by the Board of Governors, brings to an end the ill-conceived misadventure of the IAEA into the area of nuclear weaponization investigation and assessment. It will be recalled that at the end of Chapter 5 I argued that the combined systemic phenomena of the gap between expectations and capacity for the IAEA and the deep politicization of the IAEA's governing bodies, added to the pro-Western views of the current IAEA Director General, have created a political environment in the IAEA that produced an overstepping of the bounds of the IAEA's legal authority in its investigations and assessment of the PMD issue in the Iran case. Again, the IAEA has neither the legal authority nor the institutional capacity to act as a general nuclear weapons supervision regime or international bureau of investigation for rooting out and dismantling secret nuclear weapons programs. In its ill-conceived efforts to act as one in prosecuting its PMD agenda in the Iran case, it used third-party intelligence

information provided by states that it had no capacity to independently verify and refused to share these sources of intelligence with the state that was the subject of the investigation. This tactic, which cannot but remind one of a criminal prosecution on the basis of secret evidence unavailable to the defendant or the jury, produced increased distrust among states in the reliability of IAEA determinations and in the independence and objectivity of the agency generally. As the Russian representative to the IAEA, Grigory Berdennikov, explained:

The risk here is obvious. False allegations generated by interested parties in order to exercise political pressure on a State unfortunately remain part of current international landscape. They are quite common in many areas, including nonproliferation and one should admit could be very important sometimes involving issues of war and peace. Moreover, the intelligence services of some States may be tempted to use the IAEA as a tool to verify the information they receive via their operative channels. In other words—they may wish to turn the IAEA Department of Safeguards into their branch.

We do not want this to happen. We stress that the right to use all available safeguards relevant information should not be perceived as a blank check that Member States have given to the Secretariat in the area of information handling. The Secretariat remains a technical body of an international organization, which should work with data submitted via official channels or received during performing its statutory functions . . . We think that if the Secretariat decides to use any information, except for data obtained through its own inspection activity, it should duly disclose its origin and be ready to defend its credibility in an open discussion at the Board of Governors. Every State should have the right to publicly defend itself against false allegations and accusations generated by interested third parties or by the media.⁷

7. Daniel H. Joyner, *Statement by Russian Representative to the IAEA Grigory Berdennikov*, ARMS CONTROL LAW, Oct. 21, 2014.

The IAEA's decision to embark on its PMD investigation in Iran was doomed to ignominy from the beginning as there were no legal authorities on which to base it and no legal criteria or standards which the agency could apply to determine compliance or noncompliance by Iran. In fact, the JCPOA and the Roadmap Agreement should be seen as constituting an extraordinarily fortunate escape for the IAEA from the metaphorical hole that it had dug for itself by commencing an investigation that had no clear basis for resolution. In the end, as part of the *sui generis* political settlement represented by the JCPOA, and under pressure from the P5+1 to conclude its PMD investigation, the IAEA agreed to produce a limited fact-finding report that contained no explicit compliance determination, and very few facts that were not already in the public domain, on the basis of a minimal level of face-saving cooperation by Iran. And again, the basic findings of the report found no facts to indicate noncompliance by Iran with any actual legal standard, i.e., whether in the NPT or in Iran's comprehensive safeguards agreement.

It can only be hoped that the negligible benefit and huge costs associated with the IAEA's Iran PMD investigation will stand as a cautionary tale for the agency going forward and that in future cases the IAEA will resist the temptation to swim out of its depth, in the interest of preserving the agency's credibility.

C. Missiles

In its Resolution 1929, adopted on June 9, 2010, the Security Council imposed a conventional arms embargo on Iran. It further addressed Iran's ballistic missile program thus:

[The Security Council] decides that Iran shall not undertake any activity related to ballistic missiles capable of delivering nuclear weapons, including launches using ballistic missile technology, and that States shall take all necessary measures to prevent the transfer of technology or technical assistance to Iran related to such activities.

Iran's diplomats argued consistently that the Security Council's arms embargo and proscriptions on Iran's ballistic missile programs were unwarranted, and when negotiations began on the JCPOA they argued vigorously that they would not include their missile program on the agenda for negotiation along with their nuclear program. There is therefore nothing in the text of the JCPOA itself on the subject of Iran's conventional weapons and missile programs. However, in Security Council Resolution 2231, the Council did make some changes to its treatment of these issues.

Annex B of Resolution 2231 provides for the temporary continuation of the international conventional arms embargo on Iran, inclusive of an exception for transfers approved by the Security Council. However, it further provides that the embargo will cease on the date five years from Adoption Day under the JCPOA. This date will be October 18, 2020.

With regard to Iran's ballistic missile activities, Security Council Resolution 1929's circumscription of course terminated, along with the Security Council's other previous resolutions, on Implementation Day, January 16, 2016. In its place, Security Council Resolution 2231 in Annex B provides the following text:

Iran is called upon not to undertake any activity related to ballistic missiles designed to be capable of delivering nuclear weapons, including launches using such ballistic missile technology, until the date eight years after the JCPOA Adoption Day or until the date on which the IAEA submits a report confirming the Broader Conclusion, whichever is earlier.

The substitution of the leading phrase "calls upon" in this text in Resolution 2231 has legal significance, as I explained in Chapter 6. The change to this invitational yet legally nonbinding phrase in Resolution 2231 means that, as of January 16, 2016, Iran is no longer under a legal prohibition regarding its ballistic missile activity from the Security Council. The remaining hortatory expression in Resolution 2231 by its terms expires on October 18, 2023.

The removal of the Security Council's legal prohibition on ballistic missile activity by Iran and its disentanglement from the nuclear issue can be seen as a significant victory for Iran in the JCPOA process.

As a general matter, on the ballistic missile issue as well as on the issue of the Security Council's command in multiple previous resolutions that Iran suspend its uranium enrichment program, Resolution 2231 can be viewed as an instance of the Security Council's having to walk back from its prior injunctions with which Iran had refused to comply, and in fact with which Iran consistently did not comply. In the end, the Security Council itself can be rightly seen as one of the parties to the JCPOA whose compromise with regard to its previous demands was required in order for the JCPOA to be agreed. While this was certainly a pragmatic approach for the Council to take, it does beg the question of what implications this walking back by the Council might have for future cases in which it takes strong, injunctive stances against states or other actors. Might the Iran case make such injunctions appear less as immutable commands and more as negotiating positions? Might this perhaps be a positive evolution in both states', and the Security Council's own, understanding of the Council's role and authority?

D. Sanctions

As noted previously, the JCPOA's Implementation Plan in Annex V provides for the initial termination or ceasing of application of both the U.N. Security Council's economic sanctions on Iran and the unilateral nuclear sanctions imposed by the United States and the European Union on Iran, on Implementation Day, January 16, 2016. It further provides for the final termination of the U.S. and E.U. unilateral sanctions on "Transition Day," which is set to occur on October 18, 2023, and for the final termination of the U.N. Security Council's nuclear sanctions on "UNSCR Termination Day," which is set to occur on October 18, 2025.

Among these actors, by far the least predictable with regard to the likelihood of its compliance with its commitments undertaken

in the JCPOA is the United States. The question of how the United States plans to abide by its commitments—including the precise legal machinations of presidential waivers and U.S. statutory law—and indeed *whether* it will abide by its commitments, is complex and uncertain. It would be foolish to predict both how and whether the United States will bring its domestic law into compliance with its commitments in the JCPOA. Among the variables in this equation is the U.S. presidential election in November 2016, as well as frequent calls by members of the U.S. Congress for increased non-nuclear-related economic sanctions on Iran to compensate for any relief granted through the lifting of nuclear-related sanctions.

Even if the United States effectively lifts its secondary economic sanctions targeting non-U.S. entities, U.S. legal and natural persons are likely to remain prohibited from engaging in most financial transactions in Iran and with Iranian persons. U.S. businesses, therefore, are likely to miss out on any investment and trade opportunities created for, among others, European businesses through multilateral and unilateral sanctions relief.

Paul Pillar has persuasively made the case that U.S. noncompliance with its commitments regarding sanctions relief under the JCPOA is the single most likely cause of the derailment of the entire diplomatic accord. As he has explained:

The scenario that presents the greatest danger of the nuclear agreement unraveling is thus one in which new sanctions legislation and other Iran-punishing moves by the U.S. Congress cross a line that leads most Iranians to get fed up and to say to heck with it. The incentives that led them to accept the restrictions on their cherished nuclear program would become too indiscernible to make the bargain seem worthwhile any more. And that would bring the deal-killing result that hardliners on our own side have wanted all along.⁸

8. *What Would Be Most Likely to Unravel the Iran Nuclear Agreement*, THE NATIONAL INTEREST, Feb. 4, 2016.

IV. CONCLUSION

My own view is that the JCPOA, and its associated diplomatic and legal developments, constitute a major triumph for diplomacy and for the peaceful resolution of international disputes. Its negotiators are to be commended for their work in crafting an agreement which demanded compromise on all sides, but which also gave each of the parties the core set of political victories needed to enable them to sell the agreement to their domestic constituencies and give the accord a chance for success. Time will tell, but the JCPOA regime may in retrospect be credited with avoiding war. As such it represents the best possible model of successful diplomacy.

At its essence, the JCPOA sets out an approximately ten-year time frame during which all of the key commitments of its parties are to be implemented. At the end of that ten-year period, if all goes according to plan, all nuclear-related economic sanctions on Iran will have been formally lifted, and Iran will be at liberty to maintain a mature, full front-end nuclear fuel cycle that is recognized as legitimate and that is subject to the same safeguards obligations as the nuclear programs of other advanced civilian nuclear energy states, such as Japan and Germany. A few relatively insignificant limitations on Iran's nuclear program will remain for another five years after that point, with even fewer and less significant ones carrying on for yet another fifteen years. But practically, after ten years of implementation, the JCPOA should produce a new status quo in which Iran has become reintegrated with most elements of the world's financial systems and is on a normalizing path with countries in Europe and Asia.

All of this, of course, depends on the successful implementation of the JCPOA. It cannot be overemphasized that the JCPOA is a legally nonbinding diplomatic accord between its parties. The agreement and commitments it represents could of course fall apart at any time, and for any one of myriad reasons. If this happens, relations between Iran and the West are likely to return to the status of active confrontation over Iran's nuclear program. The next ten years of the

implementation of the JCPOA will no doubt be riddled with allegations of noncompliance by all sides, as antithetical elements within domestic political systems attempt to derail the accord. Indeed, these have already begun. The success or failure of the JCPOA, and of the realization of the positive end state it envisions, will depend solely upon the political will of all sides.

I have now come to the end of this manuscript. I have attempted within it to provide an analysis of many of the most important legal questions that have arisen over the course of the past fourteen or so years during both the confrontation and, much more recently, accord phases of the Iran nuclear case. As I said in the Introduction, my hope is that all of this analysis will provide an instructional case study of the application of the relevant sources of international nuclear law, which will in turn inform both the ongoing diplomacy surrounding the Iran nuclear dispute itself, as well as similar future cases.

I would like to close by offering a few words on the IAEA. In this manuscript, I have at times been critical of the way in which the IAEA has handled the Iran case. I would not wish for readers to take from this criticism the impression that I think the IAEA is not overall an excellent and integral international organization, or that its work is unimportant. On the contrary, I think that the IAEA has played an invaluable role in the international nuclear normative regime in the past and that it was fully worthy of its Nobel Prize in 2005. My criticism is meant in the vein of an *amicus curiae*—one whose advice has been unsolicited, but nevertheless is offered in order to assist the agency in fulfilling its important role in international law and international relations. The essence of my critique has been to remind the agency of the importance of staying within its clear legal authorities, which have been carefully negotiated and agreed to by its states parties. I have argued that the IAEA's continued credibility as an independent technical supervisory body of states' nuclear programs depends, at least in part, on its observance of these limitations. And, somewhat gratifyingly, I have some grounds for optimism that the points of critique I have raised, which have also and much more influentially been raised by states in the IAEA General Conference, have

begun to find some traction in the Board of Governors and in the Secretariat. As Mark Hibbs has recently observed:

While for Western states the Iran crisis was about Iran's non-compliance with its obligations, Iran, joined by developing and non-aligned countries, brought forth a narrative which framed the crisis as being instead about the IAEA's objectivity, competence, and authority, and about states' "nuclear rights". . . [The] themes Iran raised in its defence increasingly resonated among some member states in discussion in the board and the IAEA General Conference about the agency's development of the [state level concept], especially since 2012.

Given this background, during implementation of the JCPOA the IAEA may be challenged to demonstrate that it is implementing safeguards in Iran according to the letter of its legal authority and obligations, and that it will not be unduly swayed by powerful member states that have concluded an informal political arrangement with Iran.⁹

9. *Iran and the Evolution of Safeguards*, CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE, Dec. 16, 2015.