

The Limits of Resolve in International Politics: Evidence from the Iran Deal Negotiation

Michael-David Mangini*

May 25, 2021

Word Count: 12,030

Abstract

Trade conditionality as an instrument of economic coercion depends on the credibility of threats to revoke market access from target states that do not fulfill the conditionality. But it is equally important to credibly promise that sanctions will not be imposed on target states that do fulfill the conditionality. What instruments can states deploy to make credible promises without undermining the credibility of their threats? I show how excessive demonstrations of resolve to impose sanctions can undermine the credibility of assurances that market access will be restored once conditionality is met. The theory proposes that states can overcome these challenges by carefully choosing coalition partners who can supplement the credibility of assurances. The paper applies the theory to the Iran deal negotiation and finds that Congressional resolve to maintain sanctions stymied progress. Partnership between the United States and European states having less commitment to sanctions enhanced the effectiveness of trade conditionality and enabled the successful conclusion of the negotiations.

Introduction

On July 14, 2015 negotiators representing the five permanent members of the UN Security Council (UNSC), Germany, and Iran announced that they had reached agreement on the

*Mangini (mangini@g.harvard.edu) is a PhD Candidate in Political Economy and Government at Harvard University.

Joint Comprehensive Plan of Action (JCPOA). The Iran Deal, as the agreement is commonly known, was the culmination of over 9 years of negotiations on the issue of Iran's nuclear program. The terms of the agreement are complicated but the central premise is simple: Iran agreed to halt its nuclear program and open the country to inspections from the independent International Atomic Energy Agency (IAEA) while the P5+1 (the five permanent UNSC members plus Germany) agreed to lift sanctions on Iran. Exchanges such as this create incentives to defect from the agreement for both sides. From the perspective of the sanctioning coalition, these incentives come in two varieties: 1) a temptation to continue trading if the target is intransigent and 2) a temptation to continue sanctions if the target is compliant. In the case of the Iran deal, the P5+1 needed to convince Iran that ending their nuclear program would be rewarded with sanctions relief while also credibly threatening continued sanctions if the program continued. What instruments can states deploy to make credible promises without undermining the credibility of their threats?

In this paper I propose a theory of credible coercive assurances, which are assurances made for the purpose of applying coercion. The theory makes two main contributions to the literature. First, the theory explains the role of coercive assurances in diplomacy, focusing especially on economic sanctions, and why some states have difficulty making them credibly. Although the literature has emphasized the importance of resolve to bear costs during crisis bargaining, the theory of coercive assurances demonstrates that resolve can sometimes be counterproductive. In particular, some actions intended to signal the credibility of coercive threats can undermine the credibility of coercive assurances and therefore reduce bargaining leverage. Second, the theory explains how states can bolster the credibility of coercive assurances by issuing them in cooperation with other carefully chosen states as part of a coalition. This section contributes to the literature by explaining how some states might choose their coalition partners to maximize the credibility of their coercive programs.

A careful study of the Iran Deal negotiation reveals that the US could only credibly commit to reducing sanctions on Iran as part of a coalition with the EU. Although the

literature emphasizes insufficient resolve to bear the costs of sanctions as the chief obstacle to successful bargaining, there is ample evidence that the US had no difficulty demonstrating the seriousness of its threats. In fact, the United States was constrained to apply an aggressive sanctions program whether or not Iran pursued a nuclear program due to its strategic interests in the Middle East and its history with Iran. The problem was that the US was so resolved to endure the costs of sanctions that it could not credibly commit to lifting sanctions if Iran really did terminate its nuclear program. In stark contrast to the US, the EU was only able to begin serious sanctions on Iran after overcoming objections from businesses that had meaningful commercial interests in the Islamic Republic. It was possible for the EU to guarantee its sanctions would be removed if Iran ended its nuclear program because its own firms would demand their termination. Although the EU's economic ties to Iran made sanctions more costly, it was precisely these costs which enabled it to credibly commit to removing sanctions when necessary to make the deal.

Why might a sanctioning state persist at applying costly sanctions any longer than necessary? The US would surely gain economically from reducing its sanctions if Iran ended its nuclear program. In general, there is always an economic incentive to terminate costly sanctions as soon as possible. Yet there are at least three potential challenges to the credibility of promises of sanctions relief. First, some punishments that have clear economic costs also have political benefits. Sanctions can have political inertia if domestic firms threatened by import competition choose to resist the end of sanctions even if the target complies. Second, actions taken by the sender to signal their resolve to impose sanctions can create obstacles to their future removal. For example, codifying the sanctions in law could increase the certainty of their enforcement by insulating them from transient political whims, but this also means the sanctions cannot be removed without a legislative majority. Finally, the target may be unsure if the sender is sanctioning in good faith. For example, some sender states could be using sanctions as a pretense to raise protective tariffs, in which case the sender would most likely respond to increased compliance with ever more onerous demands. These obstacles

played a role in the course of the negotiation.

The Iran Deal negotiation demonstrates how coalitions can sometimes make credible commitments which could not have been made by the partners individually. There are at least two mechanisms at work. If a coalition partner fails to remove sanctions when the target becomes compliant, but the rest of the coalition follows through on the commitment, the target still benefits. The target's reward for compliance is amplified because sanctions are more effective when implemented by a coalition. Second, the target can infer the sincerity of a particular sender state from other sender states' willingness to join it in coalition. In the Iran Deal negotiation, the EU provided a guarantee that Iran could benefit economically from ending its nuclear program, and the US was able to promise not to interfere with EU business in Iran using secondary sanctions.

Ultimately, an analysis of the Iran Deal negotiation reveals that stronger resolve to sustain the costs of sanctions does not translate directly into superior outcomes. In fact, excessive demonstrations of resolve can hinder the negotiation process if they lead the target to believe that the sanctions can never be removed. Successful coercive diplomacy requires the sender to be capable of changing policy in response to the target's behavior even if it means upsetting an existing political equilibrium. Not all states can achieve this balance effectively in all circumstances. Over a period of decades the US interest groups that opposed Iran had successfully codified the sanctions in laws that could not be changed without Congressional action, making it very difficult for the US to remove sanctions under any circumstances. The EU's institutions gave it the legislative authority to change sanctions policy more freely, making it more effective during the negotiation.

Theory: The Two Faces of Resolve

The Concepts of Cooperative and Coercive Assurance

Successful economic coercion requires a sender state to make a double credible commitment. First, the sender state must credibly commit to punishment if the target's behavior is not

favorable. Second, but no less importantly, the sender state must credibly commit to refraining from punishment if the target's behavior is acceptable. Both commitments are necessary to influence the target's behavior. The essential importance of the two commitment problems to coercive diplomacy has been noted before. The earliest discussion of the double commitment problem known to this author appears in Schelling (1966) during a discussion of deterrent and compellent threats:

The need for assurances – not just verbal but fully credible – emerges clearly as part of “deterrence” in discussions of surprise attack and “preemptive war.” An enemy belief that we are about to attack anyway, not after he does but possibly before, merely raises his incentive to do what we wanted to deter and to do it even more quickly. (Schelling 1966, 75)

Although he uses different language because he is discussing violence instead of economic conflict, Schelling clearly articulates the two commitment problems. Furthermore, Schelling also acknowledges that establishing credibility of one commitment does not automatically confer credibility to the other.¹ Although Schelling's passage anticipates the problem studied in this article, the literature has focused on a different meaning of the threat/assurance nexus which is distinct but related. The second usage appears to originate with Jervis (1978) in a discussion of how states can maximize the chances of cooperation under the security dilemma:

One point should be emphasized. Because the other, like the state, may be driven to defect by the fear that it will be exploited if it does not, the state should try to reassure it that this will not happen. (Jervis 1978, 180)

¹Deterrent and compellent threats are differentiated in this passage because Schelling argues that assurances are easier to make credible in the case of deterrence. In the context of deterrence, where the sender threatens punishment if the target takes an action, the sender need only maintain the status quo if the target backs down. However, in the case of compellence, where the sender threatens punishment unless the target takes an action, the sender usually must credibly commit to withdrawing the punishment if the target does indeed comply. This is one of several reasons that Schelling gives when concluding that compellence is more difficult than deterrence. Others, including Jervis (1979), are skeptical of the finding.

Jervis’s concept of “assurance” is quite different from Schelling’s. For Jervis, assurance is the attempt of a cooperative state to persuade a foreign state of its benign intentions. By contrast, Schelling’s concept of assurance is the guarantee of a coercive state that a foreign state will not be harmed as long as its behavior is deemed acceptable. While Jervis’s concept is meaningful – as he discusses, a state making large military investments must assure others of their defensive purpose to avoid a conflict – this article studies the Schelling concept of assurance. It is therefore important to distinguish this concept from Jervis’s version, which is more frequently encountered in the literature (Hoffman 2002; Keohane 2003; Rathbun 2009; Kydd 2018).

The fundamental difference between the concepts is whether the assurance is issued in a coercive or cooperative context. Table 1 explains the distinction using a two-by-two typology. Jervis’s concept where states persuade others about their benign intentions is covered by “cooperative assurance.” In this context, the term “cooperative” means that the assurances are made for the purpose of maximizing joint surplus by communicating benign intentions. A “cooperative threat” is a warning that the state will cease cooperating but wishes to inform others to minimize the damage. Schelling’s concept falls under the “coercive” category where threats and promises are made with the intent of extracting concessions from a target. Most literature has studied either coercive threats or cooperative assurances. For example, Christensen (1992) studies both in an article analyzing whether coalition forces could have convinced Mao Zedong to refrain from entering the Korean War by either 1) offering assurances that the United States had no intentions of invading China or 2) by directly threatening China if they launched a counteroffensive on the Korean Peninsula.² Although the literature on economic coercion has articulated a clear theory of credible coercive threats (Morrow 1989; Morgan 1990; Powell 2002; Leventoğlu and Tarar 2008; Chapman and Wolford

²A small literature does touch on the concept of cooperative assurance, including Davis (2000), who proposes that states might choose to emphasize the coercive threat instead of the coercive assurance when the target exhibits loss aversion, and Kydd and McManus (2017), which explains when states would issue explicit assurances and threats during crisis bargaining. The literature does not explore any interaction between the credibility of the two claims.

Table 1: A two by two table illustrating the distinction between the two concepts of assurance. Schelling’s concept of assurance is identified here as coercive assurance and Jervis’s concept is identified as cooperative assurance.

	Threat	Assurance
Coercive	Asserts unacceptable behavior will be punished	Asserts acceptable behavior will not be punished
Cooperative	Communicates aggressive intentions	Communicates benign intentions

2010; Fey and Ramsay 2011), the issue of credible coercive assurances has been addressed only indirectly.

The vast majority of the literature on conflict and crisis bargaining has focused on establishing the credibility of coercive threats, the upper left quadrant of Table 1. The classic literature understands crisis bargaining as a contest of will between states. The typical argument is that resolve enhances bargaining power because states can credibly threaten to spurn an agreement only if they are better able to bear the costs of doing so than their opponent.³ Thus, the literature has focused on how states can communicate their resolve to endure the costs of delay (Powell 1987; Morrow 1989, 1992; Morgan 1990; Banks 1990; Eaton and Engers 1992, 1999; Drezner 2003; Weeks 2008; Tarar and Leventoğlu 2009; Wolford 2014; Debs and Weiss 2016; Dafoe, Zwetsloot, and Cebul 2021). Another large literature has focused on studying cooperative assurances and can be located in the lower right quadrant of Table 1 (Stein 1990; Keohane 2003; Raustiala and Slaughter 2002; Knopf 2012). This paper is located in the upper right hand quadrant of Table 1 and contributes to the literature by explaining the relationship between varieties of coercive and cooperative assurance, credibility, and coercion.

³The logic has been described using a game theoretical model of conflict known as a war of attrition. The idea was originally developed by Maynard Smith (1974) to study conflict among non-human animals but has since proven useful as a model of bargaining. Examples of its application to political economy include Alesina and Drazen (1991), Fearon (1994), Smith (1996), and Dorussen and Mo (2001) among others.

Credibility of Coercive Assurances

Before discussing the role of coalitions in establishing credible coercive assurances, it is necessary to understand why there might be challenges to credibility at all. Some scholars and policymakers believe that the credibility of coercive assurances is automatic due to two misconceptions. First, some scholars may assume that coercive assurance is unimportant before a punishment is actually applied. Second, many scholars assume that the punishment is costly to the sender and therefore can be easily reversed if the target complies.

First, the credibility of coercive assurances must be established before punishment because the risk of punishment is what determines the target's incentives. If perfectly acceptable behavior cannot guarantee the target will escape punishment then unacceptable behavior becomes more tempting. For example, the United States has threatened many states with sanctions if they do not protect human rights. Why would the target continue to protect human rights if sanctions were likely to be applied anyway for other reasons? Thus, it matters little whether the target state is currently subject to some punishment – what matters is the risk of being punished even when behaving acceptably.

Second, scholars who assume that punishments are costly might naturally also assume that the sender would always prefer to punish the target as little as possible, and therefore would have no difficulty refraining from punishing compliant targets. Many possible punishments, including economic sanctions, war, and simply drawing out diplomatic negotiations, are indeed costly to the sender (Fearon 1995; Farmer 2000; Dorussen and Mo 2001; McGillivray and Stam 2004; Allen 2008; Early 2015). All else equal, in each case the sender would prefer to minimize costs even if the target's costs were higher.

Despite these common assumptions, sender states regularly find the termination process to be a struggle. There are several possible reasons for difficulties. First, punishments that create economic costs might also create political benefits. Second, there is a possibility that the sender is insincere about the stated conditionality and intends to demand increasingly onerous compliance rather than remove the punishment. Third, attempts to increase the

credibility of a coercive threat by signaling resolve to bear the costs of punishment could undermine the credibility of coercive assurances.

First, punishments that incur clear economic costs do not always incur clear political costs and may in fact actually create benefits. Economic sanctions are a good example. While sanctions do erode the gains from trade, the interruption of trade also has distributional consequences that could benefit certain groups (Stolper and Samuelson 1941; Rogowski 1987). Protectionists who profited from the restriction of trade may lobby the government for its continuation. Even war might have political advantages for leaders who benefit from the rally 'round the flag effect (Baker and O'Neal 2001; Baum 2002).⁴ There may be circumstances where the policy cannot be changed simply because a foreign entity became compliant – unless the political balance between competing interest groups also changes to support the new selection.

Second, the target state may suspect that the sender is insincere. Sender states that are not negotiating in good faith could be trying to use international politics as an excuse to rationalize a change in policy. If a government, needing to boost its support, decides it must raise tariffs to protect a particular domestic industry then it may wish to hide its true motivations from other constituents who will pay higher prices. One way of achieving that goal is to claim that the new tariffs are actually “sanctions” put in place to “apply pressure” to some foreign actor. States commonly attempt to manipulate domestic politics through their international relations. For example, Vreeland (1999) argues that states seek funding from the International Monetary Fund (IMF) even when the funding is unnecessary because the conditionality gives reformers bargaining leverage against conservative interests.⁵ Target states should not attempt to meet any demands from an insincere sender state. Even if the target successfully met the conditions they may find that the sender simply demands yet more concessions. A sender state which is not negotiating in good faith may continue adding to the

⁴For a concrete example, Fearon (1995) explains that the leaders who choose to go to war might not pay the costs of war in a brief section discussing non-unitary actor explanations.

⁵For other examples see Gourevitch (1978); and Putnam (1988)

demands until they can justify “punishing” the target because the “punishment” is actually politically desirable for the sender. Ambiguity about the sender state’s type – whether the sender state politicians would benefit politically from the threatened punishment or not – could undermine the target state’s motivation to comply.

Third, attempts to signal resolve to punish noncompliant targets can undermine the credibility of coercive assurance. To establish the credibility of a coercive threat, sender states must communicate their willingness to endure the costs of punishment as long as the target remains noncompliant. A sender who bluffs by making threats which it is not prepared to carry out would either decline to punish a noncompliant target or end the punishment after a very short period. States can employ costly signaling to demonstrate their resolve to sustain these costs. States have demonstrated this resolve by removing their ability to reverse sanctions, building a reputation of being quick to issue sanctions, and then building a reputation for rarely backing down once the sanctions are in place.

One way that sender states can communicate their willingness to impose punishments like sanctions is by removing their ability to reverse them. Hand-tying, or the act of voluntarily removing policy options for the purpose of credibly committing to certain actions, is a common theme in international bargaining (Schelling 1960; Putnam 1988; Fearon 1994; Fuhrmann and Sechser 2014). In this context, sender states might demonstrate their resolve by removing their ability to quickly withdraw sanctions once they are imposed.⁶ For example, the United States has several laws which stipulate how various transgressions must be punished with sanctions⁷. This is a credible signal of the sender’s intentions: if the sender were bluffing it would be very costly to threaten sanctions without the ability to quickly withdraw them

⁶Kertzer (2016) considers whether the concept of resolve is adequately captured by a state’s tolerance for costs. He divides the literature’s conception of resolve into two paradigms. The behavioral paradigm understands resolve as a quality or trait of a state’s leaders and citizens, while the situational paradigm focuses on resolve as a function of the magnitude of the costs facing the state. Kertzer proposes an “interactionist” paradigm as a synthesis of the two approaches. The concept of resolve employed in this article falls into the situationalist category to better reflect the institutional and strategic elements of the theory.

⁷See, for example, the Omnibus Foreign Trade and Investment Act of 1988, which stipulates that the US Trade Representative withdraw from trade agreements if actions by another state impinge US market access (19 USC §2411).

when necessary. However, this same act also reduces the state's ability to guarantee that a compliant target will not be punished. If the target increases its compliance, but in such a way that meets the spirit but not the letter of the laws that define compliance, then there is no room for discretion to remove the sanctions.

Targets can draw inferences about the seriousness of a sender's threats by referring to the sender's reputation. Some states might attempt to signal their resolve to sustain costs by issuing sanctions for even minor violations of the conditionality. This policy does credibly signal a willingness to sanction because a bluffing sender would hesitate before punishing. However, having a hair-trigger punishment strategy might mean punishing mildly noncompliant target states. If states believe there is a risk they could be punished even if they achieve a high level of compliance with conditionality then they have little reason to maintain it. Some policymakers and scholars have argued that if the United States were to end sanctions on a particular target it would harm the US reputation for resolve to continue sanctioning other states (Peterson 2014). But what about the US reputation for not punishing states that behave well? If the US never removes sanctions from states that become compliant over time then a target state might fear that the US cannot restrain itself from punishing compliant targets.

Coalition Composition and the Double Commitment

What options are available to states that struggle to credibly commit to either a coercive threat or a coercive assurance? Certainly, the particular tools available will depend on the strategic context. Some states could find themselves without any options and therefore choose to forego using economic coercion entirely. But it is also possible that sender states might be able to bolster their credibility by working with carefully selected coalition partners. A sender state can signal its own credibility by using the coalition as a commitment device – if the sender state fails to follow through on its commitments then the other coalition partners could be unwilling to continue the cooperation.

Coalitions are a natural and common part of economic sanctions. The reason is simple: an individual state's economic sanctions are more meaningful if the target cannot simply increase exports to alternative markets (Martin 1993). Thus, the costs of sanctions are greatly increased if there are multiple sender states that design and implement them cooperatively. Certainly, there are obstacles to sanctions cooperation. The chief problem is that coalition members might be interested in taking advantage of an opportunity to get better prices on products that are sanctioned by the rest of the coalition, but these problems can be overcome.⁸ Sanctions are frequently implemented by groups as a matter of practice, especially through the United Nations Security Council.⁹

Coalitions can serve as a commitment device for states that need to bolster the credibility of their coercive threats and assurances. Indeed, the coalition as a whole might be able to make commitments that no individual sender state would be able to make credibly. For example, consider a sender state that has steep domestic political costs to ceasing punishment, even when the target is compliant. Such a state may be able to commit to a coercive threat but could struggle to commit to a coercive assurance. Consider what happens if that state enters a coalition with other states that can credibly commit to a coercive assurance. When the target is noncompliant the coalition is able to exert greater economic pressure than any individual state would have managed on its own. There are two possibilities when this coalition confronts a compliant target. First, if the state fails to follow through on the coercive assurance then it has also failed in its obligations to its coalition partners. This failure triggers multiple types of audience costs for the sender state – it damages both domestic and international support. The coalition could dissolve and the target would no longer be subject to punishment from the coalition as a whole. Because coordinated punishments from a coalition are more potent than punishments from a single state, then the dissolution of the coalition represents a major reduction in pressure on the target, even if the errant sender state

⁸Martin (1993) studies how states are able to cooperate when applying sanctions to a common target.

⁹When the punishment is war the coalition could be an alliance network, but offensive alliances are less common than defensive alliances.

continues its sanctions. Second, if the state does follow through on the coercive assurance then a compliant target would also escape punishment. Either way, the target is assured that it will face a much lower punishment when it can achieve compliance.

It is also possible that states can signal their commitment to a coercive assurance through their choice of coalition partners. One reason that a target state may doubt the assurances issued by a sender is asymmetric information about the sender's domestic political situation. For example, the target may doubt that the sender is issuing the conditionality in good faith. But the sender's coalition partners, being on friendlier terms with the sender state, might have more information about the sender's sincerity. If they are choosing to cooperate with the sender state then it is likely the sender really is sincere about enforcing the stated conditionality. Why would the coalition partners voluntarily suffer the costs of sanctions along with a sender that has no intention of ever ending them? Thus, the partnership itself might create a credible signal.

International institutions can also create legal mechanisms that administer sanctions in ways that are more compatible with credible coercive assurances. Most states automatically incorporate sanctions that are passed by the UN Security Council into domestic law. They also automatically remove UNSC sanctions when they are ended by the Security Council. Thus, the target can have confidence that UNSC sanctions will be removed if the UNSC decides to remove them. There is a measure of transparency in this process for the target: as long as the target can meet a compliance threshold that satisfies the Security Council the sanctions will be removed. There is no requirement that any state needs to change its laws before sanctions can be removed.

Research Design and Case Background

The theory predicts that sender states which cannot credibly make the double commitment to 1) punish noncompliant targets and 2) refrain from punishing compliant targets will struggle to apply coercive pressure. Furthermore, the theory predicts that coalitions can operate as

commitment devices that facilitate credibility of one or both commitments. The empirical section of this paper will apply the theory to the Iran Deal negotiation. This negotiation enables a comparative analysis of US and EU contributions to the eventual deal, as well as an analysis of the US and EU as partners in a coalition. The analysis will correlate the possibility of making a credible double commitment in each sender state with the progress of the negotiations and the character of the eventual deal. It will also explore how cooperation between the US and the EU changed the strategic environment to facilitate the agreement.

There are a number of advantages to studying this particular negotiation. First, the long duration of the negotiations means that the evolving relationship between the three major actors can be studied in detail. For a significant amount of time, the United States simply refused to directly negotiate with Iran and the EU was unwilling to implement strict sanctions. Later in the negotiation, the EU strengthened its sanctions regime and began cooperating with the US to design a solution. Second, a research design comparing the experiences of two senders within a single negotiation with a single target makes it possible to rule out some alternative explanations for the outcome variables. In general, it is difficult to determine whether a concession in an international agreement is made because of the sender's strengths or because of the target's weaknesses.¹⁰

Because the theory and research design are oriented towards the strategies of sender states the bulk of the analysis will emphasize politics in the US and the EU. However, a brief discussion of the Iranian interests is necessary to properly define the strategic environment. Iran's nuclear program was revealed to the world in August 2002 when a separatist group revealed the existence of two previously undisclosed nuclear facilities at Natanz and Arak. In December the United States declared that Iran was pursuing a nuclear weapon. On September 12, 2003 the IAEA adopted a resolution calling for Iran to suspend its attempts at enriching uranium and to cooperate with IAEA inspectors (IAEA 2003).¹¹ It is not known

¹⁰In this case the US and the EU are negotiating with Iran simultaneously, which means that they both face the same Iranian political climate. Although this comparison does not completely solve the inferential problem it may help.

¹¹For an extremely detailed and useful timeline of the negotiations see Davenport (2018). For resources on

when Iran's nuclear program began, but it is known that Iran had contact with the AQ Khan proliferation network in the 1980s (Chubin 2010, 7). The resources invested in the program and its progress towards a weapon have developed in fits and starts, with the most intense activity occurring in the late 1990s and early 2000s.

Why might Iran seek a nuclear weapon? There is no consensus on Iran's precise objectives and they have undoubtedly evolved over time. Iran's official justification for their investments in nuclear technology is to develop nuclear power to diversify their energy sources. Many Western analysts point to Iran's security concerns in an unstable political region.¹² But there is some consensus that domestic political factors have played an important role. Iranian officials have frequently referenced the nuclear program in domestic political campaigns as an indication that Iran was modernizing under their regime. In fact, Chubin (2010) argues that Iran's nuclear program can be at least partly understood as an attempt by the regime to foment nationalism and bolster its legitimacy. Public sentiment has reliably supported the nuclear program, a potential indication that the public desires for Iran to become a global leader in technology (Chubin and Litwak 2003; Bahgat 2006; Dehghani et al. 2009; Chubin 2010). Security considerations likely played an important role in Iran's initial decision to pursue a weapon, but over time the issue also became a political instrument for Iranian politicians.

Independent Variable: Credible Commitment to Coercive Assurances and Coercive Threats

United States

The United States had no difficulty demonstrating its willingness to impose sanctions on Iran. However, the US had great difficulty credibly committing to a coercive assurance. There

specific proposals during the negotiations see Davenport (2015).

¹²In particular, Israeli politicians have expressed concerns that an Iranian nuclear weapon could imperil their state and destabilize the region.

are many reasons, but perhaps chief among them is the history of acrimonious interactions between the states. US-Iran relations have been characterized by a deep mutual antipathy since the Iranian Revolution of 1979. In addition, the US strategic position in the Middle East encouraged hostility towards Iran. Finally, the US institutions responsible for administering sanctions contain many veto points which make it difficult to roll them back (Tsebelis 2002).

US Sanctions were Politically Advantageous

American policymakers have historically faced public pressure to be tough on Iran which undercuts their ability to terminate Iranian sanctions. The sources of that hostility are no secret. In 1953 the Central Intelligence Agency (CIA) orchestrated a coup against Iranian Prime Minister Mohammad Mossadegh in partnership with the United Kingdom's Secret Intelligence Service.¹³ The brazen interference by Western powers culminating in the removal of a democratically elected government became the basis for future Iranian hostility towards the United States. Following the establishment of the Islamic Republic in 1979, its leader Ayatollah Ruhollah Khomeini stoked Iranian nationalism by promulgating a virulent anti-American ideology.¹⁴ The sentiment was brought home to the US public when the US became directly involved in Iranian politics. From November 1979 to January 1981 Iranian students supported by the government held 52 Americans hostage inside the embassy in Tehran. The negative attitudes towards Iran never disappeared and were actually exacerbated as the US grew closer to Israel and Saudi Arabia.¹⁵ Thus, the US public was skeptical about any cooperative interaction with Iran. The public hostility towards Iran increased public support for sanctions, which made it more difficult to remove them even if Iran ended the nuclear

¹³For a detailed treatment of the 1953 coup and the 1979 Iranian Revolution see Abrahamian (1982). Historians differ in their analysis of US motivations to conduct the 1953 coup. One tradition, exemplified by Abrahamian (2001), argues that the US was on imperialist quest for control over oil. Another tradition including Gasiorowski (1987) maintains that the Eisenhower administration believed Prime Minister Mossadegh's nationalization of the oil industry was too big a victory for the communist elements of Iran's politics.

¹⁴Canonical histories of the Iranian Revolution include Skocpol (1982), Sick (1985), and Keddie and Richard (2006). See Abrahamian (1993) for a discussion of Khomeinism and in particular Chapter 4 for how anti-Western attitudes were crucial to the movement's ideology.

¹⁵See Zanotti (2016) and Council on Foreign Relations (2018) for historical background on US strategic alliances in the Middle East.

program.

There were also strategic incentives for the US to oppose Iran, especially during the George W. Bush administration, which was inclined to oppose Iran because of the 2003 Iraq War. These strategic incentives further undercut US willingness to ease sanctions on Iran. Bush needed allies in the Middle East during the Iraq and Afghanistan wars and thus turned to Israel and Saudi Arabia, which had both become steadfast allies. While neither country was eager to participate in the Iraq conflict, they were also unwilling to directly criticize American behavior. It was not in Bush's interests to jeopardize the strategic neutrality of either Israel or Saudi Arabia by thawing relations with Iran, particularly as both countries were providing support for the Global War on Terror.¹⁶ Therefore, it should not be surprising that Bush included Iran as one third of the infamous "Axis of Evil" alongside Iraq and North Korea (Bush 2002).

However, by the time Barack Obama was inaugurated as President the strategic environment had shifted. President Obama pursued a different strategy on the Iran nuclear issue because his administration had new foreign policy goals in a world after the Iraq War. Among the Obama administration's first priorities in office was to reduce US commitments in Iraq and Afghanistan. One consequence of reduced engagement in the Middle East was less dependence on Israeli and Saudi Arabian support. With the war winding down and US foreign policy goals shifting elsewhere the existing alliances in the Middle East became less essential. In addition, the Obama administration intentionally increased its emphasis on foreign policy in Asia. While not officially formulated until 2011, the "Pivot to Asia" policy could also be dated to the establishment of the US-China Strategic and Economic Dialogue in 2009 (Clinton 2011). The administration emphasized that the new policy should not reduce resources in the Middle East, but clearly the emphasis of America's foreign policy had departed.¹⁷ Thus, Obama's desire to move resources into Asia would be more easily

¹⁶Saudi cooperation in the War on Terror was both crucial and fragile, which might have additionally disincentivized any rapprochement with Iran. See Byman (2016) for details.

¹⁷For a contemporary account, see Cohen and Ward (2013).

attained if existing crises in the Middle East, such as Iran’s nuclear weapons program, could be managed.

Iranian Perceptions of US Sincerity

The rising anti-Iranian feeling in the US eventually manifested in the presence of Iran hawks in government, particularly in Congress, who worked to formally codify their hostility in policy and legislation. The first sanctions had been imposed during the hostage crisis and were quickly ended soon after the hostages were released. Iran was added to the State Department’s list of state sponsors of terrorism in 1984 which automatically imposed sanctions on Iran. Subsequent sanctions were imposed under the 1992 Iran-Iraq Arms Nonproliferation Act and the 1996 Libya-Iran Sanctions Act. These bills all substantially restrict trade with Iran in certain products, particularly weapons.¹⁸ Since the 1979 revolution a number of executive orders have also been issued, most of which remain in effect, further restricting trade with Iran.

Politicians in the United States capitalized on this undercurrent of anti-Iranian sentiment for political purposes. Indeed, congressional representatives were eager to vote for more sanctions on Iran at each and every opportunity. Table 2 shows the results of every vote on bills introducing Iranian sanctions. In every case, the vote was overwhelmingly in favor of increasing pressure on Iran. The bipartisan consensus is especially notable in the context of Congressional polarization. The political rewards that were evidently available to politicians for opposing Iran indicates that the sanctions did more than generate economic costs. The US would have a difficult time promising that sanctions would be removed when opposition to Iran was so popular with voters. The universal support for sanctions and the steady drumbeat of new sanctions laws could have made Iran suspicious that the sanctions were merely a way for Congress to build electoral support and not actually an attempt to persuade

¹⁸For a full list of US sanctions related to Iran, including the executive orders, see <https://home.treasury.gov/policy-issues/financial-sanctions/sanctions-programs-and-country-information/iran-sanctions>. The Office of Foreign Assets Control (OFAC) also provides guidance to businesses describing what the sanctions cover on this page.

Year	Title	House	Senate
1996	Iran and Libya Sanctions Act	416-0	unanimous
2000	Iran Nonproliferation Act	420-0	98-0
2001	ILSA Extension	409-6	unanimous
2005	Iran Nonproliferation Amendments Act	voice vote	voice vote
2006	Iran Freedom Support Act	voice vote	unanimous
2010	Comprehensive Iran Sanctions, Accountability, and Divestment Act	408-8	99-0
2012	Iran Threat Reduction and Syria Human Rights Act	410-11	voice vote
2012	Countering Iran in the Western Hemisphere Act	386-6	voice vote

Table 2: Congressional Votes on Iranian Sanctions

Iran to behave differently.

US Signals of Resolve Undermined Credibility of Assurances

The US Constitution delegates the authority to negotiate treaties to the President but delegates the authority to regulate commerce to Congress. Obama, a president unusually open to engagement with Iran, did not have the authority to invalidate the sanctions which had previously been implemented by Congress. He did have the authority under that legislation to waive secondary sanctions – in essence he had the authority to promise not to interfere with European commerce in Iran. His negotiators could not have credibly committed to removing sanctions in exchange for Iran’s cessation of its nuclear program because they never had that authority.

The US institutions drew primarily on Congressional authority to implement the sanctions. There are many veto players who can stop a bill from becoming a law in the United States. To be sure, this is part of the explanation for why Congress decided to legislate the Iran sanctions – to ensure that the US commitment to the sanctions was perceived as credible. However, this also meant that the sanctions could not be removed without additional legislation, which undermined the credibility of any coercive assurance.

European Union

The EU's strategic position created fewer obstacles to making credible coercive assurances. In Europe the pro-sanctions block was primarily composed of the UK, Germany, and France. These countries had relatively few economic interests in Iran yet also had interests in the stability of the Middle East. They were also among the most likely European states to bear the brunt of a refugee influx caused by conflict in the region. The pro-trade group within the EU was primarily made up of Greece, Spain, and especially Italy. These countries were relatively more reliant on Iranian oil. Their dependence on Iranian oil imports was exacerbated by the fragility of their economies during the Euro Crisis. The competing European interests ensured that there was always a bloc that would benefit from ending sanctions.

Sanctions had Steep Costs in Europe

Certain EU countries had significant economic interests in Iran (especially oil imports) which affected their positions on sanctions. EU countries collectively accounted for 20% of Iran's oil exports before sanctions (Fassihi and Biers 2012). In 2011 (immediately before the oil embargo) Iran was Spain's fourth largest supplier of crude oil, Italy's third largest supplier, and Greece's top supplier.¹⁹ Moreover, Greece was permitted to purchase Iranian oil using unusually generous credit lines (Payne and Farge 2012). These three countries had a substantial stake in the economic relationship with Iran. This link was made more salient because all three countries experienced economic downturns during the Euro Crisis. Moreover, Iran was also an important export market for several European countries. The EU collectively was Iran's primary trading partner before the sanctions. To some extent France and Germany also had export interests in Iran. It is probably true that Iran was asymmetrically dependent on European trade. However, interruptions in that trade were not at all painless for the Europeans.

¹⁹Author's calculations from COMTRADE data. Crude oil imports are measured as product HS2709 which is `Oils; petroleum oils and oils obtained from bituminous minerals, crude`.

Among the EU countries Italy had perhaps the most extensive economic interests in Iran. ENI, Italy's largest energy company, had been involved in Iranian oil markets since the 1950s and continued to pursue ventures there throughout the 2000s. Italian trade with Iran exceeded Germany's in 2003 (Alcaro 2018, 108–9). The two countries also share a somewhat unique diplomatic relationship (Alcaro 2014). Italy became the first Western country to receive an Iranian leader since the 1979 Revolution when President Mohammad Khatami visited in 1999 (Gerenmayah 2015). Given its relatively strong economic ties Italy was consistently opposed to sanctions on Iran and advocated that the EU pursue a purely diplomatic approach. Alcaro documents multiple attempts by Italian diplomats to become directly involved in the EU negotiations with Iran (Alcaro 2018, 109). The UK, France, and Germany consistently excluded Italy from directly participating in the negotiations because they each preferred the EU to take a harder line against Iran. However, Italy's approval was necessary for the EU to impose sanctions because the EU's institutions require unanimous consent before issuing EU Council Decisions.

The significant costs of Iranian sanctions for Italy, Greece, and Spain meant that there were substantial benefits to removing the sanctions. These costs have the effect of weakening the EU resolve to impose sanctions on Iran. Indeed, the most significant EU sanctions were not issued until 2012. However, these costs also made it easier for the EU to credibly promise sanctions would be removed once Iran really did end the nuclear program.

European Security Concerns Made Sincerity Credible

The EU balanced security interests and economic interests when setting its policies on Iran. The security concerns were generally not direct threats – there is little evidence that European states were concerned about military conflict between Europe and Iran (Alcaro 2018, 100). Most EU members had important indirect security concerns. Chief among them was the possibility of a war between Israel and Iran. Israel clearly indicated that it would use military means to prevent Iran from acquiring a nuclear weapon if necessary. Israel was

loathe to accept a nuclear Iran because it would mean a dramatic increase in Iranian regional power, which they perceived as a direct threat to their state.²⁰

European politicians were concerned that a nuclear Iran could become more aggressive in its dealings with Israel. It could, for example, increase its support for groups like Hezbollah without fearing Israeli recriminations because it would be better able to defend itself in a confrontation.²¹ The chief European concern was the possibility that Iran's nuclear weapon could cause an Israeli military strike which might start a war in the Middle East. However, even if the Iranian weapon did not cause a war it would certainly increase Iran's military capabilities, which might enable it to pursue a more bold foreign policy in the region. There was an additional risk that an Iranian nuclear weapon might also incentivize further proliferation throughout the Middle East, especially in Saudi Arabia. Further proliferation might also cause the region to destabilize as regional powers may rush to develop their own nuclear weapons capabilities (Fabius 2016; Alcaro 2018).

European countries were concerned about regional stability in the Middle East because conflict there could have spillovers on European security and political interests. Several European countries (especially the United Kingdom) maintained troops in the Middle East during this period who could have become entangled in a larger conflict (Alcaro 2018, 101). European politicians also could have anticipated that refugees from the Middle East tend to spike during crises. In particular, Italy, Greece, Hungary, and Germany have been shown to be particularly susceptible to refugee influxes from the Syrian Civil War. Presumably, these same countries would be primary destinations for refugees from other Middle Eastern crises. Evidence of the fear of an Israeli preventive strike abounds, especially later in the period. The French Foreign Minister Laurent Fabius who took office in 2012 wrote in his memoir, "the objective refocused to prevent an Israeli strike rather than on solving the basic problem

²⁰See Netanyahu (2012) for the full speech by Israeli Prime Minister Benjamin Netanyahu before the UN General Assembly articulating his concerns about Iran's progress towards a weapon.

²¹The combination of a shifting balance of power and difficulties of credible commitment have long been invoked as a cause of conflict. See Fearon (1995), Powell (2006), Allison (2017) for typical applications of the logic in the literature.

of Iranian nuclear capacity” (Fabius 2016, 9). Alcaro in his book cites an unnamed official from an E3 country who cited regional stability in the Middle East as the primary concern (Alcaro 2018, 100).

Iran had few reasons to doubt that the EU’s sanctions were sincere. The EU had clear reasons to implement sanctions – the security concerns of a conflict in the Middle East were significant. Thus, it was relatively unlikely that the EU was simply issuing sanctions to protect domestic industry. The EU’s stated objectives were concrete, realistic, and clearly tied to security, lending additional credibility to their sincerity.

EU Institutions Enabled Sanctions Reversal

The EU had access to its powerful European Commission Regulation and Decision policy instruments. These tools could set sanctions policy without ratification by constituent member states. EU sanctions were relatively more flexible because a relatively small number of veto players were involved in the decision. Circumventing national legislatures meant that the decision was insulated from domestic interest groups which might have opposed the deal (Tsebelis 2002). As a consequence, the EU negotiators could commit to removing sanctions as long as they had assurances from their respective representatives at the European Council. The institutional flexibility for setting sanctions in the EU increased its ability to commit to removing sanctions if Iran ended its nuclear program.

Dependent Variable: Analysis of the Deal and its Characteristics

An agreement was eventually made possible because the EU could credibly make the necessary double commitment. The EU could credibly commit to imposing sanctions if Iran continued its nuclear program because the security implications of a nuclear Iran could stimulate a crisis that would directly affect Europe. The EU could also commit to lowering sanctions if Iran ended the program because its firms had significant economic interests in the area. The United States was not able to make a similar commitment because of its entrenched

anti-Iranian interests and the hollowing out of any commercial interests in Iran after decades of sanctions. Although the EU's commitment to the coercive assurance was necessary for the deal's success, the US presence in the coalition was still important. By promising to waive secondary sanctions the US increased the value of European trade with Iran, creating bigger incentives for Iran to end its program.

Two qualities of the negotiation process are important for testing the theory. First, the theory predicts that the deal can only be finalized once the double commitment can be credibly made by the sender coalition. Second, the theory predicts that the final text will more closely represent the interests of parties that can make effective double commitments. The purpose of this section is to confront the history of the negotiation and the final text with those predictions.

The Timing of the Deal

A brief chronology of the negotiations highlighting their difficulties is essential to understanding why they finally reached a resolution in 2015. After receiving incomplete cooperation from Iran for three years the IAEA referred the issue to the UN Security Council in 2006. The five permanent members of the Security Council, working with Germany, initiated formal negotiations with Iran for the first time with a proposal of economic incentives in exchange for cooperation from Iran on the nuclear issue on June 6, 2006 (P5+1 [2006](#)). Slow progress during Iranian President Mahmoud Ahmadinejad's first term led to a series of multilateral sanctions of increasing intensity.²² In the pivotal election years of 2008 and 2009, Barack Obama was elected US President and Mahmoud Ahmadinejad won his second term amid reports of election fraud ([Addis 2009](#)). The Obama administration quickly pursued a more open approach to Iranian relations while Ahmadinejad faced domestic protests over his election.

²²The UN sanctions were implemented by Resolutions 1696, 1737, 1747, 1803, and 1835 which were all adapted between 2006 and 2008 (UNSC [2006a](#), [2006b](#), [2007](#), [2008a](#), [2008b](#)). The multilateral sanctions at this time restricted financial flows and arms transfers, but the US had already restricted trade in most products from before the nuclear crisis.

Stalled progress at the negotiation table led to UNSC Resolution 1929 in 2010 which significantly extended the previous sanctions regime (UNSC 2010). In addition, it imposed travel restrictions on individuals, froze the assets of some Iranian political organizations, and imposed sanctions on Iran's shipping industry. Resolution 1929, which represents the most significant sanctions imposed by the international community, was a harbinger of even more intense unilateral sanctions. The US Congress passed the Comprehensive Iran Sanctions, Accountability, and Divestment Act, which created new sanctions against Iran's energy sector. Up to this point European states were directly involved in the negotiations but had only imposed sanctions on Iran indirectly through the UNSC Resolutions. At this point the EU imposed additional sanctions against Iran in the energy, financial services, and transportation sectors (Council of the European Union 2010). In 2012 the EU also banned all its members from importing Iranian oil (Council of the European Union 2012; Fassihi and Biers 2012).²³

Negotiations were conducted in relative secrecy making it difficult to ascertain a historical account of the process at the time of writing. Nonetheless, it is clear that progress was much more rapid after Ahmadinejad left office. His elected successor, Hassan Rouhani, was a former Iranian nuclear negotiator and relative political moderate. The first negotiations held by the new Iranian administration were immediately more productive.²⁴ The pace of the negotiations hastened as multiple rounds occurred in 2013. The IAEA certified Iran's compliance for the first time in early 2014 (IAEA 2014). Productive negotiations consistently occurred during 2014 and finally in 2015 the JCPOA was agreed.

The rising stakes of the negotiation from 2010-2013 clarified the EU's position on sanctions. The EU chose to follow through on its coercive threat and impose its most serious sanctions on Iran. Before that moment, the EU had hesitated to impose any significant unilateral sanctions on Iran because of the risk of damage to EU industries (especially oil). As Iran's

²³On September 27, 2012 Israeli Prime Minister Binyamin Netanyahu threatened military strikes against Iran if it acquired enough enriched uranium for one nuclear weapon. The timing suggests a connection between the threat of an Israeli-Iranian conflict and European willingness to impose sanctions.

²⁴Encouraged by the progress, Obama and Rouhani spoke on the phone in September 2013, marking the first time an American president spoke with an Iranian president since the Revolution (Roberts and Borger 2013).

nuclear program began to threaten regional stability and Israel's threats to take military action against Iran's nuclear facilities grew increasingly serious the uncertainty about whether EU firms could access those commercial interests increased. If a war broke out then EU firms with interests in Iran would not be able to do business whether or not there were sanctions. Also, the EU states which had been pressing for sanctions to protect national security could make a more persuasive argument as the situation grew more dire. Finally, EU institutions did not permit firms to directly lobby for policy, which may have isolated them from commercial pressure and enabled policymakers to implement stronger sanctions. However, those commercial interests continued to exist, which gave the EU policymakers a reason to remove sanctions as soon as Iran ceased its program.

Thus, the EU suddenly became capable of making a credible double commitment during this period. The EU was resolved to bear the costs of sanctions if Iran pursued a nuclear weapon because its politicians judged the geopolitical consequences to be serious. Furthermore, the EU could credibly commit to removing sanctions if Iran ended the program because there would be pressure from industry groups to do so. The EU's decision to remove opposition to stringent multilateral sanctions and to impose unilateral sanctions immediately preceded the successful end of negotiations.²⁵

The United States took few actions which could explain the sudden resolution of the dispute in 2014-2015. While the Obama administration was much more open to a deal, this openness alone could not account for the timing of the resolution. In particular, the Obama administration could not credibly promise to remove sanctions on Iran because most of the US sanctions by this time were codified in law and would require Congressional action to reverse. Congress showed no interest in removing sanctions even when negotiations were progressing. On the contrary, Congress actively worked to undermine the fledgling deal and preserve the sanctions regime. On March 9, 2015 Senator Tom Cotton (R-AR) sent an open letter signed

²⁵It is not possible to determine the impact of Rouhani's election on the timing of the agreement without better access to the classified documentation of the negotiation. Rouhani's election is an important confounder in the analysis in the sense that the effect of his election on the timing of the deal's finalization cannot be determined at this time.

by 46 members of Congress to the Iranian Parliament which ominously declared that any deal which is not endorsed by the American legislature could be unwound by a future US President (Rogin 2015). Senator Bob Corker (R-TN) introduced the Iran Nuclear Agreement Review Act of 2015 which required the President to submit the deal for Congressional review before it could be implemented. The Act also prohibited the President from removing sanctions on Iran during the review period. In an indication of the Congressional stance on Iran, Corker's bill passed both chambers with veto proof majorities, in the Senate by a vote of 98 – 1 and in the House by a vote of 400 – 25. The US was evidently resolved to continue bearing the costs of sanctions. But there was no credible promise that sanctions could be removed when the nuclear program was ended.

The Content of the Deal

The JCPOA established strict limits on the enrichment of plutonium and uranium in Iran, set up a monitoring system managed by the IAEA, and specified the sanctions relief provided by the P5+1. Since the negotiations themselves were held in secret, it may never be possible to observe which entreaties and tactics were rejected and which were successful. However, the structure of the agreement itself combined with information about the economic context represents a wealth of information about exactly how far each side was willing to trust the other and why.

The EU's willingness to remove nearly all their sanctions in an agreement narrowly focused on Iran's nuclear program reflects how they were primarily motivated by the security implications of nuclear proliferation. The EU committed to remove its sanctions on shipping, trade, oil, gold and other precious metals, and finance (European Union External Action 2016).²⁶ These sanctions represented the vast majority of sanctions that had been imposed

²⁶This was accomplished in the EU using European Council Decision (CFSP) 1863/2015 and European Council Regulation (EU) 1861/2015 which were both adopted on October 18, 2015. Note that both Decision (CFSP) 1863 and Regulation (EU) 1861 were themselves implemented using subsequent Implementing Decisions and Regulations. Also, Decision (CFSP) 2017/974 and Regulation (EU) 2017/964 were needed to circumvent some legal technicalities for implementing certain clauses of the JCPOA.

on Iran during the negotiations. The European fixation on security bolstered their ability to make a credible assurance – Iran could believe that ending its nuclear program would be rewarded with sanctions relief from Europe.

The commitments of the United States under the JCPOA are substantially more modest. Generally speaking, the US committed to remove most of the financial and banking sanctions and to waive its secondary sanctions in the automotive, shipping, insurance, gold and precious metals sectors (US Department of Treasury and US Department of State 2016). Notably, nearly all restrictions on American businesses are untouched by the JCPOA, meaning that the JCPOA does not provide Iran with any additional market access to the United States (Samore et al. 2015). The central concession that the US makes is the removal of the secondary sanctions that would have been applied to any non-American entities doing business in Iran.²⁷ The secondary sanctions applied by the US had the potential to undermine the trade relationship between Iran and the EU. While Iran was a profitable market to European firms, the American market is crucial. If American secondary sanctions were applied aggressively then a sufficient number of European firms might have abstained from business in Iran to make Iran’s value of sanctions relief fall below its value of a nuclear weapon.

The EU was willing to withdraw nearly all sanctions if Iran ended its nuclear program, but the US was unprepared to follow suit without further Iranian concessions. In fact, the primary concern of the American opponents of the JCPOA is that the deal does not address Iranian behavior more broadly. There was strong domestic opposition to the deal from both Congressional Democrats and Republicans. Then Chairman of the Democratic Senatorial Campaign Committee and future Majority Leader Chuck Schumer (D-NY) decided to vote against the deal partly because of what he called “non-nuclear” components of the agreement. He wrote in a press release:

²⁷In the JCPOA’s most straightforward commitment, the P5+1 also agree to pause all of the UNSC Resolutions imposing sanctions on Iran while Iran is in compliance with the JCPOA. The requirement was implemented with the subsequent UNSC Resolution 2231 which was passed on July 20, 2015. The resolution additionally specifies the “snapback” provision, which is the legal instrument needed to reintroduce sanctions in the event that the IAEA finds Iran noncompliant. The US and EU implemented similar snapback provisions to guarantee a legal commitment to reimpose sanctions if Iran does not comply (Samore et al. 2015).

[The non-nuclear elements] of the deal give me the most pause. For years, Iran has used military force and terrorism to expand its influence in the Middle East, actively supporting military or terrorist actions in Israel, Syria, Lebanon, Yemen, Iraq, and Gaza. That is why the U.S. has labeled Iran as one of only three nations in the world who are "state sponsors of terrorism." Under this agreement, Iran would receive at least \$50 billion dollars in the near future and would undoubtedly use some of that money to redouble its efforts to create even more trouble in the Middle East, and, perhaps, beyond. (Schumer 2015)

Schumer clearly believed that the Iran Deal should have extracted additional concessions from Iran in non-nuclear domains and perhaps would have even supported the deal if it had. Presumably, the Obama administration would have preferred to negotiate a deal which received support from one of the Senate's most influential Democrats. Schumer was not alone. On September 11, 2015 the 244 House Republicans were joined by 25 Democrats to defeat HR3461, which would have granted Congressional approval to the Iran Deal. Under the assumption that the Obama administration would have preferred to negotiate a deal which could earn Schumer's and the Democrat's support, their failure to do so implies that they were unable to negotiate such a deal. The evidence that the US failed to achieve its most preferred deal is evidence that the US was constrained in the negotiation.

The Republican members of Congress made similar criticisms of the Iran deal which also suggest that the Obama administration was constrained during the negotiation. The Republican opposition had strong incentives to criticize a Democratic administration, so their opposition is not surprising. However, it is surprising that the arguments they chose to emphasize were close to the concerns voiced by Senator Schumer. Republican Senators John McCain (R-AZ) and Lindsey Graham (R-SC) said in a joint statement that:

President Obama's deal with Iran empowers one of our chief antagonists. . . . Instead of weakening this radical regime, a regime with American blood on its hand, this agreement would make Iran stronger. Before the deal, Iran was able

to destabilize Yemen, Iraq, Syria, and Lebanon. After this deal, Iran's power in the region will only be enhanced as it ultimately becomes a member of the nuclear club. A more powerful Iran with a bomb in the Ayatollah's hands is a direct threat to the United States and an existential threat to our allies in Israel. (McCain and Graham 2015)

The role of the US-EU coalition was essential to the successful conclusion of the Iran Deal negotiations. Neither the US nor the EU could have accomplished this negotiation successfully alone. As evidenced by the reaction of the US politicians to the JCPOA, there was no path to the removal of US sanctions even if Iran ended its nuclear program. However, the EU was able to remove the bulk of its sanctions primarily because its sanctions policy was only politically sustainable if Iran continued to develop a nuclear weapon. The EU's ability to make coercive assurances to Iran made a deal possible even though the US could not make similar assurances. However, the US presence at the negotiations was probably also essential because President Obama needed to waive secondary sanctions in order for the European concessions to be meaningful to Iran. By promising not to interfere with the EU-Iran trade, the US was able to increase the value of EU concessions to Iran.

It is plausible that Iran perceived the American promise to remove secondary sanctions as credible while simultaneously perceiving promises to remove primary sanctions as impossible. Secondary sanctions must be applied to non-American firms. If an American firm loses its access to the Iranian market it loses profit, but if the same firm loses access to the European market it likely faces bankruptcy. The prominence of supply chains ensure that interruptions in transatlantic trade are not to be contemplated lightly. It is entirely possible that access to the European market is so important to firms in the US that they would chafe strongly against the aggressive application of secondary sanctions. These firms may lobby the government for exemptions to the secondary sanctions. Anticipating this behavior, European firms may intentionally conduct business in Iran in defiance of American law knowing that their business partners in the US would never rest until they secure exemptions from the

American government rather than lose access to their critical European partners. Iran may anticipate that it is not in the US's interests to impose sanctions on most European firms which conduct business in Iran. Therefore, it is reasonable for Iran to find credible the American promise to lift secondary sanctions during the JCPOA negotiations because the secondary sanctions were never truly a significant obstacle. Iran would have known that European firms defying the secondary sanctions would never be seriously punished.

It should be noted that Iran must have been aware of the possibility that the Obama administration could be replaced by a future Republican administration hostile to the deal. The disposition of the American president matters for institutional reasons. Under the law, the US president has the authority to waive secondary sanctions. It is also the case that many of the secondary sanctions were initially imposed as executive orders, which can be revoked or reintroduced solely at the discretion of the chief executive. The possibility of a hostile future administration could dampen the value of the American promises to remove secondary sanctions. However, the reimposition of secondary sanctions would generate the same backlash from industry no matter which president gives the order. Firms may even be relatively more successful at receiving special exemptions from secondary sanctions under a Republican administration, meaning that they could have a better chance at undermining sanctions. That being said, the possibility that the US would reimpose secondary sanctions in the future could potentially cause European firms to hesitate before making long term investments in Iran. But this is only possible if those firms believed that a new US presidential administration's hostility towards Iran could outweigh the value of their trade with American firms. Regardless of the preferred policy of a future administration, Iran could be confident in the US's commitment to the JCPOA for at least the duration of Obama's presidency.

Domestic US and EU institutions had a major effect on the final agreement. Crucially, the US institutions gave the President enough power to waive the secondary sanctions but not enough to substantially roll back most of the US sanctions regime. Therefore, the American sanctions relief was meaningful, but only to the extent that it increased the value of the

Iranian market to European (not American) firms. The sanctions were ended using EU Decisions and Regulations, which are legal instruments automatically applying to all members of the EU and do not need to be ratified by domestic legislative bodies (Consolidated Version of the Treaty on the Functioning of the European Union, n.d.).²⁸ The availability of EU Decisions and Regulations for both imposing and removing sanctions greatly reduced the difficulty of amending the sanctions regime. The flexibility of the legal instruments made their coercive assurances more credible.

Conclusion

In the United States some analysts have argued that American resolve to maintain its hard line position against Iran has the potential to weaken the Iranian regime and eventually lead to its collapse. These analysts argue that the JCPOA represents a wavering of American resolve which will reduce American influence. In an op-ed titled “To Stop Iran’s Bomb, Bomb Iran” for the *New York Times*, future National Security Advisor John Bolton wrote in March 2015:

The inescapable conclusion is that Iran will not negotiate away its nuclear program. Nor will sanctions block its building a broad and deep weapons infrastructure. The inconvenient truth is that only military action like Israel’s 1981 attack on Saddam Hussein’s Osirak reactor in Iraq or its 2007 destruction of a Syrian reactor, designed and built by North Korea, can accomplish what is required. Time is terribly short, but a strike can still succeed.

Rendering inoperable the Natanz and Fordow uranium-enrichment installations and the Arak heavy-water production facility and reactor would be priorities. So, too, would be the little-noticed but critical uranium-conversion facility at Isfahan.

An attack need not destroy all of Iran’s nuclear infrastructure, but by breaking

²⁸For a discussion of the legitimacy of EU secondary legislation including descriptive information about its prevalence see Voermans, Hartmann, and Kaeding (2014).

key links in the nuclear-fuel cycle, it could set back its program by three to five years. The United States could do a thorough job of destruction, but Israel alone can do what's necessary. Such action should be combined with vigorous American support for Iran's opposition, aimed at regime change in Tehran. (Bolton 2015)

In stark contrast to Bolton's conclusion, the analysis of the negotiation of the JCPOA in this article demonstrates how excessive American resolve has the potential to perversely reduce American influence. The US inability to offer credible coercive assurances is precisely what undermined its own effectiveness in the negotiation process. The implication is that if the United States really does wish to exert influence over Iranian policy then its strategic commitment to unwavering hostility may actually be counterproductive.

By contrast, the EU's political situation encouraged the credibility of its assurances. European security interests made sanctions against Iran's nuclear program mandatory. At the same time, European business interests made sanctions relief mandatory when Iran halts its nuclear program. The Iranian government decided that the potential business relationship with Europe was worth more than its pursuit of weapons. Finally, the US-EU coalition was necessary to negotiate the deal. The role of the US was to guarantee that it would not attempt to interfere with European businesses interested in Iranian markets.

References

- Abrahamian, Ervand. 1982. *Iran Between Two Revolutions*. Princeton University Press.
- . 1993. *Khomeinism: Essays on the Islamic Republic*. Univ of California Press.
- . 2001. "The 1953 Coup in Iran." *Science & Society* 65 (2). Guilford Press: 182–215.
- Addis, Casey L. 2009. "Iran's 2009 Presidential Elections." R40653. Congressional Research Services.
- Alcaro, R. 2018. *Europe and Iran's Nuclear Crisis: Lead Groups and Eu Foreign Policy-Making*. Palgrave Studies in European Union Politics. Springer International Publishing.

<https://books.google.com/books?id=Owh-swEACAAJ>.

Alcaro, Riccardo. 2014. "Should Washington be Concerned with Italy's Iran Policy?" Brookings.

Alesina, Alberto, and Allan Drazen. 1991. "Why Are Stabilizations Delayed?" *The American Economic Review*. JSTOR, 1170–88.

Allen, Susan Hannah. 2008. "The Domestic Political Costs of Economic Sanctions." *Journal of Conflict Resolution* 52 (6). Sage Publications Sage CA: Los Angeles, CA: 916–44.

Allison, Graham. 2017. *Destined for War: Can America and China Escape Thucydides's Trap?* Houghton Mifflin Harcourt.

Bahgat, Gawdat. 2006. "Nuclear Proliferation: The Islamic Republic of Iran." *International Studies Perspectives* 7 (2). Blackwell Publishing Inc Malden, USA: 124–36.

Baker, William D, and John R O'Neal. 2001. "Patriotism or Opinion Leadership? The Nature and Origins of the "Rally'round the Flag" Effect." *Journal of Conflict Resolution* 45 (5). Sage Publications, Inc. 2455 Teller Road, Thousand Oaks, CA 91320: 661–87.

Banks, Jeffrey S. 1990. "Equilibrium Behavior in Crisis Bargaining Games." *American Journal of Political Science*. JSTOR, 599–614.

Baum, Matthew A. 2002. "The Constituent Foundations of the Rally-Round-the-Flag Phenomenon." *International Studies Quarterly* 46 (2). Blackwell Publishers, Inc. Boston, USA; Oxford, UK: 263–98.

Bolton, John R. 2015. "To Stop Iran's Bomb, Bomb Iran." *The New York Times*.

Bush, George W. 2002. "President Delivers State of the Union."

Byman, Daniel L. 2016. "The U.S.-Saudi Arabia counterterrorism relationship." *Testimony Before the House Committee on Foreign Affairs Subcommittee on Terrorism, Nonproliferation, and Trade*.

Chapman, Terrence L, and Scott Wolford. 2010. "International Organizations, Strategy, and Crisis Bargaining." *The Journal of Politics* 72 (1). Cambridge University Press New York, USA: 227–42.

- Christensen, Thomas J. 1992. "Threats, Assurances, and the Last Chance for Peace: The Lessons of Mao's Korean War Telegrams." *International Security* 17 (1). JSTOR: 122–54.
- Chubin, Shahram. 2010. *Iran's Nuclear Ambitions*. Brookings Institution Press.
- Chubin, Shahram, and Robert S Litwak. 2003. "Debating Iran's Nuclear Aspirations." *Washington Quarterly* 26 (4). Taylor & Francis: 99–114.
- Clinton, Hillary R. 2011. "America's Pacific Century." *Foreign Policy*.
- Cohen, Stephen P., and Robert Ward. 2013. "Asia Pivot: Obama's Ticket Out of Middle East?" *Brookings*.
- Consolidated Version of the Treaty on the Functioning of the European Union. n.d.
- Council of the European Union. 2010. "Council Regulation (EU) 961/2010."
- . 2012. "Council Regulation (EU) 267/2012."
- Council on Foreign Relations. 2018. "U.S.-Saudi Relations." Council on Foreign Relations.
- Dafoe, Allan, Remco Zwetsloot, and Matthew Cebul. 2021. "Reputations for Resolve and Higher-Order Beliefs in Crisis Bargaining." *Journal of Conflict Resolution*. SAGE Publications Sage CA: Los Angeles, CA, 0022002721995549.
- Davenport, Kelsey. 2015. "Official Proposals on the Iranian Nuclear Issue, 2003-2013." Arms Control Association.
- . 2018. "Timeline of Nuclear Diplomacy With Iran." Arms Control Association.
- Davis, James W. 2000. *Threats and Promises: The Pursuit of International Influence*. JHU Press.
- Debs, Alexandre, and Jessica Chen Weiss. 2016. "Circumstances, Domestic Audiences, and Reputational Incentives in International Crisis Bargaining." *Journal of Conflict Resolution* 60 (3). SAGE Publications Sage CA: Los Angeles, CA: 403–33.
- Dehghani, Morteza, Rumen Iliev, Scott Atran, Jeremy Ginges, and Douglas Medin. 2009. "Emerging Sacred Values: The Iranian Nuclear Program." *Judgment and Decision Making* 4: 990–93.
- Dorussen, Han, and Jongryn Mo. 2001. "Ending Economic Sanctions: Audience Costs

and Rent-Seeking as Commitment Strategies.” *Journal of Conflict Resolution* 45 (4). Sage Publications, Inc. 2455 Teller Road, Thousand Oaks, CA 91320: 395–426.

Drezner, Daniel W. 2003. “The Hidden Hand of Economic Coercion.” *International Organization*. JSTOR, 643–59.

Early, Bryan R. 2015. *Busted Sanctions: Explaining Why Economic Sanctions Fail*. Stanford University Press.

Eaton, Jonathan, and Maxim Engers. 1992. “Sanctions.” *Journal of Political Economy* 100 (5). The University of Chicago Press: 899–928.

———. 1999. “Sanctions: Some Simple Analytics.” *American Economic Review* 89 (2): 409–14.

European Union External Action. 2016. “Information Note on EU sanctions to be lifted under the Joint Comprehensive Plan of Action (JCPOA).” <https://eeas.europa.eu/sites/eeas/files/sn10176-re01.en17.en17.pdf>.

Fabius, Laurent. 2016. “Inside the Iran Deal: A French Perspective.” *The Washington Quarterly* 39 (3). Taylor & Francis: 7–38.

Farmer, Richard D. 2000. “Costs of Economic Sanctions to the Sender.” *The World Economy* 23 (1). John Wiley & Sons, Incorporated: 93–93.

Fassihi, Farnaz, and John M. Biers. 2012. “EU Bans Imports of Iran’s Oil, Raising Pressure on Tehran.” *Wall Street Journal*.

Fearon, James D. 1994. “Domestic Political Audiences and the Escalation of International Disputes.” *American Political Science Review*. JSTOR, 577–92.

———. 1995. “Rationalist Explanations for War.” *International Organization* 49 (3). Cambridge University Press: 379–414.

Fey, Mark, and Kristopher W Ramsay. 2011. “Uncertainty and Incentives in Crisis Bargaining: Game-Free Analysis of International Conflict.” *American Journal of Political Science* 55 (1). Wiley Online Library: 149–69.

Fuhrmann, Matthew, and Todd S Sechser. 2014. “Signaling Alliance Commitments:

Hand-Tying and Sunk Costs in Extended Nuclear Deterrence.” *American Journal of Political Science* 58 (4). Wiley Online Library: 919–35.

Gasiorowski, Mark J. 1987. “The 1953 Coup d’etat in Iran.” *International Journal of Middle East Studies* 19 (3). Cambridge University Press: 261–86.

Gerenmayah, Ellie. 2015. “When in Rome: Why Iran is Prioritising Italy.” European Council on Foreign Affairs.

Gourevitch, Peter. 1978. “The Second Image Reversed: The International Sources of Domestic Politics.” *International Organization* 32 (4). Cambridge University Press: 881–912.

Hoffman, Aaron M. 2002. “A Conceptualization of Trust in International Relations.” *European Journal of International Relations* 8 (3). Sage Publications London: 375–401.

IAEA. 2003. “Implementation of the NPT Safeguards Agreement in the Islamic Republic of Iran.”

———. 2014. “Monitoring and Verification in the Islamic Republic of Iran in relation to the Joint Plan of Action.”

Jervis, Robert. 1978. “Cooperation Under the Security Dilemma.” *World Politics: A Quarterly Journal of International Relations*. JSTOR, 167–214.

———. 1979. “Deterrence Theory Revisited.” *World Politics* 31 (2). Cambridge University Press: 289–324.

Keddie, Nikki R, and Yann Richard. 2006. *Modern Iran: Roots and Results of Revolution*. Yale University Press.

Keohane, Robert O. 2003. “International Relations and International Law: Two Optics 1996.” In *Power and Governance in a Partially Globalized World*, 131–45. Routledge.

Kertzer, Joshua D. 2016. *Resolve in International Politics*. Vol. 2. Princeton University Press.

Knopf, Jeffrey W. 2012. “Varieties of Assurance.” *Journal of Strategic Studies* 35 (3). Taylor & Francis: 375–99.

Kydd, Andrew H. 2018. *Trust and Mistrust in International Relations*. Princeton

University Press.

Kydd, Andrew H, and Roseanne W McManus. 2017. “Threats and Assurances in Crisis Bargaining.” *Journal of Conflict Resolution* 61 (2). SAGE Publications Sage CA: Los Angeles, CA: 325–48.

Leventoğlu, Bahar, and Ahmer Tarar. 2008. “Does Private Information Lead to Delay or War in Crisis Bargaining?” *International Studies Quarterly* 52 (3). Blackwell Publishing Ltd Oxford, UK: 533–53.

Martin, Lisa L. 1993. “Credibility, Costs, and Institutions: Cooperation on Economic Sanctions.” *World Politics*. JSTOR, 406–32.

Maynard Smith, John. 1974. “The Theory of Games and the Evolution of Animal Conflicts.” *Journal of Theoretical Biology* 47 (1). Academic Press: 209–21.

McCain, John, and Lindsey Graham. 2015. “Statement by Senators John McCain and Lindsey Graham on President Obama’s Remarks on Iran Nuclear Agreement.” Press Release.

McGillivray, Fiona, and Allan C Stam. 2004. “Political Institutions, Coercive Diplomacy, and the Duration of Economic Sanctions.” *Journal of Conflict Resolution* 48 (2). Sage Publications Sage CA: Thousand Oaks, CA: 154–72.

Morgan, T Clifton. 1990. “Issue Linkages in International Crisis Bargaining.” *American Journal of Political Science*. JSTOR, 311–33.

Morrow, James D. 1989. “Capabilities, Uncertainty, and Resolve: A Limited Information Model of Crisis Bargaining.” *American Journal of Political Science*. JSTOR, 941–72.

———. 1992. “Signaling Difficulties with Linkage in Crisis Bargaining.” *International Studies Quarterly* 36 (2). Blackwell Publishing Ltd Oxford, UK: 153–72.

Netanyahu, Benjamin. 2012. “Address to the United Nations General Assembly.” <https://undocs.org/A/67/PV.12>.

P5+1. 2006. “Elements of a proposal to Iran.”

Payne, Julia, and Emily Farge. 2012. “Exclusive: Glencore, Vitol Keep Oil Flowing to Greece.” *Reuters*. <https://www.reuters.com/article/businessNews/>

idCABRE84T0JV20120530?edition-redirect=ca.

Peterson, Timothy M. 2014. “Sending a Message: The Reputation Effect of US Sanction Threat Behavior1.” *International Studies Quarterly* 57 (4): 672–82. <https://doi.org/10.1111/isqu.12017>.

Powell, Robert. 1987. “Crisis Bargaining, Escalation, and Mad.” *The American Political Science Review*. JSTOR, 717–35.

———. 2002. “Bargaining Theory and International Conflict.” *Annual Review of Political Science* 5 (1). Annual Reviews 4139 El Camino Way, PO Box 10139, Palo Alto, CA 94303-0139, USA: 1–30.

———. 2006. “War as a Commitment Problem.” *International Organization*. JSTOR, 169–203.

Putnam, Robert D. 1988. “Diplomacy and Domestic Politics: The Logic of Two-Level Games.” *International Organization* 42 (3). Cambridge University Press: 427–60.

Rathbun, Brian C. 2009. “It Takes All Types: Social Psychology, Trust, and the International Relations Paradigm in Our Minds.” *IT* 1. HeinOnline: 345.

Raustiala, Kal, and Anne-Marie Slaughter. 2002. “International Law, International Relations and Compliance.” *International Relations and Compliance*. *Princeton Law & Public Affairs Paper*, nos. 02-2.

Roberts, Dan, and Julian Borger. 2013. “Obama holds historic phone call with Rouhani and hints at end to sanctions.” *The Guardian*.

Rogin, Josh. 2015. “Republicans Warn Iran – and Obama – That Deal Won’t Last.” *Bloomberg View*.

Rogowski, Ronald. 1987. “Political Cleavages and Changing Exposure to Trade.” *The American Political Science Review*. JSTOR, 1121–37.

Samore, Gary S, Matthew G Bunn, Graham T Allison, Aaron Arnold, R Nicholas Burns, Shai Feldman, Chuck Freilich, et al. 2015. “The Iran Nuclear Deal: A Definitive Guide.” Belfer Center for Science; International Affairs, Harvard Kennedy School.

- Schelling, Thomas C. 1960. *The Strategy of Conflict: With a New Preface by the Author*. Harvard university press.
- . 1966. *Arms and Influence*. Yale University Press.
- Schumer, Charles E. 2015. “My Position on the Iran Deal.” Press Release.
- Sick, Gary. 1985. *All Fall down: America’s Fateful Encounter with Iran*. IB Tauris.
- Skocpol, Theda. 1982. “Rentier State and Shi’a Islam in the Iranian Revolution.” *Theory and Society* 11 (3). Springer: 265–83.
- Smith, Alastair. 1996. “The Success and Use of Economic Sanctions.” *International Interactions* 21 (3). Taylor & Francis: 229–45.
- Stein, Arthur A. 1990. *Why Nations Cooperate: Circumstance and Choice in International Relations*. Cornell University Press.
- Stolper, Wolfgang F, and Paul A Samuelson. 1941. “Protection and Real Wages.” *The Review of Economic Studies* 9 (1). JSTOR: 58–73.
- Tarar, Ahmer, and Bahar Leventoğlu. 2009. “Public Commitment in Crisis Bargaining.” *International Studies Quarterly* 53 (3). Blackwell Publishing Ltd Oxford, UK: 817–39.
- Tsebelis, George. 2002. *Veto Players: How Political Institutions Work*. Princeton University Press.
- UNSC. 2006a. “UN Security Council Resolution 1696.”
- . 2006b. “UN Security Council Resolution 1737.”
- . 2007. “UN Security Council Resolution 1747.”
- . 2008a. “UN Security Council Resolution 1803.”
- . 2008b. “UN Security Council Resolution 1803.”
- . 2010. “UN Security Council Resolution 1929.”
- US Department of Treasury and US Department of State. 2016. “Guidance Relating to the Lifting of Certain U.S. Sanctions Pursuant to the Joint Comprehensive Plan of Action on Implementation Day.”
- Voermans, Wim, Josephine MR Hartmann, and Michael Kaeding. 2014. “The Quest

for Legitimacy in Eu Secondary Legislation.” *The Theory and Practice of Legislation* 2 (1). Taylor & Francis: 5–32.

Vreeland, James Raymond. 1999. “The Imf: Lender of Last Resort or Scapegoat.”

Weeks, Jessica L. 2008. “Autocratic Audience Costs: Regime Type and Signaling Resolve.” *International Organization*. JSTOR, 35–64.

Wolford, Scott. 2014. “Showing Restraint, Signaling Resolve: Coalitions, Cooperation, and Crisis Bargaining.” *American Journal of Political Science* 58 (1). Wiley Online Library: 144–56.

Zanotti, Jim. 2016. “Israel: Background and U.S. Relations.” RL33476. Congressional Research Services.

Iran Deal

ONLINE APPENDIX

June 2, 2021

Details of the JCPOA

In order to study how the US and the EU are treated by the JCPOA it is first necessary to describe its contents in some detail. Iran's obligations under the deal are substantial from both a technical and a political perspective. Iran's only source of plutonium was its Arak reactor, which under the JCPOA must be redesigned in ways which essentially eliminate the possibility of ever producing enough plutonium for a bomb at that location. Constructing new reactors with the intent to produce plutonium would take years [samore2015iran]. Iran also agreed to eliminate 98% of its stock of enriched uranium and eliminate two thirds of its centrifuges. All further enrichment would be limited to a single location (the reactor at Natanz) which can be monitored by the IAEA. Experts estimate that if Iran adheres to its commitments under the JCPOA its breakout time (the shortest amount of time needed to construct a bomb if Iran were to violate the agreement) would move from 2-3 months before the agreement to roughly one year [samore2015iran, 6].¹ Under the JCPOA Iran committed

¹The concept of breakout is an indication of technical capacity and not of political feasibility. Breakout time is a useful concept because it represents how quickly Iran could violate the deal if it became politically convenient.

to hard physical limits on the amount of enriched uranium it could maintain for 15 years. If Iran adheres to the deal it will be physically incapable of producing a nuclear weapon for that entire duration.

Iran's major political concession under the JCPOA is permitting the IAEA to conduct deep and intrusive monitoring of the country's compliance with the deal [samore2015iran]. The JCPOA requires Iran to permit the IAEA to continuously monitor the remaining centrifuges at the Natanz facility. Iran also agreed to provide access to any undeclared facility detected by the IAEA on as little as 24 hours notice. In particular, the IAEA has the ability to request inspections at military facilities.² The provisions of the JCPOA's monitoring program constitute a substantial concession of sovereignty because Iran grants an international agency the ability to inspect military facilities and to evaluate whether Iran is acting in compliance.

²The IAEA enjoys these privileges in addition to its normal set of procedures for inspections. Iran can challenge a requested inspection on the grounds that the request is "aiming at interfering with Iranian military or other national security activities" [samore2015iran, 36]. In this case, the issue is brought to a Joint Commission which evaluates whether Iran is complying with its agreements and can refer the issue to the UN Security Council.