Living with nuclear hedging: the implications of Iran's nuclear strategy

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For over a decade now, the international community has been in pursuit of a lasting solution to the Iranian nuclear challenge. From the Tehran Declaration of 2003 to this year's attempts to secure a Joint Comprehensive Plan of Action (JCPOA), diplomatic efforts have been driven by fears that Iran is seeking nuclear weapons. These fears have been fuelled by Tehran's insistence on pursuing an expansive enrichment programme that far surpasses current civil requirements, the inability of the International Atomic Energy Agency (IAEA) to confirm the peaceful nature of that programme, and evidence hinting at possible military dimensions to Iran's nuclear activities.¹ Iran has vigorously repudiated claims that its nuclear programme aims at covertly advancing an aspiration to develop nuclear weapons, and rejected as illegitimate United Nations Security Council resolutions (UNSCRs) demanding it halt its most sensitive activities. Tehran has depicted western attempts to hinder its progress as intolerable manifestations of 'nuclear imperialism' impinging upon Iran's sovereign rights.

These diametrically opposed views position the Iranian nuclear challenge within an interpretative framework that often reduces it to a simple question of acquisition versus restraint. Much of the analysis relating to this challenge has fallen into one of two categories: how to prevent Iran acquiring the bomb; or, in the event that Tehran 'goes nuclear', how this will affect regional stability and wider international security, including the non-proliferation regime.² The influence of this framework is also evident in the policy community, where discourse largely revolves around preventing Iran crossing the nuclear threshold. In a speech

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¹ A 2011 IAEA report included 14 pages on the possible military dimensions. See Director General, IAEA, ¹Implementation of the NPT Safeguards Agreement and relevant provisions of Security Council resolutions in the Islamic Republic of Iran' (GOV/2011/65), 8 Nov. 2011.

² See Mark Fitzpatrick, 'Can Iran's nuclear capability be kept latent?', Survival 49: 1, Spring 2007, pp. 33–58; Dalia Dassa Kaye and Frederic M. Wehrey, 'A nuclear Iran: the reaction of neighbours', Survival 49: 2, Summer 2007, pp. 111–28; Eric S. Edelman, Andrew F. Krepinevich Jr and Evan Braden Montgomery, 'The dangers of a nuclear Iran: the limits of containment', Foreign Affairs 90: 1, Jan. 2011, pp. 66–81; Matthew Kroenig, 'Time to attack Iran: why a strike is the least bad option', Foreign Affairs 91: 1, Jan. 2012, pp. 76–86; and Alireza Nader, Iran after the bomb: how would a nuclear-armed Tehran behave? (Santa Monica: RAND Corporation, 2013).

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of March 2012 to the American Israeli Political Action Committee, for example, President Obama claimed that 'the entire world has an interest in preventing Iran from acquiring a nuclear weapon'.³

Yet this binary 'acquisition/restraint' framework is limiting. There is much evidence to suggest Iran is engaged in a more nuanced strategy based on nuclear hedging, rather than outright pursuit of the bomb. This does not change the need to contain Iran's proliferation potential through a robust and verifiable agreement that seeks to bind the programme to realistic civil needs, and affords the international community sufficient time to detect and respond to any attempt to dash for the bomb. It does, however, add another layer of complexity. For, as Levite points out, the perceived value of nuclear hedging 'goes well beyond the nuclear weapons option that it facilitates politically as well as technically'.⁴ Hedging positions a state relatively close to the nuclear weapons threshold and may be perceived to hold value as a tool of influence, coercion or deterrence, even if this value draws on a latent form of power.

Viewed from this perspective, the focus on preventing Iran from acquiring nuclear arms addresses only part of the problem. While diplomatic efforts may succeed in bringing about a lasting agreement that constrains the scope and pace of Iran's nuclear efforts, Tehran will retain a low level of latency and the ability to acquire nuclear weapons relatively quickly should it decide to do so. Furthermore, any lasting deal will recognize Iran's programme and give legitimacy to a form of proliferation behaviour that has defied several UNSCRs. This recognition may not be explicit on the part of those negotiating with Iran, and is certainly not the preference of the United States and other western powers, but the implicit message will not be lost on those states that are either already engaged in, or may contemplate, illicit nuclear activity, particularly those close to Iran.

This article discusses the nature of nuclear hedging and how it applies to Iran. It considers the implications of Iranian hedging $vis-\dot{a}-vis$ the nuclear behaviour of other states in the Middle East, specifically Saudi Arabia, and the wider implications for the non-proliferation regime and international efforts to prevent proliferation.

The nature of nuclear hedging

The concept of hedging in respect of nuclear arms is not a recent one, although it remains relatively unexplored.⁵ It was not until 2002 that the first comprehensive study of nuclear hedging was published. In this influential piece, Ariel Levite defined hedging thus: 'A national strategy of maintaining, or at least appearing to maintain, a viable option for the relatively rapid acquisition of nuclear weapons,

³ 'Remarks by the President at AIPAC policy conference', Office of the Press Secretary, White House, 4 March 2012.

⁴ Ariel E. Levite, 'Never say never again: nuclear reversal revisited', *International Security* 27: 3, Winter 2002, p. 72.

⁵ A 1972 study by George Quester was one of the first to problematize the idea underlying hedging: George H. Quester, 'Some conceptual problems in nuclear proliferation', *American Political Science Review* 66: 2, June 1972, p. 493.

based on an indigenous technical capacity to produce them within a relatively short time frame ranging from several weeks to a few years'.⁶

Levite examines countries such as Egypt, Sweden and Japan to illustrate the complexities of hedging and the challenges this approach has posed to global non-proliferation efforts.⁷ His study significantly furthers our understanding of hedging but does not address how a strategy based on hedging might be identified. For while an advanced nuclear infrastructure with full fuel-cycle capabilities may evidence a high level of latency,⁸ it does not necessarily signal proliferation aspirations. Indeed, a major difficulty in assessing proliferation behaviour relates to the fact that technical sophistication and advancement can be driven by entirely benign motives. What forms the basis of a hedging strategy is a combination of concerted efforts to achieve latency and evidence of proliferation intentions. Simply put, hedging can be characterized as nuclear latency with intent.

Deconstructing hedging

Building on Levite's work, we have elsewhere sought to address in detail the question of how hedging might be identified through the elaboration of a conceptual framework within which a country suspected of hedging, such as Iran, might be considered.⁹ When combined, the three interlinked elements of the framework identified below form an interpretative lens that can reveal much about the objectives of a state's nuclear activities.

Latency

Central to hedging is an ability or attempt to maintain a high level of opacity with regard to intent and capability, alongside coherent efforts to achieve latency. Consequently, much can be learned by examining the maturity of a nuclear programme and how transparent the state in question has been with its plans and activities. Assessments of hedging must also account for trends in capabilities and procurement, the correlation of specific activities with stated political intentions and, not least, evidence of military involvement in the nuclear sphere. In this regard, Iran's nuclear activities cause concern for several reasons.

First, a significant gap exists between Tehran's stated civil rationale for the programme and the programme's maturity. Iran's installed enrichment capacity (some 19,000 centrifuges in April 2015) has the potential to produce far more enriched uranium than Iran currently needs. Certainly, Iran has ambitious plans to expand its programme—Tehran recently provided the IAEA with details of 16 'preferred candidate sites' for new reactors—yet these depend heavily on

⁶ Levite, 'Never say never again', p. 69.

⁷ Levite, 'Never say never again', p. 71.

⁸ We understand latency as a 'physicalist approach to proliferation—a way to consider a state's distance from the bomb by reference to its physical capabilities, including its nuclear material stocks and fuel cycle status'. See Avner Cohen and Joseph F. Pilat, 'Assessing virtual nuclear arsenals', *Survival* 40: 1, Spring 1998, p. 129.

⁹ Wyn Bowen and Matthew Moran, 'Iran's nuclear programme: a case study in hedging?', *Contemporary Security Policy* 35: 1, April 2014, pp. 26–52.

foreign support.¹⁰ Iran's next reactors will be Russian-built and Russian-fuelled.¹¹ In short, given Tehran's reliance on external assistance for building and fuelling both its existing power reactor and future ones, the size and pace of Iran's enrichment work have not made much economic or technical sense; this disconnect has significantly contributed to concerns over intent.

Second, Iran has a track record of concealment and covert development that has undermined its professed commitment to non-proliferation. From the 2002 revelations regarding undeclared facilities at Natanz and Arak, through the continued refusal to allow IAEA inspectors to areas of interest at the Parchin military site, to efforts to circumvent sanctions through illicit trade, Tehran's *modus operandi* has compounded fears of weapons aspirations.¹²

Third, Iran's moves towards nuclear latency have been overshadowed both by evidence of work relevant to weaponization and by military involvement in the programme. In 2011 the IAEA provided details of research and development activities relevant to weaponization at military-related facilities under the coordination of the Ministry of Defence.¹³ Iran denies that this work is relevant to a potential weapons programme but has not adequately addressed IAEA concerns on this front.

While Iran's nuclear activities have clearly progressed beyond the requirements of a coherent civil programme, it is important to note that, although defiant, Tehran has not ignored international pressures concerning technical issues. It is significant, for example, that prior to the Joint Plan of Action (JPOA) in November 2013, Iran was careful to keep its stockpile of enriched uranium below the red line set by Israel.¹⁴ This suggests a level of caution on the part of Iranian decision-makers that supports the notion of an approach based on hedging.

Narrating a nuclear programme

The narrative around a nuclear programme forms the second element of the framework. Political discourse and domestic debate regarding nuclear issues reveal much about the role, political function and limits of a nuclear programme. It is therefore important to explore the representations of nuclear power—both civil and military—projected by those in authority, with a view to understanding how these reflect and feed into broader themes of national identity, sovereignty and place in the international arena.

In this context, much can be learned from the Iranian approach. Since the point at which suspicions were raised in 2002, Tehran has consistently defended its nuclear aims as peaceful in the face of widespread international opposition. More than this, the regime has portrayed Iran as a victim of western efforts to control

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¹⁰ Director General, IAEA, 'Implementation of the NPT Safeguards Agreement and relevant provisions of Security Council resolutions in the Islamic Republic of Iran' (GOV/2014/10), 20 Feb. 2014, p. 4.

 ¹¹ Andrew E. Kramer, 'Russia reaches deal with Iran to construct nuclear plants', *New York Times*, 11 Nov. 2014.
¹² See Wyn Bowen and Jonathan Brewer, 'Iran's nuclear challenge: nine years and counting', *International Affairs* 87: 4, July 2011, pp. 923–43.

¹³ Director General, IAEA, 'Implementation of the NPT Safeguards Agreement', 8 Nov. 2011, p. 15.

¹⁴ 'As nuclear talks stall, Iran still limits its uranium stockpile', *Washington Post*, 8 April 2013.

and contain the spread of civil nuclear technology. Its narrative fuses sovereign rights and the need for technological advancement in a powerful and emotive account that has served as a rallying point for nationalist sentiment.

In the technological arena, Tehran has emphasized the potential for nuclear power to satisfy growing energy demands. In 2004, reports claimed Iran hoped to generate 7,000 megawatts (MW) of electricity from nuclear reactors.¹⁵ By 2007, the target had risen to 20,000 MW, a figure mentioned again in the context of the recent reactor deal with Russia.¹⁶ Against this background, international efforts to impede Iran's nuclear progress by blocking its acquisition of nuclear materials and expertise are painted as attempts to deny the country the technology it needs to exploit the energy potential of nuclear power. There is an important economic element here too, since it is argued that hindering Iran's progress in nuclear energy denies it the economic benefits of the increased oil revenue that would be gained by turning to nuclear for domestic energy needs.¹⁷

More fundamentally, the narrative portrays opposition to Iran's nuclear advancement as a denial of rights. As a signatory of the Nuclear Non-Proliferation Treaty (NPT), Iran is entitled to develop nuclear technology for peaceful purposes. Iranian leaders have made much of this right, despite the fact that the IAEA's inability 'to conclude that the country's programme is exclusively for peaceful purposes' has given rise to international concern.¹⁸ Speaking in September 2014, President Rouhani returned to a longstanding theme when he emphasized that 'Iran will never surrender its legal right to the pursuit of civil peaceful nuclear activity'.¹⁹ From this perspective, Tehran's nuclear defiance is linked to the Islamic Republic's identity as a sovereign nation-state; external concerns over Iran's intentions, and its failure to provide full access to IAEA inspectors, are downplayed, with domestic discourse centred on the infringement of Iran's rights. This outlook is deeply embedded in Iranian political culture and both reflects and reinforces a world-view based on self-reliance and independence that has dominated Iranian politics and society since 1979.²⁰

The narrative plays a central role in Tehran's efforts to counter opposition to its nuclear programme, both internationally and domestically. It also serves a valuable strategic purpose, giving legitimacy to nuclear activities beyond the needs of a purely civil programme. At the same time, however, the narrative places some constraints on Iran's nuclear trajectory. In a volatile domestic context marked by

- ¹⁸ Paul Kerr, 'Iran's nuclear program: Tehran's compliance with international obligations', Congressional Research Service (RL34544), 28 April 2014, p. 2.
- ¹⁹ 'Iran nuclear talks: Rouhani warns time running out', BBC News, 27 Sept. 2014.
- ²⁰ The intersection between Iranian nationalism and the nuclear programme has been explored by a number of authors. See e.g. Arshin Adib-Moghaddam, *Iran in world politics: the question of the Islamic Republic* (New York: Columbia University Press, 2008).

¹⁵ Shahram Chubin, *Iran's nuclear ambitions* (Washington DC: Carnegie Endowment for International Peace, 2004), p. 24.

¹⁶ 'Top nuclear official interviewed live on Iran's Esfahan TV: interview with Dr Hoseyn Faqihian', Esfahan Provincial Television, 11 April 2007, accessed via BBC Monitoring (BBC Mon ME1 MEPol ms/bad); Jake Rudnitsky, Elena Mazneva and Kambiz Foroohar, 'Iran signs Russia reactor deal as nuclear talks falter', Bloomberg, 11 Nov. 2014.

¹⁷ Seyed Hossein Mousavian, *The Iranian nuclear crisis: a memoir* (Washington DC: Carnegie Endowment for International Peace, 2012), p. 195.

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factionalism, the nuclear issue is a rare point of consensus. Politicians across the spectrum agree that nuclear advancement is desirable and necessary, bound as it is to the nation's rights and status in the political imagination. Crucially, however, this unity is linked to civil advancement and, notwithstanding a minority of hard-liners, 'there is no evidence of consensus on developing a military programme'.²¹

This point holds particular significance in the context of hedging, since evidence of an ongoing military nuclear programme would leave the regime open to attack. The upheaval caused by the Green movement of 2009, although relatively shortlived, demonstrated the potential for politically charged issues to challenge the Iranian leadership. In this context, the regime's efforts to muster popular support for a 'civil' nuclear programme as a means of generating domestic political capital from international opposition, while also making moves down the weapons route, have made hedging the only possible nuclear strategy option for Iran.

Diplomatic 'cat and mouse'

The third element of the framework encompasses diplomatic activity designed to explain and justify behaviour in the nuclear context, particularly from the point at which external concerns are raised. Analysis of engagement with the international community generates insights into a state's diplomatic path and, more particularly, what this might mean regarding nuclear intentions.²²

For Iran, diplomacy on the nuclear issue has long been used as a means of dissipating pressure and buying time for the nuclear programme to advance. From 2002 to 2012, Tehran exploited diplomatic due process to maximum effect, using tactics such as agreeing to talks then withdrawing, and moving away from previous agreements and suggesting different proposals more palatable to the regime. Over this period, Iran's nuclear programme made considerable progress. Of course, the responsibility for this does not lie exclusively with Tehran; western powers have passed up a number of opportunities to pursue an agreement. Perhaps the most notable example was the Bush administration's dismissal of Tehran's 2003 offer to discuss a 'grand bargain' that would address a range of issues of interest to Washington in return for security guarantees and sanctions relief.²³ On the whole, however, a history of failed negotiations and unfulfilled promises, combined with a regime characterized by its reluctance to make concessions on the nuclear issue, suggests that Iran never intended to reach an agreement before achieving some degree of mastery of all elements of the fuel cycle.

Iran has also sought to ease pressure on its position in two ways. First, it has attempted to gain the support of members of the Non-Aligned Movement (NAM) by reframing the debate and shifting the focus away from treaty non-compliance to a broader discussion of rights and entitlements under the NPT. In particular, Iran has worked to 'establish the principle of the right to enrichment and to

²¹ Bowen and Moran, 'Iran's nuclear programme', p. 40.

²² A key assumption of the nuclear hedging framework is that the state will be a non-nuclear weapons state party to the NPT.

²³ Glenn Kessler, 'Kerry's claim that Iran offered Bush a nuclear deal in 2003', *Washington Post*, 9 Dec. 2013.

demonstrate that this right is irreversible' and inalienable.²⁴ This approach draws heavily on the nuclear narrative and seeks to exploit NAM concerns regarding the role of the NPT in perpetuating inequalities in international power relations and the more fundamental question of the right to access fuel cycle technology.

Second, faced with considerable diplomatic and economic pressure from western powers, particularly the United States, Iran has turned east and pursued closer ties with China and Russia. This move has allowed Iran to partially mitigate the effects of sanctions while 'developing Tehran's lagging energy, security, and nuclear infrastructure and technology'.²⁵ Perhaps more importantly, Chinese and Russian support in international forums, notably the Security Council, has undermined the broader response to Iran's nuclear defiance.²⁶ In return, Iran has intensified its trade relations with Beijing and Moscow, and gained a source of leverage against Washington.

Iran's diplomacy suggests a deliberate effort to advance the nuclear programme by exploiting due process. Again, however, the situation is complex, and it is here that the elements of the framework begin to converge. As nuclear nationalism has gained momentum in Iran, the regime's ability to change its diplomatic trajectory has become further constrained. Nuclear advancement is a salient issue in domestic politics and inextricably linked to sovereign rights. Consequently, any perceived capitulation to western powers is unacceptable. Thus, while Tehran has harvested the fruits of its concerted efforts to gain popular support for the country's nuclear programme, this has in turn bound the regime to its continued advancement. This does not mean that Iran's nuclear trajectory has outstripped the regime's intentions. Rather, the situation demonstrates the complexity of proliferation behaviour and shows that, looking from the outside in, there is considerable evidence to support the idea of a strategy based on hedging.

Rouhani's redirection

At first glance Hassan Rouhani's election as president in 2013 appears to challenge the relevance of hedging to Iran. Much has changed since this moderate politician brought his pragmatic approach to bear on the nuclear issue. In November 2013, the JPOA agreed between Iran and the P5+1 seemed to give substance to Rouhani's proclaimed desire to 'remove any and all reasonable concerns about Iran's peaceful nuclear program'.²⁷ Iran fulfilled the principal conditions of the JPOA (neutralizing its stockpile of 20 per cent enriched uranium; pausing work on the heavy water reactor at Arak), paving the way for the Lausanne framework agreement of April 2015.²⁸ Rouhani's approach has also set in motion a thaw of sorts in Iran–US

²⁴ Chubin, Iran's nuclear ambitions, p. 73.

²⁵ Sanam Vakil, 'Iran: balancing East against West', *Washington Quarterly* 29: 4, Autumn 2006, p. 52.

²⁶ Stephen Blank, 'Beyond the reset policy: current dilemmas of US-Russia relations', *Comparative Strategy* 29: 4, Oct. 2010, p. 358.

²⁷ Full text of Hasan Rouhani's speech at the UN', *Times of Israel*, 25 Sept. 2013. The P5+1 are the five permanent members of the UN Security Council (China, France, Russia, the United Kingdom and the United States) plus Germany.

²⁸ See Director General, IAEA, 'Implementation of the NPT Safeguards Agreement and relevant

relations. In September 2013, President Obama spoke to his Iranian counterpart by telephone, the first such conversation in over 30 years.²⁹

Considered in the context of Iran's domestic scene, Rouhani's efforts assume additional significance. Hard-line politicians have opposed nuclear concessions, yet the Rouhani administration has remained firm in its conciliatory approach. Indeed, the President stated in January 2015 that he might call referendums on 'important matters', implying that he would consider placing decisions on international re-engagement and a nuclear deal in the hands of the public and beyond the reach of hard-liners.³⁰ His statement reflects the popular desire for a conclusion to the crisis and the removal of the economically damaging sanctions imposed with the aim of pressurizing Tehran into full cooperation. Rouhani's predicament also mirrors that of his US counterpart; President Obama faces considerable domestic opposition to a deal with Iran. In the event that the measures specified under the framework agreement are implemented, Obama will find it difficult to fully remove, rather than suspend, unilateral sanctions on Iran, given that the Democrats do not control Congress and most Republican legislators oppose the Iran deal.³¹ On the whole, Rouhani has done much to restore Iran's international reputation through showing more flexibility in nuclear negotiations. More progress towards resolution of the nuclear issue has been made in the last two years than over the entire previous decade.

What, then, does this mean for hedging? With Rouhani as president and the April framework agreement in place, has Tehran reversed or abandoned its strategy after a decade of concerted efforts to advance the nuclear programme? This seems highly unlikely, as there is simply no need to abandon hedging completely: under the principles of the framework agreement, Iran will retain a low level of latency and the technical knowhow to advance at speed if necessary. Furthermore, in accepting limited rollback and an enrichment capability, the international community has implicitly recognized and legitimized Iranian hedging. At the same time, the deal allows Iran to re-engage with the international community and work towards removing sanctions imposed by the US and the EU, and under various UNSCRs. In this context, abandoning hedging would be an illogical strategic move and inconsistent with past behaviour.

Beyond this basic logic, Rouhani's conciliatory approach is consistent with hedging as we describe it, namely latency with intent. For insights into Iran's nuclear intentions at this point, however, recent developments must be considered in the broader context of Iran's nuclear evolution. The value of hedging lies in the potential for a state to position itself relatively close to possession

provisions of Security Council resolutions in the Islamic Republic of Iran' (GOV/2014/58), 7 Nov. 2014; joint statement by EU High Representative Federica Mogherini and Iranian Foreign Minister Javad Zarif, Switzerland, European Union External Action Service, 2 April 2014, http://eeas.europa.eu/statements-eeas/2015/150402_03_en.htm, accessed 12 May 2015. ²⁹ 'Iran nuclear: Obama and Rouhani speak by phone', BBC News, 28 Sept. 2013.

³⁰ 'Iran's Rouhani takes on the regime's hardliners', *Financial Times*, 5 Jan. 2015. It is important to note, however, that the President alone does not have the authority to make such a move.

³¹ Paul Lewis, Julian Borger, Saeed Kamali Dehghan and Peter Beaumont, 'Obama fights to contain Republican rebellion over Iran nuclear deal', Guardian, 3 April 2015.

of the bomb without incurring all the negative, including potentially military, consequences of a fully fledged weapons programme where the goal would be to cross the nuclear threshold as quickly as possible. Yet a state engaged in hedging must tread a fine line to maintain plausible deniability of military intent. A step too far can irreparably undermine any civil narrative, lift the veil of ambiguity and potentially invite military intervention. Conversely, too few steps towards a credible breakout capability, and hedging is rendered virtually worthless; for any coercive or deterrent value to be obtained, a state must be perceived by others as relatively close to having the bomb.

As Iran's nuclear programme has advanced, it has become increasingly difficult for Tehran to maintain this delicate balance. A turning point came in 2012. IAEA evidence of non-compliance with NPT obligations, combined with allegations of possible military dimensions to Iran's nuclear activities and, most importantly, a growing and unjustifiable stockpile of 20 per cent enriched uranium, brought increased international pressure to bear on Iran. As mentioned, Israeli officials 'let it be known' that their red line was an 'Iranian stockpile of 240 kilogrammes of 20 per cent enriched uranium'.³² This figure was based on the amount of 20 per cent enriched uranium deemed 'enough to make one bomb (allowing for the excess that normally goes to make an initial warhead)'.³³ Iran responded—in the final months of the Ahmadinejad administration—by converting some 20 per cent uranium into an oxide form not suitable for weapons use. This may be interpreted as a tactical move as Iran sought to maintain the equilibrium of successful hedging and to avoid raising the likelihood of external intervention. Yet it was also a sign that Tehran recognized the limits of its strategic approach, a sign that the regime was aware that nuclear brinkmanship can go only so far.

With this in mind, it is important to consider the other key variable in this equation, Supreme Leader Khamenei. A number of administrations have come and gone since the nuclear crisis began, but the Supreme Leader has remained the constant presence at the top of the regime. As is often pointed out, there are many decision-shapers in Tehran but only one decision-maker. Ayatollah Khamenei has remained the ultimate source of power through the evolution of Iran's nuclear strategy since Natanz and Arak were outed in 2002, and any key decisions have required his backing. This is not to undermine the importance of the current administration—Rouhani has a strong popular mandate—yet, as the Supreme Leader recently stated on Twitter: 'I support all Iranian administrations but I would not give a signed blank check [*sic*] to anyone.'³⁴ Furthermore, Khamenei is well aware of the political and strategic value of the nuclear programme. In a 2013 statement on his website, he said: 'We believe that nuclear weapons must be eliminated. We don't want to build atomic weapons. But if we didn't believe so and

³² Jacques E. C. Hymans and Matthew S. Gratis, 'Iran and the nuclear threshold', Nonproliferation Review 20: 1, Jan. 2013, p. 15.

³³ Julian Borger, 'Israel's red line on Iran: 240kg', *Guardian*, 1 Nov. 2012.

³⁴ @khamenei_ir, English-language Twitter account of Supreme Leader Khamenei, 21 March 2015, https:// twitter.com/khamenei_ir/status/579287987017547777, accessed 12 May 2015.

intended to possess nuclear weapons, no power could stop us.³⁵ This statement was in line with the trademark defiance of the Iranian regime, but also seemed to reflect the spirit of hedging.

It is our contention that Khamenei's support for Rouhani's diplomatic overtures reflects a realization in Tehran that efforts to advance Iran's nuclear latency have, for now, reached their limit. Amid unprecedented tensions around the nuclear issue, Rouhani's election provided an opportunity to re-engineer Iran's approach to nuclear diplomacy, tying the more boisterous politics of recent years to the memory of former President Ahmadinejad and facilitating a fresh start. Dissipating pressure and rehabilitating Iran in international eyes was always going to require a degree of nuclear rollback. The question the regime has been grappling with—and one that goes to the core of the concept of hedging—is at what point has enough progress been made to ensure that limited rollback does not excessively undermine the perceived value of hedging. This point may well have now been reached.

Recent developments would appear to fit with the logic of hedging. Iran has decided to accept limited rollback and consolidate its position rather than risk the consequences—additional sanctions, further isolation and potentially military intervention—of pushing forward. And rollback will by no means be complete, largely due to the progress made on the nuclear front in recent years; Iran has simply advanced too far to give up its programme, and the complete rollback envisaged by some external powers around 2009 was not politically viable during the Lausanne negotiations. Iran will forgo some two-thirds of its centrifuges, but will retain a considerable enrichment capacity and the technical knowhow to make rapid progress if needed. A State Department statement pointed out that with this agreement Iran's breakout time would be extended from two months to one year, yet there is still value for Iran in remaining so close to possession of a bomb. Indeed, Rouhani hinted at the enduring strategic value of the nuclear programme in a statement the day after the agreement was signed: 'If the other side acts on its promises, Iran will abide by its promises. If, however, they one day decide to follow a different path, our nation too will be always free to make [another] choice.'36 Certainly, if hedging is considered as a spectrum, the agreement contains Iran at the lower end. Yet the agreement implicitly recognizes and gives legitimacy to Iranian hedging, and the value of this position is not lost on Tehran. It remains to be seen how the nuclear saga will play out, but for the moment it would be naive to argue that Iran has done anything other than successfully hedge its bets in the nuclear arena.

Repercussions in the region and beyond

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With Iranian hedging likely to continue in some shape or form, what will this mean for regional security and the non-proliferation regime? One might think that final confirmation of a comprehensive and verifiable agreement containing Iran at a low level of latency would do much to address the fears of Iran's neighbours.

³⁵ 'Iran's Ayatollah Khamenei denies wanting to develop nuclear weapons', *Guardian*, 16 Feb. 2013.

³⁶ 'Iran nuclear talks: Rouhani vows to abide by deal', BBC News, 3 April 2015.

But this is not necessarily the case; for the uncertainty associated with hedging poses almost as many challenges as the certainty of nuclear weapons acquisition.

Hedging 'cascade'?

The value of hedging lies in the eye of the beholder. Yet it is easy in this context, given Tehran's track record of nuclear deception, to see that regional players might be highly concerned by prolonged Iranian hedging recognized and effectively legitimized by the P5, the EU and Germany. At the least, this situation would add symbolic weight to Iran's aspirations to regional hegemony. At worst, an inflated sense of the value of hedging could embolden Iran in a conventional military sense and contribute to further conflict in the region. In this respect, the recent announcement of a new joint Arab military force in the context of what many describe as a proxy conflict in Yemen between Shi'i Iran and its Sunni Arab neighbours, notably Saudi Arabia, is of particular concern and may be a harbinger of things to come. If the Rouhani government is succeeded by a hard-line administration, this type of concern will only deepen.

How, then, will regional rivals react to Iranian hedging and a finalized JCPOA? While it would be premature to predict a fully fledged hedging 'cascade' among Arab states, this approach is likely to be adopted by some in the region. This would not provide a quick solution—national nuclear infrastructures in the Arab world pale in comparison to Iran's—but it would, in the longer term, allow these states to develop a rival hedging capability within the limits of the NPT and provide a means of balancing the scales. This point is crucial, since to develop a credible hedging capability that, in the process, does not prompt international alarm and condemnation, it is necessary to maintain good standing as a NPT signatory. Indeed, it might be argued that this process has already begun in the Arab world.

Over the past decade various Arab countries have been identified as potentially considering a hedging option in the face of a nuclearizing Iran: these include Egypt, the United Arab Emirates and Saudi Arabia. As early as December 2006, for example, the Gulf Cooperation Council (GCC) announced that the organization would study the establishment of 'a joint programme of nuclear technology for peaceful purposes, according to general standards and arrangements'.³⁷ Tellingly, the summit communiqué announcing the study also called on Iran to cooperate with the international community to resolve outstanding issues related to its nuclear activities, thereby suggesting a correlation between GCC plans and Tehran's nuclear activities.³⁸ Similarly, in March 2007, the Arab Atomic Energy Authority was instructed by the Arab League's Council of Foreign Ministers to work up plans 'for an Arab strategy to acquire the necessary scientific know-how and technologies to develop nuclear power for peaceful purpose by the year 2020'.³⁹

³⁷ Roula Khalaf, 'Gulf Arabs weigh joint nuclear programme', *Financial Times*, 10 Dec. 2006.

³⁸ 'Summit ends with call for n-capability', *Times of Oman*, 11 Dec. 2006.

³⁹ 'Saudi paper says Iran nuclear issue casts shadow on Arab summit', *Al-Jazirah* [sic], 15 March 2007, accessed via BBC Monitoring (BBC Mon MEI MEPol sg).

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While coherent pan-Arab and pan-GCC nuclear strategies have not since emerged, individual countries have taken significant steps forward in the nuclear area. Notwithstanding the UAE's progress in setting up its civil nuclear programme, Saudi Arabia is clearly the most important example in this respect.

Saudi concerns over Iran have steadily increased since the first public revelations of Iran's clandestine activities emerged in late summer 2002. Indeed, Riyadh initiated a strategic review in 2003 in response to developments in Iran.⁴⁰ While the review has never been made public, leaks of its content point to specific considerations of how the Kingdom would potentially respond to Iran. The options considered are reported to include acquiring nuclear weapons for deterrence; maintaining or entering a new alliance with an existing nuclear weapon state; and seeking an agreement for a Middle East free of nuclear weapons.⁴¹ Heinonen and Henderson have argued that since this early period, 'Saudi Arabia has consistently maintained a veiled military nuclear strategy'.⁴² Amid this ambiguity, however, there is evidence to suggest that the Kingdom will seek to mimic Iran's approach as it attempts to counter any advantage that nuclear hedging gives Tehran.

Saudi Arabia's nuclear future

Beyond advocating nuclear development in the region, Riyadh has made significant moves to advance its own nascent programme. In March 2008, for example, Saudi Arabia signed a memorandum of understanding (MoU) with the United States on civil nuclear energy cooperation. Under the MoU, Washington agreed to help Riyadh develop nuclear energy for medical, industrial and civil power purposes.⁴³ Two years later Riyadh established the King Abdullah City for Atomic and Renewable Energy. This complex is designed to support ambitious plans for nuclear expansion—the Kingdom has expressed an intention to spend more than US\$100 billion on the construction of 16 nuclear reactors by 2030 and has already signed agreements with Argentina, China, France and South Korea to this end.⁴⁴ Significantly, Saudi Arabia has put the indigenous development of relevant industrial and human capital at the heart of its approach. In late 2013, for example, France's EDF and AREVA signed agreements with several organizations and universities in the country specifically to 'develop its future nuclear program by contributing to the development of a local network of manufacturers and by training qualified engineers'.45

At first sight, Saudi nuclear plans appear innocuous. Yet these cannot be divorced from the Kingdom's growing concerns regarding Iran's nuclearization. Riyadh has long made clear through its diplomacy with Washington that it is

⁴⁰ Ewen MacAskill and Ian Traynor, 'Saudis consider nuclear bomb', *Guardian*, 18 Sept. 2003.

⁴¹ MacAskill and Traynor, 'Saudis consider nuclear bomb'.

⁴² Olli Heinonen and Simon Henderson, 'Nuclear kingdom: Saudi Arabia's atomic ambitions', Policywatch 2230, Washington Institute for Near East Policy, 27 March 2014.

⁴³ US–Saudi Arabia memorandum of understanding on nuclear energy cooperation, Office of the Spokesman, US State Department, 16 March 2008.

⁴⁴ Summer Said, 'Saudi Arabia, China sign nuclear cooperation pact', *Wall Street Journal*, 16 Jan. 2012.

⁴⁵ 'AREVA, EDF sign accords for Saudi nuclear program', Saudi Gazette, 1 Jan. 2014.

vehemently opposed to Iran acquiring nuclear weapons and will respond in kind if this comes to pass. In 2009, for example, King Abdullah told Dennis Ross, then visiting US special envoy to the Middle East, that the Kingdom 'will get nuclear weapons' if Iran does.⁴⁶ These warnings have also been made publicly. In 2012, a senior Saudi source told The Times that: 'Politically, it would be completely unacceptable to have Iran with a nuclear capability and not the kingdom.'47 More recently, in March 2015, when asked on CNN whether the Saudis would contemplate developing a nuclear weapon to counterbalance Iran, the Saudi Ambassador to the United States, Adel Al-Jubeir, replied: 'This is not something we would discuss publicly ... But the kingdom of Saudi Arabia will take whatever measures are necessary in order to protect its security.^{'48}

The juxtaposition of an ambitious civil programme with concerns regarding Iranian nuclearization and official Saudi warnings that the Kingdom will not stand idly by if Tehran goes nuclear has fuelled speculation about Riyadh's intentions. This speculation is thrown into sharp focus when one considers that the Kingdom's approach to nuclear decision-making is, to some extent, linked to Iranian behaviour. The aforementioned MoU with the United States provides a case in point. When the MoU was signed in 2008, a press statement from the State Department noted that Saudi Arabia had 'stated its intent to rely on international markets for nuclear fuel and to not pursue sensitive nuclear technologies' in a clear reference to enrichment and reprocessing technology.⁴⁹ However, while Saudi Arabia demonstrated an initial willingness in its discussions with Washington not to pursue these sensitive aspects of the fuel cycle, Iran's progress in the enrichment field from 2008 onwards, combined with progress in the Iran negotiations from late 2013, have prompted Riyadh to move publicly away from this position.

Simply put, the legitimacy that a comprehensive deal with Tehran will provide to Iranian hedging at a low level of latency has prompted Saudi political manoeuvring around the constraints of its nuclear agreements. In February 2014, for example, former Saudi chief of intelligence Prince Turki al-Faisal said that if Iran was allowed to retain enrichment capability in a deal, 'I think we should insist on having equal rights for everybody, this is part of the [Nuclear Non-Proliferation Treaty] arrangement'.⁵⁰ More recent comments followed a similar line: 'whatever comes out of these talks, we will want the same' and 'if Iran has the ability to enrich uranium to whatever level, it's not just Saudi Arabia that's going to ask for that ... The whole world will be an open door to go that route without any inhibition'.51

If this does not give sufficient pause for thought vis-à-vis Saudi intentions, it has been widely suspected for some time that Riyadh has invested significant financial resources in the nuclear weapons sector in Pakistan, and that over the years this has

⁴⁶ Mark Urban, 'Saudi nuclear weapons "on order" from Pakistan', BBC News, 6 Nov. 2013.

⁴⁷ Jon Stone, 'Saudi Arabia says it won't rule out building nuclear weapons', *Independent*, 27 March 2015.

⁴⁸ Alexandra Jaffe, 'Saudi Ambassador to US won't rule out building nukes', CNN, 27 March 2015.

 ⁴⁹ US-Saudi Arabia memorandum of understanding.
⁵⁰ 'Saudi Arabia wants uranium-enrichment capacity', Nuclear Threat Initiative, 14 Feb. 2014, http://www.nti. org/gsn/article/saudi-arabia-reportedly-wants-develop-full-nuclear-fuel-cycle/, accessed 18 May 2015.

⁵¹ Barbara Plett Usher, 'Iran deal could start nuclear fuel race—Saudi Arabia', BBC News, 16 March 2015.

been central to Islamabad's nuclear achievements.⁵² It is also assumed that there is an expectation on Saudi Arabia's part that, in exceptional circumstances, the Kingdom will be able to call in its favours in this respect. This argument is not new but it is persistent, appearing most recently in a Sunday Times article that claimed Riyadh has made a 'strategic decision' to acquire nuclear weapons.⁵³ The nature of this relationship is open to speculation; theories have ranged from Pakistani weapons being made available to Saudi Arabia—in 2013 a former head of Israeli military intelligence claimed that if Iran were to acquire the bomb, 'the Saudis will not wait one month. They already paid for the bomb, they will go to Pakistan and bring what they need to bring'-to Pakistan deploying nuclear weapons on Saudi soil in some form of extended deterrent fashion.⁵⁴ The close defence relationship between the two countries has fed speculation about a nuclear relationship, as have visits by senior Saudi officials to sensitive nuclear-related facilities in Pakistan. For example, in 1999 a Saudi defence team visited enrichment and missile facilities at Kahuta in Pakistan and were briefed by A. Q. Khan, the mastermind behind the nuclear black market that supplied the Iranian, Libyan and North Korean programmes prior to 2004.55

Against this background, it is informative to return briefly to the three options set out in Saudi Arabia's 2003 strategic review. The option of relying purely on the realization of a nuclear-free Middle East is clearly not a credible one for Riyadh at present, given recent Saudi statements. Moreover, efforts to hold a Middle East WMD Free Zone conference have faltered since the 2010 NPT Review Conference.⁵⁶

What of the other two options? In terms of acquiring nuclear weapons, as noted above there has been speculation over the potential provision of such a capability from Pakistan, but Pakistan has officially denied the speculation. In November 2013, the Pakistani Ministry of Foreign Affairs described reports that Saudi Arabia had funded the country's nuclear programme as 'baseless, fake and provocative'.⁵⁷ Indeed, it appears unlikely that Islamabad would want to risk the political opprobrium it would undoubtedly attract for such a move, particularly as a non-state party to the NPT constantly forced to defend its position as a responsible nuclear power. On this point, there are perhaps insights to be gleaned from the conventional arms context and recent developments in Yemen. With Riyadh requesting military support for its coalition, the parliament in Pakistan unanimously resolved to defend the territorial integrity of the Kingdom, but to otherwise 'play a mediating role and not get involved in the fighting in Yemen'.⁵⁸

⁵² Urban, 'Saudi nuclear weapons "on order" from Pakistan'.

⁵³ Toby Harnden and Christina Lamb, 'Saudis "to get nuclear weapons", *Sunday Times*, 17 May 2015.

⁵⁴ Urban, 'Saudi nuclear weapons "on order" from Pakistan'.

⁵⁵ MacAskill and Traynor, 'Saudis consider nuclear bomb'; Simon Henderson, 'Toward a Saudi nuclear option: the Saudi Pakistani summit', PolicyWatch 793, Washington Institute for Near East Policy, 16 Oct. 2003.

⁵⁶ Kelsey Davenport, 'Slow progress on Middle East zone decried', Arms Control Today, April 2015.

⁵⁷ 'Pakistan denies reports Saudis funded nuclear program', Dawn. Com, 7 Nov. 2013, http://www.dawn.com/ news/1054796/pakistan-denies-reports-saudis-funded-nuclear-program, accessed 12 May 2015.

⁵⁸ Ayesha Tanzeem, 'Pakistan treads lightly between Iran, Saudi Arabia', Voice of America, 13 April 2015.

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For its part, Riyadh has also denied allegations of a Saudi–Pakistani agreement, with officials citing the country's non-nuclear weapon state status under the NPT since 1988. The alternative prospect of Pakistani-controlled weapons being positioned on Saudi soil in a type of extended deterrence scenario carries slightly more credibility, but only in the context of Iran declaring itself an overt nuclear power—which, given the recent diplomatic progress between Iran and the P5+1, does not appear to be a short- or medium-term prospect.

What, then, of Saudi Arabia developing its own weapons capability or developing a hedging option? Clearly, the country has an ambitious vision for developing nuclear power, and senior officials have explicitly stated that if Iran retains an enrichment capability it too will pursue this option. The technical sophistication that will come with its considerable investment in the nuclear industry will eventually provide the Kingdom with a robust base for a hedging option and, if a political decision were taken to do so, the option to move towards weaponization. Of the external players that could assist Saudi Arabia to develop an enrichment infrastructure, Pakistan is the only realistic candidate, especially if reports of a nuclear agreement prove well founded. Indeed, Heinonen and Henderson have speculated that 'only Pakistan, among the technology holders, would possibly be attracted to establishing an enrichment plant in the volatile Middle East'.⁵⁹

The underlying antagonism and competition for regional influence that have long characterized the Saudi-Iranian relationship are likely to render a hedging approach attractive to Riyadh. Indeed, a preliminary application of the hedging framework described above would suggest that the Kingdom is already moving down this path. From a technical perspective, Saudi Arabia has stated that it will seek to match Iran's residual capability after implementation of a comprehensive agreement. Links to Pakistan and the potential supply route these offer are also relevant in this context. From a narrative perspective, Riyadh has been persistent in its claims that it must develop a programme to rival Iran's if the regional balance of power is to be maintained. The narrative here is different from that of Iran but equally powerful: Tehran has pushed the boundaries of its obligations under the NPT and Saudi Arabia is simply seeking to exploit the legitimacy that Iran's nuclear programme has gained from the process. Finally, there are also diplomatic indicators of hedging. Riyadh's advocacy of nuclear engagement on the part of the GCC, for example, could be viewed as a means of providing broader legitimacy to the Kingdom's own nuclear advancement.

The Saudi situation has clearly been made more complex by recent events such as the death of King Abdullah, and the transition of power may have unforeseen implications for the Kingdom's response to Iranian hedging. Early signs suggest, however, that King Salman is keen to maintain consistency in Riyadh's policy-making and a Saudi Arabian hedging strategy would seem a plausible option.⁶⁰

⁵⁹ Heinonen and Henderson, 'Nuclear kingdom'.

⁶⁰ 'Saudi Arabia's new King Salman promises continuity', BBC News, 23 Jan. 2015.

Implications for the non-proliferation regime

Beyond the regional context, Iran's nuclear strategy and the deal struck with the P_{5+1} may have important implications for the non-proliferation regime. The significance of the P_{5+1} 's implicit recognition and legitimization of Iranian hedging should not be underestimated. For many years now, scholars have questioned the ability of the NPT as the cornerstone of the non-proliferation regime to endure in the face of challenges ranging from the debate around Article VI and the issue of disarmament to 'new weapon states, which cannot be accommodated within the treaty and which affect the views of key non-nuclear weapon states such as Japan and Brazil'.⁶¹ Acceptance of Iranian hedging, even at a low level of latency, may compound these challenges and place further pressure on the NPT unless carefully handled.

The challenge here lies in the precedent set by the Iranian case. Tehran has highlighted the potential for a state to use civil nuclear development as a cover for a proliferation strategy that brings it relatively close to possession of a weapon while remaining a member of the NPT⁶²; and, crucially, leaving open the possibility of full re-engagement with the international community without sacrificing its hedging capability. Iran has also shown how diplomatic due process can be exploited effectively as a means of dissipating pressure and creating room for manoeuvre. Granted, the path here is not pain-free—sanctions have crippled Iran's economy—nor is it necessarily entirely planned—the nuclear nationalism discussed above has had limiting effects that were likely unforeseen by Tehran.

Iran has also challenged the normative structure of the NPT by projecting its own particular interpretation of state obligations under the treaty. Through its diplomatic efforts to shift the focus from issues of non-compliance to broader and deeply contentious issues of rights and the spread of civil nuclear technology, Iran has given additional weight to the view, held by many NAM states, of the NPT as little more than a tool in western efforts to limit the spread of civil nuclear technology in the name of non-proliferation.

What, then, does this all mean for the non-proliferation regime? Iran has exploited the loopholes of the NPT through a subtle form of nuclear brinkmanship, and the danger is that other states may learn from this approach and seek to follow suit. Nuclear hedging could prove an attractive option for states seeking at least some of the deterrent and coercive benefits that nuclear weapons can bring. Although clearly not able to provide the same military, political or symbolic power as the actual possession of nuclear weapons, hedging does have some value in this regard. Indeed, the case of Saudi Arabia illustrates that some countries may already be following a similar path to Iran. In a regional context like the Middle East, the emergence of two or more nuclear hedgers could begin to undermine the credibility and legitimacy of the NPT as a bulwark against proliferation, not least because it could prove difficult to contain 'hedgers' at low levels of latency. Moreover, the

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⁶¹ Joseph F. Pilat, 'The end of the NPT regime?', International Affairs 83: 3, May 2007, p. 473.

⁶² Iran remains a member of the NPT even if it has been found in non-compliance with its safeguards agreement.

strategic uncertainty that such hedging may engender could potentially provoke a dangerous spiral whereby states would seek to optimize their hedging strategy, and in the process increase the incentives for taking the final steps towards the bomb.

Ultimately, however, the risks to the NPT associated with legitimizing Iranian hedging are not as significant as those associated with rejecting any deal that does not fully roll back Iran's nuclear capability. As argued above, this latter option is unrealistic because it would be politically impossible for Tehran to accept it given the strength of the domestic nuclear narrative. The end result of not legitimizing Iranian hedging at a low level of latency would be a nuclear programme allowed to proceed unfettered, with Iran moving ever closer to the nuclear threshold and a larger breakout capability. If Iran subsequently crossed the nuclear threshold and tested a device, the impact on the region and on the integrity of the NPT would be profound, sparking a broader, regional unravelling of nuclear constraints. In addition to Saudi Arabia and other Arab states being emboldened to match Iran, Israel would be forced to consider moving away from its traditional policy of nuclear opacity as part of establishing an overt deterrent posture vis-à-vis Iran. This could also necessitate Israeli investment in new nuclear systems, thereby adding further fuel to strategic arms racing in the region. It should also not be forgotten that Israel's opacity has for years given many of its Arab neighbours the room to avoid taking political decisions related to nuclear weapons acquisition. Indeed, Israel going overtly nuclear in response to Iran would place additional pressure on Arab capitals to respond by investing in their own weapons efforts.

Another potential outcome of not reaching a deal with Iran is that this would, in due course, raise the prospect of preventive military action being taken by Israel or the United States to forcibly set back its nuclear programme. While such action might delay Iran's advancement, an attack would in all likelihood force Tehran's hand and focus Iranian efforts on acquiring the bomb, much as happened in Iraq following the Israeli bombing of the Osirak reactor in 1981.⁶³ Moreover, military action would reinvigorate nuclear nationalism in Iran and undermine efforts to challenge popular support for Tehran's nuclear defiance through sanctions.

Learning to cope with nuclear hedging within the confines of the NPT—as epitomized by the Iran deal—is undoubtedly a preferable option to dealing with the spread of nuclear weapons themselves, particularly if hedging does not progress beyond a low level of latency. If hedging by Iran, and others, can be satisfactorily contained, then it may pose little real risk to the NPT. Indeed, hedging would simply constitute a more benign version of Schell's 'weaponless deterrence', according to which 'factory would deter factory, blueprint would deter blueprint, equation would deter equation'.⁶⁴ Of course, this is no easy task; satisfactorily containing hedging will require innovative approaches to mitigate the inherent risks involved.

⁶³ See Malfrid Braut-Hegghammer, 'Revisiting Osirak: preventive attacks and nuclear proliferation risks', International Security 36: 1, Summer 2011, pp. 101–32.

⁶⁴ Jonathan Schell, *The abolition* (New York: Knopf, 1984), p. 119.

The way forward

What measures, then, can the international community adopt both to contain Iran at a low level of latency and to minimize the impact that recognition and legitimization of hedging will have? The answer to this question is threefold.

First, as articulated in the framework agreement of April 2015, the central element will need to involve establishing an acceptable distance between Iran and the bomb while implementing credible means to verify that this distance is maintained. Any oversight mechanism must be capable of detecting both a 'breakout' scenario—a dash for the bomb using known facilities—and a more insidious 'sneak-out' situation, where attempts are made to circumvent an inspection regime and to acquire the bomb by means of undeclared facilities.⁶⁵ Beyond providing the ability to detect moves to acquire nuclear weapons, this mechanism will also serve to support containment of Iran at a low level of latency. The level of transparency that Iran is required to observe will be an important factor influencing the strategic calculations of other states in the region. Comprehensive and intrusive verification will thus play an important role in international efforts to manage Iranian hedging in the longer term.

The IAEA will clearly play the central role in verifying Iranian compliance with a comprehensive deal. The agency is already heavily engaged in inspections in Iran and possesses a significant amount of relevant institutional knowledge in this respect. Given the background to the Iranian case, however, oversight of Iran's nuclear activities would have to go beyond the current IAEA safeguards system. As Heinonen notes: 'The strength of the IAEA verification system is access to nuclear material, facilities, equipment and people. To this end, the IAEA has, under its Comprehensive Safeguards Agreement (CSA) and Additional Protocol (AP), significant tools available if fully implemented and utilized. Iran argues that ratifying the Additional Protocol is enough but while such a step is welcome, it is not sufficient.' He goes on to argue that: 'The long-term agreement must also establish a range of other verification provisions, which collectively are often known as Additional Protocol Plus.'66 Simply put, an Additional Protocol Plus would comprise a highly intrusive inspection regime beyond that currently in place in any other NPT member state. In this respect the impact of Iranian hedging on the non-proliferation regime will largely be determined by how credible and effective the verification system is seen to be. For example, Iran's procurement of nuclear-related technology will also need to be closely monitored by the IAEA and external intelligence agencies for indicators of illicit activity in order to provide timely warning if Iran opts to move away from a deal.

Second, due attention must be given to additional nuclear confidence-building measures to offset the negative effects of Iranian hedging. It may already be

⁶⁵ James Acton, 'Who cares about an Iranian nuclear breakout? Beware of an atomic "sneak-out", *The National Interest*, 4 Nov. 2014.

⁶⁶ Olli Heinonen, 'Testimony on "Iran: status of the P5+1",' United States Senate Committee on Foreign Relations, 29 July 2014, p. 5. A Comprehensive Safeguards Agreement (CSA) allows the IAEA to verify the non-diversion of the nuclear material declared by a state party to the NPT. The Additional Protocol (AP) complements a CSA by providing additional assurances as to the absence of undeclared material.

too late to prevent other states pursuing low-level latency and adopting their own strategy of hedging, but it should be possible to stop the destructive spiral discussed above. In this respect there may be relevant lessons to draw from other regions.

In Latin America, for example, there was considerable concern in the late 1980s over the budding nuclear rivalry between Argentina and Brazil. At that time, 'most surveys of nuclear proliferation put [these countries] on a short list of threshold nations'.⁶⁷ Both nations 'had avoided full-scope IAEA safeguards and had certain unsafeguarded nuclear facilities with military potential'.⁶⁸ By the mid-1990s, however, this situation had changed dramatically: Argentina and Brazil had renounced interest in nuclear weapons and implemented a range of non-proliferation measures, including becoming state parties to the NPT, in addition to their previous signatures of the Treaty of Tlatelolco in 1967, which sought to create a Latin American nuclear weapon-free zone.⁶⁹

A key element of this turnaround was the bilateral agreement that established the Brazilian–Argentine Agency for Accounting and Control of Nuclear Materials (ABACC) in 1991. This, the world's first binational safeguards organization, was tasked with verifying the peaceful use of materials that could be used for the manufacture of nuclear weapons. It represented an innovative approach to defusing the two countries' nuclear rivalry: verification and transparency were used as a means of channelling mutual suspicion into a means of building confidence and trust.

It may not be possible to replicate this Latin American experience in the Middle East, but with progress towards a WMD-free zone in the Middle East stalling, it is important to explore new options. A regional agency involving Iran and neighbouring states in the Gulf, or the wider Middle East region, modelled along the lines of the ABACC, for example, could pre-empt much of the nuclear manoeuvring discussed above.

A third area relates to the potential role of security assurances in providing an insurance policy of sorts to the GCC states, either collectively or on an individual basis. Defined as 'attempts by one state or set of states to convince another state or set of states' that they 'will not allow the recipients' security to be harmed', positive security assurances would need to focus on convincing the GCC states that Iranian hedging can be contained and, in the event that Iran seeks to expand its latent nuclear potential or even develops weapons, external states or groups of states will provide a bulwark against the perceived threat.⁷⁰ In doing so, the aim would be to directly influence the strategic calculus of the GCC states so as to persuade them not to pursue a counterbalancing nuclear capability.

Specific positive security assurances have already been issued by all five nuclear weapon state parties of the NPT to provide or support assistance to any non-nuclear

⁶⁷ John R. Redick, Julio C. Carasales and Paulo S. Wrobel, 'Nuclear rapprochement: Argentina, Brazil, and the nonproliferation regime', Washington Quarterly 18: 1, Winter 1995, p. 108.

⁶⁸ Redick et al., 'Nuclear *rapprochement*'.

⁶⁹ While Brazil signed and ratified Tlatelolco in 1967, Argentina signed in 1967 but did not ratify until 1994.

⁷⁰ Jeffrey Knopf, ed., Security assurances and nuclear non-proliferation (Stanford, CA: Stanford University Press, 2012), p. 3.

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weapon party if it is 'a victim of an act or an object of a threat of aggression in which nuclear weapons are used'.⁷¹ But as part of acclimatizing to, and reassuring the GCC states about, the prospect of Iran retaining a hedging option under the deal with the P5+1, the P5 should actively consider how these assurances can be enhanced at the regional level. For example, the P5 negotiating partners with Iran could usefully consider how they can collectively, or individually, engage with the GCC states to re-emphasize their commitment to providing assistance in the event the latter are subject to nuclear threats.

Positive security assurances can also come in the form of security guarantees. Traditionally, the GCC states have relied heavily on bilateral security arrangements with the United States, and other western powers including France and the United Kingdom, to come to their aid in the event of external aggression. While Iranian hedging is not an overt form of aggression, the anxiety caused by the latent threat of nuclear acquisition could perhaps be dealt with through enhanced security guarantees. This appears to be an approach taken by the Obama administration in recent years and a key driver of the summit held with GCC leaders at Camp David in May 2015. While the summit did not produce a formal treaty likely the goal of GCC participants-President Obama reaffirmed Washington's 'iron-clad' commitment to the security of its GCC allies and pledged cooperation on a range of security issues.⁷² Measures agreed included cooperation on ballistic missile defence and a commitment by Washington to 'fast-track' arms transfers to GCC states.⁷³ Beyond diplomatic rhetoric, the recently established GCC-US Strategic Cooperation Forum provides a practical means of strengthening collective security through empowering Arab states in areas such as ballistic missile defence.⁷⁴ From a GCC perspective, missile defence cooperation could potentially form the basis of a future deterrence-by-denial posture if Iran were to make a dash for the bomb. The clear benefits of such an approach are that it may be a less provocative option, and a deterrent posture could potentially be developed without having to take risks related to the reliability, and therefore the credibility, of any nuclear promises that could potentially be offered by external powers. Indeed, the prospect of a wider western rapprochement with Tehran appears to have tested the faith of Saudi Arabia and other Gulf states in the reliability of western and particularly American security guarantees. This is partly reflected in the growing assertiveness of the Gulf states in Yemen and elsewhere in the Middle East and North Africa.75

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⁷¹ See e.g. Resolution 255, 'Question relating to measures to safeguard non-nuclear-weapon states parties to the Treaty on the Non-Proliferation of Nuclear Weapons', United Nations, 19 June 1968, http://unscr.com/en/ resolutions/doc/255, accessed 12 May 2015.

⁷² Jeff Mason and Roberta Rampton, 'Obama vows to "stand by" Gulf allies amid concern over Iran threat', Reuters, 14 May 2015.

⁷³ 'Annex to US–Gulf Cooperation Council Camp David Joint Statement', Office of the Press Secretary, White House, 14 May 2015.

⁷⁴ 'Joint communiqué following the fourth ministerial meeting of the GCC–US Strategic Cooperation Forum', Office of the Spokesman, US Department of State, 25 Sept. 2014.

⁷⁵ David B. Roberts, 'What does the increasing assertiveness of Persian Gulf states mean for regional security?', *Telegraph*, 15 April 2015, http://www.telegraph.co.uk/news/worldnews/middleeast/11537276/What-doesthe-increasing-assertiveness-of-Persian-Gulf-states-mean-for-regional-security.html, accessed 12 May 2015.

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Ultimately, the nature of the Iranian nuclear challenge has changed, and the approach for dealing with this challenge must do likewise. Iranian nuclear hedging is now a reality of life in the Middle East, and this fact must form the basis of the international response. The question is no longer how to achieve complete rollback of Iran's nuclear programme; rather, it is how Iran can be contained at a low level of latency while simultaneously minimizing the risk that hedging poses, in terms of both regional proliferation and the broader impact on nuclear governance and the non-proliferation regime. In the broadest sense it would appear that the solution must encompass a combination of intrusive verification, the exploration of regional nuclear confidence-building measures and the exploration of how positive security assurances can be offered to the GCC states.