

**IN HEAVY WATERS:  
IRAN'S NUCLEAR PROGRAM, THE RISK OF WAR  
AND LESSONS FROM TURKEY**

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## **IN HEAVY WATERS: IRAN'S NUCLEAR PROGRAM, THE RISK OF WAR AND LESSONS FROM TURKEY**

### **EXECUTIVE SUMMARY**

The dramatic escalation in Israel's rhetoric aimed at Iran could well be sheer bluff, a twin message to Tehran to halt its nuclear activities and to the international community to heighten its pressure to that end. Or not. As Israel sees it, the nuclear program represents a serious threat; the time when Iran's putative efforts to build a bomb will become immune to a strike is fast approaching; and military action in the near future – perhaps as early as this year – therefore is a real possibility. While it is widely acknowledged in the West that war could have devastating consequences, and while U.S. and European efforts to restrain Israel are welcome, their current approach – ever-tightening economic sanctions designed to make Tehran bend – has almost no chance of producing an Iranian climb-down anytime soon. Far from a substitute to war, it could end up being a conduit to it. As 2012 begins, prospects of a military confrontation, although still unlikely, appear higher than ever.

The nuclear talks that appear set to resume could offer a chance to avoid that fate. For that to happen, however, a world community in desperate need of fresh thinking could do worse than learn from Turkey's experience and test its assumptions: that Iran must be vigorously engaged at all levels; that those engaging it ought to include a larger variety of countries, including emerging powers with which it feels greater affinity; that economic pressure is at best futile, at worse counterproductive; and that Tehran ought to be presented with a realistic proposal. If it is either sanctions, whose success is hard to imagine, or military action, whose consequences are terrifying to contemplate, that is not a choice. It is an abject failure.

The picture surrounding Iran, rarely transparent, seldom has been more confusing or worrying. One day Israel issues ominous threats, hinting at imminent action; the next it announces that a decision is far off. Some of its officials speak approvingly of a military strike; others (generally retired) call it the dumbest idea on earth. At times, it appears to be speaking openly of a war it might never wage in order to better remain silent on a war it already seems to be waging – one that involves cyber-attacks, the

killing of Iranian nuclear scientists and mysterious explosions. U.S. rhetoric, if anything, zigs and zags even more: the secretary of defense devotes one interview to listing all the catastrophic consequences of war and another to hinting a military confrontation cannot be ruled out. President Barack Obama, among others, appears seriously resistant to the idea of yet another Middle East war, yet keeps reminding us that all options are on the table – the surest way to signal that one particular option is.

Iranian leaders have done their share too: enriching uranium at higher levels; moving their installations deeper underground; threatening to close the straits of Hormuz and take action against Israel; and (if one is to believe Washington) organising a wild plot to assassinate the Saudi ambassador to the U.S. More recent reports of actual or planned Iranian terrorist attacks against Israeli targets in India, Georgia, Thailand and Azerbaijan are equally if not more ominous. Confusion is a form of diplomacy, and all sides no doubt are engaged in an intricate political and psychological game. But confusion spawns uncertainty, and uncertainty is dangerous, for it increases the risk of a miscalculation or misstep that could go terribly wrong.

How perilous is Iran's nuclear program and how close the regime is to assembling a weapon are matters of opinion, and often substantially divergent opinion at that. Israelis express alarm. Others point to important technical obstacles to Iran's assumed goal: it has had problems expanding its enrichment program; is at least months away from being able to enrich at bomb-grade level; and is probably years away from the capability to manufacture a deliverable atomic weapon.

Too, there is disagreement regarding intent. Few still believe Tehran's motivations are purely innocent, but whereas some are convinced it is intent on building a bomb, others hold the view that it wishes to become a "threshold state" – one with breakout capacity, even if it does not plan to act on it. There also is disagreement as to what the critical redline is. Israelis speak of a "zone of immunity", namely the point after which nothing could be done to

halt Iran's advance because its facilities would be impervious to military attack, and say that point is only months away. Again, others – Americans in particular – dispute this; the divergence reflects different military capacities (immunity to an Israeli attack is not the same as immunity to an American one) but also differences in how one defines immunity.

Israelis, not for the first time, could be exaggerating the threat and its imminence, a reflection of their intense fear of a regime that has brazenly proclaimed its unending hostility. But they almost certainly are right in one respect: that sanctions could work and nonetheless fail, inflicting harsh economic pain yet unable to produce a genuine policy change. There is no evidence that Iran's leadership has succumbed or will succumb to economic hardship; the outlook of its Supreme Leader, Ayatollah Khamenei, rests on the core principle that yielding to pressure only invites more. Seen through the regime's eyes, such apparent stubbornness is easy to understand. The measures taken by its foes – including attacks on its territory, physical and cyber sabotage, U.S. bolstering of the military arsenals of its Gulf enemies and, perhaps most damaging, economic warfare – can only mean one thing: that Washington and its allies are dead set on toppling it. Under such conditions, why would the regime volunteer a concession that arguably would leave it weaker in a hostile neighbourhood?

Europeans and Americans offer a retort: that only now have sanctions with real bite been adopted; that their impact will be felt within the next six to eighteen months; and that faced with an economic meltdown – and thus with its survival at stake – the Islamic Republic will have no choice but to finally engage in serious negotiations on the nuclear agenda. Perhaps.

But so much could go wrong. Confronting what it can only view as a form of economic warfare and feeling it has little to lose, Iran could lash out. Its provocative actions, in turn, could trigger retaliatory steps; the situation could well veer out of control, particularly in the absence of any meaningful channel of communication. Israel's and the West's clocks might not be synchronised: the West's sanctions timetable extends beyond the point when Iran will have entered Jerusalem's notional zone of immunity, and Israel might not have the patience to stand still.

Placing one's eggs almost exclusively in the sanctions basket is risky business. There is a good chance they will not persuade Iran to slow its nuclear efforts, and so – in the absence of a serious diplomatic option including a more far-reaching proposal – the U.S. might well corner itself into waging a war with high costs (such as possible Iranian retaliatory moves in Iraq, Afghanistan and, through proxies, against Israel) for uncertain gains (a delay in Iran's nuclear progress countered by the likely expulsion of International Atomic Energy Agency (IAEA) inspectors,

intensified determination to acquire a bomb and accelerated efforts to do so).

Among countries uneasy with this approach, Turkey notably has stood for something different. It is highly sceptical about sanctions and rules out any military action. It believes in direct, energetic diplomatic engagement with a variety of Iranian officials. It is of the view that Tehran's right to enrich on its soil ought to be acknowledged outright – a nod to its sense of dignity. And it is convinced that small steps that even marginally move the ball forward, even if far from the finish line, are better than nothing.

Ankara is not a central player, and its opposition to broad sanctions and support of dialogue are not dissimilar to the views of key actors such as Russia and China. But Turkey knows Iran well – an outgrowth of its long, complex relationship with a powerful neighbour. As a non-traditional power, anchored in Western institutions but part of the Muslim world, it can play to Tehran's rejection of a two-tiered world order. This is not to say that Turkey is amenable to a nuclear-armed Iran. But it is far more sympathetic to the view that the West cannot dictate who can have a nuclear capacity and who cannot; is less alarmist when it comes to the status of Iran's program; and believes that the prospect of a nuclear-armed Iran is both distant and unsure.

Even if a relative newcomer to the nuclear issue, Turkey also has useful experience. In 2010, together with Brazil – another rising new power – it engaged in intensive talks with Iranian officials and, much to the West's surprise, reached a deal on the Tehran Research Reactor. Iran would deposit 1,200kg of low enriched uranium (LEU) in Turkey and, in return, would receive 120kg of 20 per cent enriched fuel for its reactor. The deal was far from perfect; although it mirrored almost exactly an earlier proposal from the P5+1 (the five permanent UN Security Council members plus Germany), time had passed; Iran's LEU stockpile had grown, and it had begun to enrich at 20 per cent itself, an important though not definitive stage toward possibly enriching to weapons-grade. But it could have been an important start; had it been accepted, Iran presently would have 1,200kg less of LEU and a step would have been taken towards building trust. However, the P5+1 quickly dismissed the agreement and turned to tougher sanctions instead.

Today, with news that Iran has responded to the P5+1's offer of talks, a new opportunity for diplomacy might have arisen. It should not be squandered. That means breaking with the pattern of the past: tough sanctions interrupted by episodic, fleeting meetings with Iran which, when they fail to produce the desired Iranian concession, are followed by ratcheted-up economic penalties. Instead, the parties would be well inspired to take a page out of Tur-

key's playbook and pursue a meaningful and realistic initiative, possibly along the following lines:

- ❑ Iran's ratification and renewed implementation of the Nuclear Non-Proliferation Treaty (NPT) Additional Protocol to its comprehensive safeguards agreement, thereby accepting a more rigorous monitoring system; enhanced IAEA inspection rights for non-nuclear alleged weaponisation testing sites (Additional Protocol Plus); and resumed implementation of the IAEA's modified Code 3.1, ensuring that the decision to build any new nuclear facility is immediately made public;
- ❑ Iran's decision to clear up outstanding issues regarding alleged pre-2003 nuclear weaponisation experiments referred to in IAEA reports;
- ❑ recognition by the P5+1 of Iran's right in principle to nuclear research, enrichment, production and use of nuclear energy for peaceful purposes in conformity with its NPT obligations, subject to its having settled outstanding issues with the IAEA;
- ❑ agreement by the P5+1 and Iran to a revised Tehran Research Reactor deal, pursuant to which Iran would trade its current stockpile of 20 per cent uranium for fuel rods and temporarily cap its enrichment at the 5 per cent level, while the P5+1 would agree to freeze implementation of new EU and U.S. sanctions. In return for some sanctions relief, Iran could agree to limit enrichment activities to its actual fuel needs (one-year backup for the Bushehr reactor). Any excess amount could be sold on the international market at competitive prices. Broader sanctions relief would be tied to Iran's cooperation with the IAEA regarding its presumed past weaponisation efforts, implementation of the rigorous IAEA inspections regime and other steps described here; and
- ❑ in parallel to nuclear negotiations, the U.S. and Iran would enter into discussions on other issues of mutual concern and interest, such as Afghanistan and Iraq.

Of course, this would have to be accompanied by an end by all parties to the kind of hostile behaviour and provocative rhetoric, including threats to attack and involvement in bombings or assassinations, that risk derailing the entire process.

There are more than enough reasons to be sceptical about a diplomatic solution. Mutual trust is at an all-time low. Political pressures on all sides make compromise a difficult sell. The West seems intent on trying its new, harsher-than-ever sanctions regime. Israel is growing impatient. Tit for tat acts of violence appear to be escalating. And Iran might well be on an unyielding path to militarisation. One can imagine Khamenei's advisers highlighting three instructive precedents: Saddam Hussein's regime in Iraq,

which had no nuclear weapon and the U.S. overthrew; Muammar Qadhafi's regime in Libya, which relinquished its weapons of mass destruction and NATO attacked; and North Korea, which possesses nuclear weapons and whose regime still stands. There remains time to test whether Tehran is determined to acquire a bomb at all costs and to consider whether a military option – with all the dramatic implications it would entail – truly would be the best way to deal with it. For now, the goal ought to be to maximise chances that diplomacy can succeed and minimise odds that an alternative path will be considered.

**Istanbul/Washington/Brussels, 23 February 2012**

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### I. INTRODUCTION

Although the crisis surrounding Iran's nuclear program has been brewing for years,<sup>1</sup> and suspicion Tehran is seeking acquisition of a nuclear weapon has existed since the 1970s, that is even before the Islamic Revolution, tensions have risen dramatically of late. There are several reasons: continued Iranian technological progress, including efforts to enrich uranium at higher levels;<sup>2</sup> the discovery of concealed enrichment facilities in Iran and its moves to shift sensitive operations into secure locations underground; and Israel's increasingly bellicose rhetoric, claiming that within a matter of months Iran will have entered a "zone of immunity" at which point nothing could be done to prevent rapid militarisation.

That 2012 is a presidential election year in the U.S., a time when Barack Obama arguably will find it far more difficult to oppose an Israeli strike, has further heightened concern. So too have regional tensions and the growing Iranian-Saudi cold war; the uprising against the Syrian regime, a key Iranian ally, behind which both Tehran and Damas-

cus claim to see Western and Arab hands, must be added to the mix. A series of at times mysterious events – the murder of several Iranian nuclear scientists, unexplained explosions at sensitive Iranian sites,<sup>3</sup> reports of greater Western and Israeli contacts with elements of the Iranian opposition, bombs targeting Israelis in India, Georgia and Thailand,<sup>4</sup> and U.S. allegations of a mind-boggling Iranian plot to kill the Saudi ambassador to Washington – suggests a war of sorts already has begun.

To date, it is undisputed that Iran does not possess nuclear weapons; neither the UN nor its nuclear watchdog has determined that Tehran is pursuing a nuclear weapons program, and IAEA safeguards are in place at all declared nuclear facilities. Far more uncertain is the issue whether, its protestations to the contrary notwithstanding, it is seeking such a military capability. Far more controversial still is the question whether, assuming it indeed is its intent, it plans on crossing the military threshold or rather merely to possess the capacity to do so, becoming a nuclear threshold state – a "screw turn away" from a bomb.<sup>5</sup>

<sup>1</sup> For previous Crisis Group reporting on Iran's nuclear program, see Crisis Group Asia Briefing N°100, *The Iran Nuclear Issue: The View from Beijing*, 17 February 2010; Middle East Reports N°51, *Iran: Is There a Way Out of the Nuclear Impasse?*, 23 February 2006; and N°18, *Dealing with Iran's Nuclear Program*, 27 October 2003; and Middle East Briefings N°28, *U.S.-Iranian Engagement: The View from Tehran*, 2 June 2009; and N°15, *Iran: Where Next on the Nuclear Standoff?*, 24 November 2004.

<sup>2</sup> For detailed background, see "Iran's Nuclear, Chemical and Biological Capabilities: a net assessment" and "Iran's Ballistic Missile Capabilities: a net assessment", International Institute of Strategic Studies, February 2011; "Iran's Nuclear and Missile Potential: a joint threat assessment by U.S. and Russian technical experts", EastWest Institute, May 2009; Kenneth Pollack and others, *Which Path to Persia? Options for a new American strategy towards Iran* (Washington, 2009); Ali Ansari, *Confronting Iran: the failure of American foreign policy and the roots of mistrust* (London, 2006); Scott Peterson, *Let the Swords Surround Me: Iran – a journey behind the headlines* (New York, 2010); Trita Parsi, *A Single Roll of the Dice: Obama's Diplomacy with Iran* (Yale, 2012).

<sup>3</sup> For an account of these events, see Ronen Bergman, "Will Israel attack Iran?", *The New York Times*, 25 January 2012.

<sup>4</sup> On 13 February 2012, an Israeli military attaché's wife was wounded by shrapnel, as was her driver and two passers-by, when a motorcyclist attached a bomb to the back of her car in New Delhi. In Tbilisi, Georgia, an Israeli embassy driver noticed another bomb, which was defused without casualties. The following day, three explosions rocked the centre of Bangkok, Thailand, an apparent result of a mishap on the part of attackers who were hoping to reach an Israeli target. According to Thai authorities, the attacker and his colleagues were Iranian nationals. See "Sources: Israel not expected to respond harshly to India, Georgia attacks", *Haaretz*, 14 February 2012; *Yediot Ahronot*, 15 February 2012.

<sup>5</sup> A nuclear threshold state can be defined as "a state that has the scientific, technical and industrial capacity to manufacture more than one nuclear weapon within one year of a decision to do so". Pierre Goldschmidt, "The Iranian Nuclear Issue: Achieving a Win-Win Diplomatic Solution", Carnegie Endowment for Peace, 4 February 2012. Gareth Evans, former Australian foreign minister and former Crisis Group president, enumerates five main reasons why Iran would stop short of building a nuclear weapon: "The first reason is concern that Israel will perceive

Although the inherent dual use of most nuclear technologies makes it difficult to determine intent,<sup>6</sup> reasons to doubt Iran's peaceful uses proclamations have been set out clearly by the IAEA, the UN's 152-nation nuclear watchdog.<sup>7</sup> From a strictly economic vantage point, the nuclear program makes little sense; Iran has no need to enrich fuel for nuclear power stations<sup>8</sup> and has minimal supply

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the existence of one or two Iranian bombs as an existential threat, demanding a pre-emptive military attack .... Iranians think such an attack unlikely if they do not cross the red line of actual weaponization. Second, it is well understood that there is zero tolerance in Russia and China for an Iranian bomb, and all the rope that that these powers have so far given Iran in the Security Council will run out if Iran weaponizes .... Third ... there is a clear perception in Iran that acquiring an actual bomb would lead to impossibly stringent economic sanctions .... Fourth, Iranians acknowledge that any regional hegemony bought with nuclear weapons is likely to be short-lived .... Finally, there is a religious reason: weapons of mass destruction simply violate the precepts of Islam. Few in the West are likely to find this line very compelling, but it has echoed strongly in every conversation that I have ever had with Iranian officials, senior or minor. And it is not without plausibility: Iran did not, after all, respond in kind when it was bombarded with chemical weapons by Iraq". "Inside Iran's Nuclear Reasoning", Project Syndicate, Melbourne, 17 September 2010. "If one begins with the not unreasonable (but hardly foolproof) assumption that Iran seeks nuclear latency, an assumption rendered more plausible by the regional flux and Western pressure, then it must eventually get to – but not past – the breakout threshold". Shashank Joshi, "Iran and the West: Playing a Zero-Sum Game", Royal United Services Institute, 11 January 2012.

<sup>6</sup> According to Ali Ansari, an academic, "There are four main tendencies in Iran: one that wants Iran to have the bomb, one that wants the infrastructure and retain the option to make the bomb, one that wants a nuclear power program only and one that wants nothing to do with any of that. They are all working in competition with each other and at the same time, hence the contradictory signals". Crisis Group interview, London, September 2011.

<sup>7</sup> "After assessing carefully and critically the extensive information available to it, the Agency finds the information to be, overall, credible. The information indicates that Iran has carried out activities relevant to the development of a nuclear explosive device. The information also indicates that prior to the end of 2003, these activities took place under a structured programme, and that some activities may still be ongoing". "Implementation of the NPT Safeguards Agreement and relevant provisions of Security Council resolutions in the Islamic Republic of Iran", IAEA, Report by the Director General, GOV/2011/65, 8 November 2011.

<sup>8</sup> Iran's single nuclear power station in Bushehr is one for which Russia has committed to deliver all fuel and remove spent fuel rods for a period of ten years. Natanz has limited capability; once completed, it would be able to provide fuel for a single 1,000 megawatt reactor. Moreover, Iran's limited uranium resources would only be sufficient for the operation of one such reactor for less than nine years. The newly uncovered facility at Fordow is so small as to be ill-adapted for any economic pur-

requirements for its Tehran Research Reactor;<sup>9</sup> it would be far cheaper to buy fuel on the market.<sup>10</sup>

Iranian officials dismiss concerns about a military objective, underscoring Ayatollah Khomeini's injunctions against weapons of mass destruction and, more specifically, Ayatollah Khamenei's *fatwa* (religious edict) against nuclear weapons;<sup>11</sup> and they justify their pursuit of a nuclear program despite its economic dubiousness by stressing the importance of indigenous mastery of nuclear technology, particularly in the face of past and present foreign attempts to deny it such ability.

A senior official claimed that Iran would satisfy an important portion of its future electricity needs through nuclear power and added, "nuclear technology paves the way for a country to transition from a developing to a developed country. Every country has the sovereign right to have access to any technology, including nuclear technology. It is a matter of principle".<sup>12</sup> Finally, Iranians point out that, to date, IAEA inspectors have not found any evidence that the country is diverting enriched uranium for military purposes.

Several Iranian decisions, however, suggest an effort to acquire the means to develop a nuclear weapon along with

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pose. It would be hard to justify operating an entire enrichment program for a single nuclear power plant.

<sup>9</sup> "If you look at the low-enriched uranium that they have, you have to ask a very simple question – what's it for? When I ask that question, as I do repeatedly, I don't get an answer". Catherine Ashton, EU High Representative, statement to reporters, 23 January 2012. In the words of a British official, "Iran's program does not look like a civilian program. The things they announce don't make sense – they are insufficient for power, but ideal for a bomb". Crisis Group interview, London, September 2011. As for the Fordow facility near Qom, an Israeli official summed up the prevailing Western view: "It is too big for a research reactor, too small for an electricity reactor". Crisis Group interview, Jerusalem, March 2010.

<sup>10</sup> Many analysts argue that it is not economically efficient for a country to enrich its own uranium unless it possesses at least ten reactors. Of the 30 countries with operational nuclear power plants, only one third produce their own uranium. Crisis Group interview, Mark Fitzpatrick, International Institute for Strategic Studies (IISS), London, 5 May 2010.

<sup>11</sup> See Michael Eisenstadt and Mehdi Khalaji, "Nuclear Fatwa: Religion and Politics in Iran's Proliferation Strategy", The Washington Institute for Near East Policy, Washington, DC, September 2011.

<sup>12</sup> He added: "American and European contractors competed to win contracts from the Shah [before the revolution] to build nuclear power plants and they never raised this argument that there is no justification for nuclear power in Iran, at a time when there was less justification for it than there is now!", Crisis Group interview, senior Iranian official, October 2009.

necessary delivery systems.<sup>13</sup> Iran has an active program to extend the range and reliability of its missile arsenal, still largely based on 1950s Soviet Scud rocket designs.<sup>14</sup> It has flight tested a longer-range, two-stage solid fuel missile, which would allow firing a missile from deeper inside the country, arguably lessening the likelihood of a preventive Israeli strike.<sup>15</sup> Likewise, it allegedly has designed a nose cone intended to carry a warhead on its longest range liquid and solid fuel missiles. Iranian claims that its missile work is purely defensive in nature are viewed with great suspicion by the West.<sup>16</sup>

Iran's more recent decision to enrich uranium up to 20 per cent raises similar questions; enriching at such levels represents 90 per cent of the work needed to reach weapons-grade concentrations.<sup>17</sup> A British official said, "It's a confusing picture. We should avoid the fallacy of a master plan. But it is rationally, slowly progressing. Each little step can be made to look civilian. And we're saying, look where it's going: towards a bomb".<sup>18</sup>

From the perspective of the Iranian regime, of course, much of what has happened over the recent past constitutes unequivocal proof that the West and its allies (Israel as well as several Gulf Arab states) are seeking its ouster by all available means and are waging "an all-out, undeclared, covert (but multi-pronged) offensive".<sup>19</sup> The imposition

of exceptionally harsh economic sanctions by the U.S. and EU that threaten to significantly curtail Iran's oil revenues, have led some to fear that the regime could respond with provocative acts that, in turn, could trigger a broad confrontation. Nor was it lost on Iran's leaders that regimes that lacked a nuclear weapon – such as Colonel Qadhafi's Libya, which foreswore its weapons-of-mass-destruction (WMD) program in 2003<sup>20</sup> and Saddam Hussein's Iraq – were targeted by Western forces, while others that possessed them (notably North Korea) were not.<sup>21</sup>

None of this proves that Iran is determined to build a bomb; even less does it dictate that the appropriate answer should be a military strike. What it suggests, however, is the urgency of seeking a viable and mutually acceptable diplomatic resolution to a crisis that – deliberately or not – could spiral out of control. And it suggests that the policy pursued by the U.S., the so-called dual track (sanctions and engagement) approach, is unlikely to succeed. Under this policy, Iran's rudimentary nuclear program, with no operational centrifuges in 2006, transmuted into a sophisticated nuclear infrastructure with stockpiles of enriched uranium, two major enrichment sites and more than 6,000 spinning centrifuges.<sup>22</sup> A rethink of past policies is necessary.

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<sup>13</sup> "[Iran] has put together a gas centrifuge program to provide the necessary fuel for a weapon, worked on developing a nuclear weaponisation capability, and developed a medium-range ballistic missile capable of carrying a nuclear warhead, all under ostensibly civilian purposes or great secrecy". "Reality Check: Shorter and Shorter Timeframe if Iran Decides to Make Nuclear Weapons", Institute for Science and International Security, 18 January 2012.

<sup>14</sup> "Iran's Ballistic Missile Capabilities: a net assessment", International Institute for Strategic Studies, February 2011.

<sup>15</sup> Theodore Postol, "The Sejil Ballistic Missile", Technical Addendum to the Joint Threat Assessment on Iran's Nuclear and Missile Potential, EastWest Institute, 31 May 2009.

<sup>16</sup> See Dennis Gormley, *Missile Contagion: Cruise Missile Proliferation and the Threat to International Security*, (Westport, 2008).

<sup>17</sup> See Mark Fitzpatrick, "Containing the Iranian Nuclear Crisis: The Useful Precedent of the Fuel Swap", *Perceptions*, vol. XVI, no. 2 (Summer 2011), p. 34.

<sup>18</sup> Crisis Group interview, London, September 2011.

<sup>19</sup> Kenneth Pollack, "Are we sliding toward war with Iran", *The New Republic*, 18 January 2012. U.S. Secretary of State Hillary Clinton said, "I can only hope that there will be some effort inside Iran, by responsible civil and religious leaders, to take hold of the apparatus of the state". Interview with ABC News, 10 September 2010. *The Washington Post* said on 10 January 2012 it had "incorrectly reported that a [senior] U.S. intelligence official had described regime collapse as a goal of U.S. and other sanctions against Iran", but the new version hardly could be reassuring to Tehran: that the U.S. hoped the Iranian government

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would abandon its nuclear program because sanctions "will create hate and discontent at the street level". According to former U.S. Central Intelligence Agency and National Security Agency chief General Michael Hayden, "It's not so much that we don't want Iran to have a nuclear capacity, it's that we don't want *this* Iran to have it .... Slow it down long enough and maybe the character [of the Iranian government] changes". "Bush's CIA Director: We determined that attacking Iran was a bad idea", *Foreign Policy* (online edition), 19 January 2012.

<sup>20</sup> Iran's nuclear program is more sophisticated and advanced than was Libya's, but the resolution of the Libyan nuclear issue has some pointers for an Iranian settlement. Libya agreed to implement the Additional Protocol on inspections, to join its African region's nuclear weapons-free zone, and to sign biological and chemical weapons treaties. In return, it was promised assistance with a civilian nuclear program. Also, operation of its Russian-supplied ten-megawatt research reactor was not affected; though it could produce plutonium, it was not considered a threat as a result of Libya's transparency. See "Chronology of Libya's Disarmament and Relations with the United States", [www.armscontrol.org/factsheets/LibyaChronology](http://www.armscontrol.org/factsheets/LibyaChronology).

<sup>21</sup> In March 2011, Supreme Leader Khamenei made the point that while Qadhafi had given up his state's nuclear capacities in exchange for incentives that he likened to candy, "Iran not only did not retreat, but despite all the efforts, officials tried to increase nuclear facilities year after year". Quoted in Reuters, 21 March 2011.

<sup>22</sup> "As of November 2, 2011, Iran was enriching in 37 cascades containing a total of 6,208 IR-1 centrifuges. The IAEA noted that 'not all of the centrifuges in the cascades being fed with uranium hexafluoride may have been working' ... the total number of centrifuges installed is about 8,000 centrifuges, the same as in the last two [IAEA] reports". David Albright, Paul Bran-



## II. A DEEPENING CRISIS

Now a decade old, the Iranian nuclear drama has seen a steadily widening gap in confidence between the main actors. Although the UK, France, Russia, Germany, China, Turkey and Brazil occasionally have played important roles, the main players whose actions, missteps and mutual lack of communication have marked the key inflection points of this growing confrontation have been Iran and the U.S. At the same time, Israel's threat perception – and the possibility it might engage in military action of its own – have added a significant layer of tension.

### A. A CRISIS LONG IN THE MAKING

Concern over Iran's nuclear program first escalated with the public revelation in 2002 of previously undeclared sites and activities – notably a uranium-enrichment facility at Natanz and a heavy water reactor project in Arak.<sup>23</sup> That year, the IAEA, the UN's nuclear watchdog, began to investigate the origins of previously undeclared elements in the country's nuclear program, inspecting its nuclear facilities approximately every three months. At the time, it concluded that work at the Natanz enrichment facility and a heavy water production facility near Arak was much more advanced than previously thought.<sup>24</sup>

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nan, Andrea Stricker, and Christina Walrond, "ISIS Analysis of IAEA Iran Safeguards Report: Part 1", Institute for Science and International Security, 8 November 2011.

<sup>23</sup> In August 2002, an Iranian diaspora opposition group revealed the existence of undeclared nuclear facilities in Iran, including Natanz, the Kalaye electric company, a heavy water production plant under construction at Arak, and the names of various individuals and front companies involved with the nuclear program. "Iran Nuclear Overview", Nuclear Threat Initiative ([www.nti.org/country-profiles/iran/nuclear/](http://www.nti.org/country-profiles/iran/nuclear/)), November 2011. Several analysts have claimed that Israel leaked the information to the opposition National Resistance Council. See "Will Israel Attack Iran", op. cit.; Scott Peterson, "Iranian Group's big-money push to get off U.S. terror list", *Christian Science Monitor*, 8 August 2011, and Connie Bruck, "Exiles: How Iran's expatriates are gaming the nuclear threat", *The New Yorker*, 6 March 2006.

<sup>24</sup> Iran's decision to build a 40-megawatt heavy water nuclear reactor near the central town of Arak, a facility that could provide up to an annual 9kg of plutonium (which the IAEA says would be enough for a bomb per year – see Appendix B, below), raised suspicions that Tehran was pursuing different paths to acquire a bomb. Similar reactor designs were used by India and Israel to produce the fissile material for their first generation nuclear weapons. For more information, see Jack Boureston and Charles Mahaffey, "Iran's IR-40 Reactor: A Preliminary Assessment", FirstWatch International, November 2003. Iran says that the Arak reactor was intended as a substitute for the Tehran Research Reactor. "At the time of planning and commencement

Worries about the scope of the nuclear program, combined with U.S. unwillingness to directly negotiate, prompted France, Germany and the UK (the EU-3) to open talks aimed at persuading Iran to abandon enrichment and sign the Nuclear Non-Proliferation Treaty's Additional Protocol.<sup>25</sup> During the early days of the negotiations in 2003, faced with international opprobrium, Iran agreed to correct past safeguard violations, immediately declare any decision on construction of new nuclear facilities, give greater rights to UN inspectors by implementing the Additional Protocol<sup>26</sup> and temporarily suspend all enrichment and reprocessing activities as defined by the IAEA. That suspension lasted two years; claiming that the EU-3 had failed to live up to its end of the bargain to provide Iran with concrete economic incentives and recognise the country's nuclear rights, Tehran restarted its enrichment activities, halted its voluntary implementation of the Additional Protocol and did not answer several IAEA questions on past activities, notably related to potential military aspects.<sup>27</sup>

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of the IR-40 project, Iran was not sure that it could succeed to enrich uranium". See "Iran's Exclusively Peaceful Nuclear Programs and Activities," Briefing for Non-Governmental Organisations, Treaty on the Nonproliferation of Nuclear Weapons Preparatory Committee, 5 May 2008. "Iran's Exclusively Peaceful Nuclear Programs and Activities", Iranian briefing paper, 5 May 2008, available at [ww.reachingcriticalwill.org/legal/npt/prepcom08/WP/iran\\_briefing.pdf](http://ww.reachingcriticalwill.org/legal/npt/prepcom08/WP/iran_briefing.pdf).

<sup>25</sup> For details of the negotiations, see Crisis Group Report, *Iran: Is There a Way Out of the Nuclear Impasse*, op. cit., pp. 1-6.

<sup>26</sup> The Additional Protocol made provision for IAEA inspectors to have multiple-entry visas and to make use of such methods as satellite photography and chemical sampling. The Model Additional Protocol offers complementary access to sites and facilities where inspectors need to resolve unanswered questions and concerns. Inspectors can request access within two hours to a facility at a site that they are presently inspecting and within 24 hours to a site at which they are not conducting inspections. This is the standard inspection format for most other nuclear powers.

<sup>27</sup> A senior Iranian official explained: "The more we cooperated with Europe, the more they expanded their demands regarding suspension, saying we should suspend the assembly of the machines, installation of the machines and then ... suspend manufacturing centrifuge components. Then they crossed the red line. They asked Iran to suspend research and development. They expected the 70-million strong Iranian nation to give up its right to even *think* about nuclear energy". He added: "We suspended and got nothing in return". Crisis Group interview, March 2009. Hossein Mousavian, who was a member of the Iranian negotiating team at the time but has since moved to the U.S., said of this episode: "When the question of suspension came up in 2003, there were two schools of thought in Iran. One group advocated engagement with the West, while others were proponents of resistance ... Supreme Leader Ayatollah Ali Khamenei consented to a temporary suspension ... He was, however, suspicious of Western intentions and remained skeptical about the ability of European countries to fulfil their end of the

A new generation of anxieties about Iran's previously undisclosed nuclear activities arose in 2004, when the U.S. turned over thousands of pages of electronic documents to the IAEA (known collectively as the "alleged studies"), according to which Iran had experimented with technologies critical for the delivery and detonation of a nuclear weapon.<sup>28</sup> Tehran has failed to respond to repeated IAEA questions regarding "alleged studies" based on the electronic documents.<sup>29</sup> It maintains, however, that the electronic documents are forgeries that could have easily been manipulated and that the claims lack credibility because they are sourced from the U.S.;<sup>30</sup> it initially complained that its own experts were not allowed to examine the originals and instead had to rely on U.S.-prepared power point presentations to the IAEA.<sup>31</sup> The IAEA says it provided documentation.<sup>32</sup>

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bargain .... After two years of Tehran's full cooperation and transparency efforts, the Europeans failed to deliver on their promises because of American obstructionism. As a result of this deadlock, the Supreme Leader decided to turn the tables". Interview with Ali Vaez, *Bulletin of the Atomic Scientists*, 21 November 2011.

<sup>28</sup> These involved modification of the nose cone of its Shahab-3 missile in order to carry a nuclear weapon and experimenting with all necessary technologies to detonate and test a nuclear device. The allegations stem from a set of electronic documents purportedly smuggled in a laptop or portable memory stick from Iran via Turkey by the wife of an Iranian recruited by German intelligence in 2004.

<sup>29</sup> "Implementation of the NPT Safeguards Agreement and relevant provisions of Security Council resolutions in the Islamic Republic of Iran", IAEA, op. cit., 8 November 2011.

<sup>30</sup> A senior Iranian official said that, based on a previous agreement with former IAEA Director General ElBaradei aimed at resolving Iran's outstanding questions with the IAEA, "We have done whatever was expected of us, more than that. We were not supposed to have any meetings on these alleged studies. The Americans were supposed to deliver the documents to us, but they didn't do this. The Director General harshly criticised the Americans, claiming they were preventing the IAEA from carrying out its verification activities. Aside from this, the Director General has clearly stated that the document has no authenticity, therefore we are facing an allegation, based on some laptop documents for which there is no original or authenticity". Crisis Group interview, November 2009.

<sup>31</sup> "An Assessment of So-called 'Alleged Studies' [concerning the] Islamic Republic of Iran", Consulate-General of the Islamic Republic of Iran (Hong Kong and Macao), September 2008, available at [www.iranconsulate.org.hk/HTML/English/An%20Assessment%20of.pdf](http://www.iranconsulate.org.hk/HTML/English/An%20Assessment%20of.pdf). See also "Implementation of the NPT Safeguards Agreement", op. cit., 8 November 2011, Articles 7 and 8.

<sup>32</sup> The IAEA said Iran responded but maintained the "alleged studies" were based on "forged and fabricated" data. See also "Implementation of the NPT Safeguards Agreement", IAEA, op. cit., 8 November 2011, Article 8.

In August 2007, Iran and the IAEA agreed on a work plan for Tehran to answer the agency's questions within a year. Although it denounced the "alleged studies", Tehran committed to look at the documents and report back. By February 2008, the IAEA closed the file on most of Iran's outstanding issues with the exception of the "alleged studies" and several matters connected to them and to suspected military-related activities. Over the years, the IAEA has complained about several alleged transgressions, declaring that Iran was not complying with its safeguards obligations, demanding (together with the UN Security Council) that it suspend all enrichment-related activities and requesting that it answer outstanding questions.

The Security Council imposed the first sanctions in a December 2006 resolution that insisted Tehran build confidence in the exclusively peaceful purpose of its nuclear program, resolve outstanding questions and suspend all enrichment activities.<sup>33</sup> To date, six Security Council resolutions have underscored the international community's concerns; four rounds of UN economic sanctions between 2006 and 2010 have targeted Iranian entities and officials with ties to the nuclear program as well as other activities allegedly supporting that program.<sup>34</sup>

Prospects for a negotiated solution appeared to improve slightly after the 2008 U.S. presidential election that brought Barack Obama to office.<sup>35</sup> Washington adopted a more constructive tone vis-à-vis negotiations with Iran; the president also directly reached out to the Iranian regime, even as he maintained the demand for a suspension of enrichment.<sup>36</sup> Those efforts failed for several reasons: U.S.

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<sup>33</sup> UN Security Council Resolution 1737, 23 December 2006.

<sup>34</sup> UN Security Council Resolutions 1696, 31 July 2006; 1737, 23 December 2006; 1747, 24 March 2007; 1803, 3 March 2008; 1835, 27 September 2008; and 1929, 9 June 2010.

<sup>35</sup> "I think there was a consensus among Obama's experts that the Bush policy of not engaging directly with Iran and trying to work only through our allies was a failure and that the United States, if it wanted to seriously engage Iran, had to do so face-to-face in direct contact with the Iranians". Crisis Group interview, Bruce Riedel, former U.S. presidential aide for Near East Affairs, 22 September 2009. See also Crisis Group Briefing, *U.S.-Iranian Engagement: The View from Tehran*, op. cit.

<sup>36</sup> Among other things, the president recorded a video message for the Iranian New Year in March 2009 and broke with U.S. tradition by addressing it to both the Iranian people and the Islamic Republic. See "President's Message to the Iranian People", video, YouTube, [www.youtube.com/watch?v=6MDkIneATBI](http://www.youtube.com/watch?v=6MDkIneATBI). He followed this with two letters to Iran's Supreme Leader Ayatollah Khamenei. See *The Washington Times*, 3 September 2009. A senior Iranian official, who expressed optimism when Obama was first elected, quickly showed his disappointment: "On some occasions, he has resorted to using the same kind of language that Bush did. One element of our culture is simple: if you tell me as an Iranian you *must* do this, the answer is 'no'. I will not do it. But if you say 'please, can you do this',

officials argue that Iran's leaders never demonstrated genuine interest in a dialogue and suspect that the Supreme Leader feared normalisation of relations, and the U.S. the collapse of one of the regime's ideological pillars, anti-Americanism, ultimately would threaten its hold on power; Iranian officials claim that Obama never truly offered a strategic change in the relationship and instead clung to the fallacious notion that by combining the offer of negotiations with sustained pressure – sanctions, of course, but also intensified military cooperation with Gulf Arab states – Tehran could be compelled to make concessions.<sup>37</sup>

In the background, too, were important factors militating against success, among them the legacy of decades of U.S.-Iranian distrust; domestic constraints and infighting in both Tehran and Washington; and Iran's controversial 2009 presidential elections and subsequent crackdown on protesters. Fears that Tehran was seeking to build a breakout facility rose in September 2009, when Iran disclosed a covert underground enrichment facility at Fordow, near Qom, shortly after it became clear that Western powers were going to announce it.<sup>38</sup> The Fordow disclosure was viewed by the West as particularly important. As U.S. and EU officials saw it, the design fuelled suspicion that it was intended for military purposes; the facility is located in a complex beneath a mountain on an Islamic Revolu-

tionary Guards Corps (IRGC) base, identified as a former IRGC missile site in several reports.<sup>39</sup>

Obama's endeavours were symptomatic of an apparent shift in U.S. tactics: by signalling greater openness to engagement, the administration was hoping to produce either meaningful negotiations or, alternatively, greater international consensus for sanctions against Iran should these not materialise. The administration did not break from the core assumptions of its predecessor – that pressure would produce concessions. Still, the most significant and promising U.S. proposal came in October 2009, when Washington offered to swap 1,200kg of Iranian low enriched uranium (LEU) for fuel rods required to fuel the Tehran Research Reactor (TRR).<sup>40</sup> As further discussed below, this initiative collapsed after the Iranian leadership backed off its initial acceptance, almost certainly a result of internal rivalry in Tehran.<sup>41</sup> Six months later, in May 2010, Brazil and Turkey sought to revive the deal; this time, although Iran accepted, the U.S. turned it down, purportedly because Iran's LEU stockpile had grown considerably in the interim, so the terms no longer were adequate.<sup>42</sup>

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even if I don't really want to, I will try to accommodate you to the extent that I can. This is a colonialist mentality. It is couched in more modern language, calling it dual track policy of negotiations and sanctions. It won't work. If you say negotiation and sanctions or threats, it won't work. You are just making life more difficult for yourself". Crisis Group interview, March 2009.

<sup>37</sup> For a thorough review of U.S./Iranian relations under Obama, see Parsi, *A Single Roll of the Dice*, op. cit. Parsi credits the U.S. president with genuinely seeking to engage Iran, but faults both countries for missteps that, he explains, meant that "[b]y the time engagement finally could begin, in October 2009, Obama's room for maneuverability – and his political will to fight for greater flexibility – were almost nonexistent . . . . Obama's outreach to Iran . . . was genuine but short-lived. It had to succeed immediately or not at all", pp. 213, 224. More critical accounts can be found in Flynt Leverett and Hillary Mann Leverett, "Washington's Iran debate and the 'soft side' of regime change", *Boston Review*, 31 January 2012. See "Vali Nasr on U.S.-Iranian relations", video, YouTube, posted 25 January 2012, [www.youtube.com/watch?v=NaFC9WFUPfc](http://www.youtube.com/watch?v=NaFC9WFUPfc).

<sup>38</sup> Iran broke the news of the facility (without mentioning its location) on 21 September in order to pre-empt what it knew was an impending announcement by the Western countries. In a joint press conference with his British and German counterparts on 25 September in which the location was disclosed, Obama said that "the size and configuration of this facility is inconsistent with a peaceful program". See Parsi, *A Single Roll of the Dice*, op. cit., p. 125.

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<sup>39</sup> As Parsi writes, "the saga around the Qom facility soured the atmosphere before the talks could begin". Ibid, p. 126. The facility is said to be several hundred feet underground, and thus immune to bunker-busting bombs. A senior Iranian official made the same point: "This new site at Fordow has a political message: we are saying to the world that even the threat of military attack will not stop enrichment. We have a contingency plan in case Natanz is attacked. Enrichment will never be stopped in Iran". Crisis Group interview, March 2009. A U.S. official asserted that "Iran likely made the decision to build at Qom in 2005, some two years after Natanz was uncovered. The purpose, we believe, was to have a hidden facility where they could use 3,000 centrifuges to produce highly enriched uranium without international knowledge". Crisis Group interview, Washington, DC, September 2009.

<sup>40</sup> See Section III.B, "Turkey and the Tehran Research Reactor" below.

<sup>41</sup> A former Iranian negotiator claimed that one reason it failed was that the Geneva agreement was made public before President Ahmadinejad and negotiators had time to explain the deal and win over conservatives and Iran's Supreme National Security Council. Crisis Group interview, May 2011. U.S. officials believe Ahmadinejad was undermined by the Supreme Leader and others who objected to the deal. Crisis Group interviews, Washington, March-April 2010.

<sup>42</sup> "For 30 years, America's dealings with Iran have been difficult and frustrating. Attempts to break the existing downward spiral of insults, accusations, and threats have foundered on mistrust and sometimes on just bad timing. When President Obama – at the beginning of his administration – offered Iran engagement based on mutual respect (something the Iranians have always claimed they wanted), Tehran seemed unwilling or unable to respond. In May 2010, when Iran seemed ready to accept the same nuclear fuel deal it had rejected seven months earlier, the process of building consensus for a UN Security Council sanc-

Following the breakdown of the TRR plans, Iran and the P5+1 met for talks first in Geneva in December 2010 and subsequently in Istanbul in January 2011. However, these fizzled out. Since then, no negotiations have taken place, although a new round is being discussed. Instead, rhetoric on all sides has escalated. Iran and its Israeli and Western foes also have traded dangerous accusations. In February 2010, Iran had begun to enrich its uranium to 20 per cent (rather than 3.5 per cent) at the Natanz pilot plant, allegedly for use at the TRR – albeit in quantities that exceed the reactor's immediate needs.<sup>43</sup> In November 2011, the IAEA issued a report that detailed in a fourteen-page annex charges that Tehran experimented with technologies related to and critical for the development of nuclear weapons. It concluded that:

[Because] Iran is not providing the necessary cooperation, including by not implementing its Additional Protocol, the Agency is unable to provide credible assurance about the absence of undeclared nuclear material and activities in Iran, and therefore to conclude that all nuclear material in Iran is in peaceful activities . . . . The Agency has serious concerns regarding possible military dimensions to Iran's nuclear programme.<sup>44</sup>

Although critics charged that the report added little to what was previously known,<sup>45</sup> and in particular that most of the experiments with military implications took place some years ago and – according to U.S. intelligence – were very probably halted in 2003, it became the springboard for a new round of tough Western sanctions, while triggering renewed debate about the desirability of a military strike.<sup>46</sup> On 21 November, the UK and Canada ordered an end to all business with Iranian banks.<sup>47</sup> The same day,

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tions resolution had become irreversible". L. Bruce Laingen and John Limbert, former U.S. diplomats held hostage in Iran (1979-1981), "Five reasons U.S. must avoid war with Iran", *Christian Science Monitor*, 17 January 2012.

<sup>43</sup> In January 2012, the IAEA confirmed that Iran had opened a new 20 per cent fuel enrichment facility at the Fordow enrichment plant. Currently Iran is operating two enrichment cascades at Fordow but has plans to double its capacity in the near future. Once completed, Iran plans to use the 3.5 per cent enriched uranium hexafluoride (UF<sub>6</sub>) produced at Natanz to produce 5kg of 20 per cent enriched uranium per month at Fordow. The TRR consumes 1.5kg of 20 per cent enriched uranium per month, if it operates at maximum capacity.

<sup>44</sup> "Implementation of the NPT Safeguards Agreement", IAEA, op. cit., 8 November 2011.

<sup>45</sup> See Robert Kelley, "Nuclear arms charge against Iran is no slam dunk", *Bloomberg*, 11 January 2011.

<sup>46</sup> "Implementation of the NPT Safeguards Agreement", IAEA, op. cit., 8 November 2011.

<sup>47</sup> "The IAEA's report last week provided further credible and detailed evidence about the possible military dimensions of the Iranian nuclear program. Today we have responded resolutely by introducing a set of new sanctions that prohibit all business

the U.S. announced that it would sanction Iran's petrochemical industry and individuals and entities tied to its missile and nuclear programs, as well as label the country's financial sector a money-laundering concern.<sup>48</sup> On 31 December 2011, President Obama signed into law a defence appropriation bill that included sanctions which – if and when implemented – would prohibit transactions with the Central Bank of Iran (CBI), make it nearly impossible for most countries to process payments if they were to buy Iranian oil, and thus in effect cripple Iran's ability to sell its petroleum.

By all accounts, penalising the CBI was not the administration's first choice, aware as it was of the severe consequences it would have on Iran's oil exports and, therefore, on the price of crude at a delicate time in the U.S. economic recovery and political calendar.<sup>49</sup> Ultimately, Congress forced the president's hand in a vote that registered broad bipartisan support. Obama retains manoeuvring room – a national security waiver plus the ability to take into account the impact on world oil supply and, finally, a six-month amnesty period to enable foreign governments to cushion the blow of an interruption in Iranian oil supply.<sup>50</sup> Nevertheless, the trend is clear and was made clearer still by the EU's subsequent step.

In January 2012, the EU agreed on an Iranian oil embargo, phased in over six months in order to allow member states (among them Greece, Spain and Italy) time to find alternative suppliers. They are also considering an all-EU ban on dealings with the Central Bank. Australia announced that it too would adhere to the EU oil embargo.<sup>51</sup> Likewise, in February, under pressure from Western countries, SWIFT – a financial clearinghouse used by virtually every country and major corporation in the world – agreed to shut out Iran from its network. Should both the U.S. and

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with Iranian banks. We have consistently made clear that until Iran engages meaningfully, it will find itself under increasing pressure from the international community". UK Foreign Secretary William Hague, statement, 21 November 2011.

<sup>48</sup> Executive Order: Iran Sanctions", press release, The White House, 21 November 2011. Under the current sanctions regime, Iran "can't do business with a reputable bank internationally, they can't do business in dollars and euros, they can't get insurance for their ships". Interview with Dennis Ross, former adviser to President Obama, *Foreign Policy* (online), 20 January 2012.

<sup>49</sup> Some European officials complained that the administration was being too timid out of fear of provoking a spike in oil prices and thus jeopardising Obama's re-election chances. Crisis Group interviews, Washington, DC, December 2011.

<sup>50</sup> Text of H.R. 1540: National Defence Authorization Act for Fiscal Year 2012, 112th Congress of the United States of America, 31 December 2011, available at [www.govtrack.us/congress/billtext.xpd?bill=h112-1540](http://www.govtrack.us/congress/billtext.xpd?bill=h112-1540).

<sup>51</sup> Adrian Croft, "Australia to follow EU lead on Iran sanctions", Reuters, 24 January 2012.

EU sanctions be fully enforced by mid-2012, the consequences for Iran's oil exports would be disastrous. Already, they have precipitated a collapse in the value of the Iranian rial and a rush to the black market. Faced with the prospects of extraordinarily punishing sanctions affecting its most important source of revenue, Iran reacted in contradictory ways.

On the one hand, in late January 2012 and again in late February, Iran hosted a senior delegation from the IAEA – albeit with less than satisfactory results.<sup>52</sup> It also announced its readiness to meet with the P5+1 to discuss the nuclear program and on 14 February responded to an October 2011 letter from European Union High Representative Catherine Ashton inviting it to resume talks.<sup>53</sup> The letter from Saeed Jalili, Iran's chief nuclear negotiator, stated: "We voice our readiness for dialogue on a spectrum of various issues which can provide ground for constructive and forward-looking cooperation".<sup>54</sup> This was welcomed by U.S. and Western countries,<sup>55</sup> which saw it as a sign of Iranian anxiety about increased economic pressure<sup>56</sup> – though pri-

vately many expressed scepticism that the talks would yield anything concrete.<sup>57</sup>

At the same time, however, in January 2012 Iran started 20 per cent enrichment deep underground in Fordow.<sup>58</sup> On 15 February, Ahmadinejad boasted that sanctions had failed and announced several nuclear "achievements", including loading of the Tehran Research Centre with home-made nuclear fuel rods and unveiling of a new generation of centrifuges activated at Natanz.<sup>59</sup> Iran also engaged in sabre-rattling, threatening to close the Strait of Hormuz, the choke point for some 20 per cent of the world's oil, and to preemptively cut off its oil exports to Europe, thereby denying the EU the time it needs to prepare for its own boycott of Iranian oil.<sup>60</sup>

However unlikely these steps, which would damage Iran's own economic interests and, in the case of the Strait of Hormuz, be tantamount to an act of war, Iran's leadership could lash out – a possibility made more concrete by the actual or planned attacks against Israeli targets in February, which officials in Jerusalem are convinced were carried out by Iran.<sup>61</sup> As 2012 begins, prospects of a military

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<sup>52</sup> "IAEA, Iran to meet again after 'good' talks", Reuters, 1 February 2012. On 21 February, the IAEA issued a statement saying the mission to Iran had failed due to Tehran's refusal to give them access to a site inspectors felt might have been used for weapons-related testing. "Nuclear inspectors say their mission to Iran has failed", *The New York Times*, 22 February 2012.

<sup>53</sup> "Statement by the Spokesperson of High Representative Catherine Ashton on speculation about the possibility of an imminent resumption of talks between the E3/EU+3 and Iran", available at [www.consilium.europa.eu/uedocs/cms\\_Data/docs/pressdata/EN/foraff/127394.pdf](http://www.consilium.europa.eu/uedocs/cms_Data/docs/pressdata/EN/foraff/127394.pdf). President Ahmadinejad first reaffirmed his country's willingness to re-engage in negotiations on its nuclear program on 26 January. *The New York Times*, 27 January 2012. On 15 February, a spokesperson for Ashton confirmed that she had received a response. Prior to the response, a European P5+1 official said, "Iran only has to say that [it] will engage in talks on substantive, concrete issues, confidence-building measures. It's the last paragraph of the Ashton letter. For resuming dialogue this is sufficient. We have seen many tactical manoeuvres, but they have never made a real decision to negotiate on the nuclear program. They have to move from the tactical level to the strategic level". Crisis Group telephone interview, January 2012.

<sup>54</sup> "Iran wants early resumption of nuclear talks", Reuters, 16 February 2012.

<sup>55</sup> Secretary of State Hillary Clinton said, "We think this is an important step and we welcome the letter". Likewise, Ashton remarked that the letter showed "a potential possibility that Iran may be ready to start talks", Reuters, 17 February 2012. French Foreign Minister Alain Juppé added a note of caution: The answer "remains in our eyes ambiguous, but it seems to be the start of an opening from [Iranians] who are saying they are ready to talk about their nuclear program". Quoted in *The Wall Street Journal*, 17 February 2012.

<sup>56</sup> In an article published on the day Iran responded to Ashton's invitation, former White House adviser Dennis Ross – who retains close ties to the administration – wrote: "[B]efore we as-

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sume that diplomacy can't work, it is worth considering that Iranians are now facing crippling pressure and that their leaders have in the past altered their behavior in response to such pressure. Notwithstanding all their bluster, there are signs that Tehran is now looking for a way out . . . . Now, with Iran feeling the pressure, its leaders suddenly seem prepared to talk. With Iran reeling from sanctions, the proper environment now exists for diplomacy to work. The next few months will determine whether it succeeds". "Iran is ready to talk", *The New York Times*, 15 February 2012.

<sup>57</sup> Speaking in January, a senior U.S. official said, "My suspicion is that Iran will come back to the talks, albeit essentially to deflect pressure and gain time. I am sceptical anything will come out of it, but we need to try and test". Crisis Group interview, Washington, DC, January 2012.

<sup>58</sup> According to the IAEA spokesperson, "Iran has started the production of uranium enriched up to 20 per cent . . . all nuclear material in the facility remains under the agency's containment and surveillance". "Iran Enriching Uranium at Fordo Plant near Qom", BBC, 10 January 2012.

<sup>59</sup> The Iranian president said, "[t]he era of bullying nations has passed. The arrogant powers cannot monopolise nuclear technology. They tried to prevent us by issuing sanctions and resolutions but failed . . . . Our nuclear path will continue", Reuters, 15 February 2012. Western powers dismissed the news. A U.S. State Department spokesperson said the reported advances were "not terribly new and not terribly impressive. We frankly don't see a lot new here . . . . In fact it seems to have been hyped". Ibid.

<sup>60</sup> On 19 February 2012, Iran announced it was halting oil shipments to the UK and France. However, neither country imports significant amounts of Iranian oil; a similar decision targeting Greece, Italy or Spain would have far more substantial impact. *The New York Times*, 20 February 2012.

<sup>61</sup> Iran's leadership views the steps taken as a war of sorts. "An economic war has begun". Mohsen Rezaie, politician and for-

confrontation, although still unlikely, appear higher than at any time in the past.

## B. TOWARD MILITARY CONFRONTATION?

As many observers see it, and as Iran's leadership undoubtedly believes, an insidious war already has begun. In the past few years, several Iranian scientists have been killed and another injured in assassination-style attacks.<sup>62</sup> A computer virus known as Stuxnet infected Iranian control computers and damaged several hundred centrifuges from mid-2009 onwards.<sup>63</sup> In 2006 and 2007, three planes belonging to the IRGC crashed for unexplained reasons.<sup>64</sup> Iran not surprisingly views all this as an undeclared war

waged by U.S., Israeli and other outside powers; several Israelis have dropped hints suggesting their intelligence services' involvement.<sup>65</sup> Likewise, there are question marks regarding an explosion that wrecked Iran's ballistic missile centre in November 2011, killing a senior Revolutionary Guard commander and up to two dozen colleagues.<sup>66</sup>

In October 2011, the U.S. administration alleged it had uncovered and thwarted an extraordinary Iranian plot to kill the Saudi Ambassador in Washington, purportedly by blowing up a restaurant he was known to frequent. The plan appeared to many unlikely, involving as it did an Iranian-American used-car salesman who believed he was hiring assassins from a Mexican drug cartel for \$1.5 million. U.S. diplomats acknowledged the apparent implausibility

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mer IRGC commander, <http://rezaee.ir/vdcjvhev.uqevozsffu.html>, 23 January 2012. See also Paul Valley, "War on Iran has begun. And it is madness", *The Guardian*, 4 December 2011. Seymour Hersh, "Pre-War Propaganda Mounting on Iran", *Democracy Now*, 22 November 2011. Prime Minister Netanyahu left no doubt as to Israel's view, blaming "Iran and its client Hezbollah" and calling Iran "the world's greatest exporter of terror", *Haaretz*, 13 February 2012; see also *Yediot Ahronot*, 14-15 February 2012. After the attack in Thailand, Ehud Barak said, "Iran and Hezbollah are relentless terror elements who pose a danger to the stability of the region and the world", *Haaretz*, 15 February 2012.

<sup>62</sup> Dr Ardeshir Husseinpour's mysterious January 2007 death raised suspicions in Iran; he was a nuclear scientist working at the Isfahan uranium plant. Four assassinations took place in the past two years. Masoud Ali Mohammadi, an expert on quantum mechanics, was killed in January 2010 by a bomb attached to his car. On 28 November 2010, Majid Shahryari, an expert on making the nuclear fuel needed for the Tehran Research Reactor, was killed with a similar device. On the same day, nuclear laser expert Feridoun Abbasi was injured by a similar bomb. Ahmadinejad subsequently named Abbasi as vice president of Iran and head of its atomic agency. On 23 July 2011, Darioush Rezaie, a nuclear scientist, was shot and killed by a motorcycle-riding assassin outside his children's kindergarten in provincial Ardabil. Most recently, on 12 January 2012, a motorbike assassin with a magnetic bomb killed the Natanz enrichment facility's deputy head of procurement, Mostafa Ahmadi-Roshan, in Tehran. In Shahryari's, Abbasi's and Rezaie's cases, Iranian media reported that their wives also were wounded in the attacks; in Ahmadi-Roshan's, his bodyguard beside him in the car and a pedestrian were killed. All four were active in university teaching; the connection of Mohammadi's work to Iran's alleged nuclear weapons experiments is disputed. Al Jazeera, 14 January 2010; BBC, 29 November 2010; Reuters, 23 July 2011; *Haaretz*, 24 July 2011; Reuters, 12 January 2011. For the case that the scientists were working on a nuclear bomb, see David E. Sanger, "America's Deadly Dynamics with Iran", *The New York Times*, 5 November 2011.

<sup>63</sup> For a report arguing in detail that the U.S. and Israel cooperated in this operation, see "Israeli Test on Worm Called Crucial in Iran Nuclear Delay", *The New York Times*, 15 January 2011.

<sup>64</sup> Ronen Bergman, "Will Israel attack Iran?", *The New York Times*, 25 January 2012.

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<sup>65</sup> Citing U.S. sources, an NBC news report claimed that Israeli Mossad agents have trained Iranian dissidents (members of the People's Mujahedin of Iran, MEK) to assassinate the nuclear scientists. Richard Engel and Robert Windrem, "Israel teams with terror group to kill Iran's nuclear scientists, U.S. officials tell NBC News", 9 February 2012. In August 2007, the then head of the Israeli Mossad purportedly described a "five-front strategy" to his U.S. counterparts which included covert measures, such as sabotage and encouraging opposition from minority ethnic groups (Kurds and Baluch) in Iran. More recently, he said, "It pleases me that the timeline of the [nuclear] project has been pushed forward several times since 2003 because of these mysterious disruptions". See "Will Israel attack Iran?", op. cit. Israeli Defence Forces Chief of Staff Lt.-General Benny Glantz told the Israeli Knesset Foreign Affairs and Defense Committee, "2012 will be a critical year in the connection between Iran gaining nuclear power, changes in leadership, continuing pressure from the international community and events that happen unnaturally", *Jerusalem Post*, 10 January 2012. Avner Cohen noted that Glantz was "grinning slightly" and wrote that "Israel's official response [to the January 2012 killing] was a deafening silence. The unofficial response was a wink .... It is hard to imagine that taking out a single scientist ... could damage the entire project .... [but] Most of the senior scientists in Israel's nuclear program also have academic posts .... The next phase of the assassination war is liable to turn international scientific conferences into arenas of assassination". "What if the Iranians start killing scientists?", *Haaretz*, 16 January 2012. By contrast, U.S. officials have adamantly denied any involvement and have condemned the killing of Ahmadi-Roshan. Tommy Vietor, a National Security Council spokesman, told reporters: "The United States had absolutely nothing to do with this. We strongly condemn all acts of violence, including acts of violence like this", "US condemns Iranian nuclear scientist killing", Al Jazeera English, 12 January 2012. Secretary Clinton immediately reacted to the assassination by categorically denying "any United States involvement in any kind of act of violence inside Iran". "U.S. condemns car bomb attack on Iran nuclear scientist", Yahoo! News, 11 January 2012.

<sup>66</sup> That said, Iran claims it was an accident, and many experts believe a rocket engine blew up. See Michael Elleman's Blog, "Mysterious Explosion at Iranian Missile Base", United States Institute of Peace, 18 December 2011.

of the affair, yet maintained both publicly and privately that they had firm evidence of high-level Iranian involvement, though how high remains unclear.<sup>67</sup> Some analysts dismissed the report outright; others felt it could be a rogue operation by certain IRGC elements.<sup>68</sup> True or false, the story was remarkable, suggesting the degree to which Iran, feeling under siege and unlawfully attacked on its own soil, is now prepared to fight back and/or American willingness to believe the worst coming from Tehran. Indeed, in February 2012, the U.S. Director of National Intelligence, James Clapper, argued that the thwarted plot:

shows that some Iranian officials – probably including Supreme Leader Ali Khamenei – have changed their calculus and are now more willing to conduct an attack in the United States in response to real or perceived U.S. actions that threaten the regime.<sup>69</sup>

Whether the heightened level of military build-up in the Persian Gulf, alleged covert actions and alarm surrounding Iran's nuclear program is a prelude to an Israeli or U.S. strike is another matter. U.S. officials, while repeating the mantra that "all options are on the table", are clear that they oppose a military attack at this time, arguing that other avenues still must be exhausted. A senior U.S. military official asserted that "the American military and people are suffering from Middle East fatigue. The last thing they want is another confrontation in that area of the world",<sup>70</sup> in the same spirit, a senior U.S. official said, "Obama and other officials have been very clear with the Israelis:

don't do it".<sup>71</sup> Officials point in particular to the mounting impact of economic sanctions which, they hope, will raise the cost of Iran's behaviour and lead it to reconsider its policies; as a former U.S. official who was deeply involved in this aspect of policy said, "in terms of real pain, the sanctions have only just begun".<sup>72</sup>

Importantly, they underscore that a confrontation would carry huge risks of regional spillover – including potential attacks by Hizbollah and intensified Iranian efforts to undermine U.S. interests in Iraq and chiefly Afghanistan, as well as possible operations against U.S. allies in the region.<sup>73</sup> They note further that any benefits might not

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<sup>67</sup> Crisis Group interview, senior U.S. official, Washington, DC, December 2011. U.S. and Israeli officials maintain that this was only one of a series of thwarted Iranian terrorist attacks; the latest involved an alleged Iranian-Hizbollah plot in Thailand. Daniel Ten Kate, "Thailand arrests Hezbollah terror suspect, U.S. warns of attack", *Bloomberg Businessweek*, 25 January 2012. An Israeli official sought to explain the apparent amateurishness and brazenness of the plot: "I would not have believed it was them if I did not know they were trying to do the same in Istanbul, Baku and elsewhere. They are acting this way because their surrogates that used to do so, notably Hizbollah, no longer are in a position to. Since Imad Mughniyeh [who allegedly directed Hizbollah's security operations] was killed, the movement has lost the capacity it once had". Crisis Group interview, Tel Aviv, December 2011.

<sup>68</sup> Crisis Group interviews, Iran analysts, Washington, DC, November 2011-January 2012.

<sup>69</sup> Quoted in *The Washington Post*, 1 February 2012. Significantly, and despite Clapper's statement, in a 5 February interview with NBC, President Obama said that the administration officials "don't see any evidence" that Iran had the "intentions or capabilities" to mount an attack on United States soil in retaliation for a strike on its nuclear facilities. "No Israeli decision on Iran attack, Obama says", *The New York Times*, 5 February 2012.

<sup>70</sup> Crisis Group interview, Washington, DC, October 2011.

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<sup>71</sup> Crisis Group interview, Washington, DC, January 2012. On 19 February, General Martin Dempsey, the chairman of the U.S. Joint Chiefs of Staff, was very clear: "It's not prudent at this point to decide to attack Iran .... A strike at this time would be destabilizing and wouldn't achieve [Israel's] long-term objectives". "Israeli attack on Iran would be destabilizing, Joint Chiefs' Dempsey says", *Bloomberg*, 19 February 2012.

<sup>72</sup> Crisis Group interview, Washington, DC, January 2012. National Security Adviser Tom Donilon listed the economic challenges faced by Iran – including difficulties in engaging in international finance, in purchasing refined petroleum, high inflation and unemployment – and said, "Iran's economy is increasingly vulnerable .... These are the heavy costs that the Iranian regime has chosen to impose on its people by flouting its international obligations. These economic difficulties are one more challenge to a regime that has already seen its legitimacy suffer .... If Tehran does not change course, the pressure will continue to grow". Speech at Brookings Institution, 22 November 2011. Since that time, the sanctions also have provoked a dramatic drop in the value of the Iranian rial.

<sup>73</sup> See Crisis Group Report, *Iran: Is There a Way Out of the Nuclear Impasse*, op. cit., pp. 17-18. U.S. Secretary of Defense Leon Panetta said, speaking of a potential strike, "at best it might postpone [Iran's acquisition of a bomb] maybe one, possibly two years .... Of greater concern to me are the unintended consequences, which would be that ultimately it would have a backlash and the regime, which is weak now ... would suddenly be able to reestablish itself, suddenly be able to get support in the region .... [T]he United States obviously would be blamed, and we could possibly be the target of retaliation from Iran, striking our ships, striking our military bases .... [T]he consequences could be that we would have an escalation that would take place that would not only involve many lives, but I think could consume the Middle East in a confrontation and a conflict we would regret". Remarks at the Saban Center, 2 December 2011. According to an Iranian journalist, government statements have sought to persuade ordinary citizens that a war would be winnable: "The media focus in Tehran is about how the U.S. is leaving the region with its tail between its legs and how if Iran gets hit hard, it will fire everything it has at pro-American targets around us in the region. Yes, some in the middle classes are saying, well, hell, let them bomb us and get this over with, and we can get rid of the regime. But the lower classes think that the lesson is that we can withstand anything, and we can fight and bring them down". Crisis Group telephone interview, Tehran, January 2012.

exceed a delay of a few years – an achievement that would be largely negated by the likely expulsion of IAEA inspectors, acceleration of the nuclear program and a rallying around the regime.<sup>74</sup>

U.S. officials reject the misleading characterisation of an attack as a “strike”. Given Iran’s extensive air defences and dispersal of facilities, any operation would have to go much further than Israel’s in-and-out aerial bombing of Iraq’s nuclear program in Osiraq in 1981 or its similar destruction of an alleged Syrian reactor under construction at Dayr ez-Zor in 2007.<sup>75</sup> Some hypothetical U.S. plans allegedly would entail weeks of attacks to destroy Iran’s air defences, aging air force and command and control infrastructure; cruise missile salvos from warships and submarines; and Stealth and B-2 bomber strikes on facilities deep underground.<sup>76</sup>

The U.S. also believes that sanctions and covert operations have slowed the nuclear program, giving the international community more time to address the challenge.<sup>77</sup> Political considerations are likewise at play: any confrontation almost certainly would lead to a spike in oil prices, a prospect the administration does not relish in an election year amid a fragile recovery.<sup>78</sup>

That said, the calculus of some senior Israeli officials – for whom Iran’s nuclear program has long outstripped any other strategic concern<sup>79</sup> – appears different, with a more pessimistic assessment of the impact of sanctions on Iranian nuclear calculations, a shorter timeline for Tehran’s acquisition of a bomb and a less alarmist view of the after-effects of a military strike. Under this view, the newly imposed sanctions should be as crippling as possible, seen as a last-ditch attempt to pressure Iran, and should they not succeed within a few months, a military strike ought to be seriously considered.<sup>80</sup> True, Israel has long been known to sound alarm bells over Iran’s nuclear progress and to signal – often through media leaks – increased willingness to launch a military operation. Israeli officials and analysts have portrayed Tehran on the verge of achieving nuclear military capacity since 1982;<sup>81</sup> more than twenty years later, in 2004, its military intelligence warned that Iran could build a weapon by 2005.<sup>82</sup>

Israel’s current dire predictions – Defence Minister Barak warned in January 2012 that the world had to act quickly to stop Iran because “the Iranians are deliberately drifting into what we call an immunity zone where practically no surgical operation could block them”<sup>83</sup> – could well be de-

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<sup>74</sup> Crisis Group interviews, U.S. officials, Washington, DC, October 2011-January 2012. According to former U.S. Central Intelligence Agency and National Security Agency (NSA) chief General Michael Hayden, “The consensus was that [attacking Iran] would guarantee that which we are trying to prevent – an Iran that will spare nothing to build a nuclear weapon and that would build it in secret”. “Bush’s CIA Director”, op. cit. Military action “will trigger a chain reaction and I don’t know where it will stop”. Sergei Lavrov, Russian foreign minister, news conference, Associated Press, 18 January 2012.

<sup>75</sup> “We should ban the word ‘strike’ from our lexicon. This would not be a strike. It would be war”. Crisis Group interview, former U.S. official, Washington, DC, January 2012. “You can bomb an enrichment facility, but you can’t bomb an enrichment program. (Or not one as well-developed as Iran’s.) It’s not like a reactor, with billions of dollars worth of hard-to-replace capital piled up in one spot over the course of several years”. Joshua Pollack, “On Bombing the Bomb,” *Arms Control Wonk*, 9 July 2010.

<sup>76</sup> See Alexander Wilner and Anthony H. Cordesman, “Iran and the Gulf Military Balance”, Center for Strategic and International Studies (CSIS), 1 December 2011. According to former U.S. Central Intelligence Agency and National Security Agency (NSA) chief Gen. Michael Hayden, “[The Israelis] can’t do it, but we can ... you would pound it [with airstrikes] over a couple of weeks”. “Bush’s CIA Director”, op. cit.

<sup>77</sup> Crisis Group interview, senior U.S. official, Washington, January 2012. See also speech by Tom Donilon, op. cit.

<sup>78</sup> Panetta evoked the “severe economic consequences that could impact a very fragile economy in Europe and a fragile economy here in the United States”, op. cit.

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<sup>79</sup> Crisis Group interview, Mark Regev, prime minister’s spokesman, Jerusalem, 12 September 2009.

<sup>80</sup> Defence Minister Barak said, “Should sanctions fail to stop Iran’s nuclear program, there will be need to consider taking action”, *Haaretz*, 9 February 2012.

<sup>81</sup> “Iran likely to have nuclear bomb in two years”, Associated Press, 25 April 1984.

<sup>82</sup> See Aluf Benn and Yossi Melman, “MI: Iran may have A-bomb production capability next year”, *Haaretz*, 13 September 2004. For a compendium of similar such warnings, see Nima Shirazi, “Rattling Sabers and Beating Drums”, *wideasleep-inamerica.com*, 7 November 2011. For discussions of the timetable for a nuclear-armed Iran, see “Iran’s Nuclear, Chemical and Biological Capabilities: A Net Assessment”, International Institute for Strategic Studies, January 2011; “Iran’s Nuclear and Missile Potential: a joint threat assessment by U.S. and Russian technical experts”, EastWest Institute, May 2009, pp. 4-6; “Reality Check: Shorter and Shorter Timeframe if Iran Decides to Make Nuclear Weapons”, Institute for Science and International Security, 18 January 2012; Jacques E.C. Hymans, “Crying Wolf about an Iranian Bomb”, *Bulletin of the Atomic Scientists*, 17 January 2012.

<sup>83</sup> Quoted in *Haaretz*, 27 January 2012. Barak commented: “Whoever says ‘later’ could find that it is too late”, *Haaretz*, 2 February 2012. By zone of immunity, Barak means “the point when Iran’s accumulated know-how, raw materials, experience and equipment (as well as the distribution of materials among its underground facilities) – will be such that an attack could not derail the nuclear project”. See “Will Israel attack Iran”, op. cit. Bergman writes: “Israel estimates that Iran’s nuclear program is about nine months away from being able to withstand an Israeli attack; America, with its superior firepower, has a time frame of 15 months”. *Ibid.* An Israeli official echoed this



signed to convince others to enhance pressure on Iran.<sup>84</sup> But it could also – and simultaneously – reflect genuine consideration of a military option, particularly given the current logistical and political circumstances:<sup>85</sup> overall Iranian technological advancement;<sup>86</sup> higher levels of uranium enrichment; greater protection of enrichment sites; the U.S. withdrawal from Iraq (which, by making it easier for Israel to fly over that country's territory, significantly curtails the flying time and thus diminishes logistical constraints); and the U.S. election (which constrains the president's ability to object).

Israeli officials worry that the U.S. ultimately would be willing to live with an Iranian bomb and deal with it through containment and deterrence.<sup>87</sup> This is a prospect they forcefully reject. An official said:

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view: "From our perspective, Iran will reach the zone of immunity sooner than from the Americans". That is because our capability is lesser. We have no strategic bombers, so there is less we can do than the U.S. to stop them". He added: "One has to look at the range of Iranian activities as a whole – weapons development, uranium enrichment and its missile program. At this point, once they decide to cross the atomic threshold, it will not take them years. They are moving these various chess pieces together in order to reduce the time between decision and implementation". Crisis Group interview, January 2012.

<sup>84</sup> "Inside the Israeli security establishment, a sort of good cop, bad cop routine, in which Israeli officials rattle sabers amid a U.S. scramble to restrain them, has assumed its own name: 'Hold Me Back'". "U.S. warns Israel on strike", *Wall Street Journal*, 14 January 2012.

<sup>85</sup> Israel also might be engaged in an effort to secure a U.S. commitment that it would strike should Iran cross a certain redline, in exchange for which it would commit not to strike on its own. It is relevant in this regard that, as noted, in the eyes of Israeli officials, Iran will be immune to an Israeli attack sooner than it will be immune to a U.S. operation given the sizeable difference in military capacities. Crisis Group interviews, former U.S. official, Israeli officials, Washington, DC, Tel Aviv, December 2011-January 2012.

<sup>86</sup> Israeli officials have little doubt that Iran is pursuing a bomb. As many see it, it would be a rational choice dictated by "self defence, given Iran's experience during the Iran-Iraq war and the conviction that a bomb would serve as a deterrent; fear of U.S. efforts at regime change, which they also believe would end once they had a bomb; and the sense that Iran has no less of a right to such weapons as India, Pakistan or indeed Israel". Crisis Group interview, former Israeli official, Tel Aviv, September 2009. A current official put it this way: "If it looks like a duck, walks like a duck and quacks like a duck, it's a duck. A country engaged in a peaceful program does not conceal activities over twenty years and has no need to toy with weaponisation". Crisis Group interview, October 2009.

<sup>87</sup> Crisis Group interviews, Israeli officials, Tel Aviv, Jerusalem, December 2011.

Iran with an atomic bomb is a direct threat to Israel. It starts with the mix of military capability and an ideology that proclaims there is only one solution to the problem of Israel, which is its elimination. This is dangerous, and we cannot count on the good will or realism of those who might make the ultimate decision. Second, from the moment Iran has a nuclear weapon, every problem in the Middle East will take place under this nuclear umbrella; it will embolden not just Tehran but also Hamas and Hizbollah, who will feel protected. Third, it would mean the end of the non-proliferation treaty, an arms race and the emergence of several nuclear states in this region.<sup>88</sup>

Israeli officials concede that a strike – as opposed to all-out war – probably would at best delay the nuclear program by a few years, particularly given Iranian efforts to disperse its nuclear installations, duplicate its facilities and locate them in protected areas. Still, many argue, a core objective of current efforts (whether sanctions or sabotage) is precisely to keep slowing down the program; anything that can postpone militarisation under this view is beneficial both in and of itself and because it might maximise opportunities for other events, such as regime change in Iran. As one official put it, "gaining time is good enough since time is the name of the game".<sup>89</sup>

Likewise, they do not dismiss entirely the risks of Iranian retaliation, but significantly downplay them: Iran will not wish to close the Strait of Hormuz given the economic price it would pay, and even if it tried, it could not succeed for long; as for Hizbollah and Hamas, they would hesitate to initiate a significant attack lest they expose themselves to harsh Israeli reaction.<sup>90</sup> Even the impact on the price of

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<sup>88</sup> Crisis Group interview, Tel Aviv, December 2011. Israeli officials fear that, once Iran acquires a bomb, "every conflict in the Middle East would be irrevocably altered. The prospect of future conflicts with Hizbollah and Hamas taking place in the shadow of an Iranian nuclear umbrella is unacceptable". Crisis Group interview, Israeli official, Tel Aviv, 7 September 2009.

<sup>89</sup> Crisis Group interview, Israeli official, Tel Aviv, December 2011; see also Crisis Group interview, former U.S. official, Washington, DC, December 2011-January 2012. A former senior Israeli official argued that the realistic and desirable objective of a strike would be to destroy a few key facilities to buy time. Crisis Group interview, Giora Eiland, former national security adviser, Tel Aviv, 10 September 2009.

<sup>90</sup> Crisis Group interview, Israeli official, Tel Aviv, December 2011. See also "Israelis assess threats by Iran as partly a bluff", *The New York Times*, 27 February 2012, in which Israeli officials also argue that whatever threat Hamas and Hizbollah present would be magnified several-fold if Iran were to acquire a nuclear bomb. After leaving his position at the White House, where he advised the president on Middle Eastern issues, Dennis Ross said, "I think the effect on the region might not be as widespread as one thinks, though certainly Hezbollah would do something .... [T]he Iranians themselves would have to think

oil arguably would be less than anticipated, as the world market already is preparing itself for a halt in Iran's supply due to impending sanctions.

To be sure, this is far from being a unanimous view. Meir Dagan, former head of Israeli intelligence, called the idea of an attack "the stupidest thing I have ever heard", warning that a strike "will be followed by a war with Iran. It is the kind of thing where we know how it starts, but not how it will end".<sup>91</sup> There are other rejoinders to Israel's arguments. From a purely technical perspective, Iran faces major obstacles in secretly producing weapons-grade uranium in sufficient quantity.<sup>92</sup> Its technological advancement must be balanced against the declining output of its low-performing centrifuges and the inability to produce or procure the material needed to expand its enrichment program.<sup>93</sup> Diverting nuclear material, reconfiguring the centrifuge cascades and manufacturing a deliverable atomic weapon while under the IAEA's inspections would strain the limits of Iran's technical capabilities.

Although the most crimson of Israeli redlines, enrichment in Fordow, already has been crossed, the IAEA's near-continuous inspection of the site makes it extremely difficult for Iran, even using more advanced centrifuges, to enrich uranium to weapons-grade quickly and quietly without being caught red-handed.<sup>94</sup> In this respect, Israelis often tend to dismiss a serious consequence of a military strike, namely almost certain loss of the IAEA's access to Iran's nuclear facilities, without which Tehran could rapidly reconstruct those facilities and dash towards a nuclear weapon.

Still, it would be imprudent to disregard Israel's anxiety and determination to act. Israeli officials assert with increasing frequency that their decisions regarding Iran today are "no less fateful" than those facing the founders of the state in 1948 – the clear implication being that the Jewish state's

existence in their view is at stake.<sup>95</sup> Speaking in late January, a U.S. official said:

There always has been a dose of pure rhetoric in Israeli threats, which were designed to press us and others to impose harsher sanctions. But I think the balance between what is mere rhetoric and what is reality has been shifting worryingly toward the latter. The signals from Israel have become increasingly alarming. That's why one of our priorities now is to tamp down the apparent rush to conflict .... The combination of Prime Minister Netanyahu and Defence Minister Barak is particularly dangerous: the former sees himself playing a historical role in stopping Iran, while the latter has always been enamoured with the technical challenge of mounting an operation.<sup>96</sup>

If Israel's potential actions are one wild card, Iran's are another. As noted earlier, a regime that feels besieged and assaulted from multiple sources and through a variety of means – including attacks on its territory, physical and cyber sabotage and, perhaps most damaging, economic warfare – arguably has a choice of either yielding to the pressure or striking back. While Iran's renewed willingness to enter into talks could be a sign of the former, it would run counter to years of experience and to the regime's self-proclaimed view that giving in merely is an invitation to greater pressure. Iranians firmly believe that the West has often not delivered on promises even after Iran itself carried out its commitments.<sup>97</sup> What form an Iranian reaction might take is unclear, though if reports of its plans to assassinate the Saudi ambassador in Washington or go after Israeli targets in third countries are accurate – as discussed previously, a big "if" – and if one is to believe Khamenei's recent threats against Israel,<sup>98</sup> the outcome could be extremely perilous.<sup>99</sup>

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about how much they would want to escalate, because they would try to present themselves as a victim with the hope that it would reduce the pressure on them". See interview with *Foreign Policy*, op. cit.

<sup>91</sup> "Former Mossad chief: Israel air strike on Iran 'stupidest thing I have ever heard'", *Haaretz*, 7 May 2011.

<sup>92</sup> See Tabassum Zakaria and Mark Hosenball, "Iran won't move toward nuclear weapon in 2012: ISIS report", Reuters, 26 January 2012.

<sup>93</sup> See Joby Warrick, "Iran's nuclear program suffering new setbacks, diplomats and experts say", *The Washington Post*, 17 October 2011.

<sup>94</sup> See Daryl G. Kimball, Peter Crail and Greg Thielmann, "The IAEA's Report on the Military Dimensions of Iran's Nuclear Program", Arms Control Now, 8 November 2011.

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<sup>95</sup> Barak himself drew the comparison. See *The New York Times*, 6 February 2012.

<sup>96</sup> Crisis Group interview, senior U.S. official, Washington, January 2012. Another official added: "There have always been two chief constraints on Israel – a logistical constraint, given the difficult trajectory their aircraft would have to follow, and a political constraint, given concern over Washington's reaction. Our withdrawal from Iraq mitigates the former; our elections neutralise the latter". Crisis Group interview, Washington, DC, January 2012. That feeling was echoed in a comment attributed to Secretary Panetta, whom columnist David Ignatius paraphrased as saying there was a "strong likelihood that Israel will strike Iran in April, May or June". See *The Washington Post*, 3 February 2012. Panetta neither confirmed nor denied the story.

<sup>97</sup> Hussein Mousavian, former Iranian nuclear negotiator, "How to Engage Iran: what went wrong last time – and how to fix it", *Foreign Affairs* (online edition), 9 February 2012.

<sup>98</sup> On 3 February, the Supreme Leader said, "From now onward, we will support and help any nations, any groups fighting

### III. INSIGHTS FROM THE SIDELINES

Although not part of the P5+1, in the past two years Turkey has come to play an important if secondary role, a reflection of its active diplomacy and, as a NATO member, candidate for EU membership and Iran neighbour, relatively good relations with all sides.<sup>100</sup> As a general matter, it has sought to exercise a moderating influence, trying to restrain any Western rush to sanctions and military responses.<sup>101</sup> The disagreement does not appear to be about end goals. Although Turkey believes in recognising Iran's right to its own uranium enrichment,<sup>102</sup> opposes any strike on Iran<sup>103</sup> and thinks the U.S. and others do not have the right to dictate who can have access to peaceful nuclear energy and who cannot,<sup>104</sup> it nonetheless, like Washington and Brussels, opposes Iran's acquisition of nuclear weapons.

The principal difference is over means: Ankara traditionally has opposed wide-scale sanctions and rules out any armed strike, which it fears would undermine its own security and its foreign minister has described as "a disas-

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against the Zionist regime across the world, and we are not afraid of declaring this". He specifically mentioned the assistance Iran had provided to Hizbollah and Hamas in their respective 2006 and 2008-2009 wars with Israel. See *The Washington Post*, 4 February 2012.

<sup>99</sup> As Pollack writes, "at some point, the Iranians might succeed in one of their retaliatory gambits .... [T]he more we turn up the heat on Iran, the more Iran will fight back, and the way they like to fight back could easily lead to unintended escalation", *op. cit.*

<sup>100</sup> "Davutoğlu has more energy than anyone. He always comes in on U.S.-EU conversations. The number one reason [for talking to Turkey] for me is Iran. Turkey's role is critical, given its long and strong relation with Iran, both politically and socially". Crisis Group interview, senior European Commission official, October 2011. For previous Crisis Group reporting on Turkey's policies in the Middle East and Iran, see Crisis Group Europe Reports N°203, *Turkey and the Middle East: Ambitions and Constraints*, 7 April 2010 and N°208, *Turkey's Crises over Israel and Iran*, 8 September 2010.

<sup>101</sup> Turkey worries "considerably less" than Western countries, and "we follow the nuclear file on its own merits, in order not to have a war in our region. That's enough for us". Crisis Group interview, Turkish official, Ankara, November 2011.

<sup>102</sup> "Policymakers in Turkey maintain that Iran has the right to enrichment technology, so long as it cooperates fully with the IAEA". Aaron Stein, "Understanding Turkey's Position on the Iranian Nuclear Program", James Martin Center for Nonproliferation Studies, 12 January 2012.

<sup>103</sup> According to Foreign Minister Davutoğlu, "a military strike is a disaster ... it should not be an option", speech to the Center for Strategic and International Studies, Washington, DC, 11 February 2012.

<sup>104</sup> Crisis Group interview, Turkish analyst, January 2012.

ter".<sup>105</sup> Turkish officials likewise are less alarmist when it comes to the status of Iran's program, arguing that there is no hard evidence of an ongoing weapons program and that the prospect of a nuclear-armed Iran is both distant and uncertain. As a Turkish official put it:

We have a different approach than the West. What flies for them doesn't apply for us. We have human relations, trade. Our effort is not necessarily to change the regime in Iran. We want good relations. Our approach is to be in direct contact with Iran, to make them see that Turkey is no threat. We will pursue the road of dialogue to the end. The consequences of going on to non-dialogue are so grave that accusations should be well-documented, a slam dunk, not squeezing by reference to old information. This is a waste of time, like beating the grape-grower instead of eating the grapes.<sup>106</sup>

Turkey's approach to Iran is of a piece with its more general belief in robust diplomatic engagement and distaste for pressure or sanctions (an approach that, of late, has been seriously questioned and revisited as a result of popular uprisings against Arab regimes). It goes hand-in-hand with the notion that one has to deal with all centres of power and understand the nuances of decision-making. An official said:

Iranian decision-making is very complex. There are so many actors, and none can come to a conclusion on the nuclear issue on its own. There are visible and invisible powers, and you have to engage them all. For instance, the generals of the Iran-Iraq war, they [still] decide on national security. In [the religious centre of Qom], there are serious internal debates. It's not enough to talk merely to Khamenei and [President] Ahmadinejad.<sup>107</sup>

Turkey's views at times have led to overt disagreement with Washington, which has felt that Ankara was being overly solicitous of Tehran's position and insufficiently forceful in opposing its supposed nuclear ambitions. In 2009-2010, at a time when he was promoting détente and expanded trade with Tehran, Prime Minister Recep Tayyip Erdoğan called a possible Iranian nuclear weapons program "just gossip" and contrasted Western alarm about it with its indifference to Israel's nuclear weapons program.<sup>108</sup> Later, during a meeting with Obama, the two re-

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<sup>105</sup> Davutoğlu said, "A military option will create a disaster in our region. So before that disaster, everybody must be serious in negotiations". "Attack on Iran 'would be disaster', must talk: Turkey", Reuters, 5 February 2012.

<sup>106</sup> Crisis Group interview, Ankara, December 2011.

<sup>107</sup> Crisis Group interview, Turkish policymaker, October 2011.

<sup>108</sup> See Crisis Group Report, *Turkey and the Middle East*, *op. cit.*, p. 16.

portedly clashed over the matter.<sup>109</sup> In recent months, Turkey's stance has shifted somewhat, and now appears more in tune with Washington's – a function of both disappointment with Tehran and Erdoğan's increasingly close relationship with Obama.<sup>110</sup>

Still, as a senior Turkish official explained, Ankara's approach remains distinct:

There are only three options when it comes to Iran. First, sanctions – yet, in the two years since they were imposed, Iran has produced more LEU. Besides, they come at a great cost to Turkey. Secondly, a military strike, which would be a disaster. The region cannot afford more tensions. And thirdly, negotiations. That is what we believe in – so long as they are genuine, conducted in good faith and continuously, not in fits and starts.<sup>111</sup>

## A. A DEEP ENGAGEMENT

Turkey's Iran policy has evolved from a long and complex relationship. Although the two neighbours have long competed for influence in the Arab and Kurdish lands of the Middle East, their mutual border, agreed nearly four centuries ago, is one of the oldest and most peaceful in the region. There are important similarities – their population is roughly identical, around 72-74 million, and their respective peoples feature a wide overlap of ethnicities and religious sects<sup>112</sup> – yet such parallels serve to underscore Turkey's significant economic and social advantages. Turkey's economy is driven by manufacturing, with a strong role for the private sector, while Iran still depends on its enormous hydrocarbon resources.

Because Iranians for decades have been able to travel without visas to Turkey, they have had a rare window on a politically more open and economically more prosperous world; shortly after the Islamic Revolution, Iran's economy was still double the size of Turkey's, but three decades later, Turkey's economy is now nearly double the size of

Iran's.<sup>113</sup> Although academic and civil society interaction is minimal and prone to sudden cancellation, young people and members of the middle class can take advantage of approximately 25 weekly flights on eight different carriers from five different Iranian cities directly to Istanbul and Turkey's Mediterranean riviera. In 2011, 1.9 million Iranians visited.<sup>114</sup> Iranians also have joined the regional craze for Turkish soap operas.<sup>115</sup>

In recent years, economic ties have blossomed. Trade rose eightfold in the past decade; total trade for 2011 reached \$16 billion, with hopes that it will grow to \$30 billion in 2013.<sup>116</sup> Much of this is driven by rising Turkish demand for Iranian energy.<sup>117</sup> Exports to Iran rose from \$360 million in 2001 to \$3 billion in 2010.<sup>118</sup> Overall, Iran's share of Turkey's exports and imports doubled during those ten years.<sup>119</sup>

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<sup>113</sup> Turkey's Gross Domestic Product was \$614 billion compared to Iran's \$330 billion in 2009, according to World Bank data. "My family and friends shake their heads. 'Look at Turkey', they say, 'where it has got now, and yet we started at the same place'". Crisis Group interview, Iranian expatriate journalist, Paris, December 2011. Turkey's tourism and businesses interests have been quick to capitalise on the growing numbers, including by organising a yearly shopping event timed to coincide with the Iranian New Year, Nowruz. Ayla Albayrak, "Iran's Tourist Invasion of Turkey," Institute of War and Peace Reporting, 24 March 2001.

<sup>114</sup> Crisis Group email correspondence, Turkish official, Ankara, February 2012. Iranians made up about 6 per cent of Turkey's total tourists.

<sup>115</sup> By contrast, only a few hundred thousand Turks visit Iran each year, most of them truck drivers. According to Turkish officials, in 2010, 362,000 Turks crossed by road into Iran; of these, 250,000 were said to be truck drivers making the round trip across the border. Crisis Group interview, Turkish official, December 2011. Likewise, Iranian events in Turkey rarely amount to more than the occasional small Iranian film weeks in Istanbul and get-togethers funded by international foundations.

<sup>116</sup> In 2011, Turkish exports to Iran were \$3.6 billion; imports from Iran were \$12.5 billion. Crisis Group email correspondence, Turkish official, Ankara, February 2012.

<sup>117</sup> Between 2002 and 2010, annual imports from Iran rose from \$920 million to \$7.6 billion; they were mostly natural gas and oil. In 2010, Turkey bought 6.8 per cent of Iran's total exports and supplied 4.8 per cent of Iran's imports. See "World Factbook", Central Intelligence Agency, 2011. For its part, Iran buys 2.7 per cent of Turkey's total exports and supplies 4.1 per cent of its imports. See exports by countries, Turkish Statistical Institute, 1996-2011.

<sup>118</sup> This included car parts, electronics, textiles, construction materials, steel, iron, industrial fibres, tobacco and fruit. Crisis Group interview, Turkish official, Ankara, November 2011. See also "A Report on Iran-Turkey Trade", MOJ News Agency, 2 October 2011.

<sup>119</sup> Imports by countries, op. cit., 1996-2011.

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<sup>109</sup> When Obama raised the issue of Turkey's "protecting Iran" in his September 2011 meeting with Erdoğan, the Turkish prime minister purportedly shot back, "You are acting like Israel's lawyer". Speech by Turkish Foreign Minister Ahmet Davutoğlu, quoted by Turkish broadcaster NTV, 15 October 2011.

<sup>110</sup> President Obama named Erdoğan as one of five world leaders with whom he had bonds of "trust and confidence". "Inside Obama's world: The President talks to Time about the changing nature of American power", *Time*, 19 January 2012.

<sup>111</sup> Crisis Group interview, February 2012.

<sup>112</sup> Perhaps a quarter of Iran's population is ethnically Azeri Turkish; about a fifth of Turkey's population is Alevi, a heterogeneous faith with elements in common with Shiite traditions. Both have significant Kurdish minorities.

The more energetic relationship between the two nations partly is due to policies pursued by Erdoğan's Justice and Development Party (Adalet ve Kalkınma Partisi, AKP), which has been in power since 2002. AKP policymakers argue that trade ties and travel can ease Iran's friction with the West, coax it toward greater openness and eventually lead it to gradual political reforms. In this context, Ankara expressed the hope that it could integrate Iran into its planned regional trade bloc, which it sees as a cornerstone of Middle East stability.<sup>120</sup> A leading Turkish advocate of this engagement explained: "Formerly you could say it was a relationship of controlled tension. AKP moved it to one of suspicious partnership".<sup>121</sup>

A somewhat greater degree of ideological harmony emerged as well, at least on the surface. An Iranian foreign policy analyst said, "After the new Turkish government chose to support the Palestinian nation, defend Iran's nuclear program and introduce domestic reforms to recognise people's religious freedoms, the attitude of Iran's public opinion and mass media toward Turkey became very positive".<sup>122</sup>

Of course, this has not excluded episodes of tension. Some involved economic matters. In 2004-2005, the IRGC forced a Turkish-led consortium out of Tehran's new Imam Khomeini airport, which it had just built, and Iran cancelled a mobile telephone tender won by a Turkish company.<sup>123</sup> Turkey is convinced that Iran has cut gas supplies during winter months, notably in 2007 and 2008, to satisfy internal demand.<sup>124</sup> Price disputes are chronic.<sup>125</sup> Also, for more than fifteen years now, Turkey and Iran inconclusively have discussed a possible Turkish role in the South Pars offshore oil and gas field in the Persian Gulf.<sup>126</sup> More broadly, Iran has been reluctant to drop its steep tariffs, apparently because its weak manufacturing

sector would struggle to compete with Turkish industries.<sup>127</sup> It rebuffed requests President Gül made during a February 2011 visit for favoured Turkish market access, which would have involved opening its economy to Turkish investments and lowering some of its high import duties.<sup>128</sup> A participant in the trip said:

We [Turks] were very surprised. We went and said, "Look, you're under sanctions, let's increase our trade". But they said, "No, we don't want that". Instead of thanking us for trying to stop the sanctions, they said, "It's you that owe us, you've been making yourselves into a big regional player at our expense!" It's as if they see our big embrace as a threat to their Persian identity. In fact, they much prefer Americans, South Africans, anything that's far away.<sup>129</sup>

More generally, tensions reflect a political rivalry that has never been extinguished and that recent developments in the Arab world and renewed competition for influence have exacerbated. As further discussed below, the wider disagreement has sprung from competition for influence in the Arab world and divergent postures toward events that have shaken the region over the past year, notably in Syria, whose regime is a key Iranian ally and had been Turkey's close partner until Ankara turned decisively against it. Both countries seek to present themselves as models for the region, and the recent upheaval has only heightened that competition – Iran presenting it as part of an Islamic awakening, while Turkish leaders speak of their experience building a secular Muslim democracy. There are other sources of rivalry and disagreement: Ankara has gone a long way toward seizing the mantle of defender of the Palestinian cause from Tehran, and its decision to deploy a NATO missile system in south east Turkey was seen as an act of hostility by Iran.

Common interests remain, however, as the two continue to trade and cooperate in their fight against Kurdish insurgents in Iraq, and as Turkey persists in advocating a less confrontational approach to Iran's nuclear program. More broadly, Turkey has tended to deal with Iranian existential fears rather than approach Iran as an existential enemy.<sup>130</sup> Still, Ankara finds itself today much closer than formerly to Washington's approach toward the region,

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<sup>120</sup> See Crisis Group Report, *Turkey and the Middle East*, op. cit.

<sup>121</sup> Crisis Group interview, Turkish policymaker, October 2011.

<sup>122</sup> Crisis Group email correspondence, Iranian foreign policy analyst, Tehran, January 2012.

<sup>123</sup> See Crisis Group Report, *Turkey and the Middle East*, op. cit., p. 17.

<sup>124</sup> See "Iran cuts gas supplies to Turkey to meet domestic needs", Radio Free Europe, 3 January 2007. "It's a volatile relationship. This is [Turkey's] most expensive gas. Then the Iranians resort to fancy stories like the idea that a tough winter constitutes force majeure, because it's an act of God". Crisis Group telephone interview, international oil executive, October 2011.

<sup>125</sup> "Iran rejects Turkey demand on gas price", PressTV (Iran), 16 January 2012.

<sup>126</sup> According to Rouzbeh Parsi of the European Union Institute for Security Studies, "It is highly unlikely that South Pars will materialise. Like all major projects in Iran, South Pars is inevitably going to have IRGC involvement first before any outside bidders get the chance to participate", Crisis Group interview, Paris, December 2011.

<sup>127</sup> Ibid.

<sup>128</sup> Crisis Group interview, Turkish official, October 2011.

<sup>129</sup> Crisis Group interview, Turkish think-tank director, Ankara, December 2011.

<sup>130</sup> "The West always seems to react to symptoms, not issues, like the fact that Iran believes that it faces an existential threat. We talk about Syria to Iran. Indeed, we talk to the Iranians about everything. Any country wants influence. It seems far-fetched to think this is aimed at Turkey. They have a defensive posture; they want to extend their front line, to get strategic depth". Crisis Group interview, Turkish official, Ankara, November 2011.

and cooler towards Tehran. This evolution has triggered a warming of relations with the U.S., despite Washington's past criticism of Turkey's frictions and downgrading of diplomatic relations with Israel since 2009.

## **B. TURKEY AND THE TEHRAN RESEARCH REACTOR**

Turkey's involvement in the Iran nuclear issue began in 2009 in the context of discussions surrounding fuel supplies for the Tehran Research Reactor (TRR), a facility that the U.S. built for the Shah's Iran and is used for scientific research that supplies Iran's domestic production of medical isotopes.<sup>131</sup> That year Iran announced that the TRR's supply of fuel rods bought from Argentina in 1993 was running out and asked the IAEA for assistance finding new fuel suppliers.<sup>132</sup> The Obama administration saw a rare opportunity for diplomacy: talks about Iran's need for new fuel could become a means to build some confidence and find a way to persuade Tehran to reduce its LEU stockpile that by mid-2009 was over 1,500kg, more than enough to build a bomb if further enriched and if Iran possessed the relevant technology. Its plan was to propose that Iran turn over 1,200kg for reprocessing abroad to 20 per cent enriched uranium, which would be turned into fuel rods. It was not lost on Washington or Tehran that the deal tacitly would recognise Iran's right to enrich.

Speaking at the time, a U.S. official said:

On paper, this would meet their needs, since they say they have a medical emergency. And it would go a long way toward reassuring us. It is a real test of whether Iran is prepared to deal. The priority for us is to buy time. If they turn over a substantial part of their stockpile of LEU, we will have gained roughly two years. After that, who knows what the reality in Iran will be.<sup>133</sup>

### **1. Obama's 2009 offer**

Working through the IAEA, the Obama administration began negotiating a complex fuel swap under which the 1,200kg of Iranian LEU would be shipped to Russia for further enrichment, then sent to France for fuel rod fabri-

cation and then transported back to Iran to fuel the TRR.<sup>134</sup> Iran and the P5+1 met in Geneva on 1 October to discuss the proposal. The Iranian delegation at first reacted positively, indicating agreement in principle on the concept; back in Tehran, Iranian officials were depicting the proposed deal as a victory, since the demand to suspend uranium enrichment seemed to have been put aside. In the aftermath of the talks, U.S. officials expressed unexpected optimism:

There is an Iranian commitment to ship the LEU. In fact, we had this commitment earlier, through talks with the IAEA and others. The Russians told us they had obtained an Iranian commitment. When it was mentioned in Geneva, [the head of the Iranian delegation] Jalili simply nodded. That was confirmation of what already had been agreed. We are not saying we are confident Iran will deliver; we are saying we are confident they made a commitment. The fact that Ahmadinejad is speaking publicly about this suggests they are trying to lay the ground for acceptance and present it as a victory.<sup>135</sup>

EU officials were more sceptical, assessing that there had been no genuine Iranian acceptance but rather a tactic aimed at delaying threatened sanctions.<sup>136</sup> During the following round of talks of the so-called Vienna Group (the U.S., Russia, France, the IAEA and Iran), held in Vienna on 19 October, the tone was markedly different, as the sides discussed details of the proposed swap. Iran was asked to ship its LEU in one batch; only nine to twelve months after would it receive a first supply of fuel rods, the full amount being sent two years after the shipment of LEU. Iran questioned the logic and calculations behind the proposal, demanding that fuel rods be delivered first and that it ship out a lesser amount of LEU. A senior Iranian official involved in the talks said:

I requested the fuel for the reactor just as I did twenty years ago. Then, we purchased it from Argentina. Now

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<sup>131</sup> For details, see [www.isisnucleariran.org/sites/detail/tehran/](http://www.isisnucleariran.org/sites/detail/tehran/). The TRR was built more than 40 years ago and produces short-lived radio isotopes for Iran's 800,000 or more cancer patients. Geoff Forden, "A Primer on Iran's Medical Reactor Plans", Arms Control Wonk, 4 October 2009.

<sup>132</sup> For an account of the enrichment saga from an Iranian perspective, see "Iran to start n. plate production in months", Fars News Agency, 28 October 2011.

<sup>133</sup> Crisis Group interview, Washington, DC, September 2009.

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<sup>134</sup> Although the EU backed the U.S. initiative, it did so with some trepidation. Some European countries, France in particular, were concerned that the deal would essentially legitimise Iranian enrichment, thereby undercutting the call for a full suspension. Crisis Group interview, French official, Paris, October 2009. Israeli officials expressed similar concerns. See Parsi, *A Single Roll of the Dice*, op. cit., chapter 8.

<sup>135</sup> Crisis Group interview, U.S. official, Washington, DC, 6 October 2009. He added: "Our interpretation is that the regime, given its internal situation, did not wish to open up a new front with the international community. They need some calm on the international front right now". Asked about France's tougher position, he said, "We don't mind what they are doing, though we would prefer it to be private. It is good that Iran feels that our EU allies are mad at them. It helps our hand".

<sup>136</sup> Crisis Group interviews, Brussels, October 2009.

they are requesting the equivalent material [in LEU] from Iran. This is not fair. Still, in order to show maximum flexibility and goodwill, we tried to be cooperative and said we are ready to give [LEU]. But how can we be sure that they will give us the fuel. We say when we receive the fuel we will give them the material. That is the whole issue. So we have accepted the IAEA proposal. But it is conditional: give us the fuel, and you will get the material. This will all be done under IAEA supervision. But the amounts are not correct. They were talking about 1,200kg, but only 800kg is needed for the same material to be produced.

He added a threat: "If they won't give the fuel to us, then I can tell you that unfortunately perhaps the Iranian government will decree that we have to make the fuel ourselves. It means that maybe we have to go to 20 per cent enrichment and make the fuel for ourselves".<sup>137</sup>

Iran made a counter proposal, pursuant to which the LEU would be transferred to its Persian Gulf island of Kish and come under IAEA control.<sup>138</sup> It also suggested a phased swap – for each partial shipment of LEU, Iran would receive some fuel rods. The West dismissed this,<sup>139</sup> arguing that the swap had to take place outside the country – given its lack of confidence in Iran – and that an incremental swap negated the non-proliferation benefits of the deal since the fuel rods were not immediately available, and Iran could gradually make up for its lost LEU.<sup>140</sup> Talks

continued; Iran apparently agreed to ship the LEU out of the country but insisted on a simultaneous swap.<sup>141</sup> By the end of the talks, Iran asked for more time to consider the proposal. Western officials suspected that its initial positive response had been followed by intense jockeying back home and a concerted effort to torpedo the deal and thus undermine Ahmadinejad.<sup>142</sup>

In the end, Iran announced that it would enrich the fuel itself,<sup>143</sup> which it started doing in Natanz in February 2010 and deep underground in Fordow in January 2012. It has also started work on its own nuclear fuel rods.<sup>144</sup> President Ahmadinejad has announced that Iran would still be willing to halt 20 per cent enrichment if the "world powers gave it the 20 per cent enriched fuel", leaving the door

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<sup>137</sup> Crisis Group interview, Iranian Ambassador Soltanieh, Vienna, October 2009. He also rejected the notion that fuel would be produced in France, claiming that Paris had reneged on prior commitments. "We will not accept France. Russia will be our counterpart".

<sup>138</sup> W.G. Dunlop, "Iran offers to swap 400 kilos of LEU on Kish for atomic fuel", Agence France-Presse, 12 December 2009. Kish has long had a special economic and more open visa regime, distinct from the mainland.

<sup>139</sup> "The aim of this counterproposal is not to initiate a serious dialogue between Iran and the P5+1 but to avoid saying 'no' to the P5+1 and to slow down the move toward new and tougher sanctions". Crisis Group interview, French official, September 2010.

<sup>140</sup> On 4 October 2009, the French weekly *Bakchich* published a French foreign ministry strategy paper outlining Paris's position on the deal. "It seems essential that this operation be integrated with the strategy and the schedule of [the P5+1] and that the entire 1,200kg of uranium leave Iran on a short deadline", [www.armscontrolwonk.com/file\\_download/203/Note-quai-iran.pdf](http://www.armscontrolwonk.com/file_download/203/Note-quai-iran.pdf). Several months later, in a letter to Brazilian President Lula, Obama explained the reasons behind Washington's position: "We understand from you, Turkey and others that Iran continues to propose that Iran would retain its LEU on its territory until there is a simultaneous exchange of its LEU for nuclear fuel. As [National Security Adviser] General Jones noted during our meeting, it will require one year for any amount of nuclear fuel to be produced. Thus, the confidence-building

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strength of the IAEA's proposal would be completely eliminated for the United States and several risks would emerge. First, Iran would be able to continue to stockpile LEU throughout this time, which would enable them to acquire an LEU stockpile equivalent to the amount needed for two or three nuclear weapons in a year's time. Second, there would be no guarantee that Iran would ultimately agree to the final exchange. Third, IAEA 'custody' of Iran's LEU inside of Iran would provide us no measurable improvement over the current situation, and the IAEA cannot prevent Iran from re-assuming control of its uranium at any time". "Obama's letter to Lula regarding Brazil-Iran-Turkey nuclear negotiations", [www.politicaexterna.com](http://www.politicaexterna.com), 27 May 2010.

<sup>141</sup> See Parsi, *A Single Roll of the Dice*, op. cit., pp. 138-140.

<sup>142</sup> A U.S. official said, "Among Iran's leaders, Ahmadinejad is the one most interested in engagement with the U.S. and in the TRR deal. But others would not let him get away with such an achievement". Crisis Group interview, Washington, DC, December 2009. Several high-level Iranian officials spoke out publicly against the deal; even some leaders of the opposition were highly critical. Speaking of the TRR offer, the Green leader and former presidential candidate, Mir Hussein Moussavi, said on 30 October 2009, "Is this a victory? Or a lie portraying surrender as a victory? Not only have the officials been unable to solve global problems, but they are not even safeguarding the undeniable rights of our people and have generously given these right up". See Parsi, *A Single Roll of the Dice*, op. cit., pp. 141, 147-148.

<sup>143</sup> "Implementation of the NPT Safeguards Agreement", IAEA, op. cit., 18 February 2010.

<sup>144</sup> "Iran nuclear scientists test first uranium-based nuclear fuel rod", Islamic Republic News Agency, 1 January 2012. "The nuclear fuel rods Iran is manufacturing are destined (or rather, since these are prototypes, future rods manufactured using the same design) for the natural uranium reactor at Darkovin [planned but still unbuilt] .... The TRR will use fuel plates and Iran has apparently made 5 test objects of this kind using natural uranium instead of 20 per cent enriched uranium .... Both these fuel test programs can be viewed as natural steps taken in a civil nuclear program". Crisis Group email correspondence, Geoff Forden, Massachusetts Institute of Technology, December 2011.

open to a comprehensive framework similar to previous, failed deals.<sup>145</sup>

## 2. Turkey stumbles into a controversial role

In an attempt to break the stalemate, then-IAEA Director General Mohamed ElBaradei proposed that Iran's LEU be held in escrow under the agency's control at a neutral third-party site. He first publicly mentioned Turkey as a possible site for the LEU in November 2009.<sup>146</sup> Although Ankara leapt at the chance, hoping to revive the moribund TRR deal, its initial efforts were in vain.<sup>147</sup>

The TRR fuel swap deal had a second lease on life a few months later, the result of intense cooperation between Turkey and Brazil – another ascendant power as well as non-permanent Security Council member at the time. Both felt they were initially encouraged by the U.S. – or at least not dissuaded – to try their hand. The Americans, clearly sceptical, involved in intensive efforts at the Security Council to impose new sanctions on Iran and concerned Tehran was seeking to slow them down by feigning interest in a deal,<sup>148</sup> nonetheless almost certainly did not believe that Iran would agree to the TRR proposal.<sup>149</sup> Later, Turkey and Brazil would disclose letters dated 20 April 2010 from President Obama that endorsed their efforts and described the parameters of an acceptable deal:

For us, Iran's agreement to transfer 1,200kg of Iran's low enriched uranium (LEU) out of the country would build confidence and reduce regional tensions by substantially reducing Iran's LEU stockpile. I want to underscore that this element is of fundamental importance for the United States .... Last November, the IAEA conveyed to Iran our offer to allow Iran to ship its 1,200kg of LEU to a third country – specifically Turkey – at the outset of the process to be held “in escrow” as a guarantee during the fuel production process that Iran would get back its uranium if we failed to deliver the fuel. Iran has never pursued the “escrow” compromise and has provided no credible ex-

planation for its rejection. I believe that this raises real questions about Iran's nuclear intentions, if Iran is unwilling to accept an offer to demonstrate that its LEU is for peaceful, civilian purposes. I would urge Brazil to impress upon Iran the opportunity presented by this offer to “escrow” its uranium in Turkey while the nuclear fuel is being produced.<sup>150</sup>

The two countries then went into diplomatic overdrive in seeking to resuscitate the deal, including through an impressive number of visits and meetings with Iranian officials in April and May 2010.<sup>151</sup> After days of intensive talks in Tehran between Iranian, Turkish and Brazilian officials, and much to the surprise of the West (and, indeed, of the Turks and Brazilians themselves), a deal was reached. On 17 May, the three parties issued the so-called Tehran Declaration, under the terms of which:

[T]he Islamic Republic of Iran agrees to deposit 1200kg LEU in Turkey. While in Turkey this LEU will continue to be the property of Iran. Iran and the IAEA may station observers to monitor the safekeeping of the LEU in Turkey .... [The] Islamic Republic of Iran expressed its readiness to deposit its LEU (1,200kg) within one month. On the basis of the same agreement the Vienna Group should deliver 120kg [of] fuel required for TRR in no later than one year .... In case the provisions of this Declaration are not respected Turkey, upon the request of Iran, will return swiftly and unconditionally Iran's LEU to Iran.<sup>152</sup>

As part of the effort to persuade Iran, Turkey and Brazil vocally defended Iran's right to enrichment and denounced calls for further sanctions.

Iranian officials hailed the deal as a triumph for their country's nuclear diplomacy.<sup>153</sup> Tehran also sought to cast

<sup>145</sup> See “President: Iran ready to halt 20% n. enrichment”, Fars News Agency, 5 October 2011.

<sup>146</sup> The U.S. purportedly raised the possibility that Iran ship 600kg of LEU to the Persian Gulf island and 600kg to Turkey. See Parsi, *A Single Roll of the Dice*, op. cit., p. 146.

<sup>147</sup> See “Turkey would accept Iranian uranium, Yıldız says”, *Hürriyet Daily News*, 13 November 2009.

<sup>148</sup> This scepticism was shared by others. Iranian leaders “needed a distraction, a PR exercise, a way to show that they are ready for Turkey and Brazil, ready to open up. But it's all just talk”. Crisis Group interview, Dina Esfandiary, IISS, London, September 2011.

<sup>149</sup> Crisis Group interview, U.S. official, Istanbul, October 2010. “They just didn't expect Turkey to pull it off”. Crisis Group interview, Turkish official, Ankara, September 2011.

<sup>150</sup> “Obama's letter to Lula regarding Brazil-Iran-Turkey nuclear negotiations”, [www.politicaexterna.com](http://www.politicaexterna.com), 27 May 2010. According to Parsi, “to reassure the Iranians, the Turks showed them Obama's letter to Erdoğan (which was identical to his letter to Lula) and made the case that they had Washington's interest in the deal in writing. This proved decisive in convincing the Iranians to agree”. See Parsi, *A Single Roll of the Dice*, op. cit., p. 190.

<sup>151</sup> Parsi notes that “[b]etween November 2009 and 2010, Brazil and Turkey spent more time in talks with Tehran than did the entire P5+1 combined”. See Parsi, *A Single Roll of the Dice*, op. cit., p. 222.

<sup>152</sup> “Text of the Iran-Brazil-Turkey deal”, available at [www.guardian.co.uk/world/julian-borger-global-security-blog/2010/may/17/iran-brazil-turkey-nuclear](http://www.guardian.co.uk/world/julian-borger-global-security-blog/2010/may/17/iran-brazil-turkey-nuclear).

<sup>153</sup> Vice-President for Parliamentary Affairs Hojjatolislam Mohammad Reza Mirtajeddini described the agreement as “a great diplomatic, political and nuclear triumph for our country”. “VP



the agreement in geopolitical terms, as an affirmation of the South's role in a world traditionally dominated by the North; by negotiating with Brazil and Turkey, Iran had secured support from two emerging powers willing to challenge the West's hegemony and that also were Security Council members. As such, Iranian officials depicted the deal as an important move toward a "post-Western" international community in which the U.S. and its allies no longer asserted their hegemony.<sup>154</sup>

ElBaradei, the head of the IAEA, welcomed the agreement as did, this time, Iran's political establishment as a whole.<sup>155</sup>

Yet, the apparent breakthrough was received coldly in the West.<sup>156</sup> There were several reasons. Substantively, U.S. and EU officials argued that the deal did not address five UN Security Council resolutions' demand that Iran suspend its enrichment program – a curious position given that the initial U.S. offer in 2009 would not have achieved that result either. They objected to the fact that under the Tehran agreement Iran would retain title to the LEU, raising the possibility it would try to recall it at some point.<sup>157</sup>

They also said that terms acceptable six months earlier were no longer so, because in the interim Iran had significantly boosted its stock of LEU. In October 2009, the offer translated into the shipping out of roughly four fifths of the total; by May 2010, it was closer to half, leaving Tehran with enough to potentially make a nuclear weapon. A nuclear expert explained;

The removal of 1,200kg of LEU is also not as attractive today since Iran's stockpile of LEU is now likely close to 2,300kg. At the time of the October 2009 proposal, Iran's stockpile was about 1,500kg, providing many months where Iran would not have a nuclear weapons breakout capability.<sup>158</sup>

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calls 'Tehran Agreement' great victory for Iran's n. diplomacy", Fars News Agency, 19 May 2010.

<sup>154</sup> Crisis Group interview, Iranian diplomat, June 2010.

<sup>155</sup> 200 of 290 parliament members came out in favour of the agreement; in contrast, Ali Larijani, the speaker, vocally opposed the October deal. See also Parsi, *A Single Roll of the Dice*, op. cit., p. 192.

<sup>156</sup> See Shayan Ghajar, "Iran Sends Declaration to IAEA While Rifts Widen Between Turkey, U.S.", *insideiran.org*, 24 May 2010. "The Tehran Declaration was a big problem for [the P5+1]. The declaration was not precise, and the negotiators were the wrong ones. Iran wants fuel; we want confidence in Iran. This supplied neither". Crisis Group interview, European official, Brussels, October 2011. Prime Minister Netanyahu called the agreement a "fraud". "Nucléaire: l'accord Iran/Turquie-Brésil est une imposture, dit Nétanyahou", *La Presse.ca*, 25 May 2010.

<sup>157</sup> Crisis Group interview, former U.S. official, Washington, DC, February 2012.

<sup>158</sup> David Albright, "Iran's Proposed LEU deal: Skeptical but Awaiting Clarification", Institute for Science and International Security, 17 May 2010. As Turkey and Brazil were quick to

Moreover, and perhaps most importantly for the U.S., as of 9 February 2010, Iran had begun to enrich at approximately 20 per cent; that activity, non-existent at the time of the initial TRR offer, was not dealt with in the Tehran Declaration.<sup>159</sup> A senior U.S. official said, "We don't like the fact that the amount of LEU to be shipped out was proportionally far less than in October. That said, if Iran were to stop the 20 per cent enrichment and transfer 1,200kg to Turkey, then despite our reservations we probably could not go forward with sanctions right now. It would be very difficult to justify".<sup>160</sup>

President Obama later would say:

They delayed and they delayed and they hemmed and they hawed, and then when finally the Brazilian-[Turkish] proposal was put forward, it was at a point where they were now declaring that they were about to move forward on 20 per cent enriched uranium, which would defeat the whole purpose of showing good faith that they weren't stockpiling uranium that could be transformed into weapons-grade.<sup>161</sup>

The U.S. and its allies found the Tehran Declaration objectionable for yet another reason: with substantial progress having been made to obtain Security Council approval of a new round of sanctions, they were persuaded Iran was

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point out, they had received confirmation from Obama as late as April that the 1,200kg remained the desired goal; Crisis Group interview, Turkish official, Ankara, May 2010. Some U.S. officials privately conceded that Obama's letter had not been carefully drafted on this point, but claimed that subsequent conversation with American diplomats were clearer about what any deal would have to include, notably a requirement to halt any higher-level enrichment. They also said that the purpose of the letter was not to offer guidance for future talks but rather to recapitulate the prior episode. Crisis Group interviews, Washington, DC, June 2010. Parsi notes that "Turkish and Brazilian officials acknowledge that U.S. officials did raise these issues with them prior to the talks in Tehran but argue that they were not presented as deal breakers". Moreover, they "believed that the [Obama] letter resolved whatever contradictions and mixed messages that had plagued their conversations with U.S. officials prior to the Tehran talks". See Parsi, *A Single Roll of the Dice*, op. cit., p. 203. U.S. officials dispute this account, saying that subsequent messages by senior level officials were clearly intended (and understood) as expressions of Washington's position. Crisis Group interviews, Washington, DC, May-June 2010.

<sup>159</sup> See "Implementation of the NPT Safeguards Agreement", IAEA, op. cit., 8 November 2011. By September 2011, Iran had produced 73.7kg of 19.7 per cent enriched uranium. A U.S. official underscored that Iran's enrichment at higher levels significantly changed the picture and that an agreement that did not reverse it was of limited value. Crisis Group interview, Washington, DC, June 2010.

<sup>160</sup> Crisis Group interview, Washington, DC, 18 May 2010.

<sup>161</sup> President Obama, interview with *Time*, 19 January 2012.

seeking to divide the international community and derail the effort at the last minute. This might well have been the case, and Tehran's request that Turkey and Brazil (both then Council members) reject any new sanctions points in that direction. Still, the argument is odd on its face: as the U.S. and others repeatedly have stated, the purpose of sanctions was to pressure Iran to compromise; if in fact sanctions-avoidance was behind Tehran's belated acceptance of the TRR, then could not the West consider that its approach had worked? In reality, by that time imposition of tough sanctions was seen by Washington and others as the only way to ensure genuine Iranian compliance with their demands, and so anything that thwarted the effort was viewed with hostility.

Turkey and Brazil reacted with astonishment and anger at the West's negative stance. A Turkish official contended that they had been "in close contact with the Americans and what we did was consistent with what Obama had laid out in his letter".<sup>162</sup>

In the event, if Iran's goal was to prevent new Security Council sanctions, the gambit failed. Russia and China had announced support for the sanctions package just one day before the Tehran Declaration, and neither was swayed. When the time came for a vote, Ankara and Brasilia cast the two negative votes,<sup>163</sup> despite last-minute entreaties from Obama himself. The two nations took the position that the deal was an important opportunity to build trust and that they had succeeded where the West had failed.<sup>164</sup> President Lula and Erdoğan apparently were bolstered in their position by a clear signal from Iran that it would reject the Tehran Declaration unless the co-signatories voted against the sanctions.

Iran argued that it had been under no obligation to ship out any of its stockpiled LEU, that its willingness to do so should be seen as a generous gesture of confidence-building and that the West's rejection of the deal showed its true intent. A senior official explained:

I would not say we were "happy" with the Tehran Declaration, but we showed our political will to prove that we spare no effort to find a political settlement to this issue in the IAEA. We would be happy if the same thing happened as in other countries – just to pay and get the fuel. Why should we have to export our own

material? But we did this in the expectation that the other side would come immediately to the negotiating table. But they didn't.<sup>165</sup>

Over the following months and in the wake of the still-born Tehran Declaration, Iran's decision to enrich to 20 per cent and the Turkish and Brazilian "no" votes at the Security Council, Ankara focused on keeping channels open with both Iran and the P5+1. In January 2011, Istanbul was the site of a six-day meeting between the P5+1 and Iran that achieved nothing concrete,<sup>166</sup> not even agreement on an agenda.<sup>167</sup> The P5+1 was not prepared to lift sanctions unless Iran froze enrichment, while Iran would not discuss enrichment unless sanctions were ended.<sup>168</sup> Still, Turkey argued it was playing an important role. In the words of an official:

We talk to everyone. There is huge distrust, which is why the P5+1 can't do anything. They say that Iran is just trying to gain time to reach the nuclear threshold. In turn, the Iranians say, "whenever we take a step, there's no reciprocation". We can build on meetings to reach new levels of confidence. We are doing anything we can to increase the level of dialogue.<sup>169</sup>

### C. USEFUL FOOL OR USEFUL BRIDGE?

For Turkey, the results of its diplomacy were decidedly mixed. It had registered a measure of success with Iran in achieving the Tehran Declaration, but the concessions were deemed insufficient. In the process, it had angered the U.S. and other allies by voting against new sanctions. It had hosted talks that led nowhere and was confined to an indirect role in side rooms, though it claimed its actions had prevented the fruitless talks from breaking up acrimoniously.<sup>170</sup> Ultimately, it found itself wedged uncom-

<sup>162</sup> Crisis Group interview, May 2010. As a sign of anger, Brazil leaked Obama's letter to the public.

<sup>163</sup> UN Security Council, SC/9948, 9 June 2010.

<sup>164</sup> "Turkey achieved dialogue through engagement. Turkey was able to persuade Iran to sit at the table with Westerners". Crisis Group interview, Turkish official, October 2011. See also Diego Santos Vieira de Jesus, "Building Trust and Flexibility: A Brazilian View of the Fuel Swap with Iran", *Washington Quarterly*, vol. 34, no. 2 (2011), pp. 61-75.

<sup>165</sup> Crisis Group interview, Iranian Ambassador Soltanieh, Vienna, October 2010.

<sup>166</sup> According to a German official, "At the January meeting, the Iranian didn't have a mandate. There was no substance discussed. [U.S. Deputy Secretary of State William] Burns asked for a bilateral meeting, but [Iranian chief negotiator] Jalili said he had a headache". Crisis Group interview, Berlin, January 2012.

<sup>167</sup> An EU official said, "When Iran came to Istanbul, they basically said, 'we won't negotiate until you fulfil our preconditions, and these are first, the right to nuclear enrichment and second, an end to sanctions'. These preconditions were not possible for us". Crisis Group interview, Brussels, October 2011.

<sup>168</sup> See "Iran Update: Number 148", British American Security Information Council, 26 January 2011.

<sup>169</sup> Crisis Group interview, Ankara, September 2011.

<sup>170</sup> A Turkish official said of the January talks, "They were on the verge of collapse. There was the intervention of our diplomats and our foreign minister to reach an understanding on how

fortably between the sides with little to show. The verdict from some European capitals was harsh. An EU official involved in the talks remarked: "Turkey is helpful, but we are not sure if it is an honest broker. It sometimes should be more cautious and keep a more neutral role so that it can later play a part in the implementation of confidence-building measures such as storing nuclear material".<sup>171</sup> A French diplomat was far more blunt:

Turkey was the neophyte that discovers international relations and then discovers that the world is more complex than it thought and that it is not negotiating with people of good faith. Turkey saw an opportunity. So did Iran. And Iran took them for a ride.<sup>172</sup>

In the period following the Tehran Declaration, as tensions between Iran and the West grew and as the region entered a period of tumult, Turkey's balancing act became more uncomfortable. During NATO's November 2011 Lisbon summit talks on missile defence, Ankara blocked a proposal to single out Iran as a specific threat to the Alliance in its new Strategic Concept.<sup>173</sup> Erdoğan summed up his

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to continue this dialogue". Crisis Group interview, Ankara, September 2011.

<sup>171</sup> Crisis Group telephone interview, January 2010.

<sup>172</sup> Crisis Group interview, Paris, December 2011. European officials believe that Iran's willingness to negotiate is often misinterpreted by Ankara as a sign of seriousness. A British official said, "It's very difficult to get coherent answers at all, let alone answers to questions asked. Letters from the EU [High Representative Catherine Ashton, in the name of the P5+1] are specific; [but] the replies are long, sweeping and do not answer any questions. Meetings are monologues. There's maybe fifteen minutes of substance, then 1-1/2 hours on how we screwed up the world. It's not negotiations. But they are shocked that Russia and China would sign up to sanctions, shocked at the strength of EU regulations, so they need the appearance of talking". Crisis Group interview, London, September 2011. A European analyst said, "Iran thought Turkish involvement was a way to show that there was an alternative to Europe, to get away from the E3+3 [P5+1] concept, that it would appeal to the Third World, that the West would swallow it and ignore sanctions. They thought that Turkey was turning against Israel, that Erdoğan was their type of person, that they had Turkey in their pocket. Sure, the Turks were naive; they believed in it. But this Iranian approach was simplistic, short-term *bazaar* [shopkeeper] thinking". Crisis Group interview, Walter Posch, Stiftung Wissenschaft und Politik, Berlin, January 2012. Belief that Iran used the Tehran Declaration to justify its enrichment and keep its nuclear program alive was echoed by some Turks. "Iran pushes Turkey in front of the international community whenever the international community puts pressure on it. During these periods, Iran treats Turkey as if it is its closest ally and uses Turkey both as a fence to hide behind and as a gateway to weakening the international sanctions". Emre Uslu, "Dancing with Iran", *Today's Zaman*, 18 January 2012.

<sup>173</sup> See "The Security Dimension of Turkey's Nuclear Program: Nuclear Diplomacy and Non Proliferation Policies", in the "Turk-

country's position: "The radar base in Turkey is a NATO concept. No specific country has ever been referred to. We don't think Iran should get offended when there is no reason. ... Unless Turkey is attacked, we will never allow Iran to be attacked from the Turkish territory".<sup>174</sup> Pressed by its NATO allies to house a high-powered radar at a military base 750km from the Iranian border, Turkey in the end adopted a compromise position: in September 2011, it agreed to the request – to Tehran's immense displeasure – but ensured that Iran's name was removed as an official reason for the missile defence system.

Iran's response was harsh. Major General Yahya Rahim Safavi, a key military aide to Supreme Leader Khamenei, called the missile shield a "strategic mistake", warned that trade ties could be affected and sought to delegitimise the move by saying it would be used to protect Israel.<sup>175</sup> A senior Revolutionary Guards commander went further, threatening to attack Turkish bases in the event of a strike on Iran's nuclear program.<sup>176</sup> The Turkish foreign ministry summoned the Iranian ambassador, who, according to a Western diplomat, was "read the riot act and warned 'you don't threaten Turkey'".<sup>177</sup> The threat quickly was denied by Iran's foreign minister, Ali Akbar Salehi, who more generally sought to differentiate official government policy from statements by government officials as well as parliament and clergy members, telling reporters that Iran and Turkey were brothers and implying that foreign powers were seeking to stir up a dispute for geopolitical gain.<sup>178</sup>

But there was no disputing signs of growing tension.<sup>179</sup> In the words of an Iranian analyst, "Ankara's decision to house

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ish Model for the Transition to Nuclear Power", *Ekonomi ve Dis Politika Arastirma Merkezi (EDAM)*, 9 December 2011. See also Gareth Jenkins, "Turkey at Lisbon: The Missile Defense Compromise", *Turkey Analyst*, vol. 3, no. 20 (2010). Tom Collina, "NATO set to back Expanded Missile Defence", *Arms Control Today*, November 2010.

<sup>174</sup> Interview with Turkish Prime Minister Erdoğan, CNN, 25 September 2011.

<sup>175</sup> "Turkey missile plan a strategic mistake," PressTV (Iran), 8 October 2011.

<sup>176</sup> "Iran to hit Turkey if nuclear program targeted by Israel, U.S., general says", Associated Press, 26 November 2011.

<sup>177</sup> Crisis Group interview, Western diplomat, Ankara, November 2011. A Turkish official downplayed the significance of the spat: "In Iran, there's internal campaigning going on. The more conservative faction is trying to corner the president, even on foreign policy. We told Iran the radar is defensive and pointed out that Iran was not named. They appreciate it. But it is important to be cool-headed". Crisis Group interview, Ankara, November 2011.

<sup>178</sup> "Salehi: Iran and Turkey enjoy brotherly relations", Islamic Republic News Agency, 14 December 2011.

<sup>179</sup> The summoning of ambassadors was not one-way. After Turkey called in Iran's ambassador twice, in October and November, to complain about Iranian threats, Iran summoned the

the radar led some Iranians to view the Justice and Development Party as the West's Trojan horse in the Muslim world and Turkish statesmen as opportunist politicians".<sup>180</sup> Some Turkish officials have gone as far as to suggest that Iran could start providing assistance to the Kurdish PKK insurgents to thwart Turkey's strategy in Syria.<sup>181</sup>

Indeed, the situation has been made worse by the fact that the two countries have adopted opposing approaches to several Arab popular uprisings, most notably in Syria. Turkey initially pressed hard for Damascus to reform, as protests started in its close neighbour in mid-2011, but increasingly aligned itself with U.S. and Arab League positions and began to push for President Bashar al-Assad to step aside in November 2011.<sup>182</sup> For its part, Iran has sought to ensure the survival of the regime of its oldest Arab ally. While Turkish officials complain that Iran has sent security agents and computer expertise to support Assad,<sup>183</sup> Turkey has openly encouraged the Syrian National Council opposition group and protected rebel Syrian army units.<sup>184</sup>

Their rivalry also intensified in Iraq – a country over which they have competed relatively peacefully since the last war between the two countries ended in 1639, leaving Iraq as a province of Turkey's Ottoman Empire on the border of Iran's Safavid realm. In Ankara's eyes, the 2003 overthrow of Saddam Hussein's regime removed a balancing power against Iranian influence – a key reason why it was deeply sceptical of the wisdom of the U.S. invasion; it never fully came to trust the Shiite Islamist parties that gained control of the government in 2005. Over time, however, Turkey stepped up economic and diplomatic engagement with Baghdad<sup>185</sup> and gained a relative ad-

vantage over Iran, which, while increasing trade and religious tourism with Iraq, was ill-placed to compete in the quality of investment projects.<sup>186</sup>

Two sets of events have slowed this trend. One was Ankara's late 2009 decision to openly support the Iyad Alawiled Iraqiya alliance in the March 2010 legislative elections. Turkish diplomats justify this by declaring Iraqiya was a non-sectarian list representing the spectrum of Iraqi society;<sup>187</sup> to Prime Minister Maliki, however, it was a partisan move directed against him. In the end, Maliki formed the next government, then turned on Turkey as a neighbour that could not be trusted.<sup>188</sup>

Turkey's response to the Arab Spring, especially in Syria, also affected its ability to operate in Iraq. By taking the position that the Assad regime would have to go and providing support to anti-Assad forces, it found itself in direct opposition to Maliki and his allies, who fear the emergence of a post-Assad Sunni-led regime in Damascus.<sup>189</sup> Although Ankara claims Turkey is non-sectarian – and Foreign Minister Davutoğlu lectures the Syrian opposition on the need to avoid ethnic or sectarian divisions, while Prime Minister Erdoğan went out of his way on a March 2011 trip to Iraq to visit Shiite shrines and leaders – its support for both the Syrian opposition and Iraqiya, a coalition dominated by Sunni groups, appears to Shiite Islamists ruling Iraq as evidence of an Ankara-led sectarian fight against them. A Maliki-Erdoğan war of words with sec-

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Turkish ambassador in November to complain about Turkish police treatment of Muslim pilgrims.

<sup>180</sup> Crisis Group email correspondence, Iranian foreign policy analyst, Tehran, January 2012.

<sup>181</sup> Crisis Group interviews, Ankara and elsewhere, December 2011-January 2012.

<sup>182</sup> "Turkey's Gul says change is inevitable in Syria as Erdogan calls on Assad to step down", Al Arabiya News, 22 November 2011.

<sup>183</sup> Crisis Group interview, Turkish official, Ankara, November 2011.

<sup>184</sup> Liam Stack, "Slapping at Syria, Turkey shelters anti-Assad fighters", *The New York Times*, 27 October 2011.

<sup>185</sup> Ankara moved swiftly on several fronts: reaching out to all Iraqi political actors without apparent prejudice; signing a strategic cooperation agreement with the Iraqi government; ramping up its embassy in Baghdad while opening consulates in Basra, Mosul and Erbil; and encouraging its companies to dramatically increase their investment and trade throughout the country. Between 2003 and 2009, a sixfold rise in exports powered a rise in total trade volume between Iraq and Turkey from \$900 million to \$6 billion. As of September 2009, 500 Turkish companies had invested in Iraq and were among the top ten investors. Turkish contractors are ubiquitous, building roads,

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bridges and other infrastructure projects. Most remarkable was Ankara's rapprochement with the Kurdistan regional government, with which it had long been at loggerheads over the PKK, Iraq's Turkoman population and the status of Kirkuk and other disputed territories. Ankara was driven primarily by its desire to embed the Kurds firmly within the Iraqi state structure as a way to preserve Iraq's territorial integrity and restore it as a barrier against Iranian influence. It also wanted to gain access to the Kurdistan region's suspected hydrocarbons riches. In late 2007, Turkey and Iraq's Kurdistan Regional Government came to a U.S.-brokered understanding in which the Iraqi Kurds offered solidarity with Ankara in its fight against PKK insurgents. See Crisis Group Middle East Report N°81, *Turkey and Iraqi Kurds: Conflict or Cooperation?*, 13 November 2008.

<sup>186</sup> Suggesting a preference for Iran over Turkey, a Maliki adviser pointed ruefully at the prime minister's guesthouse in Baghdad, built by a Turkish company, as evidence of Iran's falling behind in the undeclared race. Crisis Group interview, Baghdad, January 2011.

<sup>187</sup> Crisis Group interviews, Ankara, 2009-2011.

<sup>188</sup> Although Turkish businesses can still sign contracts, Turkish diplomats complain that even after the signature, the Baghdad government will sometimes step in to undo the biggest among them and replace the signing companies with Iraqi or Iranian ones. Crisis Group interviews, Ankara, Washington, DC, December 2011-January 2012.

<sup>189</sup> Crisis Group interview, senior Iraqi official, Washington, DC, September 2011.

tarian undertones in January reinforced this notion.<sup>190</sup> In the increasingly polarised climate, Turkey has lost ground in central and southern Iraq relative to its old rival Iran, which has found itself on Maliki's side regarding the fate of the Assad regime, its only other Arab ally.

Overall, a narrative of strategic competition has become the norm in the Turkish<sup>191</sup> and Iranian media.<sup>192</sup> On the Turkish side, this has been coupled with a growing sense of self-confidence as it believes it is siding with the tide of history and that its support for Arab uprisings ultimately will rebound to its benefit. Reflecting an increasingly hawkish sense of frustration with Iran, a Turkish official said, "It's moving from competition towards a clash over Syria and Iraq". But, he added, in the end "I don't think there'll be one because the Iranians and we have a long experience".<sup>193</sup>

Western doubts about Turkey's role and Iranian tensions with it notwithstanding, Ankara has sought to re-enter the game as the P5+1 and Tehran cautiously and tentatively chart a possible pathway back to the negotiating table. Shortly after an intense two-day January 2012 trip to Tehran, Davutoğlu spoke with P5+1 leader and EU High Representative Ashton, then met soon afterwards in Ankara with U.S. Deputy Secretary of State Burns and, separately,

the Iranian speaker of parliament, Ali Larijani. Negotiations at one point seemed set to resume in Istanbul. On 14 February, Iran responded positively to Ashton's letter of invitation to restart nuclear talks.<sup>194</sup> However, EU officials say that China rather than Turkey played the key role in persuading Iran to re-engage.<sup>195</sup>

Turkish officials stress that their goal is merely to facilitate talks and to pursue "any willingness by Iran to negotiate, if there is a glimmer of hope".<sup>196</sup> They have another goal: to demonstrate that competition and collaboration with Tehran are not mutually exclusive<sup>197</sup> and that, as a Turkish diplomat put it, "carrots and sticks don't work in Iran. It's complex and hard work. Engagement puts more pressure on an authoritarian regime than do sanctions".<sup>198</sup>

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<sup>190</sup> Maliki declared in January 2012: "We ... did not expect the way they [Turkey] interfered in Iraq .... We recently noticed their surprise interventions with statements, as if Iraq is controlled or run by them". Maliki added that Erdoğan's statement was a form of interference in domestic Iraqi affairs. "We absolutely do not allow that", he said. In response, Erdoğan said, "The idea that 'Turkey is interfering in our domestic affairs' is a very ugly and unfortunate one. Mr Maliki should know very well that if you initiate a period of clashes in Iraq based on sectarian strife, it is impossible for us to remain silent". Both quoted in *Today's Zaman*, 24 January 2012.

<sup>191</sup> See, eg, Nihat Ali Ozcan, "Iran, Turkey and Beyond", *Hürriyet Daily News*, 19 October 2011. "Davutoğlu ... convincingly argued at the time that engaging Iran would help restrain Tehran ... creating few problems for Turkey and its allies ... unfortunately [the rationale] fell apart ... as an emboldened Iran pushed much harder for Shiite dominance in Iraq and Lebanon". Abdullah Bozkurt, "What do Turkey and Saudi Arabia hope to accomplish?", *Today's Zaman*, 24 December 2011.

<sup>192</sup> "The cooperation and friendship between Ankara and Washington directly influences the region and can contradict Iranian national interests. Turkey's recommendation to Egyptian revolutionaries to form a secular government, the pressure on Syria and hosting the missile defence shield, clearly show that Turkey is the U.S.'s agent in the region", editorial, *Javan*, 17 October 2011. "All Iranian officials have praised Erdoğan, at least until the Syrian crisis and his real intentions were revealed ... Turkey is an international rival in the whole Islamic world, especially in Syria, Iraq and Afghanistan". Mohammad Ali Bahmani Qajar, "Turkey: Iran's no. 1 rival in region", *Iranian Diplomacy*, 15 September 2011.

<sup>193</sup> Crisis Group interview, Turkish official, December 2011.

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<sup>194</sup> The P5+1 insisted that Iran formally signal its willingness to come to the talks ready to discuss its nuclear program. "What we don't want is another round of meaningless talks as in Istanbul [in January 2011]". Crisis Group interview, German official, Berlin, January 2012. According to an EU official, China played a key role in persuading Iran to re-engage. Crisis Group telephone interview, EU official, February 2012. Chinese analysts argue that Beijing's leadership above all is interested in stability in the region; the more acute its worries about a possible military strike against Iran, the greater its willingness to pressure Iran. Crisis Group interviews, Beijing, February 2012.

<sup>195</sup> "Turkey's role is diminished ... China is very active". Crisis Group telephone interview, EU official, February 2012. According to Chinese analysts, the Chinese leadership views peace in the region of paramount importance, and the more worried it is about the possibility of military strikes on Iran, the more it will be willing to put pressure on Iran to compromise. Crisis Group interviews, Beijing, February 2012.

<sup>196</sup> Crisis Group interview, Turkish official, Ankara, December 2011.

<sup>197</sup> "All the Iranians are saying is: you don't have to be a friend, but you mustn't be an enemy". Crisis Group interview, Meliha Altunışık, Turkish Middle East expert, Ankara, December 2011.

<sup>198</sup> Crisis Group interview, September 2011.

#### IV. TURKEY AND THE QUESTION OF SANCTIONS

One of the key disagreements between Turkey on the one hand and the U.S. and EU on the other is whether sanctions can be an effective tool to induce policy changes.<sup>199</sup> Whereas Ankara believes that the Iranian regime will not surrender to pressure and that economic punishment risks bolstering the position of more hardline officials, proponents of sanctions are convinced that the regime will only give in if it feels its existential interests are at stake; what is more, they argue, sanctions have significantly slowed the Iranian nuclear program.<sup>200</sup> Finally, they at times point out, even if sanctions are unlikely to work, they are the only alternative to war.<sup>201</sup>

<sup>199</sup> The U.S. has imposed sanctions on Iran since the 1979 hostage crisis, targeting mainly the energy sector. Those gradually have been expanded in their scope and reach. See Kenneth Katzman, "Iran Sanctions", Congressional Research Service, 13 October 2011. The EU has imposed similar sanctions, and restricted the sale of gasoline, refining services and items that help Iran's development of its liquefied natural gas sector. For a full list of EU sanctions, see "Council Regulation (EU) No 961/2010 of 25 October 2010 on restrictive measures against Iran and repealing Regulation (EC) No 423/2007", available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:281:0001:0077:EN:PDF>. The U.S., Australia, Canada, Japan, South Korea, New Zealand, Norway and Switzerland announced the passage of similar sanctions on the same day as the EU did. See Valerie Lincy, "U.S. and others increase sanctions in wake of IAEA report", *Iran Watch*, 23 December 2011. The UN Security Council has passed four resolutions since 2006 imposing progressively more severe sanctions targeting Iranian entities and individuals with alleged ties to nuclear and missile programs. The most recently imposed sanctions are the most consequential: on 21 November 2011, the UK and Canada ordered an end to all business with Iranian banks. That same day, the U.S. announced that it would sanction Iran's petrochemical industry and individuals and entities tied to its missile and nuclear programs, as well as label the country's financial sector a money-laundering concern. See "Executive Order: Iran Sanctions", press release, The White House, 21 November 2011. On 31 December 2011, Obama signed into law the defence appropriation bill which – if the provisions are implemented – could make it impossible for most countries to process any payments to Iran, including for oil.

<sup>200</sup> "Sanctions deprive the Iranian government and the Revolutionary Guards of money. They have and will slow down the nuclear program". Crisis Group interview, German official, Berlin, January 2012.

<sup>201</sup> "Today, we are very clearly in favour of tough sanctions. We believe this is the only message we can send now and we want to avoid any sort of military action. Means of pressure are not an end in themselves but a way to avoid military action". Crisis Group interview, French official, Paris, January 2010. A German official echoed this view: "We have to impose sanc-

Despite Iranian attempts to blunt their effect,<sup>202</sup> there is little doubt that sanctions are having an economic impact – particularly those affecting the financial sector – and that those that are now in preparation will have an even greater impact. Economic mismanagement compounded with the looming EU oil embargo and U.S. measures against the Central Bank, have brought about a 50 per cent decline in the value of the rial since 1 January.<sup>203</sup> U.S. pressure appears likely to force Iran's major crude buyers (China, India and Japan) to scale back Iranian oil purchases by 10 per cent or more.<sup>204</sup> The Central Bank is finding it increasingly difficult to access foreign exchange; Iranian shippers are hard pressed to insure their cargos; rising prices of imports are fuelling inflation; and reports from Asia speak of a collapse of Iran's ability to pay for staple foods.<sup>205</sup>

tions; otherwise Israel will attack". Crisis Group interview, Berlin, January 2011.

<sup>202</sup> Tehran has routed energy payments through small banks in Turkey, Azerbaijan, the United Arab Emirates and Malaysia and accepted payments in local currencies; some financial activities are being routed through Venezuela and Ecuador. Iran also has sought to increase energy exports to Asian markets. Crisis Group interview, officials of the UN Panel of Experts on Sanctions on Iran, Brussels, September 2011. According to one report, one third of Iranian oil sales profits are held in banks in east Asia, principally in China and South Korea. See Roshanak Taghavi, "Iranian oil sales, foreign exchange taking a hit from US, UN sanctions", *Christian Science Monitor*, 14 October 2011. In 2010, in order to reduce its domestic political vulnerability to sudden price changes resulting from sanctions, Iran reformed its system of subsidies for basic goods, ending subsidies for bread and oil and replacing them with a \$45 direct cash payment. On this reform, see Dominique Guillaume, Roman Zytek, and Mohammad Reza Farzin, "Iran – The Chronicles of Subsidy Reform", International Monetary Fund, July 2011. "The plan's short-term success also demonstrates a surprising degree of government functionality and stability", Reza Marashi, "Subsidy Reform and Regime Resilience in Iran", National Iranian American Council, 29 March 2011. See also "Subsidy Reform Plan saves Iran \$5.3 billion in fuel consumption", *Tehran Times*, 11 January 2012.

<sup>203</sup> Najmeh Bozorgmehr, "Iran raises interest rate on bank deposits", *Financial Times*, 25 January 2012. See Rick Gladstone, "As further sanctions loom, plunge in currency's value unsettles Iran", *The New York Times*, 20 December 2011.

<sup>204</sup> These countries are agreeing to cut their imports or Iranian oil in order to obtain waivers from unilateral U.S. financial sanctions. See Chen Aizhu and Nidhi Verma, "China, India plan Iran oil cuts of 10 pct or more", Reuters, 21 February 2012.

<sup>205</sup> According to a detailed Reuters survey, Malaysian exporters, source of half of Iran's consumption of palm oil, had halted sales to Iran for fear of non-payment; Iranian defaults had occurred in payments to Indian merchants for another staple, rice; and Ukrainian maize shipments had halved. Niluksi Koswanage and Parisa Hafezi, "Signs build that Iran sanctions disrupt food imports", Reuters, 8 February 2012.

With more than 400 Iranian entities and more than 100 Iranian individuals specifically targeted by EU bans, many well-established European companies have stopped direct trade with Iran, even though their products are not sanctioned.<sup>206</sup> Sanctions also affect Iran's long-term prospects: oil fields' productive lives are being shortened by over-pumping and limited maintenance; major offshore fields have been delayed, and petrochemical exports have reached just a fraction of their target.

Iranian officials typically dismiss the consequences of sanctions and insist they cannot succeed.<sup>207</sup> Ayatollah Khamenei maintains that Iran thrives under sanctions, which help it to become more self-reliant.<sup>208</sup> Still, in an effort to deflect blame for the country's economic problems in the run-up to March 2012 parliamentary elections, Ahmadinejad acknowledged that they were unprecedented and causing serious problems.<sup>209</sup>

In arguing that such pressure can work, even against a regime that has sought to portray itself as impervious to it, Western officials point to two precedents: first, Ayatollah Khomeini's decision in 1988 to accept the terms for ending the Iran-Iraq war – akin to “drinking the poisoned chalice” as he famously put it; next, purported Iranian attempts to

reach a modus vivendi with the U.S. and the alleged decision to halt the military aspects of its nuclear program in 2003, when U.S. power appeared at its apex as a result of the wars in Afghanistan and Iraq. In both instances, the argument goes, the regime felt it was facing an existential threat and thus was forced to retreat.<sup>210</sup> An analyst said:

As a general matter, Khamenei's philosophy is never to yield, for projecting weakness only invites further pressure. But that is true only up to the point when regime survival could be at stake. By imposing extraordinarily onerous sanctions against Iran, the international community can finally force the Supreme Leader to make a choice. He could choose to accelerate efforts to acquire a bomb. Or he could choose to reach a deal with the U.S. Washington's bet is that he will choose the latter.<sup>211</sup>

That said, there are at least two major differences between 1988 and 2012. First, Ayatollah Khomeini's personal charisma and moral authority arguably shielded him against the adverse domestic political consequences resulting from the ceasefire agreement with Iraq. His successor appears to be in a more precarious situation. Secondly, many of the pragmatic officials who showed a willingness to compromise, both in 1988 and in 2003, have been purged or marginalised, depriving decision-makers in Tehran of their counsel.

Turkey traditionally has taken a far more jaundiced view of sanctions – both in general and in the case of Iran in particular. This derives, in part, from pragmatic reasons. With one fifth of its natural gas and one third of its oil coming from Iran, officials argue that their impact on the Turkish economy potentially is far greater than on the West's;<sup>212</sup> they also believe that EU companies get away with selling dual-use equipment through entrepôts in the Persian Gulf more easily than can Turkish companies trading directly over their own border.<sup>213</sup> In an early expression of defiance, Turkey entered into a gas import deal with Iran in 1996 in contravention of U.S. sanctions passed weeks earlier;<sup>214</sup>

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<sup>206</sup> For instance, German exports to Iran dropped about 20 per cent in 2011. Crisis Group interview, German official, Berlin, January 2012.

<sup>207</sup> Speaking in mid-2009, a senior Iranian official said, “In order for a sanctions policy to be effective, several factors need to exist. The targeted economy must be small. It must not have vast natural resources. It should not have many neighbours. And there needs to be an international consensus as existed in the case of South Africa. None of these exists as far as Iran is concerned. We are a big country with vast resources and roughly 70 million inhabitants. Several important international actors reject the sanctions. And we have a large number of neighbours, ensuring we always will have some economic partners we can rely on. The odds of sanctions resulting in a shift of Iranian policy are zero”. Crisis Group interview, Tehran, March 2009.

<sup>208</sup> See “Iranians bemoan sanctions hardship as vote approaches”, Reuters, 5 February 2012.

<sup>209</sup> The president said, “Our banks cannot make international transactions anymore”, *The Washington Post*, 1 November 2011. That said, he took this position in order to defend his government against criticism of mismanagement, shifting blame on the sanctions. Only a few months later, he once again reverted to minimising their impact. Speaking of new EU measures, he said, “There was a time when 90 per cent of our trade was with the Europeans. It has now dropped to 10 per cent. We didn't call for this. Cut it (trade) and let's see who will incur the loss ... It is the West that needs Iran, and the Iranian nation will not lose from the sanctions”, *The Telegraph*, 26 January 2012. An Iranian journalist commented: “The damage that the sanctions have done up to now has been covered by the rise in oil prices, but the new sanctions change the whole thing”. Crisis Group telephone interview, Tehran, January 2012.

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<sup>210</sup> Crisis Group interview, former U.S. official, Washington, DC, January 2010.

<sup>211</sup> Crisis Group interview, Washington, January 2012.

<sup>212</sup> Crisis Group interview, Turkish official, June 2010.

<sup>213</sup> In recent decades, Dubai has been the main entrepôt for global trade with Iran; about 200 flights per week connect Iran with the United Arab Emirates (UAE) – roughly ten times the number that connect it to Turkey. Iran's two-way trade with Dubai peaked at \$12 billion in 2007. Crisis Group interviews, European and Turkish officials, Ankara, November 2011; see also Karim Sadjadpour, “The Battle of Dubai: the United Arab Emirates and the U.S.-Iran Cold War”, Carnegie Paper, July 2011.

<sup>214</sup> “Defying U.S., Turkey to sign gas deal in Iran”, *The New York Times*, 11 August 1996.

U.S. pressure eventually led Ankara to announce that it would initially import its natural gas from Turkmenistan via Iran, but when deliveries of Iranian gas began in 2001, Washington chose not to penalise Turkey.<sup>215</sup>

Proximity between Turkey and Iran also means that there is almost bound to be robust informal traffic, whether the government condones it (as Ankara's critics say)<sup>216</sup> or not. Business-to-business transactions are facilitated by merchants who trust each other through the *hawala* system of informal international monetary transfers; according to some estimates, 40 per cent of Turkish businesses exporting to Iran use this method.<sup>217</sup> In the Istanbul bazaar, gold and currency traders claim that large sums can be sent to Iranian clients through Tehran money dealers in less than an hour for a charge of 2 per cent.

Indeed, as sanctions have tightened, informal economic links and outright smuggling have become increasingly more entrenched. On the Turkish side of the border, controls on smugglers can be quite rudimentary.<sup>218</sup> The source of money for new buildings and investment in eastern Turkish cities close to Iran typically is identified as "the border economy".<sup>219</sup> There is little doubt informal cross-border trade is rising.<sup>220</sup> In the past, that would have in-

cluded a high proportion of drugs trafficking, but presently goods such as tobacco, oil, car parts and textiles are smuggled alongside legal goods,<sup>221</sup> carried in heavy border truck and bus traffic. According to some estimates, the annual worth of smuggled goods has risen from \$1 billion in 2009 to the current figure of \$3 billion-\$4 billion.<sup>222</sup>

For many Turkish businessmen, the large commissions they can earn are worth the trouble. If Turkish customs controls prove an obstacle, a business association chief said, non-mainstream Turkish companies are ready to arrange shipments through Iraq:

Iran has amazing amounts of liquid cash, billions of dollars owed to it in banks, mainly in Asia. It wants to use it, but can't. Turkey says: "We'll help you". Then there's the \$3 billion of revenue each year from gas and oil sales to Turkey. They use their money here to pay suppliers for what's sent over the border. There's a list of everything they want. It's open. I've known them being able to get German laser-focusing equipment for conventional weapons via Turkey, channelled through an Israeli company. The Iranians didn't care; they just paid the extra 10 per cent.<sup>223</sup>

This does not mean that Turkey completely ignores the sanctions. It has implemented those decreed by the Security Council, despite its reservations.<sup>224</sup> In accordance with such resolutions and its commitments under the U.S.-driven Proliferation Security Initiative (PSI)<sup>225</sup> and, reportedly, under Washington pressure, it has forced down Iranian planes suspected of carrying banned items, including cargo related to the nuclear and missile programs.<sup>226</sup> In

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<sup>215</sup> "At the time the project was under construction, State Department testimony stated that Turkey would be importing gas originating in Turkmenistan, not Iran, under a swap arrangement. That was one reason given for why the State Department did not determine that the project was sanctionable under the Iran Sanctions Act. However, many believe the decision not to sanction the pipeline was because the line was viewed as crucial to Turkey, a key U.S. ally. That explanation was reinforced when direct Iranian gas exports to Turkey through the line began in 2001, and no determination of sanctionability has been made". Ken Katzman, "Iran Sanctions", op. cit., 13 October 2011.

<sup>216</sup> Israel's vice prime minister, Moshe Ya'alon, said that Turkey was "playing both sides" and secretly helping Iran avoid American and European sanctions. "... Turkish companies have apparently been helping Tehran export oil financed by Turkish banks, Ya'alon said". See *Israel Hayom*, 31 January 2012.

<sup>217</sup> See Reuters, 25 June 2010, quoting Ozan Ziylan, who oversees exports for several companies within Turkey's private MLS Holding.

<sup>218</sup> The U.S. embassy in Ankara expressed the following doubts after a visit to Turkey-Iran border crossings: "Visiting Kapikoy ... is like traveling back in time to an Ottoman border crossing, lacking any of the tools necessary to carry out modern customs work. In both posts, however, there is a sense that when operational capabilities are not running optimally (either because the power is out or because the capacity never existed in the first place), the border is left open to anyone who is not overtly suspicious". "Turkey-Iran border: a tale of two customs posts", cable, 29 July 2009, as reported by WikiLeaks.

<sup>219</sup> Crisis Group interviews, Van and Hakkari (Turkish provincial capitals on the Iranian border), June 2011.

<sup>220</sup> Turkish roads and ports are increasingly important to Iran's circumvention of sanctions, even though Turkey on several oc-

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casions has been keen to show its good faith by interdicting shipments covered by sanctions. Crisis Group interview, officials from UN Panel of Experts on Sanctions on Iran, Brussels, September 2011.

<sup>221</sup> Turkey's main legal exports to Iran are car parts, electronics, textiles, construction materials, steel, iron, industrial fibres, tobacco and fruit. Crisis Group interview, Turkish official, Ankara, December 2011.

<sup>222</sup> Özcan Alaş, president of the Iran and Middle East Trade Association, quoted in *Today's Zaman*, 17 October 2011.

<sup>223</sup> Crisis Group interview, Özcan Alaş, president of the Iran and Middle East Trade Association, Istanbul, December 2011.

<sup>224</sup> "Iran has to understand that we have to abide by UN resolutions, even if we rejected them". Crisis Group interview, Turkish official, Ankara, September 2011. A British official commented: "The Turkish private sector has seen that its best interest is to conform to sanctions". Crisis Group interview, London, November 2011.

<sup>225</sup> See "Proliferation Security Initiative (PSI)", James Martin Center for Nonproliferation Studies, available at <http://cns.miis.edu/inventory/pdfs/psi.pdf>.

<sup>226</sup> See "Iran cargo plane forced to land in Turkey for second time in a week", *Haaretz*, 3 March 2011; "Report: U.S. Behind Forced Landing of Iranian Planes", *Today's Zaman*, 23 March



August 2010, shortly after passage of U.S. and EU sanctions targeting the exports of such products, Turkish Petroleum Refineries Co., a privately owned company, announced that it had cancelled contracts to supply Iran with refined gasoline.<sup>227</sup> Turkey has also both looked to Saudi Arabia as an alternative source of oil and signalled it will apply for a U.S. waiver for oil imports.<sup>228</sup>

After a visit by U.S. Treasury Department officials in 2010, Turkish banks were essentially made to choose between doing business with Iran or the U.S.; as a result, banking business with Iran is now frozen, and “no Turkish bank does any transaction at all, including money wires or even opening accounts for Iranians”.<sup>229</sup> Still, given economic interest and geographic proximity, it is hard to imagine a wholesale clampdown on trading with Iran.

Turkey has other reasons for opposing sanctions on Iran. It dislikes economic penalties after experiencing twelve years of international sanctions on its neighbour Iraq (1991-2003) that – as Ankara sees it – ruined the lives of ordinary Iraqis, crushed Turkish businesses and failed to persuade Baghdad to comply with UN resolutions. Sanctions might well succeed in causing real economic pain – but that is not the goal purportedly pursued, which is policy change.<sup>230</sup> In November 2011, a Turkish official said:

We don't believe that sanctions work, especially not comprehensive sanctions. I was in Iran two weeks ago; everything was normal. It changes nothing [in terms

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2011. More recently, the ambassador to Washington told reporters that Turkey had intercepted a shipment of dual-use materials; he asserted that Turkey “will be against a nuclear Iran” even if the West grows to accept it. See Howard LaFranchi, “Turkey: Materials likely destined for Iran nuclear program seized”, *Christian Science Monitor*, 8 December 2011.

<sup>227</sup> “Turkey’s TÜPRAŞ to discontinue activities in Iran”, *Hürriyet Daily News*, 1 October 2010.

<sup>228</sup> “Turkey works to cut dependence on Iranian oil”, Reuters, 19 January 2011.

<sup>229</sup> Crisis Group email correspondence, Iranian bank executive, Istanbul, November 2011. That said, Turkish banks have suffered little financial loss, as transaction values always had been relatively small. Crisis Group interview, Turkish banking executive, Istanbul, 1 December 2011. In defiance of U.S. sanctions, and in an apparent break from a decision by Turkey’s private banks to limit their dealings with Iran in 2010, the Turkish state bank Halkbank reportedly facilitated a \$5 billion money transfer on behalf of an Indian state-owned refinery for Iranian crude in 2011. See “India firms start Iran oil payment via Turkey”, Reuters, 29 July 2011.

<sup>230</sup> “Sanctions have an effect. But they are not effective. For that, they would have to be shown to work in terms of the reason for imposing them in the first place [to pressure Iran to stop enriching]. But Iran has more enriched nuclear material now than before”. Crisis Group interview, Rouzbeh Parsi, European Union Institute for Security Studies, Paris, December 2011.

of regime behaviour], and we don't expect to see a change. What changes is that more people are dying because of things like aircraft crashing. Sanctions are affecting the oil industry; they can't find new oil. It only pushes Iranians into the arms of the regime. What did Iraq sanctions ever achieve? We raise our concerns; we don't think it'll work.”<sup>231</sup>

More recently, a Turkish diplomat asserted: “Sanctions are a Western approach. They don't work. In fact, they are helping Iran, namely in unifying the people”.<sup>232</sup>

Turkish officials likewise argue that sanctions will hurt the wrong people (including the middle class),<sup>233</sup> while bolstering the positions of smugglers and members of the Revolutionary Guards Corps, which has invested heavily in commercial dealings.<sup>234</sup> They stress that, insofar as it con-

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<sup>231</sup> Crisis Group interview, Ankara, November 2011. Leslie Gelb, a former chairman of Crisis Group's board, explained why sanctions were unlikely to work: “To see why economic sanctions alone won't lead to Tehran's capitulation, try to look at the situation through Iranian eyes. Here's what they see: Pakistan, a country that has already given away nuclear secrets to terrorist and renegade states and which itself could be heading toward a Muslim extremist takeover, got the bomb. We did nothing about it. North Korea, one of the nuttiest states around, which has also given nuclear knowledge to Syria and Pakistan (among others), also acquired nukes. We did nothing about that either. Washington accepted India's nukes and even made special verification arrangements with New Delhi that expressly contradicted the Non-Proliferation Treaty. And of course, Israel has long had a substantial nuclear strike capability”. “Leslie H. Gelb on how President Obama should handle Iran”, *The Daily Beast*, 30 January 2012.

<sup>232</sup> Crisis Group interview, February 2012. Some in the West have reservations too. For instance, while Germany supports the U.S., French and UK lead on sanctions, some officials privately say the main reason Berlin goes along is because of Israeli threats that, in the absence of such measures, it will attack Iranian nuclear sites. Crisis Group interviews, Berlin, January 2012. According to a German official, “officially, the sanctions are designed to change Iran's behaviour. And they're better than a military strike, which would be catastrophic. But it's a tricky situation. It's impossible to bring Iran to its knees. China will always import oil from Iran. In a half year, we'll have no sanctions left to impose. Iranians are suffering, but they can take a lot more. Besides, 95 per cent of Iranians believe that Iran has the right to nuclear enrichment. Sanctions are really art for art's sake”. Crisis Group interview, Berlin, January 2012.

<sup>233</sup> An Iranian economist said, “Sanctions are contributing to weaken Iran's middle class, which is the key actor in the modernisation of our society over the past 30 years and is a stronghold of political protests”. Crisis Group interview, Paris, August 2010.

<sup>234</sup> Echoing this view, Fareed Zakaria wrote: “The punitive tactics have paid off in some measure. Iran faces economic problems. But the tactics are also having a perverse impact on the country . . . . The sanctions are stifling growth, though not as much as one might imagine because Iran has oil money and a large

trols entry and exit points into the country and operates a network of regional procurers and front companies, the sanctions enrich the IRGC, thereby empowering the entity most closely tied to the nuclear program.<sup>235</sup> They also believe that external sanctions both allow the Iranian government to cover up the domestic impact of its erratic decision-making and policies that hobble free-market development and strengthen hardliners most inclined to pursue nuclear weapons.<sup>236</sup>

## V. CONCLUSION: IS THERE A WAY FORWARD?

The heightened rhetoric emanating from Israel might well be just that – rhetoric designed above all to compel countries fearful of military action to escalate their pressure on Iran, whether through sanctions, covert action or both. Certainly, it would not be the first time Israel raised the stakes and sounded alarm bells about the imminence of a nuclear Iran and thus of the imminence of a military strike. Still, whether or not this is a bluff, the situation is increasingly perilous, at the mercy of deliberate hostile actions, provocations or missteps in what has become a uniquely fluid and tense regional environment.

It is too early to assess whether Turkey's underlying assumptions – that sanctions will not only fail but backfire; that the best way forward is genuine, multi-pronged diplomatic engagement with a range of Iranian political actors; that one needs to acknowledge upfront Iran's right to enrich on its soil – are correct. But a verdict can already be rendered on the approach that has been pursued until now: the sanctions currently imposed or contemplated (among the most widespread and profound ever) are inflicting pain on Iran, but what they are not doing, for now at least, is succeeding in convincing Tehran to fundamentally shift course; worse, by convincing the Iranian regime that the West is determined to topple it no matter what, they conflict with the other prong of U.S. and EU policy, engagement.

Western officials reply that the worst has yet to come and that Iran will only finally begin to feel the full pinch in the next twelve to eighteen months and that, then, its leadership might at long last negotiate seriously. Perhaps. They point to Iran's expressed willingness to resume talks as proof. But at least as likely is that a regime that feels under siege, at the mercy of foes for whom the goal is its overthrow, is highly unlikely to yield, even if it makes what might amount to essentially cosmetic concessions to play for time – such as a resumption of nuclear talks. The dual track approach, in other words, is internally inconsistent, seeking to produce an end (genuine talks) that its means (pressure) make more difficult. This is all the truer when the sanctions imposed are as onerous as those currently contemplated.

Like the tail wagging the dog, the sanctions policy essentially appears to be shaping diplomacy: imposition of tough sanctions, interrupted by brief, periodic, P5+1 meetings with Iran which, when they invariably fail to produce the desired Iranian concession, are followed by yet more onerous sanctions. A U.S.-based Iran analyst put it as follows:

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internal market. Their basic effect has been to weaken civil society and strengthen the state – the opposite of what we should be trying to do in that country". "To deal with Iran's nuclear future, go back to 2008", *The Washington Post*, 27 October 2011. A British official disputed the assessment: "The sanctions work. The state already is responsible for 80 per cent of the economy. This is not going to make the [Revolutionary Guards Corps] any more massive than it already is". Crisis Group interview, November 2011.

<sup>235</sup> An Iranian parliamentarian estimated that the IRGC collects upwards of \$12 billion per year from smuggling, while another accused the IRGC and its allies of controlling 68 per cent of Iran's exports. See "The Rise of the Pasdaran: Assessing the Domestic Role of Iran's Revolutionary Guards Corp", RAND (2009). There is little doubt that contraband gradually has become a state business run by networks either close to, or in many cases belonging to, the regime. Better organised, more disciplined and resourceful, the Revolutionary Guards are better able to control entry and exit points – notably ports and airports – and thus have become "core participants of a parallel economy. In a way, sanctions have accelerated the IRGC's process of taking control of the economy". Crisis Group interview, Iran analyst, Paris, September 2009.

<sup>236</sup> On this, see Radiofarda, "Sepah, Terrorism, and Militarism Irani dar meidan-e Jahani" [IRGC, Terrorism and Iranian Militarism in the globe], 15 August 2007; "The Rise of the Pasdaran", op. cit.

You can pursue pressure. Or you can pursue engagement. You cannot pursue both. Put yourself in Ayatollah Khamenei's shoes: he is being asked to make a concession on the nuclear front, knowing full well that that alone will not lead to removal of the gamut of crippling sanctions given Iran's overall policies and political realities in Europe and the U.S. He also is being asked to renounce a nuclear weapon at a time when the U.S. has substantially beefed up the military capacities of Iran's neighbours, which would leave Tehran in a highly vulnerable position.<sup>237</sup>

By repeatedly asserting that a nuclear-armed Iran is unacceptable and by focusing almost exclusively on sanctions as the way to prevent it, the West – and the U.S. in particular – runs the risk of cornering itself and, if and when sanctions fail, seeing no alternative but to engage or acquiesce in a perilous war.<sup>238</sup>

In the past, Crisis Group advocated an alternative approach: vigorous diplomatic engagement with Iran and presentation by the P5+1 of a deal pursuant to which Iran could continue to enrich uranium but with initial limitations on the size and scope of the program and with an intrusive international inspections regime to ensure no diversion for military purposes.<sup>239</sup> With the apparently imminent resump-

tion of negotiations, a new opportunity has emerged – however fragile – for more constructive diplomacy along these lines. In the years since the recommendation was made, important developments on the ground have occurred, most of them negative (another argument for seeking an agreement quickly, rather than waiting for sanctions to work). These include Iranian technological progress, notably enrichment at 20 per cent, which would dictate some modifications to the details of the basic proposal.

The experience of the Tehran Declaration suggests something else: the utility of facilitation by emerging, non-traditional powers that are more trusted by Iran and whose participation is consistent with the Islamic Republic's call for greater equality in international relations.<sup>240</sup> But the essence of the putative nuclear bargain broadly would remain the same:

- Acceptance in principle of Iran's right to nuclear research, enrichment, production and use of nuclear energy for peaceful purposes. Whether or not it might have been possible to get Tehran's agreement to zero fissile material production three years ago is a moot question. It is not obtainable now. Iran has paid a hefty price to acquire the requisite knowledge of uranium mining, refining, enriching and converting into fuel rods, and forfeiting any of that is no longer realistic. In the words of Ambassador Soltanieh, "All these Security Council resolutions were unable to stop the enrichment, and in fact they caused Iranians to be more united.

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<sup>237</sup> The analyst stressed that he had little confidence engagement would succeed even without pressure, insofar as in his view the regime sees normalisation with the U.S. as an existential threat. But if one assumes, as does the administration, that the regime eventually can be brought to compromise, then he argues that pressure is self-defeating. Crisis Group interview, Washington, DC, February 2012. Vali Nasr, an Iran expert and former adviser to the U.S. administration, argued that the Obama administration has essentially followed the failed policies of the Bush team, which were premised on belief that sanctions would bring Iran to the table. He surmised that, in Khamenei's view, foregoing a nuclear bomb even as some of the sanctions remained in place would be a recipe for a Libya-like scenario: if popular protests revived, the West would be tempted to intervene and seek to accelerate the regime's demise. In his view, the overall impact of sanctions that "go for the jugular" will be to accelerate the nuclear program, not halt it. See "Vali Nasr on U.S.-Iranian Relations", video, YouTube, posted 25 January 2012, [www.youtube.com/watch?v=NaFC9WFUPfc](http://www.youtube.com/watch?v=NaFC9WFUPfc). On 3 February 2012, Khamenei pointedly said, "These sanctions are aimed at making Iran back down, but Iran will not back down", *The Washington Post*, 4 February 2012.

<sup>238</sup> On 5 February, Obama said, "We've been very clear that we're going to do everything we can to prevent Iran from getting a nuclear weapon". Quoted in *The New York Times*, 6 February 2012.

<sup>239</sup> See Crisis Group Report, *Iran: Is There a Way Out of the Nuclear Impasse?*, op. cit. At the time, Crisis Group suggested a three-phase plan: during the first, lasting two to three years, Iran would suspend all enrichment activities and ratify the Additional Protocol, while the EU would recognise Iran's right to

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enrich uranium and begin cooperation on a range of commercial issues; during the second (three to four years), Iran would carry out limited, closely monitored, low-enrichment activities, enriching at no more than 5 per cent, and with enriched uranium either stored outside the country or immediately converted into fuel rods; during the third (indefinitely thereafter), Iran could develop the fuel cycle on an industrial scale, optimally under multilateral co-ownership, while foregoing spent fuel reprocessing and the establishment of heavy water infrastructure. In return, the U.S. would take a series of steps of its own to normalise relations.

<sup>240</sup> As Iran's third most important trading partner and a NATO member, Turkey arguably is in a privileged position in this regard. An Iranian analyst said, "Turkey operates nuclear research reactors and is planning to start constructing its first nuclear power plant next year. Nuclear cooperation between Iran and Turkey is one way to alleviate concerns about Tehran's nuclear activities. This goal could be achieved through establishing a 'neighbour-to-neighbour' control system. Such a system is not without precedent. The Brazilian-Argentine Agency of Nuclear Materials Accounting and Control (ABACC) was created in 1994 based on an agreement among the IAEA, Argentina and Brazil. Although not perfect, this mechanism has effectively prevented proliferation of nuclear weapons, protected Latin America's nuclear-weapon-free zone (NWFZ), and spurred growth in South America". Crisis Group email correspondence, February 2012.

We will never talk about a suspension or a freeze. Enrichment will continue under the IAEA. Full stop".<sup>241</sup>

- Onerous verification. Iran should accept what amounts to an "NPT Additional Protocol Plus", entailing a rigorous monitoring system and enhanced safeguards going beyond the NPT's present voluntary Additional Protocol regime. It also would agree to implement the IAEA's modified Code 3.1, which requires that the decision to build any new nuclear facility be immediately made public. Experts have suggested other confidence-building measures: granting Iran a grace period "during which [it] would not be penalised should it voluntarily disclose the existence of undeclared nuclear material and activities, and/or acknowledge any past violations of the NPT or its safeguards agreement".<sup>242</sup>
- Initial steps to address uranium enrichment. Iran would commit to halt enrichment at the 20 per cent level for a specified period of time, capping its enrichment at 5 per cent.<sup>243</sup> To that end, the Tehran Declaration could be revived in a revised form. Given that the lifespan of the 45-year-old Tehran Research Reactor is unlikely to extend beyond another decade, Iran's fuel needs would not exceed the previously negotiated 120kg of 20 per cent uranium. Assuming this amount were converted from the existing five-ton stockpile of 5 per cent enriched uranium, Iran would still possess about four tons of LEU – negating the benefits the original deal had contemplated. For that reason, a better option might be for the P5+1 (and added countries) to agree to convert all of Iran's current stockpile of 20 per cent uranium (nearly 80kg) into fuel rods, in return for the suspension of any enrichment beyond the 5 per cent level.

This would have the added advantage of better fitting Iran's position: although the government has signalled that swapping much of its 5 per cent stockpile for fuel

rods no longer is an option,<sup>244</sup> it simultaneously has indicated it might agree to stop enriching at 20 per cent in exchange for the fuel needed for the production of nuclear medicine for more than 800,000 Iranian cancer patients.<sup>245</sup> Halting Iran's most perilous nuclear activity – enrichment at a 20 per cent level – as a confidence-building measure could pave the way for one of the most highly regarded approaches to non-proliferation: to cap, freeze and roll back. In this spirit, Iran could agree to limitations on the amount of uranium it enriches or commit to export all its LEU beyond a certain level until it possesses nuclear power reactors capable of using it.<sup>246</sup>

- Ratcheting down tensions, notably by:
  - in return for the TRR deal, the U.S. and EU agreeing to not implement the sanctions they recently announced;
  - in parallel to Iran's clarification of its "alleged studies" of nuclear weaponisation, implementation of the Additional Protocol, agreement on IAEA inspections of non-nuclear alleged weaponisation sites, return to compliance with modified Code 3.1 on the need for immediate notification of the construction of nuclear facilities, and other confidence-building measures described here, gradual loosening of other sanctions;
  - stopping hostile behaviour, sabre-rattling, provocative rhetoric and belligerent actions (whether assassination or planning of attacks) by all sides; and
  - beginning of broader U.S.-Iranian dialogue. The U.S. and Iran would state explicitly that they are ready, in parallel to the nuclear talks, to discuss all issues in the bilateral relationship.

Of course, there is no guarantee that such a process would succeed. Iran might be determined to acquire a nuclear bomb for a variety of reasons, not least of all its assessment of the contrasting fate of various regimes – the Iraqi and Libyan on the one hand, the Israeli, North Korean, Pakistani and Indian on the other. Should that occur, the choice faced by the U.S. and its allies would be whether to wage war, with all the limitations and risks such an option necessarily would entail, or adopt a policy of deterrence and

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<sup>241</sup> Crisis Group interview, Vienna, 21 November 2009. He added: "The West has to cope with a strong Iran, a country with thousands of years of civilisation that has mastered enrichment. I know it is hard for them to understand, to digest this, but it is the reality, and Iran will never give up this enrichment technology, whatever the price. But at the same time, Iran will continue to be a party to the NPT and be a responsible member state of the IAEA and put all its activities under the Comprehensive Safeguards agreement. This goes side by side". The U.S. administration has already signalled implicitly its eventual acceptance of Iran's right to enrich through the TRR proposal and other private statements. Crisis Group interview, U.S. official, January 2012.

<sup>242</sup> Goldschmidt, *op. cit.*

<sup>243</sup> One expert has suggested that Iran agree to export at regular intervals the LEU it produces and receive in exchange the fuel it needs for its reactors. *Ibid.*

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<sup>244</sup> See Jeffrey Fleishman, "Tehran says no to nuclear swap", *Los Angeles Times*, 29 August 2011.

<sup>245</sup> See Graham Allison, "Obama should test Iran's nuclear offer", 7 October 2011.

<sup>246</sup> Ideas to deal with Iran's uranium stockpile in the short to medium term also could be discussed. Alternatively, Iran could be taken up on Ahmadinejad's 2005 suggestion that its nuclear power program become part of an international consortium. Crisis Group interview, former Iranian negotiator, May 2011.

containment, with all the anxiety such a scenario inevitably would produce.

Over the past several years, a number of respected former U.S. officials have made clear their opposition to the former – because of the likelihood of dangerous regional escalation and spillover; because it would at best delay the nuclear program; and because of the possibility that Iran would respond by accelerating its efforts to militarise, and public opinion would rally to its side.<sup>247</sup> They also have argued in favour of the latter on the grounds that even a nuclear-armed Iran would not present an existential threat and that containment and deterrence have worked against far more formidable foes.<sup>248</sup>

That is not the subject of this report, and it is one that deserves fuller treatment. For now the goal ought to be to do everything possible to avoid such a choice. Pursuing a meaningful and realistic diplomatic initiative, with the kind of energy and commitment through which countries like Turkey and Brazil were able to produce at least a modicum of progress and trust, would not be a bad place to start.

**Istanbul/Washington/Brussels, 23 February 2012**

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<sup>247</sup> See, eg, Colin Kahl, “Not time to attack Iran”, *Foreign Affairs* (online), 17 January 2012.

<sup>248</sup> See “Coping with a nuclearizing Iran”, Rand, 2011, whose authors write: “The United States successfully deterred a much more powerful Soviet Union for more than 40 years”, p. 104. They rebut other arguments against deterrence at pp. 105-106. See also Michael O’Hanlon and Bruce Riedel, “Do not even think about bombing Iran”, *Financial Times*, 28 February 2010; Riedel, “Iran is not an existential threat”, *Bitterlemons*, 22 January 2012; “The War Over Containing Iran: Can a Nuclear Iran be Stopped?”, *Foreign Affairs* (online), March/April 2011; Andrew Parasiliti, “After Sanctions, Deter and Engage Iran”, *Survival* vol. 52, no. 5, October-November 2010, pp. 13-20; Thomas Donnelly, Danielle Pletka and Maseh Zarif, “Containing and Deterring a Nuclear Iran: Questions for Strategy, Requirements for Military Forces”, The American Enterprise Institute, December 2011; Jason Zaborski, “Deterring a Nuclear Iran”, *The Washington Quarterly*, vol. 23, no. 3, summer 2005, pp. 153-167. Some Israelis likewise have argued that Iran is not an existential threat. See “Mossad chief: Nuclear Iran not necessarily existential threat to Israel”, *Haaretz*, 29 December 2011.

## APPENDIX A

### MAP OF IRAN, IRAN'S PRINCIPAL NUCLEAR FACILITIES, AND TURKEY



## APPENDIX B

### TECHNICAL ISSUES IN THE IRAN DEBATE: BASIC NUCLEAR JARGON FOR NON-SPECIALISTS

*Some of the material in this appendix was first published in earlier Crisis Group reporting, in particular, Crisis Group Middle East Reports N°18, Dealing with Iran's Nuclear Program, 27 October 2003; and Iran: Is There a Way out of the Nuclear Impasse?, op. cit.*

#### A. NUCLEAR MATERIALS

##### Uranium

Uranium occurs naturally. Uranium ore (containing as little as 0.1 per cent uranium) is mined, milled to produce a uranium oxide concentrate (“yellowcake”) and refined into uranium dioxide. This can be used as fuel in some reactors (see “heavy water reactors” below), but for most purposes uranium dioxide has to then be converted into uranium hexafluoride (UF<sub>6</sub>, a compound that can be a solid, liquid or gas) and then enriched to either reactor-grade or weapons-grade levels. The final step in the process is the fabrication of fuel rods, using a variety of refined or enriched uranium types.

“Enrichment” means increasing the concentration of the isotope uranium 235 and reducing that of uranium 238. Natural uranium consists primarily of these two atomic forms (which have the same number of protons, but differing numbers of neutrons in each nucleus): only U-235 is capable of undergoing fission, the process by which a neutron strikes a nucleus, splitting it into fragments and releasing heat and radiation.

Low-enriched uranium (LEU), used as the fuel (to heat water to steam to drive turbines) in most power-generating reactors, involves increasing the natural concentration of U-235 (0.7 per cent) to between 3 and 5 per cent. Iran started enriching to 5 per cent in April 2006 and in February 2010 to 19.75 per cent (a figure that is usually rounded up to 20 per cent in non-specialist reports).

Highly-enriched uranium (HEU) is defined (for safeguards administration purposes) as that in which the percentage of U-235 has been increased to greater than 20 per cent. Iran is not known to enrich uranium to over 20 per cent.

Weapons-grade uranium is usually described as that enriched to 90 per cent or higher U-235. The IAEA has defined 25kg of HEU, or 8kg of Plutonium-239 or Uranium-233 as a “significant quantity” – the UN Agency’s definition for the quantity of material needed for the manufacture of

a nuclear device.<sup>249</sup> However, some outside experts argue that an aspiring nuclear weapons state could construct a simple fission nuclear device with as little as 3kg of weapons-grade plutonium or 2-7kg of HEU.<sup>250</sup>

##### Plutonium

Plutonium occurs naturally only in minute proportions and is essentially a man-made element.

*Reactor-grade plutonium* is produced by commercial power reactors as a normal by-product when some of the neutrons released during fissioning interact with other uranium atoms: some of this is itself fissioned, but a proportion remains in spent fuel rods in different isotopic forms (including Pu-239, Pu-240 and Pu-241), which when extracted is used as a nuclear fuel.

In the case of standard light-water reactors, the plutonium contained in spent fuel rods is typically about 60-70 per cent Pu-239; heavy water reactors, by contrast, can produce Pu-239 in weapons-grade concentrations (but the brief irradiation required to achieve this is inefficient for power production). As noted, the IAEA has defined 8kg of plutonium as a “significant quantity”, sufficient for a nuclear bomb.<sup>251</sup>

#### B. NUCLEAR PROCESSES

##### Enrichment

These are four main types of process:

1. **Gas Centrifuge (Iran’s facilities at Natanz and Fordow):** Uranium hexafluoride gas (UF<sub>6</sub>) is pumped into a series of tall rotating cylinders that operate under vacuum. The centrifugal force draws heavier U-238

<sup>249</sup> “IAEA Safeguards Glossary: 2001 Edition”, International Atomic Energy Agency, International Nuclear Verification Series no. 3, June 2002, p. 23.

<sup>250</sup> See Thomas B. Cochran and Christopher E. Paine, “The Amount of Plutonium and Highly-Enriched Uranium Needed for Pure Fission Nuclear Weapons”, National Resource Defence Council, 13 April 1995.

<sup>251</sup> “IAEA Safeguards Glossary”, op. cit., p. 23.

molecules toward the outside of the chamber, while lighter U-235 molecules remain in the centre. Standard centrifuge enrichment is easily modified to produce HEU, and the modifications can be concealed because enrichment cascades can be housed in small buildings, less vulnerable to detection by spy satellites.

#### Types of Centrifuge

- a) **IR-1/P-1:** Iran's IR-1 (or P-1) centrifuge is based on an early Dutch design. Pakistani nuclear scientist Abdul Qadeer Khan stole the design, then sold it to Iran, Iraq, Libya, North Korea and possibly India. The IR-1 uses aluminium rotors between 10cm and 11cm in diameter. The centrifuge's peripheral velocity is ~350 m/s.<sup>252</sup>
- b) **IR-2m/P-2:** The more advanced Iranian IR-2m (or P-2) centrifuge is based on a modified German design that uses a rotor of tough maraging steel<sup>253</sup> sold by Pakistan's Khan to Iran in the mid-1990s.<sup>254</sup> The rotors are estimated to be between 14.5 and 15 cm wide. The IR-2m is capable of reaching 485 m/s. As of November 2011, Iran has installed 164 IR-2m centrifuges<sup>255</sup> but is still testing them.
- c) **IR-4:** The IR-4 has the same dimensions and potential output as the IR-2m. Its design is also based on Iran's illegal import of Khan's centrifuge and design components in the 1990s.<sup>256</sup> 66 IR-4 cen-

trifuges have also been installed, and the IAEA notes that no UF<sub>6</sub> gas has been introduced.<sup>257</sup>

2. **Gaseous Diffusion:** A mixture of gases containing U-235 and U-238 is placed in a semi-permeable vessel. Since lighter molecules travel faster than heavier ones, molecules consisting of U-235 will escape from the vessel faster than those of U-238. Gaseous diffusion plants are large and easily identifiable with satellite surveillance.
3. **Electromagnetic Enrichment:** The different paths of the U-235 and U-238 isotopes as they pass through a magnetic field allow them to be separated and collected.
4. **Laser:** A laser of a particular wavelength is used to excite U-235 atoms to the point that they can be separated from U-238.

#### Reactors

There are two main types:

1. Light water reactors (Iran's Bushehr plant, built by Russia): The most common reactors in operation today, light water reactors use ordinary water as a coolant and require low-enriched uranium as fuel. From a proliferation standpoint, light water reactors are preferable to heavy water reactors for two reasons: first, extracting the plutonium by-product requires shutting down the reactor, which is more easily noticed by outsiders; secondly, the plutonium produced as a by-product contains significant impurities, ie, low concentrations of Pu-239.
2. Heavy water reactors (Iran has a heavy water producing plant at Arak and has declared it is building a heavy water reactor there): These reactors use as a coolant water containing an elevated concentration of "heavy hydrogen" (also known as deuterium) – hydrogen atoms which contain a neutron in their nucleus in addition to the usual proton. This allows the use of natural (non-enriched) uranium as fuel. Spent fuel rods from heavy water reactors produce – without the need for any uranium enrichment facilities – significant quantities of plutonium and are capable (though not in commercial use mode) of producing Pu-239 in weapons-grade concentration. Some heavy water reactors can be refuelled online, making detection of diversion more difficult.

<sup>252</sup> Alexander Glaser, "Characteristics of the Gas Centrifuge for Uranium Enrichment and Their Relevance for Nuclear Weapon Proliferation (corrected)", *Science and Global Security*, vol. 16, no. 1 (2008), p. 8.

<sup>253</sup> Tough but malleable "maraging" steel is considered a dual use item, and its export is controlled by the Nuclear Suppliers Group – nuclear supplier countries that seek to contribute to the non-proliferation of nuclear weapons through the implementation of guidelines for nuclear exports and nuclear-related exports and coordinated control lists of sensitive dual use equipment. "Communication Received from Certain Member States Regarding Guidelines for the Export of Nuclear Material, Equipment and Technology", IAEA, Information Circular, 24 February 1998.

<sup>254</sup> David Albright and Christina Walrond, "Iran's Advanced Centrifuges", Institute for Science and International Security, 18 October 2011.

<sup>255</sup> *Ibid.*, p. 4. "The outside surface of a modern centrifuge rotor is traveling well above the speed of sound so centrifuges are enclosed in a vacuum casing to minimize drag. The casing is also designed to contain an exploding rotor. Operating the rotor in a vacuum also makes rotor temperature control easier, eliminating any unwanted convection in the gas in the rotor. In addition, the casing isolates the machine from outside vibration, particularly from the other machines in the cascade". Barzashka and Oelrich, "Engineering Consideration for Gas Centrifuges", *op. cit.*

<sup>256</sup> Albright and Walrond, "Iran's Advanced Centrifuges", *op. cit.*

<sup>257</sup> "Implementation of the NPT Safeguards Agreement", IAEA, *op. cit.*, 8 November 2011, p. 4.



## C. RELEVANT TREATIES AND INSTITUTIONS

1. **The Treaty on the Nonproliferation of Nuclear Weapons (Nonproliferation Treaty, NPT)** – The NPT is an international treaty designed to halt the spread of nuclear weapons, promote the spread of peaceful nuclear technology and further the goal of disarmament. The NPT divides its signatories into two categories: the Nuclear Weapons States (NWS) and the Non-Nuclear Weapons States (NNWS). The five official nuclear weapons states<sup>258</sup> are the U.S., Russia, the UK, France and China. In exchange for agreeing not to pursue nuclear weapons, the NNWS are ensured access to nuclear technologies for peaceful use. The NWS are obligated to assist in the development of nuclear energy, while also working in good faith towards nuclear disarmament. The treaty was opened for signature in 1968 and entered into force in 1970.<sup>259</sup> On 11 May 1995, it was extended indefinitely.
2. **The International Atomic Energy Agency (IAEA)** – The IAEA is the UN's nuclear watchdog, a Vienna-based international body with 152 member states. It is tasked with encouraging and assisting research, development and practical application of atomic energy for peaceful uses throughout the world; establishing and administering safeguards designed to ensure that such activity assisted by it is not used to further any military purpose; applying safeguards to relevant activities at the request of member states; and applying, under the NPT and other treaties, mandatory comprehensive safeguards in non-nuclear weapon states (NNWS) that are parties to such treaties.<sup>260</sup> It is the principal source of information about Iran's nuclear program, through inspections of Iran's declared nuclear facilities on which its board of governors issues regular reports.
3. **Safeguards** – The primary function of the IAEA safeguards system is to prevent the diversion of fissile material from civilian use. According to NPT Article III, each non-nuclear-weapon State Party to the Treaty undertakes to accept safeguards, as set forth in an agreement to be negotiated and concluded with the IAEA in accordance with the Statute of the IAEA's safeguards system, for the exclusive purpose of verification of the fulfilment of its obligations assumed under the NPT with a view to preventing diversion of

nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices. The exact details about how safeguards are applied are contained in the Agreement's subsidiary arrangements.

4. **Additional Protocol** – According to the Additional Protocol to the Safeguards Agreement, states that have accepted it are required to provide the IAEA with an expanded declaration that contains information covering all aspects of their nuclear fuel cycle activities; grant the IAEA broad access to all relevant locations and nuclear sites, and allow it to use all verification technologies; and streamline procedures for designating inspectors and for granting them long-term multiple entry visas.<sup>261</sup> The Additional Protocol is voluntary; 102 of the 152 IAEA member states have committed to it, including all states the main nuclear states. Iran agreed to implement the Additional Protocol in 2003, but said it would stop abiding by it in 2006, a move not recognised by the IAEA.
5. **Code 3.1** – This is the subsidiary arrangement of a state's safeguards agreement with the IAEA that specifies when it must report a new facility to the IAEA. According to the original version of Iran's Code 3.1, agreed in 1976, it is obligated to report to the agency a new facility no later than 180 days before the introduction of nuclear material. In 2003, Iran began to implement the modified Code 3.1, as do most states with nuclear programs. Modified Code 3.1 requires the Islamic Republic to submit design information to the IAEA as soon as a new facility is planned. Iran unilaterally revoked its implementation of the modified Code 3.1 in March 2007. The IAEA does not accept Iran's non-application of modified Code 3.1, which, like the Additional Protocol, is voluntary.
6. **P5+1** – The P5+1, the group leading the international community's negotiations with Iran over its nuclear program, includes the five permanent members of the UN Security Council – the U.S., China, Russia, UK and France – and Germany. It is led by the European Union's High Representative, Catherine Ashton. It is also known as the E3+3 or the EU/E3+3.

## D. IRAN'S NOTABLE NUCLEAR FACILITIES

1. **The Tehran Research Reactor (TRR):** The U.S. supplied Iran with a five-megawatt thermal pool type light water research reactor, which became operational in 1967. Initially, the reactor ran on 93 per cent en-

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<sup>258</sup> For the purposes of the NPT, a nuclear-weapon state is one that has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967.

<sup>259</sup> "Treaty on the Nonproliferation of Nuclear Weapons", INFCIRC/140, 22 April 1970.

<sup>260</sup> "International Atomic Energy Agency (IAEA)", Inventory of International Nonproliferation Organizations and Regimes, James Martin Center for Nonproliferation Studies.

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<sup>261</sup> "IAEA Safeguards Agreement and Additional Protocols: Verifying Compliance with Nuclear Non-Proliferation Undertakings", IAEA, [www.iaea.org/Publications/Booklets/Safeguards3/safeguards0408.pdf](http://www.iaea.org/Publications/Booklets/Safeguards3/safeguards0408.pdf).

riched fuel (HEU), but in 1987 Iran paid Argentina's Applied Research Institute to convert it to run on 19.75 per cent enriched fuel, which it has since 1988.

2. **Natanz Enrichment Plant:** Natanz is home to two different enrichment facilities: the large Fuel Enrichment Plant (FEP) and the smaller Pilot Fuel Enrichment Plant (PFEP). Iran also assembles its centrifuges on site at Natanz. The Fuel Enrichment Plant is buried deep underground, so as to protect it from air strikes, and consists of large bunkers that together could eventually hold 50,000 centrifuges.<sup>262</sup> As of 2 November 2008, 37 cascades containing a total of 6,208 IR-1 centrifuges were being fed with uranium hexafluoride gas (UF<sub>6</sub>), though the IAEA notes that all of Iran's centrifuges may not be working. According to numbers given in the most recent IAEA report, Iran has installed 54 cascades in total, containing 8,000 centrifuges, about three-quarters of which are operational.<sup>263</sup>

The Pilot Fuel Enrichment Plant is a much smaller research and development facility, also underground, where Iran has installed its newer and more advanced IR-2m and IR-4 centrifuges. The cascade hall is designed to house six centrifuge cascades. It has been split into an area for the production of up to 20 per cent enriched fuel for the TRR and another for research and development.

3. **Fordow Enrichment Plant:** Iran informed the IAEA on September 2009 that it was constructing a 3,000-centrifuge enrichment facility deep under a mountain-side near the city of Qom. As of 24 October 2011, the IAEA has confirmed that Iran has installed two cascades of 174 centrifuges each. Enrichment began here in January 2012.
4. **Heavy Water Reactor (Arak):** After successful small-scale experiments to produce heavy water, Iran decided in the mid-1990s to build a IR-40 (40-megawatt thermal) heavy water moderated and cooled reactor. The reactor will be fuelled with natural uranium. Such reactors produce plutonium Pu-239, ideal for some forms of nuclear weapons. Iran says that the Arak reactor will be used for research and development and radioisotope production.<sup>264</sup> As of 17 October 2011, the IAEA confirmed that construction at the

plant was continuing. According to Iran, the reactor is expected to come online sometime in 2013.<sup>265</sup>

5. **Heavy Water Production Plant (Arak):** Iran commissioned the heavy water production plant in 2006. It is now operational and can produce sixteen metric tons of heavy water per year for use in the IR-40 heavy water reactor under construction.<sup>266</sup> As of February 2012, it was not covered by Iran's IAEA safeguards agreement.
6. **Fuel Manufacturing Plant (Isfahan):** Iran is currently constructing a fuel manufacturing plant to produce fuel rods for the Tehran Research Reactor and the IR-40 heavy water reactor in Arak. A fuel fabrication facility is the last step on the front end of the nuclear fuel cycle and is where nuclear reactor fuel is made.<sup>267</sup> On 31 May 2011, Iran informed the IAEA that a fresh fuel rod made of uranium dioxide had been shipped to the TRR for irradiation and post-irradiation analysis. The fuel rod, however, is not suitable for radioisotope production at the TRR because it is made of natural uranium. It is instead intended for eventual use in the IR-40.
7. **Uranium Conversion Facility (Isfahan):** The Uranium Conversion facility (UCF) began operation in 2006. The UCF is where Iran converts yellowcake into uranium dioxide, uranium metal and uranium hexafluoride (UF<sub>6</sub>). The facility is able to convert yellowcake, Iran's 3.5 enriched UF<sub>6</sub> and its depleted uranium into uranium metal. Iran has informed the IAEA that it intends to build production lines for the conversion of natural and 20 per cent enriched uranium for use in its reactors. The facility's annual capacity is 200 metric tons.<sup>268</sup>

<sup>262</sup> "Natanz Fuel Enrichment Plant", Institute for Science and International Security ([www.isisnucleariran.org/sites/facilities/fuel-enrichment-plant/](http://www.isisnucleariran.org/sites/facilities/fuel-enrichment-plant/)), undated.

<sup>263</sup> "Implementation of the NPT Safeguards Agreement", IAEA, op. cit., 8 November 2011, p. 3.

<sup>264</sup> "IR-40", Nuclear Threat Initiative ([www.nti.org/facilities/177/](http://www.nti.org/facilities/177/)), undated.

<sup>265</sup> "Implementation of the NPT Safeguards Agreement", IAEA, op. cit., 8 November 2011, p. 6.

<sup>266</sup> "Heavy Water Production Plant (HWPP)", Nuclear Threat Initiative ([www.nti.org/facilities/175/](http://www.nti.org/facilities/175/)), undated.

<sup>267</sup> Ivanka Barzashka and Ivan Oelrich, "Iran's Fuel Fabrication: Step closer to independence or a bomb?", Federation of American Scientists, 30 September 2009.

<sup>268</sup> "Uranium Conversion and Fuel Fabrication", Institute for Science and International Security ([www.isisnucleariran.org/sites/by-type/category/uranium-conversion-and-fuel-fabrication/](http://www.isisnucleariran.org/sites/by-type/category/uranium-conversion-and-fuel-fabrication/)), undated.