
THE STRATEGIC IMPLICATIONS OF THE IRANIAN NUCLEAR PROGRAM

Prof. Dr. Joachim Krause (ed.)

Charles King Mallory IV (ed.)



The Aspen Institute | Germany

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During the course of the Cold War, the Aspen Institute Germany periodically convened a “European Strategy Group” in order to seek solutions to pressing strategic imperatives. Today, Aspen Germany continues to convene leaders from academia, politics, business, the media and the arts to seek solutions to key strategic challenges once a year at the Aspen European Strategy Forum. The forum is chaired by Prof. Dr. h.c. Horst Teltschik, former Foreign and Security Policy Advisor to German Federal Chancellor Helmut Kohl, Dr. Günther Nonnenmacher, Co-Publisher of the Frankfurter Allgemeine Zeitung and Karsten D. Voigt, former Coordinator of German-American Cooperation in the German Federal Foreign Office. The 2010 Aspen European Strategy Forum was dedicated to a key challenge facing the international community: “The Strategic Implications of the Iranian Nuclear Program”.

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CONTENTS

Agenda	4	
Participants	8	
Conference Report	11	
Welcome	Dr. Eckart von Klaeden: The Extent to Which the Iranian Nuclear Program is a Global Challenge	26
Session I:	A Nuclear Program in Progress	29
	1. Thérèse Delpech: Iran, Diplomacy and Past Experience	30
Session II:	Are We Pursuing the Right Diplomatic Approach?	45
	1. Bruno Pellaud: Testing Alternative Approaches	46
	2. Henry Sokolski: Nine Regrets – America’s Non-Proliferation Efforts Against Iran	70
Session III:	Will Sanctions Work? Intentions, Capabilities, Strengths and Weaknesses of the Iranian Regime	83
	1. Sharam Chubin: The Domestic Politics of the Nuclear Question in Iran	84
	2. Keith Crane: Iran and International Sanctions – Elements of Weakness and Resilience	94
Session IV:	Military Options. Useless or Indispensable?	105
	1. Richard L. Russel: Military Options for Preventing a Nuclear Armed Iran	106
Session V:	What If? The Strategic Consequences of a Nuclear Armed Iran	127
	1. Karl-Heinz Kamp: What If? Learning to Live with a Nuclear Armed Iran	128
	2. Christopher Ford: A Nuclear Armed Iran in the Future Security Environment	140
Bibliography		152
Key to Acronyms		154

AGENDA

September 22, 2010 – September 24, 2010

WEDNESDAY, SEPTEMBER 22, 2010

(Hotel Adlon, Unter den Linden 77, 10117 Berlin)

18:00-19:00 Cocktail Reception

Adlon Hotel, Großer Wintergarten

19:00-21:00 Welcome Dinner, Adlon Hotel

Adlon Hotel, Kaminzimmer

Speaker: **Eckart von Klaeden**, Minister of State to the German Federal Chancellor

Topic: *The Conflict over the Iranian Nuclear Program –
How Much of a Global Challenge?*

THURSDAY, SEPTEMBER 23

(Conference Location: Haus der Commerzbank, Pariser Platz 1, 10117 Berlin)

09:00-10:30 A Nuclear Program in Progress: How Much Time is Left for a Diplomatic Solution?

Chair: **Karsten D. Voigt**, former Coordinator of German-American Cooperation, German Federal Foreign Office

Paper: **Thérèse Delpech**, Director, Strategic Affairs Commissariat, Atomic Energy Commission, Paris: *Iran, Diplomacy and Past Experience*

Comments: **Armin Hasenpusch**, Deputy Director, National Intelligence Service – *Bundesnachrichtendienst*, Federal Republic of Germany
Olli Heinonen, former IAEA Deputy Director General, Belfer Center, Harvard University
Ephraim Asculai, Senior Fellow, Institute for National Security Studies, Tel Aviv

10:30-11:00 Coffee Break

11:00-12:30 Are We Pursuing the Right Diplomatic Approach?

Chair **Horst M. Teltschik**, Foreign and Security Advisor to Helmut Kohl

Papers: **Bruno Pellaud**, former Deputy Director General of the International Atomic Energy Agency: *Testing Alternative Approaches*
Henry D. Sokolski, The Nuclear Non-proliferation Education Center, Washington, DC: *Nine Regrets: America's Non-Proliferation Efforts Against Iran*

Comments: **Giandomenico Picco**, President GDP Associates, former Under Secretary General and Assistant Secretary-General for Political Affairs at the United Nations
Alexey K. Pushkov, Director, Moscow State Institute of International Relations / Anchor of the Russian TV Program Post Scriptum

12:30-14:00 Lunch

(Haus der Commerzbank)

14:00-15:30 Will Sanctions Work? Intentions, Capabilities, Strengths and Weaknesses of the Iranian Regime

Chair: **Richard Dalton**, Former Ambassador of the United Kingdom to the Islamic Republic of Iran

Papers: **Shahram Chubin**, Carnegie Endowment for International Peace: *The Domestic Politics of the Nuclear Question in Iran*
Keith Crane, RAND Corp., Washington DC: *Iran and International Sanctions: Elements of Weakness and Resilience*

Comments: **Mark Fitzpatrick**, Director, Non-Proliferation and Disarmament Program, International Institute for Strategic Studies, London
Gabrielle Rifkind, Director, Middle East Program, Oxford Research Group

15:30-16:00 Coffee Break**16:00-18:00 Military Options: Useless or Indispensable?**

Chair **Michael Stürmer**, Chief Correspondent, Die Welt

Paper: **Richard L. Russell**, National Defense University / Georgetown University, Washington DC: *Military Options for Preventing a Nuclear Armed Iran: Useless or Indispensable?*

Comments: **Egon Ramms**, Allied Joint Force Command, Brunssum
François Heisbourg, Chairman of the Council, International Institute for Strategic Studies, London
Ahmed A. Saif, Director, Sheba Center for Strategic Studies, San‘ā’, Yemen

19:00-21:00 Dinner

(The Regent Berlin, Charlottenstr. 49, 10117 Berlin)

Speaker: **Najmuddin A. Shaikh**, former Foreign Secretary of the Islamic Republic of Pakistan

Topic: *How the Dispute over the Iranian Nuclear Program is Viewed in the Muslim World and Within the Non-Aligned Movement*

FRIDAY, SEPTEMBER 24, 2010

(Haus der Commerzbank)

09:00-10:30 What If? The Strategic Consequences of a Nuclear-Armed Iran

Chair: **Hüseyin Bağcı**, Technical University Ankara / Humboldt University Berlin

Papers: **Karl-Heinz Kamp**, Director, Research Division, NATO Defense College, Rome: *What If? Learning to Live with a Nuclear Iran*
Christopher Ford, Director, Center for Technology and Global Security / Senior Fellow, Hudson Institute, Washington DC: *A Nuclear Armed Iran in the Future Security Environment*

Comments: **Ariel Levite**, Carnegie Endowment for International Peace, Tel Aviv
Lothar Rühl, former German State Secretary of Defense

10:30-11:00 Coffee Break

11:00-12:30 The Strategic Implications of the Iranian Nuclear Program: Wrap up Session

Chair: **Francois Heisbourg**, Chairman of the Council, International Institute of Strategic Studies, London

Paper: **Joachim Krause**, University of Kiel

Comments: **Horst M. Teltschik**
Karsten D. Voigt

12:30-14:00 Lunch

(Haus der Commerzbank)

14:30 Participants Depart

PARTICIPANTS

Name

Affiliation

Chairmen

Prof. Dr.h.c. Horst M. Teltschik	Chairman, Teltschik Associates GmbH; Former Foreign and Security Policy Advisor to German Federal Chancellor Helmut Kohl
Karl Karsten D. Voigt	Former Coordinator of German-American Cooperation at the German Federal Foreign Office

Presenters

Thérèse Delpech	Director, Strategic Affairs Commissariat, Atomic Energy Commission, Paris
Dr. Bruno Pellaud	Former Deputy Director General of the IAEA
Henry D. Sokolski	Executive Director, The Non-Proliferation Policy Education Center, Washington DC
Shahram Chubin, PhD	Non-Resident Senior Fellow, Carnegie Endowment for International Peace, Washington DC
Dr. Keith Crane	Director, Environment, Energy and Economic Development Program, RAND Corporation, Washington DC
Prof. Richard L. Russel, PhD	Professor of National Security Affairs, National Defense University & Adjunct Professor of Security Studies, Center for Peace and Security Studies, Georgetown University, Washington DC
Dr. Karl-Heinz Kamp	Research Director, NATO Defense College, Rome
Dr. Christopher A. Ford	Senior Fellow and Director, Center for Technology and Global Security, Hudson Institute, Washington DC
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Olli Heinonen, PhD	Former IAEA Deputy Director General / Belfer Center, Harvard University
Ephraim Asculai, PhD	Senior Fellow, Institute for National Security Studies, Tel Aviv
Giandomenico Picco, PhD	President GDP Associates, former Under Secretary General and Assistant Secretary-General for Political Affairs, United Nations
Prof. Dr. Alexey K. Pushkov	Director, Moscow State Institute of International Relations / Anchor of the Russian TV Program <i>Post Scriptum</i>
Dr. Mark Fitzpatrick	Director, Non-Proliferation and Disarmament Program, International Institute for Strategic Studies
Gabrielle Rifkind	Director, Middle East Program, Oxford Research Group
General Egon Ramms	NATO Joint Force Command, Brunssum, Netherlands

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Prof. François Heisbourg	Council, International Institute for Strategic Studies, London
Dr. Ahmed A. Saif	Director, Sheba Center for Strategic Studies, San'a', Yemen
Ariel Levite, PhD	Carnegie Endowment, Tel Aviv

Dinner Speakers

Dr. Eckart von Klaeden	Minister of State to the German Federal Chancellor
Najmuddin A. Shaikh	Former Foreign Secretary, Islamic Republic of Pakistan

Participants

Amb. David Aaron	RAND Corporation, Washington DC
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Sir Richard Dalton	Former Ambassador of the United Kingdom to the Islamic Republic of Iran, Associate Fellow of the Middle East and Africa Program, The Royal Institute of International Affairs, Chatham House
Prof. Dr. James W. Davis	University of St. Gallen
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Roja Hakakian	Iranian-American Writer and Journalist
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Prof. Dr. Lothar Rühl	Former Secretary of State, German Federal Ministry of Defense

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CONFERENCE REPORT

Executive Summary

The great variance in current estimates of the time required for Iran to produce nuclear weapons can be traced back to the state of the IRI's enrichment program. Existing centrifuge designs are flawed, forcing Iran to spend anywhere up to four years to produce a new centrifuge for which it lacks the critical raw materials. The short-term military threat posed by the Iranian nuclear program may, therefore, be overstated. At best, a hiatus of one year will be involved before Iran can start to move beyond this obstacle. However, Iran might thereafter be in a position to surge to the nuclear threshold.

There are alternative diplomatic approaches available to the Iranian nuclear problem and there is, therefore, room for further negotiation. Although a different set of Iranian actors is at the helm than during previous talks and a very different negotiating process is being employed, the negotiating record with the IRI is not devoid of success. Furthermore the international cohesion needed for successful talks is currently stronger than it was in quite some time. However, internal rivalry and competition within the Iranian regime is significant and may even preclude reaching a diplomatic settlement.

While the jury is out on the effectiveness of economic sanctions, they do send an important signal of international resolve; they also provide a legal justification for the extension of export controls, and permit more effective counter-proliferation efforts.

A narrative of oppression by the West causes the standoff over the nuclear program to strengthen the IRI government's internal legitimacy, rather than weaken it. Counter-intuitively, greater international engagement with Iran might actually weaken the incumbent government.

Failing revelations of egregious IRI behavior or an Iranian attack on Israel, the international community must demonstrate that it has exhausted all possible other options, before taking military action against Iran's nuclear program, if it

wishes to maintain legitimacy. However, states' appetite for military action is low and go-it-alone coalitions of the willing will erode the cohesion of existing alliances. A number of non-kinetic, escalating military measures short of war can reinforce diplomatic signals. In the event that a military attack should be mounted, a short and sharp action has distinct advantages. However, significant Iranian retaliation will follow, whichever option is chosen.

The past behavior of the Iranian government, the perceived nature of the current political regime in Iran and its perceived intentions are causes for concerns regarding the consequences of Iran attaining the nuclear threshold. Greater aggressiveness on behalf of an Iran (or its proxies) that perceives itself as inoculated against retaliation may be expected. Declaratory policies aimed at containing Iran's breakout are unlikely to provide the necessary comfort to states in the region. A regional nuclear arms race may ensue. Nor can a future acute nuclear crisis in southern Lebanon be totally discounted. Failing military action before the IRI reaches breakout, proliferation, enhanced counter-proliferation efforts and greater reliance on ballistic missile defenses will likely characterize the international community's response to Iran attaining the threshold at which it can produce nuclear weapons.

Introduction

The Iranian uranium enrichment program has pre-occupied the international community for the last eight years, ever since the existence of clandestine enrichment facilities established in 1998 at Nantaz and Arak was revealed in 2002. While concerted diplomatic efforts have been made to dissuade the Islamic Republic of Iran (IRI) from continuing on its current course, the world has watched Iran move inexorably closer to the points at which it would either be capable of producing or actually possess one or more nuclear weapons. Because the implications of the ongoing Iranian nuclear program and of a nuclear-armed Iran for the global strategic balance are far-reaching, the 2010 Aspen European Strategy Forum (AESF) met from September 22-24 at the “Haus der Commerzbank” next to the Brandenburg Gate in Berlin to consider the “Implications of the Iranian Nuclear Program” in depth.

The forum was divided into six one and a half hour sessions. The first panel, was presided over by Aspen Institute Germany trustee and AESF co-chair Karsten D. Voigt, the former Coordinator of Transatlantic Relations at the German Federal Foreign Office; it examined the question of how much time is left for diplomacy with Iran concerning its nuclear program. The second session, chaired by Horst Teltschik, former Foreign and Security Policy Advisor to German Federal Chancellor Helmut Kohl, asked whether the international community has been pursuing the correct diplomatic approach to resolving the nuclear crisis. Richard Dalton, of the Royal Institute for International Affairs, former ambassador of the United Kingdom to the Islamic Republic of Iran, led the next panel, devoted to the intentions, capabilities, strengths and weaknesses of the Iranian government. Michael Stürmer, Chief Correspondent of the German national daily newspaper *Die Welt*, chaired the pre-penultimate session that was devoted to examining military options for dealing with the Iranian nuclear program. Professor Hüseyin Bağcı of Ankara Technical University presided over a discussion of the strategic consequences of a nuclear Iran. And François Heisbourg, Chairman of the Council of the International

Institute for Strategic Studies closed the 2010 forum by chairing a wrap-up panel on the strategic implications of the Iranian nuclear program.

In addition, two outstanding after-dinner speakers addressed participants in the forum and provided further food for thought. Eckardt von Klaeden, Minister of State to the German Federal Chancellor Angela Merkel spoke on the topic of “*The Iranian Nuclear Program – How Much of a Global Challenge?*” and Najmuddin A. Sheikh, former Foreign Secretary of the Islamic Republic of Pakistan provided insights on “*How the Dispute Over the Iranian Nuclear Program is Viewed in the Muslim World and Within the Non-Aligned Movement*”.

How Much Time is Left for Diplomacy?

“*How Much Time is Left for Diplomacy?*” was the question addressed in the paper presented at the first panel by Thérèse Delpech, Director of the Strategic Affairs Commissariat of the French Atomic Energy Commission. Armin Hasenpusch, Deputy Director of the *Bundesnachrichtendienst* (German Federal Intelligence Service), Olli Heinonen, former Director General for Safeguards of the United Nations (UN) International Atomic Energy Agency (IAEA) and Ephraim Asculai, Senior Fellow at the Tel Aviv Institute for National Security Studies (INSS) commented on the paper.

Participants and the presenter were generally pessimistic on the question of the time left for diplomacy. The scope of Iran’s uranium enrichment program and other nuclear-related activities only makes sense to international intelligence agencies in the context of a program, aimed at obtaining a nuclear device. There is broad consensus amongst international intelligence agencies that Iran probably has all of the components required to produce a nuclear weapon and that the only remaining bottleneck is the

IRI's ability to produce sufficient quantities of suitable fissile material. The answer to the question of time left for diplomacy revolves around (a) the definition of the trigger for the end of diplomacy, (b) the time constraints imposed by the physics of the uranium enrichment part of nuclear weapons production and (c) our knowledge of the state of development of the Iranian nuclear program.

Before answering the question "how much time is left for diplomacy?" one must answer a preceding question "how much time before what happens?" How much time before Iran constructs its first usable nuclear device? Or, "how much time before Iran is in possession of its first 93% highly-enriched uranium (HEU) core for a nuclear device?" These are the two objectives facing states seeking to acquire nuclear weapons: (i) to be nuclear capable and (ii) to actually be in possession of one or more employable nuclear weapons. The time required to move from the first to the second objective is the "strategic warning" period for states, such as Israel, that face the prospect of being threatened with the use of such weapons. If one uses the Iraqi crash program to convert nuclear fuel rods into a nuclear device as a guide, then a strategic warning window of some six months appears to be available between these two objectives.

The time left for diplomacy, then, revolves around our best estimate of where Iran stands on the path to being either nuclear capable or in possession of nuclear bombs. The physics of nuclear weapons production define the envelope of possibilities when seeking an answer to the question of time, as do departing assumptions regarding the basic approach Iran may be taking in order to acquire nuclear weapons. U.S. and other Western estimates depart from the most probable route that a state would take in order to obtain nuclear weapons and result in a longer estimated time required. Israeli estimates depart from the assumption that a crash program is underway that is designed to take the shortest possible route to the acquisition of nuclear weapons. The latter approach results in a shorter estimated

time required. Israelis believe that the evidence so far is converging in support of their approach.

The low-end estimate of the time required for Iran to acquire a weapon is based upon a document that was passed to the Iranians and confiscated from the Pakistani nuclear scientist 'Abd al-Qadeer Khan. It lays out a four-step process for converting uranium hexafluoride into an uranium metal hemisphere of less than or equal to 25kg in weight – i.e. the core for a nuclear bomb. In the course of this process, time has to be allowed for the centrifuge facility to be reconfigured between enrichment steps. The A.Q. Khan scheme is capable of producing eight nuclear devices, with nine months required to convert, form, shape and test. This low-end estimate is complicated by a further fact. Depending on the sophistication of the weapon design, the "Significant Quantity" of HEU required for a nuclear core for a bomb can lie well below the 25kg often cited as the required minimum amount – further shortening the time that sophisticated proliferators might need to manufacture nuclear weapons.

The low-end estimate must, however, be regarded as a "worst case". According to other intelligence estimates, Iran's current stock of 3,000 kg of 3.5% low-enriched uranium (LEU) gives the IRI the theoretical capability of producing 1-2 nuclear devices within twelve months – if all goes smoothly. In practice, production will take much longer, as – with a little external help – things have not been going smoothly at all in Iran. Given that an additional six to twelve months is required to finalize the weaponization of a manufactured nuclear device, a more realistic estimate of the time required for Iran to create a usable weapon lies between three and four years, according to these estimates.

The physics of nuclear weapons production dictates an envelope of fifteen months at the low-end (nine-months enrichment plus six months weaponization) and five years at the high-end (four years' enrichment plus twelve months'

weaponization). The large divergence in estimates of the time required to enrich sufficient uranium for a weapon comes on the low-end from the theoretical construct of a perfectly functioning enrichment program, possibly also taking place at further clandestine sites, and at the high-end from our current knowledge of the state of those parts of the Iranian nuclear program.

Iran has its own, domestic sources of uranium; it has two uranium mines: one operating at Saghad, and one unused. They are not observed by the IAEA and can produce 20 tons of uranium per year, which is sufficient for the needs of the Natanz enrichment facility. Yellowcake and uranium hexafluoride, produced at Isfahan, are observable by the IAEA. Eight years after Iranian uranium enrichment activity was first revealed, it is approaching an industrial scale.

At the time of writing, Iran is producing 120 kilograms of LEU per month. In one year, Iran will have another 1,500 – 2,000 kilograms of LEU – this is not enough fissile material to “breakout” of the Non-Proliferation Treaty (NPT) regime. Contamination of the uranium being enriched is one issue preventing Iran from achieving greater rates of enrichment. The performance of the P1 centrifuges received from Pakistan to enrich uranium is another. Iran has some 3,000 – 4,000 operating P1 centrifuges, plus another 4,000 in reserve. The IRI needs the spare machines, because up to ten percent of the P1 machines fail in a given year. Iran will not be able to increase its annual LEU production, due to this relatively high failure rate inherent in the P1 centrifuge design. This is the reason why A. Q. Khan chose to move from the P1 to the P2 centrifuge design.

Because of its problems with the P1 design, the P2 and IR1-IR4 centrifuge designs represent the way forward for Iran to achieve the goal of producing adequate quantities of 93% HEU with which to manufacture a nuclear weapon core. Based on intelligence estimates, Iran has adequate stocks of maraging steel to produce 10,000 centrifuges with which to enrich uranium. Given the eight thousand

machines it has on hand, once the IRI has built another 2,000 machines, it will have exhausted its available stock of the required high quality steel. As a rule of thumb, it takes one year to construct a new functioning centrifuge design, two years to conduct a small test, three to achieve a small centrifuge cascade and four years to achieve a demonstration scale enrichment facility.

Based on our current knowledge, it is implausible that Iran will achieve a full scale IR1 centrifuge cascade as an alternative to the failing P1s. Iran still faces a fundamental design problem with the IR1 and, as described above, their access to the necessary high-grade steel resources is limited. The IR2 centrifuge design could be an alternative route. Iran has the necessary human resources to follow such a path, but international economic sanctions on Iran are beginning to bite, making it much more difficult for Iran to obtain the resources needed to construct such a second generation cascade of centrifuges. Iran currently does not have and cannot gain access to enough maraging steel or aluminum alloys with which to construct the necessary number of IR2 centrifuges. Iran also cannot currently gain access to the composite materials required to produce the wound composite filament required for the IR2 centrifuge’s rotors.

This analysis is sensitive to a number of key assumptions. And Iran has proven that there is much that happens there that eludes the international intelligence community. If further clandestine facilities are discovered – and at least one is known to be under construction – the timeline outlined above could collapse significantly. Furthermore, while international attention is focused on the centrifuge enrichment of uranium route to a bomb, Iran does possess significant resources with which to open alternative routes. Iran could extract plutonium from the irradiated Bushehr reactor fuel and process it into highly enriched plutonium (HEP). This would require a plutonium reprocessing plant. Iran does possess the know-how to build such a plant. There is also a huge amount of un-irradiated uranium avail-

able in the fuel provided for the Bushehr reactor. The Iranian “Green Salt” project aims to convert this to uranium tetrafluoride and gaseous uranium hexafluoride. Finally there is also the heavy water reactor at Arak, the so-called IR-40 project.

Are We Pursuing the Right Diplomatic Approach?

The second panel examined the question of whether the international community is pursuing the right diplomatic approach to resolving the issues surrounding the Iranian nuclear program. Bruno Pellaud, former Deputy Director General (DDG) of the IAEA presented a paper entitled “Testing Alternative Approaches” and Henry Sokolski, Executive Director of the Nuclear Non-Proliferation Education Center in Washington DC presented a paper titled “Nine Regrets: America’s Non-Proliferation Efforts Against Iran”. Giandomenico Picco, former UN Undersecretary General for Political Affairs and Alexey K. Pushkov, a Director of the Moscow State Institute of International Relations commented on the two papers.

After the rather bleak prospects for diplomacy outlined by the first panel’s presenter, a number of participants rallied during the second panel to hold out greater hope for negotiation. To support their argument, they called, in part, on the historical record of negotiations with the Islamic Republic and the fact that key members of the international community are now playing a more constructive role in the negotiating process. Panelists questioned the predictive power of the previous poor track record of nuclear negotiations with Iran and depicted data adduced in support of the military threat posed by the Iranian nuclear program as well past their 2004 sell-by date. A number of participants believed that alternative, more fruitful approaches to negotiating with Iran may be available, as long as the international community forsakes the double standards it has

adhered to towards Iran to date and returns to an approach that would permit some form of enrichment on the IRI’s part to take place.

In the thirty-year history of negotiations with the Islamic Republic of Iran, not all talks have ended in disaster. Many negotiations have brought results – in some cases not totally positive, but partially so. The Algiers agreement of 1980 resolved the U.S. hostage crisis. The Iran-Contra negotiations led to the release of U.S. hostages in Beirut. Ten hostages were released between 1990 and 1992. Negotiations led to the successful emigration of thirteen Iranian Jews from Shiraz. The 2001 Petersberg agreement on Afghanistan marked a period of further international cooperation with Iran. This was accompanied by a period of covert U.S.-Iranian cooperation on Afghanistan and Iraq as well. Finally, negotiations in 2006-2007 led to the release of British mariners who had been seized by Iran.

Negotiations on the Iranian nuclear program have failed to date, but the fact that they came very close to success on more than one occasion tends to be forgotten. The 2003 non-paper crafted by Tim Guldemann, ambassador of the Swiss Confederation to Iran, and cited in Bruno Pellaud’s paper is one example. The non-paper was passed to the U.S. directly by Guldemann and also passed to the U.S. by the IRI via the intermediation of the UN, thus establishing Guldemann’s *bona fides*. In 2005, the IRI offered to limit the number of centrifuges constructed for the purpose of enriching nuclear fuel to 3,000 units. At this time, however, the three European negotiating powers (EU3) considered the matter of enrichment non-negotiable, as they still had their hearts set on achieving a prolonged suspension of enrichment on the IRI’s part. Consequently this Iranian offer was not taken up. UK Foreign Minister Jack Straw and EU High Representative Javier Solana subsequently reached a tentative agreement with the Iranian nuclear negotiator Ali Ardashir Larijani about limiting IRI enrichment activity to activities necessary for research and development activity only. Larijani accepted this offer and took it home to Iran

only to have it rejected by Iranian president Mahomoud Ahmadinejad and Supreme Leader Ali Hoseyni Khāmene'i. Larijani resigned as nuclear negotiator as a consequence.

Key members of the international community are now playing a constructive role in the negotiating process. At a previous Aspen Germany conference on Iran's nuclear program (see *Towards a New Western Strategy Towards Iran's Nuclear Program* available at www.aspeninstitute.de) U.S. diplomacy was strongly criticized for its failure to convince the Russian Federation and the People's Republic of China (PRC) to play a more constructive role with respect to negotiations and international enforcement measures related to the Iranian nuclear program. In Russia's case, and to a lesser extent in the PRC's case, that situation has now changed.

In contrast to the U.S. and EU, there has been little history of animosity between Russia and Iran over the last one hundred years. For Moscow, nuclear reactor sales to Iran, such as Bushehr, are good business. The forthcoming partitioning of the Caspian Sea basin also poses a big diplomatic challenge and economic opportunity for Moscow. Significant untapped reserves of crude oil remain to be divided between littoral states. Tehran has signaled Moscow that it will support Moscow's approach to partitioning the Caspian Sea, if Moscow continues to be supportive of Iran in the matter of negotiations with the international community about the IRI's nuclear program. Furthermore, Iran has not behaved disruptively towards Russia. Foundations supporting Chechen separatists are located in Arab countries, not in Iran. Nor has Tehran created mischief in the Caucasus or Central Asia for Russia. Against this backdrop, Moscow does not want to add Iran to the list of its potential future adversaries.

What caused Moscow to change its stance and back additional international economic sanctions against Iran at the UN in connection with the Iranian nuclear program?

Clumsy Iranian diplomacy, particularly Iran's refusal of a number of viable Russian-proposed solutions to the nuclear impasse are two reasons. Moscow currently perceives Tehran as failing to give Russia's views adequate consideration in the formulation of Iranian foreign policy. Finally, Moscow wants to signal support for the Obama administration's policy of "resetting" the relationship between Russia and the West. Russia too has no interest in seeing the emergence of a nuclear-armed Iran.

Moscow will therefore continue to provide support for international economic sanctions against Iran – but not crippling sanctions. Russia has formally cancelled the sale of S-300 air defense systems to Iran and has decided that it will continue to participate in collective international efforts to resolve the issues connected with the Iranian nuclear program. Having said this, Moscow also has limits beyond which it will not go with respect to Iran; they can be summarized as the three nos: (i) no to paralyzing sanctions; (ii) no to the termination of the Bushehr nuclear reactor construction project and (iii) no to the exercise of military options against Iran.

From the Russian perspective, there has been too much talk about the exercise of military options against the Iranian nuclear program. Such talk is not helpful; it is not clear that it influences Iranian decision-making on the nuclear program and it prepares Iranians psychologically for war. It reinforces a fortress mentality that plays into the hands of the ruling government. If military force were to be used, would the U.S. not find itself in another "bad war", without UN support? And, finally, those advocating the use of force should not dismiss the possible humanitarian consequences of a military solution so lightly. Moscow does not believe that the international community has military options by which to dissuade Iran from continuing its nuclear program, but believes that Iran can be dissuaded from building a nuclear strike force via negotiation.

Despite the fact that the negotiating record with Iran is not

as bad as initially depicted and despite the fact that key international players, such as Russia, are now playing a more constructive role, the protagonists of continued negotiation admitted that the international community is now dealing with an entirely different negotiating partner in Tehran. When negotiations went well in the past a different leadership was in power. Akbar Hashemi Rafsanjānī never needed to consult with his leadership in Tehran when negotiating. Negotiators were not undermined by their internal political opponents to the point of vitiating agreements that had tentatively been reached – as has happened twice in the recent past. There is therefore a profoundly different structure to the current negotiating process compared with the past.

In addition to advocating a more positive position on negotiation, a number of participants believed that the military orientation of the Iranian nuclear program had been overstated. The February 2010 IAEA report on Iran's military capabilities in the nuclear area is based on data that was obtained before 2004. Yet something clearly happened to the Iranian government's perceptions in 2003. According to the 2007 U.S. National Intelligence Estimate, Iran put a halt to its military nuclear program after the U.S.-led invasion of Iraq. The fact that it is taking the U.S. intelligence community so long to release a new National Intelligence Estimate on the Iranian military nuclear program, that was initially due to be published in January 2010, indicates that there is some debate within the U.S. intelligence community as to the *status quo*. None of these facts argue strongly for a renewed Iranian emphasis on the military aspects of its nuclear program.

The international community was said to have applied a double standard to the Iranian uranium enrichment program that borders on hypocrisy. Where were the U.S. and the international community when Pakistan was building and tested nuclear weapons, one participant asked? A campaign of intimidation and psychological warfare was not launched against Pakistan. Pakistan's breakout was treated

as a minor irritant. Much the same could be said of India with which the U.S. is now concluding a civilian nuclear cooperation agreement. Why was Pakistan's and India's acquisition of nuclear weapons accepted, whereas a big political campaign is now being unfurled against Iran?

The path to further movement in negotiations with Iran, may lie in showing greater flexibility on the question of enrichment. As UK Foreign Minister Jack Straw stated in 2006, there is no way to negotiate with the IRI about its nuclear program, unless you accept that some form of enrichment will take place in Iran. The recently suggested enrichment of Iranian-owned nuclear materials overseas essentially represents just such a concession. The priority should not be to bring a halt to enrichment in Iran, but to reestablish the authority of the IAEA over the enrichment process by gaining access to Iran's nuclear facilities in order to carry out international inspections.

In closing, the participants in the second panel deliberated on the implications of the international community's experience with the Iranian nuclear program for the NPT. As a result of recent Iranian and North Korean (DPRK) activities, the international community may soon be confronted with many more "Irans". The NPT was designed to provide its signatories with access to the economic benefits of the peaceful, commercial use of nuclear energy. There is no *ex ante* signatory state right to enrich uranium or plutonium inherent in the text of the NPT. If a particular use of nuclear energy is not commercially viable, then there should be no right on the part of signatory states to pursue that use, nor should there be an obligation on the IAEA's part to safeguard such use. The Iranian nuclear program only makes commercial sense if there are twenty nuclear electric generation plants that will consume the fuel that it creates. Iran clearly does not possess this number of generation plants.

Waiting for proof of the military nature of a state's nuclear program was said to be a fool's game. Acting early is what the non-proliferation business is all about. The interna-

tional community has been far too lax towards export controls on dual-use items destined for export to Iran. Countries (the U.S.) have been selfish in not sharing intelligence on proliferation activity on the part of the People's Republic of China, because of a desire to protect their commercial nuclear efforts in China and/or protect important regional allies (Pakistan) who acted as intermediaries in such proliferation activity. Covert international cooperation on counter-proliferation has shown notable recent successes. More publicity for these efforts would be helpful in strengthening the credibility of the international nuclear non-proliferation regime.

Will Sanctions Work? Intentions, Capabilities, Strengths & Weaknesses of the Iranian Regime

The third panel examined the internal political dynamics of the Iranian nuclear program and the effectiveness of international economic sanctions applied in order to persuade Tehran to return to the table to negotiate about its nuclear program. Shahram Chubin, Non-Resident Senior Fellow at the Carnegie Endowment for International Peace in Washington DC, presented a paper titled "The Domestic Politics of the Nuclear Question in Iran". Keith Crane, Director of the Environment, Energy and Economic Development Program of the RAND Corporation in Washington DC presented a paper titled "Iran and International Sanctions: Elements of Weakness and Resilience". Mark Fitzpatrick, Director of the Non-Proliferation and Disarmament Program at the London-based International Institute for Strategic Studies, and Gabrielle Rifkind, Director of the Middle East program at the Oxford Research Group then commented on these papers.

After the understandably rather equivocal and half-hearted endorsement of economic sanctions against Iran delivered in Keith Crane's paper, panelists deliberated the purpose,

effectiveness and impact of international economic sanctions against Iran at length before turning to sanctions' impact on and interplay with domestic politics in Iran and the prospects for future diplomacy on the part of the international community.

While international economic sanctions will not change the game with Iran on their own, they are one important instrument in a palette of available tools with which to influence Iranian thinking. The hope is that sanctions will bring the government of the IRI back to the negotiating table with the international community and that they will keep Iran at the negotiating table. In this connection, sanctions are intended to change regime behavior as part of a dual-track strategy: sanctions for obstruction and incentives for cooperation on the IRI government's part. Sanctions send a message that the international community takes the problem posed by the Iranian nuclear program seriously and that it is hanging together in demanding that Iran address its concerns. They are also an important legal means of extending the export controls on dual use items imposed by the Nuclear Suppliers Group (NSG). By limiting Iran's ability to make use of its own air and sea carriers, sanctions force the use of international commercial carriers that are more amenable to interdiction aimed at preventing further proliferation of weapons of mass destruction on Iran's part.

There is consensus that sanctions are beginning to bite in Iran. Inflation stands at 15% and the price of meat in Iran has risen by 25%. It is unclear what political impact they are having, however. *Per capita* income has fallen in Iran over the last thirty years and the population has become resilient to hardship. The IRGC is incompetently corrupt and its mismanagement of its rather substantial economic assets already puts a significant drag on Iranian economic growth and it is unclear that sanctions have affected its leadership's political thinking. This having been said, there are further sanctions options in the international community's quiver, should the effectiveness of the latest sanctions prove limited. The Iranian activities of the

International Monetary Fund and World Bank can be terminated and broader-ranging sanctions could also be imposed on Iranian banks.

Whatever their limitations, the “squeeze strategy” that the imposition of sanctions represents was thought to promise better results than military threats. It is entirely conceivable that sanctions against Iran are here to stay as part a long and extended Cold War with Iran that could be in the making. Sanctions are designed to change the domestic Iranian policy debate; they highlight the costs of non-compliance with the wishes of the international community to domestic political constituencies in Iran.

In seeking to understand the nuclear program’s domestic political implications, it is important to speak to political hardliners in Iran (the IRGC and their proxies in *Hamas* and *Hezbollah*) as they too are probably here to stay. It is hard to underestimate the extent to which the past influences the present and shapes the current narrative in Iran. There is a level of historical trauma in Iran that influences ideological thinking there. It causes the IRGC to have a profound mistrust of the West. The international community’s unwillingness to acknowledge Iraq’s fault for the 1980-1988 Iran-Iraq war or to sanction Iraq in any way strongly influenced the IRGC when it came to the decision to start programs for the development of weapons of mass destruction. The IRI has linked the nuclear question with resistance politics and with the idea of standing up for the disempowered who wish to be treated with respect and equality. The government has clearly connected resistance with identity politics. Those distrustful of the West can use the imposition of economic sanctions as further proof or reason to distrust the West. Iran’s isolation and pariah status feeds the current resistance politics in Iran and helps the government to “garner identity”, thereby strengthening the regime.

It is equally important to recognize the degree of rivalry and competition that exists within the Iranian polity. There are, in fact, competing centers of power that act in an uncoordinated fashion, and even at cross-purposes. While one faction was reaching out to the United States of America via Tim Guldemann and the United Nations in 2003, another (the IRGC) was involved in actively supporting *al-Qā'idah in the Arabian Peninsula's* fatal bombing of the U.S. military residential complex at Khobar Towers in Saudi Arabia. The infighting can be ruthless and has a direct impact on negotiations related to Iran’s nuclear program. Ahmadinejad and Supreme Leader Khāmene'i torpedoed Larijani’s tentative agreement with Jack Straw and Javier Solana in 2005. Conversely, Larijani killed Ahmadinejad’s 2009 offer to reprocess uranium outside of Iran. This rivalry poses a challenge to the international community in establishing interlocutors in a dialog that is sufficiently inclusive of the spectrum of political views in Tehran. The rivalry may be so intense as to prevent the conclusion of any diplomatic agreement regarding the Iranian nuclear program. Competition between factions in Tehran may also go some way to explaining why the government in Tehran seems unable to make decisions, except under pressure. It may also explain the IRI’s apparent inability to identify strategic objectives for its own nuclear program, whether as deterrent, bargaining chip, instrument of regional hegemony, source of national pride or source of regime legitimacy.

How then to prevent a possible outcome whereby economic sanctions become part of a prolonged Cold War with a nuclear armed Iran that sets in? Two approaches were discussed. One participant described the challenge posed by the “software” in Iran, saying that if one could not change the Iranian leadership’s mind one should change the game. Changing the game would involve greater engagement with the resistance politics practiced in Iran and more “symmetric” treatment of Iran, i.e. giving Iranians dignity and restoring lost pride. Counterintuitive action is needed: compromise on the part of the international community

that makes Iran feel less threatened and more secure. Greater engagement would actually weaken the Iranian political regime.

In an alternative approach, the international community was urged to multiply the number of its initiatives towards Iran. This would raise questions in Iran whether the government was unnecessarily passing up opportunities and would spur domestic criticism of the government. However, a majority of the forum's participants did not believe that a fundamental political change is in the offing in Iran. Indeed, the internal political opposition is linked to the international community and is blamed for the *status quo*. A minority of participants, though, believed that sanctions, among many other factors, could ultimately shift the domestic political configuration in Iran.

Military Options: Useless or Indispensable?

A third panel examined options for the use of military force against Iran in order to interfere with or terminate Iran's nuclear program. Richard Russell, Adjunct Professor of Security Studies at Georgetown University and Professor of National Security Affairs at the U.S. National Defense University, presented a paper titled "Military Options for Preventing a Nuclear Armed Iran: Useless or Indispensable?" Russell's paper was then commented upon by Lt. General Egon Ramms, commander of NATO's Allied Joint Force Command in Brunssum, Belgium, François Heisbourg, Chairman of the Council of the London-based International Institute for Strategic Studies and Ahmed Saif, Director of the Sheba Center for Strategic Studies in San'a', Yemen.

The discussion of military options centered on the international diplomatic implications of such a move, gradations of military action short of war that might be taken in support of exerting diplomatic pressure on Iran, on the one

hand, and a debate concerning the desirability of short and sharp versus extended military campaigns against Iran on the other hand.

A number of speakers pointed to the fact that there was little appetite in their country for military action against Iran. Military action would likely disrupt solidarity amongst the permanent five members (P5) of the United Nations Security Council (UNSC). Military action would, in all likelihood, only be possible in the context of a coalition of willing states acting against Iran. Coalitions of the willing, for their part, divide the NATO alliance and could erode its cohesiveness. In addition, any decision to take military action must consider the implications that military action will have for the United States' long-term international legitimacy. U.S. legitimacy suffered in the wake of the U.S.-led invasion of Iraq – action against Iran would exacerbate matters further. One participant asked: "Have we exhausted all other means available to dissuade Iran from its current course of action? Have we included all possible actors in such an exhaustive search for solutions?" He thought not.

An Israeli participant pointed out that any contemplated military measures have to enhance diplomatic pressure on Iran to cease and desist. The question is, what the right mix of diplomatic and military means is in order to become more effective in persuading the Iranian leadership. A series of escalating, "non-kinetic" military measures short of war was discussed as a means not just of sending a stronger signal to the IRI leadership but also of reassuring regional partners in the Middle East.

Initially a surge of defensive systems into the region could be organized. Further Patriot PAC-4 air defense systems could be deployed to the region to create an integrated regional ballistic missile defense system in which the U.S., Egypt, Saudi Arabia, Israel, Turkey and Italy might eventually participate. Increased port calls in the Gulf by conventionally armed naval vessels could be augmented with port calls by nuclear-armed ballistic missile submarines

(SSBNs). Nuclear capable F-16 aircraft could be forward deployed to the region – well within striking distance of Iran. B2 nuclear bombers could make similar training deployments to staging bases that are either over the horizon or in Iran’s immediate neighborhood. Tabletop nuclear weapons employment exercises could feature in regular, joint, annual exercises conducted by a coalition of concerned states.

Further military-diplomatic signals might be sent by home porting an SSBN in the Gulf or by building and stocking nuclear weapons storage facilities on the territory of an allied government in the Gulf. Nuclear sharing and cooperation agreements might be concluded with such allies. Negotiations could be initiated with the Russian Federation on relaxing the strictures of the Intermediate-range Nuclear Forces (INF) treaty so as to allow the introduction of such missiles into the region surrounding Iran. Further steps in taking more muscular military steps short of war might include test firing an Inter-Continental Ballistic Missile (ICBM) into the waters of the Indian ocean, shooting down an Iranian missile during its launch or boost phase or initiating a quarantine of Iranian naval vessels transiting the straits of Hormuz as a counter-proliferation measure. Covert operations against key nuclear-related activities might be undertaken by intelligence services. A final step to increase pressure might include the seizure of oil platforms in the Gulf that are used by the IRGC for intelligence gathering and maritime interdiction purposes.

The discussion next turned to large-scale, offensive military measures that might be taken against the Iranian nuclear infrastructure. On what grounds would such steps be justified? Evidence of an egregious transgression by Iran that would permit the initiation of military action to be blamed on Iran and avoid international condemnation was cited as one potential *casus belli*. Alternatively, Israel might decide, next time *Hezbollah* initiates rocket attacks against Israel from Lebanon, to chop down the tree (Iran), as opposed to chopping off a branch (*Hezbollah*). Iranian

rocket deliveries to *Hezbollah* could serve as a justification for air strikes against Iran – either on a standalone basis, or in concert with other nations.

Because the element of strategic surprise has been lost, a participant argued, it is important to try and preserve the element of tactical surprise in the event of an attack. A successful operation that was over before the public became aware that it had begun was said to be key to preserving the element of tactical surprise and avoiding the wave of international condemnation that might otherwise result. In this context, it is important to be clear about the aims of military action: is the objective regime change and inflicting severe damage on the country’s nuclear and military infrastructure? Or is it more a “mowing of the lawn” (to use an Israeli term), that would set the Iranian program back a number of years? Very different mission profiles result from the choice made. A participant who advocated the latter option pointed out that its success required a high degree of confidence that no additional clandestine facilities, above and beyond those targeted, exist. This, second, approach would minimize political reactions and prevent an unleashing of deep anger that the international community cannot afford in Iran’s case, because of its global ramifications. Israel knows how to carry out such an attack, but does not have the capabilities with which to do so. While the U.S. has the capabilities needed to execute such an operation, there is no culture of acting in such a way within the U.S. military.

Given any sort of tactical warning, the Iran can be expected to replicate the actions of Saddam Hussein by placing foreign citizens as human shields at facilities thought susceptible to attack. In addition to the above, the international community must brace for a violent reaction from Iran, in the event of a military attack – some combination of: (i) Beirut 1983, Buenos Aires 1992 and big *Hezbollah* operations; (ii) the January 1991 missile attacks against Israel, (iii) the 1988-1989 tanker war; (iv) *Hezbollah*’s 2006 attacks on Israel, but much worse; and (v) all of the above together.

Significant civilian casualties are likely to result from a heavy and extended operation against Iran; this favors the “hit and run” option described above. Other participants stated that the use of military force against Iran is not necessary. Iranians are very pragmatic and the logic of deterrence could be relied upon to function properly between Iran and the international community.

What If?

The Strategic Consequences of a Nuclear-Armed Iran

The penultimate panel discussed how the international community might learn to live with a nuclear-armed Iran. Karl-Heinz Kamp, Director of the Research Division of the NATO Defense College in Rome presented a paper titled “What If? Learning to Live with a Nuclear Iran”. Christopher Ford, Senior Fellow and Director of the Center for Technology and Global Security at the Hudson Institute also presented a paper titled “A Nuclear Iran in the Future Security Environment”. Ariel Levite of the Carnegie Endowment for International Peace in Tel Aviv and Lothar Rühl, former State Secretary in the German Federal Ministry of Defense commented on the two papers.

The session produced an extensive and far-ranging discussion. While Iranian reasons for seeking nuclear weapons were almost self-evident, the nature and intentions of the Iranian regime seeking control of such weapons was the subject of concern for the forum participants. The past behavior of IRI governments implied far-reaching regional consequences, once Iran reached the nuclear threshold. What the international response would be in such an eventuality was less clear.

Iran’s principle strategic reasons for acquiring nuclear weapons were said to be to deter external intervention into regional conflicts and to create a guarded Iranian hegemo-

nal zone in the greater Middle East. Can the international community live with an Iran that possesses 2-4 nuclear weapons? The tenor of the paper presenters and commentators, alluding in part to a statement by the ex-president of the French Republic Jacques Chirac, was that it could. This unleashed a discussion that largely sought to assert the opposite. Participant comments centered on the nature of the Iranian political regime and the possible intentions of the current government.

Iran is currently governed by a regime that is characterized by its insularity and limited understanding of the outside world – particularly president Ahmadinejad and the IRGC. Iran’s sense of victimhood and desire to represent the downtrodden and disrespected has led it and its predecessors to export destabilizing revolutionary ideology throughout its region and beyond. There was said to be a messianic quality to this work and the possible expectation that bloodshed would ultimately lead to the return of the twelfth imam. At the same time, the Iranian political regime is incohesive, with various elements of the political elite figuratively at each other’s throats. This casts the regime’s stability and ability to exercise control (including over nuclear weapons) into doubt. The Ahmadinejad government was said to distinguish itself by somewhat delusional qualities of leadership, by immunity to international blandishment and by a strong proclivity to embark upon the path of confrontation in its foreign relations. When these features are combined with an exclusionary ideology, religious intolerance and human rights abuses, a frightening picture emerges for some observers. A number of participants countered this description of Iran’s current leadership asserting that it was neither crazy nor suicidal, but amenable to ordinary incentives and deterrents, particularly given the country’s strong commercial culture.

Nonetheless, significant unease was voiced at the conference as to the intentions with which the current government of Iran was seeking to acquire nuclear weapons. Iran was said to be seeking to highlight the impotence of incumbent

Arab regimes and to desire to assume the mantle of leadership of the *umma* or Muslim community by confronting the international community in the name of the downtrodden. There was concern that after acquiring nuclear weapons, the IRI government would feel inoculated against possible future international retaliation to its foreign political and military misadventures. This might cause Tehran to pursue its traditional strategies in a more risk seeking fashion than heretofore.

Iran would perhaps be less coy about its support for terrorist proxies, such as *Hamas* and *Hezbollah* and might escalate its level of support to them. One route would be to proliferate nuclear weapons into the hands of *Hezbollah* placing them effectively adjacent to the Israeli northern border. Another strategy might entail transferring nuclear weapons to other terrorists. Intentional unintentional use of armed proxy groups and weapons was said to be a well-established part of the Iranian playbook in this connection. There was a feeling that a nuclear Iran posed a greater conventional and unconventional military threat of attack on the IRI's traditional targets, whether directly or by proxy. Besides the U.S. and Israel, such targets include frozen territorial disputes and minority Sunni governments in Gulf littoral states. One cannot discount that the IRI government, emboldened by its new-found nuclear status, would engage in a series of other provocations similar to those engaged in by its business partner the DPRK repeatedly since the 1953 armistice on the Korean peninsula.

Iran's leadership might be aggressive, but it is not suicidal. The regime is aware of the risks posed by IRGC control of the nuclear program – and perhaps, ultimately of IRI nuclear weapons. Besides the fact that control over nuclear weapons is jealously guarded by all nuclear powers, nuclear forensics make it impossible for a state to hide behind proxy actors and escape retaliation if it transfers nuclear weapons to proxy groups who then employ them.

These perceptions regarding the nature of the Iranian government and its possible intentions were the drivers behind a number of negative future scenarios connected to a future nuclear Iran that were conjured up during the course of the discussion. Given the shorter launch warning times involved within the Middle East region, the changes in the region that would follow Iran's achieving nuclear status would not be evolutionary. U.S. nuclear-armed F-16s would be deployed in the region within a very short time. A regional arms race would be unleashed. At a minimum Egypt, Saudi Arabia and Turkey could be expected to seek nuclear weapons themselves. In the worst case, a "nuclear zoo" would be unleashed in the region, with the DPRK possibly serving as a willing supplier. Before much time had elapsed, a new multi-polar order would prevail in the Middle East. With territorial disputes aplenty, fragile Gulf regimes and the prospect of a repeat of some incarnation of the Cuban missile crisis in Lebanon, the prospect of such forms of nuclear brinkmanship was a real concern to a number of participants in the forum.

What, then, should be the international community's response? Further economic sanctions are certainly an option. When uranium is still being enriched and all that exists is a stockpile of fissile material, the situation is still amenable to solution by diplomatic negotiation, economic incentives and physical intervention. International options become more constrained when the capability to manufacture nuclear weapons exists. The industrial infrastructure is bunkered and hidden. Economic incentives and diplomacy are the only available options and both are difficult with an ideologically militant government. Once nuclear weapons have been designed, the components will be hidden and well protected. Attack options are limited even further. More reconnaissance is needed. Greater weapon accuracy is needed, as is greater throw-weight. When a state possesses hidden, operational nuclear weapons, the only option was said to be all out war. A first strike against the opponent has to be thorough, swift and decisive – there are no intermediate options.

The popular current goal of achieving the total elimination of nuclear weapons, including in NATO's area of responsibility (AOR) was thought to run counter to an emerging global proliferation trend and to therefore be against the interests of NATO member states. It is almost impossible to make contingency plans within NATO for the prospect of a nuclear-armed Iran. Alliance cohesion is brittle and the organs of alliance governance, such as the NATO Council, are leaky. Nonetheless, efforts will have to be made to bring NATO and national politicians to a point where it is capable of addressing this contingency seriously.

The U.S. has already taken steps in reaction to the prospect of a nuclear-armed Iran on its own. Besides increased conventional weapon sales to states adjoining Iran, the U.S. made two clear declarations of policy in its recent Nuclear Policy Review (NPR). One statement was negative in nature. The United States would not use nuclear weapons against states that were signatories to and in compliance with their obligations under the nuclear Non-Proliferation Treaty (NPT). The review also stated that if a proliferator attacks U.S. allies and partners, the proliferator will be defeated. If nuclear weapons are used, the response will be effective and overwhelming. However, Israel is an enemy to many in the region, not a rival. Because a U.S. led strategy of containing Iran implied depending upon the protector of the "Zionist entity", participants believed that regional states would not regard such a security guarantee as adequately credible for their needs and would seek to acquire their own nuclear weapons.

To date, the international community has focused on non-proliferation at the expense of counter-proliferation, because the latter entails the unattractive prospect, to many, of using military force. One other consequence of and reaction to a nuclear Iran may be that global counter-proliferation efforts will have to be boosted significantly. Greater counter-proliferation support may also have to be given to a number of states worldwide.

Because nations are so loth to resort to the use of force, ballistic missile defense (BMD) may end up being used as a convenient, non-violent, political hedge by which to respond to Iran's reaching the nuclear threshold. The U.S. and Israel are already building an integrated BMD system in the Negev desert. Such a system does not necessarily have to be explicitly designated as being built to counter Iran and could, eventually, be joined by other nations with an interest in ballistic missile defense, such as Egypt or Italy.

WELCOME

Dr. Eckart von Klaeden

Minister of State to the German Federal Chancellor

The Extent to Which the Iranian Nuclear Program Represents a Global Challenge

**Distinguished guests,
dear friends, ladies and gentlemen**

I am delighted to welcome you tonight at the Adlon hotel in Berlin. It is an honor and privilege to speak to this distinguished audience of experts.

The topic of this conference is about serious strategic choices. These choices are very difficult. But, to demonstrate that there can be strategic choices that are even depressingly more difficult, let me quote the opening lines of Woody Allen's "Speech to the Graduates" from 1979. He said: "More than at any other time in history, mankind faces a crossroads. One path leads to despair and utter hopelessness. The other, to total extinction. Let us pray we have the wisdom to choose correctly."

On a more serious note: the subject of the conference ("Strategic Implications of the Iranian Nuclear Program") deals with one of the most relevant and complex policy issues on our current agenda.

This discussion is both necessary and very timely. Against the background of latest developments like comprehensive and wide-ranging sanctions against Iran, the latest International Atomic Energy Agency (IAEA) report on Iran's nuclear program and the continued lack of negotiations on the future of this program, many open questions need to be urgently addressed.

How do we bring about a diplomatic solution? Will Tehran finally engage in serious, fruitful negotiations? When and how will sanctions work? What does the Iranian nuclear program mean for the future of the Non-Proliferation Treaty (NPT)? You will address all of these and other questions in the coming days.

Tonight I have been asked to speak about the question to which extent the conflict over the Iranian nuclear program is a global challenge.

Let me start my remarks by noting that the very question implies that the program is a global challenge indeed. The question limits the discussion to the mere extent of its global aspect. I fully agree with that assumption.

Needless to say that this question is of direct relevance for the entire Middle East. But a simple look at the number of actors involved gives a clear indication that there is more than a mere regional challenge at stake.

Discussion in and decisions by the United Nations Security Council, by the IAEA, the active involvement of the EU3+3, proposals by countries like Brazil and Turkey or sanctions by countries like Australia and Japan, to name just a few, highlight the global dimension of the question.

Why are all these actors involved? Because the stakes are very high and the consequences of failure would be very serious. The future of the Iranian nuclear program will have implications for the Non-Proliferation Treaty as a whole. In other words: implications for the way in which we deal with nuclear weapons in the future in general.

The resolution of the Iranian nuclear question is of essential importance in this respect.

Let me be clear: we do not question Iran's – or any country's – right under the NPT to pursue nuclear energy for peaceful purposes. But NPT rights come with very clear NPT obligations. Unfortunately, Iran's policy of concealment and its lacking cooperation have raised doubts as to Iranian intentions with respect to nuclear energy. There are serious concerns that Iran's nuclear ambitions may not be exclusively peaceful.

I will refrain from speculating about the ulterior intentions and motives of the regime in Tehran. And I will certainly refrain from analyzing the psychology of the current leadership.

However, I think we can depart from three basic assumptions:

- Firstly, non-proliferation policy is primarily about capabilities, specifically breakout capabilities, not about the intentions of the regime, of which we know relatively little.
- Secondly, whatever the intentions, Iran's nuclear program is the consequence of a number of factors: security, prestige, economical and political.
- Thirdly, no matter what impression Iran tries to convey, it is not immune to what we do.

Since 2003, Germany as part of the EU3+3 has played a very active role in finding a diplomatic solution that convinces Iran that acquiring nuclear weapons or a capability to produce nuclear weapons is not in its interest.

We must make clear to Iran that a nuclear weapon does not offer any security guarantee. On the contrary, the possession of nuclear weapons would actually be detrimental.

Iran would still remain vulnerable as it would not have a second strike capability. But it could induce other countries in the region to take similar steps so that in the end Iran might feel more threatened than before. We might see a spiral of proliferation with disastrous consequences for the region and the world.

So we have to point out time and again that nuclear weapons make no sense for Iran. At the same time with the EU3+3 proposals in 2006 and 2008 we have submitted substantial and far-reaching offers of cooperation to Iran. Of-

fers that should give Iran an additional incentive to agree to a diplomatic solution. In 2009, the new Obama administration, in an unprecedented and bold way, extended its hand towards Iran to find a negotiated solution.

But, unfortunately, Iran has not only not responded. It has escalated by enriching [uranium] up to 20% and announcing further enrichment sites. This is alarming and indicative of the Iranian continued refusal to negotiate.

Iran has not accepted the IAEA proposal for an international approach to fuel the Tehran Research Reactor (TRR). The proposal was to use Iranian low-enriched uranium (LEU) for the first time ever in a peaceful activity. It would have had the important confidence building effect of significantly reducing the amount of LEU in Iran for a certain period of time and thus opening a path for further negotiations.

This deal was designed to facilitate talks about the Iranian nuclear program, but it cannot replace them. If Iran is really willing to talk about its nuclear program, as we are ready to talk about issues of interest for Iran as well, the EU3+3 stand ready. But, so far, Iran has not seized this offer.

Thus, after a long period of patience and as the Iranian nuclear program is proceeding, we had no other choice [but] to send a clear signal to Tehran. This is what the strong and comprehensive UN sanctions are all about.

Once the UN sanctions were in place, we started pushing for their quick implementation and additional measures by the EU and other like-minded countries.

They are all part of the dual track approach of the EU3+3: cooperation pays off, obstruction carries a price.

We are convinced that there is no serious strategic alternative to this approach. We do not believe that there is a military solution to the problem. The sentence "You can't

bomb knowledge” always looked very convincing to us. At the same time, it is clear that we cannot simply ignore or passively accept the development of the Iranian program either. This is why we consider the dual track approach to be the best strategic choice we can make.

At the same time, we stand with the Iranian people as they seek to exercise their universal rights. For this reason, these sanctions very deliberately do not harm day-to-day commerce from which the Iranian people benefit.

We must not lose sight of what we want to achieve: sanctions shall convince Iran to return to the negotiating table. The engagement track will remain open, the offer to negotiate is still valid. We will have to talk to the Iranians at a certain point. There is no alternative to a negotiated peaceful solution.

To sum it up: The choice is with Iran. Iran has to agree on a date and agenda for talks with the EU3+3 on the nuclear issue. These are open talks – the outcome is not predetermined, contrary to what some Iranian officials may claim or believe.

It may be that we need time to convince the Iranians that their current path is leading them in the wrong direction and is contrary to their interests. But I am convinced that we still have that time. Processing LEU is not the same as possessing a nuclear weapon on top of a ballistic missile. And even that would not shift security in favor of Iran.

SESSION I

A NUCLEAR PROGRAM IN PROGRESS

HOW MUCH TIME IS LEFT FOR A DIPLOMATIC SOLUTION?

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Iran, Diplomacy and Past Experience.

The question related to diplomacy with Iran, its usefulness, its possible results, and its limit, is not new. It has been posed time and time again not only since the disclosure in August 2002¹ of undeclared facilities at Natanz and Arak, but even before, for instance during the so-called “constructive dialog” between the Europeans and Iran in the 1990s, which became a contentious issue between the United States (under the Clinton administration), and Europe. By then, Washington was already imposing heavy sanctions on Iran, the roots of which were as much political as they were strategic.

In the second half of the 1990s, the Europeans had become more circumspect concerning the “constructive” side of the dialog: lack of results, statements made in Tehran, Iranian acquisitions in Europe which could hardly be justified by a civilian nuclear program, and Iran’s behaviour at the nuclear Non-Proliferation Treaty (NPT) extension conference², all these factors raised suspicions. Specific intelligence seemed to confirm them. Such was the situation when Alireza Jafarzadeh, representative of the National Council of Resistance of Iran (NCRI), revealed that Iran was building two secret sites: Natanz and Arak.

The revelation was confirmed by the International Atomic Energy Agency (IAEA) in February 2003 (after five months of delay imposed by Tehran³). In September 2003, the director general made the following remarks to the board of governors: “We need to reconstruct the history of an extensive twenty years program...I want to be very clear: if we do not obtain the necessary information and if we do not get immediate and full co-operation by Iran, we will not be able to verify the Iranian program. And that is in itself a conclusion – that we are unable to verify.” The road to the United Nations Security Council (UNSC) could have been chosen as soon as November 2003⁴, when the IAEA report presented to the board of governors stated that “Iran has now acknowledged that it has been developing,

for 18 years, a uranium centrifuge enrichment program, and, for 12 years, a laser enrichment program. In that context, Iran has admitted that ...it had failed to report a large number of conversion, fabrication and irradiation activities involving nuclear material, including the separation of a small amount of plutonium”, and that “it is clear that Iran has failed in a number of instances over an extended period of time to meet its obligations under its Safeguards Agreement.” However, the 35 board members decided not to refer the case to the Security Council, because a diplomatic initiative was under way: the European troika (UK, Germany and France) (EU3) had just reached an agreement with Tehran on 21 October 2003⁵.

Since then, a second EU3 agreement with Iran was concluded on 14 November 2004, and later an offer presented by the three Europeans, Russia, China and the United States (joined by the European Union) in June 2006 (P5+1 agreement on 1st June, the offer being presented by Javier Solana on 6 June in Tehran). It was followed by a second offer finalised in May 2008 and transmitted in June to Tehran by Javier Solana in the name of the six nations (Germany, the United Kingdom, France, Russia, China and the United States (P5+1)).

In addition to these four rounds of diplomatic talks, there were several attempts by Moscow to convince Iran to accept uranium enrichment on Russian soil for the Bushehr reactor fuel (the most significant initiative took place in November 2005⁶) and, four years later, in October 2009, an attempt to prevent Iran from enriching uranium at higher levels (20%), with a specific negotiation related to the Tehran research reactor (TRR). The negotiation took place in Vienna. The negotiating parties with Iran were the nations concerned with the transaction, namely the United States, Russia, France and the IAEA (Mohammed ElBaradei, then the IAEA’s Director General, was personally involved in drafting the final offer).

Finally, the IAEA and Iran agreed bilaterally on two occasions: on 6 April 2004 (on a “ten point plan”) and then on 12 July 2007 (on a “working plan”).

The diplomatic experience is therefore long, diverse and rich. A number of lessons can be drawn from it. Agreements were only honored in the breach by Iran, and the various offers have been ignored, rejected, or met with counterproposals ignoring the core issue. If the question posed is about how much time is left for a diplomatic solution, it is crucial to understand why all the previous attempts have failed.

1 Let’s start with the “constructive dialog”. It was never conducted in a systematic fashion, its objective was fuzzy, and the information on Iranian nuclear activities still rather poor in European capitals. Under such conditions, no success could be expected. But Iran, for its part, achieved a major objective during the almost ten years, ending at the end of the 1990s: namely, to divide the Europeans and the U.S.. In U.S., there were strong suspicions regarding Iran, but the focus was essentially on Russia’s cooperation with Iran, most notably on the contract related to Bushehr⁷, and on side agreements concluded at the time of this contract. Less attention was paid in Washington to relations between Iran, China or North Korea, and to the activities of the A.Q. Khan network in Iran proper or via Malaysia, South Africa or the UAE.

2 The first serious European diplomatic attempt came later on, more than one year after the NCRI revelation concerning the two secret sites. The most important result of the initiative was the conclusion of the 21 October 2003 agreement. Iran agreed to answer all the IAEA’s outstanding questions and clarify the remaining gaps, discrepancies and inconsistencies in its previous explanations; to sign the Additional Protocol to the NPT, commence ratification procedures; and to suspend all enrichment and reprocessing related activities.

The European capitals had three major motivations, two of them being unrelated to Iran: first to restore solidarity between France, the United Kingdom and Germany after their differences on Iraq (an internal European political objective), and second to prove that “effective multilateralism” was indeed effective, not a mere slogan (In June 2003, the European Union published a joint strategy for combating the proliferation of Weapons of Mass Destruction (WMD). One of its main objectives was to show that multilateralism is not merely a way of delaying action, but a means of obtaining substantial results). Only a third objective was related to the subject matter: the European leaders understood the significance of a nuclear Iran not only for the already highly volatile Middle East⁸, but they also felt potentially threatened by Iran’s ballistic missile program, given its existing and planned capability; they did not want to be under the potential threat of Iranian nuclear coercion in the decades to come⁹.

This first diplomatic attempt was rational (diplomacy should always be tried first, the regime in Tehran was thought to be a possible interlocutor, and Iran was under serious international pressure after the revelations). The failure was due largely to two independent factors: *poor technical preparations* (the agreement was unclear about what should be “suspended”, did not include uranium conversion, and discussions concerning the perimeter of suspension were endless¹⁰), and an *empty threat*: the Europeans had made it clear to Tehran that any violation of the 2003 agreement would result in Iran being reported to the Security Council, from which it had been shielded only because of Iran’s decision to suspend its fuel cycle activities. This threat was not deemed credible in Tehran, and was not implemented when negotiations were broken off by Tehran in June 2004.

3 The second European diplomatic initiative – resulting in the 14 November 2004 agreement - was more serious technically (lessons were learned, and uranium conversion was included) but they had major political weaknesses.

First, *Tehran had not complied* with the previous agreement, signed with the same interlocutors, and had not suffered any consequence for this lack of compliance. Second, in the new agreement, the suspension of enrichment and reprocessing related activities was supposed to last *only for the duration of a lengthy negotiation* covering three areas (civil cooperation, trade and regional security)¹¹. Third, investigation into the A. Q. Khan network following Colonel Gaddafi’s revelations, uncovered *substantial undeclared cooperation between Pakistan and Iran*, including the supply of blueprints for centrifuges more sophisticated than those planned at Natanz. It was suspected that they could be assembled and tested at sites not open to inspectors (Qom?). It was not the best of times to negotiate with Tehran. And fourth, *presidential elections* were expected to take place in Iran in June 2005, and the European capitals did not want to provide any encouragement to the most conservative political elements in Tehran by exerting too much a pressure on the nuclear program¹². Taking this fear into account, there is some irony in the election in June 2005 of the most conservative president imaginable, namely the ultra-conservative Mahmoud Ahmadinejad.

4 6 June 2006. A new offer is transmitted to Tehran by Javier Solana (the text of the offer became public only on July 14). By then, Moscow, Washington and Brussels are on board, and the negotiators are denominated - from this date onward - the *EU3 + 3*. It proposes “a fresh start” in negotiations of a “comprehensive agreement with Tehran”. *The EU3+3 proposed to – reaffirm Iran’s right to develop nuclear energy for peaceful purposes in conformity with NPT obligations, – commit to actively support the building of a new light water reactor in Iran through international joint projects, and – agree to suspend discussion of Iran’s nuclear program at the UNSC on resumption of negotiations. Iran on its side should – commit to addressing all the outstanding concerns of the IAEA, – suspend all enrichment and reprocessing related activities (with IAEA verification), – and resume implementation of the Additional Protocol. Negotiations on a long term agreement*

would cover nuclear, economic and political issues. On 11 July, when Javier Solana met Ali Larijani in Brussels, no progress is made, and no response is provided to the June proposal. Then, on 22 August 2006, Tehran proposes discussions and negotiations without mentioning the suspension of enrichment and reprocessing related activities, compulsory under UNSC resolution 1696 adopted 31 July 2006. In addition, at the same time (26 August 2006), the heavy water production plant in Khondab for the Arak reactor was inaugurated by Mahmoud Ahmadinejad. The 31st August deadline contained in resolution 1696 for suspension is ignored. Two additional UNSC resolutions are adopted in 2006 and 2007 (1737 and 1747). They are ignored as well. Both the enrichment¹³ and the reprocessing programs make progress. The same is true for the ballistic missile program (and, soon, for the space program¹⁴).

5 2 May 2008. The EU3+3 present still another revised offer to Iran, rejected two days later by Tehran. A second version is finalised on 16 May and officially transmitted by Javier Solana on June 14. (A fourth UNSC resolution had been adopted on 3 March 2008 UNSC 1803 and the offer was an expression of the “dual track approach”). The letter states that “We, the Foreign Ministers of China, France, Germany, Russia, the United Kingdom and the United States, joined in this endeavour by the European Union High Representative for the Common Foreign and Security Policy, are convinced¹⁵ that it is possible to change the present state of affairs. We hope Iran’s leaders share the same ambition. In June 2006, we set out an ambitious proposal for a broad based negotiation. We offered to work with Iran on a modern nuclear energy program, with a guaranteed fuel supply. We were also prepared to discuss political and economic issues, as well as issues regarding regional security... Today, bearing in mind the provisions of UN Security Council Resolution 1803, we restate our offer ... Formal negotiations can start as soon as Iran’s enrichment-related and reprocessing activities are suspended¹⁶.” A letter from Tehran dated 4 July 2008 suggests starting negotiations on various subjects without providing

an answer to the EU3+3 offer. Then, in Geneva (17-19 July), the Iranian delegation led by Saeed Jalili provided a non-paper where suspension was not even mentioned. On August, 2 2008, the deadline present in the new offer is rejected by Tehran. Mahmoud Ahmadinejad reiterated that Iran would not stop its enrichment related activities. September 2008, still another UNSC resolution (1835) was adopted.

6 19-21 October 2009: negotiation took place in Vienna related specifically to the TRR¹⁷. An intense negotiation took place at the IAEA headquarters, with representatives from the United States, Russia and France, joined by the IAEA. The resulting proposal, aimed at providing nuclear fuel for the Tehran Research Reactor, indicated that Iran would place 1200 kg of uranium hexafluoride (UF₆) (enriched at 3.5%) under IAEA custody before 31 December 2009 for further enrichment and fuel fabrication. The IAEA would provide the nuclear material to the Russian Federation before 15 January 2010 for it to be enriched to 19.75%. It would then be manufactured into nuclear fuel assemblies in France. The proposal was transmitted to Tehran by the IAEA on October 21st and a statement by Mahmoud Ahmadinejad suggested that Iran could accept it (without any formal commitment being made). But Ayatollah Ali Hoseyni Kh mene’i rejected the offer soon thereafter.

Some months later, on May, 17 2010 (right in the midst of the NPT review committee), a joint declaration on the same subject (but with different provisions) was agreed by Brazil, Turkey and Iran whereby 1,200 kg of Lightly Enriched Uranium (LEU) would be sent to Turkey (remaining Iran’s property), while fuel for the TRR would be produced in one year. The Joint Declaration (JD) was later conveyed to the IAEA, and to the three previous negotiators, who produced jointly nine remarks (the so-called 9 points), later transmitted by the U.S., Russia and France to the IAEA. The remarks were as follows:

- The JD did not address Iran’s production or retention of 19.75% enriched uranium.
- It asserted the right of Iran to engage in enrichment activities despite the UNSC resolutions.
- The JD did not indicate that Iran was willing to meet with the P5+1 countries to address the international community’s concerns about its nuclear program.
- The JD did not set a date for removal of the 1,200kg of the 3.5 LEU from Iran.
- The timeline for the full delivery of the fuel assemblies to Iran was unrealistic.
- The JD indicated that, if Iran decided unilaterally that the provisions of the arrangement were not being respected, Turkey would be obliged to return Iran’s LEU.
- The JD stated that LEU would be the property of Iran while in Turkey.
- The JD did not specify what happened to the 1,200kg of LEU held in Turkey after the fuel assemblies are delivered to Iran;
- And finally, the JD did not account for Iran’s accumulation of LEU since the IAEA first proposed the TRR deal.

7 After the February 2010 IAEA report, suggesting for the first time that Iran is actively seeking to develop a weapons capability, there was a diplomatic pause, Washington expressed concern¹⁸ and stronger sanctions were adopted both at the multilateral level and unilaterally by the U.S. and the EU. In August 2010 however, rumors concerning a new diplomatic initiative led by the U.S. surfaced again, partly because U.S. intelligence reports indicated that since April the Iranians have had troubles in their nuclear enrichment program – allowing more time for diplomacy. A meeting on August 4 at the White House between President Obama and journalists was reported by both David Ignatius and Robert Kagan, who attended the meeting. But their reports were conflicting and even contradictory. David Ignatius contends that “President Obama put the issue of negotiating with Iran firmly back on the table” and that “the United States would accept a deal that allows

Iran to maintain its civilian nuclear program, so long as Iran provides “confidence-building measures¹⁹”. As far as Robert Kagan is concerned, he provides a completely different report of the meeting with Barack Obama, putting forward the President’s “evident pride in the global diplomatic effort that produced the latest resolution and his determination to pressure the Tehran regime as much as possible. It was clear he had no illusions about Iran. When he talked about his engagement strategy of the first year, it was not with wistful laments of what might have been or hope about future Iranian willingness to take up the offer to talk seriously about its nuclear program. Rather, Obama described it as a successful tactic in the effort to isolate and put pressure on the regime²⁰”. Who is right? Who is wrong? In fact both may have been right and president Obama’s words may have been ambiguous enough to justify both interpretations equally. If the idea was to send an indirect message for Tehran via the journalists, the least the reader can tell is that this message was unclear. All the more so since no American ideas (old or new) have been exposed publicly since the meeting took place. The United Nations General Assembly (UNGA) in New York will most probably be the occasion of discussing the issue again between the six nations involved in the negotiations.

The Strategy Behind Diplomacy.

1 What has been achieved with all these different initiatives?

- Politically, the Iranian regime is harder rather than easier to deal with. President Seyed Mohammad Khatami was more conservative and more “part of the system” than many observers are ready to recognize, even though he was reportedly fascinated by Western philosophy and the economic dynamism of liberal democracy, but compared to Mahmoud Ahmadinejad, he was a reformist, and he was elected with fair – as opposed to rigged – elections. This is precisely what the regime did not want to see happening again. If one purpose of the agreements and talks was to reintroduce Iran into the international community thirty years after the Islamic Revolution, the bet is lost. Fists have not been “unclenched”. On the contrary. And signs that still worse is in the making in Iran are there for everyone to see.
- Reflecting this reality, the Iranian negotiating team, which has never been easy since the early days in 2003, became more difficult with time (including in contacts with the Russians and the Chinese). The change from Hassan Rohani to Ali Larijani and then to Saeed Jalili is difficult to underestimate. While technical discussions were possible with Rohani (and to some extent with Larijani), Jalili is good only at making political statements. The main common denominator to all Iranian negotiators is the wish in Tehran to gain as much time as possible with talks. In December 2004, Cyrus Nasser, one of the most prominent Iranian negotiators before the 2005 presidential election, declared that the Iranian authorities had realised “that they need to gain time to see certain projects through unimpeded.”²¹
- The IAEA and the UNSC have lost – some – authority. As early as September 12 2003, the IAEA’s board of governors decided that Iran should remedy all failures

identified by the agency by the end of October 2003²². Not only this was never done (*actually, Iran declared some days later that the demand to suspend uranium enrichment is unacceptable, announced undeclared acquisitions, and that the Natanz factory had become operational*), but additional failures have been uncovered, including *inter alia* inspections delayed by weeks, buildings erased, undeclared tunnels at Isfahan, failure to provide information concerning the Pakistani offer of 1987 or activities related to P2 centrifuges, and a clandestine enrichment site near the city of Qom. Iran has asked the IAEA to withdraw the designation of no fewer than thirty eight (+4) inspectors (see paragraph 37 of the last IAEA report). There is a growing list of unanswered questions about enrichment sites. And the pattern of obstruction at declared sites started in 2004 (Iran decided in March 2004 to restrict the activities the international inspectors are authorized to carry out). Concerning the UNSC, resolutions 1696, 1737, 1747, 1803, and 1929, have all been ignored.

- Economically, sanctions are now hurting the regime, because decisions taken in the United States and Europe in 2010 (but also in Japan, Australia, South Korea...) reinforced previous UNSC sanctions substantially. But this more stringent step was adopted rather late in the process²³ and it is not thought to be capable of changing the rules of either the political or the diplomatic game. Nor did it alter Iran’s decision to go forward with the nuclear program either: the IAEA report dated 6 September 2010 shows that, while no progress has been achieved on the “outstanding issues related to possible military dimensions to Iran’s nuclear program”, Iran has continued with the operation of the enrichment facilities in Natanz, as well as with the heavy water reactor at Arak, now operating.
- Technically, the evolution of the enrichment program is telling, even though Iran encountered numerous problems with its centrifuges²⁴. In August 2003, Iran was

testing 10 IR-1 centrifuges with UF₆. In August 2010, 8,000 centrifuges are installed in Natanz, and 4,000 are functioning²⁵. While Natanz currently contains IR-1 centrifuges (with two cascades (164) now interconnected), the facility could be reconfigured to contain centrifuges of more advanced types. In September 2010, Iran had accumulated about 2.8 tons of LEU²⁶ and was making headway toward highly enriched uranium. Enriched uranium up to 20% U-235 is now produced on a routine basis²⁷. And the construction of new enrichment plants has been announced by Tehran²⁸. Concerning heavy water related projects, the IR-40 reactor is still under construction, the IAEA had not been granted access to the heavy water production plant up to September 2010²⁹, and there are now 756 (50 liter) drums containing heavy water stored at the uranium conversion facility (UCF) in Natanz.

- Iran also made robust strides in developing ballistic missiles with the apparent aim of being able to deliver nuclear warheads well beyond its borders and space launched vehicles: concerns are no longer about Iran's modifications of the *No-Dong*, they are heightened by Iran's success in testing locally produced space-launched vehicles and the two-stage solid-propellant *Sejjil-2* missile (range 2,000 km). If Iran is able to produce a small enough bomb, Iran's missiles are capable of carrying it. A three-stage version of the *Sejjil-2*, able to deliver a one ton warhead to 3,700 km, is thought to be 4 years from possible deployment. New tests concerning new missiles (the *Qiam* missile for instance), were undertaken after UNSC resolution 1939 interdicted them.

2 Why has diplomacy achieved so little?

- Lack of understanding concerning Tehran. The widely accepted view in Washington and Europe is that it is in Iran's interest to make a deal. If such is the case, Tehran will end up accepting an offer, provided it is attractive

enough (without renouncing the multiple UNSC resolutions). This conviction may be correct for the country as a whole, since a number of demonstrators since June 2009 made clear that their concerns are about relaxation of oppression and improvement of economic perspectives, but is misleading concerning the Iranian regime. Historical experience shows that authoritarian regimes need enemies and do not benefit from openness. To come again and again to Tehran with new offers when previous commitments have not been fulfilled is – rightly – interpreted as a show of weakness. It is a recipe for failure.

- No clear deadlines or deadlines ignored by those who have adopted them. Most of the initiatives so far were open-ended in order not to exert excessive pressure on the Iranian leadership but also because there was no agreement on what to do next. In June 2003, the IAEA's board simply *encouraged* Iran not to introduce nuclear material at the pilot enrichment plant, but three months later, in September 2003, the IAEA's resolution asked Iran to remedy all failures identified by the agency and to take all necessary actions by the end of October 2003 (deadline ignored by Iran and forgotten by the board). Then the board described omissions (P2 centrifuges for instance in 2004) and asked the IAEA to report at a later stage. With the passage of time, calls to Tehran to work "proactively with the agency" become empty. In August 2005, when Iran decided to resume uranium conversion activities, the board expressed "serious concern", but its authority had already been repeatedly challenged. Then, the UNSC started in 2006 to exert pressure. UNSC resolution 1696 threatened Iran with possible sanctions at a later stage; while UNSC resolution 1737, which contained the first multilateral sanctions, asked Iran to suspend all enrichment-related and reprocessing activities without further delay (this being the soft multilateral variant of "unacceptable") an expression repeated in 1747³⁰ as well as in UNSC resolutions 1803 and 1929³¹. Obviously, the relation to time is troubled.

In 2009, the White House gave Iran until the end of December to comply with UN demands. Several months after the deadline, President Obama continued to signal that Iran could still choose to comply with the UN to avoid sanctions.

- Red lines crossed with impunity. In 2004, hot tests were conducted at the UCF facility and centrifuge components were manufactured and tested with no penalty. In 2005 uranium conversion is resumed with no penalty. IAEA and UNSC resolutions have been ignored with no penalty. What is now considered to be a red line is hard to guess. False statements to the IAEA? There were myriads of them. Restrictions on the work of IAEA inspectors? There is now a long list of restrictions. Actually, their work is subject to more and more restrictions. Lack of implementation of UNSC resolutions? It was done again and again. Actual enrichment beyond 3.5%? It was successfully achieved in February 2010. Nuclear capable ballistic missile tests? Resolution 1929 contains an interdiction of ballistic missile tests, but what are the enforcement measures³²? The construction of clandestine facilities? Between the moment when the undeclared Qom enrichment site was revealed publicly by Barack Obama, Nicolas Sarkozy and Gordon Brown at Pittsburgh in September 2009 and the adoption of new sanctions at the UNSC, nine months elapsed.
- No strategy if diplomacy fails. This was one main weakness of the previous plans. There are different ways of translating the word “strategy”. The current sanctions being rather strong, foiling operations conducted by intelligence agencies and designed to subvert the Iranian program through sabotage reportedly taking place already, and Iranian nuclear scientists disappearing as well from time to time, next steps should be of a different kind. One possibility is to shoot down the next missile tested by Iran in violation of UNSC 1929. Another is to destroy an Iranian ship carrying weapons illegally. Another still to deploy naval forces in the region³³. Finally, the use of force could be more radical. But here the question is as follows: are there any circumstances under which the United States – or its allies for that matter – would deploy military force to stop Iran from becoming a nuclear power? In theory, there should be: President Obama has said on more than one occasion that he finds the prospect of a nuclear Iran unacceptable. In practice, it would be desirable to back diplomacy with a credible threat. But Washington, even though Chairman of the U.S. Joint Chiefs of Staff, Admiral Michael G. Mullen declared that such plans existed, lacks credibility in this respect. And Tehran knows it.
- No unity among the six main negotiators. Granted, there has been some improvement since 2003. The UNSC resolutions have all been adopted with the Permanent Five on board. However, both Russia and China have exerted pressure in order to get the lowest possible level of international sanctions. And – it goes without saying - neither Russia nor China has adopted unilateral sanctions going beyond the UN measures. Moreover, the implementation of UNSC sanctions by both nations is poor and less than satisfactory. There was a call from Western nations for stricter implementation of UN sanctions as the P5+1 prepared to meet in New York.

Where Do We Stand Now?

- No talks for months. High Representative for Foreign Affairs and Security Policy of the European Union, Lady Catherine Ashton, in agreement with the six nations, made it clear as early as June 2010, that she was ready to meet the Iranian negotiator, Saeed Jalili. But even on Iran's terms - as a point of departure for talks (i.e. no nuclear discussion beyond the TRR) - Tehran has not answered positively so far. The end of Ramadan was mentioned by Iran in July as a target date for providing an answer. But Ramadan has come and gone and still no answer has been provided. The IAEA's director general, Yukiya Amano, also invited Iran to give its view on the 9 points presented in written form by Russia, the United States and France on the May Joint Declaration adopted by Iran, Turkey and Brazil (even at the level of the ambassadors in Vienna). There was no answer by Iran either.
- The "time left". The meaning of this expression is subject to different interpretations. Does it mean the time still needed in Iran to get the amount of fissile material necessary for a first nuclear device³⁴? The time needed to produce a first weaponized nuclear warhead? The time needed to acquire a small arsenal - still another interpretation³⁵? Does it mean simply the time available before "the point of no return", an expression frequently used in Israel and recently in a most commented article by Jeff Goldberg in *The Atlantic*³⁶? The choice between these different alternatives matter. *It seems to mean in Washington one year to produce enough fissile material for a first device, once Iran decides to enrich up to 90%*³⁷. However, whatever the question posed, the answer provided changes with time and also with capitals³⁸. Estimates have been troubled by a number of factors, in particular the poor quality of centrifuges provided to Iran by foreign suppliers (some of them having reportedly ties to the CIA). In August 2010, the estimate concerning the time needed to produce enough fissile

material for a first device was about one year. Such estimate cannot be accepted without further information: *how is it possible to assess the time left with no reliable intelligence on the absence of additional clandestine sites* (Qom may be one element of a network of undeclared sites)³⁹? How is it possible to give a time frame for producing 25 kg of HEU under such condition? *And who can discard the possibility that North Korea⁴⁰ simply sells the necessary amount of nuclear materials to Iran?*

- Time left to do what? This is the essential question. As demonstrated above, numerous initiatives have already been tried unsuccessfully. And at this stage, the negative recipes may be far easier to formulate than the positive ones. Here are some of them:

1 Not to hope for change in Iranian politics. In 2005, all predicted the victory of Hashemi Rafsanjani and in 2009, the victory of Mir-Hossein Mousavi. While such might have been the results of free and fair elections, the political lesson should be integrated. In the coming years, it is not completely impossible that Iran's reform-minded Green Movement will somehow replace the *mullah*-led regime, but it does not seem likely⁴¹.

2 Not to abandon pressure on Iran relating to the suspension of its fuel-cycle activities. Production of fissile materials is the essential missing link of Iran's bomb program. To abandon suspension would lift the last meaningful obstacle between Iran and the bomb. It would also signal to Iran's neighbors that negotiators are not serious. Finally, it would bolster the credibility of the hardliners in Tehran who always contended that the Security Council should be ignored.

3 Not simply to join Iran in the effort to "gain time". Sometimes, observers are tempted to believe that if Iran needs time, so does the United States. The great harm that comes from doing nothing may not be understood.

President Obama could have sought a dialog with Iran in January 2009, developing early on a strategy and implementing it. Time is of the essence, and should not be wasted.

- Play “rugby” or play “chess”? In September 2010, Moscow suggested that Tehran’s hardline Islamists responded best to diplomatic “chess” than to diplomatic “rugby”. The meaning was first and foremost that Russian nuclear energy support was going in the right direction and should not be obstructed. “If we cooperate with Iran in the field of nuclear energy when we do Bushehr, this is how we try to keep them playing by the rules of the IAEA” declared Mikhail Vital’evich Margelov, chairman of the foreign affairs committee of the Russian Federation’s upper parliament chamber at the annual Geneva meeting of the International Institute for Strategic Studies (IISS)⁴². However, since the evidence that Iran plays by the IAEA’s rules is thinner and thinner, and since past diplomacy has been entirely of the “no rugby” type, the statement was probably directed mainly at criticizing unilateral sanctions against Iran in both the United States and Europe. How the regime will react to them is difficult to tell. The current team may be very tough and at the same time incapable of taking a decision when facing a difficult situation.
- Cease asking Tehran to *demonstrate* that its nuclear program is peaceful. Iran says its nuclear program is peaceful in nature and intended to produce nuclear energy. Who believes that in 2010? Already in February 2003, some IAEA inspectors (among them a Belgian inspector called Christophe Charlier) had strong doubts concerning the peaceful objective of the Iranian nuclear program concealed for 18 years. In 2004, with the results of the investigation on the A. Q. Khan network in, it became clearer that suspicions were warranted. The destruction of the Lavizan-Shian site was another blow to the fiction of a peaceful nuclear program. As time passed, evidence piled up. In February 2008, a briefing

presented by Olli Heinonen Deputy Director General for Safeguards of the IAEA on “alleged studies” (conversion of uranium dioxide into uranium tetrafluoride, high explosives⁴³, design of a missile re-entry vehicle⁴⁴), left little doubt concerning the finality of the program in the mind of the attendees (those studies were said to be “fabricated” and “baseless” by Tehran). In addition to the alleged studies, the IAEA asked Iran to clarify a number of procurement actions which could relate to the studies as well as courses on nuclear and ballistic missiles. Clarification of the roles of certain officials and institutes has also been requested. Iran did not provide clarification on those issues. In September 2009, the public revelation of a clandestine enrichment site close to Qom only reinforced suspicions. To pretend that Tehran can demonstrate the peaceful nature of its program is counterintuitive, and may even be counterproductive.

- Restore IAEA and UNSC authority. Both multilateral institutions will be much needed in years to come. They have been weakened by North Korea and Iran in a significant manner: the two nations have systematically ignored the demands made by the board of governors and the UNSC. In the IAEA’s reports, one finds repeatedly “*Iran has not suspended its enrichment related activities or its work on heavy water related projects as required by the Security Council*”. In addition, IAEA inspectors are not only facing repeated problems related to access to sites, information and individuals. They are also frequently refused bluntly by Tehran. While this is not necessarily inconsistent with the IAEA’s statute or the safeguards agreement, the number of inspectors banned in Iran’s case has become problematic. International Atomic Energy Agency Director General Yukiya Amano stated on September 13, 2010 that “*Iran’s repeated objection to the designation of inspectors with experience in Iran’s nuclear fuel cycle and facilities hampers the inspection process*”. (About 40 inspectors have been banned since 2003, with two additional inspec-

tors banned in 2010). Sometimes, nationality is the problem, sometimes it seems the real reason is knowledge and experience of the Iranian nuclear fuel cycle. In any case, to help the IAEA restore its authority is a must.

- Considering all the above, time for diplomacy, coercive⁴⁵ or otherwise, is probably thin. A “side-dish” consisting of a new version of last year’s proposal on the TRR fuel could still make some sense if the 9 points listed above are integrated. For any more general offer, if David Ignatius is right in his understanding that President Obama wants something much broader, the advice provided by experience is straightforward: do it now (this Fall), at a time when international and national sanctions bite; set a time limit (on December 31 at the latest) in order to avoid another round of stalling tactics; refuse any possible grey zone in the answer (Iran is the world champion of saying neither yes nor no); go public if and as soon as it becomes clear that the Iranians are stalling again and finally be clear about the consequences of any additional rejection by Iran (more sanctions still and credible possible use of force).
- What are the chances of succeeding? In the view of the author, the chances of success for any negotiation with the current regime are close to nil, *except if the Iranian nuclear and ballistic missile programs are accepted and UNSC resolutions ignored*. This would be a victory for the hardliners in Tehran, a recipe for disaster in the region (credibility of the U.S. among its allies), and a dangerous message to both Moscow and Beijing. A final offer can only be presented by the capitals involved as a last attempt (after so many other failed initiatives) with characteristics that were lacking so far: time limit, no grey zone, clear consequences of rejection. All the previous points should be covered with care not to get lost in another year (or worse 24 months⁴⁶) of fruitless debates. No partial implementation can be accepted (for instance interruption of enrichment up to 20%), and the deadline should be fully respected (31 December 2010).

Lastly, it should be clear that no other diplomatic initiative will follow (make sure that other nations understand they have no interest in diluting the terms). This new language may focus minds in Tehran, *because of its novelty*. Some U.S. ships in the region could also help.

Conclusion

1 What is needed for “the time left”? This paper tends to show that major mistakes have been made in the past. They should not be repeated. Clarity of purpose is much needed, allowing a credible policy to be formulated. This policy should be easy to read, should provide confidence to friends and allies, and should show resolve to Iran at a time when Tehran is convinced that new concessions are in the making.

2 In recent months, Iran has been piling up provocative actions: they are; *inter alia*, additional missile tests after resolution 1929 interdicting them, political statements announcing the disruption of U.S. efforts to forge a regional peace, and what seems to be preparations to haul the leaders of the country’s reform movement into court.

3 With such a context, how may Tehran understand new diplomatic proposals? A retreat after UNSC 1929? An exhibition of weakness? A repeat of past initiatives? A possibility to reconstitute a process of “negotiation within the negotiation” that Iran masters much better than any other nation? A mix of all the above? To avoid it, new rules of engagement should be adopted. They have been presented at the end of this paper.

Endnotes

- 1) 14 August 2002, press conference in Washington containing revelations of two undeclared nuclear sites: Natanz (south east of Qom, and Arak (southwest of Tehran).
- 2) Iran almost succeeded in blocking the adoption of voting procedures and therefore in blocking the vote on the extension of the treaty.
- 3) During the IAEA's visit to Iran, Tehran admitted for the first time to the existence of a uranium enrichment facility which would ultimately house 54,000 centrifuges, and admitted that it had imported nuclear materials of Chinese origin in 1991. Some of these materials had been converted to uranium metal.
- 4) Some (Pierre Goldschmidt, former IAEA Director of Safeguards, being among them), assert that the board "should" have transmitted the dossier to the UNSC, in a strict application of the IAEA mandate.
- 5) The choice could have been made to refer the case to the UNSC while pursuing the diplomatic track. After all, this mix of pressure and diplomacy is exactly what has been pursued since the adoption of the first UNSC resolution in 2006.
- 6) Russia offered to produce the necessary fuel for Bushehr jointly in Russia (2 November 2005) and Iran rejected Moscow's proposal stating that it would only accept proposals recognizing its right to carry out enrichment on its own soil. At the same time, Tehran claims not to have received any concrete proposal from Russia, further to which Russia made its proposal public to prove its existence.
- 7) Russia's cooperation with Iran was not confined to constructing the Bushehr reactor and supplying it with fuel, which were the subjects of contracts in 1995 and 2005. Iranian experts were trained on Russian soil, notably at the Kurchatov institute. Russian exports included essential equipment such as laser enrichment technology. A project to provide a research reactor to Iran was cancelled in 1998 under pressure from the United States. A number of Russian institutions and some research centers entered into all kinds of partnership arrangements in the field of nuclear and ballistic missile technologies, without being subjected to excessive scrutiny by the central authorities.
- 8) Apart from giving a boost to the most conservative elements in Tehran and helping to radicalise the fears of regional domination by Iran, a nuclear Iran could justify the development of new nuclear programs in the region and a Middle East with multiple nuclear actors would be utterly impossible to control and altogether unpredictable.
- 9) Most observers interpreted the European initiative as a means of preventing an American intervention against Iran, particularly as it began in Autumn 2003, just a few months after the U.S. intervention in Iraq. But this interpretation is partial and does not take into account a central factor: the perception of an Iranian threat.
- 10) Only in February 2004 was an agreement reached in Brussels between the Europeans and Iran on the scope of the suspension, which had been the subject of proposals and counter-proposals since November 2003.
- 11) This was a dangerous formulation, which could allow Tehran, at a time of her choosing, to declare that the negotiations were not successful on a specific point, and withdraw from the agreement.
- 12) Actually, the IAEA seems to have shared this fear: At the June board of governors meeting, there was only an oral report of the deputy director general for safeguards, Pierre Goldschmidt. This report was crucial since it was dealing with the 1987 offer from the A. Q. Khan network, and with experiments on plutonium separation in Iran.
- 13) June 2007: 1,500 centrifuges installed. In November 2007, 3,000 centrifuges. In August 2008 3,772 centrifuges. In August 2009, 4,592 centrifuges.
- 14) On 25 February 2008, a technical briefing from the DDG for Safeguards Olli Heinonen, provides an overview of Iran's nuclear activities, including on issues of interest from a military standpoint (project Green Salt, high intensity explosives, project 111 on re-entry vehicle). No cooperation from Iran to clarify those highly dubious activities.
- 15) A conviction is not simply a hope or a belief. But the rational basis for such conviction is unknown.
- 16) Suspension was required by all the UNSC resolutions.
- 17) Iran was then publicly threatening to enrich its own uranium up to 20% if no foreign supply was granted for the Tehran Research Reactor.
- 18) With one senior official saying that Iran is clearly moving "more and more in the direction of a weapons capability".
- 19) David Ignatius, *The Middletown Press*, August 6, 2010
- 20) Robert Kagan, *The Washington Post*, August 6, 2010
- 21) Tehran may never have taken seriously any of the negotiations. As early as November 2003, ten days after the first agreement with the EU-3 was signed, Ali Khāmene'i condemned the "excessive demands" from overseas, in front of a large gathering of the military and members of the government.

- 22) The resolution gives Iran an ultimatum for authorising unlimited access to the sites, providing full details of its past program and suspending all uranium enrichment.
- 23) Actually, some nations had been trying for years to get strong sanctions in place, a strategy that could have provided better results at an earlier stage.
- 24) Some of the problems are due simply to the poor quality of the P1 centrifuges installed in Natanz, others are reportedly related to sabotaged atomic gear imported by Iran thanks to three Swiss engineers, Friedrich Tinner and Urs and Marco Tinner, his two sons, operatives of the CIA. In Iran and Libya, identical vacuum pumps were discovered in 2003 and 2004 that had been cleverly damaged: they looked perfectly fine but failed to operate properly. Another disruption involved a power supply shipped to Iran from Turkey, which, when installed, caused 50 centrifuges to explode. Iranian investigators found that the power supply had been manipulated.
- 25) Actually, 3,772 centrifuges are now fed with UF6 and 5,084 are installed but not fed with UF6. The total number of centrifuges installed on 28 August 2010 was 8,856.
- 26) If further enriched, this quantity could be used to make three nuclear bombs.
- 27) One finds there a telling example of Iran's tactics with the IAEA. On 8 February 2010, the agency received a letter from Iran referring to the production of the required enriched uranium up to 20% for the TRR. Iran intended to transfer low enriched UF6 from FEP to PFEP on February 2010. The IAEA requested additional safeguards procedures before LEU be fed into the process at PFEP. But when inspectors arrived at PFEP, they were informed that Iran had already begun feeding the low enriched UF6 into one cascade at PFEP the previous evening (only one cascade was then capable of enriching the UF6 up to 20%).
- 28) The agency has been denied information about plans for the new facilities. Iran wrote information would be provided "in due time". According to previous statements, this may mean when the facilities are completed.
- 29) The IAEA is therefore relying only on satellite imagery to assess the plant's operations.
- 30) UNSC Resolution 1747 asks the IAEA's DG to report within 60 days "on whether Iran has established full and sustained suspension of all activities mentioned in resolution 1737".
- 31) This resolution contains the following provision: The Security Council "shall, in the event that the report shows that Iran has not complied with resolutions 1737 (2006), 1747 (2007), 1803 (2008) and this resolution, adopt further appropriate measures under article 41 of Chapter VII of the Charter of the United Nations to persuade Iran to comply with these resolutions and the requirements of the IAEA"
- 32) If Iran tests a new missile, it could be legally shot down. Who is contemplating doing so?
- 33) As stated already, the presence of American troops in Iraq in 2003 played a role in the *mullahs'* decision to sign the first agreement with the Europeans.
- 34) At an April 14 hearing of the Senate Armed Services Committee, the director of the U.S. Defense Intelligence Agency (DIA), Lieutenant General Ronald Burgess, was asked how long it would take Iran to produce enough highly enriched uranium to produce a single nuclear weapon if the regime decided to. Burgess told the Committee: "we are talking one year".
- 35) Only one nuclear weapon is not very useful for a state actor.
- 36) *The Atlantic*, September 2010.
- 37) This would mean reconfigure centrifuges and then produce the quantity needed, say 25 kg of HEU.
- 38) Israel for instance says 9 months, not one year.
- 39) On September 9, 2010, the NCRI, which was at the origin of the August 2002 revelations (as well as of some other revelations on undeclared sites), claimed to have uncovered a secret nuclear enrichment site in Abyek, 120km northwest of Tehran, run and operated by the ministry of defense. The site is called Behjatabad-Abyek, and it has, according to satellite imagery, four entrances and a tunnel. A mountain reinforces the facility against aerial bombardment. The information was shared with the IAEA, which still has to verify it, if access is granted by Tehran. U.S. officials declared that "this facility has been under construction for years" and that the United States has "known about it for years". The facility's exact purpose is in dispute, but it is not necessarily a nuclear site.
- 40) North Korea's enrichment program is not only widely believed to exist, it has been acknowledged by North Korean authorities after a number of denials.

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- 41) To help the freedom movement would nonetheless increase the odds that some change is possible. However, the time to do it was June 2009, when one million Iranians were in the streets after the rigged elections. The lack of support from abroad was stunning.
 - 42) To ease proliferation concerns, Moscow will take back spent rods that could be used to make weapon-grade plutonium.
 - 43) The testing of high voltage detonator firing equipment; the development of an exploding bridgewire detonator; the simultaneous firing of multiple EBW detonators; and the identification of an explosive testing arrangement
 - 44) The content of the inner cone of the re-entry vehicle was considered by the agency to be able to accommodate a nuclear device.
 - 45) Sanctions are considered to be part of the diplomatic process in the “dual track approach”.
 - 46) This timeline is easier to understand when considering the U.S. political agenda rather than the Iranian nuclear program.

SESSION II

ARE WE PURSUING THE RIGHT DIPLOMATIC APPROACH?

TESTING ALTERNATIVE APPROACHES

**Dr. Bruno Pellaud,
Former Deputy Director General
of the International Atomic Energy Agency**

Energy dominated the relationship between Iran and the West even before the nationalization of British oil facilities by Prime Minister Mohammed Mossadegh in May 1951. Riding on a potent nationalistic wave, Mossadegh tried forcefully to impose his views, with no readiness to compromise. He met strong British and international opposition, and then domestic opposition grew as he abused emergency powers granted to him by the parliament. In 1953, the U.S. and the UK engineered a coup that deposed Mossadegh and the Shah returned to power; he negotiated a mutually acceptable agreement with the West and started to modernise Iran through education and industrialisation, while repressing political opponents and building up a strong military establishment supplied by the United States of America.

After oil, airplanes and tanks, the Shah saw in nuclear energy another means to assert Iranian regional supremacy. Nuclear negotiations with the West started around 1960; 50 years later the topic remains on the international agenda - with the same intensity and with the same question marks surrounding the ultimate motives of the Iranian leadership. A half-a-century of alternative negotiating approaches have been followed by all the players to draw a line around the nuclear seeds that had been planted in the early sixties. Is there today a different way to address the Iranian nuclear issue?

A. The Historical Seeds

The Shah Goes Nuclear

To gain access to nuclear power, to set the stage for his ambitions, the Shah followed various approaches – negotiating with several technology providers, the U.S., Germany and France, planning to acquire two dozen nuclear plants and pursuing various fuel cycle technologies, even spent fuel reprocessing (with the tepid support of the U.S. government). During a trip to Iran, U.S. Atomic Energy Commission chairperson Ms. Dixy Lee Ray mentioned the possibility of establishing regional enrichment and reprocessing facilities for the Middle East.¹ A U.S. State Department briefing memorandum to Secretary of State Henry Kissinger, dated 9 May 1975, says that the outstanding issue in the U.S.-Iranian nuclear accord is whether to allow Iran to reprocess U.S.-supplied plutonium. The memo adds that Iran likes the idea of a multinational reprocessing plant, but wants U.S. agreement to allow Iran to reprocess U.S. fuel if Iran makes a „good faith“ effort to establish a multinational reprocessing plant.² Uranium enrichment was of no concern at the time - because it was technically too difficult.

Did the Shah seek or think about the military option? By the end of the fifties, the West judged the imperial regime sufficiently stable and friendly to ignore proliferation concerns. Despite assertions that Iran’s nuclear program under the Shah was only for peaceful purposes, some sources claim that the Shah intended to build a nuclear weapons capability. In June 1974, the Shah was quoted as saying that Iran would have nuclear weapons “*without a doubt and sooner than one would think.*”³

The Islamic Republic Forsakes ... and Then Revives the Nuclear Program

At first, the grand scheme of dozens of nuclear plants was cut short by the Islamic Revolution of February 1979. This was a dramatic end to a huge nuclear program comprising two partially completed power plants at Bushehr on the shores of the Persian Gulf, dozens of research facilities, 350 tons of uranium oxide acquired from Namibia and, above all, thousands of scientists, engineers and technicians trained in the U.S. and in Europe.

Zalmay Khalilzad, the future U.S. Ambassador in Bagdad and at the United Nations under the second G. W. Bush administration, assessed what could happen with remarkable anticipation in his doctoral thesis⁴ of December 1979: “*The Khomeini group has sharply reduced, and perhaps may have eliminated, Iran’s nuclear power program. However, Khomeini and his followers are messianic and would like to spread their type of Islamic ideology to other Islamic countries. If they stay in power and manage to control the country, which at present appears uncertain, they may see nuclear weapons as a necessary ingredient of their self-image as „a model Islamic state.“ Their incentive to produce nuclear weapons may also increase substantially if any of their regional ideological and political adversaries such as Iraq acquires such weapons.*” (emphasis added)

In September 1980, Iraq attacked Iran, starting a war that resulted in the death of between half a million and 1.5 million people from both sides in the 1980–88 war. Unprepared and confronted with Saddam Hussein’s chemical weapons as well as superior weaponry provided to Hussein by the West, it took Iran three years to expel Iraqi troops.⁵ Westerners tend to underestimate the impact of the Iraq-Iran war of the eighties on Iranian psychology, behaviour and policies. Those young people who fought and survived the massacre have now reached the levers of power. They remember. The demise of Mossadegh in 1953 left deep scars to the national pride of Iranians; the

war with Iraq left deep scars in the flesh of Iranians.

By the mid-eighties, Iran was quite probably made aware of the Iraqi nuclear weapon program by their *Shi'ah* brothers in Iraq. Ayatollah Khomeini revived the domestic nuclear activities and started an embryonic weapon program, later supplemented by the purchase of equipment on the international black market. Indeed, Zalmay Khalilzad had been right in his doctoral thesis of 1979. In view of the extreme violence of the war with Iraq and of the imminent risk of a Saddam Hussein disposing of nuclear weapons, one can call Khomeini's decision *legitimate*, a decision taken as an act of self-defense. Nonetheless the clandestine activities launched at the time were clearly *illegal*, since Iran had acceded in 1972 to the Non Proliferation Treaty (NPT), since Ayatollah Khomeini had elected after 1979 not to withdraw from the NPT and since Iran was during all that time subject to safeguards verification by the International Atomic Energy Agency (IAEA). Throughout the eighties, Iran tried to acquire from abroad all kinds of nuclear technologies, from large heavy water research reactors to centrifuges. From Pakistan, they obtained a first batch of centrifuges, as well as weapon designs of Chinese origin.⁶ They also received parts for some 2000 centrifuges, a deal negotiated with, and delivered by Western commercial agents, as explained by Gordon Correa of the British Broadcasting Corporation in his assessment of the A. Q. Khan network.⁷ Due to poor manufacturing (or intentional defects to make the rotors unstable), it took a long time for the Iranians to bring these machines to full rotational speed. The first centrifuge was spun only in 1998. Not capable yet of processing the uranium acquired earlier from Namibia, the Iranians purchased and received from China in 1991 some 1,800 kilogrammes of uranium compounds for use in centrifuges. In the nineties, the "Uranium Conversion Plant" in Isfahan was built by Iran itself on the basis of Chinese blueprints (China having been convinced by the U.S. not to build the plant themselves).

In 2002, satellite imagery and national intelligence brought to light the existence of the "Natanz enrichment facilities". This marked the beginning of an active engagement of the international community with the Iranian nuclear program, now perceived as a rapidly growing threat. This was the beginning of multilateral consultations and negotiations. Domestically, the fall of Saddam Hussein in the Spring of 2003 was a watershed for Iran: the enemy next door had been removed from the map and the "ultimate enemy", the United States, had troops at the door. Whatever the motivation, in 2003, the Islamic regime readjusted its strategic policy, opened negotiations with European countries and, surprisingly, accepted voluntarily the temporary suspension of uranium enrichment and the early implementation of the very intrusive IAEA Additional Protocol - at its own risk - since the inspection tools of the Additional Protocol helped the IAEA uncover additional safeguards violations of the eighties and nineties. In 2003, as estimated by U.S. intelligence⁸ in late 2007, Iran seemed to have shelved most weapon development activities and concentrated its efforts on the construction of large-scale enrichment and plutonium production facilities. These undertakings were disturbing, but they are legal under the NPT.

B. Negotiating the Iranian Nuclear Issue...

The IAEA, Over Time

Prior to the discovery of Natanz, negotiations with Iran on its nuclear program were limited to the IAEA, which was trying to see through this program with scant information and restrictive access rights. In 1993, intelligence information began to flow in and violations of the safeguards agreement became known. For example, the IAEA tried repeatedly to locate the Chinese uranium compounds received by Iran in 1991, but without success. It is only in 2002 that China admitted having delivered them and Iran to have received them.⁹ A game of cat and mouse was played during the nineties between the IAEA and Iran, with inspectors occasionally instructed to climb on roofs to determine the status of inaccessible laboratories. Iran was clearly trying to hide a lot of activities and to move them around overnight in order to escape IAEA's scrutiny. There were intense negotiations between the Atomic Energy Organisation of Iran and the IAEA to understand the mismatch between declarations, inspections and other information sources. The inspectorate was reaching the limits of conventional safeguards, which at that time were focussed on facilities declared and made accessible by the state. A lot of discrepancies were observed in Iran throughout the nineties, but no smoking gun was found to trigger political action.

The smoking gun came in 2002 with the discovery of the Natanz enrichment facilities. Once accessed by the IAEA, intense negotiations were carried out in order to understand the past, in order to inspect and access the various clandestine facilities that had been discovered. The IAEA was successful in accounting for the nuclear materials present in Iran and those acquired from Namibia and from China. Still, without an Additional Protocol in place, the IAEA could and still cannot, check *inter alia* the volume of uranium extracted from Iranian domestic mines. Verifying Iran is for the IAEA a moving target - with the occasional discovery of new clandestine facilities, such as the Fordow-Qom enrichment plant in September 2009.

Iran, Early Positive Signals

As noted, the fall of Saddam Hussein in early 2003 had a strong impact in Tehran. On 4 May 2003, the Swiss ambassador to Iran, Tim Guldemann, informed U.S. officials that a tentative road map for comprehensive talks with the United States had been seen and approved by Iran's supreme religious leader, Ayatollah Ali Hoseyni Khāmene'i; then-President Mohammad Khātāmī; and then-Foreign Minister Kamal Kharazi, according to Guldemann's cover letter¹⁰ revealed in a *Washington Post* story in 2007. Switzerland serves as official diplomatic channel for communications between Tehran and Washington in the absence of direct diplomatic relations. The roadmap listed U.S. and Iranian aims for potential negotiations, putting on the table such issues as an end to Iran's support for anti-Israeli militants, action against terrorist groups on Iranian soil and acceptance of Israel's right to exist, as well as Iran's access to international nuclear technology.

The then U.S. Secretary of State Colin Powell thought "*it was a very propitious moment*" to respond to the Iranian readiness to engage.¹¹ But as soon as Vice President Cheney's office heard of the matter, the document was set aside and ignored. Guldemann was accused of acting alone, of being the sole author of the roadmap. Following up on the February 2007 *Washington Post* story, Nicholas Kristof of the *New York Times*¹² brought to light in April 2007 a remarkable document, undated and attributed to the Iranian Ambassador to the UN Javad Zarif (reproduced as Annex A here under). Kristof's story proved that Iranian officials had in their hands in 2003 an original, electronic copy of Guldemann's roadmap, that they were working on it with further changes so as to clarify Iranian objectives and that besides Guldemann they were seeking their own U.S. channels to the State Department.

Regrettably, the Bush administration dismissed the Guldemann-Zarif openings - afraid or incapable of dealing

with the hostage takers of 1979. It flouted the new readiness of the Iranian government to address the whole catalogue of issues accumulated between the two sides. On the nuclear issue, the U.S. continued to be adamantly opposed to a compromise on enrichment, still asking for a complete suspension of enrichment activities. Surprisingly, but as a logical continuation of the Guldemann-Zarif signals, the Iranians agreed in late 2003 to temporarily suspend enrichment and to allow intrusive IAEA inspections, proving thereby with deeds their willingness to talk.

The Europeans Take the Initiative and Miss Opportunities

In the absence of U.S.-Iranian contacts, France, Germany, and the UK (the so-called EU3) took the lead in mid-2003 to initiate formal discussions aimed at persuading Tehran to abandon the enrichment component of its nuclear program and to sign and put into force the IAEA Additional Protocol. The three foreign ministers - Jack Straw of Britain, Joschka Fischer of Germany and Dominique de Villepin of France - went to Tehran in October 2003 to show their good faith and readiness to negotiate with Iran, to press Iran to clear its files with the IAEA - and also to dispel any U.S. temptation to deal with Iran likewise in the aftermath of the conquest of Baghdad. Initial accord was reached on 21 October 2003, pursuant to which Tehran agreed to “sign the IAEA Additional Protocol and commence bringing into force procedures”, to “continue to cooperate with the IAEA in accordance with the [Additional] Protocol in advance of its bringing into force”; and to “voluntarily...suspend all uranium enrichment and reprocessing activities as defined by the IAEA”.

This was a major diplomatic success. In November 2003, Iran did stop its enrichment activities and in December 2003, Iran allowed *voluntarily* the early implementation of its Additional Protocol on a *provisional* basis.

Negotiations went on throughout 2004, with the Europeans insisting on the permanent, complete suspension of all enrichment activities and a strong curtailment of other nuclear projects. Although not a party to the negotiations, the Bush administration was keeping a menacing supervision over the process in order to make sure that the Europeans would not accept any concession on the key issue of the suspension of enrichment activities. Yet, having suspended enrichment as an act of goodwill, Iran consistently rejected any subsequent proposal to curtail fully its enrichment activities.

In March 2005, Iran came up with a significant offer to constrain its activities related to enriched uranium and plutonium production,¹³ namely declaring itself ready to

1. Forego indefinitely the chemical processing of spent fuel to recover unspent uranium and plutonium. [*If strictly implemented, and if Iran in addition gave up its plans to build a heavy water reactor, this commitment effectively would cut off the plutonium route to nuclear weapons*];
2. To cap enrichment at LEU level. To limit uranium-enrichment activities in the early phase to those required to meet the contingency requirements of its power reactors, should international deliveries not be forthcoming [*that is, some 10,000 centrifuges to produce one annual reload of fuel*] and to
3. Immediately convert all enriched uranium to fuel rods to preclude even the technical possibility of further enrichment. [*Thereby, reducing drastically the risk of a breakout scenario*].

The March 2005 Iranian offer was turned down by the Europeans, indeed was not even looked at and discussed. The EU3 had opted to wait for the June 2005 presidential election, gambling on the victory of former President Akbar Hashemi Rafsanjānī, whom they considered more flexible. The approach backfired. Instead of Rafsanjānī, Iranians decisively elected Mahmoud Ahmadinejad.

On 5 August 2005, the EU3 passed to Iran a 'Framework for a Long-term Agreement'. It made no reference to the March Iranian proposal, kept the hard-line stance of full suspension, but offered nonetheless a very attractive overall nuclear and economic package.¹⁴ The European package was generous, with the inclusion of a nuclear cooperation involving light-water reactor technology of U.S. origin. Yet, the U.S. had not explicitly lifted their sanctions in that field to help the European mediation. And furthermore, the European power plant suppliers were not too eager to seek the Iranian market at the time they were trying to gain a foothold on the U.S. market.

At any rate, Ahmadinejad was not interested. Full of contempt for his predecessor Mohammad Khātāmī whom he thought weak on the nuclear issue, sure of getting away with a tougher stand, with even the "liberals" disappointed by the lack of Western response, the new president changed course. In July 2005, Iran resumed its enrichment activities at Natanz. In February 2006, Iran stopped the provisional implementation of its Additional Protocol. The IAEA board of governors found Iran in non-compliance with its safeguards agreement in September 2006 and reported that to the UN Security Council in February 2007. Security Council resolutions followed, and with no response from Iran, sanctions began to be imposed in March 2007.

Sadly, the West's insistence on full enrichment suspension had severely limited its ability to negotiate. A new approach was obviously needed, an approach that would constrain, but not interdict enrichment activities in Iran. During 2005, several voices were heard promoting solutions with a limited enrichment scope.¹⁵ These analysts were suggesting allowing a maximum of only a few hundred centrifuges, a level not really suitable for the production of highly enriched uranium for weapons. This was also the tack chosen by the International Crisis Group (ICG) in a report published in early 2006.¹⁶ Thanks to the efforts of Gareth Evans, president and chief executive officer of the Crisis Group, the report drew much attention, in particular

at the follow-on meeting of the IAEA board of governors' meeting on 6 March 2006.¹⁷ U.S. opposition was immediate and strong, so that the matter was not pursued, in spite of signals that the Iranians would not oppose discussing the number of centrifuges.

At Last, the Bush Administration Moves Seriously Towards the Negotiating Table

Negotiations between Iran and Europe went on during the year 2006 and led to a climax at the end of that year. The story was brilliantly told in a television program by the British Broadcasting Corporation in 2009, a story based on the testimony of the key actors of both sides.¹⁸ The Europeans had at last come to the conclusion that some kind of compromise on uranium enrichment was necessary. At the State Department Undersecretary, John R. Bolton was blocking any such discussion.¹⁹ The UK Foreign Minister, Jack Straw, succeeded in convincing U.S. Secretary of State Condoleezza Rice,²⁰ who in turn obtained approval from President Bush. The core element was here the granting to Iran of a right to enrich uranium "*for research purposes*", that is in essence a *limited* capability with a few tens or at most a few hundred centrifuges, in other words, the idea promoted by the ICG half-a-year earlier. During the summer of 2006, the Europeans defined with the chief Iranian negotiator Ali Larijani the scenario²¹ that would seal the arrangements and bring Ms. Rice to the negotiations table during the forthcoming 2006 annual meeting of the UN General Assembly in New York.

In his opening speech at the UN, President Bush announced the imminent agreement.²² According to Nicholas Burns,²³ then U.S. Undersecretary of State for Political Affairs, the Europeans would meet the Iranians first, agree on a freeze-for-freeze arrangement (temporary enrichment halt vs. temporary lifting of sanctions) with at the end of the ceremony Ms. Rice entering the room solemnly for a

very first negotiating round between the U.S. and Iran. This would be followed the day after by in-depth and extensive talks between the two parties. Indeed, Ali Larijani had requested U.S. visas for a plane-load of 300 Iranians! But the plane never took off. At the last minute, President Ahmadinejad and Ayatollah Ali Hoseyni Khāmene'i torpedoed the historical moment by pulling the carpet out from under Larijani's feet (he soon resigned as nuclear negotiator).

Two lessons must be drawn from that memorable week in New York. First, that President Bush and Secretary of State Rice did make a genuine effort in late 2006 to seek an agreement with Iran. This should not be forgotten amidst the customary criticisms addressed to the Bush Administration for its conduct of foreign affairs. Second, that Iran was quite close to making concessions (as they almost did again in October 2009 in Geneva for the Tehran Research Reactor) and that Ali Larijani, now Speaker of the Iranian Parliament (and a likely future Iranian president), was able to act decisively in 2006 and to explain rationally to the BBC in 2009 why he had accepted a compromise in 2006.

The Obama Administration Tries Anew to Engage Iran

Then, President Barack Obama came onto the stage: *"We are ready to stretch our hand, if you are willing to unclench your fist"*. During 2009, he did stretch out his hand through various messages to Iran, down playing regime change as a U.S. objective, and implicitly setting aside total suspension of all enrichment activities as a pre-condition to negotiations. The Iranians have not really responded to the U.S. overtures so far. In November 2009, they slammed the door to the agreement reached in Geneva on a fuel swap for the Tehran Research Reactor, and then, they provoked the world soon afterwards by shifting the upper enrichment level from in the Natanz facility 5% to 20%.

Consequently, in early 2010, there was no other solution than to turn to additional sanctions to make the Iranian leadership understand the seriousness of the world's concerns about the direction of the Iranian nuclear program. A strengthening of the feeble UNSC sanctions was long overdue. To everybody's surprise, the Russians and even the Chinese joined the majority of the Security Council in securing the stronger Resolution 1929 of 9 June 2010. The evidence brought to light by the February 2010 IAEA board document had an impact on the Russian and Chinese assessment of the Iranian threat (See the section *"Tackling Past Weapon-Related Activities"* below). These two countries could not any more downplay the smoke signals from Iran, for fear of being perceived as accomplices.

More important still, the European Union reached agreement in July 2010 among its 27 members to enforce drastic economic sanctions targeted at key sectors of the Iranian economy.²⁴ No less important was the decision of the United Arab Emirates authorities to stop Iranian black market operations in Dubai, the traditional supermarket of Iranian nuclear shoppers.²⁵

On 4 August 2010, President Obama invited a group of journalists into the White House to talk about Iran.²⁶ President Obama signalled that the United States might *"accept a deal that allows Iran to maintain its civilian nuclear program, so long as Iran provides 'confidence-building measures' to verify that it is not building a bomb"*, while being prepared to lay out *"a clear set of steps that would be sufficient to show that Iran is not pursuing nuclear weapons"*.²⁷ This is, incidentally, what Gareth Evans and the International Crisis Group were saying in 2006 and again what Gareth Evans told the Munich Security Conference on 9 February 2008.

At this point in time, one can but share the recent assessment of the *Washington Post*.²⁸ *"Though it is questionable whether the sanctions add up to the „crippling“ regime that Mr. Obama once promised, the early signs are that*

C. Fuelling the Tehran Research Reactor (TRR): A Crucial Side Issue

they are having a significant effect. The recent European Union sanctions were stronger than either the U.S. Administration or Iran anticipated. Indeed, the cost of the sanctions is going to be higher than Iran expected six months or a year ago". Of course, time will tell. For now, President Obama deserves credit for defining an open-handed policy towards Iran, for dropping any formal preconditions to the opening of negotiations (especially the suspension of all enrichment activities), for convincing his partners to move in the direction of a firmer sanctions framework, while refraining from rhetorical language about regime change.

Yes, the time has now come to negotiate without preconditions, to be firm with Iran on the sanctions front while elaborating a set of negotiating steps by which to engage Iran, steps that would first of all seek the resumption and the expansion of IAEA verification prerogatives, with the objective, indeed, of ascertaining that Iran is not pursuing nuclear weapons.

The Tehran Research Reactor was built in the sixties by an U.S. company (General Atomics of San Diego), fuelled at the time with highly-enriched uranium, somewhat less than 6 kilograms of it. In 1993, the depleted original fuel was substituted with low-enriched uranium (20%) supplied by Argentina. To refuel the now depleted reactor core for a third time, Iran knew that they could not count on the international market; they turned to the IAEA for assistance, as they had done for the second batch from Argentina. This time the IAEA could not identify a suitable supplier.

To resolve the TRR issue, the Europeans and the U.S. agreed to meet with the Iranians. These "Geneva Talks 2" were held on 1st October 2009 in Switzerland and they resulted in a significant step forward, namely the proposed storage abroad of most low-enriched uranium (LEU) produced so far by the Iranian centrifuges. Why is this important? Because low-enriched uranium lies in physics terms already very close to the weapon-relevant highly-enriched uranium (some 93%).²⁹ The proposed shipment to Russia of the stockpile of 3.5%-LEU was meant to eliminate the breakout risk. In return, one year later, the Iranians would have received from Russia via France a full load of 20%-LEU fuel for the TRR. The private high-level meeting between U.S. Undersecretary of State William Burns and Saeed Jalili, Iranian chief nuclear negotiator, during the Geneva talks was a milestone by itself.

On 21 October 2009, Iranians, U.S., Russians and Frenchmen agreed in Vienna on the modalities of the Geneva fuel swap. Unexpectedly, a few days thereafter, the Iranian leadership disavowed the deal. The news from Tehran revealed an incredible chaos in the decision-making process of Iran's leadership.³⁰ The president and other conservatives (among others, the Army Chief of Staff Hassan Firouzabadi) had approved the Vienna solution; the "moderate forces" (Mousavi, Larijani) rejected it, probably out of tactical considerations in order to deny the president a diplomatic success. The domestic backlash forced the Supreme Leader and the president to backtrack and to formulate a

counterproposal that would see the fuel swap occur *simultaneously* with the delivery of the fresh TRR fuel, much later, an option sensibly rejected by the U.S..

One needs to understand the Iranian reluctance to hand over to Russia and France the bulk of its low-enriched uranium. Over the years, the Russians have generously provided Iran with a protective political umbrella in the Security Council, while squeezing the Iranians – commercially speaking – in connection with the Bushehr nuclear power plant. For fifteen years, the Russians met with serious domestic difficulties in completing Bushehr within any schedule,³¹ or else they were procrastinating for political reasons. Or both. As to France, Iran loaned some 1.2 billion dollars to the French enrichment project Eurodif (together with France, Belgium, Italy and Spain) in the seventies. Following the Iranian Revolution and a wave of Iranian-inspired political assassinations in France, the Eurodif deal with Iran fell apart. After lengthy negotiations, Iran got some 1.6 billion dollars back in the early nineties. All in all, France treated Iran very fairly.³²

If Russia and France were not acceptable to the Iranians as a store for their LEU, another possibility came up for consideration in late October 2009, namely the storage of Iranian fuel in a European country, a country deemed trustworthy by both Iran and the international community, a trade partner of Iran with a high degree of political independence.^{33, 34} In November 2009, the Director General of the IAEA, Mohamed ElBaradei, adopted the scheme and worked intensively with Iran and others, in particular with Turkey, which was by then ready to store Iranian fuel on their side of the common border. The Iranians declined. Faced with a Western refusal of their simultaneous swap, the Iranians launched the re-enrichment of uranium from 3.5% to 20%, allegedly to serve as feed for a subsequent domestic manufacturing of TRR fuel elements, a clearly provocative move.

On 17 May 2010, after a well-publicized meeting, the lead-

ers of Iran, Turkey and Brazil did agree to the proposal of having the 3.5%-LEU stored in Turkey, pending delivery of the new TRR fuel by Russia and France. Due to an apparent misunderstanding between Washington and Brasilia, or/and adamant Iranian opposition, one essential and expected disposition was missing from the trilateral agreement, namely the interruption of the 20% enrichment campaign at Natanz. Quite logically, this fact alone made the whole deal unacceptable to the U.S..

A new arrangement is in the making in the fall of 2010 - if the Iranians can agree among themselves (The President declares himself ready to engage, while the Supreme Leader expresses in mid-August his opposition to talks with the U.S.). The Iranians would ship an initial batch of their existing stock of enriched uranium to Turkey and they would immediately suspend enrichment activities beyond the 5% level, thereby re-establishing the Geneva-Vienna model of October 2009. [In essence, securing the stocks of LEU outside Iran is more important than enrichment levels in the output and in the tails, as long as this is done under IAEA safeguards.] In return, fresh TRR fuel would be delivered to Iran in the shortest possible time, as wished by the Iranians. As a matter of fact, using available stocks of raw material (rather than waiting for the uranium processing and enrichment of Iranian-origin material in Russia), the fuel company “TRIGA International” in Grenoble-France should indeed be in the position to deliver fuel within less than a year (TRIGA International, a joint venture between France’s CERCA-AREVA and the U.S. General Atomics, is the sole fuel supplier with the required processing capacity, which supplies the fifty some research reactors worldwide that use the same basic technology as the TRR).

While the TRR is a sideshow, a favourable outcome of the TRR negotiations would be an encouraging signal for future broader negotiations to be focussed on the main issue, namely the Iranian nuclear program as a whole. Iran has reneged on the promises made in Geneva and Vienna on

D. Alternative Negotiating Approaches

the TRR fuel swap. It's now up to Iran to re-instate the basic understanding reached there, namely to have most of its stocks of low-enriched uranium (3.5 and 20%) stored temporarily outside its borders.

At this juncture in late August 2010, one can say that the overall negotiating approach followed by the West and by the Security Council is indeed appropriate and well-balanced - between the readiness to engage Iran in serious negotiations without unrealistic preconditions on the one hand and the assertion of strength by the international community through a non-crippling, but serious sanctions regime on the other hand. How the Iranian leadership will react remains to be seen. A satisfactory outcome of the TRR saga would indeed set the stage for the broader negotiations about the future of the Iranian nuclear program, about finding a solution that would not constrain Iran too much in its approach to nuclear energy,^{35, 36} while giving assurance about the fully peaceful nature of its nuclear program.

Under the current framework of "*Negotiations & Sanctions*", what are then the possible alternative approaches that could be pursued to satisfy the above objective? There is indeed a whole catalog of steps: some of them of a technical nature, meant to constrain Iranian activities in sensitive nuclear technologies and to limit the risk of Iran turning its virtual nuclear capabilities into reality through a gradual drift or through a breakout scenario that would see an interruption of IAEA inspections and possibly a withdrawal from the NPT. Other steps deal with legal and political issues.

Alternative Technical Approaches

Are there alternative technical approaches, namely ways and means to constrain the program by technical fixes? As far as enrichment is concerned, various solutions have been proposed over the years:

1. Suspension of enrichment – This has been the main thrust of Western negotiators since 2003. Between 2003 and 2005, Iran did agree to *temporarily* suspend

enrichment. Their own substantial proposals of 2005 having nonetheless been rejected out of hand, the Iranians refused to prolong suspension. Suspension is not an option any more, except possibly for the long term as an element of a future grand bargain.

2. Limited enrichment – Whether limited “to a few hundred” as proposed by the International Crisis Group in 2006 or to “research purposes” as accepted by the Bush administration and the Europeans at the UN General Assembly in the same year, the concept is no longer relevant now that some 8,000 centrifuges are installed in Natanz.

3. Constrained enrichment – Constraints could be agreed either on the maximum enrichment level and/or on a total figure of separative work in production or in stock. *First option:* under the NPT, a state is in principle free to enrich uranium to high levels. In the so-called Design Information Questionnaire (DIQ), the state stipulates in advance the maximum enrichment level that is selected for operation of that facility. Then the IAEA verifies that this limit is being respected. The DIQ may subsequently be changed by the state, but the IAEA must be informed in due time. Now, the parties (Iran and the West) could bilaterally come to an agreement that a DIQ at 5% cannot be altered. Further, they could agree on a higher degree of inspection assurances (“*Any place, anywhere*”, in particular as to centrifuge manufacturing). *Second option:* one could define a “figure of merit” for separative work, a maximum quantitative “enrichment potential” that would assure that Iran does not store on its territory enough embedded separative work (outside of reactors) and does not keep enough enrichment facilities in operation to produce, say within a month, a stockpile of more than one or two Significant Quantities of weapon-grade uranium (25-50 kilograms). Iran could choose to satisfy this objective either by curtailing the enrichment output (enrichment level and/or throughput) and/or by shipping abroad the

output of low-enriched uranium on a regular basis for the subsequent fabrication of fuel elements for nuclear reactors. Such a concept of constrained enrichment needs to be further defined; it could be fine-tuned so as to get near the red lines that the two parties would draw for the negotiating process.

4. Shared enrichment – Detailed proposals have been formulated on the model of co-owned enrichment facilities on Iranian soil, 51% owned by Iran, 49% by a foreign entity, with completely transparent multinational arrangements for staff and equipment,^{37,38} an idea also mentioned by president Ahmadinejad in his speech to the UN General Assembly in 2007. With the current level of mutual distrust, this solution is not workable for at least several decades. Furthermore, it all depends on the technology used in such a shared facility. The Iranians would of course insist on using their *own technology*, a technology which is obsolete and therefore non-competitive on the world commercial market of enrichment services. Even with a favorable political environment, foreign industrial partners would be reluctant to join such an undertaking in the absence of an adequate number of domestic nuclear power plants in operation (it takes a dozen plants to economically justify a *commercial* enrichment facility). The same economic consideration applies to the alternative, that is, the use of *foreign technology* with foreign-manufactured centrifuges built as sealed black boxes (as done by the European enrichment company Urenco for the plants built under license in France and in the United States). In that latter case, the locals have no access to the sealed centrifuges, something that the Iranians may not readily accept, and something that the world would not trust them not to do, namely to misuse the centrifuges in a breakout scenario. Nonetheless, the shared enrichment concept should stay on the back-burner; it offers definite potential for a later collaborative era in which foreign suppliers would have begun to build a series of nuclear power plants in Iran.

In the meantime, in lieu of enrichment, one could consider a joint venture in domestic fuel fabrication (LEU oxides to fuel bundles) through an international consortium in Iran for building and operating a “Fuel Fabrication Plant” for producing fuel rods for nuclear power and research reactors. [Discussions are underway between Russia and Iran to build and to operate jointly such a facility to serve the Bushehr nuclear power plant].³⁹ With such an undertaking, LEU stocks produced in Iran should then be stored at the site of the Fabrication Plant under joint shareholder control to be used for fuel rod fabrication. Besides the IAEA, the site of the Fabrication Plant should be freely accessible to other shareholders and contractors.

Reprocessing of spent fuel is less in the limelight than enrichment. Yet, Iran is building a large research reactor in Arak, making use of heavy water, which would be capable of producing large amounts of high-quality plutonium for weapon purposes from the natural uranium available in Iran. The reactor is under construction. Heavy water is being produced at Arak. Recently, the IAEA found some 38 cubic meters, stored in the basement of the uranium conversion plant in Isfahan.

Are there technical fixes here also?

1. Suspension of the facility: In their 2005 proposal – ignored by the European negotiators – the Iranians had offered to suspend work on the Arak reactor. Now that the facility is in an advanced stage of construction, this option is most probably not on the table anymore.

2. Constraints on the facility: Iran might agree to a scheme that would include stringent IAEA verification in Arak, supplemented by technical arrangements that would make the spent fuel irreversibly useless for weapon purposes by some technical means (if the fuel would be disposed of domestically) or then by shipment abroad for reprocessing or final disposal. If supple-

mented with some commercial incentives, there is room for compromise here.

3. Re-design of the facility: Iran could be convinced and helped to change the reactor design from heavy water to light water with the use of low-enriched uranium fuel. Much of the facility structure (in particular the cooling systems) could be kept. The reactor would thereby serve its stated purposes of civilian research and isotope production, while being mostly unsuited for the production of weapons-grade plutonium. This concept is more drastic, but probably feasible. To have a fair chance of success, the cost of redesigning the facility should possibly be offered to Iran (a tiny fraction of the five billion dollars offered to North Korea in 1994).

Alternative Legal and Political Approaches

Starting in 1992, the IAEA safeguards system was strengthened markedly during the nineties, with significant corrections to traditional safeguards, with the introduction of more efficient administrative and technical tools, such as early design information, electronic surveillance and environmental sampling. Over the years, Iran has tried repeatedly to hamper the work of the IAEA by denying fundamental inspection rights and by refusing to accept for itself the new safeguards instruments adopted by most NPT parties since the late nineties. Negotiations with Iran on its nuclear program should therefore focus on the respect of international law, that is, on the respect of the IAEA safeguards framework.

There are a number of verification issues between the IAEA and Iran which have been around for a number of years:⁴⁰

1. Early Design Information as a Must

Design information includes the facility description; the form, quantity, location and flow of nuclear material being used; facility layout and containment features. In the case of new facilities under pre-1992 safeguards, such information was to be provided by the state as early as possible before nuclear material is introduced into a new facility. In detailed documents, this meant *“normally not later than 180 days before the facility is scheduled to receive nuclear material for the first time.”* In 1992, the IAEA board of governors called for revisions to existing subsidiary arrangements to be incorporated for both new and old safeguards agreements. These revisions mandate states with comprehensive safeguard agreements in force to provide preliminary information to the IAEA *“as soon as a decision has been made to construct [a new facility], authorize to construct [a new facility], or modify a [existing] facility”*. This improvement was widely accepted.

During his February 2003 trip to the Islamic Republic of Iran, the IAEA Director General Mohamed ElBaradei met President Khātāmī, the Speaker of Parliament Mehdi Karroubi, the Chairman of the Expediency Council Hashemi Rafsanjānī, and the President of the Atomic Energy Organization Reza Aghazadeh. On this occasion, the Government of Iran committed itself to the additional legal obligation requiring the early provision of design information.⁴¹ All of a sudden, in March 2007, Iran informed the IAEA that it had “suspended” the implementation of the modified text, which had been manifestly accepted in 2003, and that it would “revert” to the earlier formulation. In particular, Iran has taken issue with the IAEA’s right to verify design information provided by Iran concerning the IR-40 heavy water reactor at Arak and other new facilities that have been announced. The basis for Iran’s contention is that, under the earlier rule, to which it had “reverted”, the verification of such information is not justified, given the very preliminary construction stage of these facilities.

Iran’s actions and arguments in this regard are inconsistent with its obligation under the subsidiary arrangements to its safeguards agreement, and raise serious concerns about the completeness of its declarations. According to the IAEA, once agreed, in accordance with Article 39 of Iran’s safeguards agreement, inspection arrangements cannot be modified unilaterally; nor is there a mechanism in the safeguards agreement for the suspension thereafter of provisions agreed. Moreover, the above rule is related only to the provision of design information, not to the frequency or timing of verification by the IAEA of such information. The IAEA’s right to verify design information provided to it is a continuing right, which is not dependent on the stage of construction of, or on the presence of nuclear material at a facility.⁴²

The IAEA has requested design information for a number of facilities and activities. The IAEA reported on 18 February 2010 that Iran has announced the construction of several R&D lines for the production of natural, depleted, and enriched uranium metal in an underground laboratory at the Uranium Conversion Facility (UCF). In a Tehran research laboratory, pyroprocessing R&D activities have been initiated to study the electrochemical production of uranium metal. In September 2009, Iran declared to the IAEA the Fordow enrichment facility located in a tunnel near the holy city of Qom - too late again, only done once it had become clear that other countries were about to make an announcement. Following this discovery *“the agency asked Iran to confirm that it had not taken a decision to construct or to authorize construction of any other nuclear facilities, and that there were currently no such facilities in Iran which have not been declared to the agency”*.⁴³ The response was evasive. Another abuse occurred in February 2010. An increase in the maximum declared enrichment level from 5% U-235 to up to near 20% U-235 is clearly relevant for safeguards purposes. Yet, the new operation mode was started, after notifying the IAEA, but not in sufficient time for it to adjust the existing safeguards procedures.⁴⁴

Iran is the only state in the world with a comprehensive safeguards agreement in force and with significant nuclear activities - which is not implementing the new rule on the early provision of design information. At the onset of a broad negotiating phase, as part of an agreed agenda, the Western negotiators must confront Iran with the need for it, as all other states have, to accept this responsibility. This is not an impossible undertaking. It may be that by now, the Iranians have learnt that clandestine facilities are difficult to hide in this age of satellite imagery, and that the early declaration of new facilities does not affect their basic interests. Early design information has become a central and mandatory feature of the conventional safeguards system that Iran claims to adhere to. Even though this is not the main issue associated with the Iranian nuclear program, the respect of early provision according to the established 1992 rules must be enforced compellingly in the framework of the legal obligations that bind the IAEA and Iran under the conventional safeguards agreement. An Iranian acceptance of this issue could be rewarded with a number of preliminary steps on the part of the West, for example the delivery of spare parts for the aging commercial airliners of U.S. origin. If bilateral negotiation brings no success, the IAEA should be strongly encouraged to call for a series of “special inspections”, a specific IAEA right under conventional safeguards, but a tool that the IAEA has too often failed to use.

2. Accepting an Additional Protocol

In 1997, the IAEA Board of Governors approved a model text for an Additional Protocol (AP) to the existing safeguards agreement between states and IAEA, with the objective of strengthening its verification activities, in particular with respect to potential *undeclared* facilities and materials. An Additional Protocol is a legal document granting the IAEA the authority to gather additional information and to gain complementary access to facilities, in comparison to the underlying conventional safeguards agreement, such as,

- Information about, and IAEA inspector access to all parts of a state’s nuclear fuel cycle.
- 24 hour-notice complementary access to all buildings on a nuclear site. Two-hour notice for access to any place while on a site.
- Activities carried out during complementary access can include examination of records, visual observation, environmental sampling, utilisation of radiation detection and measurement devices, and the application of seals and other identifying and tamper-indicating devices.
- IAEA collection of dust, liquid and soil samples at locations beyond declared locations.
- Use of satellite communications systems.
- State acceptance of multiple flexible entry visas for inspectors.

Since then, these additional intrusive rights have been used with success, first of all in Iran where they helped uncover between 2003 and 2006 further anomalies of the past. This potent instrument shows a remarkable flexibility for applying the required degree of intrusiveness. In conjunction with an improved ability to gather information, a full array of inspections and surveillance can come into play when the situation justifies it. This goes from a single inspector asking the right question to a squad of inspectors searching facilities with ground-penetrating radars, and/or from an occasional dust sample to wide area monitoring using a network of detectors. Unfortunately, an Additional Protocol is voluntary; the state decides to sign it or not, decides if and when to allow provisional early implementation and decides when to bring it into force definitively. More than one hundred countries have by now signed and brought an Additional Protocol in force.

Iran signed an Additional Protocol in December 2003. At the same time, it suspended uranium enrichment and allowed the provisional early implementation of its Additional Protocol, not awaiting the subsequent formal entry into force that normally triggers implementation. These were noteworthy gestures of good will on the part of Iran,

gestures that were thoughtlessly ignored by Western negotiators. When the IAEA reported Iranian issues to the Security Council, Iran cancelled the provisional implementation of the Additional Protocol in February 2006, as it was legally entitled to do.

Implementing and bringing into force Iran's Additional Protocol will be essential bargaining chips in Iran's hand in any forthcoming negotiations. Iran should again accept early provisional implementation in order to enhance international confidence in the peaceful nature of its activities. To help Iran make the step, the West should unpack and bring again to the table several of the proposals put forward in 2005 ('Framework for a Long-term Agreement', 5 August 2005).⁴⁵

3. Tackling Past Weapons-Related Activities

There were early indicators that Iran had carried out an embryonic, but real weapon program in the eighties and nineties. How far the program went and how long it lasted has been a point of contention among experts for a long time.

The official IAEA report on Iran to the board of governors of 18 February 2010 was more explicit than in the past about Iranian weaponization activities.⁴⁶ In fact, the IAEA is said to have received and assembled a sizable documentation from several sources on alleged weaponization work. This board report states that „*the information contained in that documentation appears to have been derived from multiple sources over different periods of time, appears to be generally consistent, and is sufficiently comprehensive and detailed that it needs to be addressed by Iran with a view to removing the doubts which naturally arise, in light of all of the outstanding issues, about the exclusively peaceful nature of Iran's nuclear program.*“ Previously, an internal and unofficial IAEA report (*“Possible Military Dimensions of Iran's Nuclear Program”*), had landed unofficially on the desk of international press agencies in

September 2009. The objective of this IAEA report of 2009 was to summarize and assess the set of records *from 2004 and earlier* obtained by the IAEA about the possible military dimensions of Iran's nuclear program.⁴⁷ The report states: *“The agency further assesses that Iran has sufficient information to be able to design and produce a workable implosion nuclear device based upon HEU as the fission fuel. The necessary information was most likely obtained from external sources and probably modified by Iran. ... It is assessed that Iran has succeeded in combining its detonator development work with other related studies to manufacture a relatively compact high explosives initiation system that has probably been tested with comprehensive diagnostic equipment.*

The information used by the IAEA came from various intelligence sources, but mostly from an electronic storage device leaked out of Iran by an Iranian technician prior to his arrest in 2004.⁴⁸ The IAEA documents mentioned above refer explicitly to a pre-2004 period. Do these documents confirm or contradict the 2007 assessment of the U.S. intelligence community (the 2007 *“National Intelligence Estimate (NIE)*, namely that Iran had stopped working on purely weapons-related aspects of its nuclear program in 2003? The IAEA report to the board of governors of 18 February 2010 speculates that these activities *“seem to have continued beyond 2004”*. A new NIE on Iran's nuclear program was supposed to be released in early 2010. The delay strongly suggests that the National Intelligence Council (NIC) is divided on its assessment of the Iranian nuclear program between 2003 and 2007, and probably after 2007 as well.

Whatever happened in the last seven years, the information available to the IAEA is a serious matter that cannot be dismissed light-heartedly. Yes, Iran should quieten the doubts that naturally arise - in light of all outstanding issues - about the exclusively peaceful nature of its nuclear program. There are two ways for Iran to move in that direction: the first is to resolve these outstanding issues directly with

the IAEA, the second is to come to the negotiating table with international partners.

In a continuous process, the IAEA attempts to put together the puzzle of past illicit activities. The IAEA asked Iran to provide more information and to clarify procurement and R&D activities of military related institutes. Expectedly, like several other countries previously, Iran attempts to minimise the disclosure of past activities. Incidentally, the right to the non-disclosure of past activities was explicitly requested by North Korea and recognised in the U.S.-North Korea Framework Agreement of 1994, a compromise deemed necessary by the U.S. negotiators to bring about this agreement, the past being a matter that can be expected to be corrected at a later stage.⁴⁹ The example of Sweden, which included a specially prepared report on past nuclear weapon activities in its expanded declaration under its Additional Protocol, is also noteworthy.

How deep in the past should the IAEA dig? An unwritten IAEA rule used to be: deep enough to ascertain that there are no undeclared materials and the capacity to produce them, without the need to dig out all other aspects of past activities. There is no doubt that Iran had in the eighties and nineties - for sure until 2004 - an on-going weapon program. The past requires additional clarifications; it is up to the IAEA to draw the line, to decide when enough is enough. From a broader perspective, it seems more important to see conventional safeguards fully applied and to have Iran's Additional Protocol effectively implemented to ascertain present activities - than to push Iran to the brink as to past activities. For Iran, like for North Korea under the U.S.-North Korea Framework Agreement, a negotiated balance needs be found between "*Nice to know and need to know*".⁵⁰

4. Iran to Offer Further Confidence-Building Measures, e.g. Continuous Storage Abroad

The world needs more confidence-building measures from Iran. One possibility: to generalize the basic arrangement chosen for the Tehran Research Reactor by having the on-going production of low-enriched uranium moved for temporary storage outside Iran.⁵¹ Thus, to dispel the breakout concern of a quick path to highly enriched uranium, Iran would select a suitable partner state in Europe (presumably Turkey again, or a small European country) and conclude a bilateral agreement that would foresee the storage of all LEU produced in Iran outside its borders - with LEU to be subsequently returned to Iran after the entry into force of its Additional Protocol.

More details about the concept and the bilateral agreement can to be found in Annex B.

The bilateral agreement would be based on two premises. As to Iran, a readiness to build confidence as to the peaceful nature of its nuclear program - without sacrificing its national sovereignty and its rights to pursue nuclear activities - such as enrichment - while keeping ownership of its nuclear materials. The selected European partner would thereby contribute to confidence building through the removal of an immediate threat (the rapid re-enrichment of LEU), and this would be achieved at the lowest bilateral level, instead of complex multilateral, multilevel negotiations.

The proposed course of action is fully within the sovereignty of Iran, does not affect its long term national and nuclear interests, yet Iran would thereby take a substantial and reversible step that would build confidence significantly. Turkey or another European country should indeed take the initiative, should offer its partnership to Iran and should rise to the challenge of promoting a rather simple diplomatic and technical solution that could possibly undo the current stalemate.

E. Outlook

Before the Iranian presidential election of 12 June 2009, we saw the coming of bilateral negotiations between the U.S. and Iran on a broad range of issues. This expectation has not materialized yet. The difficult decision-making process among the numerous Iranian power centres has left the impression that the Iranian side is not yet ready and willing to negotiate; on the other hand, the Obama administration has not yet seen any positive feedback from its open-handed posture towards the Islamic Republic of Iran. With real power now shifting from the religious to the military, Iran seems to be stiffening its resolute rejection of any compromise. Still, there is no better choice *for now* than a parallel process of “*Negotiations & Sanctions*”. And this in spite of the deceptive, well-orchestrated media blitzkrieg against the process - that has been unfolding in the U.S. media this summer of 2010.

Of course, economic sanctions call for patience, before one sees their impact. Nonetheless, they have their place as a complement to negotiations, as documented in a new report of the “Geneva Centre for Security Policy”.⁵² The record of sanctions’ effectiveness is mixed. Yet, a recent analysis has concluded that one-third of international sanctions was partially or fully effective in the period 1910 to 2001.⁵³ For Iran, it is of course easy to dismiss the significance of the weak Security Council sanctions of past years and then to rush to the conclusion that those of 2010 (Security Council, European Union, U.S. and Emirates) will have no effect. The 2010 sanctions package corresponds to a model of “smart”, targeted sanctions that are deemed to be more effective⁵⁴ than those “crippling sanctions” that vocal opponents to any negotiation process wish to see implemented against Iran.

The success of future negotiations between Iran and the West will depend on the “red lines” that will be drawn by each side and whether there are overlaps and points of close contacts. On the Western side, the views of the United States will determine the negotiating scope. Taking as a basis President Obama’s vision from 4 August 2010 -

a deal that allows Iran to maintain its civilian nuclear program, so long as Iran provides ‘confidence-building measures’ to verify that it is not building a bomb – one can speculate as to a list of possible Western red lines:

1. Foremost: no weapons, and possibly even more: „No short-notice nuclear weapon capability“, defined as the capability (e.g. in technology, design and piping layouts) to enrich uranium beyond 20% and to produce plutonium of weapon quality. Critical layout modifications to the Natanz and Arak facilities and the discovery of clandestine facilities would be immediately interpreted as breakout attempts.
2. Enrichment to remain below 5% in facilities all under IAEA safeguards. No domestic stockpile higher than a stated quantity of uranium enriched at more than reactor-required level (currently 3.5% for the Bushehr nuclear plant);
3. No reprocessing R&D activities until the Additional Protocol has been brought into force and no subsequent larger-scale reprocessing until 20 nuclear power plants have been commissioned;
4. No restriction on IAEA safeguards implementation, in particular as to the early provision of design information and access to facilities under such agreement. All significant violations of IAEA rights would also be interpreted as a form of breakout attempt;
5. Commitment by Iran to its Additional Protocol. Early provisional implementation as a negotiated good will gesture. Lifting of remaining international and national sanctions and restraints once brought into force;

The *Iranian red lines* are more difficult to speculate about in view of the shifting views of the top leadership. In 2003 with the Guldumann-Zarif moves, in 2006 with the green light initially given to Ali Larijani and in 2009 with the

other green light granted to Saeed Jalili for the Geneva Talks, Ayatollah Ali Hoseyni Khāmene’i demonstrated a degree of flexibility in discussing measured compromises. In the last two cases, he stepped back under pressure from the other hardliners, thereby demonstrating his ineffectual and instable leadership. The following red lines are likely to be shared by several top Iranians:

1. No blanket restrictions of a general nature on the scope of fuel cycle activities (Art. IV of the NPT stands). No blanket “*forgo statements*” on sensitive facilities, comparable to those accepted by small Middle East countries;
2. *Iran wants its right to enrich recognised explicitly as a basis for a broader nuclear deal.* It is not ready to accept constraints on enrichment level and quantities (except possibly a 20% ceiling). [Esfandiar Rahim Mashaei, Chief of Staff of President Ahmadinejad, was recently quoted – as rejecting the step backwards from 20 to 3.5% in enrichment level, and in general, as rejecting jettisoning Iranian rights on what Iran *had already achieved*, while being open to discuss what Iran has *not yet achieved*.] No cancellation of the large research reactor project at Arak. (However, design adjustments and reprocessing as such could be amenable to a joint solution);
3. No implementation of the Additional Protocol without concessions from the West on the sanctions front. No bringing into force without the lifting of all sanctions (even, at least in anticipation, the U.S. sanctions).

Altogether, it would appear that common ground could possibly be found between the parties. At any rate, there is a need to reach out for diplomatic solutions without pre-conditions, to support a firm, non-threatening sanction regime, to entice Iran to respect IAEA safeguards and to support bilateral or multilateral arrangements (such as fuel swaps and external fuel storage) that would convince and

help Iran to reconcile its nuclear ambitions with its NPT commitments and to bring relations between Iran, its region and the world to a more normal and peaceful mode.

A nuclear-armed Iran must not be a foregone assumption. At stake for the world community is something much more important than regional considerations; it is the prevention of the emergence of additional nuclear weapon-states anywhere in the world. The proliferation must stop.

Annex A: The 2003 Roadmap of Ambassadors Guldemann and Zarif

The following document *triply* reflects the “Roadmap” that was handed over to the U.S. State Department in the Spring of 2003. This is an exact reproduction of the document referred to by Nicholas Kristof in his *New York Times* editorial of 29 April 2007, an undated document attributed to the Iranian UN Ambassador Javad Zarif. It shows corrections made by Zarif to an earlier document (stroked-out words for removal and underline for new text). Kristof does not identify the basic, uncorrected document. In fact, the basic text is almost identical to Guldemann’s Roadmap referred to in Kessler’s article in the *Washington Post* of 4 February 2007. The few differences of a mostly semantic nature between the basic document and Guldemann’s are shown here in footnotes. Likely sequence of the documents: ¹⁾ Guldemann with Iranian officials, ²⁾ Basic document slightly modified in Tehran, ³⁾ Corrected version by Javad Zarif in New York. *Note:* Guldemann’s version had “U.S. aims” first, followed by the “Iranians aims”. Also, most of the bold characters were already present in his version.

Iranian aims:

(The U.S. accepts a dialogue „in mutual respect“ and agrees that Iran puts the following aims on the agenda)

- ~~U.S. refrains from supporting change of the political system by direct interferences from outside.~~ **Halt in U.S. hostile behavior and rectification of status of Iran in the U.S.:** (interference in internal or external relations, "axis of evil", terrorism list.)
- **Abolishment of all sanctions:** commercial sanctions, frozen assets, ~~refusal of access to WTO judgments (FSIA), impediments in international trade and financial institutions~~
- **Iraq:** democratic and fully representative government in Iraq, pursuit of MKO, support of repatriation of MKO members, support of Iranian claims for Iraqi reparations, ~~no Turkish invasion in North Iraq,~~ respect for Iranian national interests in Iraq and religious links to Najaf/Karbala.
- **Full ~~a~~Access to peaceful nuclear technology, biotechnology and chemical technology**
- Recognition **of Iran's legitimate security interests** in the region with according defense capacity.
- **Terrorism:** pursuit of anti-Iranian terrorists, above all MKO and support for repatriation of their members in Iraq, decisive action against anti-Iranian terrorists, above all MKO and affiliated organizations in the U.S..

U.S. aims:

(Iran accepts a dialogue „in mutual respect“ and agrees that the U.S. puts the following aims on the agenda)

- **WMD:** full transparency for security that there are no Iranian endeavours to develop or possess WMD, full cooperation with IAEA based on Iranian adoption of all relevant instruments (93+2 and all further IAEA protocols)
- **Terrorism:** decisive action against any terrorists (above all Al Qaida) on Iranian territory, full cooperation and exchange of all relevant information.
- **Iraq:** coordination of Iranian influence for activity¹

supporting political stabilization and the establishment of democratic institutions and a nonreligious government².

• **Middle East:**

1. stop of any material support to Palestinian opposition groups (Hamas, Jihad etc.) from Iranian territory, pressure on these organizations to stop violent action against civilians within borders of 1967.
2. action on Hizbollah to become a mere political organization within Lebanon³
3. acceptance of the Arab League Beirut declaration (Saudi initiative, two states-approach)⁴

Steps:

- I. Communication of **mutual agreement on the following procedure**
- II. **Mutual simultaneous statements** „We have always been ready for direct and authoritative talks with the U.S./with Iran in good faith and with the aim of discussing - in mutual respect - our common interests and our mutual concerns based on merits and objective realities, but we have always made it clear that, such talks can only be held, if genuine progress for a solution of our own concerns can be achieved.“
- III. **A first direct meeting** on the appropriate level (for instance in Paris) will be held with **the previously agreed aims**

a) of a **decision on the first mutual steps**

- **Iraq:** establishment of a common group, active Iranian support for Iraqi stabilization, U.S. ~~commitment to resolve MKO problems in Iraq~~, U.S.-commitment to take actively support Iranian reparation claims within into the discussions on Iraq foreign debts.
- **Terrorism:** U.S.-commitment to disarm and remove MKO from Iraq and take action in accordance with SCR1373 against its leadership, Iranian commitment for enhanced⁵ action against Al Qaida members in Iran, agreement on cooperation and information ex-

change

- Iranian general statement „to support a peaceful solution in the **Middle East** involving the parties concerned“⁶
- U.S. general statement that ‘„Iran did not belong to ‘the axis’ of evil’“
- U.S.-acceptance to halt its impediments against Iran in international financial and trade institutions of Iranian access to WTO membership negotiations

b) **of the establishment of three parallel working groups** on disarmament, regional security and economic cooperation. Their **aim is an agreement on three parallel road maps**. For the discussions of these working groups, each side accepts that the other side’s aims (see above) are put on the agenda:

1. **Disarmament:** road map, which combines the mutual aims of, on the one side, full transparency by international commitments and guarantees to abstain from WMD with, on the other side, full access to western technology (in the three areas),
2. **Terrorism and regional security:** road map for above mentioned aims on the Middle East and terrorism
3. **Economic cooperation:** road map for the abolishment of the sanctions, rescinding of judgments, and ~~solution of frozen~~ un-freezing of assets

c. of agreement on a time-table for implementation

ed. and of a **public statement after this first meeting on the achieved agreements.**

¹ Guldemann: ... actively...

² Guldemann: ... institutions and a democratic government representing all ethnic and religious groups in Iraq.

³ Guldemann: ... to become an exclusively political and social organization within Lebanon.

⁴ Guldemann: acceptance of the two-states approach

⁵ Guldemann: ... decisive ...

⁶ Guldemann: Iranian statement «that it supports a peaceful solution in the Middle East, that is accepts a solution which is accepted by the Palestinians and that it follows with interest the discussion on the Road Map, presented by the Quartet»

Annex B: Storage Abroad of Enriched Uranium

Iran selects a suitable partner state in Europe (presumably Turkey, or a small European country) and concludes a bilateral agreement for the storage of all LEU produced in Iran outside its borders - with LEU to be subsequently returned to Iran after the entry into force of its Additional Protocol.

The agreement between Iran and the European partner would include the following stipulations:

- a) On a regular basis (e.g. monthly to quarterly), LEU in the chemical form of uranium oxide (UO₂) or hexafluoride (UF₆), as produced and declared to the IAEA, would be shipped to the partner state. The frequency of shipment would be dictated by the objective of not keeping more than 300 kilograms LEU in Iran from the production lines in the country at Natanz and possibly elsewhere.
- b) The preferred shipment form would be UO₂, that is, after conversion of the UF₆ coming from the centrifuges into UO₂. Conversion technology is readily available and the material can be directly used for fuel manufacturing later. Shipment to Europe would be in standard containers (such as “Model TN-TM-UO₂” from Cogema Logistics, with a useful volume of 28 liters and thus capable of containing up to 300 kilograms of UO₂). This container is approved for air transport. LEU UO₂ is not very radioactive, therefore easy to store; it needs however to be treated as “nuclear material” under national legislation and to remain under IAEA safeguards. Such material would be handled in the host country as “commercial nuclear fuel in transit” belonging to Iran. Intermediate storage could be in an existing nuclear facility, or in any government store with proper security arrangements.
- c) As an alternative, the direct shipment and storage of uranium hexafluoride would eliminate the need to convert uranium hexafluoride to uranium dioxide in Iran prior to shipment abroad; however, transport and subsequent storage would be somewhat trickier because of

the chemical toxicity of UF₆. Nonetheless, there is also long experience with UF₆ transport. (Shipment could be done in a standard Cylinder Model 8A and storage in Europe in a standard Cylinder Model 30B).

- d) For both chemical forms, international regulations exist and are well established for transport by road, air or surface. The two parties would agree on proper cost sharing.
- e) At all time, the material would remain the property of the Islamic Republic of Iran. Three stages would be agreed upon as to the fate of the material stored in the partner state:
In a *first stage*, the material would remain indefinitely in storage. In a *second stage*, once Iran allows the implementation of its Additional Protocol again, the stored LEU could be transferred freely by Iran to a fuel manufacturer outside Iran in order to be made into fuel elements to be delivered directly to Iranian nuclear power plant(s) or to be sold to any state. In a *third stage*, once Iran has brought into force its Additional Protocol and demonstrated its full and unconditional implementation, the bilateral agreement would terminate with no further shipments of LEU outside Iran and with the return to Iran of all LEU still stored in the partner state.

Endnotes

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- 2 Sidney Sober, „*Your Meeting with the Shah at Blair House*“, Confidential Briefing Memorandum, 9 May 1975, in Digital National Security Archive, <<http://nsarchive.chadwyck.com>>.
- 3 The statement was denied by Iran’s embassy in France, and the Shah later backed off the statement, reaffirming that „*not only Iran, but also other nations in the region should refrain from planning to gain atomic arsenals*.“ Various sources: John K. Cooley, „*More Fingers on Nuclear Trigger?*“, *Christian Science Monitor*, 25 June 1974; Anne Hessing Cahn, „*Determinants of the Nuclear Option: The Case of Iran*“ *Nuclear Proliferation in the Near-Nuclear Countries* (Cambridge: Ballinger Publishing Co., 1975), Onkar Marwah and Ann Shulz, eds., p. 199; „*The Shah Meets the Press*“, *Kayhan International*, 5 October 1974
- 4 Zalmay Khalilzad, „*The Political, Economic and Military Implications of Nuclear Electricity: The Case of the Northern Tier*“ (Iran, Turkey and Pakistan), December 1979, Doctoral thesis, The University Of Chicago.
- 5 Efraim Karsh, „*The Iran-Iraq War 1980-1988*“, Osprey Publishing, 2002
- 6 David Albright, „*Swiss Smugglers Had Advanced Nuclear Weapons Designs*“, Institute for Science and International Security, Washington, 16 June 2008
- 7 Gordon Corraera at the Carnegie Council for Ethics in International Affairs, September 7, 2006: „*Did he act alone? Was he a rogue actor or was it the case of a rogue state? The first thing I would say is it’s very much the story of a network, not just one man. As I said, the businessmen are very important. For instance, that 1987 deal in Iran. Khan – wasn’t actually at the deal. Some of his representatives were. Actually, it was a number of European businessmen who were there. Khan actually received less than a quarter of the proceeds of that deal in 1987. The businessmen looked like they were actually driving the deal, to a large extent. They had worked out that there was money to be made in selling this technology. They had made it supplying Pakistan. Khan was, effectively, a dealmaker for these businessmen. Some of these businessmen do look like key figures*“.
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- 10 Glenn Kessler, „*2003 Memo Says Iranian Leaders Backed Talks*“, *Washington Post*, 14 February 2007
- 11 According to Larry Wilkerson, Colin Powell’s Chief of Staff at the time, Interview with the BBC, 2007. Nonetheless, even those interested were somewhat cautious; in a sense the Iranian ideas were too good to be true.
- 12 Nicholas D. Kristof, „*Diplomacy at its Worst*“, *New York Times*, 29 April 2007
- 13 IAEA, Information Circular INFCIRC/648, Communication from the Permanent Mission of the Islamic Republic of Iran, 1 August 2005
- 14 IAEA Board of Governors, GOV/2005/60 – „*Implementation of IAEA Safeguards in the Islamic Republic of Iran and related Board resolutions*“, „An explanatory memorandum, submitted by the Permanent Missions of France, Germany and the United Kingdom“, 8 August 2005
- 15 Several European analysts advocated the limited enrichment option. See, e.g., Tim Guldemann and Bruno Pellaud, „*A Plan to Bring about Nuclear Restraint in Iran*“, *Financial Times*, 27 June 2005; François Nicoullaud, former French ambassador in Iran, wrote in *Le Monde*, 18 September 2005, „*is it really dangerous to allow Iran to operate an enrichment research and development facility...when it takes 500 centrifuges of the design available in Iran and four to five years to produce the required amount?*“; François Heisbourg, „*The EU-3 may find that they are compelled to give in to Iranian demands concerning uranium conversion...or a pilot enrichment facility....A pilot enrichment facility, if it were of a scale not exceeding current Iranian capabilities (i.e. less than 200 centrifuges) would presumably not be a significant direct threat in terms of acquiring nuclear weapons*“, Centre For European Policy Studies, ESF working paper no. 20, June 2005; Bruno Tertrais, Senior Research Fellow, „*Crescent of Crises: U.S.- European Strategy for the Greater Middle East*“, Fondation pour la Recherche Stratégique, Washington, DC, The Brookings Institution Press, 2005.
- 16 „*Iran: Is there a way out of the nuclear impasse?*“, International Crisis Group, Middle East Report N°51 – 23 February 2006 – Co-authors of the report: Tim Guldemann, Karim Sadjadpour and Bruno Pellaud, under the coordination of Robert Malley, ICG Director for the Middle East and North Africa Program.

- 17 Gareth Evans had extensive discussions in Vienna prior to the Monday, 2006 March 6 Board of Governors meeting. On the preceding Friday, the Russian Ambassador at the IAEA stated that a solution was in sight. The next day, the Director General of the IAEA, Mohamed ElBaradei expressed cautious optimism. On Sunday, Condoleezza Rice called ElBaradei to express strong U.S. opposition to the limited enrichment scheme. On Monday, Russian Foreign Minister Sergei Lavrov was reportedly given a dressing-down by Ms Rice when he arrived in Washington. In his farewell message on leaving the Crisis Group on 30 June 2009, Gareth Evans stated: *"Beyond all that again, I think it is fair to say that Crisis Group has had a major impact on the way in which a number of major, intractable conflict situations have been conceptualized by the international policy community. such as: to acknowledge that the Iran nuclear issue was potentially solvable by an approach which did not seek to reverse Tehran's fissile material capability but to draw the red-line against weaponization"*
- 18 British Broadcasting Corporation, "BBC-Iran and the West-Part 3 of 3, Nuclear Confrontation" (2009)
- 19 Ibid, John Bolton, U.S. Ambassador to the United Nations
- 20 Ibid, Jack Straw, UK Foreign Minister
- 21 Ibid, Ali Larijani, Iran's chief nuclear negotiator
- 22 Ibid, George W. Bush, president
- 23 Ibid, Nicholas Burns, U.S. Undersecretary of State for Political Affairs
- 24 The author pleaded for stronger European sanctions at a seminar of the Washington Institute for Near East Policy on 12 January 2010 (sponsored by the United States Central Command) by pointing out that Europe was in 2008 the first trade partner of Iran, accounting for almost a third of its exports. EU goods exports to Iran were €14.1 billion; EU goods imports from Iran were €11.3 billion. EU imports from Iran are 90% energy and energy related products. EU exports to Iran were mainly machinery and transport equipment (54.6%), manufactured goods (16.9%) and chemicals (12.1%).
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- 29 The physics of enrichment: it takes 5,000 "separative work units" to produce 25 kg of 93% highly-enriched uranium when starting with natural uranium, but only 1,857 units if 3.5% low-enriched uranium is available, that is, such low-enriched uranium covers close to two-thirds of the way. And only 492 units if 20% low-enriched uranium is available, that is, nine tenths of the way. The nuclear fuel used in Bushehr contains 3.5% LEU and the Teheran Research Reactor operates with slightly less than 20% LEU.
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- 32 Bruno Pellaud, *"One Last Option for Securing Iranian Enriched Uranium"*, The Huffington Post, 27 October 2009.
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- 35 Mohammad Javad Zarif, *"Tackling the Iran-U.S. Crisis: The Need for a Paradigm Shift"*, *Journal of International Affairs* 60 (2) (Spring/summer 2007)
- 36 Abbas Maleki, *"Iran's nuclear file: Recommendations for the future"*, Dædalus Winter 2010, U.S. Academy of Arts & Sciences (Abbas Maleki is Associate Professor of Energy Policy in the School of Energy Engineering and Chairman of the Research Centre for Scientific, Technological, and Industrial Policy-Making at Sharif University of Technology in Iran)
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- 42 *“Implementation of the NPT safeguards agreement in the Islamic Republic of Iran”*, Report to the IAEA Board of Governors, GOV/2007/22, Paragraph 12-14, 23 May 2007
- 43 *“Implementation of the NPT safeguards agreement in the Islamic Republic of Iran”*, Report to the IAEA Board of Governors, GOV/2009/74, Paragraph 14, 16 November 2009
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- 45 Ibid, IAEA Board of Governors, GOV/2005/60 – *“Implementation of IAEA Safeguards in the Islamic Republic of Iran and related Board resolutions”*, “An explanatory memorandum, submitted by the Permanent Missions of France, Germany and the United Kingdom”, 8 August 2005.
- 46 *“Implementation of the NPT safeguards agreement in the Islamic Republic of Iran”*, Report to the IAEA Board of Governors, GOV/2010/10, Paragraphs 40-45, 18 February 2010
- 47 *“Excerpts from Internal IAEA Document on Alleged Iranian Nuclear Weaponization”*; Institute for Science and International Security (ISIS), Washington, 2 October 2009.
- 48 *“Briefing notes from February 2008 - IAEA meeting regarding Iran’s nuclear program”*, Institute for Science and International Security (ISIS), Washington, 11 April 2008. The private presentation given by Olli Heinonen, the IAEA Deputy Director General for Safeguards, in February 2008 demonstrated unequivocally that weaponization activities had taken place in Iran prior to the latest date of January 2004 referred to in these briefings notes from a participant.
- 49 *“Agreed Framework of 21 October 1994 between the United States of America and the Democratic People’s Republic of Korea”*, IAEA INF-CIRC 457, Art. IV-3, 2 November 1994.
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NINE REGRETS: AMERICA'S NON-PROLIFERATION EFFORTS AGAINST IRAN

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Overview

When it comes to assessing U.S. efforts to prevent Iran from acquiring the bomb, there is a natural tendency to demur and argue that the jury is still out. Perhaps, but for many, Iran already has become a virtual nuclear state. Yes, Tehran is not operating all of its centrifuges and, yes, it might take it another year to get its first bomb. But a) that's not much time; b) this is hardly as far along as Washington ever wanted Tehran to get; and c) Washington's ability to block Iran from taking the final steps to acquiring its first bomb is now marginal at best.

For all these reasons, then, it's not too early to ask whether or not Washington could have done better in its efforts to scotch Iran's march toward the bomb. Certainly, if the United States wants to avoid future Irans, which some experts insist are about to emerge, it's not too early to address this question now.

How well has Washington done? The short answer is it fumbled on several fronts. The long answer is that on nine specific points, it could have done better. Washington officials certainly could have publicly articulated earlier, more consistently and clearly how great a threat the Iranian regime was to its neighbors, the U.S. and its allies; and what the U.S. and other states needed to do to block the threat.

In addition, Washington has been far too reluctant to spell out the limits of IAEA inspections. Meanwhile, it is too enthusiastic in promoting the peaceful benefits of nuclear energy in the Middle East as a way to diplomatically and militarily hedge against Iran's nuclear misbehavior.

Beyond these shortfalls, Washington also erred in internally overselling how helpful "winning in Iraq" might be to addressing the Iranian threat and in relying so much on military threats, covert operations, and intelligence assessments, to manage the threat.

Nine Faux Pas

These are the broad conclusions. Taking each point in turn, the U.S. might have done better against Iran's nuclear efforts had it not:

1. Failed to act consistently in public against nuclear proliferation to Iran: Shortly after the Islamic revolution eliminated any prospect for moderate Iranian rule, the U.S. and its European allies terminated the various nuclear projects they had begun under the Shah. When U.S. officials first discovered Russia was about to sell Tehran uranium enrichment technology, that the IAEA was going to assist Iran in the production of Uranium Oxide (UO₂) and Uranium Hexafluoride (UF₆), and that Iran was approaching India, China, and others to sell Iran a heavy water plutonium production reactor, Washington acted quickly and succeeded in scotching the deals. The U.S. also stepped in and successfully blocked Chinese, German, French, and Argentine attempts to sell Iran light water reactor related assistance either to build new reactors or to complete Bushehr.

Unfortunately, these blocking actions were almost always taken initially under the veil of partial or total secrecy and rarely, if ever, were defended as a part of a coherent public policy. It was as if the U.S. and its allies were somehow ashamed of what they were doing. As a result, the impact of many of these successful blocking actions was subsequently undermined by other steps that were at odds with keeping the pressure up on Iran's nuclear misbehavior. Certainly, when it came to less obviously dangerous nuclear transactions, Washington too often averted its gaze in ways that reduced its moral authority to call on other nuclear suppliers to fall in line.

For example, even after U.S. officials learned of Iran's efforts to restart its nuclear program in the late 1980s, Wash-

ington continued to approve the annual export of hundreds of millions of dollars worth of dual-use nuclear items to Tehran. In fact, for four years under the first Bush administration, U.S. officials continued to approve the export of controlled dual use items to Iran under a policy that presumed approval unless it could be clearly demonstrated that the item in question was going to Iran's nuclear program. This policy continued despite efforts to change the policy to a presumption of denial unless it could be clearly demonstrated that the item in question was clearly not going to contribute to Iran's nuclear program. It continued even after the U.S. Central Intelligence Agency (CIA) determined in June of 1990 that Iran was seeking to develop nuclear weapons. And U.S. dual use exports worth hundreds of millions of dollars also continued to flow to Iran during the Clinton administration.

One of the key arguments made at U.S. interagency meetings to approve these sales was that European and Asian exporters would simply fill the trade vacuum that the U.S. government would create if it denied U.S. exporters the right to make these sales. Although there was some truth to this contention, it was a point that was too clever by half: U.S. trade with Iran, after all, also served as an example that made subsequent attempts to throttle European high-tech trade with Iran all that more difficult.¹

Then there was Washington's handling of intelligence it gained in the early 1990s that China had exported 1,000 kilograms of UF₆ – essential feed stock for any uranium enrichment effort – to Iran in 1991. Although China shared this information with the U.S. in the early 1990s and there were repeated public news reports throughout 1991 that U.S. officials believed Iran was pursuing a uranium enrichment program, Washington kept China's UF₆ transfer se-

¹) Even after Washington adopted a presumption of denial policy and subsequently cut off all technology trade with Iran, it continued to allow U.S. exporters to trade freely with states, such as the United Arab Emirates, which facilitated the retransfer of controlled goods to Iran. This loophole also served as an example that significantly limited Washington's moral authority to get the European Union to cut off continued high-technology exports to Iran beyond whatever was required by United Nations sanctions.

cret for nearly a decade. It only released it and put diplomatic pressure on the International Atomic Energy Agency (IAEA) to pursue the matter after Iran admitted that it had an undeclared enrichment facility under construction at Natanz late in 2002.

By this time, however, almost a decade had passed. Iran's enrichment program was a much more serious proposition and the revelations about Natanz rather than the importation of Chinese UF6 became the driving force behind international demands that Iran submit to more intrusive IAEA inspections. Certainly, the potential international diplomatic impact that would have been produced if Washington had revealed Iran's importation of the Chinese UF6 in the early 1990s was lost.

Why did Washington sit on this information? It's not entirely clear. Perhaps, the UF6 imports were dismissed since there was no compelling intelligence at the time indicating that Iran was actually working on a large scale enrichment program. The U.S., after all, had just gotten the Russians to back off helping Iran build a large centrifuge plant.

Yet another factor, though, was the Clinton and Bush administrations' determination to consummate a nuclear cooperative agreement with China and to export U.S. nuclear reactors there. Certainly, revealing that China had secretly exported uranium hexafluoride to Iran was at odds with this campaign.

In fact, Washington had initialed a nuclear cooperative agreement with Beijing back in 1984 but the U.S. Congress had conditioned its implementation upon a Presidential certification that China was not assisting any non-nuclear weapons state to acquire the means to make nuclear weapons. The president also had to certify that China had given the U.S. unequivocal assurances that it would not proliferate nuclear technology in the future.

This requirement effectively prevented the deal from being

implemented until the late 1990s. This hardly encouraged the White House to volunteer any information regarding Chinese proliferation to Iran that was not already public. This last point is not just speculation: As President Bill Clinton made clear in his formal certification filed in January of 1998, he wanted to implement the deal earlier but was deterred from doing so not only because of continued Chinese assistance to the Pakistani nuclear program, but to Iran's program as well.

With regard to Iran, a specific issue that the press reported on in 1998 was China's continued construction of a uranium hexafluoride plant that was nearly 80 percent complete. Again, there was no reason for this plant to be constructed unless Iran was planning to follow through on its plans to enrich uranium. What competed with this concern, however, was China's interest in buying U.S. reactors and Westinghouse's keen interest in selling Beijing its AP 1000 series reactors. In short, by 1997, President Clinton decided to make the certification and implement the deal. To allay Congressional concerns, he separately secured a secret pledge from Beijing in October of 1997 that it would not begin any new nuclear projects in Iran and subsequently an additional Chinese commitment not to complete construction of the hexafluoride plant.

Although China forwarded Iran all of the plant's blue prints (and this was made public), these Chinese assurances proved to be sufficient for Congress, which was being told that \$300 billion in reactor sales were waiting to be made. The only additional requirement was that China would agree not to retransfer U.S. origin nuclear technology without prior U.S. consent. Again, China was not forthcoming on this point until after 2002. As a result, the U.S. Nuclear Regulatory Commission (NRC) was legally forced to hold up approval of 16 individual requests for U.S. nuclear technology transfers to China.

Each of these Congressional hurdles to nuclear commerce with China worked against U.S. officials revealing Bei-

ging's earlier transfer of 1,000 kilograms of uranium hexafluoride to Iran. The question now in hindsight is whether or not Washington got its priorities straight in holding back on the release of this information.

Finally, Washington repeatedly suppressed intelligence it had regarding Russian assistance to Iran's nuclear program out of fears that it might undermine U.S.-Russian relations. Thus, the U.S. Congress waived the requirement that the U.S. President certify that Russia was not assisting Iran's nuclear capable missile programs before spending U.S. taxpayer dollars to buy space-related technology, goods or services from Russian government-sponsored aerospace firms. The U.S. intelligence services confirmed that Russia was assisting such programs as late as 2007. Yet, at no time were the details of this assistance ever shared. Presidential requests for a waiver on the Congressional requirement that the White House file the required certification were made twice: In 2005 and in 2008.

There were numerous news reports of Russian assistance to Iran's nuclear weapons program too. A Russian implosion expert had visited Iran. Russia had shipped high-speed diagnostic cameras useful for weapons design to Iran. Iran's heavy water reactor fuel looked to be of Russian design. Iranians were being trained in Russian nuclear schools. Again, none of these reports became the focus of any public diplomacy or U.S. sanctions actions. Instead, on two separate occasions – 2008 and 2010 – the Bush and Obama administrations gave Russia a clean bill of nuclear non-proliferation health in anticipation of securing a nuclear cooperative agreement with Moscow.

Again, the message, intended or not, was that Washington was not all that upset with Russian nuclear military cooperation with Iran and that it viewed it much as it did Chinese assistance – as tolerable so long as there were other equities to be served by downplaying it.

All of these inconsistent actions regarding nuclear prolif-

eration to Iran later weakened the U.S.'s hand in trying to secure support for economic sanctions against Iran once it secured almost all it needed to make its first bomb

2. With the physical exhaustion associated with the war in Iraq the U.S. administration became intellectually exhausted with regard to its approach to Iran.

It has long been argued, and has been the subject of Presidential commissions, that Washington exhausted much of its credibility regarding proliferation-related intelligence in crying wolf over Saddam's nuclear activities in the lead up to the 2002 invasion of Iraq. As a result, many analysts have noted that Washington was incapable of mobilizing opinion against Iran even when it had evidence that Tehran was inching toward development of a nuclear bomb that was at least as credible as anything it had against North Korea when Washington succeeded in getting the United Nations Security Council to urge North Korea to submit to special IAEA inspections. Much has been made of this.

The bigger point, however, is that the U.S. actually did not push as hard as it might against Iran's nuclear misbehavior, in part, because it simply was tied up so much in the war in Iraq. Some officials tried to square the difference by arguing that if Saddam was toppled and Ba'athist rule replaced with a working liberal democracy, Iran's revolutionary government would follow suit and collapse in due course. This as-goes-Iraq-so-goes-Iran talking point conveniently justified redoubling U.S. efforts to win and secure the peace in Iraq and allowed handing as much of the Iran headache off to Europe as Washington did in 2003 to let them seek a "negotiated" solution to Iran: The thinking was that the U.S. was busy with the war in Iraq and that this was the main event. If things went well in Baghdad, in time, perhaps the government in Iran would lose public support due to the democratic example being established in Iraq and either soften or collapse.

It is hardly clear that this theory was entirely wrong: Arguably, the current revolutionary government in Iran is certainly politically more embattled than at any time since the 1979 revolution. On the other hand, it is fairly clear that the government in Iran has not collapsed and that the theory that Iraq's example would undo Iranian revolutionary rule is, at most, a work in progress. What is clearer still is that simply hoping for the best and deferring important work to others came at the cost of pushing a clear agenda and a focused strategy against Iran's nuclear misbehavior.

3. Relied too much on covert operations and military threats rather than public diplomacy and sanctions. By Bush's second term, it was evident that the war in Iraq was not going well and would not be won quickly. The U.S. had already delegated Iranian diplomacy to the European Union and the Permanent Five (P-5) members of the UN Security Council. To make up for European Union weakness and the absence of U.S. public leadership, Washington increased covert operations against Iran and public references to possible military action against the known nuclear facilities. This produced a fairly schizophrenic public policy profile. On the one hand, it encouraged America's allies to reach a diplomatic solution with Tehran to avoid American or Israeli military strikes and to demonize sanctions as being the first step toward war. On the other hand, it encouraged U.S. officials publicly to emphasize how "unacceptable" it was for Iran to get a bomb and how necessary it was to "keep the military options on the table". Finally, it fostered the mistaken hope that covert operations alone might interfere enough with Iran's nuclear progress to buy an indefinite amount of time before Iran might get a bomb. This, in turn, reduced the perceived urgency in Washington of publicly pushing its allies to move decisively to sanction Iran. Only when it became clear, after Obama's fuel swap proposal and Iran's rejection of it, that Iran was not about to be talked out of continuing its nuclear fuel making activities did the Obama

administration finally press the United Nations Security Council to pass a fairly serious sanctions resolution. By that time, though, Iran had consolidated its grip over its political Green Movement opposition, largely insulated itself economically from much of the sanctions' potential impact, and advanced to within a year or less of acquiring all it needed to make its first bomb.

4. Downplayed the importance of regime change to produce desirable non-proliferation outcomes. In pushing the United Nations Security Council to support the latest, most comprehensive set of UN economic sanctions, the Obama administration resorted to criticizing Iran's human rights record (this to help secure support among European states that are rightly sensitive to such matters). The White House, has yet to grasp the full implications of its own critique, however. Back in the late 1970s, the U.S. reversed course in promoting nuclear power for Iran. Implicit in this reversal was a judgment about the revolutionary government and its trustworthiness, to say nothing about its legitimacy. Sadly, Washington never made this point sufficiently explicit not only in the late 1970s, but throughout the 1980s and 1990s. Now, our best hope is that the ruling regime in Iran will change again – this time to a government that is less hostile to the West and more humane towards and liberal with Iran's population. Instead, we are focusing on bombing and groveling – neither of which will do anything but aggravate the problems of keeping (a.) others from getting nuclear weapons capabilities, (b.) Iran from overtly pushing a weapons program, and (c.) others from following Iran's example.

5. Showcased the dangers of nuclear proliferation in the Middle East more to spook Iran and reassure its neighbors than to prevent others from following Iran's nuclear example.

The U.S. made a conscious effort to encourage the sharing of civilian nuclear technology with Iran's neighbors and Iran for several reasons. The first of these was to disprove Iran's and other Muslim states' complaint that the U.S. did not trust them with large nuclear reactor programs. In this regard, President Bush announced the U.S.'s willingness to share the peaceful atoms with as many countries in the Middle East as possible so long as they promised to conduct such programs under IAEA safeguards and pledged not to make nuclear fuel. Unfortunately, this Middle Eastern civilian nuclear energy promotion effort quickly deteriorated into a nuclear supplier state free for all. No sooner did the U.S. get the United Arab Emirates (UAE) to pledge not to make nuclear fuel and to ratify the IAEA Additional Protocol in order to buy U.S. reactors, than the UAE bought Korean. Turkey, Egypt, Saudi Arabia and Jordan, meanwhile, have tendered nuclear reactor offers from Russia, China, Japan, Korea and France and have all rejected U.S. demands that they forswear making nuclear fuel or ratify the Additional Protocol.

The second reason Washington promoted nuclear technology sharing in the Middle East was its increasing and arguably premature nuclear fatalism. A view articulated privately at the start of President Bush's second term was that the U.S. might as well get credit for promoting the "peaceful" use of nuclear energy hedging Iran's neighbors would be sure to pursue with or without Washington's support. There even was hope that by being at the forefront of such commerce, Washington might gain more leverage to control it. At the very least, it was argued, facilitating such plans would get Iran to realize that its continued pursuit of making nuclear fuel risked prompting its neighbors into acquiring "peaceful" nuclear programs that could serve as the basis for weapons programs similar to Iran's.

This view was part of a larger idea Bush administration officials considered as an ultimate answer to the security problem further nuclear proliferation might generate, deliberately promoting a kind of "armed restraint". This would be accomplished by arming U.S.'s friends with the capacity to breakout with military force capabilities and nuclear weapons if needs be, against the U.S.'s most likely adversaries. The first would be accomplished by means of conventional arms sales; the second by means of sharing "peaceful" nuclear technology. The aim would be to deter the U.S.'s most likely competitors and so produce a non-proliferation result through hard-headed realism.

Although this policy perspective was never made public, there is no question that it played a role in justifying the approach the U.S. took to dealing not only with China (i.e., the U.S.-Indian nuclear deal and strategic partnership), but with Iran, as well. Unfortunately, these two reasons for sharing nuclear energy technology with Iran's neighbors – to serve as a security hedge and to increase and earn Muslim states' trust in the U.S. – seem to have a come at a fairly high non-proliferation cost. As already noted, Washington has hardly controlled the nuclear fuel making appetites of Iran's neighbors. Nor is it all that clear that the supplier states' largess in the region will lead to the enhancement of nuclear inspections in the Middle East.

6. Exaggerated the value of peaceful nuclear energy and NPT member states' right to it.

One of the reasons Washington felt so comfortable promoting civilian nuclear energy in the Middle East is that it was a diplomatic path that already was well worn. Back in the 1970s, the U.S. endorsed the Shah's fantastic nuclear plans to assure Iran's dominant role in the Gulf and its strategic ties to the U.S.. Even after initial plans to transfer reprocessing technology were dropped, Carter subsequently offered the Shah access to this technology again. At the same time, the U.S., Russia, Germany, and France all competed

for nuclear sales and political influence in the Middle East by offering nuclear reactors to Jordan, Israel, Turkey, Egypt, Libya, Iraq, Iran, and Algeria. This was the state of play just before the Shah was deposed.

Meanwhile, the U.S. and nuclear supplier states gave up demanding through International Nuclear Fuel Cycle Evaluation (INFCE) that states back off making nuclear fuel and let the market dictate what was safe and dangerous. This meant the U.S. and others winked at Brazil, South Africa, Germany, Holland, Japan as they stood up nuclear fuel making efforts. Finally, when the crisis over Iranian fuel making came in 2002, the U.S. and the EU almost reflexively jumped to affirm Iran's right to develop "peaceful nuclear energy" in ways that only made Iran's efforts to make nuclear fuel seem increasingly legitimate.

Thus, the EU was careful in its first offering of incentives to Iran to allow that Iran retained its right to peaceful nuclear energy and to offer it light water reactors. Shortly thereafter, President Bush's national security advisor conceded that Iran had the right to make nuclear fuel for peaceful purposes but suggested that it would be best if Iran could see the wisdom of exercising that right on Russian soil. It was about this time in 2006 that the U.S. backed off its objections to Bushehr as a front for and possible path to acquiring nuclear weapons. Instead, Washington announced that it deemed that Bushehr was peaceful and legitimate.

More recently, the U.S. and others offered to supply Iran with nuclear fuel enriched to 19.75 percent. When the negotiations for such supplies broke down over differences regarding the swap out of low-enriched Iranian fuel, Iran insisted that it must proceed to enrich to 19.75 percent – which technically is on the cusp of being weapons-grade. Finally, in May of 2010, the U.S. backed countries' rights to develop peaceful nuclear energy in the final declaration of the NPT Review Conference. This declaration, though, not only reiterates all countries' right to peaceful nuclear

energy. It prohibits reinterpreting the NPT's protection of peaceful nuclear activities under Article IV in any way that would "limit" these rights. It also affirms the importance of all member states availing themselves of efforts and moving toward a "sustainable fuel cycle" – i.e., all code for recycling nuclear fuel and moving toward fast reactors – technologies historically associated with making nuclear reactor fuels that can be quickly converted into nuclear weapons.

These views and actions correspond with the conventional wisdom that any reading of the NPT that might curtail NPT members' rights to peaceful nuclear energy is simply a non-starter. Such a view, however, is mistaken about how absolute these rights are. In fact, some of the NPT's peaceful nuclear energy benefits have already been significantly reinterpreted and effectively abolished.

Consider the Article V of the NPT and its call on nuclear weapons states to share the possible benefits of peaceful nuclear explosives. When Article V was first proposed in the 1960s, most nations, including the U.S. and Russia, believed that nuclear explosives could be employed as "ploughshares" to create canals and to complete other civil engineering tasks, including mining and excavation. To assure non-weapons states the possible benefits of such nuclear applications, the NPT allowed nuclear weapons states to share such benefits by supplying nuclear explosive services to non-weapons states on a turnkey basis.

To date, no state, though, has applied for such assistance nor has any state offered it for two unanticipated reasons. First, the "possible benefits of peaceful nuclear explosives" turned out to be negative: Given the costs of cleaning up the radioactive debris that the use of peaceful nuclear explosives would produce, it became clear that it would be far cheaper to use conventional explosives for civil engineering applications. In short, there were no "benefits" to share.

Second, and closely related, the few states that insisted on conducting their own “peaceful nuclear test explosions” – India and Russia – were strongly suspected of using Article V as a cover for nuclear weapons testing. Certainly, the U.S. and most nuclear supplying states sanctioned India for its 1974 test of a “peaceful nuclear device” by depriving it of access to most controlled civilian nuclear supplies and, in time, any nuclear explosion, “peaceful” or not, was seen as a violation of a norm against any form of nuclear testing.

This example of Article V’s reinterpretation speaks directly to several of the NPT’s most pressing current difficulties. As already noted, the prevailing view of the “inalienable right” to “peaceful nuclear energy” recognized by the NPT is that this right automatically allows states to participate in any nuclear activity, no matter how uneconomical or dangerous, so long as it has some conceivable civilian application and the materials or activities in question are occasionally inspected by IAEA inspectors or their equivalent. This is Japan’s view, and that of the Netherlands, Germany, South Africa, Brazil, Iran, and the U.S..

Yet, the way in which Article V is now read suggests that there is another more sensible way to interpret Article IV. This interpretation recognizes the explicit qualifications made in the NPT on exercising the inalienable right to peaceful nuclear energy. This right, the NPT notes in Article IV, must be implemented “in conformity” with the treaty’s clear strictures in Articles I and II. These two articles, in turn, prohibit nuclear weapons states “in any way to assist, encourage, or induce any non-nuclear-weapon state to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices,” and ban non-weapon states from seeking or receiving “any assistance in the manufacture of nuclear weapons.”

Properly understood, being “in conformity” with Articles I and II implies also being in conformity with Article III, the NPT requirement that all non-weapon states accept the

imposition of international nuclear safeguards on all of their civilian nuclear activities and materials to prevent their military diversion to make bombs. Certainly a non-weapon state refusing such safeguards would be an implicit violation of Article II. Thus, the final statement of the 2000 NPT Review Conference refers to the need for non-weapon state members to exercise their Article IV activities in conformity with Articles I, II and III.

Technically, this condition is difficult to meet. Not all nuclear activities and materials can in fact be safeguarded to prevent their diversion to make bombs. Some activities, e.g., nuclear fuel making and operating large nuclear programs in hostile, non-cooperative states (e.g., North Korea or Iran), cannot be inspected in a fashion that can reliably assure detection of a possible military diversion early enough to provide sufficient time to intervene to prevent the production of a bomb. Similarly, some nuclear materials are so suitable for use in weapons (e.g., highly enriched uranium, separated plutonium or plutonium based fuels) that reliable and timely detection of their diversion to make bombs is simply not possible.

This, then, raises the question: If a nuclear activity or material is so close to bomb making that it cannot be safeguarded against military diversion, is it protected as being “peaceful” under Article IV of the NPT? In the 1970s, it was hoped that nuclear fuel making in Japan, Brazil, South Africa, the Netherlands, and Germany could be safeguarded. Yet, recent discoveries of nuclear weapons usable materials unaccounted for (MUF) in Japan and the UK raise serious questions as to whether or not these assumptions were ever sound. We also know from experience in Iraq, Libya, Iran, Syria, and North Korea that the IAEA inspections system cannot be relied upon to find covert nuclear-weapon-related activities in states that refuse to cooperate fully with IAEA inspectors.

Many less developed states would answer, as Iran has, that the NPT’s preamble explicitly stipulates that all of peaceful

nuclear energy's benefits, including "any technological by products which may be derived from the development of nuclear explosives" should be "available" for civilian purposes to all states. This would suggest that the NPT recognizes and protects a *per se* right of all states to get to the very brink of making bombs.

Yet, if The NPT is dedicated to sharing the "benefits" of peaceful nuclear energy, these benefits presumably must be measurably "beneficial" and be distant enough from bomb making or the risk of being easily diverted to that purpose so that inspections could reliably detect their military conversion in a timely fashion (i.e., well before any bombs might be made). At the very least, what is protected ought not to be both dangerous and unprofitable. That, after all, is why the NPT bans the transfer of civilian nuclear explosives, only allowed the sharing of civilian nuclear explosive services on a turnkey basis, and why ultimately this offer was never acted upon.

In the first term of the Bush administration, the U.S. Department of State went out of its way to point out just how uneconomical Iran's nuclear power program was. It, questioned the need for nuclear power in gas-rich nations, such as Iran and Saudi Arabia. Economic analyses were conducted to determine just how uneconomical such nuclear programs were when compared to making power with readily available natural gas. This line of inquiry, however, was not allowed to proceed very far and was almost entirely shut off in Bush's second term.

7. Glossed over and denied the limits of what IAEA inspections could safeguard regarding Iran's nuclear activities. Yet another line of inquiry that failed to get the attention it deserved was the adequacy of IAEA nuclear safeguards to supply reliable timely detection and warning of possible military diversions of nuclear materials. Up until the early 1990s, the U.S. and other

like-minded countries not only were uninterested in this question, they actually used lack of IAEA findings as justification for continuing business with Iran as usual. When we received intelligence that something was wrong, we urged the IAEA to conduct additional inspections. When the IAEA failed to find anything, we languished until the revelations of late 2002, which forced the Iranians to admit that they had a covert enrichment program. From that point on, we made a big deal about Iran not following the rules as laid down in their IAEA safeguards agreement. Everything that followed was an effort to regain confidence that Iran would cooperate fully and comply with all of the IAEA's rules and demands. Implicit in all of this was the notion that, if Iran had declared its nuclear fuel making activities, all would be fine and that the IAEA could, in this case, do its job and be able to safeguard against military diversions, that it could know if Iran were cheating at covert facilities, that the IAEA could safeguard fuel making plants and the spend and fresh fuel at declared Iranian reactor sites.

In fact, the IAEA is incapable of finding covert nuclear facilities (e.g., Natanz, Qom, Syria's reactor, and the Libyan program). It also has failed to keep accurate track of activities at Iran's declared fuel making plants (e.g., its inability to monitor Iranian uranium hexafluoride production). The IAEA has long had difficulties accounting for many bombs' worth of separated plutonium and recycling waste at Japanese and British civilian fuel plants and admits that it lacks continuity of safeguards over fresh and spent fuel at sites it inspects that lack near-real time surveillance capabilities (something missing at nearly two-thirds of the sites the IAEA currently inspects).

These facts, which Washington and its supporters against Iran's nuclear misbehavior have generally downplayed or ignored, should matter. U.S., allied, IAEA, and UN demands that Iran suspend its fuel making was sold as a confidence building measure but it actually was something quite different — a not so well disguised attempt to keep

Iran from continuing to engage in activities that the IAEA could not reliably safeguard against being diverted to make bombs.

By turning a relative blind eye to these IAEA deficiencies, the U.S. and the EU have left themselves open to the accusation that they are picking on Tehran over a minor IAEA technical violation. Repeatedly, Iran has called for being treated as Brazil, India, Germany, and Japan are regarding nuclear fuel making: Let us continue under IAEA safeguards. To this proposition, the U.S. and its supporters have not given all that convincing an answer. As a result, Iran's neighbors are also wondering why the U.S. is so opposed to them making nuclear fuel as well. Instead of the Iran case serving as an opportunity to strengthen international nuclear non-proliferation, then, it has arguably done just the reverse.

8. Relied on intelligence (or the lack of it) more to put off public action against Iran than to prompt it.

In 1990, Henry S. Rowen, then assistant secretary of Defense for International Security Affairs, visited Pakistan. In a meeting with then Army Chief of Staff General Mirza Aslam Beg, Rowen learned from General Beg that Pakistan was intent on helping Iran acquire nuclear weapons. This private official conversation between senior U.S. and Pakistani officials was passed on up the U.S. chain of command in the Pentagon in a memo Rowen submitted. It was duly filed away. Meanwhile, U.S. and European intelligence agents were tracking the nuclear activities of A.Q. Khan, which included dealings with Iran.

None of this prompted any change in U.S. or European public policy. Presumably, one needed clearer proof. Yet, by the time we had such proof – arguably in the late Fall of 2002 – U.S. and European officials were resistant to additional information. As already noted, the war in Iraq, the poor weapons of mass destruction intelligence associated

with the war's justification, and the threat of the U.S. or Israel bombing Iran all conspired to harden policy makers against taking any major change in public policy merely on the basis of intelligence findings. Perhaps the apex of such policy making hesitation was reflected in the 2007 National Intelligence Estimate (NIE) on Iran – an intelligence analysis that seized upon secret data that strongly suggested Iran may have suspended its nuclear warhead design work as it continued to perfect its nuclear fuel making activities. This NIE was immediately seized upon as argument against imposing stiff sanctions against Iran.

In all of this, one is reminded of Dr. Kissinger's and President Nixon's response to learning that Israel almost certainly had a bomb. Rather than press to find out if Israel had actually acquired nuclear weapons or get Israel to actually disarm, Kissinger urged President Nixon to stop pressing for more inspections or proof lest the worst be demonstrated, making the failure of international and U.S. non-proliferation efforts all too evident, and a Middle Eastern nuclear arms race inevitable. With Iran, we say we want more intelligence but the truth is we want more diplomatic room and are constantly hoping that Iran will not ever get to a point where it has clearly got "it" – read (depending on when one is talking about) enough nuclear fuel for Iran to make a bomb, an actual Iranian bomb, an actual Iranian missile-deliverable bomb, or an Iranian nuclear test.

9. Failed to bribe Russia and other suppliers early and positively enough in the right way.

Russia apparently had its price not to ship S-300 air defense missiles to Iran. It was hardly sparing the U.S. imposition of specific sanctions under the Iran Sanctions Act or the Iran Libya Sanctions Act (ILSA), which some Members of Congress pleaded with the Obama administration to impose. Instead, Moscow wanted coproduction of Unmanned Aerial Vehicles (UAVs) with Israel that would be sold to India plus significant Saudi purchases of Russian

arms. Once the U.S. winked at these transactions, Russia relented. This suggests that the U.S. could have given positive bribes to Russia and gotten more traction to over Russian behavior by thinking more positively about what it could offer Russia.

One idea never seriously pursued, that the Russians now clearly have an interest in, would have been to cooperate with them on the commercialization of Russian centrifuges to supply the U.S. civilian nuclear fuel market. Another might have been to work together on promoting an expansion or adaptation of the Intermediate Range Nuclear Forces (INF) agreement to pressure China on Beijing's continued INF missile build up.

It is likely that Moscow would have taken such offers seriously. It is also likely that such "cooperation" could have helped slow Russian assistance to Iran. Unfortunately, these ideas were never offered. Instead, U.S. tried to jaw bone Moscow on sanctions, ultimately showed weakness on what it settled for in this regard, dropped its objections to Bushehr, and withdrew its European ballistic missile defense plans in hopes this would bring Russia around. In the end, these moves, which were not positive bribes, probably only emboldened Russia and others to continue to misbehave.

Why All This Matters

We can't reverse history. Short of a major war or regime change, the opportunities to keep Iran from going nuclear, moreover, may be all but exhausted at this point. Still, one cannot help but wonder where Iran's nuclear program might be today had the U.S. and other nuclear suppliers been more consistent in denying Tehran access to controlled goods and had they publicly explained their actions much more clearly at the first signs of suspicious Iranian nuclear misbehavior. It is even more tempting to speculate what might have happened had the U.S. and other like-minded states publicly challenged the legitimacy of the Iranian revolutionary government not in the last three months or last three years but over the last three decades? Would the Green Movement or some such similar opposition group have arisen sooner and actually succeeded in taking over? Would Iran then have dropped the bomb project, as some argue they might? Finally, if the U.S. and other like-minded states had adopted a harder line as to what constituted peaceful nuclear energy and modified their own nuclear export policies to reflect this harder line, would it have been easier to sanction both Iran and its nuclear suppliers earlier? We will never know.

What is clear, though, is that now Washington and other like-minded states will have far fewer means to limit the harm Iran's nuclear activities might inflict. Agreeing to automatic country-neutral sanctions for any non-weapons state that tests nuclear weapons or leaves the NPT while it is still in technical violation of its IAEA safeguards obligations may help deter Iran from taking either of these two steps. It also would be useful for the U.S. and its allies to reassure Iran's neighbors militarily against being intimidated by possible Iranian actions.

As for limiting the prospect of future Irans, we will need not only to avoid repeating some of the key, regrettable, steps we took with Iran but also to actively promote several standard country-neutral approaches to the promotion of

nuclear energy. In specific, we need to be much more candid about what the IAEA can and cannot effectively safeguard against possible military diversion and present much more honest economic and environmental evaluations of the merits of nuclear power over its alternatives.

SESSION III

WILL SANCTIONS WORK? INTENTIONS, CAPABILITIES, STRENGTHS AND WEAKNESSES OF THE IRANIAN REGIME

THE DOMESTIC POLITICS OF THE NUCLEAR QUESTION IN IRAN

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The catastrophic prospect of a nuclear Islamic republic ... would seal the fate of some seventy million people held hostage in their own homeland.¹

In the long running saga of Iran's nuclear aspirations, the received wisdom has been that Iran's nuclear program enjoys universal domestic support. This belief in the popular support for the nuclear ambitions runs parallel to another: that there is no discernible difference within the elite on foreign policy, whether in hostility toward Israel or on Iran's regional role. Of course, if there is no such thing as an Iranian moderate, policy formulation is made easier. If Iran is politically monolithic in its determination to confront the international community, there is no need to devise policies that take into account alternative interlocutors. If it makes no difference who is in power in Iran, why bother considering different bottom lines? Yet the basic issue underlying the nuclear dispute between Iran and the international community has been one of trust and confidence, which has been lacking with respect to the Iranian regime's objectives as well as its past activities. Enrichment *per se* is not dangerous. In the hands of a hostile and ambitious regime with a record of duplicity and treachery, it becomes another matter. The nature of the regime in Iran, the way it treats its own people, the way it frames its regional policies and pursues them and the opaque system of accountability and policy formulation, all combine to make Iran today a danger, to its own people as much as to others.

The subtext of the nuclear issue is the regime in Iran and recent events have demonstrated that the government is neither as monolithic nor as popular as is supposed.

In this brief paper, I will first look at the basic divisions within the regime; then trace schematically the nuclear issue focusing on the relationship between the nuclear issue and domestic politics before turning finally to ask where we stand today.² My basic contention is that the elite in Iran has long been divided even about the course of the rev-

olution. These differences have been further aggravated by Mahmoud Ahmadinejad's deliberate use of the nuclear issue — with support of the Supreme Leader, Grand Ayatollah Ali Hoseyni Khāmene'i — to marginalize his opponents. The contested election of June 2009 revealed a deeply divided society. Differences on the nuclear issue are the tip of the iceberg reflecting in reality much deeper differences on what sort of state Iran should be, and how Iran should conduct itself internationally, and whether it should continue its revolutionary behavior or settle down. Because the domestic stakes of this issue in terms of power, patronage and control are so large, the nuclear issue has been made into the central issue of Iran's foreign policy in recent years. Differences on how the nuclear issue should be treated are thus an indicator of how the various parties see Iran's evolution and role in the world.

Introduction

If Iran's nuclear program enjoyed the support of all elements within the elite it would be the first issue to have done so since the inception of the Islamic Republic of Iran (IRI). From its creation the IRI has been riven by disputes on domestic and foreign policy. The decision to continue the war with Iraq (1982), how to conduct it, whether to end it (1988), the decision to be neutral in the coalition war with Iraq in 1990-91, and to attempt to normalize relations with the U.S. in Akbar Hashemi Rafsan-jānī's era of reconstruction, were all contentious. Seyed Mohammad Khātamī's surprise election as president in 1997, confirmed with a wider margin in 2001, revealed an undercurrent in Iran supporting a more accountable, representative government with better relations with the world. This constituency sought to emphasize the republican aspects of the IRI, and played down the revolution's universalist pretensions. Blocked and stymied at every turn by hardliners in unelected institutions, this first reformist wave was replaced by hardliners through manipulated 'elections': first the *Majles* elections in 2004 and later in presidential elections in 2005. As the events of June 2009 and its aftermath showed, elections could be manipulated, but the fact of dissent in the IRI cannot be effaced.

Bitterly contested, the June 2009 elections remind us that the struggle for power has been a continuing reality in the IRI, intensifying over time. In the past what divided the elite was less than what united them; since June 2009, however, this no longer may be the case. In addition, the experience of street protests and people power and the ensuing brutal repression, has shattered the democratic façade, dispelled the myth of consensus and with it the very legitimacy of the Iranian political system.

A critical component of this power struggle has concerned the future orientation of the country: whether Iran should continue (and intensify) its revolutionary activity, promoting its 'resistance model', while confronting the interna-

¹⁾ Hamid Dabashi *Iran: A People Interrupted*. (New York City, NY: The New Press, 2007) p. 240

²⁾ I have looked into this subject before at some length see inter alia: "Iran: Domestic Politics and Nuclear Choices" in *Strategic Asia 2007-8*. Eds. Ashley Tellis and Michael Wills (Seattle: National Bureau of Research, 2007) pp.299-338; Shahrām Chubin *Understanding Iran's Nuclear Ambitions*" in *Double Trouble* ed Patrick Cronin (Westport, CT: Praeger, 2008) pp47-62.

tional community, or seek to shift to normalization of relations internationally, adopting a more ‘national interest’ approach in foreign policy. Each of these approaches have domestic implications which can be simplified as the difference between a more liberal, pluralist system interacting normally with the world and a more security oriented state, keeping the populace mobilized by reference to the embattlement of the revolution and its values.

These differences, visible for decades, have been aggravated in recent years with the emergence of the reformists and the crisis in the region since 2001. The nuclear issue has become a lightning rod for these differences. How to respond to the U.S.’ regional presence and how to respond to U.S.-led pressures to forsake Iran’s nuclear program, have merged with the question of who is going to inherit Iran and what sort of Iran should it be? Foreign threats and pressures and the nuclear question have been instrumentalized by the hardline faction to achieve its aims: to exclude its domestic opponents politically, centralize power and put Iran on the course that they prefer.

These longstanding differences have intensified as members of a new generation of revolutionaries (Iranian Revolutionary Guards Corps (IRGC) / *Basij*) have challenged the first generation elites and sought to carve out their own sources of power and patronage. They appear to enjoy the support of the Supreme Leader, who is more dependent on them as his legitimacy has shrunk. But their challenge is not just to the reformists or their later incarnation as “greens”, but also to ‘pragmatic conservatives.’ The latter, who appear to be closer to the hardliners’ views programmatically, are hostile to Ahmadinejad whom they do not trust. This is a reminder that here, as elsewhere, personality and opportunism continue to animate politics. The upshot is that if the nuclear issue can be used to weaken Ahmadinejad the pragmatic conservatives will not hesitate to use it. Hence if Ahmadinejad is too confrontational he can be accused of hurting Iran’s interests and if he is (too) flexible (e.g. on the fissile material exchange proposal) he can

again be accused of endangering Iran’s interests. The nuclear issue has become —if it was not already— a political football, a surrogate for other broader concerns.

The Evolution of the Nuclear Issue

Iranian officials have called the nuclear issue variously “the most important issue facing the Islamic Republic” from its inception; as “more important than the Iran-Iraq war”; and even as “more important than the oil nationalization issue” of 1951-53. This importance, this make-or-break image, presumably derives from the major impact its resolution — one way or another — will have on the fate of the IRI. The attempt to forge unity in the country on the issue has been another reason for so depicting the stakes in this way.

From 1987, when it was revived, until mid-2002, when the existence of an (undeclared) uranium enrichment plant was revealed, the nuclear program was not controversial within Iran. It was depicted as intended for power generation and as a prudent diversification of energy sources. The scale of the program, costs and alternatives were barely mentioned or discussed, and emphasis was put on the nuclear program as representing ‘cutting edge’ technology. This all changed in mid-2002 when Iran’s non-compliance with its safeguards obligations under the 1970 nuclear Non-Proliferation Treaty (NPT) was revealed coterminously with U.S. planning for the invasion of Iraq.

The reformist government in Tehran quickly decided to defuse a potential political crisis by suspending its enrichment and applying the more intrusive inspections provided for by the 1997 Additional Protocol to the NPT, while negotiating with the EU-3 ministers about ways to reassure the international community about Iran’s program, without giving up its “rights” as a signatory of the NPT. While dragging its heels and playing cat-and-mouse with the In-

ternational Atomic Energy Agency (IAEA), Iran sought to balance its own and international concerns in this period 2003-05. The Iranian negotiators, drawn from reformist ranks, carried marching orders from the Supreme National Security Council, a body representing all factions and carrying the imprimatur of the Supreme Leader. This did not stop conservatives like Ali Ardashir Larijani from criticizing them for ‘compromising away’ Iran’s interests. After the 2004 *Majles* elections were manipulated in favor of hardliners, the negotiators found themselves under pressure to resume enrichment. Since the threat from the U.S. had passed as it became entangled in Iraq, the hardliners could afford to be less accommodating.

The election of Ahmadinejad confirmed this trend, resuming enrichment, restricting inspections and threatening Israel, while daring the West to take the issue to the Security Council. Unwilling to curb Iran’s program or contemplate a freeze, Ahmadinejad preferred to provoke the international community rather than reassure it: by likening Iran’s nuclear program to “a train without brakes”, by referring to Iran as a “nuclear power” and by calling into question Israel’s right to exist. He shrugged off United Nations Security Council (UNSC) sanctions as a “soiled handkerchief” and stepped up Iran’s activities in the region in support of the “resistance front”. At the end of his first term, Ahmadinejad could point to progress in Iran’s capacity to enrich uranium and the failure of the international community to bend Iran to its will. Iran had stood up to pressure and survived. Ahmadinejad had shown the world — and his opponents — that the revolution was alive and well.

Public Opinion and the Nuclear Question

Neither the resurrection of the nuclear program nor its content and form were the subject of public discussion and public reactions, as to its scope or direction, were not so-

licit. Insofar as there was a ‘debate’ on the subject between 1987-2003, it was an intra-elite debate.³ The general public were not consulted, or indeed informed, except in a sporadic manner. Hence public opinion was not a *driver* of policy. Instead, once Ahmadinejad started his sloganeering on the issue after 2005, the (largely rural) public became cheerleaders for his style of confrontational ‘diplomacy’, and hence a constraint on the leadership’s future flexibility on the issue.

It is difficult to know what “public opinion” is about the nuclear issue. One poll suggests that the nuclear program is overwhelmingly popular, “astonishingly” so in their own words.⁴ But this poll is not persuasive, being methodologically dubious and contradicted by widespread anecdotal evidence. Indeed the regime’s behavior betrays its own doubts: criticism is repressed; the press is given directions how to report on the issue and every step is hailed as a great technological accomplishment.⁵ On the other hand, it is notable that the ‘Green Movement’ in the streets of Tehran derided the ‘nuclear Ahmadinejad’ in rhyming verse suggesting he was ‘tired’ and should ‘take a break.’

As I have suggested elsewhere, it is the rare Iranian who

³ See this author’s article with Robert Lutwak “Debating Iran’s Nuclear Ambitions” *The Washington Quarterly* Autumn 2003 (Vol. 26, No. 4) pp.99-114. For a different view and approach see Farideh Farhi, “Nuclear Policy is Our Assured Right”: Nuclear Policy and the Shaping of Iranian Public Opinion” ed. Judith Yafpe Nuclear Politics in Iran (Washington DC: INSS, Middle East Strategic Perspectives, 2010) pp.3-18.

⁴ This is a United States Institute of Peace / University of Maryland poll taken in Oct/Dec.2006 involving 1,000 respondents in 30 provinces. Support for the program was said to be 91%. See http://www.usip.org/iran/iran_presentation.pdf. See also, Christine Fair and Stephen Shellman “Determinants of Popular Support for Iran’s Nuclear Program” (draft). See also, “Iranians Defend their Nuclear Rights”, *Los Angeles Times*, March 7, 2006; and Howard LaFranch, “If Iran Goes Nuclear” *Christian Science Monitor*, November 23, 2004 (<http://www.csmonitor.com/2004/1123/OIsOI-usfm-htm>)

⁵ See Anna Fifield “Iran’s Nuclear Ambitions Rise above Domestic Debate”, *Financial Times*, February 19, 2008. A prominent reformist commentator noted that it has become an untouchable issue: “It is forbidden to talk about nuclear policy—you cannot oppose it in any way.”

does not support the country's right to modern technology or believes that others should dictate what Iran can and cannot do.⁶ Most Iranians would concur with the proposition that U.S. policies in particular are hypocritical and entail double standards with respect to 'selective proliferation.' Similarly, most Iranians who remember the Iran-Iraq war would like to reduce the country's dependency on others for energy as well as arms, as this may entail vulnerability in a future crisis. All of this is a far cry from supporting Iran's nuclear program today and with it a regime that is seeking to exploit the nuclear program for its own partisan ends. Indeed, it is a reasonable guess that most Iranians are more concerned by 'bread and butter' issues (jobs, inflation, income and income distribution) rather by the fine details of centrifuges and uranium enrichment. One can only concur with one analyst who writes: "there is little reason to think that ordinary Iranians care very much at all about the nuclear issue."⁷

The Nuclear Question and Domestic Politics: Debate and Criticism?

Iran's nuclear program was never particularly important politically in the 1980's or 1990's. Whatever its strategic motivations it was also clearly intended to buttress the regime's already faltering legitimacy and to appeal to the revolutionary ranks⁸. But it was never the subject of debate outside elite circles, and then only in general terms. After 2002, the dangers it posed to the IRI necessitated compromises, which were approved by all factions. These were later criticized as though they were only due to the pusillanimity of the reformists, to their policy of "retreat" and

surrender in Khāmene'i's terms (2008) rather than the decision of the Supreme Leader himself.

But it was Ahmadinejad who in 2005 politicized the nuclear issue. By appropriating an inherited program, claiming it as his own, and depicting his predecessors as 'capitulationists', he 'factionalized' the issue, seeking to use it in order to discredit his opponents. At the same time by raising the issue during his provincial tours, sloganeering about Iran's "nuclear rights", by putting out stamps bearing the likeness of Natanz, and by declaring a "nuclear awareness day", he followed a brand of nuclear populism that would at once reduce the scope for eventual compromise and inflate the issue to a near-existential one. In this he was supported by Khāmene'i whose hatred of the reformists (who had more or less directly called into question the need for an unelected Supreme Leader) became even clearer in 2009 when he called Ahmadinejad's 'election' a "blessing."

The narrative of the nuclear issue approved by the Supreme Leader and propagated by Ahmadinejad, became one in which Iran was being denied its nuclear "rights." This was only being made an issue as an excuse to keep the IRI underdeveloped, to prevent its progress in science and technology, and to ensure its dependence on others. This policy of denial (according to this narrative) is consistent with the West's double standards, its 'selective proliferation' and its hostility toward the Islamic Republic. Iran, as the aggrieved party, must insist on its rights, eschew any faint-hearted suggestions at compromise, and resist pressure and sanctions as the inevitable price to be paid for being independent. In this telling Iran's "strategic defiance" is a model for others and a source of pride for the nation. It is a test of the nation's resilience and must be pursued whatever the cost. Any compromise on this issue will inevitably (it is further argued) lead to more far-reaching demands and will, via 'slippery slope', lead to the end of the IRI. Compromise is thus the entry point for more and escalating demands, while negotiations are only a trick to start this process.

⁶ "The Iranian Nuclear Riddle after June 12", *The Washington Quarterly*, January 2010 (Vol. 33, No.1), pp. 163-172

⁷ Patrick Clawson, "Much Traction from Measured Steps", *Policy Focus* 100, (Washington Institute for Near East Policy, Jan. 2010), p. 8

⁸ See this author's "Does Iran Want Nuclear Weapons?", *Survival*, Spring 1995 (Vol. 37, No.1) pp. 86-104.

This narrative has clear advantages: it stigmatizes the moderates as defeatists and traitors⁹, as insufficiently supportive of the IRI. It marginalizes foes and re-energizes the flagging momentum of the revolution. It could direct attention to foreign threats and explain economic failure and justify repression. It could also serve to mobilize a new generation behind the revolution's original goals.

The moderates, or reformists, have had a harder time, necessarily being on the defensive. If (as I have argued elsewhere) the default setting of the IRI is hard-line, their appeal to sweet reason is an uphill struggle. Reformists have not been able to argue for compromise or for suspending Iran's rights without appearing less patriotic than the hardliners. For the same reason, they cannot call into question the direction of the nuclear program. Criticism has had to focus on the way policy has been conducted: that it has been too centralized; that not enough people have been consulted; that it has been too confrontational and hence unnecessarily *costly* in terms of sanctions; that policy, in short, has been provocative and hence *endangers* the system (*Nezam*).¹⁰

These criticisms run the danger of appearing like "me-tooism" rather than tackling the real issue: the headlong rush to acquire highly enriched uranium, which is not called for on technical, political or strategic grounds. Since this cannot be mooted publicly, reformists' criticisms look to for-

eigners as simply a difference in emphasis or style rather than of substance.

The issue between the international community (UNSC) and Iran basically revolves around how to reassure the former about the intentions of the latter. This is necessarily complicated as "intentions" cannot be quantified and, where distrust exists, intentions and capabilities become entangled. For Iran, the issue can be reduced to this: is it willing to suspend/freeze its enrichment activities for a finite period and provide access to its sites in order to reassure the international community about its intentions?¹¹ In theory this should not be impossible, with a certain amount of goodwill and transparency. But neither exists in Ahmadinejad's Iran. While the reformists have been willing to try this route, Ahmadinejad has argued that defiance pays off, pointing to the experience of his predecessors, who returned empty handed. It is certainly the case that Europeans saw little difference between the reformists and their hard-line successors. The U.S., by publishing its 2007 National Intelligence Estimate (and by refuting allegations of a related nuclear weapons program), also did the Iranian critics of Ahmadinejad's policies who pointed to its dangers no favors.

It is worth emphasizing then that the issue of Iran's nuclear program is not *whether* Iran has a right to a nuclear program but rather *what* nuclear program Iran can reasonably pursue with what *reassurances* about its peaceful intent? The regime has depicted its refusal to consider an enrichment freeze as Iran's standing up for its rights, and even as a question of regime survival.¹² Its policy seems to be based on 'playing for time' and creating a *fait accompli* when it comes to mastering the nuclear fuel cycle.

Criticism of the nuclear program, as such, does not exist in Iran. No one *today* asks whether Iran needs nuclear energy, questions the economics of nuclear energy or the life cycle costs of this energy, or discusses alternative energy strategies.¹³ The regime has managed to define the issue

⁹ Hence knowledgeable domestic critics can be intimidated or imprisoned for treason, as was Hossein Mousavian a former negotiator.

¹⁰ By the same token critics of the policy can hardly welcome sanctions however much they predicted them and see them as inevitable given Ahmadinejad's behavior.

¹¹ For the international community the question is whether there are benchmarks and technologies that could reassure it about Iran's program, other than seeking a complete, permanent freeze?

¹² See *inter alia* the Supreme Leader, on November 4, 2009, who depicted Western concern about repression in Iran as a way of pressuring Iran on the nuclear issue; Larijani, October 24, 2009, who argued that negotiations were intended to undermine Iran's 'rights'; and Ahmadinejad, June 4, 2010, "we are standing to defend the rights of the nation".

¹³ Some of these questions were asked earlier, before the appearance of Ahmadinejad and the instrumentalization of the issue for domestic political ends. See this author's *Iran's Nuclear Ambitions* (Washington DC: Carnegie Endowment for International Peace, 2006)

according to the narrative it has chosen: Iran as a victim being denied access to technology, necessary for development, by states hostile to the IRI. The second part of the narrative is one in which Iran's rights are endangered by weak willed people who could be the agents of foreign powers (i.e. reformists).¹⁴ It should not occasion surprise that those skeptical of the nuclear program do not voice their criticisms openly.

Instead, critics of the program put it in perspective: in relation to other goals; in relation the price paid for it; and in terms of relations with the outside world and the effect on Iran's 'reputation'. Without direct criticism of the overall nuclear program, the critique is *generally* couched in terms of the price paid for insistence on enrichment; of the nature of decision making related to the nuclear program, which is excessively centralized and personalized and in terms of the reckless foreign policy it represents.

However, there are occasional courageous voices directly refuting the official narrative as "false:"

As opposed [to] what some of our authorities propagate, the discussion is not that the West desires to create obstacles in the path of Iran achieving advanced technology. The discussion is about the West having problems with the issue of enrichment. The various pressures imposed on upon the Islamic Republic in the shape of sanctions aim to prevent the Islamic Republic from achieving enrichment technology...

Now one must ask the question: is achieving enrichment technology worth paying this heavy price or not? In my

opinion the answer to this question is negative. But some others —for reasons of their own— believe that we must master enrichment technology, and pay whatever price or this issue.

The late Grand Ayatollah Hossein-Ali Montazeri, with characteristic bluntness argued that no one denied the right of the Iranian people to peaceful nuclear development... "But let me ask the President if he thinks the people of Iran have other rights and ones that are much less costly and easier to grant?"

Despite the Supreme Leader's explicit support, of Ahmadinejad's nuclear policy, none of the other presidential candidates of very mixed —though establishment— backgrounds, Mir Hossein Mousavi, Mohsen Reza'i, and Mehdi Karrubi, supported it. Indeed, they went out of their way to repudiate it and to suggest that Ahmadinejad's policy had tarnished Iran's image in the world and that more effort should be made to meet international concerns.

Oblique criticism of current policy focuses on the controversial president not on Iran's "rights". With the regime alarmed by domestic opposition since June 2009, the scope for debate has further eroded. At the same time as new sanctions take their toll, the costs of the program will continue to be an issue that cannot easily be suppressed, providing the president's foes with more ammunition.

¹⁴ See Sadegh Zibakalam, "Israel and the NPT", *Bitter Lemons*, Ed.14, Vol.8, June 24, 2010.

¹⁵ Identified as a "respected analyst" (Zibakalam?) *Iran News Roundup* (Ali Alfoneh), AEI, Wednesday Tir 9, 1389/June 25, 2010.

¹⁶ Quoted in Said Amir Arjomand, *After Khomeini: Iran Under His Successors* (New York: Oxford, 2009) p.244. Montazeri categorically opposed the development of nuclear weapons, see Patrick Clawson (WINEP) *Policy Focus* 100, 2010, p.11

¹⁷ For sources and citations see this author's "The Iranian Nuclear Riddle after June 12" *Washington Quarterly* Jan 2010 (vol.33, no.1) pp. 163-172

June 2009 and Aftermath

The June election and aftermath was a watershed in the history of the Islamic Republic. For the first time, major differences surfaced in the very center of the state and elite polarization reflected societal divisions. As the Supreme Leader became a partisan of one tendency, forfeiting his role as arbiter, criticism *within* the system became criticism *of* the system, questioning whether its reform was possible or even desirable. As the more moderate elements, reformists and greens, were politically, if not physically, eliminated, the political arena was left to the conservatives often differentiated by the terms “principalists” (Ahmadinejad) and his putative allies in the IRGC/*Basij* and “pragmatic conservatives” (Larijani, Teheran Mayor Mohammed-Baghar Ghalibaf and others); (Reza’i and Rafsanjānī resist easy labeling). The rivalry among these elements was all the more bitter for being personal, and opportunism played a major role in, for example, Larijani’s use of the *Majles* to oppose Ahmadinejad.

An important question in the aftermath of June 2009 is whether Iran is more willing (or able) to reach an agreement on the nuclear issue, to deflect pressure and attention from the domestic crisis, or less? The answer to this ques-

tion is not clear and the indications to date are mixed. On the one hand, after the elections the nuclear issue became more important, if only because it was the centerpiece of the president’s foreign policy. Ahmadinejad’s attempt to reach an agreement with the West in October 2009 to swap low enriched for highly-enriched uranium usable in Tehran’s research reactor, which could have been a confidence building measure, was sabotaged by the president’s domestic critics who now assumed a harder line, outflanking him on the right and making it impossible for him to take the credit for any breakthroughs on that front.

On the other hand, as sanctions have begun to take the toll, Iran with reduced oil revenues, faces a fractious populace and an uncertain future. Some have argued that the cumulative effect of these pressures may be leading to a revision of the view that enrichment should be pursued at any cost, resulting in a convergence of the hard-line view with that of the more moderates.¹⁸ But arguing against this is the new coalition supporting Ahmadinejad, the “principalists”—and perhaps especially the IRGC—who may be unwilling to compromise on the nuclear issue.¹⁹ The issue having become a ‘popular’ national one, may be more resistant to political zigzags.

Even if Ahmadinejad’s constituency is supportive, there are indications that others would resist compromise, arguing that Iran could have held out for a better deal. At the same time Ahmadinejad will find it difficult to escape the charge of mismanagement of the economy. Thus, unless he is offered a compelling ‘deal’, Ahmadinejad may have few alternatives and be tempted to continue ‘full speed ahead’ with enrichment (technical hitches permitting, that is).

In the face of faltering legitimacy,²⁰ there may be a temptation to once again/continue to hype the nuclear program for domestic political purposes. One need only look to neighboring Pakistan to see how this is done. With the substitution of Iran for Pakistan the speech below bears a strik-

¹⁸ Sadegh Zibakalam principally see <http://www.parlemannews.ir/?n=10990> (in Persian) May 5, 2010; see also, Farideh Farhi “Talk of a Nuclear Deal Gains Steam in Iran” <http://www.ipsnews.net/news.asp?idnews=51393> May 11, 2010; and Farhi interview with Bernard Gwertzman, Council of Foreign Relations, “Shifts in Iran Nuclear Policy” http://www.cfr.org/publication/22171/shifts_in_iran_on_nuclear_policy.html?, May 20, 2010.

¹⁹ Some argue that this issue is the only one that binds the President, Guards and Supreme Leader. See Camelia Entekhabi-Fard, “A Year Has Passed Since Iran’s Controversial Election” <http://www.huffingtonpost.com/camelia-entekhabifard/a-year-has-passed-since-16593941.html> (June 1, 2010).

²⁰ One expert refers to the “chronic crises of legitimacy and representation” which has seen the regime, “despite its Pan-Islamic rhetoric” not only come to terms with Iranian nationalism “but to appropriate it...” In addition, the author notes the crisis of authority and its “dwindling” ideological power. Fakhreddin Azimi, *The Quest for Democracy in Iran* (Cambridge, MA: Harvard University Press, 2008) pp.429, 431, 435.

²¹ Speech by General Pervez Musharraf in honor of Dr. Abdul Qadeer Khan cited in Gordon Corraer *Shopping for Bombs* (New York: Oxford, 2006) p.150

ing resemblance to one that Ahmadinejad might make:

In a general sea of disappointments, the development of [Pakistan's] nuclear capability is a unique national success story.

It is a story of selfless devotion, unbridled dedication, scientific brilliance, technological mastery and above all, supreme patriotism and religious fervor of thousands of silent workers. These men of science, these *Mujahids*, have put [Pakistan] in the exclusive nuclear club. They have made Islamic nations proud.

Since June 2009, the nuclear program has assumed more domestic importance for the regime's legitimacy and symbolic importance as the one thing that it can deliver.²² Any government in power when Iran crosses the nuclear threshold, or achieves an identifiable nuclear status, will surely be in a position to profit politically thereby. The question then is whether Iran's program will see fruition before 2014, when Ahmadinejad's term expires or will it be left as a legacy for his successor?

Western Policy and Outlook

Western policy has focused on the nuclear issue slighting the other issues animating Iranian society, including the quest for an indigenous form of democracy, a representative government and the rule of law, reflecting a plural society, social justice, and a culture that incorporates secular and religious components in its identity. These projects admittedly are for Iranians not the West and there can be no guarantee that they will be achieved soon or at all. Serious divisions exist in the country on all of these subjects (republic versus Islamic? state-centered or free market? Etc. etc.) and any representative government will need to bridge these differences and appeal to all constituencies.

Just as important, differences exist and have existed on

Iran's foreign policy. It is clear to many that the regime continues to use foreign policy to buttress the revolution at home and to justify its control of society by reference to foreign threats and pressures. The nuclear program and policy is an extension of this; justified by Iran's beleaguered and embattled status, a condition of its own making and choice. Normalization of international relations would call into question the system of para-statal foundations and the entire patronage system of the regime that is increasingly centered on the IRGC.

Left to itself, these divisions in Iran will grow and the anomalies will deepen. Sanctions, which squeeze are more effective than threats which galvanize and unify. Ahmadinejad might be looking for a tactical agreement with the West to alleviate the pressures at home. When conservatives hint at impeaching the president, who is seen as divisive and dictatorial, the president is faced with a two front war. At the same time, the Green Movement, using code words depicting a very different approach, refer to a foreign policy that is "rational" and "transparent" and which favors "dialogue and diplomacy over adventurism" and "chicanery."²³

A different government in Iran might find, as Khātāmī did, that it cannot control the security services or determine the security policy of the state. It may indeed be as former prime minister Mehdi Bazargan said in 1980, a "knife without a blade." It may be that Iran is tending towards a "security state" that will repress those seeking a foreign policy based more on national interest, dialog and diplomacy, which embraces interdependence and pragmatically seeks ties with all states. If so, its days are numbered. The

²² As argued by an Arab observer, Mustafa el-Labbad, cited in Michael Slackman "Iran Boasts of Capacity to Make Bomb Fuel" *New York Times*, February 12, 2010.

²³ See respectively Michael Theodoulou & Maryam Sinaee, "Iran's President Now Under Attack by Hardliners", *The National*, (Abu Dhabi) August 1, 2010 in <http://www.thenational.ae/apps/pbcs.dll/article?AID=/20100802/FOREIGN/708019834/1011/rss> and Hossein Mousavi, Covenant of the Green Movement June 15, 2010.

regime today is a revolutionary one superimposed on a post-revolutionary society. There cannot be much mileage left in this model.

Iran's nuclear program may stall and be delayed and the drive for it may lapse. If this can be achieved by negotiation or sanctions, then so much the better. An attack on Iran would strengthen the forces opposed to normalization of international relations and would weaken those I have called moderates. It would set back the date of an eventual normalization of relations with the West even further.

In trying to prevent the emergence of a nuclear Iran, it is important to recognize that there are various shades to Iran's political spectrum. There are those who seek a nuclear weapons capability to confront the West. There are others who might seek a capability for "civilizational" reasons. There are still others who might be content with an international / multinational fuel cycle center. It does make a difference who is in charge in Iran, and Western policy should make a sustained effort to bear the domestic ramifications of its policies in mind, playing intelligently on these differences (as it has begun to do).

To avoid self-fulfilling prophecies, we need to consider the possibility that even a post-nuclear Iran may nonetheless change for the better, and that it is in our interest to make sure that those who do come to power have retained their inclination for moderation.

IRAN AND INTERNATIONAL SANCTIONS: ELEMENTS OF WEAKNESS AND RESILIENCE

Keith Crane

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The Problem

Iran has created nuclear fuel enrichment capabilities that are in violation of its agreements with the International Atomic Energy Agency (IAEA) under the Nuclear Non-Proliferation Treaty. The program makes it possible for Iran to enrich uranium to the point that it could be used to build nuclear weapons.

The United States, France, Germany, and the United Kingdom with the periodic acquiescence of Russia and China have taken the lead in attempting to convince Iran to abandon its nuclear enrichment program through negotiations and sanctions. Because negotiations or offers of negotiations have failed to halt enrichment activities, the international community through the United Nations (UN) has imposed a number of sanctions on Iran in an effort to convince the Iranian government to change its policies. In addition, the United States, Canada, Japan, and a number of European states have attempted to dissuade Iran from pursuing enrichment by imposing additional sanctions. This paper briefly reviews these sanctions, describes the extent to which Iran might be vulnerable to these sanctions, and evaluates the potential effectiveness of the sanctions.

Sanctions

UN Sanctions

The United Nations (UN) has been the primary venue through which countries attempting to curb the Iranian nuclear program through sanctions have directed their efforts. The United States, Canada, Japan, the more powerful European countries, and less overtly, some of Iran's neighbors have worked through the UN Security Council to impose sanctions on Iran. The first set of sanctions, mandated by UN Security Council Resolution (UNSCR) No. 1737, passed in December 2007, block the import and export of "sensitive nuclear material and equipment" from and to Iran.¹ These include the sale of dual use equipment or technologies that might be useful in Iran's enrichment programs or in potential programs to develop and manufacture more sophisticated weapons. A lengthy list of materials and equipment of prohibited items has been developed. A second set of sanctions, mandated by UNSCR No. 1747, passed in March 2007, calls on member states to freeze the assets of specified people and institutions involved in Iran's nuclear program.² It also calls on member states to refuse entry to Iranians listed as being involved in Iran's nuclear program.

Resolution 1803 passed in March 2008 calls on member states to scrutinize the financial dealings of Iranian banks to ensure that these banks are not involved in financing trade or other financial activities pertaining to Iran's nuclear program.³ The resolution also calls upon countries to inspect cargo planes and ships entering or leaving Iran if there are „reasonable grounds“ to believe they are carrying goods prohibited by previous resolutions.

In June 2010, the Security Council approved Resolution 1929.⁴ The resolution prohibits Iran from buying heavy weapons such as attack helicopters and missiles. It also toughens rules on financial transactions with Iranian banks and increases the number of Iranian individuals and companies whose assets are to be frozen. Sanctioned Iranian institutions include Iranian banks controlled by the government or by the Iranian Revolutionary Guard Corps (IRGC) and companies engaged in enrichment activities. More Iranians were added to the list of those who are to be banned from travelling to member states. The resolution also creates a new framework for inspecting cargos so as to detect and stop Iran's acquisition of illicit materials. As part of this framework, resolution 1929 created a monitoring committee that includes a panel of experts that will name and shame violating countries.

U.S. Sanctions

Since the overthrow of the Shah of Iran and the occupation of the U.S. Embassy in Tehran, the United States has imposed a number of economic sanctions on Iran. It has forbidden the export of a number of U.S. owned or manufactured technologies, parts, components, and equipment to Iran, including replacement parts for Iran's civil aircraft, which were purchased from Boeing. The United States also prohibits the import of oil from Iran.

In 1996, the United States Congress passed the Iran–Libya

¹ United Nations, UN Disarmament Yearbook, Volume 33, Part II, New York, New York, 2008, <http://www.un.org/disarmament/HomePage/ODAPublications/Yearbook/2006/PDF/DY2008.pdf>

² United Nations, UN Disarmament Yearbook, New York, New York, Volume 33, Part II, 2008, <http://www.un.org/disarmament/HomePage/ODAPublications/Yearbook/2006/PDF/DY2008.pdf>

³ United Nations, UN Disarmament Yearbook, New York, New York, Volume 33, Part II, 2008, <http://www.un.org/disarmament/HomePage/ODAPublications/Yearbook/2006/PDF/DY2008.pdf>

⁴ United Nations, "Security Council Imposes Additional Sanctions on Iran, Voting 12 in Favour to 2 Against, with Abstention, <http://www.un.org/News/Press/docs/2010/sc9948.doc.htm>.

⁵ "Iran and Libya Sanctions Act of 1996", Congressional Record, June 18, 1996, http://www.fas.org/irp/congress/1996_cr/h960618b.htm.

Sanctions Act (ILSA).⁵ Under ILSA, all foreign companies that invest over \$20 million in the development of oil in Iran face may suffer two out of seven possible penalties to be imposed by the United States:

1. Companies may be denied credits and other assistance provided by the Export-Import Bank of the United States;
2. Companies may be denied licenses needed for the export of products containing regulated components or goods produced within the United States or produced under patents or licenses owned by U.S. companies. Under this provision, the United States maintains publicly available lists of known or suspected illicit traders who are to be denied export licenses.
3. Offending companies are barred from obtaining loans or credits from U.S. financial institutions of over \$10 million in any 12-month period;
4. Financial institutions in violation of the law are prohibited from being designated as a primary dealer in U.S. government debt instruments;
5. Offending financial institutions are prohibited from serving as an agent of the United States or as a repository for U.S. government funds;
6. Consistent with U.S. obligations under the World Trade Organization, offending companies may be denied the opportunity to bid on U.S. government requests for procurement of goods and services; and
7. The U.S. government may ban all or some imports into the United States from the violating company.

In addition, Iranian financial institutions are barred from directly accessing the U.S. financial system, although they had been permitted to do so indirectly through banks in other countries until more recently. In September 2006, the U.S. government imposed sanctions on Bank Saderat Iran, barring it from dealing with U.S. financial institutions, even indirectly, because the bank transferred funds for groups deemed to be terrorist organizations, most notably Hezbollah. In November 2007, the United States

prohibited several other Iranian banks from transferring money to or from United States banks, including Bank Sepah, Bank Melli Iran, Kargosa'i Bank, and Arian Bank.

The U.S. Congress has passed a bill barring the sale of gasoline and other refined oil products to Iran.⁶ This bill penalizes foreign companies that do business with the United States who sell these products to Iran.

European Sanctions

European countries and the European Union have both enforced and also imposed sanctions above and beyond those called for by the UN. Following the passage of UNSCR No. 1747, the EU imposed a travel ban on some 20 Iranian citizens and 15 companies. In June 2010, the EU approved a number of additional financial and travel restrictions on several of Iranian companies and financial institutions and Iranian experts identified as being involved in the country's nuclear program. The EU also shut down branches of Bank of Melli's in Paris and Hamburg and Melli Bank PLC in London. The bank was accused of being involved in business transactions related to Iran's nuclear program.

⁶ Susan Cornwell and Tom Doggett, "Provisions of US Congress Iran Sanctions Bills," Reuters, March 22, 2010, <http://www.alertnet.org/thenews/newsdesk/N22197803.htm>.

Iranian Vulnerabilities

Economic Vulnerabilities

The Iranian economy performed well over the last decade on the back of rising global oil prices. Between 2000 and 2009, the economy grew at an average annual rate of 5.6 percent of GDP. Economic growth slowed sharply in 2009 and 2010 due to lower oil prices and more difficult financial conditions. It is expected to accelerate slightly over the next few years to 3.2 percent per year.⁷

Iran has the second largest economy in the Middle East after Saudi Arabia's. It has a more diverse economic base than many of its oil-exporting Middle East peers: it is the region's largest steel and motor vehicle producer (16th globally). Iran's service sector is the largest contributor to GDP at 45 percent, followed by the industrial sector (oil, gas, petrochemicals, steel, textiles and automotive) at 44 percent and the agricultural sector at 11 percent. Agriculture remains Iran's largest employer, even though it accounts for a modest share of output.

The Iranian government is an active participant in all these economic sectors; either, directly through state owned enterprises or indirectly through entities like the *bonyads*, nominally charitable organizations controlled by the religious establishment, and through companies controlled by the Iranian Revolutionary Guards Corps.⁸ Favored companies, primarily those owned by the state or by *bonyads*, benefit from loans provided at below market-rate interest rates. The primary purpose of the *bonyads* is to protect the interests of the regime by controlling key parts of the economy.

Employment and incomes have risen sharply since 1998. However, rising oil prices were not the only source of economic growth. Economic policy changes under the Khā-

tamī government, like the unification of the exchange rate and the relaxation of import barriers, contributed to rising output and employment in trade and manufacturing.

The current slowdown is not only due to the aftermath of the global recession and lower oil prices, but also to Ahmadinejad's unwillingness to continue to liberalize the economy. The preferences his regime gives government-affiliated or otherwise favored companies has also slowed growth.

Inflation has been stubbornly high, running in double digits, the highest in the Gulf region until 2009 when it fell to 7 percent due to lower prices on global commodity markets and tighter monetary policies. The Iranian government continues to pressure the central bank to provide favored companies with loans at below market interest rates. Failure to adopt more prudent monetary policies will result in resurgence in inflation, slower growth, and most likely greater dissatisfaction with the regime.

The number of young people entering the labor market has risen by four-fifths over the last two decades and is at an all-time high. The stultifying effects of regulation; government control; and the corruption that characterizes Iran's bureaucratic, state-run economic system have greatly reduced employment opportunities for Iranian youth. The Iranian government faces strong pressures to generate employment for these children of the 1980s population boom. The highly skewed distribution of wealth in Iran reflects massive corruption. Despite his rhetoric, Ahmadinejad is unlikely to successfully reduce corruption because he is loath to change the factors that foster it: price controls, state ownership of major companies and assets, complicated regulations, lack of oversight of government contracting, etc.

⁷ International Monetary Fund, Islamic Republic of Iran, 2009 Article IV Consultation, IMF Country Report 10/74, March 2010, p. 11.

⁸ *Bonyad* is the Persian word for conglomerate; they operate as foundations. *Bonyads* were set up after the Iranian revolution as holding companies for nationalized companies and assets. Managers of *bonyads* report directly to the Supreme leader.

Iranian Government Revenue Vulnerabilities

Like other oil exporters, the Iranian regime has benefited from increased revenues stemming from high oil prices on the world market. Although non-oil sectors loom larger in gross domestic product, oil remains a crucial source of budgetary revenue and exports. Oil exports account for 65 percent of government revenues and oil, gas, and refined petroleum products account for 74 percent of exports.⁹ Because of higher oil prices in this decade than the last, the Iranian government has been running modest budget surpluses. However, these surpluses turned into a deficit in 2009, as Iran needed a price of \$90 per barrel to balance its budget at budgeted spending levels.

Iran has also enjoyed large current account surpluses. Foreign exchange reserves have run about \$80 billion in recent years, equivalent to a year of imports. As a consequence of international financial sanctions, Iran has used its large current account surpluses to reduce its gross debt, which now runs an estimated \$20 billion. Iran's low level of foreign debt and large reserves have greatly reduced Iran's vulnerabilities to balance of payments pressures.

Both the Iranian government's budget revenues and Iran's ability to manage its balance of payments effectively depend on continued exports of oil. Iran is in no danger of

running out of either oil or natural gas: As of January 1, 2007, Iran was estimated to have 136 billion barrels in reserves, 10.3 percent of the global total. This level puts Iran in third place in the world; following Saudi Arabia and Canada (the Canadian figure includes tar sands). At current rates of production, Iran's oil reserves will last over 80 years; and natural gas reserves would last over a century. Despite the size of its oil reserves, Iran has been unable to sustain production levels. Since 2005, when production hit 4.2 million barrels per day (mbd), oil output has fallen as depletion rates of 8 to 10 percent in existing fields have not been offset by output from new fields or enhanced recovery techniques. The International Monetary Fund in consultation with the Iranian government projects output of 3.7 mbd over the coming decades, constraining budgetary and export earnings.

Iranian Government Budgetary Vulnerabilities

The Iranian government controls prices on retail sales of sugar, milk, cheese, rice, vegetable oil and gasoline and wholesale sales of fertilizer and wheat.¹⁰ The reduced price is justified as a means of promoting social equity, or in the case of gasoline, spreading the benefits of Iran's oil wealth to the population. The IMF estimates that in 2007 total subsidies, explicit and implicit,¹¹ ran \$77 billion, 27 percent of Iran's GDP.¹² Revising Iranian government budget accounts to take into account the value of the subsidies in terms of foregone revenue, these subsidies would have been equivalent to 42 percent of Iranian budget expenditures in 2007.¹³ Subsidies of this magnitude introduce very large distortions into the Iranian economy, diverting government revenues from public investment, social expenditures, public services, and better targeted efforts to alleviate the condition of the poor.

Explicit subsidies, that is subsidies that were paid directly from government funds, formed a small part of the total.

⁹ International Monetary Fund, Islamic Republic of Iran, 2009 Article IV Consultation, IMF Country Report 10/74, March 2010.

¹⁰ International Monetary Fund, Islamic Republic of Iran: Selected Issues, IMF Country Report No. 08/285, August 2008, p.25.

¹¹ Implicit subsidies do not involve cash transfers. They arise when an unfunded mandate is imposed by the government (central, sub-national, or local) on producers to provide goods or services at prices below the opportunity cost of the product: that is, what the seller would have received had the seller been free to sell the good on the open market or export it. The most common implicit subsidies arise from administrative controls, such as price, interest rate and exchange rate controls, regulations, and production quotas.

¹² Calculated from data from International Monetary Fund, Islamic Republic of Iran: Selected Issues, IMF Country Report No. 08/285, August 2008.

¹³ Author's calculations.

In 2007, they cost the Iranian government \$14.4 billion (17 percent of budget expenditures) or 4.9 percent of GDP, of which \$6.3 billion, or 2.2 percent of GDP, consisted of explicit government subsidies for imports of gasoline. As a share of GDP, Iran's non-gasoline subsidies, 2.7 percent in 2007, have remained more or less stable over the last several years. Iranian government expenditures on explicit subsidies are similar to expenditures by other oil-producing countries and are well below Kuwait's level of 12.9 percent of GDP.

However, the opportunity cost of controlled prices on gasoline is very large. Currently, subsidized gasoline costs 1,000 rials a liter in Iran, roughly \$0.10 per liter. In comparison, Singapore spot market prices for gasoline run about \$0.66 a liter when oil is sold for \$67 as barrel, roughly the price that Iranian oil is sold at on world markets as of this writing. In other words, the implicit subsidy for gasoline that is refined and sold domestically runs about \$0.56 a liter.

In the case of gasoline, the government sets the retail price and commands the Iranian National Oil Company (INOC) to either provide gasoline from its own refinery operations or import gasoline from international (primarily Gulf) markets, and to sell that gasoline at a price fixed by the state. In the case of imported gasoline, the government provides an explicit subsidy by compensating INOC for the difference between the purchase price of the imported gasoline and the domestic price. However, the government does not compensate INOC for the difference between what INOC would get on international markets for its gasoline and other refined oil products and the controlled, government-set price. Although INOC ostensibly bears this cost, the costs are actually born by the government in the form of lower revenues from INOC.

Because gasoline and other refined oil product prices are fixed, when world market prices for refined oil products rise, so does the subsidy. For example, when wholesale prices of gasoline in the Gulf rose sharply in 2008, Iran incurred substantially higher costs for subsidizing gasoline. However, simultaneously, the Iranian government benefited from increased revenues from higher prices of oil. The opportunity cost to the Iranian government for the gasoline subsidy rose sharply between 2000 and 2008 as domestic consumption increased at the same time as oil prices rose on international markets. Due to higher demand and limitations on domestic refining capacity, Iran has increased imports of gasoline to satisfy subsidized domestic demand.

The low cost of gasoline and other forms of energy has resulted in rapid increases in demand. Energy demand has been increasing more rapidly than per capita income, in contrast to most developing and developed countries. Demand for gasoline grew at 9 percent per year between 1997 and 2006, more than twice as fast as growth in per capita GDP.¹⁴ Consequently, Iran's domestic energy use is very high compared to other countries. Rapid increases in demand for refined oil products at a time of declining production risk putting Iran into an unsustainable position in terms of its budget and balance of payments.

In October 2009, the Iranian parliament approved a bill to increase energy prices and phase out subsidies on several commodities and services. Energy prices, including gasoline, are to be gradually raised to the level of wholesale prices in the Gulf. The government plans to compensate poorer Iranians with income supports and other measures to cushion the impact of the increases.¹⁵ If this change in policy is implemented, Iran would go far to rectify its current vulnerabilities to falling oil production while demand for energy rises.

¹⁴ International Monetary Fund, Islamic Republic of Iran: Selected Issues, IMF Country Report No. 10/76, March 2010, p. 2.

¹⁵ "Iranians Struggling, Face Cut in Fuel Subsidy," International Herald Tribune, Tuesday, October 13, 2009, p. 8.

How Effective are Sanctions Likely to Be?

Trade Restrictions

Embargoes on Dual-Use Technologies. Based on reports from countries that have had clandestine nuclear weapons programs, like Pakistan and Libya, embargoes on dual use technologies can be effective in derailing imports of high quality materials and machinery and equipment is specifically designed or needed for nuclear enrichment. For more generic machinery and equipment, such controls are unlikely to be successful because of the very wide range of suppliers and extensive trade in these products.

Economic sanctions only bite if they are enforced. Until recently, trade sanctions against Iran on dual use technologies have reportedly been undermined by lack of enforcement. The latest round of UN sanctions includes end-use verification programs. Under the new rules, the legitimacy of the purchaser of all high-risk dual-use goods and technology must be verified before the government of the exporter may approve the export. The exporting country must physically inspect the facilities of the purchaser in the recipient country. Purchasers must also be checked against lists of known proliferators. In the case of equipment from the United States, U.S. law enforcement personnel are to work with host-country counterparts to conduct in-person visits to ensure that end-users do in fact have a legitimate need for the goods in question.

Hundreds of dual-use goods are traded widely. Comprehensive physical verification of those widely traded goods is infeasible because of resource constraints. The United States and the European Union have discussed focusing inspections on the highest-risk goods. This list would be regularly updated, and all items subject to full inspection. To ease the burden of inspections, the U.S. government is seeking to amend U.S. export laws so that sales to pur-

chasers in the European Union would not need to be inspected, reducing the burden of obtaining licenses for American manufactured goods bound for the European Union under the understanding that the EU would closely monitor re-exports of these items.

The United States is also pressuring transit hubs (Dubai and other ports in the United Arab Emirates, Singapore, and Malaysian ports) that are of most importance for the supply of imported goods to Iran to tighten controls through more rigorous inspections and verification of the final purchaser.

In the case of Iran, dual use technology export embargoes are likely to slow the development of its nuclear fuel enrichment facilities. However, based on the success that Iran has had in building up these industries, it is doubtful that the embargo will be able to halt the program

Embargoes on Oil and Gas Equipment. The Iranian government had planned to construct two liquid natural gas trains in the Persian Gulf to liquefy gas from the South Pars field for export. The Iranians had hoped that these projects would come on line by 2010. Phase 14 of the South Pars development plan had also called for the construction of a facility to transform natural gas directly to diesel fuel, similar to on-going projects in Qatar.

These projects have not come to fruition. Because the technologies involved are expensive and technologically challenging, Iran would need a major Western oil partner to provide the technological and management expertise to build these facilities. U.S. and international sanctions, the poor climate for foreign investment in Iran, and the difficulties foreign oil companies have had resolving contractual disputes with the Iranian National Oil Company (INOC) with current projects have stopped these projects for the time being. In light of the Iranian government's need to develop new sources of energy for export, these sanctions have successfully reduced future Iranian rev-

venues from exports of natural gas.

Sanctions on oil drilling technologies have had much less of effect on Iran's capacity to develop new fields. Many technologies are widespread, INOC has a workforce of capable petroleum engineers, and companies with technological capabilities that Iran lacks are headquartered in countries like China, Russia, and Arab producers willing to sell these services to Iran.

An Embargo on Gasoline Exports to Iran.

Some commentators and U.S. representatives have seen Iran's reliance on imports of gasoline to satisfy domestic demand as an exploitable economic vulnerability. They argue that a global embargo on exports of gasoline to Iran to sanction its nuclear program might lead to a change in Iranian policy as shortages of gasoline might exacerbate opposition to the Iranian regime.

A global embargo on exports of gasoline to Iran would probably be impossible to enforce and probably would be counterproductive. As noted above, Iran is an inefficient user of its oil wealth. It squanders a very large share of its GDP on subsidies on gasoline. Not surprisingly, at current prices, Iranians are not frugal with gasoline use. Cars are inefficient and elective trips (joy riding in large cities) account for a much higher share of trips than in countries with similar standards of living.

Past Iranian attempts to reduce or eliminate subsidies have been tentative; in 2008 they met with demonstrations and rioting. However, since the times of the Romans, governments have had to raise prices on subsidized items. In some instances, these increases have been marked by widespread civil disobedience, but usually only in very few circumstances has a confluence of events led to a change in regime following price increases. When price increases

are seen as being forced by outsiders, people's natural dislike of higher prices is usually transferred to the party responsible for the embargo, not the local political leadership. Consequently, an embargo on exports gasoline and other refined product sales to Iran may do the current Iranian leadership a favor by permitting it to implement a long overdue policy change while blaming the international community for the change. If the recent policy change to raise energy prices is implemented, more government funds will be available for public investment and targeting subsidies to the poor. Additional funds could also be used for the uranium enrichment program.

Financial Sanctions

As noted above, Iran has sharply reduced its outstanding gross debt. Although one could argue that the decision to reduce this debt was Iran's, the decision was driven by the perception on the part of Iranian policymakers that Iran could be vulnerable to international financial sanctions. Anecdotal evidence suggests that financial sanctions have dramatically reduced Iran's capacity to borrow on international markets. Reports from the international banking community and statements by Iranian bankers and businesses suggest that sanctions have made it more difficult to get trade credits.

This said, as long as Iran is a major exporter of crude oil, it is highly unlikely that it will not be able to obtain short-term finance or in the worst case arrange for its own banks to draw on reserves so as to provide trade finance. However, financial sanctions have made Iran pay a price for its nuclear fuel enrichment program in the form of slower rates of capital formation and lower rates of growth because of limitations on access to international financial markets.

Sanctions on Travel

Anecdotal evidence suggests that Iranians subject to restrictions on international travel find the restrictions irritating. Politically, the restrictions may reduce the authority of those individuals listed domestically, as some Iranians perceive these individuals as pariahs in the eyes of the international community. Scientists and other individuals with technical and procurement skills engaged in the enrichment program find the restrictions reduce their access to the international scholarly community and foreign markets. Sanctions on travel probably reduce the effectiveness of these individuals, thereby slowing advances in Iranian enrichment technologies.

Conclusions

The historical evidence concerning economic sanctions is strong on one point: national leaders rarely, if ever, change policies on issues considered to be of vital national interest in response to economic sanctions, even those, such as the sanctions that were imposed on South Africa and Northern Rhodesia, that are very onerous. In light of past failures using economic sanctions to change policies impinging on countries' vital interests, why should the international community continue to impose sanctions on Iran, especially as there is no evidence to show that existing sanctions have affected Iranian policies on enrichment?

As noted above, in the case of Iran, sanctions have inflicted some economic costs, most notably those pertaining to banking, natural gas liquefaction technologies, dual use technologies, and civilian aircraft parts. They have also irritated members of the elite, not always a bad outcome. Economic sanctions have sent signals to the Iranian leadership. Judging by the debates during the Iranian presidential campaign, sanctions did trigger a discussion among Iranian elites. They may also have provided an impetus to broader discussions within Iranian society about the wisdom of recent Iranian policies towards the international community, if not on nuclear fuel enrichment policies *per se*.

In addition to effects of sanctions, at least indirectly, in stimulating debate among the Iranian elite about nuclear policies, there are at least four other distinct rationales for further sanctions against Iran:¹⁶

One, sanctions may promote positive change in the nature of the Iranian regime by punishing behavior that is looked on unfavorably by the international community.

¹⁶ James Dobbins, "Iran Sanctions: Options, Opportunities, and Consequences," Testimony Presented before the House Oversight and Government Reform Committee, Subcommittee on National Security and Foreign Affairs, CT-337, the RAND Corporation, Santa Monica, California, December 15, 2009.

Two, trade sanctions have deprived the Iranian military of easy access to more effective technologies.

Three, even if the current Iranian leadership ignores sanctions, the ensuing international opprobrium and economic costs, serve as an example that may deter other aspiring proliferators. This deterrent effect is hard to measure, but in the case of nuclear proliferation could be quite important. If Iran develops a nuclear bomb without paying a price in terms of sanctions and international opprobrium, other countries would be more likely to follow the same path, leaving the world a more dangerous place. The threat of becoming an international pariah should have some deterrent effect. This is one of the best reasons for pursuing tougher international sanctions against Iran, and the only rational one with no clear downside.

Four, sanctions provide an alternative to two even less attractive options: doing nothing in the face of Iranian efforts to develop a nuclear weapons capability or going to war to prevent it.

In short, despite their limited effectiveness, economic sanctions can be useful policy instruments, but usually more as a signal and an irritant than as effective coercive instruments that force a country to change policy. They can be especially useful, when the outcome that they are designed to forestall will take some time to emerge.

Western governments, especially the U.S. government, are often accused of having a short attention span. But the West has successfully pursued long-term policies, such as in the containment of the Soviet Union, that have yielded considerable results. With Iran, the West may need to keep an eye on the long term, employing economic sanctions that may appear to be less than effective, but thereby communicating to the Iranian people and future government officials that there are costs to current policies. In the case of Iran's nuclear enrichment program, sanctions may be more successful at encouraging discussion among Iranians

about current policies than in affecting change. However, societies and governments change. The West has some ability to foster favorable trends in Iran, but these policies will take time to come to fruition. In the interim, a forceful set of economic sanctions creates incentives for future changes in policy that would otherwise not be available.

SESSION IV

MILITARY OPTIONS: USELESS OR INDISPENSABLE?

MILITARY OPTIONS FOR PREVENTING A NUCLEAR ARMED IRAN

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Military Options for Preventing a Nuclear Armed Iran: Useless or Indispensable?

The ongoing crisis over Iran's nuclear program has reached a strategic crossroads. Iran is increasingly in diplomatic isolation and international economic sanctions are punishing Iran for its failure to comply with United Nations (UN) and International Atomic Energy Agency (IAEA) demands to cease uranium enrichment activities and answer nagging and lagging questions about Iran's past nuclear activities and future intentions. Diplomatic isolation and economic sanctions, however, will take time to influence the Iranian regime's political calculus toward cooperation with the international community. It is far from clear, moreover, that any combination of diplomacy and economic sanctions—short of an all-out embargo of Iranian oil exports, which would perhaps hurt the West as much as Iran—would even over the longer run be able to mount sufficient pressure on Tehran to abandon its suspected nuclear weapons aspirations.

A minority of voices is now rising in the international debate calling for military options for “dealing” with Iran's nuclear activity. These calls, more often than not, are loose and general calls for military action without much specificity as to what military options would entail. This paper aims to fill that gap. It sketches out a menu of U.S. military options for attacking Iran's suspected nuclear weapons infrastructure. The paper examines what could be expected—as well what should not be expected—from U.S. security partners in Europe and the Middle East by way of help for an U.S. military campaign against Iran's nuclear infrastructure. It also anticipates Iranian political-military retaliatory options. While many observers issue seemingly apocalyptic warnings of Iranian retaliation for any U.S. attack, a clear-eyed analysis suggests that Iran's strongest retaliatory options would be with terrorist attacks via Iranian intelligence assets and *Hezbollah*, ballistic missile fires, and naval harassment operations in the Gulf from a variety of Revolutionary Guard assets. The net impact of Iranian re-

taliatory options might well be manageable for regional states and the United States in the near term, especially given the benefit of pushing back Iran's nuclear weapons drive by several years.

Blending Diplomacy, Covert Action, and Military Force

The statement that “force is to be used only as a last resort” is repeated so often that few stop for a moment to critically challenge this much accepted common wisdom.¹ If one considers recent European history, who among us—with the benefit of twenty-twenty hindsight—would oppose the argument that NATO forces should have militarily intervened earlier than they did to stop the Serb paramilitary onslaught in Bosnia in the 1990s? Or, reaching back farther into European history, would it not have been much less bloody and costly for European civilization, had the United Kingdom and France moved militarily against Nazi Germany with Hitler's remilitarization of the Rhineland rather than to wait for Germany's invasion of Poland? The point is that the early use of a limited amount of force in statecraft in some instances can alleviate a much greater, bloodier, and costlier use of force later.

On top of that misconception, many commentators on Iran's nuclear crisis present a stark contrast between diplomacy and military force. Rather than working as polar opposites, however, diplomacy and force are best used hand-in-hand. A major reason why Iran has scoffed at international diplomacy and sanctions and pressed ahead with its nuclear efforts is that diplomacy has not been backed by a credible threat of military force. For all intents and purposes, the U.S. threat of force was taken off the policy options plate with the publication of the key findings of the 2007 U.S. National Intelligence Estimate, which concluded that Iran's nuclear weapons program had been halted.² That intelligence assessment was profoundly flawed for a host of reasons that go beyond the scope of this paper, but the estimate's public release substantially

eroded the political pressure late in the Bush administration to threaten Iran with military action.

Iran has since stonewalled the IAEA and pressed ahead with its uranium enrichment efforts to the accompaniment of great domestic fanfare. The Obama administration has been preoccupied with the formidable national security challenges of downsizing the U.S. military presence in Iraq and shifting policy and military attention to Afghanistan and Pakistan. President Obama has made economic sanctions and diplomacy, and not any credible threat of military force, the centerpieces of his policy toward Iran. Consequently, Tehran has merrily proceeded with its nuclear program.

In situations where diplomacy is failing and military force is not politically desirable, both of which are true in U.S. policy toward Iran today, politicians often look to covert action as a basket of policy tools somewhere between diplomacy and military force. Some press reports speculate that Iran is having technical problems keeping its centrifuges operating due to covert sabotage operations aimed at equipment and parts, which Iran has acquired on the international market, for its nuclear enrichment program.³ Any covert action measures such as sabotage, however, likely would only marginally harass and hamper Iran's nuclear infrastructure because it is so wide, deep, and diversified. To destroy a sufficiently large segment or swath of Iran's nuclear infrastructure in order to set back Tehran's efforts several years would require overt military force.

Military Menu Options

Many commentators stridently reject the idea of employing military options for dealing with Iran's nuclear activities. They argue that force will not “solve” the problem. But, as the wisest practitioners of statecraft understand, problems in international relations are rarely, if ever, solved. They have to be managed, contained, and worked on the margins to move international stability toward more favorable out-

comes. And so it is with Iran's nuclear problem—it has to be managed. Military force is a viable instrument of statecraft with which to physically destroy and disrupt Iran's nuclear infrastructure, and buy the international community more time to diplomatically coerce Tehran to change its apparent political calculus that the acquisition of nuclear weapons would enhance Iran's security.

Those who are opposed to any form of U.S. military operations against Iran often argue that the United States lacks the military means, because of taxing war efforts in Iraq and Afghanistan. To be sure, U.S. military campaigns have been extraordinarily expensive in blood and treasure. These efforts consume a huge amount of time and attention at all levels of the U.S. national security bureaucracy. While the U.S. Army and Marine Corps have been taxed to the fullest in Iraq and Afghanistan and both are suffering severe stresses from the unrelenting high operational tempo, the U.S. Navy and Air Force are comparatively not "breaking a sweat." The Navy and Air Force have more than enough military wherewithal to execute a variety of viable military options against Iran.

The only ground forces that the United States would need for a campaign against Iran would be small numbers of special operations forces. They could be used for intelligence gathering, surveillance, reconnaissance, and direct action missions against Iranian intelligence and surveillance positions, especially those in the Gulf collecting intelligence on shipping lanes. The Iranians also have built a network of day and night surveillance stations along Iran's coastline which could be used to pass targeting intelligence to Iranian surface and submarine forces.⁴

On the other hand, proponents of military action against Iran tend to advocate force in only the most general of terms. There is often muttered a call here or there for so-called "surgical strikes" against Iran's nuclear program. Rarely, if ever, do advocates explain exactly what they have in mind with the term "surgical strike." What desperately

needs to be done to contribute to more robust and fruitful debate and deliberation of the role of military force—both positive and negative aspects—in dealing with Iran's drive for nuclear weapons is to flesh out a menu of practical military options. These options range from a limited use of force to a more ambitious military campaign. What follows is a menu of three main military options for attacking Iran's nuclear infrastructure. These three options are by no means exhaustive, but they do represent the "big picture" features of possible U.S. military moves against Iran.

Option One. The first option would be military strikes to destroy Iran's uranium enrichment plant at Natanz. This military option would be politically attractive because Natanz is the site where Iran is blatantly setting up centrifuges and enriching uranium contrary to international demands. Natanz was the first site publicly revealed by the Iranian opposition in 2002 which alerted the world to Iran's clandestine nuclear activities. The United States could fire cruise missile barrages at the site from naval assets in the Gulf. The Natanz facility, however, is located underground and heavy ordinance might have to be delivered by fixed-wing aircraft. The United States could use earth-penetrating ordinance to burrow underground to maximize damage to Iran's underground centrifuges. Even if the depth of the Iranian facility coupled with concrete layers were difficult to penetrate, U.S. airpower could be used to bury the Natanz site in rubble.

To ensure the safety of U.S. aircraft flying in Iranian airspace, the United States might have to engage Iranian aircraft, airbases, and air defenses. Iran's air force would likely prove little challenge to U.S. airpower. Due to years of neglect, Iran's air force is less capable than Iraq's air force was prior to the 1990-91 war, when Iraqi air forces chose to hide and run rather than to fight in the skies against coalition aircraft. Some developments in Iranian ground-based air defenses bear watching. The Iranians and the Russians in 2005 signed a major \$700 million deal for Russia to provide 29 sophisticated Tor-M1 low- to medium-altitude surface-to-air missiles which were delivered to Iran in 2006. The Iranians are now pressing the Russians for the sale of five S-300 or SA-20 air defense systems.⁵ The Iranians have recently claimed to have received four S-300 systems, two from Belarus and two from another unspecified source.⁶ These deals may portend the unraveling of the international prohibition against selling major arms to Iran. U.S. air power, however, has demonstrated the ability to effectively drop ordinance from an altitude at about 20,000 feet above the threat ranges of most Iranian ground-based air defenses.

The great downside of this limited military option is that Iran might well have alternate sites for its uranium enrichment and centrifuge problems. A clandestine site near Qom was publicly exposed in 2009 by the Iranian opposition, and the regime angrily reacted by promising to build ten more uranium enrichment facilities.⁷ One has to suspect that Iran is working to keep all international eyes focused on Natanz while it builds and diversifies its centrifuge capabilities elsewhere in the country. The Iranians are not fools and have no doubt learned about the dangers of having too many capabilities in one place. They witnessed the vulnerabilities of centrally located nuclear programs in Iraq and Syria, which were bombed by Israeli aircraft in 1981 and 2007, respectively.⁸

This military option, as well as other more robust options, would have to entail extensive pre- and post-attack surveillance, reconnaissance, and intelligence operations, especially with Unmanned Aerial Vehicles (UAVs), to closely monitor Iranian actions and reactions. The Iranians hastily, in the run-up to—or in the aftermath of—attacks, might take precautionary measures at any other clandestine uranium enrichment sites which could reveal their locations for follow-on attacks.

Option Two. A second military option would be to mount a military campaign that targets the whole of Iran's nuclear infrastructure. Such a military campaign would be designed to destroy the infrastructure associated with the full nuclear fuel cycle from mining, refining, and storing uranium; to conversion of uranium to gas; to centrifuge research, development, and production; to centrifuge cascades for spinning and enrichment of uranium.⁹

This second option, too, would seek to destroy Iran's other route to fissile material for nuclear weapons. Most international attention has been focused on Iran's enrichment of uranium, but the Iranians also are putting into place plutonium production capabilities. This option would target the Bushehr nuclear reactor from which Iran could use spent fuel to reprocess into weapons-grade plutonium. The Iranians also want to build other reactors, a cold-water reactor and plutonium reprocessing capabilities, which could be targeted in this second military option. A serious political risk associated with these targets is that foreign nationals working on the construction of these sites, especially Russians and Chinese, might be killed in U.S. aircraft and cruise missile strikes.

This option also would target the military components of Iran's nuclear infrastructure. These facets of Iran's infrastructure are much smaller and hidden from the international community. Iran appears to have concealed many military research, development, and weaponization efforts, such as nuclear warhead designs, in and around civilian facilities and universities, which would increase the risk that innocent Iranian civilians would be caught in the military fray.

Option Three. The third military option would be an ambitious military campaign. It would target Iran's nuclear infrastructure and Iran's security apparatus, especially the Revolutionary Guard. The strategic objective of this campaign would be to destroy Iran's nuclear program as well as its means to retaliate against the United States and its security partners. It also would be aimed at seriously weakening the security institutions and forces which Ahmadinejad's regime depends on for its survival.

Iran's conventional military forces are large, standing but not very militarily capable, and the regime does not rely on them for its survival. The regime never trusted the traditional military because it was formed under the Shah, and its fortunes have eroded substantially since the Iranian revolution. Iran's conventional military—ground, air, and naval forces—have little more than obsolescent military equipment and personnel bulk. It has been starved for military modernization and resources, most of which the regime directs to the more politically reliable and ideologically motivated Iranian Revolutionary Guard Corps (IRGC). Iran's Revolutionary Guard has some 125,000 troops while the army has 350,000 troops.¹⁰ The caliber of Revolutionary Guard force command and rank-and-file troops on balance is superior to those in the army's ranks.

The Revolutionary Guard is increasingly a political power in Iran and a cornerstone of support for Ahmadinejad's regime. Ahmadinejad himself is a Revolutionary Guard veteran, and he has stuffed former Revolutionary Guard members into key posts. Revolutionary Guard veterans now are littered throughout Iran's political power structure. Former Revolutionary Guard commanders in 2007 occupied 14 out of 21 cabinet posts and 80 out of 290 parliament seats.¹¹ By the counting of veteran Middle East correspondent Barbara Slavin, about half the members of Ahmadinejad's cabinet, two-thirds of Iran's governors, and a third of the members of parliament have served in the Revolutionary Guard.¹² Iran's Supreme Leader Ayatollah Ali Hoseyni Khāmene'i named Gen. Mohammad Ali Jafari

as the Revolutionary Guard's commander in September 2007. Jafari had previously been in charge of the Revolutionary Guard's ground forces for 13 years.¹³

The Revolutionary Guard also exercises increasing economic clout with the ownership of construction and petroleum-related businesses. The Revolutionary Guards have a network of current and former commanders who have moved into leading positions in Iran's oil, gas, and construction industries.¹⁴ The Revolutionary Guard has ties to more than 100 companies that may control as much as \$12 billion in business and construction ventures and public works projects throughout Iran, including pipelines, roads, bridges, oil and gas.¹⁵

The Revolutionary Guard and its paramilitary *Basij* forces have increasingly burdensome internal security responsibilities. The Revolutionary Guard and the *Basij* conduct regular paramilitary exercises and about 600,000 of the three million active *Basij* members are part of paramilitary units.¹⁶ These units were and are instrumental in brutally and violently suppressing internal Iranian dissident. Revolutionary Guard leaders even publicly acknowledged that they had taken over the country's security during post-election unrest in the summer of 2009.¹⁷

The targeting of Revolutionary Guard and *Basij* forces would shake the Iranian regime at its security foundations and make it more vulnerable to its own domestic opposition. In the immediate aftermath of any U.S. military campaign, the Iranian public writ large probably would rally around the "flag" in support of the regime and in opposition to the United States. After time though, many Iranians might come to see that the regime's political belligerence on the international stage had led to the country's diplomatic and economic isolation and brought on military attack.

Timing and Sequencing for Coercive Military Power

The issue of timing would come into play in executing military options for dealing with Iran's nuclear program. The most optimal timing for military attacks would be when the Iranian nuclear infrastructure is "ripe" or nearing completion. Attacks at that time would maximize damage to the Iranian infrastructure and set the program back for the longest amount of time. It would be far better, for example, to destroy a facility such as Natanz that is running at full capacity with tens of thousands of centrifuges than if it is only operating hundreds of centrifuges. Optimal timing, however, may not be practical. The maturation for Iran's nuclear infrastructure for the full nuclear fuel cycle will likely be uneven. U.S. and Israeli intelligence estimates on how soon Iran might be able to build a nuclear weapon range from one to three years.¹⁸ These estimates, however, always seem to be in flux and U.S. intelligence has a long-standing and poor track record for accurately gauging nuclear weapons programs.¹⁹ Iran, moreover, might go slow with uranium enrichment efforts to avoid giving the United States a "political trigger" for an attack while accumulating a stockpile of enriched uranium over a period of years.

Sequencing would also be a critical dimension of military options against Iran. An U.S. military campaign, for example, might begin with the selection of the first military option of targeting Natanz and then evolve into a campaign that looks more like the second military option, before moving into the broadest military campaign of the third military option. The idea of starting small would be to incrementally increase military pressure on Iran to complement diplomacy and economic sanctions to politically coerce the Iranians to comply with international demands to stop enrichment and fully cooperate with IAEA inspections and investigations. Thomas Schelling intellectually developed this strategic scheme of coercive diplomacy in which military power is applied and the target government changes its behavior to avoid future losses. In his words,

“Coercion requires finding a bargain, arranging for him to be better off doing what we want—worse off not doing what we want—when he takes the threatened penalty into account.”²⁰ More recently, Robert Pape rightly observed that “coercion involves persuading an opponent to stop an ongoing action or to start a new course of action by changing its calculations of costs and benefits.”²¹

Coercive strategies which heavily relied on the use of air power have been used in the recent past and could be harnessed against Iran. Coercive airpower, for example, played a central—but not an exclusive role—in changing Serb behavior during the 1999 Kosovo war. As one insightful study of that war concluded, “air power can make a range of contributions to the success of coercion, including: raising concern within an adversary regime over internal stability by striking strategic targets, including infrastructure; neutralizing an adversary’s strategy for victory by attacking its field forces and the logistics upon which they depend...”²²

Coercive diplomatic, economic, and military power was used for more than a decade against Saddam Hussein’s Iraq. The series of tit-for-tat coercive military operations against Saddam’s regime culminated in 1998 in “Operation Desert Fox.” The operation was a three-day air campaign which targeted some 100 facilities to include air defense positions and about 12 facilities which were suspected of weapons of mass destruction-related activity and used about 650 aircraft sorties and 415 cruise missile strikes.²³ In response, Saddam threw United Nations weapons inspectors out of the country. It was only after the 2003 war that the world discovered how effective that the concerted diplomatic-economic-military effort had been in derailing Saddam’s weapons of mass destruction ambitions. The first military option for Iran might resemble Operation Desert Fox in duration of several days, but the second and third military options would be more extensive and could run for several weeks.

Coercive diplomatic, economic, and military power was also effectively brought to bear on Libya. Mu ammar al Qaddafi’s regime was diplomatically and economically isolated for more than a decade after its sponsorship of the 1988 Pan Am Flight 103 bombing over Lockerbie, Scotland. The *coup de main* in coercive influence came when Libya’s nuclear weapons program was exposed in 2003 with the interception of a ship carrying materials and supplies for the program. The timing came in the aftermath of the U.S.-British invasion of Iraq and Qaddafi’s no doubt worried that military force would be levied on Libya, in a much more fearsome replay of the Reagan administration’s 1986 bombing of the country. Qaddafi renounced terrorism and abandoned work on his weapons of mass destruction programs in 2003 as the price for re-integration into the international community.²⁴ Clearly, the Libyan case study could be showcased to Iranian officials as a path out of the diplomatic, economic, and security corner they are painting themselves into with their continued uranium enrichment.

What to Expect from Security Partners and the International Community

Most broadly in the international community, the United Nations would be unlikely to pass a Security Council Resolution which clearly and emphatically endorses the use of military force against Iran. Russia and China would not go along with a resolution calling for the use of force. Moscow and Beijing would continue to work assiduously to preserve their commercial and political ties with Tehran. Moscow and Beijing similarly stopped the Security Council from authorizing the use of force in the 1999 Kosovo war, fearing that such a resolution would set a precedent for international intervention to protect civilians in Chechnya and Tibet. Notwithstanding the lack of a United Nations Security Council Resolution for the Kosovo war, NATO operations against Serb forces received fairly broad international support given the scope and magnitude of Serb atrocities in Kosovo. A military move against Iran might similarly receive tacit international support, given

the international isolation of the Iranian regime, even if it were not sanctioned by the Security Council.

Political and military assistance from its security partners in Europe would be extremely problematic for any U.S. military campaign against Iran's nuclear program. To their credit, NATO members Germany, the United Kingdom, and France have been very constructive and assertive in diplomatic efforts to derail Iran's nuclear program. They even were successful in dragging the Bush administration into their diplomatic efforts. But both public and elite European opinion would likely be decidedly against the use of military force. Public European sentiment leans against the United States in international security affairs, even under the Obama administration, as we have seen with the fall of the Dutch government and pressure on Germany to withdraw forces from Afghanistan.

NATO probably would not be able to develop the consensus needed to militarily move as an alliance against Iran. Turkey would likely lead political opposition inside the alliance, but NATO member states might still make token military contributions. The 1999 war in Kosovo showed that Europe's NATO members have air forces little prepared for waging modern warfare with sufficient stocks of precision-guided munitions. The best that the United States probably could hope for would be the dispatch of some air and naval forces. The dispatch of European counter-mine naval assets probably would be of the most critical help to U.S. forces. The United States has paid inadequate attention to the mine threat in the Gulf despite its bitter experiences coping with Iranian mines in the 1980s and Iraqi mines in the 1990-91 and 2003 wars.

Arab Gulf state officials privately are acutely concerned about the threat posed by Iranian nuclear weapons, but they would be loathe to expose their political, military, logistics, basing, and transit support for U.S. forces. The United Arab Emirates' ambassador to the United States Yusef al-Otaiba recently opined in a semi-public forum that leaked to the

press, for example, that a military strike against Iran would be in his country's best national security interests.²⁵ He was quickly recalled home for "consultations," a diplomatic way of saying a dressing-down. Many Arab states were keen to hide from public view their support for the U.S. and British military operations that ousted Saddam Hussein's regime in 2003. U.S. command centers in Saudi Arabia, Bahrain, and Qatar orchestrated the war in Iraq, special operations forces used Saudi and Jordanian territory to mount missions into Iraq's western desert, and Egypt allowed U.S. warships to transit the Suez Canal and use an Egyptian airbase for refueling U.S. aircraft.²⁶ Even as they were providing critical assistance to U.S. forces in private, the Arab states were busy publicly denouncing the United States for its so-called "unilateralism." The Arab states would likely repeat this performance in order to try to minimize the prospects for Iranian retaliation in their directions.

The Israelis would be relieved by an U.S.-led military attack against Iran. The central piece of Israeli diplomacy has been to get the international community, especially the United States, to move with military might against Iran's nuclear infrastructure. The Israelis do indeed feel a legitimate and acute threat stemming from an Iran armed with nuclear weapons. Iran for decades has waged a proxy war with Israel via *Hezbollah* in Lebanon and is increasing its ties with the Palestinian *Hamas* movement. The Israelis felt similarly acute security concerns as a result of the Iraqi and Syrian nuclear programs in the past, but Iran's nuclear program would present formidable obstacles for any Israeli preventative military action. Iran's program is much more diversified, located very far away and it would be exceptionally difficult for Israel to mount anything more than a limited strike.²⁷

Bracing for Iranian Retaliation

As the old military adage has it, in war the enemy gets a vote, and so it would be with Iran in the aftermath of any U.S.-led military action. A robust assessment of military options against Iran has to be balanced with a broad-brushed picture of what the Iranians might do in retaliation. Iran's Supreme Leader Ali Hoseyni Khāmene'i warned in April 2006: "If the U.S. ventured into any aggression on Iran, Iran will retaliate by damaging U.S. interests worldwide twice as much as the U.S. may inflict on Iran."²⁸

A good way to anticipate Iran's future retaliatory options is to look closely at how Iran has waged war against the United States in the past. As a broad characterization, Iran is ill-prepared to challenge the United States toe-to-toe in traditional military operations, but it excels at non-traditional or what the U.S. military calls "asymmetric" forms of warfare such as sponsorship of terrorist attacks, suicide bombings, naval harassment operations, and ballistic missile firings.²⁹

Iran's Revolutionary Guard Corps, in fact, has a decades-long history of waging asymmetric war against the United States even if most U.S. citizens and even some policy makers have been reticent or too forgetful to recognize it. Iran certainly could renew its bombing attacks against U.S. forces in Arab Gulf states, Iraq, and Afghanistan. Iran, too, has assets more widely geographically dispersed to include Latin America and Europe which could be used as operational springboards for retaliatory strikes against the United States and its security partners.

The Iranians have a capable intelligence service to work along with Revolutionary Guard forces in waging unconventional warfare. As Anthony Cordesman explains, "The Ministry of Intelligence and Security (MOIS) was established in 1983 and has an extensive network of offices in Iranian embassies."³⁰ Meanwhile, the Revolutionary Guard "has a special *Al Quds* Force that plays a major role in giv-

ing Iran the ability to conduct unconventional warfare overseas using various foreign movements as proxies."³¹ After the Iran-Iraq war ended, the Revolutionary Guard began taking a more active role in activities outside of Iran and to spearhead these efforts it created in 1990, the *Al Quds* Force.³² The *Al Quds* Force operates in a wide swath of geography to include Iraq, Lebanon, Central Asia, Europe, and the Americas, and it operates in channels parallel to Iran's traditional foreign policy bureaucracies and under the direct supervision of Iran's Supreme Leader Ali Hoseyni Khāmene'i.³³

The Iranians in the past have demonstrated their expertise in supporting surrogate forces to attack U.S. and allied forces and would be expected to do more of the same in the future after any U.S. attack. Tehran, most notably, supplemented its military training and ideological support to the nascent *Hezbollah* movement in Lebanon with generous financial backing. Iran's ambassador to Syria in the 1980s, Ali Akbar Mohtashamipour, started the financing relationship with the creation of *Hezbollah*.³⁴ *Hezbollah* makes money in Lebanon, but it also gets Iranian subsidies. Scholar August Richard Norton explains that Iranian annual contributions to *Hezbollah* are often estimated at \$100 million, but they vary depending on the political state of play in Tehran and much of the Iranian money goes to support the militia.³⁵

Hezbollah and Iran have been working hand-in-hand for the last three decades inflicting deaths, pain, and miseries on U.S. interests, properties, and personnel. *Hezbollah* has been responsible for the deaths of hundreds of U.S. citizens, although broad and wide recognition of *Hezbollah* and Iran as a collective grave threat to U.S. power and interests was eclipsed by *al-Qā'idah's* brutal September 2001 attacks. Nevertheless, the most seasoned U.S. diplomats, military commanders, and officials recognize the U.S. blood which has accumulated on *Hezbollah* and Iranian hands over the past thirty years. As former Deputy Secretary of State Richard Armitage succinctly identified the

problem, *Hezbollah* is the “A-Team” of terrorists groups.³⁶

Iran could work again with *Hezbollah* to kidnap, torture, and kill U.S. citizens and their security partners in retaliation for any military attack. *Hezbollah* and Iran worked hand-in-hand against the United States in Lebanon during the 1980s. The acting president of the U.S. University of Beirut, David Dodge, was kidnapped in July 1982 by the Revolutionary Guard, transported to Damascus, Syria and flown on an Iran Air flight to spend six months in Tehran.³⁷ The Iranians thereafter instructed *Hezbollah* on how to set up a kidnapping apparatus of surveillance teams, secret prisons, non-attributable cars, and Iran agreed to finance operations and identify kidnapping victims, according to former CIA Middle East operative Robert Baer.³⁸ In March 1984, in Beirut *Hezbollah* kidnapped CIA chief of station William F. Buckley, who apparently was severely maltreated and died in *Hezbollah* captivity.³⁹ Dodge’s successor as president of the U.S. University of Beirut, Malcolm Kerr, was shot in the head in 1984 by two *Hezbollah* gunmen, and in 1988 the group abducted and hung William Higgins, an U.S. colonel serving with UN peacekeeping forces in Lebanon.⁴⁰

Hezbollah with Iranian help has proven itself a master at bombing U.S. embassies and killing diplomats and military personnel. *Hezbollah* bombed the U.S. Embassy in Beirut in April 1983. The bombing killed 63 people, including 17 U.S. citizens.⁴¹ *Hezbollah* members were likely responsible for bombing: the U.S. embassy in Kuwait in December 1983; the embassy annex in Beirut in September 1984 which killed two U.S. soldiers; a restaurant in Torrejon, Spain in April 1984 which killed 18 U.S. servicemen; and, *Hezbollah* members executed two U.S. citizens when they forced a Kuwait aircraft to land in Tehran in December 1984.⁴²

Iran and *Hezbollah* have orchestrated massive bombing attacks against U.S. military forces. In October 1983 *Hezbollah* dispatched a suicide truck bomber against the U.S.

Marines barracks which killed 241 U.S. servicemen. The Marines had been deployed in Lebanon as part of the Multinational Force that sought to establish some stability in the country in the wake of the June 1982 Israeli invasion.⁴³ The 1996 bombing of the U.S. housing facility for military personnel supporting no-fly zone operations over Iraq, Khobar Towers in Saudi Arabia, was carried out by Saudi *Hezbollah*. U.S. officials in President Clinton’s administration were convinced that the bombing, which killed nineteen U.S. servicemen, was supported by Iranian officials working through their network in Lebanon.⁴⁴ As former director of the FBI Louis Freeh recalls, “over the course of our investigation the evidence became clear that while the attack was staged by Saudi *Hezbollah* members, the entire operation was planned, funded and coordinated by Iran’s security services, the IRGC and MOIS, acting on orders from the highest levels of the regime in Tehran.”⁴⁵

More recently, Iran’s *Al Quds* Force trained and equipped Iraqi *Shi’ah* militias to wage war against U.S. forces after the 2003 toppling of Saddam Hussein’s regime. Tehran in January 2007 placed all Iranian operations in Iraq under the command of the Revolutionary Guard’s *Al Quds* Force and decided to increase the force’s personnel strength to 15,000 men.⁴⁶ The Iranians are using *Hezbollah* surrogates to work with the Revolutionary Guards to train and equip Iraqi *Shi’ah* militias. Tehran appears to be bringing Iraqi *Shi’ite* militia members to Iran and having *Hezbollah* members train them as cadres to return to Iraq in order to pass on their skills to comrades. The training takes place in several camps near Tehran and includes firing rockets and mortars, sniping, and the use of explosively formed penetrators.⁴⁷ The Iranians publicly deny charges that they are sponsoring militias and violence in Iraq, but behind the scenes in 2005 they offered to stop attacking British troops in Iraq if London helped stop Western efforts to end Iran’s uranium enrichment program.⁴⁸

Iran's clandestine war against the United States has been lethal, especially in the provision of training and equipment to Iraqi *Shī'ah* militias for explosively formed penetrators (EFPs), which have inflicted horrendous casualties on U.S. and allied troops. The EFPs fire a semi-molten copper slug that melts through armored vehicles and then shatters into a storm of hot metal inside the vehicle. These munitions are placed along roads, activated by radio control, and are detonated by infrared sensors. The EFPs have been extensively used in Iraq and are only found elsewhere in Lebanon, where Iran began providing them to *Hezbollah* in 1998. Radio transmitters used to activate some of the EFPs in Iraq operate on the same frequency and use the same codes as devices used against Israeli forces in Lebanon, a fact which is unlikely to be a mere coincidence. Some Iraqi *Shī'ah* militias have received EFP components and training from the *Al Quds* Force as well as from *Hezbollah* members in Iran.⁴⁹ *Al Quds* Force officers and Lebanese *Hezbollah* also provided a variety of military training to Iraqi insurgents from entry-level weapons and tactics in 2003 to advanced skills such as the use of EFPs, sniper operations, vehicle ambushes, and kidnapping which began in 2007.⁵⁰

The Iranians, too, could increase support for *al-Qā'idah* operations against the United States. Iran had traditionally resented *al-Qā'idah* as a Sunni movement. Iran almost came to military blows against the Taliban regime in Afghanistan, but that did not stop Tehran from establishing a relationship with the Taliban's *al-Qā'idah* guests. Terrorism expert Rohan Gunaratna has discovered from an analysis of Osama bin Laden's intercepted phone calls that "Iran received nearly 10% of Osama's outgoing calls from Afghanistan from 1996 to 1998, suggesting Iran was maintaining a relationship with *al-Qā'idah* even after he developed close ties with the Taliban in Afghanistan, a regime unfriendly towards Tehran."⁵¹ After the U.S. invasion of Afghanistan and the toppling of the Taliban regime in 2001, Iran gave sanctuary to *al-Qā'idah* operatives, including some bin Laden family members.⁵² Tehran's behavior

is consistent with the old saying, "the enemy of my enemy is my friend."

Iran and *Hezbollah* also appear to have provided explosives and training to *al-Qā'idah* members in Lebanon, Sudan, and Iran.⁵³ Iran's *Al Quds* Force had contacts with *al-Qā'idah* in the early 1990s in Sudan where *Al Quds* was training Islamic fighters from throughout the region.⁵⁴ Senior *al-Qā'idah* operatives also traveled to Iran to receive training and explosives and *al-Qā'idah* recruits also went to Lebanon's Biq a Valley in 1993 for training where they showed a particular interest in learning how to use truck bombs like that which killed 241 U.S. Marines in Beirut in 1983.⁵⁵ Iran appears to have put aside its ideological opposition for the sake of political expediency and opted to give *al-Qā'idah* support.

Iran has worked to build up *Hezbollah's* rocket and missile capabilities in Lebanon, which could be launched at Israel in retaliation for an U.S. attack on Iran. The Israeli military had to work hard during the 2006 war in Lebanon to try to suppress—with mixed results—*Hezbollah* rocket fire from Lebanon into Israel. The Israeli military now is concerned that *Hezbollah* with Syrian and Iranian help has restored and accumulated even larger and more lethal stores of some 40,000 rockets in underground bunkers in Lebanon. The Israelis also suspect that Syria gave *Hezbollah* Scud missiles which are capable of reaching all of Israel's major cities to include Tel Aviv.⁵⁶ U.S. Secretary of Defense Robert Gates even commented in April 2010 that "We are at a point now where *Hezbollah* has far more rockets and missiles than most governments in the world."⁵⁷ The Iranians no doubt hope that the threat of renewed and more robust rocket and missile attacks from Lebanon would deter Israel as well as the United States from striking Iran's nuclear facilities.

Iran also could retaliate against Arab Gulf states by sponsoring car bombings, sabotage, and insurrections. Former Clinton administration counterterrorism advisor Richard

Clarke recalls that in June 1996 Bahrain arrested twenty-nine Bahraini *Hezbollah* members and uncovered bombs and weapons and a document outlining a plot backed by Iran's Revolutionary Guards to stage an armed attack on the Khalifa royal family and to install a pro-Iranian government in Bahrain.⁵⁸ Saudi Arabia worries about Iranian ideological and political proselytizing in its oil-rich Eastern Province which has a heavy concentration of *Shī'ah*. The United Arab Emirates' Dubai Emirate might be especially ripe for Iranian subversive operations because of a very large Iranian expatriate community there which could aid and abet Iranian operations against the UAE. Professor Vali Nasr notes that a healthy majority of Dubai officials are of Iranian origin.⁵⁹ Ahmadinejad was warmly greeted there during his first visit to the UAE in May 2007 and even spoke to a crowd of several thousand in a Dubai soccer stadium who chanted "Down with America!"⁶⁰

Iran could dip into its naval warfare playbook developed during the 1980s tanker war, to renew a wide variety of operations in the Gulf. Iran knows well from past military clashes that it has to steer clear of U.S. conventional forces. Although the fear that the Iranians could somehow militarily "close" the Strait of Hormuz is misplaced, the Iranians could certainly cause a great deal of havoc and economic uncertainty with irregular naval warfare.⁶¹ The net effect of future Iranian naval capabilities would be to disrupt the international flow of oil out of the Gulf and jar nerves in world energy markets the likes of which were experienced during the Iran-Iraq war.

Iran wisely prefers to wage an unconventional style of naval warfare against which the United States needs to gird itself. The Iranians, for example, have shown a proficiency in mine laying, a tactic that has revealed vulnerabilities in U.S. naval capabilities. Mine operations are an especially lethal tactic in the Persian Gulf because it has only a few channels that large ships can use to navigate its waters, especially in the Straits of Hormuz. In 1988 the U.S. frigate *USS Samuel Roberts*, for example, was struck by a mine

based on World War I technology which caused \$100 million in damage.⁶²

The Iranians no doubt have studied Iraq's employment of mines against U.S. and coalition forces in the Gulf. During the 1990-91 war, coalition forces hit some of the 1,300 mines that Iraqi forces had laid. The helicopter carrier *USS Tripoli* and the cruiser *USS Princeton* both hit mines and showed that multi-million dollar warships could be threatened and even rendered inoperable by mines costing no more than a few thousand dollars.⁶³ The Iraqi experience in holding U.S. naval forces at bay during the war undoubtedly impressed the Iranians who might someday work to replicate that combat performance.

Iran is probably working on the use of more sophisticated mines for future conflict in the Gulf. Sophisticated bottom-influence mines can use acoustic, magnetic, or pressure sensors to detect ships passing overhead, and they can be set to release only after a given number of ships pass, which would make them extremely difficult to detect and sweep from Gulf shipping lanes.⁶⁴ The United States Navy, moreover, is phasing out its ships dedicated to mine clearing in favor of using airborne assets to take up the lion's share of the responsibility for countering mines.⁶⁵ Adverse weather conditions, however, would hamper the use of helicopters in the Gulf. The United States today has only four countermine vessels stationed in the Gulf. In contrast about seventeen coalition countermine vessels were required to keep tanker and maritime Gulf routes open during the 1980s tanker war.⁶⁶

Undoubtedly, the Iranians have noticed the vulnerabilities of U.S. warships operating in "brown waters." They probably have studied the *al-Qā'idah* bombing of the *USS Cole* in 2000 in Yemen, which cheaply used a boat with a suicide bomb to kill 17 U.S. sailors and nearly sink a billion dollar warship. Iran's Revolutionary Guard's navy and operatives would be keen to replicate such an operational success against U.S. ships anchored or underway in waters around

Bahrain, the UAE, Oman, Kuwait, or Saudi Arabia to inflict damage, casualties, and to deter port visits and transit operations.

Iran could use small boats to mount hit-and-run attacks against U.S. naval ships. The Revolutionary Guard's navy controls Iran's missile boats which include ten 68-ton Chinese-built *Hudong*-class fast attack craft or missile patrol boats, which have crews of 28 and carry four anti-ship missiles.⁶⁷ The most numerous vessels in Tehran's inventory are fiberglass *Ash ra* motorboats which could carry machine guns, a multiple rocket launcher, or a large mine, as well as North Korean-made boats that carry two torpedoes.⁶⁸ The IRGC's navy also has smaller boats that are even more difficult to detect. It uses small patrol boats, launches, and at least 30 Zodiac boats armed with rockets, small arms, heavy machine guns, grenade launchers, anti-tank guided weapons, man-portable surface-to-air missiles and recoilless rifles which are fast, difficult to detect on radar and can be launched from offshore islands and oil platforms for quick strikes with little warning.⁶⁹

The Iranians, moreover, could easily adopt an even more sophisticated form of swarm naval warfare. Strategist John Arquilla envisions a viable enemy strategy which could be readily adopted up by the Iranians, building upon their past experience in war. "The basic vision of this new kind of naval warfare consists of a swarm of small drone craft—something even smaller than a boat, perhaps the size of a Jet Ski, but one chock-full of high explosives. Imagine a number of these remote-controlled craft coming at a traditional warship—a destroyer, cruiser, or even an aircraft carrier."⁷⁰ The Iranians have proven themselves adept at recruiting and training suicide bombers, the likes of which *Hezbollah* has thrown against U.S. forces in the past, and could recruit and train a new suicide bomber cadre for explosive-loaded small craft and Jet Skis to strike U.S. naval vessels in the Gulf.

The Iranians might be using periodic cat and mouse chases

with small boat operations in the Gulf today as a deceptive ploy, as they have harassed U.S. naval vessels with speed boats in the past. In January 2008, five Iranian Revolutionary Guard patrol boats in the Strait of Hormuz charged a three-ship U.S. Navy convoy, maneuvering around and between a destroyer, cruiser, and frigate during a half-hour challenge. One Iranian boat came within 200 yards of one of the U.S. ships and almost drew U.S. machine gun fire.⁷¹ The IRCG command might calculate that periodic challenge operations such as these will make the U.S.s accustomed to them so that their guard will be down when Iran decides to launch a real strike. Iran might bet that a sudden surprise attack in the future against U.S. warships could reap large rewards in catching a large warship unawares.

The Iranians have numerous bases and hide sites to support their unconventional naval operations against the U.S. Navy in Gulf waters. By one expert's tally, there are more than ten large and sixty small ports as well as many fishing villages and towns which could be used as logistics, support, and hiding positions for Revolutionary Guard naval operations.⁷² Iran's small naval craft could be launched at night with trucks to give them added mobility and complicate targeting by U.S. forces.⁷³

Additionally, Iran could complement mine warfare and small boat operations with attacks by an array of coast-based naval missiles on U.S. naval vessels and civilian ships to cause panic in the Gulf. The Iranians have the Chinese HY-2 Silk-worm, which is mobile and deployed on-shore with a range of 85 to 100 km, and they have modified the HY-2 with longer range which they call the *Rad* (Thunder) which carries a 500 kg warhead. They also have an upgraded version of the Chinese C-802 called the *Noor* that carries a 155 kg warhead and *Kosar* anti-ship missiles with 20 kg warheads and ranges of some 15 to 20 kilometers.⁷⁴ The Revolutionary Guard's navy controls Iran's coastal defenses including naval guns and land-based anti-ship missile units deployed in five to seven sites along the Gulf coast.⁷⁵

The United States needs to worry about the Iranians launching swarms of cruise missiles to try to overwhelm the defenses of a targeted U.S. warship. The Iranians might launch a handful or more cruise missiles just to get the U.S. to expend their ammunition and defenses in hopes of getting one through U.S. defenses. Just a few Iranian cruise missiles slipping through U.S. ship defenses could have devastating consequences. Lest the U.S. dismiss the threat posed by missiles to their ships, they would be wise to recall the experience of the British fighting the Falklands war almost three decades ago. The British were shocked that a cheap, French-made Exocet missile fired by an Argentinean aircraft skimmed the water surface and sank the *HMS Sheffield*, a warship designed for air defense. As a result, British commanders had to move their aircraft carriers farther off the Argentine coast to reduce their vulnerability to Exocet missile strikes.⁷⁶ The U.S. got a more direct glimpse of this danger during the Iran-Iraq war when an Iraqi Mirage F-1 mistakenly hit the U.S. frigate the *USS Stark* with two Exocet missiles which flew at 600 miles per hour and delivered 352 pound warheads. The missile attack killed thirty-seven crew members and left the ship burning for two days.⁷⁷

The United States would have its hands full attempting to destroy Iran's missile bases judging, in part, from our past experience attempting to counter Iraqi cruise missiles. As Anthony Cordesman assesses, "the United States did not successfully destroy a single land-based Iraqi anti-ship missile launcher during the Gulf War, and the IRGC now has many dispersal launch sites and storage areas over a much longer coast. It also has a growing number of caves, shelters, and small hardened facilities."⁷⁸

U.S. war games have shown how lethal the combination of asymmetric warfare tactics and Iranian weapons could be for U.S. forces. The U.S. military in 2002 conducted a war game which simulated large numbers of small and fast Iranian vessels attacking U.S. ships in the Gulf with machine guns and rockets complemented with cruises missiles

fired from land and air and some small boats packed with explosives detonating by U.S. ships. In the war game, the U.S. navy lost 16 warships, including an aircraft carrier, cruisers, and amphibious vessels that lasted only five to ten minutes in battle.⁷⁹

The Iranians also could use submarines and mini-submarines for torpedo and commando operations in the Gulf. Moscow sold Tehran three Kilo-class submarines which are relatively quiet, small, and ideal for operating in shallow Gulf waters. "The Kilo can carry a mix of 18 homing and wire-guided torpedoes or 24 mines."⁸⁰ The Iranians have purchased at least three one-man submarines designed for covert demolition and infiltration operations, and in 1993 they obtained some midget submarines from North Korea.⁸¹ The Iranians also claim to be indigenously producing their own submarines. Tehran announced in November 2007 that it had launched its second submarine built inside Iran which it proclaimed could fire missiles and torpedoes simultaneously. The Iranians call the submarine *Ghadir*-class, named after a *Shi'ah* religious site on the Arabian Peninsula.⁸²

Iran has been honing its ballistic missile capabilities, the foundations of which were laid during the Iraq-Iran war. Iran flexed its ballistic missile muscles in September 2009 when it test fired its medium-range, liquid-fueled *Shahab-3*—with estimated ranges of about 1,300-2,000 km based on North Korea's *No Dong* missile technology—and solid-fuel *Sejil-2* missile—with an estimated range of 2,000 km.⁸³ The Iranians appear to be investing considerable resources into a variety of ballistic missiles, especially the *Shahab-3* which has the range to reach Arab Gulf states. The inventories, reliabilities, and accuracies of Iran's *Shahab-3* are questionable, but Revolutionary Guard forces could launch salvos of ballistic missiles against U.S. military positions in the Gulf. They would hope to overwhelm the pockets of Patriot air defense missile systems and U.S. Navy ballistic missile defenses that would litter the Gulf to defend against retaliatory Iranian strikes against Gulf Arab regimes.

The United States, too, will have to watch out for the Iranian use of armed UAVs in combat. Iran probably had a hand in passing UAV expertise to Lebanon's *Hezbollah*, which in November 2004 and April 2005, successfully flew a UAV, the *Misrad*, over towns in northern Israel.⁸⁴ Iran and *Hezbollah* in the future might be able to arm these UAVs to form another tool for asymmetric warfare against U.S. forces in the Gulf and against Israel.

Opportunity Costs of Not Using Military Force

The menu of Iranian retaliatory options is long and daunting, and one must keep in mind that war is often unpredictable, as Clausewitz was acutely aware of during the Napoleonic war. In his eloquent prose, "in short, absolute, so-called mathematical, factors never find a firm basis in military calculations. From the very start there is an interplay of possibilities, probabilities, good luck and bad that weaves its way throughout the length and breadth of the tapestry. In the whole range of human activities, war most closely resembles a game of cards."⁸⁵ The United States had to painfully relearn this lesson that war is the realm of unpredictability in the aftermath of the 2003 Iraq invasion.

Tehran has used most of its retaliatory options in the past and Western and U.S. forces have fared fairly well against them. That is not, by any means, to say that Iran's retaliatory options are weak. Iran has shown time and time again an astute and effective use of "asymmetric" capabilities. It has expertly nurtured and exploited Revolutionary Guard and *Hezbollah* skills to mount lethal truck bombings and other attacks against U.S. interests and military personnel. Iran's asymmetric warfare capabilities in the Gulf, especially with mines, cruise, and ballistic missiles, would be serious threats. All in all, the risks of Iranian retaliation to U.S.-led military action would be formidable, but manageable.

Prudent statecraft must weigh the costs and benefits of military action against the costs and benefits of inaction. In

other words, analysis of Iran's capabilities to retaliate in the short-term against any U.S.-led military option have to be weighed against the risks to international security should Iran be allowed to acquire nuclear weapons. The dangers and risks of nuclear weapons in Iranian hands are huge and are far too often dismissed because they lie over the horizon while the dangers of a war with Iran are stressed because they are potentially in the here and now.

Iran is a dangerous state today, but nuclear weapons would substantially bolster its power and influence in regional and international politics. There can be no denying the political influence of nuclear weapons in international security. Would the international community be so concerned about poor and failing nation states like North Korea and Pakistan were it not for their nuclear weapons arsenals? Nuclear weapons would give Tehran a quantum leap in its political coercive leverage in international politics. They also would serve as a security shield from behind which Tehran would be emboldened to redouble its efforts to expand political influence in the Gulf and the Middle East. Tehran could even more aggressively use *Hezbollah* and *Shī'ah* militias in terrorist attacks to undermine Arab regimes and inflict casualties on the United States in order to coerce U.S. diplomatic and military presences out of the region. Tehran would likely calculate that if the United States and the West did not have the resolve or sheer grit to militarily retaliate against Iran for its sponsorship of bloody *Hezbollah* attacks against their interests and citizens in the past, then Washington certainly is not going to retaliate if Iran has nuclear weapons in the future.

The Arab states already see the "writing on the wall." They do not want to be vulnerable to future Iranian political coercion leveraging a nuclear arsenal. The Arab states are going to want to follow suit with the development of their own nuclear weapons programs. Few are going to be entirely comfortable relying solely on the United States to provide them with a deterrent against Iranian nuclear weapons. Renewed Arab state interest in nuclear energy is

in keeping with this strategic thought.⁸⁶ In short, the stakes would be high and risky for militarily striking Iran to set back its nuclear efforts, but the stakes and risks would likely be even higher were Iran allowed to acquire a nuclear weapons arsenal. The use of military force on balance therefore would be a useful and indispensable policy option for the international community.

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SESSION V

WHAT IF: THE STRATEGIC CONSEQUENCES OF A NUCLEAR-ARMED IRAN

WHAT IF? LEARNING TO LIVE WITH A NUCLEAR IRAN

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When asked how the Obama administration plans to deal with a nuclear Islamic Republic of Iran (“Iran”), top U.S. officials tend to respond that there is no need for such worst case planning as a nuclear Iran is a scenario that will simply not materialize. This logic seems strange since neither the United States nor the frequently quoted “international community” seem to have a convincing strategy for preventing Teheran from acquiring nuclear weapons. Some speculate that Washington has even tacitly accepted the idea that Iran will succeed in its nuclear efforts, as there are hardly any options by which to prevent this outcome. Compared to the incalculable risks of a military strike against nuclear production sites, acquiescing to the idea of Iran possessing of nuclear weapons appears to be the lesser of two evils.

The United States is not alone in exhibiting ambiguity with respect to Iran’s progress towards the acquisition of nuclear weapons. Most of the United States’ European allies show the same level of ambivalence. They characterize Iran’s nuclear efforts as a major threat to international stability and at the same time they agree on no more than half-hearted sanctions and they have no vision of how to proceed if the efforts to keep Iran from going nuclear fail. Countries like the Russian Federation (“Russia”) or the People’s Republic of China (“China”) are even worse as they not only undermine attempts to achieve international consensus regarding Iran in the United Nations (“UN”) Security Council but, in Moscow’s case, they also do not hesitate to continue to deliver critical technology to the theocratic regime in Teheran.

Since the failure of the international efforts to prevent Iran from building nuclear weapons is a realistic prospect, it is crucial that we analyze what the consequences will be, if Teheran one day credibly demonstrates - for instance by a nuclear test - that it disposes of or can rapidly assemble nuclear weapons. This is not a new question; it was already identified before the terrorist attacks of September 11, 2001.¹ Since that time, though, the situation has changed in a number of respects. The tragedy of “9/11” focused in-

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ternational attention on the dangers of *jihadist* terrorism; the Democratic People's Republic of Korea ("North Korea") joined the "nuclear club" by way of (more or less) successful nuclear weapon tests; hopes for peaceful regime change in Iran have not come true; the North Atlantic Treaty Organization ("NATO") is in a process of fundamentally reassessing its roles and missions, which will also include adaptations of its nuclear strategy; and finally, the dream of a world free of nuclear weapons has made its way onto the agenda at the highest political levels of the Atlantic alliance.

Hence, it is prudent today to ask again: What are the implications of a nuclear-armed Iran for the region, for international politics and for the nuclear deterrence strategy of NATO? For sure, answering this question requires that a number of assumptions be clarified: what kind of a regime governs Iran? Is Iranian foreign policy offensive or defensive? What are the technical specifications of the Iranian nuclear program? Are major allies supporting Iran or is it acting on its own? (North Korea still enjoys some patronage - even if hesitant - from China.)

Intentionally simplifying the issue, this analysis skips many of these facets and variables and asks: How to live with a nuclear Iran - assuming that the extremist and anti-democratic regime in Teheran continues in power? Three aspects will be dealt with in detail:

- What could the immediate threats be?
- What are the broader implications?
- What needs to be done from NATO's point of view to cope with the worrisome reality that Iran has achieved the status of a nuclear player in international politics?

I. The Immediate Threats Posed by a Nuclear Iran

Direct Nuclear Attack

The most relevant consequence of a nuclear Iran and the most obvious threat for the Western community is that of an immediate nuclear strike against targets in Europe or the United States. Given the aggressive rhetoric of the Iranian leadership against the "infidels" and the "great Satan" United States, such a doomsday scenario must at least be regarded as a possibility.

However, upon closer examination, the detonation of an Iranian nuclear warhead in one of the European or North American capitals seems rather unlikely.

First, the necessary means of delivery – i.e. medium and long range ballistic missiles are, at least currently, not available. According to recent assessments, Iran will have developed a missile with adequate range to reach Western Europe not earlier than 2015. At the earliest, an Iranian missile with an intercontinental range will not be available before the end of the decade.²

Second, and more important, is the fact that the mechanisms of nuclear deterrence, which means keeping the Iranian leadership from employing its nuclear weapons by credibly threatening a nuclear response, are likely to work. Given the vast nuclear arsenals of the United States of America, the French Republic ("France") and the United Kingdom, a nuclear Iran would be confronted with the danger of massive nuclear retaliation - which in result means its physical extinction - should Iran choose to employ its nuclear weapons against one of these countries or their allies. Even if Teheran ordered a nuclear strike against one of the countries in its region, nuclear retaliation -- particularly on the part of

the United States -- would be quite likely. Washington would have to launch a nuclear counter strike not least to re-establish the “nuclear taboo” which has prevented the detonation of a nuclear weapon in anger since the attacks on Hiroshima and Nagasaki.³

In sum, the Iranian leadership would always have to face the fact that the damage it would suffer after employing nuclear weapons would far outweigh any political or territorial benefit it might hope to gain. Since the rulers in Teheran would face the prospect of physical extinction, they are likely act cautiously.

However, the logic of deterrence can only be successful if the decision makers to be deterred accept rational cost-benefit calculus. Only if they are able to assess the dangers correctly and value their own survival, are they are likely to refrain from nuclear escalation. It is doubtful whether religious zealots, extremist non-state actors or pathological cases, such as Kim Yong Il, can be regarded as rational and thereby “deterable” in the sense described above. Iran, however, does not seem to belong to this category of “lunatics”. The Iranian leadership has not, up to now, shown any sign of irrationality or unpredictability, but has – as far as can be judged from outside – acted to its own advantage, carefully weighing the benefits and risks of its policies. Moreover, Teheran actively supported the anti-Taliban coalition after September 11 by providing invaluable intelligence information on *al-Qā'idah*.

Lastly, the accusation that is levelled against the theocratic regime - frequently from persons in the United States - of high levels of corruption, also speaks against an irrational interpretation of deterrent signals on Iran’s part. A regime that is corrupt is by definition interested in acting to its own material benefit and is interested in preserving its benefits and privileges. Such a regime is hardly suicidal.

A Nuclear Strike Against Israel

In principle, the logic of nuclear deterrence is valid from the State of Israel’s (“Israel”) perspective as well. Israel is currently the only nuclear power in the region with an estimated arsenal of about 300 nuclear warheads. Furthermore, with submarines that are technically able to launch nuclear cruise missiles, Israel disposes of an assured second-strike capability. Any Iranian nuclear strike against Israel would trigger a devastating nuclear response. This holds all the more true, as the United States would definitely not remain passive if Israel suffered a nuclear attack. Thus, even if Israel were no longer in a position to retaliate, an U.S. nuclear response – probably in concert with other nuclear powers – would end Iran’s existence as a functioning state.

Despite this logic of deterrence, Israel’s threat perception differs and many Israeli observers still regard a nuclear-armed Iran as a vital security threat. They argue - simply put - that a nuclear detonation in the United States or in Europe would certainly be a national catastrophe but it would hardly mean the physical end of the country concerned. Israel, by contrast, lacks the geographical size to survive such a tragedy - one or two nuclear explosions could actually annihilate Israel and almost its entire population. Given Iranian president Ahmedinejad’s frequent pronouncements of his intent to erase Israel from the map (as clown-like and bizarre as they may be), Israel’s concerns are understandable. Even if the likelihood of an Iranian nuclear assault on Israel is very low, compared to other countries the consequences of such a strike would be much more severe, should deterrence fail. This existential threat - even though remote - explains Israel’s position of never

³⁾ It is hard to prove but it seems at least likely that concerns regarding the unpredictable consequences of a nuclear explosion have prevented the nuclear powers, even in times of crisis and high tensions, from resorting to their vast atomic arsenals. The longer this era of nuclear non-use lasted, the more nuclear weapons use became anathema or proscribed. A use of nuclear weapons for the first time after more than half a century would break this taboo and would require strong measures in order to prevent the use of nuclear weapons from becoming an option that could easily be considered as a means of aggression.

being able willing to accept a nuclear-armed Iran.

It is worth noting though, that the dilemma of “low probability - high damage” scenarios has not been confined to Israel alone. The Federal Republic of Germany (“Germany”) was in a similar situation at the height of the Cold War. In the early 1970s, NATO had stationed about 7,300 so called “tactical” nuclear weapons in Europe - most of them on West German soil (the same held true for the Warsaw Pact and the German Democratic Republic (“GDR”). Given the short range of these weapons, many of them would have detonated inside Germany (exercises periodically simulated the employment of a couple of hundred nuclear weapons on West and East German territory). Had the Cold War become a hot one, Germany would have ceased to exist. Despite this grim reality, the majority of the Germans lived for decades without being paralyzed by the prospect of potential nuclear annihilation.

State Sponsored Nuclear Terrorism

The possibility that living with a nuclear Iran might simultaneously mean living with an increased danger of nuclear terrorism is a widely held concern. If the leadership in Teheran feels deterred from using its nuclear weapons offensively, it could pass nuclear material or critical weapons components to surrogate terrorist groups in order that they might detonate cataclysmic nuclear explosions, which could not be traced back to their Iranian origin. As Iran is thought to be the key sponsor of extremist groups such as *Hamas* and *Hezbollah*, the possibility that Teheran might provide Islamist terrorists with nuclear weapons seems to have some plausibility.⁴

A closer look, though, reveals major weaknesses in the plausibility of this nightmare scenario. As common state sponsorship of conventional terrorism might be, backing terrorists with nuclear material seems very unlikely. So far, every nuclear weapons state has given highest priority to the safety of its arsenal and to its protection from unauthorized use. Even among the closest of NATO allies, relations between nuclear and non-nuclear states became tense as soon as nuclear weapons became involved.⁵ Against this backdrop, it is highly unlikely that a country, which has made the enormous effort (and taken the accompanying risks) needed to produce nuclear weapons, will be ready to blithely hand these symbols of incredible power easily over to a third party – particularly to a terrorist or to a criminal organization. The nuclear state would not only risk its weapons being used against its wishes, there might even be a danger that the empowered group would direct the weapons’ destructive force against the sponsoring state.

Even if the Iranian government were to provide a terrorist group with nuclear weapons, the main benefit for the sponsor - namely not being accountable for the ensuing terrorist attacks - becomes increasingly questionable. The United States and others have undertaken major efforts in the area of a relatively recent discipline termed “nuclear forensics”. Every nuclear fissile material has a certain “fingerprint” depending on its geographical origin and method of being processed. This nuclear fingerprint can even be detected in the fallout after a nuclear explosion and would directly point to the producer of the radioactive material used in perpetrating a terrorist attack. Thus, a nuclear Iran sponsoring nuclear terrorists would have to face the prospect of fallout being traced back to Iran and of being held responsible after the nuclear attack had been carried out. As a result, Iran might even have to face the prospect of a retaliatory nuclear strike on its own territory.

The danger of a terrorist attack using a so-called “dirty bomb” is a greater potential threat. Terrorist groups could detonate conventional explosives that have been mixed to-

⁴ The potential danger of Iraq’s sponsoring nuclear terrorism was also one of the justifications the George W. Bush administration adduced for ousting Saddam Hussein in Iraq.

⁵ U.S. “custodial teams”, i.e. those units which guarded U.S. nuclear weapons located on European soil, were even authorized to kill soldiers of their host countries should they try to get access to the atomic devices.

gether with radioactive materials stemming from the medical or the civilian nuclear energy sectors. The result would not be a nuclear chain reaction but “simply” the local dispersal of radioactive materials. This would not lead to nuclear devastation but to panic and chaos in the respective region and to the paralysing of modern industrial states. Given the vast amount of industrial, low enriched nuclear material or nuclear waste in almost all countries of the world, it would be just as easy to hold anyone else responsible for the action as it would be to hold the terrorist group itself responsible. Thus, Iran could be tempted to provide terrorists with such “radiological” weapons. However, to do so, Teheran does not require a successful nuclear weapons program. As many other countries, Iran already disposes of sufficient radioactive materials of differing kinds needed for these purposes. In other words: the danger of radiological terrorism is severe, whether Iran achieves nuclear status or not.

II. Broader Political Implications

Expanding Iran’s Political Options

Even if it is a simplified and schematic depiction, one can identify three main reasons why nations or governments undertake all the effort and hardship needed to acquire nuclear weapons:

- They intend to increase their own power base and thereby improve their security in their own region. This might have been one of the driving forces that led Israel to start its nuclear weapons program in the late 1950s.
- A second motive is the aspiration greater international status. Indians point to the fact that their country has been taken much more seriously in international politics since New Delhi crossed the nuclear threshold in May 1998 by detonating five nuclear devices.
- Most important, though, seems to be the third reason, which is the political benefit that comes with the nuclear status. A nuclear power hardly has to fear further military sanctions or violent interventions - even in cases of misconduct. Had the Republic of Serbia been a nuclear state in the late 1990s, NATO would probably not have acted militarily to liberate Kosovo. Likewise, the United States would hardly have started a war against Saddam Hussein over Kuwait in 1991, if Iraq had possessed nuclear weapons at that time.

Applying the third motive to the situation of Iran, the political advantages of nuclear status become apparent. A nuclear Iran would gain significant international weight and could act in a less risk-averse fashion in its region and on the international stage. Even an intervention in a neighboring country would be easier to contemplate. The political latitude of the international community and particularly of

the United States vis-à-vis Iran would decline correspondingly. Thus, should the theocratic regime in Teheran remain in power, Europe and the United States would be confronted with an anti-Western and potentially hostile power in one of the most relevant and at the same time extremely volatile regions of the world. This would shift the carefully balanced politico-military equilibrium in the area with unforeseeable consequences.

The Increase in the Number of Nuclear Powers

Another consequence of a nuclear Iran would be closely associated with the aforementioned transformation of the power equilibrium: the likely increase in the number of nuclear powers in the region. After Iran reaches the nuclear threshold, other countries in the Middle East and in the Gulf region will seek to acquire nuclear weapons as well - either to deter a perceived Iranian threat or to counterbalance the enlarged political weight of Iran.

The number of potential candidates is significant, as a large number of countries in the area already have civil nuclear energy programs. The Arab Republic of Egypt ("Egypt") has frequently claimed to be a "virtual nuclear power" and therefore technically capable of developing nuclear bombs. The prosperous oil producers such as the Kingdom of Saudi Arabia ("Saudi Arabia") or the United Arab Emirates (UAE) do not have indigenous nuclear power plants but have the financial means with which to launch military nuclear weapon acquisition programs. In the longer run, prob-

lematic countries such as the Syrian Arab Republic ("Syria") or the Great Socialist People's Libyan Arab Republic ("Libya") might also pursue the nuclear weapons option.⁶ Even NATO member the Republic of Turkey ("Turkey"), as an immediate neighbour of Iran, may reconsider its current non-nuclear status sooner or later.

The destabilizing consequences of an increasing number of nuclear players in the Middle East are evident. Regional crisis could escalate and end in nuclear strikes. Deterrence, in the sense of a regime of mutual fears that encourages the countries involved not to use their nuclear weapons, has so far only prevailed in bilateral (United States - Soviet Union) or trilateral (China - India - Pakistan) relationships. Whether it will reliably work in multilateral nuclear environment with four, five or more nuclear actors who may not have fully "learned" to cope with the responsibility of possessing nuclear weapons responsibly,⁷ is an open question. The first nuclear weapon detonated in anger since WWII in anger - be it within the region of the Middle East and the Gulf or without - will change international relations even more profoundly than the catastrophe of September 11, 2001 did.

To prevent nuclear proliferation in the Middle East and in the Gulf and to keep the number of nuclear states as small as possible, the United States could expand their nuclear umbrella in the region. Firm U.S. nuclear commitments - such as those the non-nuclear allies in NATO or as Japan and South Korea received - could keep Saudi Arabia or Egypt from pursuing their own nuclear plans. In the logic of this "extended deterrence" the nuclear powers promise to retaliate on behalf of their allies, should the latter suffer a nuclear attack.

However, the key obstacle is that potential U.S. nuclear commitments for the region have a credibility problem in two respects:

⁶ Libya and its odd leader Col. Mu'ammār al Qaddāfī always wondered about acquiring an Islamic nuclear weapon, the "green bomb". In 2003, as a reaction to U.S. military action against Iraq, Libya dismantled all of its weapons of mass destruction programs.

⁷ Joseph Nye has pointed to the fact that the two nuclear superpowers, the U.S. and the Soviet Union, learned by experience and concrete crises that nuclear weapons are qualitatively different from all other national instruments of power and that they require risk awareness and restraint. One can doubt that new nuclear powers would learn these lessons of self-restraint and caution quickly enough. See Joseph S. Nye, Nuclear Learning and U.S.-Soviet Security Regimes, in: *International Organization*, vol. 41, no. 3 (Summer 1987).

First, U.S. nuclear “extended deterrence” in the Cold War Europe or in Asia was bolstered by a strong U.S. military presence in the respective countries. Any attack by the Warsaw Pact in Europe would have killed thousands of U.S. soldiers and would have made U.S. nuclear retaliation more likely. The same hostage-function holds true for the U.S. soldiers stationed in South Korea or Japan, should North Korea embark upon a military aggression. A comparable deployment of U.S. soldiers in Saudi Arabia or Egypt is hard to imagine.

Second, many countries in the broader Middle East are not just concerned about Iran but are also concerned about the threat perceived as emanating from Israel. Thus, for U.S. nuclear commitments to be regarded by Middle Eastern countries as a credible alternative to possessing their own nuclear weapons, U.S. weapons would – at least conceptually - also have to be directed against a potential attack by Israel. However, neither Saudi Arabia nor Egypt nor any other country in the region will believe that the United States would be prepared to use its nuclear weapons against Israel in a Middle Eastern war just to fulfil nuclear commitments given for the purpose of nuclear non-proliferation. As a result, the idea of extending the U.S. nuclear umbrella to cover the broader Middle East in order to cope with a nuclear Iran hardly passes the smell test.⁸

Impact on the Nuclear Non-Proliferation Treaty Regime

The reality of an Iran equipped with nuclear weapons would definitively affect the Non-Proliferation Treaty (“NPT”) regime. This legal agreement went into force in 1970 and was supposed to limit the number of nuclear

states to the five existing ones (China, France, Soviet Union, United Kingdom, United States of America) and obliged the other signatory states - in the meantime 184 countries - to retain their non-nuclear status. As a *quid pro quo*, the nuclear powers were to provide the “nuclear have-nots” with the technical know how needed for the peaceful use of nuclear energy. Controls by the International Atomic Energy Agency (“IAEA”) were intended to ensure international adherence to the treaty’s legal regime.

The idea of limiting the number of nuclear powers to five was doomed to fail right from the beginning, as Israel most likely possessed nuclear weapons already when the NPT went into force (Israel was not a signatory to the treaty). India and Pakistan officially became nuclear powers after their successful nuclear tests in 1998 whereas North Korea declared itself to be the ninth nuclear power after mysterious nuclear detonations in October 2006. None of these four new nuclear powers adhere to the NPT regime. Israel, India and Pakistan never signed and North Korea abrogated the NPT in 2003.

Should Iran, which is a signatory of the NPT and is subject to inspections by the IAEA, become a nuclear power, the failure of the international non-proliferation regime would become evident. This would be even more true, should other countries in the region follow the Iranian example. The NPT would become an empty shell that would probably continue to remain in force, but would have significantly lost its regulating and retarding effects on the further spread of nuclear weapons.

It is worth noting, though, that the erosion of the non-proliferation regime is not only a consequence of the nuclear tests by India, Pakistan, North Korea or - prospectively - Iran. It is more grounded in fundamental shortcomings and construction faults in the NPT. The principle idea of limiting the number of (military) nuclear states and boosting the (civilian) benefits of nuclear energy has proven to be a chimera. If a country technically masters the entire nuclear

⁸⁾ The same reservations hold true for an idea that has already been suggested, namely that U.S. nuclear guarantees to Iran could prevent Teheran from pursuing its nuclear weapon ambitions.

fuel cycle (enrichment, energy production and reprocessing), it is able to produce highly enriched uranium and plutonium and the path to acquiring a military nuclear device is open. Moreover, the inspection regime of the IAEA has frequently proven to be porous, given the fact that the country under scrutiny can define which facilities it releases for inspection and which not. As a result, up until to 1991, Iraq was able to develop a fairly mature nuclear weapons program literally under the eyes of the international inspectors. The sophisticated international nuclear smuggling network run by Pakistan and supported by China remained undiscovered for a long time as well.

Even confronted with a nuclear Iran, the international non-proliferation regime would not lose its relevance completely and the NPT would not cease to exist. Despite its striking flaws and contradictions, it is still the only existing legal framework that can, at least, help to make unlawful nuclear activities public. Furthermore, IAEA inspections - all of their weaknesses notwithstanding - are of value in themselves, as the alternative to insufficient inspections would be no inspections at all. The NPT has never guaranteed that nuclear weapons would not proliferate - regardless of Iran's nuclear activities.

III. What Needs to Be Done?

U.S. Reactions to a Nuclear Iran

As soon as Iran has reached the nuclear threshold or proven its nuclear status by a test explosion and has furthermore managed to "weaponize" its nuclear device (i.e. miniaturize existing technology so that it can be delivered by a missile or an airplane), Washington will have to change course with regard to its policy in the Middle East. The question would no longer be how to prevent Iran from acquiring nuclear weapons but how to prevent any kind of use of these weapons. In order to prevent the *intentional* use of nuclear weapons, the United States and others dispose of large, sophisticated, flexible and survivable deterrent force postures. In light of such patently superior conventional and nuclear forces, any Iranian nuclear shot fired in anger would doubtlessly be an act of suicide.

A second challenge will be to avoid the unintentional or accidental use of Iran's nuclear weapons - a challenge that has to be met not least by Teheran itself.

The Iranian leadership - like all other nuclear countries - will have an overwhelming interest in the security of its nuclear forces. The weapons must be used (if at all) only with the consent of the highest state authorities. Moreover, during a potential domestic crisis, the nuclear weapons (or their critical components) must be held in a manner where they are safe from falling into the wrong hands, since even an unintended or unauthorized use of nuclear weapons against Israel, Europe or the United States could lead to a deadly retaliatory strike against Iran.

Since the beginning of the nuclear age, governments have tried to achieve nuclear safety and security by a number of measures. They kept the location of nuclear weapons storage sites secret and guarded them heavily. Nuclear war-

heads and delivery systems (missiles, aircraft) were kept separate and were guarded by different institutions or chains of command. The nuclear devices were kept disassembled and were only assembled by experts in times of crisis.

Still, a high and state-of-the-art level of security can only be provided by modern computerized blocking mechanisms for the electrical circuits inside the weapons. They were developed with the name “Permissive Action Links” (“PAL”) in the 1960s and have constantly evolved since that time. Today, all U.S., French and British nuclear warheads are equipped with these highly complex devices which enable the president or head of state (and only him or her) to release the weapons’ fusing mechanisms with long digital codes. Failures in inputting the codes or mistreatment of the warhead blocks the internal circuits and renders the entire warhead unusable - terrorists, rebels or criminals could not detonate it.

Not just Teheran would have reason to be concerned about the security of its nuclear forces. The United States and others would also be interested in Iran being able to implement the highest possible nuclear security standards in order to avoid unintentional use and/or the possibility of (religious) extremists inside or outside the government suborning the atomic devices. As Iran will hardly be able to develop modern PAL-technology on its own, Washington might even consider providing a nuclear Iran with such devices.

Such nuclear cooperation between the “great Satan” and a member of the “axis of evil” sounds contradictory but is much less unusual than it at first might appear. Already in the mid 1960’s - at the height of the Cold War - the United States was very concerned about the security standards of the vast Soviet nuclear arsenal. As a result, Washington secretly offered technical support to Moscow in order to make the Soviet nuclear weapons safer. The Soviet Union rejected this offer and assured Washington that it was de-

veloping its own technical security mechanisms.

In the case of Pakistan, the security cooperation was even closer. In 2000, two years after the Pakistani nuclear test, President Pervez Musharraf asked the United States for technical support in securing Pakistan’s nuclear weapons. Despite the growing influence of radical Islamists in Pakistan, U.S. President Clinton rejected this request not least because the administration in Washington was hesitant to provide the Pakistani nuclear arsenal with any sign of legitimacy. Immediately after September 11, Washington changed course radically as the American intention to oust the Taliban regime in Afghanistan could affect the stability of the region and the security nuclear weapons in Pakistan (where the ISI intelligence service is said to be infiltrated by the Taliban). The United States delivered the so called “technical assistance” - a synonym for PAL technology. Since then there have been rumours that Washington has taken technical steps that enable the U.S. to render the Pakistani warheads unusable should the Pakistani government be toppled by religious extremists.

Likewise, being faced with a nuclear Iran, Washington would have to subordinate its political misgivings and would have to cooperate at least in the field of warhead security with the regime in Teheran that it so disdains.

Requirements for NATO

A nuclear Iran would confront NATO with an entirely new set of deterrence requirements and would force the alliance to adapt its nuclear strategy and nuclear weapons force posture. It is worth noting, though, that this would be a completely new requirement only in part. NATO’s nuclear strategy and its nuclear hardware are already inefficiently geared to the deterrence requirements of the 21st century.

NATO’s nuclear posture in Europe - American B-61 nu-

clear bombs to be delivered by aircraft - is a relic of the East-West conflict. They were part of an entire spectrum of nuclear weapons of different types and ranges (missiles, cruise missiles, artillery shells, mines) deployed in large numbers in many NATO countries. The key purposes of these weapons were political, namely deterrence, war prevention and war termination in a Cold War context. The opponents, i.e. the recipient of the deterrence messages, were clearly defined as well as the targets at which the nuclear weapons were targeted.

The strategic situation in Europe has changed fundamentally and NATO's nuclear deterrence mission no longer has to cope with the huge military forces of an opposing alliance. Instead, deterrence (nuclear but also conventional) today is more likely to be directed against various categories of threats:

- Rogue states such as Iran or North Korea which possess nuclear weapons or are on the threshold of acquiring them;
- Non-state actors such as terrorist networks or organized crime (the combination of wealth, skills, religious zeal and/or criminal energy);
- Near-peer competitors such as China.
- The still vast nuclear potential of Russia should the political situation in the country change fundamentally.

Iran equipped with nuclear weapons would not totally change the equation - instead, it would even emphasize the fact that NATO's current nuclear posture is out of tune with reality. Assuming that a nuclear Iran proves to be a concrete threat to NATO and needs to be deterred by a credible and plausible nuclear message: is it plausible that 28 NATO members will agree to take a B-61 bomb out of a storage vault in Europe, mount it under an allied aircraft and then fly it to the crisis region in order to drop the bomb over a pre-defined target? Would NATO ever consider a mission that would imply a flight over thousands of kilometers with

nuclear freight, crossing NATO and non-NATO airspace, with the severe legal implications this entails, needing air refueling and requiring the nuclear aircraft to overcome the heavy air defenses of the target country? Wouldn't it be much more plausible to have this nuclear task fulfilled by a U.S. strategic nuclear weapon like a cruise missile or an intercontinental missile? If this is the case, one can seriously ask what the value of NATO's nuclear weapons in Europe really is.

For many years, NATO has shunned this fundamental question. Instead, large parts of the Alliance have followed a "don't rock the boat strategy" arguing in favor of leaving the nuclear weapons untouched. By doing so they tried to avoid painful questions regarding the credibility of NATO's nuclear commitments and of whether or not American "extended deterrence" requires the physical presence of U.S. nuclear weapons on allied territory. On the other hand, some have recently enthusiastically jumped on the emerging idea of creating a nuclear free world (Global Zero) and have argued for a quick removal of U.S. nuclear weapons from Europe - completely ignoring the concerns of East European NATO member states (who still harbor worries vis-à-vis Russia's future course) and avoiding the pertinent questions that come with the dream of a world without nuclear weapons as well. This self-imposed paralysis has not only prevented a nuclear debate from taking place within NATO but has also prevented a discussion on deterrence requirements in general. Whereas in the United States there has been an intense debate on how to adapt deterrence to new requirements, key issues such as how to deter terrorist

⁹⁾ The idea of *Nuclear Forensics* is based on the fact that, even after a nuclear detonation, radiation and debris display an individual nuclear fingerprint. Analysis of the debris permits conclusions to be made as to where the fissile material was produced or processed. Hence it is possible to ascertain the origin of the nuclear device and to hold the state of origin responsible. *Prompt Global Strike* means the destruction of launch pads, missile production sites or nuclear facilities preemptively with conventionally tipped ballistic missiles. In fact, U.S. Trident missiles are already undergoing a conversion program to replace nuclear warheads with conventional explosives. *Tailored Deterrence* describes a concept that tries to understand the peculiarities of the opponent and includes non-nuclear means in the deterrence equation.

groups, rogue states or non-state actors have not been raised in NATO meetings or in most European NATO capitals. As a result, new concepts like *Nuclear Forensics*, *Prompt Global Strike* or *Tailored Deterrence*⁹ have gone almost unnoticed by most NATO member states.

To adapt NATO's nuclear posture to the post-Cold War requirements - whether Iran has gone nuclear or not - the alliance needs to engage in a broad and intense nuclear debate. For that purpose, NATO's Nuclear Planning Group (NPG) as the one time key forum for deterrence discussions must rouse itself from its slumber and become the key forum for transatlantic nuclear consultations once again. Given the need to find a new nuclear consensus, debates should not remain limited to the question of how to deal with the NATO nuclear weapons in Europe, but should cover the broader topic of how to preserve deterrence in the current and future security environment. This requires that all NATO members familiarize themselves with contemporary concepts of nuclear and non-nuclear deterrence. The debate should be held in a frank manner - not excluding any option. If, for instance, NATO members fail to bolster the argument for retaining existing nuclear bombs in Europe with convincing reasoning, the bombs should be withdrawn. At the same time, alternatives have to be developed to keep deterrence credible, particularly in light of Iran going nuclear.

NATO needs to achieve clarity not only on its strategy but also on its declaratory policy and its way of communicating deterrence messages. Declaratory policy, i.e. NATO's nuclear related statements or declarations, aims to influence the risk calculations of potential aggressors (e.g. persuading Iran not to use its nuclear weapons) and at the same time to increase acceptance of the existence and presence of nuclear weapons among the general publics of NATO member states.

If NATO is to remain - for the foreseeable future - a nuclear alliance, it should not hesitate to admit to and argue in

favor of the fact that nuclear weapons are an element of NATO's security: it was nuclear deterrence that helped prevent the Cold War from becoming a hot one. Nuclear weapon stock drawdowns or withdrawals are not a positive end *per se*, but should only be contemplated if they increase alliance security.

The purpose of nuclear weapons is to prevent aggression against NATO by altering the cost-benefit calculus of a potential attacker. To achieve this goal, NATO should not deviate from its present policy of not excluding the first use of nuclear weapons - even if the likelihood is extremely remote. Any "no first use policy" would limit NATO's freedom of action, would make the alliance more predictable for potential aggressors and would thereby compromise one of the key lessons of deterrence - namely to keep the opponent guessing.

Finally, debates on future deterrence requirements in light of a nuclear Iran should not only focus on elements of retaliation (deterrence by punishment) but also on the aspects of protection (deterrence by denial). In this connection, missile defense capabilities gain in relevance. For years, NATO has been captured by ideological and sometimes bizarre debates about Russian concerns, potential new arms races or allegedly destabilizing effects of missile defense capabilities. A nuclear Iran would force NATO members to assess missile defense for what it really is: a supplementary element in a comprehensive security policy, adding - in conceptual terms - one additional firewall or line of defense to the system. Should diplomacy as the first defense line and deterrence as the second both fail, it would be useful to have a third line in the form of a missile defense that could further effect the opponent's cost-benefit calculations by posing the threat that a significant number of his or her incoming missiles will be intercepted. Confronted with a nuclear Iran, NATO would be better off with a functioning missile defense system than without.

A NUCLEAR-ARMED IRAN IN THE FUTURE SECURITY ENVIRONMENT

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I would like to begin by offering my thanks to the Aspen Institute in Germany for organizing this conference. I know from experience that it is difficult for those in government to talk about the strategic implications of an Iran armed with nuclear weapons. To some extent, even to be seen to be engaged in such thinking might be taken as an admission of anticipated defeat in the ongoing diplomatic confrontation between the clerical regime in Tehran and those who seek to hold it to its obligations under International Atomic Energy Agency (IAEA) safeguards, the nuclear Non-Proliferation Treaty (NPT), and legally-binding resolutions of the United Nations Security Council (UNSC). Mere contingency planning, of course, is in reality no such admission, but the political “optics” of the ongoing confrontation too often tend to stifle open debate. That is why it is particularly valuable for institutions such as the Aspen Institute to study such issues.

I. Iran and Nuclear Weaponry

Some commentators, particularly in the United States and in Israel, worry tremendously about the possibility that Iran would actually use nuclear weapons against Israel, or that it might supply nuclear technology (or perhaps weapons themselves) to one of its many terrorist clients around the world. Not everyone agrees on the likelihood of such events.

As I see it, one cannot rule out some spasm of annihilative eschatological enthusiasm from a regime that is already deeply radicalized and militarized, and within a *Shi'ite* tradition that has both powerful traditions of martyrdom and pronounced millenarian tendencies. Nevertheless, my own feeling is that such direct or indirect nuclear use is relatively unlikely absent some deep existential crisis for the clerical regime. It is a worry – and is undeniably part of the landscape of possible futures against which we should be testing our strategic and contingency thinking – but it is not my first worry.

Iran's acquisition of nuclear weapons also raises the troubling possibility, however, of the unplanned use or loss of control over a nuclear device or related technology – by accident or through incompetence and inexperience, or perhaps as the result of reckless adventurism by some splinter faction within the regime's already disturbingly radicalized *Pasdaran* force (a.k.a. the Islamic Revolutionary Guard Corps). The advent of an Iranian nuclear weapons capability would make such "inadvertence" scenarios an ongoing worry.

But whatever one thinks of the question of direct or indirect nuclear weapons use – in the sense of an actual detonation, rather than simply the employment of implicit or explicit nuclear threats in bargaining and intimidation scenarios – there seems to be little disagreement that an Iran with nuclear weapons is very likely to feel greatly empowered and emboldened within its region by the possession of a nuclear

weapons capability. This, in my view, is the basic strategic issue driving most other countries' reactions to the developing Iranian nuclear crisis.

A nuclear-armed Iran might well conclude that it has immunized itself against what its officials have sometimes termed "extra-territorial invasion," which basically means that its revolutionary *Shi'ite* leaders would no longer feel any danger that engaging in egregious regional provocations might bring down upon them forcible, foreign-led regime change of the sort that toppled Saddam Hussein in Iraq and the Taliban regime in Afghanistan. Given the degree to which Iranian regional assertiveness is already destabilizing the region – even without nuclear weapons – this is surely a very serious concern.

For years, Iran has been sponsoring terrorists and other fighters targeting Israel, offering ongoing support for those killing allied troops and local citizens alike in Afghanistan and Iraq, sponsoring the development of *Hezbollah* as a disruptive state-within-a-state in Lebanon, working to sabotage the peace process between Israel and the Palestinians, and periodically meddling in anti-government politics in regional states (particularly, but not exclusively, among the substantial *Shi'ite* populations of the Gulf). The regime in Tehran has a strong sense of self-identity as a revolutionary state with a feeling of sectarian mission *within* Islam, as well as ambitions actually to lead the entire Muslim world against its perceived enemies. This religious enthusiasm also overlays a self-identity as a *Persian culture* – indeed, the modern inheritor of one of the most glorious empires of antiquity – that has been humiliated in modern times and denied its rightful place as the leading state in the Middle East. How might such attitudes manifest themselves in regional behavior if nuclear weapons are felt to preclude foreign invasion?

It is not clear the precise degree to which Iran's present-day leaders consider themselves to be constrained by the possibility that engaging in regional or other provocations

might bring about their ouster, as it were, at the tips of foreign bayonets. Iran frequently *claims*, at least, to feel an acute threat of foreign intervention. (It has, for instance, explicitly advanced this as a rationale for purchases of advanced foreign military technology, such as the rocket-powered *Shkval* torpedo and the still-to-be-delivered S-300 air defense system from Russia.) Not surprisingly, perhaps, many foreign analysts feel such fears also to be one of the motivations behind Iran's continuing pursuit of a nuclear weapons capability.

The Iranian regime's victim-narrative, of course, describes Iran as being subject to wanton and undeserved foreign threats – and would no doubt publicly justify nuclear weaponization in such terms. Foreign observers tend to worry, however, that Iran's revolutionary leadership really yearns to chart a course no longer conditioned by the fear that aggressive actions might precipitate their own ouster. (From this latter perspective, the key analytical point is precisely the degree to which foreign threats would *not* be “undeserved.”) Either way, it seems reasonable to suppose that not *all* of Iran's emphasis upon the perceived foreign threat is empty and cynical bluster, designed solely for propaganda purposes and to justify the development of capabilities actually desired for other reasons. Yet granting any reality to Iran's claim (for whatever reason) to fear outside intervention implies, in turn, that Iran's behavior would be different – and in some sense inherently less constrained – after it has acquired nuclear weapons.

II. Bandwagoning versus Balancing

If any of Iran's loudly-proclaimed fear of outside intervention is real, it stands to reason that Iran will indeed feel to some real extent empowered and emboldened by nuclear weapons possession. Many fear that this means Iran will thereupon prove more aggressive, less restrained, and freer to indulge whatever revolutionary and/or hegemonic

predilections its government may happen to have.

This certainly seems to be the assumption of Iran's neighbors, at least, who have for years privately expressed alarm at Iran's rise as a regional power and its concomitant nuclear weapons ambitions, and who have begun in recent months to break their public silence on the subject. In June 2010, for instance, Ambassador Yusef al-Otaiba of the United Arab Emirates told a conference that “[w]e cannot live with a nuclear Iran,” and that he would be willing to support a U.S. military strike on Iran in order to prevent it from crossing the weapons threshold. Also this spring, Egyptian Ambassador Abdel Aziz told journalists at the NPT Review Conference that if Iran develops nuclear weapons, the Egyptians would “not ... accept to be second-class citizens” in the region, and that “Egypt and ... all the countries in the Arab world” might “change their mind” about non-proliferation commitments.

More quietly, multiple regional states – notwithstanding the oil resources some of them possess – are moving forward with plans to develop nuclear energy capabilities, which many observers interpret as “strategic hedging” designed to give them a nuclear technology base in case Iran's nuclear program cannot be stopped and they wish to move ahead with developing a countervailing capability of their own. Egypt has ambitious plans for nuclear energy development and has already had problems with the IAEA over undeclared fissile material production experiments, Jordan has refused to forswear fissile material production, Turkey recently announced plans to begin construction of a nuclear reactor by 2014, and famously oil-rich Saudi Arabia has declared its intention to develop uranium enrichment. Not surprisingly, this has led many observers to fear a “cascade” of proliferation if Iran's nuclear-fueled regional ambitions cannot be frustrated.

Just how such a cascade develops, however, will be shaped by Iran's own nuclear choices and by those of outside players. It will probably be very hard to prevent the further

proliferation of dual-use capabilities – including the critical nuclear weapons-facilitating technology of fissile material production – to regional states. The degree to which other states in the region cross the line into actual weaponization, however, may depend upon how Iran approaches this threshold.

Overt weaponization in Iran would maximize the pressure on other regional players to follow suit, particularly in Turkey and Egypt, which have historically played the role of regional balancer against Persian ambitions, and which entertain pretensions to regional leadership even today. As Ambassador Aziz's comments suggest, the current government of Egypt, a proud but brittle regime now facing leadership succession problems and terrified of Islamic radicalism, seems to have no illusions about the nature of the regional challenge presented by Iran's rise. Barring dramatic changes in Turkey's own sense of regional and religious identity, moreover – changes which are conceivable but still seem unlikely, even given the vaguely Islamist inclinations of its current government – Turkey's current confluence of interests with Iran, which runs to carving out a regional leadership role for Ankara as a mediator in crafting diplomatic alternatives to Western non-proliferation sanctions, may not survive Tehran's success in developing nuclear capabilities and claiming regional leadership for itself. Either or both of these countries might find themselves feeling strong incentives to follow Iran's nuclear path.

Covert Iranian weaponization – perhaps self-consciously modeling itself upon the strategy most observers claim Israel to have taken, and perhaps even adopting and mocking Israeli pronouncements about not being the first to “introduce” nuclear weapons into the Middle East – might reduce this pressure, though perhaps not too much. An Iranian decision to linger as a “virtual” nuclear weapons state on the edge of weaponization, however, would seem less likely to drive other states into overt weapons development. Either way, however, it would seem very difficult to prevent the

development of a region increasingly populated by “latent” weapons states, all “hedging” against each other in a tense and perhaps quite unstable balance.

Another critical variable will be whether regional Arab governments confronted by nuclear-facilitated Iranian efforts at regional hegemony choose to respond by a strategy of “bandwagoning” or to respond with one of “balancing.” It would be neither impossible nor entirely out of keeping with local political traditions for many regional players to conclude that Iran's rise is, for practical purposes, unstoppable – and that the best chance for security is thus to associate themselves with it in some fashion, such as by reaching an accord with Tehran that would permit existing regimes to remain in power as tolerated semi-clients within an Iranian sphere of influence. I doubt that such bandwagoning would stop the development of “latent” nuclear capabilities in some regional states, but it would presumably reduce the likelihood of countervailing weaponization – albeit at the cost of *de facto* political subordination.

Alternatively, regional states could band together to resist Iranian domination in classically anti-hegemonic balance-of-power configurations. Outside powers would presumably have a great deal of influence upon whether or not such a “balancing” strategy seemed attractive to regional players: outsiders' support for and involvement in anti-Iranian geopolitical maneuvering could help make balancing seem much more attractive, and bandwagoning unnecessary. Especially were an activist role adopted by traditional anti-Iranian (or anti-Perisan) balancers such as Turkey and Egypt, however, regional counter-balancing behavior is possible even if outsiders stand entirely aside.

Whether or not such anti-hegemonic mobilization receives the encouragement and support of powerful foreign allies would presumably also affect the likelihood of countervailing nuclear weapons development. “Balancing” states, in other words, might be content to remain non-nuclear if they felt their security adequately underpinned by foreign rela-

tionships, even though they might find little alternative to accommodation if left on their own. Here too, the willingness of outside powers to play an activist role against Iranian domination of the region will profoundly shape the evolution of the regional security environment. Such outside activism, in fact, might offer the only real chance to navigate between the Scylla of Iranian hegemony and regional bandwagoning, and the Charybdis of a dangerous nuclear-armed standoff between Iran and an anti-hegemonic coalition of regional rivals.

For the foreseeable future, the only outside power I see as being in any sort of a position to play such a mobilizing and channeling role is the United States – though success in this regard, after Iran’s acquisition of nuclear weaponry, might well require a politically-incorrect degree of sustained attention to maintaining or improving American military capabilities in order to keep full-scale intervention alive as an option credibly “on the table” without any U.S. recourse to its own nuclear weaponry. (This could entail, for instance, augmented active and passive defenses for the United States and its regional allies against potential forms of nuclear delivery, as well as improved capabilities to conduct expeditionary military operations in a weapons of mass destruction [WMD] environment.) At the very least, the United States would need to ensure that its global power-projection capabilities do not atrophy despite the financial pressures attendant to Washington’s shocking degree of current indebtedness.

I see little prospect of Russia playing a role in shoring up Middle Eastern balancing behavior vis-à-vis an aggressive and nuclear-empowered Iran, partly as a result of its lack of capability and partly due to its apparent lack of interest. If anything, Russia still seems tempted to regard Iran’s development at least of a “virtual” nuclear weapons capability as something quite *consistent* with the Kremlin’s strategic interest. To the extent that Iranian regional hegemony would present a grave setback to American strategy in the Middle East, Russia may find it congenial. (For an

authoritarian regime of *siloviki* functionaries pining for their lost empire and global stature, anything which undermines the power of its old superpower rival might seem intrinsically pleasant.) Provided that Iran did not turn its Islamic revolutionary gaze northward into the Caucasus, moreover, regional instability provoked by Iran’s rise could help keep Russia’s corrupt, ill-managed, and still-undiversified, petroleum-based economic monoculture afloat by ensuring that global oil prices remain high. Such factors – and not merely the short-term financial gain to be had from technology exports – may help explain the Kremlin’s willingness to constrain U.S. sanctions efforts at the U.N. Security Council, to help Iran with the construction of the Bushehr nuclear reactor, and (at least until recently) to sell it advanced military technology.

China’s situation is more complicated. Beijing sometimes seems tempted today to facilitate or protect Iranian self-assertion against the United States, perhaps also in a classically power-balancing way intended to weaken Washington’s strategic position while helping ensure a thirsty China’s continuing access to plentiful supplies of Iranian oil. Ultimately, however, it is not necessarily in Beijing’s interest to see Iran’s regional ambitions unsettle the Middle East. Having become the world’s largest consumer of fossil fuels, China badly needs long-term stability in the Middle East and continued access to oil. At some point, therefore, any interest Beijing may now feel in dragging its feet in the face of Iran’s destabilizing rise could be overwhelmed by its interest in regional peace. (A Sino-Iranian condominium built around a Chinese “big brother” offering augmented regime protection to Iran in return for preferential oil access would be a strategic gamble, and could backfire, from Beijing’s perspective, if the very solidity of such an accord further enticed Iran into adventurism or sparked vigorous – and perhaps outside-supported – counter-mobilization.) Which way China’s perceived interests eventually lead it is, at this point, anyone’s guess.

India’s future role in the region is, if anything, even more

ambiguous. New Delhi seems presently to be neither prepared for nor interested in an activist great power role that far afield. Nevertheless, over the medium or long term India is not badly positioned for such endeavors, particularly with the growth of its naval power and its emerging semi-competitive strategic relationship with a China that seems itself steadily to be acquiring interests and a growing role far from its own shores. Inherited Cold War era political prejudices notwithstanding, one should not even rule out the possibility of an eventual Indo-American alliance, particularly if China should begin to develop a more activist and perhaps less benign role in the Middle East.

Such possibilities, however, still seem distant. For the moment, there seems little prospect of an activist outsider role vis-à-vis anti-Iranian “balancing” that does not somehow involve Washington.

III International Regimes

So far, I have addressed the future strategic environment in the Middle East in general terms of *realpolitik* calculations and power-balancing between states. Let me add a few words about what one might call the psycho-political and legal ramifications of a nuclear-armed Iran for the non-proliferation regime, and for the way in which the international community conceptualizes and is willing to operationalize the use of force.

Analytically, it is useful to think of the “non-proliferation regime” as a bundle of inter-related agreements, institutions, norms, customs, and behavior patterns – including but by no means limited to the Non-Proliferation Treaty itself – revolving around the animating idea that international peace and security is best served if the further proliferation of nuclear weaponry can be prevented. Even though there are some who seem inclined to question it, this non-proliferation ideal still enjoys general support.

How precisely it should be lived out in practice, however, has been much contested.

Despite the military successes of the troop “surge” begun by the United States in Iraq in 2007 – and the uneasy quasi-peace into which that troubled country has since begun to settle – it is sometimes said that the long struggle of the Iraq war gave non-proliferation “unilateralism” a bad name. Notwithstanding the analytical fallacy of assuming that the difficulties of suppressing sectarian violence and guerrilla insurgency in Iraq had much of anything to do with who participated in the invasion, this observation makes an important point about the psychology of participants in the broader non-proliferation regime. Though initially the prospect of regime change in Iraq undertaken in response to purported WMD threats seems to have had a salutary effect upon the behavior of other proliferators – with Iran apparently temporarily suspending some work on nuclear weaponization in mid-2003, and Libya agreeing later that year to relinquish its various WMD programs – it did not take long for Iraq to sour many on the idea of muscular counter-proliferation of *any sort*. Iran has benefited from that souring.

With this general swing of opinion against intervention *per se* having been exacerbated by what appears to have been a broad feeling that the United States had become too powerful and too willful, and needed to be taught something of a lesson, the psycho-political pendulum within the non-proliferation regime for a time swung quite emphatically in favor of an exclusive focus upon using “softer” means for accomplishing non-proliferation goals. For some participants – such as the three European governments that cut their own “unilateral” diplomatic side-deal with Iran in 2003, an accord that did not stop Iranian nuclear developments but which successfully derailed for some years the U.S. effort to work the Iran issue multilaterally through the IAEA to the Security Council pursuant to the IAEA statute – the shift seems to have been entangled with desires for some kind of political “payback” for Washington’s enthu-

siasms in Iraq, perhaps coupled with a demonstration to the arrogant Americans of the “right” (i.e., diplomatically non-confrontational) way to approach non-proliferation.

Others, particularly in the developing world, may have had some real sympathy for the Iranians – at least initially – as plucky underdogs facing down the mighty powers of the world, or may have felt an affinity for Iran’s conveniently self-exonerating narrative that the *real* story here was less about preventing proliferation than about predatory Western nuclear technology “haves” further oppressing “have nots” in less developed countries. Whatever the causes, however, the swing of the psycho-political pendulum within the non-proliferation regime against the very idea of military intervention seems to have been significant – and was only underlined by the coming to power in the United States of a new president who had fiercely opposed the war in Iraq and who was determined to win acclaim for not being anything like his predecessor.

But here lies the significance of subsequent developments in Iran, for the current situation suggests that diplomacy-focused “multilateralism” and the congenially non-sanguinary tools of “soft power” may now *themselves* be being given a “bad name” inasmuch as they are proving conspicuously unable to prevent or even slow Iran’s trajectory toward nuclear weapons. An Iran armed with nuclear weapons could thus impel a *new* pendular movement, for it could be taken to offer a lesson in the *ineffectiveness* of peaceable methods when confronting a determined proliferator.

One possible lesson of a nuclear-armed Iran might be that non-proliferation compliance enforcement is simply not possible *at all*, its “hard” version having become self-deterrently costly and its “soft” version having simply proven ineffectual. Such a conclusion would represent the collapse of the non-proliferation regime into a merely hortatory system – a scheme of unenforceable virtue ethics in an environment that still seems to present participants with

powerful incentives for misbehavior. The potential proliferation consequences of such an institutional implosion are not hard to imagine.

An alternative lesson, however – and it is naturally quite possible that different players will reach different conclusions – might be to conclude that anyone serious about non-proliferation must be willing to intervene early in a developing proliferation crisis after all, and by force of arms if necessary, since the Iran case demonstrates that no “softer” approach can be relied upon. By this view, the U.S. might in a sense actually be seen to have had a point in conceptualizing the possibility of counter-WMD preventative war, even if they did undertake their invasion of Iraq on mistaken premises and ended up mishandling its occupation in bloodily tragic ways.

The lessons of Iran could thus have important implications for use-of-force issues in the international community more generally. As I have discussed elsewhere, some international lawyers have tried to argue that the very existence of the U.N. Charter system precludes resort to force without Security Council authorization except in the most immediately threatening of circumstances. Yet it is toward just such violent “self-help” prophylaxis that the collapse of compliance enforcement in the non-proliferation regime may end up pushing the international community.

If there is a cogent argument to be made for restricting preventative war to UN Security Council-authorized circumstances, it revolves around such formal institutional mechanisms being able to offer an effective replacement for national self-help. With regard to the use of force in counter-proliferation, however, the Iran-related unraveling of NPT compliance enforcement may make this untenable. In an era characterized by worsening WMD proliferation threats, but also by the disintegration of hopes for effective multilateral non-proliferation compliance enforcement short of war *and* the *de facto* non-availability of officially “authorized” force, compliance enforcement might end up

being effectively “privatized” under the rubric of Article 51 “self-defense.” The international community, in other words, may come to rely, more explicitly than ever, upon the individual efforts, commitment, and capabilities of a small number of muscular players willing – entirely on their own – to shoulder the burden of providing what an economist might describe as a “public good” of compliance enforcement that would otherwise be radically “underproduced.”

This is a policy and legal debate that was already well underway in non-proliferation circles long before the Iraq war. My point here, however, is not that these issues are likely to be resolved any time soon, but that the story of the last decade’s events in the Middle East – and the rise of a nuclear-armed Iran – may ultimately end up reinforcing, rather than undermining, the critique of multilateralism that helped lead to the invasion of Iraq. Future generations’ view of WMD-related “self-defense,” and of the availability and advisability of preventative violence, will be shaped by whether diplomatic multilateralism shows itself capable of handling the Iranian challenge.

IV. Narratives of Identity

Let me now say a final word about Iran’s potential impact upon what one might call competing overall visions of the strategic environment, of its principal constituent units, and of its most salient dynamics. In this respect, the Middle East may be today at a watershed point *between* narratives, a juncture at which new and emerging storylines compete in order to re-organize perceptions of the region and its trajectory.

For many years, views of the Middle East seemed to be structured around several basic sets of tensions. The region as a whole may have been defined by outsiders in a vaguely civilizational sense – with the “Middle East” being seen,

in affirmative terms, as a region generally characterized by aridity, oil, and Islam, as well as in negative space by virtue of *not* being European, African, or Asian – but its key internal polarities did not then seem to have much to do with civilizational indicia. Rather, the Middle East found itself living out a series of dynamic tensions between systemic and national identities.

With Ottoman imperial rule having collapsed and been succeeded by a time of European colonial power that then itself soon began passing into history, the region was strung by the mid-20th Century between claimant post-colonial identities. In that new world, emergent nationalist enthusiasms – expressed, in Arab regions, at least, either as an emergent pan-Arabism or as a more localized national identity, with these two nationalisms themselves sometimes very much in tension with each other – coexisted awkwardly with more *systemic* identities rooted in narratives that located Middle Eastern peoples and states within broader clashes of politico-ideological identity along capitalist/socialist lines or what came to be called North/South issues of economic development. This broad post-colonial tension was itself then overlaid by the geopolitical rivalry of the Cold War, the politico-military and ideological demands of which to a degree reinforced the region’s polarities, but which also to some extent encouraged the development of victim-identities opposed to any kind of “team” association with manipulative and oppressive outsiders.

Today, however, things are changing again, and all of these narratives are in flux, having either been exploded outright – like the polarity of the Cold War upon the collapse of the Soviet empire – or being under assault from various new conceptual organizing schemes. If we are to understand the long-term impact of a nuclear-armed Iran, we must explore the potential ways in which it will play into this ongoing process of identity contestation and competition between organizing frameworks.

The strategic bipolarity of the Cold War was succeeded by a narrative of U.S. monopolarity, in which global dynamics were felt to be conditioned to a historically unprecedented degree upon strategic choices made in Washington. The United States, by this point uniquely, was a power that conceived its interests in truly global terms, and it was able to shape its strategic environment through both “hard” and “soft” means far more broadly and deeply than any other of the major powers. Today, however, this monopolar narrative is under stress in a number of ways, with opinion in many quarters shifting markedly against the sustainability of such far-flung U.S. roles and commitments for reasons ranging from politico-psychological enervation to the hobbling impact of contemporary Washington’s ruinous budget deficits.

To the extent that the monopolar storyline still retains coherence, it rests upon America’s extraordinary conventional military strength – an amalgam of global logistical reach, state-of-the-art space-facilitated communications and computer infrastructures, precision weaponry, enormous research and development investments, and highly-trained professional manpower – which no other power, or perhaps even combination of powers, can today even come close to matching. Yet the prospect of a nuclear-armed Iran offers a potentially powerful counter-narrative to the storyline of global military monopolarity, particularly if such armament were accompanied by the possession of advanced non-nuclear military technologies specifically optimized for complicating or precluding extraterritorial power projection by the American hyperpower. (It is not that such non-nuclear capabilities would allow their possessors to do anything remotely like *matching* American might, but rather that these techniques are intended to *neutralize* its most potent elements, for a time, and in a specific locality. Especially if coupled with the potential threat of nuclear weapons use, the hope presumably would be to make U.S.-style power projection seem prohibitively risky in one’s own particular case.) Assessments of the strategic impact of a weaponized Iran must thus consider the degree

to which such a nuclear capability will tend to *decouple* the Middle East from a broader politico-military balance that still favors the United States, and the political and strategic implications of such decoupling.

Such strategic decoupling, of course, would not be entirely surprising, for this is, for Iran, presumably precisely the point. (As noted, many observers feel that one of the reasons Iran seeks nuclear weapons is to “immunize” it from the possibility of forcible regime change.) But it should be viewed not only from the perspective of its immediate impact upon the security dilemmas facing Iran’s neighbors, but also as part of a broader dynamic of *re-regionalizing* what had previously been a militarily *globalized* world – a process the long-term implications of which may be very significant indeed.

Such re-regionalization – with its accompanying implications not only for America’s global role but also with regard to the prevailing narratives of identity polarity within the Middle East – might raise important questions about who the key players (and “teams”) would come to be in regional politics. This is a particularly salient question given that one of the other key tensions of the post-colonial era – the relationship between national and systemic identity – is also today being recast. Where once the fundamentally secular identities of nationalist particularism and globally-focused politico-economic ideology confronted each other in a battle for the hearts and minds of regional players, today this tension is evolving into a contest between more-or-less secular nationalisms, on the one hand, and much broader notions of religious and civilizational identity rooted in an increasingly radicalized Islam on the other.

In a re-regionalized strategic context in which identity narratives are caught between national and religio-civilizational affiliation, a nuclear-empowered Iran could play a powerful “wild-card” role as a sort of conceptual catalyst. As a non-Arab power, a rising Iran – and its potential belligerence – could stimulate into revival an otherwise ap-

parently waning sense of ethnic or cultural pan-Arab identity, recasting regional relations increasingly along an ancient axis of Arab-Persian tension. As a *Shi'ite* power, Iran could provoke a similar reaction by *Sunni* Islam, in a process that could either reinforce Arab-Persian dichotomies or in fact subsume and dissolve them in the sort of broader sectarianism we have seen in Iraq. And in either incarnation – *Shi'ite* or Persian – an Iran rising toward dreams of regional hegemony could draw forth new regional polarities with counterpoised identities clustered around “champion” states such as Turkey or Egypt, each taking advantage of overlapping polarities in which they would embody Arabism (in Egypt’s case), Sunni Islam, and/or a political ethic of religious “moderation” or even secularism in the face of Islamist revolution.

Nor should one forget that it sometimes seems to be Iran’s own ambition to transcend *all* these internal regional polarities, constructing instead a radicalized religious identity for the Middle East as a whole – led and inspired by Iran’s own revolution – and resurrecting a notion of strategic bipolarity on a global scale by positioning this new Islamic collectivity as the opponent of a multinational system of corrupt and iniquitous irreligion or apostasy. (In this regard, the clerical regime in Tehran might end up having more in common with stateless *Sunni* extremists than with other states in the region. One should perhaps not rule out their reaching an accommodation, as indeed already seems to be the case with Iran’s support for the *Sunni* extremists of *Hamas*. Anti-Israeli animus might also prove to be a potent pan-Islamic unifying force.) It is far from clear how successful this effort will be, of course, but it presents yet another competitor in the region’s complex and shifting complex of identity narratives.

My point is not to *predict* how Middle Eastern participants will move along these contested identity axes. Rather, it is merely to point out that Iran, and the dynamics of its rise, are pivotal to the development of the polarities presently in play in the region today.

V. Conclusion

Except insofar as almost any nuclear-armed Iran would seem to present a challenge to the integrity of the nonproliferation regime, it bears emphasis that it need not *necessarily* result in a catastrophically dramatic recasting of regional alliances, power dynamics, and identity complexes. An armed Iran that for some reason becomes a *status quo* power and is perceived as no longer being a threat to its neighbors after having seized its atom-fueled geopolitical “place in the sun,” for instance – such as through the replacement of its clerical revolutionaries, *Pasdaran* praetorians, and *Basiji* paramilitaries by genuine moderates, secularists, and/or democrats – might actually permit an era of more “normal” state interactions shorn of some of the acute systemic, sectarian, nationalist, or civilizational competitions so many observers today expect. A crisis that results in the collapse of the Islamic revolutionary government from economic pressure and domestic discontent, in fact, could actually *strengthen* the non-proliferation regime and help *stabilize* the region, particularly if such collapse produces de-nuclearization. Not all possible outcomes, in other words, fit within the “parade of horrors” genre.

My point, however, is that it is very hard to say precisely what will happen – and that many alternative futures, at least, seem likely to present grave challenges to international peace and security. By being clearer about what is at stake, conferences like this one can hope to help make such outcomes less likely, by helping leaders focus more effectively upon taking the steps needed to forestall them. If that fails, moreover, sharpened intellectual clarity now should also help us be better prepared for the changes that Iran’s nuclear capability might bring.

As we contemplate the possibility of a nuclear-armed Iran, we must test our potential strategies against the broad landscape of possible futures, both good and bad. We need not necessarily assume the worst, but neither should we allow ourselves to be surprised by it and caught entirely unpre-

pared. Accordingly, I am honored to have had the chance to share my own speculations with you, and I look forward to our discussions.

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ACRONYMS

ABM	Anti-Ballistic Missile
AESF	Aspen European Strategy Forum
AOR	Area of Responsibility
AP	Additional Protocol
BBC	British Broadcasting Corporation
BMD	Ballistic Missile Defense
BND	Bundesnachrichtendienst – German Federal Intelligence Service
CIA	U.S. Central Intelligence Agency
DDG	Deputy Director General
DG	Director General
DIA	U.S. Defense Intelligence Agency
DIQ	Design Information Questionnaire
DPRK	Democratic People’s Republic of Korea aka North Korea
EBW	Exploding Bridge Wire [Detonator]
EFP	Explosively Formed Penetrator
EU	European Union
EU3	Germany, France, UK
EU3+3	Germany, France, UK, Russia, USA, China see P5+1
FBI	U.S. Federal Bureau of Investigation
FEP	Fuel Enrichment Plant
GDP	Gross Domestic Product
GDR	German Democratic Republic
HEP	Highly Enriched Plutonium
HEU	Highly Enriched Uranium
IAEA	UN International Atomic Energy Agency
IBRD	International Bank for Reconstruction and Development aka World Bank
ICG	International Crisis Group
ILSA	Irani Libya Sanctions Act
IMF	International Monetary Fund
INF	Intermediate-Range Nuclear Forces
INFCE	International Nuclear Fuel Cycle Evaluation
INOC	Iranian National Oil Company
INSS	Institute for National Security Studies, Tel Aviv
IR1	IR-1 Centrifuge Design
IR2	IR-2 Centrifuge Design
IR3	IR-3 Centrifuge Design
IR4	IR-4 Centrifuge Design
IR-40	Iranian Heavy Water Enrichment Project
IRI	Islamic Republic of Iran
IRGC	Iranian Revolutionary Guard Corps aka Pasdaran

ISI	(Pakistani) Inter-Services Intelligence agency
JD	Joint Declaration
LEU	Low-Enriched Uranium
MKO	<i>Mujahedin e-Khalq</i> Organization
MOIS	Iranian Ministry of Information and Security
MUF	Materials Unaccounted For
NATO	North Atlantic Treaty Organization
NCRI	National Council of Resistance in Iran
NIC	U.S. National Intelligence Council
NIE	U.S. National Intelligence Estimate
NPT	Nuclear Non-Proliferation Treaty
NPR	Nuclear Policy Review
NRC	U.S. Nuclear Regulatory Commission
NSG	Nuclear Suppliers' Group
P1	P1 Pakistani Centrifuge Design
P2	P2 Pakistani Centrifuge Design
P5	The Five Permanent United Nations Security Council Members: USA, China, Russia, UK, France
P5+1	Germany, France, UK, Russia, USA, China see EU3+3
PFEP	Pilot Fuel Enrichment Plant
PRC	People's Republic of China
R&D	Research & Development
S-300	S-300 Russian Air-Defense System
SCR	UN Security Council Resolution
SQ	Significant Quantity
SSBN	Submersible Ship Ballistic missile Nuclear aka Boomer
TRR	Tehran Research Reactor
U-235	Uranium 235
UAE	United Arab Emirates
UAV	Unmanned Aerial Vehicle
UCF	Uranium Conversion Facility
UF6	Uranium Hexafluoride
UN	United Nations
UNGA	United Nations General Assembly
UNSC	United Nations Security Council
UO2	Uranium Dioxide
US	United States [of America]
WMD	Weapons of Mass Destruction

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