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Reassessing the Implications of a Nuclear-Armed Iran

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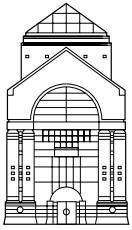

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Preface

As this paper goes to press, Iran has just come through its long-anticipated presidential election. Despite predictions of a victory for a well-known clerical "moderate," former president and Expediency Council Head Akhbar Hashemi-Rafsanjani, the winner was the hard-line conservative mayor of Tehran, Mahmoud Ahmadinejad, a relative unknown. The terms hard-liner and conservative are used virtually interchangeably by many inside and outside Iran; they are relative terms, since there are no political parties in Iran, with their meaning dependent on context and issue. The election consolidated control of all branches of the Iranian government—legislative, executive, and judicial—in conservative hands. It also brought to the presidency for the first time in the republic's history a non-cleric who ran a populist-style campaign attacking corruption and non-Islamic practices that had crept into government since the death of the Ayatollah Khomeini in 1989.

During the presidential campaign, Rafsanjani had dangled the lure of a possible deal on nuclear issues and an opening to the United States if elected. His supporters claimed he was a man who would stand up to the hard-liners in the Majles (Iran's parliament) and even to Supreme Leader Ali Khamenei, both of whom oppose relations with the United States and urge continuation of full-cycle uranium enrichment programs that could produce nuclear weapons. These supporters believed Rafsanjani could deliver on these promises, and they argued that were the conservatives—or hard-liners—to acquire total control of all branches and institutions of the Iranian government, there would be no concessions by Tehran on nuclear enrichment or weapons development and no willingness to improve relations with the Great Satan (the United States) or to stop threatening the Little Satan (Israel). Other, allegedly equally well-informed Iranians and observers repeated the idea that everyone in Iran, including the conservatives,

wanted to open a dialogue with Washington as much as the reformists did but did not want reformist president Ayatollah Khatami to get the credit for initiating actions long anticipated by the Iranian public.

In contrast, Ahmadinejad, once a member of the Iranian Revolutionary Guard Corps (IRGC) and the basij (Islamic religious militants who fought in the Iran-Iraq war and function as "morals police" in Iran), talked about a return to the principles of the Islamic revolution, called for radical economic reforms and social justice, and vowed to build Iran into "an Islamic, exemplary, advanced and powerful nation."[1] On nuclear power issues, he indicated disappointment with Iran's relatively weak stance in its negotiations with the European Union (EU) but said as well that nuclear technology for military purposes was "against our Islamic values." Lost in the debates was the reality that regardless of who won the election, the presidency is mostly a visible and ceremonial office that lacks decisionmaking powers; real power is held by the Supreme Leader, the Majles, the military, and the judiciary—all of which are controlled by the Supreme Leader, Ayatollah Ali Khamenei. Ahmadinejad could become a lame duck in a much-weakened presidential office, just as his predecessor, President Khatami.

Such are the uncertainties that surround present-day Iran and in particular the future direction of its nuclear diplomacy. In an agreement made with three leading European Union (EU) countries—Great Britain, France, and Germany—in early 2005, Iran agreed to suspend enrichment-related operations in exchange for concessions and assistance from the EU. Political leaders in Iran denounced the agreement, and in mid-May the Majles passed a measure supporting nuclear weapons development, which was quickly approved by the conservative-dominated Council of Guardians. In late May, the foreign ministers of the so-called EU–3 held another round of meetings with Iran aimed at obtaining Tehran's promise to stop all work on uranium enrichment and the procurement of fissile material. In these discussions, the EU representatives offered once again to cooperate with Iran on energy and research programs and other benefits, including a promise to support Iran's application to join the World Trade Organization. Hassan Rohani, Tehran's chief negotiator to the EU talks, promised Iran would continue to suspend uranium enrichment activities, which British Foreign Minister Jack Straw interpreted as a "reaffirmation of Iran's commitment not to seek nuclear weapons." Rohani also said an agreement with the EU could be reached "within a reasonably short time."[2]

Once again, however, the possibility of mixed signals arose. Did Iran promise to end its search for nuclear weapons, as Jack Straw claimed?

Tehran, which has never admitted to seeking nuclear weapons capability, is very likely to deny that and underscore its willingness to suspend temporarily a part of its civilian nuclear program in exchange for meaningful rewards. Iranian officials could reject all compromise outright, as they have before, and denounce this latest insult to national pride. Meanwhile, in Washington, aides to Israeli Prime Minister Ariel Sharon reportedly presented evidence, including satellite reconnaissance imagery, about the Iranian nuclear program to senior U.S. officials, and Israel's media warned of the dire threat when, not if, Iran has a nuclear weapon, according to press sources.[3] At the same time, Sharon told the Cable News Network that Israel would not mount a unilateral attack aimed at destroying Iran's nuclear capability. Iran, Sharon says, is years away from possessing a nuclear weapon, but he warned that it was only months away from solving "technical problems" toward building a nuclear weapon. "Once they solve it," he opined, "that will be the point of no return."[4] At this time, it is unclear if Tehran will resume meetings with the EU as if there had been no election, renege on promised cooperation, or escalate its terms for cooperation.

We are grateful to many people for their valuable insights in trying to sort out these perceptions and inconsistencies as we reexamine the strategic implications for the United States in the event Iran moves ahead to acquire nuclear weapons capability. This study draws on expert workshops held in the Institute for National Strategic Studies (INSS) at the National Defense University (NDU) in January and February 2005, as well as meetings, interviews, and research conducted at NDU and elsewhere over the past several years. We especially wish to thank our NDU colleagues Kenneth Brill, Elaine Bunn, John Caves, Jack Gill, Joseph McMillan, Eugene Rumer, Phillip Saunders, and Michael Yaffe for their contributions. From outside NDU, we are especially indebted to David Albright, Avner Cohen, Michael Eisenstadt, F. Gregory Gause, Philip Gordon, David Kay, Susan Koch, Mohsen Milani, Leonard Spector, Gerald Steinberg, Ray Takeyh, Kenneth Pollack, and Steven Simon. We acknowledge with grateful thanks the efforts of NDU Press, especially Debra Taylor, George Maerz, Jeffrey Smotherman, and Lisa Yambrick, to expedite publication. Finally, we thank Drs. Stephen Flanagan and James Schear of INSS for their enthusiasm, support, and guidance, and Dahlia Reed, our research assistant, for her patience. The wisdom is theirs; the errors, if any, are ours alone.

Judith S. Yaphe
Chuck Lutes
Washington, July 2005

Summary

In 2001, the Institute for National Strategic Studies (INSS) published *The Strategic Implications of a Nuclear-Armed Iran* by Kori Schake and Judith Yaphe, both then INSS Senior Fellows.[5] The study, which drew on open sources, postulated that Iran was determined to acquire nuclear weapons and the long-range missile systems needed for their delivery and, in fact, was well on its way to achieving those objectives. The study then examined why Iran wanted nuclear weapons, the threats it perceived, and how it was pursuing its goals. The study also addressed questions that had only sketchy answers, such as who was in charge of Iran's nuclear weapons programs, what was the doctrine of usage, who would decide on weapons use, would they share their new knowledge or capabilities with others (including terrorists), and how could suppliers be persuaded to stop aiding Iranian nuclear development. Finally, the study speculated about the impact of Iran's shifting political dynamic—reform-minded candidates had won control of the Majles (parliament) and in 1997 and 2001 elected one of their own, Ayatollah Khatami, as president—on its strategic planning for a nuclear weapon. Would these political changes prompt Iran to change course?

The answer in 2001 was no. Iran did not appear to be halting its march toward nuclear weapons capability. There was little sign of domestic debate. Rather, Iranians—regardless of their place as conservatives or liberals, hard-liners or reformists on the political spectrum—appeared to agree that when it came to threats to national security, Iran should have the means to defend itself. Specialists consulted for the 2001 study, like their counterparts in 2005, agreed that Iran sought nuclear capability but were divided on whether Iran had decided conclusively that it would enter the nuclear club or had reached the point of no return in its decisionmaking or technology.[6] The 2001 study noted that for Iran, the benefits of

being able to deal with perceived security threats from Saddam Husayn's Iraq, Israel, and the United States and emerge as the preeminent leader of the Persian Gulf and Islamic world far outweighed the disincentives, which were considerable. The 2001 study concluded that a nuclear-armed Iran would raise the stakes for American engagement in the Middle East and Persian Gulf region. The distinction between U.S. foreign policy goals, regional interests, and homeland security would be obliterated, the Gulf region would become far more dangerous, and U.S. relations with Russia, China, and perhaps Europe would be at risk.

To what degree have new information and the passage of time altered our understanding of the issue? Without question, much has changed since the 2001 assessment was written. Al Qaeda terrorists attacked the Twin Towers in New York and the Pentagon in Washington, DC, on September 11, 2001. The United States invaded Afghanistan and Iraq, the former because al Qaeda terrorists used it to shelter their organization and prepare for operations, and the latter because of Saddam Husayn's failure to comply with United Nations (UN) Security Council resolutions on giving up his weapons of mass destruction programs and his alleged support to terrorist organizations, in particular al Qaeda. Beyond 9/11 and its aftermath, other developments have loomed large. On the political side, Palestine Liberation Organization leader Yasir Arafat died in 2004, the Palestinians held elections in January 2005, and after nearly 5 years of confrontation, Israelis and Palestinians may be on the road to negotiations. In Iran, conservatives won the majority seats in Majles elections in 2004 and also won the presidential election in 2005, giving them control of all branches of the government.

None of these changes, in our estimation and that of the experts we consulted, have diverted Iran from its systematic pursuit of nuclear technology that could contribute to a weapons program, including uranium enrichment and a heavy water reactor. Of great significance was the revelation that the A.Q. Khan network in Pakistan had provided plans and technology for Iranian and Libyan nuclear aspirations, a discovery that roused European Union (EU) attention and contributed to Libyan leader Muammar Qadhafi's decision to give up his nuclear weapons acquisitions. The International Atomic Energy Agency (IAEA) as well as independent nuclear scientists and Iran itself have confirmed what was long suspected: that Iran has been working for the past 20 years on acquiring nuclear technology. The IAEA and the scientists confirm, furthermore, that a number of the specific capabilities Iran is developing or seeking are primarily applicable to a nuclear weapons program. And, while Tehran insists it wants

nuclear power for energy generation—to replace the domestic use of oil primarily so that more oil can be exported at profit to Iran—the evidence suggests that Iran has long been attempting to achieve self-sufficiency in a complete nuclear fuel cycle that would support nuclear weapons production and in long-range missile delivery systems. The latter has been achieved; the former may be completed within the next 1 to 5 years or longer, according to various estimates.

Views Inside Iran

Iran's threat perceptions in 2005 remain much the same as in 2001. Tehran believes it needs advanced nuclear technology that could be used in weapons production for numerous reasons: weapons of mass destruction were used by Iraq against Iran in their 8-year long war; Iraq was working on a nuclear weapons device in the 1980s and Iranians assume Baghdad will want them again; Israel, India, Pakistan, and the United States have them; Iran is strategically isolated and needs self-sufficiency to defend itself in the event of attack; and the possession of such weapons would give the regime legitimacy, respectability, and protection. All these reasons give the regime a substantial interest in pursuing the nuclear option. However, concern about possible intimidation or blackmail by the United States is probably paramount in Tehran's calculus, and the expanded U.S. military presence in the Persian Gulf and Central Asia since 2001 has likely heightened the regime's sense of vulnerability.

How Iran would cross the nuclear threshold remains important. Most specialists believe that Iran would choose to become a virtual nuclear power—that is, its programs and activities will be opaque, it will not test, and it will be able to assemble a nuclear weapon quickly from prefabricated components.

Equally important, there are no valid public opinion polls that measure Iranian popular reaction to the issue of nuclear weapons. Most Iranians seem angry that the international community wants to deny them nuclear technology for energy and research capabilities, which they see as Iran's natural right. Their attitude on possession of nuclear weapons, however, is unknown. Most academic specialists on Iran note that Iranians tend not to question the government's judgment on issues of national security. There is also a widespread view among specialists that a military strike by the United States or Israel aimed at preempting Iran's programs would likely have the unintended consequence of rallying Iranians, most of whom are staunch nationalists, around a regime they might otherwise want to replace.

Views Outside Iran

Iran's neighbors—in particular, Saudi Arabia and the smaller Gulf States, Syria, Egypt, and other Arab Muslim states—claim not to worry about a nuclear-armed Iran. Some in the region—Egypt, Syria, and Libya—abandoned their nuclear efforts because of a lack of resources, the possibility of inducements, and/or a well-founded fear of negative repercussions. In our view, Iran's acquisition would not necessarily change their calculations. The Persian Gulf States profess to be more worried that an American government, intent on war with Iran, would drag them into their fourth regional war in a generation. As for Iraq, the picture is less certain. In the short term, Iraq must focus on establishing political authority and legitimacy, ending insurgencies, and establishing the rule of law. Over the longer term, however, Iraqis are certain to perceive a need to match Iranian military capabilities as a purely defensive measure. They have already probed the United Nations (UN) for release from the more onerous restrictions of the Security Council resolutions passed in 1991. Specialists on Russia, China, and Pakistan—Iran's principal suppliers—say these countries see no danger in providing technology, training, and other forms of support to Iran, and even if they did, they would do little to stop it. In this regard, specialists are pessimistic that China and Russia, at least in the absence of a nuclear test, would support the UN Security Council taking punitive action against Iran.

For Israel, a nuclear-armed Iran is a clear and present danger. Israel takes at face value Iran's threats to destroy the Jewish state, restore Muslim control of the Holy Places, and back a one-state solution: an Islamic Palestine in which Jews can live alongside Arabs and Muslims. Most Israeli strategists do not question if Israel should seek to remove Iranian nuclear facilities; rather, they question when and how. Preemption, say some Israelis, is an option only before Iran crosses the actual threshold. They argue that waiting only increases the risk, while a preemptive military strike would set back the Iranian nuclear weapons by at least several years, thereby buying time. (Nuclear experts were less sanguine that the dispersed and somewhat redundant Iranian nuclear facilities could be dealt a disruptive blow by a limited Israeli strike.) Buying time may also be an Iranian strategy at present—that is, to delay negotiations with the IAEA, put off compliance with Nuclear Non-Proliferation Treaty (NPT) obligations, and stall the European Union until such time that Iran has completed construction of facilities and is fully ready to start uranium enrichment.

Israelis see two scenarios—both threatening—if Iran becomes a nuclear weapons power. The first is a domino-style arms race in the region whereby other Arab states, such as Saudi Arabia, the United Arab Emirates, and Egypt, look to acquire their own nuclear weapons. The second is a greater propensity for Iran to pressure Israel with conventionally armed surrogates, or, more likely, a Lebanese Hizballah invigorated by thoughts of Iran's nuclear umbrella.

There is a strong predisposition within Israel to consider a "never again" strategy that urges preemptive attacks before Tehran can even think about attacking Israel. This option is called the Begin doctrine (after Israeli Prime Minister Menachem Begin) and was used to justify the 1981 preemptive attack on Baghdad's sole nuclear facility, the French-supplied Osiraq reactor.

One thing is certain. Israel and the Gulf Arabs will watch to measure the U.S. reaction to Iranian willingness or reluctance to cooperate with the IAEA, remain in the NPT, or opt out of international agreements to complete its virtual nuclear bomb.

U.S. Options

In dealing with the prospect of a nuclear-armed Iran, the United States has two basic options: either freeze the Iranian nuclear program with hopes of rolling it back (and constraining it to peaceful applications), or live with the program while containing its negative impacts. On the freeze/rollback side, the prospects for more than a temporary pause are not promising, in our estimation. As long as significant sections of the Iranian program remain opaque, it will be difficult to gauge the success of a diplomatic rollback strategy; and, of course, it would be easier to apply a strategy to prevent Iran from crossing the nuclear threshold than to try to reverse acquisition after the fact. Granted, a nuclear-armed Iran could be subject to increasingly onerous restrictions—ranging from diplomatic isolation and economic sanctions to military force and regime change. Military strikes or covert action could also be used to change Iran's strategic direction or provoke regime change. The likelihood of success using these means, however, is low. Even if there were to be a new government in Iran, it would likely continue to pursue advanced nuclear capabilities, including at some point a weapon. However, an overt regime-change strategy would carry an extremely high risk that the Iranian regime would use its nuclear weapon in a last-ditch attempt to save itself.

Could the United States live with a nuclear-armed Iran? Due to U.S. strategic predominance, many experts believe the Iranian regime

would be unlikely to use its nuclear capability overtly unless it faced what it perceived to be an imminent and overwhelming threat. An Iran emboldened by nuclear weapons might become more assertive in the region, but superior U.S. conventional capabilities and strengthened regional partnerships would probably deter Iran from significant mischief, such as closing the Strait of Hormuz or attacking U.S. forces directly. The United States has options short of war that it could employ to deter a nuclear-armed Iran and dissuade further proliferation. These include reassuring allies and friends in the region, strengthening active and passive defenses, improving preemption and rapid response capabilities, and reenforcing nonproliferation incentives and counterproliferation activities. Nevertheless, the lack of confirmable information on Iran's leaders, particularly on how they make decisions, what they fear, if they have a concept of deterrence, or whether they appreciate implicit redlines set by countries with whom they have no contact—the United States and Israel—makes forecasting this issue very difficult.

Finally, while some security experts, predominantly Israeli, fear that Iran's leaders would provide terrorists with nuclear weapons, we judge, and nearly all experts consulted agree, that Iran would not, as a matter of state policy, give up its control of such weapons to terrorist organizations and risk direct U.S. or Israeli retribution. Many specialists on Iran share a widespread feeling that Iran's desire to be seen as a pragmatic nuclear power would tend to rein in whatever ideological impulses it might otherwise have to disseminate nuclear weapons or technologies to terrorists. There is less agreement, however, on whether the regime in Tehran could reliably control all elements within the Iranian system that might have the means, motive, and opportunity to do so.

Arguably, the costs of rollback might be higher than long-term containment of a nuclear-armed Iran. The United States would be expected to offer incentives to Iran and to governments cooperating with its strategic choices in what could be a long period of rollback. Even if the United States decides to embark on a rollback strategy, it would have to maintain a deterrence strategy while other diplomatic, economic, and military options played out. The good news is that many of the capabilities needed for deterrence and containment are the same as those needed for more robust military options. That may enable the United States to play both strategies for an undetermined length of time.

In our reexamination of the strategic implications for U.S. security policy and planning in the event Iran completes plans for nuclear weapons development, two sets of questions kept intruding on our research. The

first involves the discussions between the EU–3 and Iran: What is the full extent of the European Union's bargaining position; are there more carrots than sticks; would it remain firm in its dealings with an obstreperous Iran; could it possibly succeed in gaining Iran's commitment to end its efforts to acquire the full cycle of nuclear weapons production; and what would happen if the EU effort fails?

In various unofficial meetings between European, American, and Iranian scholars, the Iranians have accused the Europeans of betraying them to the Americans in order to improve EU–U.S. relations, which had been disrupted by European opposition to the 2003 Iraq war. The Europeans have countered that their objection to Iranian acquisition of nuclear weapons technology is not directed solely against Iran; rather, it is meant to prevent all new acquisition efforts. If Iran crosses the nuclear weapons threshold, the European representatives said in unison, then the Non-Proliferation Treaty and, indeed, all non- or counterproliferation regimes will be finished. Surely, they ask, Iran could understand the great danger the spread of nuclear weapons posed to everyone. Clearly, the idea that the United States and the Europeans were in consensus on this issue had caught the Iranians' attention. To offer some insight into the delicate negotiations between the EU–3 and Iran, we have added to this study a timeline describing Iran's historic path to nuclear power and an appendix on "Iran's Nuclear Program: Status, Risks, and Prospects."[7]

The second question frequently asked concerns Israel's perception of an Iranian nuclear threat and its options in dealing with what it describes as the greatest danger to its security today. To offer special insight on this issue, we include a paper by Israeli scholar Gerald Steinberg entitled "Walking the Tightrope: Israeli Options in Response to Iranian Nuclear Developments."[8]

Chapter One

Iran's Perspective: National Rights and Nuclear Weapons

I absolutely offer the world the assurance that Tehran is not after nuclear arms but will not forsake its absolute right.[9]

—Akbar Hashemi-Rafsanjani, December 2004

The IAEA can inspect wherever they wish, any time they want to make certain that Tehran's use of uranium enrichment is not used to make nuclear weapons.…Iran has been always pushing for the elimination of nuclear weapons. Basically this means that it is forbidden based on our ideology, based on our Islamic thinking it is forbidden to produce and use nuclear weapons as well as other weapons of mass destruction.[10]

—Foreign Minister Kamal Kharrazi, February 2005

Evidence revealed by Iran, the International Atomic Energy Agency (IAEA), and independent researchers and scholars over the past few years indicates that the Islamic Republic of Iran began its efforts to acquire nuclear capability—including weapons production—nearly 2 decades ago, during its 8-year war with Iraq. While discussion of the evidence and technology is beyond the scope of this paper, scientists who have reviewed the content of declared programs as well as commercially available imagery of other elements agree that Iran has decided to produce nuclear weapons and will soon reach the point where it must decide several key issues: what kind of nuclear weapon it wants; whether it should continue or temporarily suspend the activities necessary to produce highly enriched uranium (HEU), separate plutonium, and build an indigenous nuclear reactor, which are defined as enrichment- and reprocessing-related activities; or whether it should accede to American, British, French, and German demands that it cease these activities.[11]

If Tehran has decided to go forward with weapons research and production—and we think it has—it will need to consider how much activity can be carried out as a member of the Nuclear Non-Proliferation Treaty (NPT) and how to upgrade its technology. According to an American physicist studying Iran's projects, Iran would like access to better technology and more time to complete ongoing projects. Its most advanced sensitive nuclear project involves gas centrifuges, sophisticated devices to enrich uranium. Its European-origin centrifuge (made by Urenco) is out of date, and Iran needs time to build more. In his opinion, Iran could decide to pursue an enrichment plan while under NPT safeguards, as the treaty permits, thereby delaying the time when it must cease further work or break its NPT commitment. When Iran revealed its centrifuge program to the IAEA in early 2003, it had almost reached an industrial scale at the Natanz facility, near Kashan in central Iran. It had also violated its IAEA safeguards agreement multiple times.[12]

Few governments or agencies are convinced that the purpose of Iran's large nuclear program is purely peaceful. When Iran declared to the IAEA in 2003 that it began its gas centrifuge program in 1985 during its bloody war with Iraq, it was widely assumed that this decision was part of a planned effort to make HEU for nuclear weapons. Iran claimed that the only purpose of its centrifuge program was to make fuel for the German-supplied Bushehr power reactor, but by 1985 Germany had suspended all work at the reactor, at least until the war with Iraq ended. After the war, Germany did not resume construction. Ten years later, Russia signed a contract to finish the reactor. Yet throughout the decade, even when the fate of the reactor at Bushehr was uncertain, Iran accelerated its gas centrifuge program.

Although no one has produced a "smoking gun" proving that Iran has a nuclear weapons program, the timing, scope, and long secrecy of the program have led many observers to conclude that Iran either had or has one. In any case, once it finished its uranium enrichment or reprocessing facilities, Iran could decide to obtain nuclear weapons and proceed quickly to produce nuclear explosive materials in these facilities. For these reasons, many governments believe Iran should be persuaded to abandon at least its activities related to uranium enrichment and reprocessing.[13] If Iran's current facilities were preemptively attacked, most observers believe Tehran would follow Iraq's example after Israel attacked its sole reactor in 1981: it would pursue nuclear weapons more quickly and with greater care, independence, and discretion.

Drivers of Iran's Nuclear Ambitions

As its quest for nuclear capability has advanced, Iranian officials and national media have offered a wide range of reasons for developing nuclear technology. The standard justification given is that Iran needs to develop nuclear power as an alternative energy source because domestic demand is rising, supply is stable, and oil at today's market prices is too expensive a commodity to be sold domestically, especially since fuel is subsidized. Behind these public statements, however, are a number of reasons used by Iran to justify its pursuit of the nuclear option: because Iraq was on that path and may well be again at some point; because Israel, India, and Pakistan already have nuclear weapons and threaten Iran; because the United States, Europe, Russia, and China have them and, in fairness, Iran should have them, too; because denying Iran nuclear weapons condemns Iran to second-class status rather than the leadership role that is its natural and national right; and because it needs them for legitimacy and regime protection.

Iran does not publicly justify its nuclear ambitions, energy, or weapons, simply on the grounds that it lives in a dangerous and unpredictable neighborhood. Iranian officials are careful to reassure their immediate neighbors that Iran poses no threat to regional stability and would never use its special capabilities to intimidate or influence them. Rather, Iranian officials complain that Iran has the same right as those already in possession of these special weapons and that it would use its new capabilities to benefit the region and the world. Yet, historically speaking, many of Iran's defense priorities were conditioned by its war with Iraq, by the Iraqis' ability to use chemical weapons more effectively than Iran, and by the isolation imposed on Iran by the United States and Iran's Arab neighbors. These governments helped Iraq with money, intelligence, and weapons while Iran had to fight alone, without benefit of financial and diplomatic support or the opportunity to obtain replacements for its American-origin military equipment.

Iranians still feel a sense of isolation—some Iranians call it "strategic loneliness"—years after the end of the war with Iraq, and many believe that the only way Iran can maintain its territorial integrity, restore its prestige, and preserve its political survival is through reliance on its nuclear capabilities and its ability to be totally self-sufficient in nuclear research and production. Iranians were grateful for the international community's insistence at the end of the Kuwait war that Iraq identify and surrender all its weapons of mass destruction (WMD) programs and

Decisionmaking in Iran: Continuity or Chaos?

When asked to describe the nature of decisionmaking in their country, Iranians describe a wide range of characteristics.[14] One scholar used the terms *reactive* and *chaotic*, saying that decisions were usually made in reaction to events and in a confusing manner. Another scholar described an organized and methodical system in which deference to the Supreme Leader and national security as determined by the Iranian Revolutionary Guard Corps were always paramount. A third scholar agreed with this assessment and added that the Iranian "government" does not control institutions; these are under the direct control of the Supreme Leader who relies on his own foreign policymaking machinery and intelligence services rather than government ministries. Any deal struck with the Iranian government without the involvement of Supreme Leader Khamenei is unlikely to gain his support and is likely to be sabotaged by him. Moreover, Iran's most powerful state institutions—the Islamic Revolution Guard Corps, the Intelligence Ministry, the Judiciary, the Justice Department, and a host of vigilante organizations—are unlikely to support a deal unless they are directly involved in the negotiations themselves.

Our scholars listed several factors that frame decisionmaking. They demonstrate that continuity is more important than discontinuity to understand how priorities are set in the Islamic Republic. The factors are:

- *regime survival* and sustainability of the political system
- *organized chaos*, meaning that to be involved in the system is more important than actually having influence on its policy
- *opaque language and ambiguous behavior*, so that any political leader who maintains these qualities is revered and elevated
- *diversified formal structures* of power and creation of informal shadow networks of power, all competing for resources and the attention of the Supreme Leader. For every formal structure of government, there is another structure behind it scrambling for its share of economic and political spoils and positioned to continue the job if one structure fails.[15] Despite ideological affiliations on certain points, the clique-ridden nature of Iranian politics means that small differences over policy are magnified because intrinsic interests of competing groups clash.
- *immunity from external threat* but also use of external threats to maintain internal cohesion and control.

weapons and that the United Nations Security Council (UNSC) resolutions set up a mechanism—inspections and sanctions—to be applied so long as Iraq was not in compliance. Iranians watched closely as the UN arms inspectors uncovered Iraq's many compartmented WMD programs, including four separate experiments to build a nuclear weapon. Iran today no longer borders a hostile country armed with WMD and prepared to use it against its neighbor. Rather, Iran sees in Iraq an unpredictable neighbor that still must comply with all UNSC resolutions

banning its resumption of WMD programs—a short-term relief but a long-term worry. For Iran, the question must become one of Iraq's future strategic outlook. Will Baghdad once again seek these weapons, and will its American-influenced government be encouraged to rearm to bolster U.S. and European hostility toward the Islamic Republic? Since no one knows the kind of Iraq that will emerge, Iran's leaders seem to believe they need to pursue some kind of nuclear hedging.

The Domestic Politics, National Strategy, and Foreign Policy of a Nuclear-Armed Iran

In 1997, Iranians and their neighbors welcomed the election of Hojatoleslam Mohammad Khatami as president of Iran. Although he was a member of the clerical establishment and had served in the 1980s as Minister of Culture and Islamic Guidance, the unassuming Khatami represented nationwide hopes for domestic political and economic reform. Moreover, he was seen in the region as a more moderate and reasonable authority who would, at minimum, continue his predecessor Rafsanjani's policy of building friendly foreign relations with the Arabs of the Gulf, Europe, and possibly even the United States. The hopes were short-lived. Khatami won two terms by substantial margins, but his effective power never extended beyond the Foreign Ministry. Conservatives under the leadership of Supreme Leader Khamenei remained in control of the military, the Iranian Revolutionary Guard Corps (IRGC), the intelligence and security services, the judiciary, and the press.

Conservative elements currently dominate the government and determine all foreign and security policies. They brought the last institution of government—the presidency—under their direct control in the June 2005 presidential election. Decisions regarding Iran's nuclear strategy, doctrine of use, and willingness or reluctance to cooperate with EU demands for suspension of or an end to work on uranium enrichment are apparently made by an inner circle of National Security Council members who are close supporters of Supreme Leader Khamenei. Under Khatami's presidency, they included President Khatami, Expediency Council Head Rafsanjani, Defense Minister Ali Shamkhani, and IRGC Commander Brigadier General Yahya Rahim Safavi.[16] Of these, experts on Iranian politics and government believe that the two most influential decisionmakers were Khamenei and Safavi.

Some of these individuals are likely to remain influential under an Ahmadinejad presidency. Ahmadinejad, who fought in the Iran-Iraq war as a member of the IRGC and the basij, represents a rising generation

of Iranian leaders whose experiences and world view were shaped by war and not by revolution.[17] Some foreign press accounts describe Ahmadinejad as an advocate of nuclear military power, an assumption based perhaps on his IRGC background. It is probably too early to tell how he will approach critical issues such as suspension of uranium enrichment or relations with the EU and the United States. He may be less extreme in his views than Western press and academic sources speculate; he may look to bargain on these issues much as Rafsanjani was allegedly considering; or he may look to ways to extend negotiations while he, the Supreme Leader, and their advisers review options. With virtually no experience in foreign affairs or security policy, Ahmadinejad will likely depend on hard-liner Majles representatives and IRGC careerists to staff security and intelligence posts.[18]

The influence of the IRGC is extensive, according to many Iran experts. The Guard probably controls and protects nuclear facilities, and its leaders—current and retired—may be involved in procurement and research and development projects. The first generation of IRGC leaders has begun to retire, with many seeking new careers in business and in government. Of 152 new members elected to the Majles in February 2004, 91 had IRGC backgrounds, while a further 34 former IRGC careerists now hold senior-level political posts in the government.[19] These developments give the IRGC a new influence in determining roles and budgets for Iran's military and security institutions.

How Iranian Conservatives Think about Nuclear Weapons

Since the election of the conservative-dominated seventh Majles in 2004, both opposition to Iran remaining within the NPT and support for advanced nuclear technologies, including weapons capabilities, have grown. These sentiments increasingly appear to cross factional and ideological boundaries, though Iranian leaders, whether conservative or hard-liner, and reformists can be fairly accused of voicing differing and at times contradictory opinions. In early 2005, reform-minded President Khatami, who usually denied Iran had any nuclear weapons intentions, hinted that Iran may be forced to withdraw from the NPT under diplomatic pressure, and Defense Minister Shamkhani, who had previously renounced nuclear weapons, began talking about nuclear counterattack and preemption. This increasing stridency is the result, in part, of Iranian leaders' perceptions of an increased threat of a U.S. or Israeli attack, and reflects the growing influence of current and former senior commanders of the IRGC, who stress Iran's deterrent and retaliatory capabilities. While an Iranian

team of negotiators was meeting with EU representatives in Europe in May 2005, the seventh Majles passed a bill obligating the government to develop the kind of nuclear technology—uranium enrichment—used in building nuclear weapons.[20] The Guardian Council approved the law 2 weeks later, and Supreme Leader Khamenei called the Majles' action "very timely, effective, and proper."[21] Hard-liner presidential candidate Ali Larijani, who opposes negotiations with the EU, called Tehran's decision to suspend sensitive nuclear work as "trading a pearl for a candy bar."[22]

Even so, public discourse in Iran is by no means monolithic, and Iranian leaders themselves artfully muddy the waters by espousing contradictory themes. Among the arguments most often heard:

- *Nuclear weapons play a role in securing Iran's independence and national security*. Khamenei, Defense Minister Shamkhani, IRGC Commandant Safavi, and former IRGC head Mohsen Rezaie argue that Israel and the United States are determined to destroy the Islamic revolution and that Iran has no choice but to continue its nuclear program and aggressively defend itself. Expediency Council Head Rafsanjani usually sides with them and has commented that possession of nuclear weapons would substantially enhance the status and bargaining power of Muslim countries, yet he has also hinted in preelection interviews that he is the only candidate who could negotiate with the EU and the United States and stand up to Khamenei on this issue. These hard-liners accuse the negotiators of being incompetent and making significant technical and legal concessions to the Europeans. Rezaie and other hard-liners also claimed that Iranian officials had turned over significant quantities of secret intelligence information to the EU, thereby undermining Iran's "deterrent capability."[23]

- *Nuclear weapons breed insecurity*. Khatami, Foreign Minister Kamal Kharrazi, and UN envoy Mohammad Javad Zarif argue that Iran does not want nuclear weapons because it has been a victim of weapons of mass destruction. They favor negotiations with the EU and claim that the negotiations have effectively prevented the emergence of an international consensus against the Iranian nuclear program.

- *Nuclear weapons are contrary to Islamic principles, but the country has a right and a need to acquire nuclear technology and must be treated fairly*. The presidential election campaign sharpened what

little public discourse there was on the issue of nuclear power for energy and/or weapons purposes. Khamenei, Khatami, and Ahmadinejad have said publicly that nuclear weapons have no place in Iran's national security doctrine because of Islamic principles. Some Iranian officials claim that the Supreme Leader issued a fatwa banning the use of nuclear weapons (no apparent mention of acquisition), but a text has not been published on his Web site, and there has been no public debate on the issue. Secretary of the Supreme National Security Council Hassan Rohani, a central figure in the negotiations with the EU, said in early February 2005 that "producing weapons of mass destruction is not part of Iran's defense strategy and high-ranking state officials have repeatedly said so. The Supreme Leader has said that the production or possession of such weapons are against Islamic law."[24] Rohani is a prominent figure in the conservative Combatant Clerics Association, which supports the Supreme Leader. He and Rafsanjani argue that Iran needs nuclear technology to develop itself to ensure that it would not be unfairly treated while engaging in negotiations with the EU and Russia. Rohani could not have taken a position favoring negotiations without Khamenei's approval. One scholar believes that Khamenei has directly controlled the course of the negotiations, deliberately sidelining Khatami and the government. Others agree, noting that no Iranian official would have been able to undertake any kind of negotiations with the EU or the IAEA without Khamenei's explicit endorsement.[25]

Implications for Iran's National Strategy and Foreign Policy

Most experts agree that Tehran is not yet ready to complete negotiations with the EU or the United States that could put their hard-earned gains at risk without compensation. When the EU talks resume in late summer 2005, Iran may once again reject limitations on its nuclear ambitions, but it almost certainly believes the United States has been behind the EU efforts from the beginning of their talks. Iranians involved in meetings with American scholars profess interest in the Americans' suggestions for joint ventures in nuclear technology and may believe the United States is behind these private probings.[26] Other Iranian politicians or specialists are probably looking for signals of what the United States will pay for Iranian cooperation. Iranians have a long history of resistance to outside intervention, manipulation, and betrayal that makes them wary of any foreign dealings. They are especially suspicious of

American intentions, given the U.S. role in overthrowing Prime Minister Mohamed Mossadegh in 1953, shoring up a weak shah and arming him with expensive weapons systems, rescuing Iraq during the bitter war with Iran, ignoring Iraq's use of WMD on its soldiers and cities, and helping Israel to occupy Muslim land. There probably is a degree of unease as well because of pro-American sympathies among Iran's educated and professional elites, many of whom were educated in American schools and universities and are knowledgeable of Western and American political philosophies and social freedoms.

Several strategic questions emerge from this picture of political uncertainty.

First, will the acquisition of nuclear weapons by the current regime make Iran more or less aggressive within the region or beyond it? There is much debate but no consensus on this issue among specialists.

- Some contend that Iran will become more aggressive in pursuit of its interests in the Gulf and more intimidating in its demands for regional cooperation. An assertive Iran could demand that U.S. bases in the region be closed, or it could threaten to resume its efforts to export the revolution as it did in the early 1980s when it tried to sabotage U.S.–friendly facilities and regimes in the Gulf. It could become more assertive in oil policy, more anti-Israel, or more meddlesome in Iraqi or Israeli-Palestinian affairs. On the other hand, some Iranian scholars argue that a nuclear-secure Iran will be more moderate in its foreign and security relationships and that a more powerful Iran is actually a less dangerous Iran.

- Others stress that Iran has an inferiority complex, wants nuclear weapons for psychological comfort and to ensure regime survival, and therefore would base its nuclear strategy on defensive deterrence. Iranians, they say, recognize that use of nuclear weapons against Israeli or U.S. targets would be suicidal. They also point out that such use would be historically uncharacteristic; after all, Iran has not invaded or attacked another country for over 150 years. These latter observers predict that a nuclear-armed Iran would not be any more aggressive than it currently is, would have better relations with the United States, and would be less likely to support terrorist organizations.

In either case, possession of nuclear weapons is likely to affect Iran's behavior in the region. The United States must at least hedge against

the possibility that a nuclear-armed Iran could become more aggressive in pursuit of its interests in the Gulf and more intimidating in its demands that the region share its vision of a U.S.-free Gulf.

Second, how will Iran cross the nuclear threshold, and what domestic and international factors might influence this decision? Iran could cross the nuclear threshold transparently or opaquely, by testing, or as a virtual nuclear power having all the components but leaving them unassembled. Clearly, the way in which an Iranian regime decided to cross the nuclear threshold would affect its management of domestic and international reactions to its ownership.

- Most specialists believe Iran would probably not test a nuclear weapon, although it regularly tests its ability to launch longer–range missiles. Iran's past behavior in supporting terrorist groups and conducting clandestine operations suggests it would cross the threshold opaquely and be a virtual nuclear weapons power. Area specialists agreed that opacity would allow Iran plausible deniability and a public relations edge. Moreover, it throws responsibility for proving its illicit acquisition of nuclear weapons on U.S. allegations and anti-Iranian sentiment.
- Surreptitiously crossing the threshold, however, would deny the regime the domestic prestige that it associates with this accomplishment. Disclosure after the fact would make it harder for this or a future regime to defend the step on purely defensive grounds.

Third, would regime change in Iran alter its nuclear ambitions? Regime change could occur through the death or replacement of the Supreme Leader by a successor with less control over the IRGC or with a more pronounced taste for nuclear weapons, or election of reform-minded leadership. In either case, however, most regional specialists anticipate no significant change in further development of nuclear weapons technology or compliance with the NPT and other international nonproliferation agreements.

- Support for the acquisition of advanced nuclear technology crosses ideological and factional lines. Iran scholars question whether Khamenei or his predecessor Ayatollah Khomeini approved Iran's possession and use of other weapons of mass destruction (chemical). They are uncertain, too, whether Khamenei has issued a fatwa sanctioning nuclear weapons or simply said they were un-Islamic.

Few believe that a more reformist-minded government would deny its right to take any measure it deemed necessary for national security. More broadly, press commentaries suggest Iranians increasingly resent foreign efforts to shape their policies on nuclear energy or deny them what is seen as a natural and national right.

- Considerations of regional prestige would also weigh upon the choices of any future government. If Iran were to step publicly over the nuclear threshold, it would trumpet its interest in sharing its new knowledge and technical advances with other Muslim countries. Even now, Iranian leaders speak publicly about sharing their technology and bringing the benefits of nuclearization to those less fortunate. Except for Israel, few foreign observers believe this means sharing nuclear weapons or other WMD assets with terrorist groups.

Finally, could a precipitating event—such as a preemptive attack by Israel or the United States, or the threat of regime change—push Iran into becoming a nuclear power, or is it determined to go there anyway? Clearly, no one can predict with any confidence what the full consequences of such an event would be, but the potential for unintended consequences is great:

- A preemptive attack, experts assume, would strengthen regime support. Most Iranians would rally around a regime under siege by foreign elements, even if the regime is unpopular. Persian nationalism would outweigh grievances against the mullahs. An attack would probably not eliminate all facilities or eliminate Iran's capability to launch some sort of counterstrike. Avowed possession of nuclear weapons would solidify the rule of the Islamic Republic and could demoralize regime opponents at home or in exile.
- The United States and Israel would be held responsible for any preemptive attack, regardless of deniability. This would increase the risk of terrorist retaliation for both. Iranian surrogates, such as Hizballah in Lebanon and Palestinian extremist factions, could retaliate, and organizations linked to al Qaeda would certainly use this evidence of Christian-Zionist collusion against Muslims to win more recruits, rally anti-American demonstrations, and encourage terrorist operations.

- The balance of power within the Iranian regime would shift further to the right. The hard-liners would claim vindication for their anti-American views, and the roles of the IRGC and internal security elements as the ultimate guarantors of Iranian national security would be confirmed, to the detriment of the regular army and civil society. Decisionmaking on security issues and nuclear weapons procurement would be determined by an even more secret intra-governmental body than currently exists. There will be no impact on internal demands for reform and no reforms.

What We Do Not Know about Each Other's Intentions

It is worth emphasizing that the foregoing judgments, while informed by expertise, are still very speculative. Twenty-six years after the revolution that removed the shah and established Islamic government in Iran, major gaps in our understanding of the country remain. We know little about how Iranian leaders make their decisions, what factors influence them, or what understanding they have of U.S., European, or Israeli "redlines" regarding actions Iran might take. We lack information on their perceptions of Iran's nuclear options and strategy, including how nuclear weapons might be used. Individuals and committees in charge of supervising political and financial activities advise the Supreme Leader, decisions are made collectively, and there seems to be a loose system of checks and balances, all of which stand in contrast to the autocracy practiced by the shah. Recent political developments in Iran—in particular the growing power of the conservative faction—indicate the circle of consensus-makers is narrowing, as is popular participation in politics, but not to the extent that the Iranian government functions as a single actor.

Iranians are probably equally uncertain what options the United States is considering and the actions it wants to deter them from taking. Is it simply a matter of getting Iran to limit itself to nuclear energy rather than weapons production? If Iran agrees to forgo production of nuclear weapons, would the United States be satisfied? Or is Washington intent on regime change, and would it matter in Washington if the regime in Tehran changes? Could any modifications occur in Iran short of regime change that could mitigate American hostility? What would it take to change the U.S. Government's hostility to Iran? Do the Israelis want Iran's destruction? To what extent would the United States serve Israel's interests, and does it see American and Israeli interests as the same or different?

The lack of direct communication between Iran and the United States, Israel, and its own neighbors makes Iran's inability to recognize their redlines a great danger. Successful deterrence depends on the ability to understand the other's thinking and accurately anticipate its behavior.

Chapter Two

Neighbors, Negotiators, and Nonproliferators

If one day, the Islamic world is also equipped with weapons like those that Israel possesses now, then the imperialists' strategy will reach a standstill because the use of even one nuclear bomb inside Israel will destroy everything. However, it will only harm the Islamic world. It is not irrational to contemplate such an eventuality.[27]

—Akbar Hashemi-Rafsanjani, December 14, 2001

Israeli Options Toward a Nuclear-Armed Iran

Israeli civilian and military officials as well as academics view a nuclear-armed Iran with great trepidation. Israelis take at face value the threats from Iran to drive them out of Palestine or place them under Muslim rule in a unitary state, to liberate Jerusalem, and to restore the Palestinians to their homeland. Scarcely mentioned are the fact that the shah was open to engagement with Israel[28] or the possibility that Iran's hostility toward Israel could ever waver. In fact, however, popular sentiment in Iran today appears divided, with some favoring ties with Israel, and others, influenced by the visible suffering of the Palestinians under occupation, opposing ties.

What Israelis cannot overlook are the terrorist operations against Israeli targets by Hamas and Palestine Islamic Jihad, both Palestinian factions receiving Iranian aid, and the Lebanese Hizballah, created by Iran in the early 1980s as a surrogate for terrorist operations against Western, U.S., Gulf Arab, and Israeli targets. For the Iranian Islamic Republic, Palestinian suicide bombers are not terrorists; they are freedom fighters and therefore worthy of assistance. For Israelis, Iran and its surrogate Hizballah in Lebanon are real and not merely existential threats. Hizballah operations against Israeli targets, cross-border attacks, even the flight of an unmanned drone across the border are all extensions of the Iranian

threat. For Israelis, then, it takes no leap of imagination to see Iran providing Hizballah or the Palestinians with weapons of mass destruction or being willing to use nuclear weapons against the Jewish state. This worry is underscored by Iran's development of its Shahab-3 missile, which has sufficient range—over 1,300 kilometers—to reach anywhere in Israel.

The "Never-Again" Principle

Despite the consensus that exists in Israel about the nature of a nuclear threat from Iran, there is debate over how Israel should react. If one assumes that Iran has not yet crossed the nuclear threshold and that its facilities are known and vulnerable, then many Israelis support a preemptive strike by Israel or the United States. They argue it does not matter that all the targets cannot be identified and that there probably will be collateral damage; it will be enough to set Iran back a few years, just the way the Israeli attack on the Iraqi Osiraq reactor in 1981 delayed Baghdad's nuclear ambitions. Those who argue for attacking while Iran is still in transition cite the Begin doctrine. As described by one Israeli historian:

> On June 9, two days after Israel destroyed Iraq's reactor, Prime Minister Menachem Begin had a press conference and praised the raid and justified it on moral and legal and defense grounds. Begin alluded to the Holocaust and what kind of Holocaust a single Iraqi atomic bomb could bring against Israel, and ended by evoking the memory of the Holocaust and invoking "never again" as the ultimate justification for the preemptive strike. Begin said never again will another Holocaust happen in the history of the Jewish people. In another interview a few days later, he said this attack will be a precedent for every future government in Israel. The theme was repeated by Sharon as defense minister. This became known as the Begin doctrine. It is understood as a broad national commitment to deter hostile neighboring countries from acquiring nuclear weapons. In the wake of the attack (Osiraq), it was understood as preemptive.[29]

Is the Begin doctrine still considered relevant in Israel today? This Israeli scholar frames the question in terms of physical relevance, effectiveness and consequences, and political prudence. Those supporting a repeat of the operation stress that it was relevant, effective, and decisive. Those who question its effectiveness note that Osiraq, which was a single facility not then operational, was relatively easy to eliminate; by contrast, Iran has dispersed sites and may be close to enrichment, which makes eliminating the threat more difficult and dangerous. Moreover, Iraq was unable to respond to the Israeli attack, but Iran has retaliatory and air

defense capability. For this Israeli, his country is not alone in facing the Iranian threat, and, in his opinion, the IAEA has become a more effective mechanism for dealing with Iran. Admitting that he represents the minority point of view in Israel, this scholar also argues that Israel "should find a way to deal with its nuclear weapons openly. Unless Iran moves abruptly, Israel will continue with its policy of nuclear opacity."[30] We assume that openly refers to both Iran and Israel going public with their nuclear weapons arsenals and intentions, rather than maintaining a policy of deliberate ambiguity or opaqueness.

The Domino Principle

Another Israeli scholar, who is closer to the government, describes his concern about a domino effect in the region if Iran crosses the nuclear threshold.[31] If Iran acquires nuclear weapons, he argues, then Egypt, Syria, Turkey, Algeria, Libya, and Saudi Arabia will seek them, too. Israel is a small and vulnerable country, he opines, with no strategic depth, a small population, and few means of protecting itself in a hostile environment. In this view, Iran is the ultimate rogue state. It has a regime that does not behave rationally, is obsessed with Israel as the Zionist enemy, and poses an existential threat to Israel. The lack of communications between Israel and Iran makes it difficult to establish a controlled deterrence relationship, as existed during the Cold War between Washington and Moscow.

As noted below, the domino theory is advanced primarily by Israeli experts. Accepting that it is a dominant concern within Israel, what options do the Israelis have for dealing with the problem? Conceptually, the list is fairly long: military preemption, international negotiations and arms control regimes, expanding missile defenses, deterrence, and pursuit of formal U.S. or even North Atlantic Treaty Organization (NATO) security guarantees. While current Israel Defense Forces operational limitations for multiple, long-range preemptive strikes against key facilities were noted, a military analyst warned that if Israel decides it has the political will for preemption, then the requisite military capabilities would be developed toward that end. Israel probably considers military preemption to be its most realistic and surest option, but most experts are skeptical that Israel has the capability for such a distant series of strikes. For the more conservative Israeli pro-Likud scholar, once Iran has crossed the threshold, it will be too late for preemption or preventive action. He contends that most Israelis place little faith in outside negotiators or intermediaries, especially when it comes to security issues. They

are uncertain about the ability of the IAEA or the EU to negotiate with Iran or to compel compliance to treaty obligations, and they are unwilling to risk their security to international frameworks, such as the NPT. As for attacks by surrogates, such as Hizballah, Israel prefers to hold state actors responsible so that Iran and Syria are held accountable when Hizballah attacks Israel. For most Israelis, nuclear weapons are the ultimate international deterrent. And like most Israelis, this scholar concludes that "Dimona has brought us peace."[32]

If Iran were to cross the nuclear threshold by testing or with a declaratory policy, other difficult questions arise. Can Israel maintain its nuclear ambiguity if Iran is a declared nuclear power? Can a country have a credible second-strike capability without testing a nuclear warhead? The more liberal Israeli historian assumed that once Iran tests, Israel would have to test as well, and the meaning of deterrence as a strategy would change. If Hizballah comes under the umbrella of an Iranian nuclear capability, how does Israel deter it from becoming more dangerous?

How to create a stable deterrent balance would be the major worry. If one subscribes to the theory, as do most Israelis, that the acquisition of nuclear weapons leads a country to become more aggressive, then clearly Israelis have cause for concern. Many, however, do not believe that the main worry is "a bomb out of the blue." Rather, they fear a crisis that is not inherently nuclear in nature acquiring a nuclear dimension. What might cause Iranian decisionmakers to miscalculate during a nuclear crisis? The Israeli scholars worry that Israel cannot develop a secure deterrent relationship if it cannot communicate with Iran. For Israel, the long-term alternative of having nuclear weapons in the region possessed by a country that does not recognize its legitimacy and urges its destruction is not an option. In the end, the Israeli scholars agreed that Israel's decision to act would depend on American commitments to Israel's security and determination not to allow Iran to become a nuclear weapons state. From an Israeli perspective, much depends upon the timing and circumstances surrounding possible action and the stance taken by the United States.

There Goes the Neighborhood: Umbrellas, Arms Races, and Indifference

What kind of reactions would Iran's nuclear acquisition trigger elsewhere in the region? Among the six Arab states that are members of the Gulf Cooperation Council (GCC)—Saudi Arabia, Kuwait, Bahrain, Qatar, the United Arab Emirates, and Oman—few profess to see a

nuclear-armed Iran as a greater threat than Iran without nuclear arms. After all, they have lived with India and Pakistan, both non-signers of the NPT whose nuclear weapons have been aimed at each other. They reject the argument that Iran with nuclear weapons is a threat, while Israel with its undeclared nuclear weapons is not a threat. The GCC states do not seem to grasp the argument of the EU and the IAEA that if Iran were allowed to pursue nuclear weapons technology, then other governments would also resume efforts to acquire nuclear capability, international agreements on arms control would become meaningless, and arms control agreements such as the NPT would lose relevance. Similarly, the issue of risk to Israel is immaterial to them.

If a nuclear-armed Iran is not, strictly speaking, a Gulf issue, the GCC states do not see it as an option they must anticipate or help resolve. If the United States or Israel sees the threat as serious, they say, then those states should take care of it. Most Gulf Arabs seem to prefer letting the United States and Israel resolve the Iran problem, but they also know that if a military option is pursued, then their region would be in crisis and they would have to deal with the consequences. They blame the United States and Iran equally for the lack of regional security, and they deplore the absence of direct contacts between Tehran and Washington. In their opinion, this lack of dialogue will ultimately lead to a military confrontation. They see Iran as determined to pursue nuclear weapons at any cost, and some even believe Iran has made its decision to pursue nuclear weapons and is at the point of no return.

Gulf Arab leaders say they are more worried that the United States is determined to pursue military confrontation with Iran, which would pose an increasing danger to their security and well being. They worry about the risk of a region-wide war between the United States, their security partner and guarantor, and Iran, their largest and most powerful neighbor. If this occurred, it would be the fourth major regional conflict since 1980, when Baghdad invaded Iran.[33] They profess not to be worried about "democracy" in Iraq or a nuclear-armed Iran, and they urge Washington to open a dialogue with Iran, not rush to create democracy in Iraq, and to consult with their leaders. Gulf elites acknowledge that they are consumers rather than providers of security and that in the event the United States were to go to war with Iran, they would have no choice but to side with it. There is no apparent public debate on this issue.

The Dangers of Unbalanced Power

For the Gulf States, the question of a nuclear-armed Iran must be seen in the larger context of changing power balances—that is, how to confront a stronger and more intimidating Iran at the same time Iraq is militarily and politically weak. The GCC states and the United States have long preferred a security strategy based on the concept of balance of power. Since the British withdrawal from the Gulf in 1971 through 1990, when Saddam invaded Kuwait, U.S. regional security policy has tried to keep a minimal force presence in the region, using local surrogates and the threat of military intervention to keep the peace. From 1971 through 1978, the United States used the twin pillars strategy—based on its allies, the shah of Iran and the Al Sa'ud of Saudi Arabia—to maintain stability effectively in the Gulf. In the 1980s, responding in large part to pleas from the six Gulf rulers, the United States aided Iraq in its long war with Iran, and then tilted briefly toward Tehran out of concern for the fate of Americans held hostage by Hizballah in Lebanon and following requests from Israel.

Gulf Arab rulers saw Saddam as their champion against Iranian efforts to export the revolution and depose them. They were not enthusiastic about the war in 2003 to remove Saddam Husayn from power. For most rulers, Saddam was a defanged tyrant, a bully kept in check by the United States and international opprobrium but whose loss was felt by those seeking an Arab power to balance a strengthening Iran. For their populations, Saddam was misunderstood, a hero for standing up to the Americans, the only Arab leader to try to "do something" to help the Palestinians fight Israel, and the only Muslim ruler to stand up to the ayatollahs of Iran.

Gulf leaders have several fears regarding the loss of balance in the region. First, they worry more about who rules Iraq rather than how Iraq is ruled. They have little interest in how democracy will evolve in Iraq, but they do fear the consequences of a Shia-dominated government; Iraq's Shia community represents more than 60 percent of the population, and Gulf Arabs assume that Iraq will be ruled by an inexperienced, religiously volatile group of religious extremists and clerics who will tie Baghdad closely to Tehran. They misread Ayatollah Ali Sistani, the Iranian-born preeminent Shia cleric in Iraq who favors a government under Islamic law but opposes mullahs in government, but they correctly measure his popularity among Shia in Iran (an estimated 2 million to 3 million followers, according to some Iranian scholars) and among Shia communities in the

Gulf States, where Najaf-trained clerics have long been influential. This last situation is especially worrying in Kuwait and Saudi Arabia, where approximately 20 percent of the populations are Shia Arab, and Bahrain, where nearly 75 percent may be Shia.

Second, Gulf leaders worry that the United States is helping create a crescent of Shia-dominated governments that will strengthen Iran and weaken the ability of the Sunni Arabs to defend themselves. Many Gulf Sunni Arabs see the United States as intentionally encouraging Shia rule in Iraq to keep the country and the region weak and controllable. Some argue that U.S. support for Shia governance in Iraq and warnings about the dangers of a nuclear-armed Iran are intended to keep the Gulf States weak and dependent on U.S. security assistance. The crescent begins in Lebanon, continues through Syria, Saudi Arabia, Kuwait, Iraq, and Iran, and ends in Tajikistan.[34]

Finally, the Gulf States see danger in a resurgent Iran. This danger stems from the renewed revolutionary zeal of the conservatives, reawakened Persian nationalism, and Iranians' assumption that they are the natural leaders of the Gulf—all of which makes the Gulf Arabs chary of both Tehran and Washington. Gulf rulers welcomed the election of President Khatami in 1997 and 2001. They saw government in Iran becoming more tolerant and forgiving, willing to accept the status quo in the region in exchange for recognition of the legitimacy of Iran's government and its leadership role in the region. The Gulf Arabs may have been uncomfortable with Iran's assumption of a dominant role in the "Persian" Gulf just as it had exercised hegemony under the shah, but they also welcomed an end to Iranian efforts to subvert their governments, at least overtly, or influence decisionmaking. They ignored Iranian demands to be included in regional policy and security talks and to throw out American forces. Saudi Arabia and Kuwait, in particular, welcomed agreements on security issues (policing, drugs trafficking, arms smuggling), and Iranians behaved properly for the most part when on hajj (the annual pilgrimage to Mecca required of Muslims at least once in a lifetime) in Saudi Arabia.[35]

In the end, the GCC states believe they need a protector from outside the region to survive. They believe that their only strategic option is to side with the United States. Despite a professed dislike of the Bush administration, unease with Iraq, and unhappiness with the direction of U.S. foreign policy in the Middle East and Persian Gulf region, there is consensus among these Gulf Arabs that only the United States can be counted on to protect them, and that Iran—with or without nuclear weapons—is and will always be a constant strategic worry.

Neighborhood Options to a Nuclear-Armed Iran

Iran's neighbors admit they see few options in confronting a nuclear-armed Iran. They could ignore it, hide under a greater power's nuclear umbrella or behind its theater missile defense system, or acquire their own protection (and thereby start a new arms race). Each option has limitations and constraints:

- Ignore Iran? Iran's neighbors have tried ignoring it since the 1979 revolution, only to find themselves confronted by threats of Iranian-orchestrated opposition movements or outright terrorism. The last decade has been relatively peaceful, and Gulf Arabs are loath to provoke their increasingly powerful neighbor to renewed hostility by objecting to its acquisition of nuclear weapons. Besides, they do not see themselves as targets of Iran.
- Accept U.S. protection? Opposition to American occupation of Iraq is a common cry in the Gulf, and no Gulf government wants to appear to be providing the United States with military bases, assistance, or access to facilities. Moreover, reliance on the United States for defense against other regional states has come to be seen by many in the region as an admission that regimes are incapable of providing for the national security. The Gulf dilemma is profound: acknowledge they need American protection and military presence, yet risk growing opposition if they do so. Patriot missiles were popular in the Gulf following their apparent successes in the war for Kuwait, but Gulf reaction today to Iranian threats or use of nuclear weapons against any target will depend on the U.S. response to a nuclear event and to how it backs up its commitments to Gulf security. Gulf Arabs fear that the United States will take them to war with Iran and admit they will have no choice but to support the United States.
- Go nuclear? Several Gulf governments—Saudi Arabia, Kuwait, Qatar, and the United Arab Emirates—have the money and linkages to nuclear suppliers, such as Pakistan, and could afford to purchase nuclear weapons systems, should they become available. They lack the skill and personnel to manage these systems and would have to rely on the sellers for assistance to maintain and use any such acquisition. None have shown an inclination to do so, nor is there any indication they would host U.S. nuclear weapons. These actions would be considered as too provocative for Iran.

Whether or not Iran goes nuclear in the next few years, Gulf Arab leaders offer advice on dealing with Iran and on issues they believe will affect their relations with the United States. While they concede that, ultimately, they need to depend on the United States for their security and defense needs, they will not acknowledge those commitments publicly. They will say:

- Do not try to push us into a confrontation with Iran, especially when Iraq is an unknown and possibly untrustworthy ally. U.S. insistence on a military confrontation with Iran or on ratcheting up sanctions to force Iran to abandon its nuclear weapons programs would only provoke the Iranians to retaliate rather than get them to comply.
- Do not try to marginalize the GCC states or alter the status quo. Gulf Arabs crave stability and balance, and they worry about being abandoned by the United States. Although they are tied strategically to Washington, they would seek comfort where it is offered—from the EU, or China, or Pakistan, for example. There is a growing rift between Saudi Arabia and some of the smaller GCC states; the Al Sa'ud criticize Bahrain and Kuwait for their willingness to sign bilateral agreements with the United States on trade and security issues outside the collective framework of the GCC. The Saudis may prefer to lessen GCC dependence on U.S. military force, but some of the smaller Gulf States see their security as ultimately linked to the United States. For the Gulf Arabs, Riyadh is still the key to any change in GCC relations with their more powerful neighbors.
- We need a new security paradigm, but we are not sure what it can be. The Gulf Arabs see a militarily strong Iran and a weak Iraq as creating a dangerous imbalance of power in the Gulf. They are already at risk of spillover from violent insurgencies spawned by religious or nationalist fanaticism in Iran or Iraq, yet they seem uncertain how to deal with this phase of their war on terror. They prefer accommodation and dialogue to reproach of their dangerous neighbors but are unwilling to invest in the process or invite Baghdad and Tehran into formal dialogue, let alone to become part of the GCC.
- Talk to all Iranian factions and make your intentions toward Iran transparent. Engaging now with the government, whoever heads

it, however weak the latter is, could allow the United States to avoid more violence and misunderstandings later, as each side tries to test its influence and learn what the other views as threatening.

- Offer a proposal for regional arms control. A promise from Iraq, Egypt, Syria, and other regional powers not to seek weapons of mass destruction and from Israel to dismantle its nuclear warheads could lead to regional security talks and arms control agreements. No one expects Israel to acquiesce to such a request, and it is difficult to see any Iraqi government giving promises beyond those contained in UNSC Resolution 687 not to seek what its neighbor Iran may already have.[36] It may be a move that post-Saddam Iraqi governments can ill afford to make without a similar and prior commitment by their neighbors.

Looking Just Beyond the Neighborhood

Beyond the Gulf region, few experts—apart from the Israelis—see a direct correlation between Iran getting the bomb and everyone else wanting it. More relevant, they argue, is what a government defines as the primary challenges to its immediate and longer-term security. Muslim and Arab governments profess not to see a serious risk from a nuclear-armed Iran, just as they professed not to see a similar risk from a nuclear-hopeful Iraq. These governments look more toward commitments from the United States and the United Nations, and signatories' compliance with the NPT and IAEA regulations.

Egypt at present appears to be abiding by its decades-old decision to sign the NPT and not pursue nuclear weapons. This could change, however, if Israel openly declares its nuclear weapons program. Syria and Libya would not seem to have an option for nuclear weapons; Libya has abandoned its efforts, and Syria, under close scrutiny because of its occupation of Lebanon and accusations of aiding Iraqi insurgents, will probably remain reliant on its chemical weapons and missile programs. It can afford little else.

Over the longer term, Iraq could prove once again to be the wildcard. Post-Saddam governments are committed to comply with the restrictions of all UNSC resolutions, especially 687, which ordered Iraq to identify for destruction all its WMD programs and promise never to pursue biological, chemical, or nuclear weapons again. These promises could be broken if and when Iran acquires nuclear weapons technology and if the United States deems a U.S.-friendly government in Baghdad

trustworthy. Once reconstruction of its vast oilfields is under way and Iraq resumes its ability to export more than its current uncertain level of crude oil, then stopping it from responding to the threat Iran's weapons would pose might be difficult.

The Negotiators: The EU–3

The involvement of Britain, France, and Germany (the EU–3) in negotiations with the Iranian government to suspend its nuclear enrichment program may reflect European fears and desires concerning U.S. policy as much as concerns about a nuclear-armed Iran. The EU–3 embarked on a separate negotiation path in the summer of 2003, primarily as a soft power alternative to the American hard power approach and fears that the United States would repeat in Iran its military intervention in Iraq. The EU–3 also considers that the threat of UNSC sanctions would harden Iranian positions and could ultimately collapse as a result of Russian and Chinese opposition. Even more disconcerting to Europeans is the possibility of Israeli military preemption—something the Europeans feel would be less restrained and less predictable than a U.S. solution. Europeans are fatalistic about the chances of success of a military option, which, they believe, would only serve to destabilize the region and, more importantly, cut off the flow of oil, particularly in the event of a shutdown of the Strait of Hormuz. Thus, a primary driver of the EU position has been to forestall military escalation.

Even before President Bush's February 2005 "fence-mending" trip through Europe, there was transatlantic agreement on the strategic objective of a nuclear-free Iran. Convergence on objectives, however, has yet to lead to convergence on tactics, although the United States has since raised the possibility of benefits to Iran (for example, World Trade Organization [WTO] membership) associated with a settlement. An undercurrent of European discontent surrounds American insistence that all options remain on the table, as well as considerable frustration that Washington will not, for now, join in the diplomatic process. The question then becomes: To what lengths will the Europeans be willing to go to achieve the nuclear-free objective? The answer may become clearer by considering what the European response might be if Iran actually crosses the nuclear threshold. If the diplomatic process fails, and Iran clearly has acquired nuclear status, the Europeans would face difficult decisions on whether to impede U.S. military operations—for example, through denial of air space or land transit. Even the United Kingdom would find it very difficult to join the United States in a military action.

The European reaction to a nuclear-armed Iran would likely be similar to its reaction to the India-Pakistan crisis in 1998: stern condemnations followed by some type of economic sanctions. Despite some early chest pounding, however, we believe it unlikely that the Europeans would support military actions to reverse or roll back the Iranian program. Europeans would profess uncertainty regarding Iranian intentions once Tehran attains nuclear status. Some would argue that Iran understandably wants a hedge against Israeli attack or American invasion; they would be less concerned that Tehran might use its nuclear chip for coercion or blackmail. In the long run, Europe is likely to acquiesce to a nuclear-armed Iran as long as it thinks any greater ambitions can be contained.

Two possible concerns may temper European acceptance of a nuclear Iran. The first is Iran's increasingly capable ballistic missile program. The current generation of Shahab-3 missiles has a range just short of Europe's southern flank. Speculation that Iran may pursue longer-range Shahab-3 variants or develop a newer, longer-range Shahab-4, -5, or -6 version may fuel concerns that Europe could be subjected to nuclear blackmail.[37] In that case, Europe would likely try to shore up NATO's southern and Mediterranean orientations. The other concern is Turkey. Already within range of the current Shahab missile, Ankara could decide to pursue its own nuclear agenda to counterbalance a nuclear-armed Iran. This would place original NATO members in a precarious position in regard to their southernmost NATO ally and probably would be more destabilizing than a nuclear-protected Gulf. While unlikely to spur additional nuclear proliferation in the European region, Turkish nuclear weapons acquisition could increase tension within the NATO alliance and raise pressure on the Gulf States to do the same.

Clearly, the Europeans are committed to a diplomatic solution to avert a nuclear-armed Iran. However, if at the end of the process the Europeans fail to achieve that goal, they are unlikely to pursue aggressive approaches to roll back Iranian capability and may have little stomach to sustain economic sanctions over the long run. Simply accepting life with a Persian bomb will prove easier for the Europeans than tempering possible U.S. and Israeli responses.

One final potential impact of an Iranian-EU deal needs consideration. Agreement to EU demands that it halt or suspend its enrichment programs would not mean an end to Iran's nuclear research. It would, however, potentially affect the thousands of scientists and technicians who have been trained over 20 years to work on nuclear research programs. Presumably, Iran would want them to continue their work, so even

success at the diplomatic table and greater scrutiny of Tehran's nuclear activities would not end all concerns.

The Suppliers: Russia, China, and Pakistan

Iran has looked to Russia, China, and Pakistan for assistance developing its nuclear capability. Although it is debatable whether the governments of these nuclear states wittingly supported Iranian ambitions, the Iranian program clearly would not be as far along as it is today without some cooperation from them. As far back as 1987, Pakistan's A.Q. Khan reportedly met with Iranian officials and apparently offered them designs and components for uranium enrichment. Through the years, Iran has purchased equipment and components from both Russia and China. Russia has overtly supported the plutonium reactor at Bushehr and continues to support Iranian access to peaceful nuclear energy. The support that these nuclear supplier states have provided Iran underscores their continuing interest in Iran as a customer.

In looking at Russia, there is both good news and bad. Russia views itself as neither the problem nor the solution. While Presidents Vladimir Putin and George W. Bush have jointly stated that Iran should not be allowed to obtain a nuclear weapon, Russia continues to provide equipment for Iran's nuclear energy program. Moscow promises, however, not to sell nuclear fuel to Iran unless Tehran agrees to return spent fuel to Russia. From Moscow's perspective, Iran's program represents a major export opportunity for a nuclear industry that has few domestic or international markets. It sees Iran as a major political player in the region, an Islamic country that has been largely deferential to Russian interests, and a key partner in Central Asia and the Gulf.

For the Russians, the nuclear issue is not high enough on their list of most pressing security concerns to jeopardize other key interests. Moscow prefers the status quo and considers the prospect of a nuclear-armed Iran to be an unwelcome one, but not so unwelcome as to place other Russian interests at risk. The Russians appear more concerned about an American intervention that would jeopardize Russian commercial interests; complicate bilateral relations, including those with Israel and the United States; cause further regional destabilization; and set off strategic and economic ripple effects that Russia may be ill equipped to handle. Some in Russia view the Iranian nuclear program as chiefly aimed at the United States and therefore useful in countering growing American influence and adventurism. At the same time, Russian officials understand that the issue is important for its principal interlocutors—the United States,

United Kingdom, Germany, and France—and Moscow would not want to be cut out of any scheme they propose.

That is not to say that Russia is cavalier about Iranian intentions. Moscow continues to monitor Tehran's behavior for signs of greater ambition and possible mischief. Generally, though, while Russia might object to solutions that rely on the use of force, it is unlikely to become a true obstacle to U.S. policy in the region. Russia also is unlikely ever to become a major player in dealing with an Iranian nuclear program and would probably be more reactive than proactive. Russia could play a useful role in the general framework of the international community's response to the crisis. In doing so, Russia is more likely to use the international legal framework than to adopt a position that could leave senior policymakers vulnerable to domestic charges of caving in to U.S. pressure. For example, Russia's agreement with Iran on spent nuclear fuel ran against U.S. policy preferences but emphasized compliance with Russian obligations under the NPT. Perhaps one collateral benefit of the agreement is that it underscores the point that Iran does not need to develop its own full nuclear fuel cycle.

Russian behavior in the runup to Operation *Iraqi Freedom* could be indicative of its reaction to a future crisis involving Iran. Unwilling to jeopardize its bilateral relations with the United States or Europe, Russia would probably adopt a "wait-and-see" attitude and watch the debate unfold among allies on both sides of the Atlantic. Russia would likely shy away from a leadership position in that debate, insisting instead on keeping the issue confined to the UN–NPT framework. This would give Moscow a major decisionmaking role, shield its equities vis-à-vis the United States and Europe, maximize its leverage on Iran, and neutralize domestic anti-American sentiments.

China is another great power with growing interest in Iran and the Gulf. Its reactions to a nuclear-armed Iran are likely to be similar to Chinese responses in other post–Cold War international crises, such as the Gulf War, Kosovo, the Korean nuclear crisis, and the Iraq war. China would seek to protect its equities in the crisis region, emphasize international procedures that give it a veto or a strong voice, support peaceful diplomatic resolution of the crisis, and oppose any use of force against Iran. In our judgment, China's focus would remain on protecting its national sovereignty, avoiding negative precedents, and preserving regional stability in order to maintain favorable conditions for Chinese economic development. If possible, China would pursue these objectives while maintaining good relations with the United States and other major powers.

China would probably be more concerned about American or Israeli reactions to a nuclear-armed Iran than about Iranian nuclear weapons themselves, especially if Iran's nuclear capability remains opaque and untested. This reflects a history of friendly Sino-Iranian relations and Chinese perceptions that Iran's pursuit of nuclear weapons is primarily intended for defensive purposes, including prevention of U.S. attempts to force regime change. China would seek to keep oil flowing from the Persian Gulf while attempting to preserve preferential access to Iranian oil and gas resources and market opportunities. A prolonged stalemate in which Iran remained entangled in a diplomatic (but not military) confrontation with the United States and Europe would serve Chinese interests.

China would probably support international efforts to punish Iran for crossing the nuclear threshold, but would be extremely reluctant to authorize use of military force or international sanctions that might bring down the current Iranian government. If Beijing concluded that the United States or Israel intended to conduct military attacks against Iranian nuclear facilities or to overthrow the regime, it might support stronger international sanctions, but only if they would forestall the use of force. As in past crises, Beijing would prefer to play a secondary role supporting Russian and European objections to military action rather than confronting the United States directly.

Closer to home and despite A.Q. Khan's past cooperation with the Iranian regime, the government of Pakistan is unlikely to welcome a new nuclear-armed neighbor on its western border. With a nuclear-armed India to the east, Pakistan would find itself in an undesirable strategic situation sandwiched between two nuclear-armed countries. Pakistan would perceive a diminution of status in the Muslim world if it were no longer the sole Islamic nation with nuclear capability. A "Shia bomb" would likely bring Sunni-Shia differences to the surface and raise anew suspicions in the Pakistan-Iran relationship that have been simmering since the fall of the shah. Competition for economic access to Central Asia, Sunni-Shia violence in southwest Pakistan, and Iranian influence in Afghanistan are all pressure points that may be viewed through a new prism. In fact, an openly nuclear-armed Iran would not be a primary Pakistani security concern, but, to the extent it exacerbates these other problems, it would become a thorn in Islamabad's side.

As with the other interested parties, Pakistan's greater fear is the reaction of the United States and Israel. The Musharraf regime is under enormous pressure internally for its continued support for Washington's war on terror. A significant U.S. military response would place further

demands on Musharraf for support, which would be enormously unpopular with the populace and within the Pakistani military. This dynamic could significantly increase the potential for unrest within Pakistan and serve as a tipping point for catastrophic instability. At a minimum, U.S. operations against yet another Muslim neighbor would likely erode Pakistani support in the war on terror.

Implications for the Global Nonproliferation Regime

There would be significant impacts on the global nonproliferation regime if Iran crossed the nuclear threshold. The effect would depend on the particular scenario, at least three of which deserve careful study.

The India model. From a nonproliferation standpoint, this is the worst-case scenario. Iran would confront strong international condemnation in the short term, but in the long term it would have enhanced its prestige.

The North Korea model. This is another bad case, in which Iran is caught cheating and withdraws from the NPT. Under a perfectly legitimate loophole in the treaty—in which a signatory country can construct enrichment facilities—other signatory countries would be unable to take strong retaliatory measures. A less damaging outcome would be if Iran completes its nuclear enrichment program under IAEA safeguards, with no one able to prove they have latent weapons capability.

The Iraq model. The United States or Israel preemptively attacks Iran's facilities, and Iran withdraws from the NPT to rebuild and even expand its programs.

These scenarios have at least three dangerous consequences. First, they challenge the validity of the basic assumptions upon which the NPT is based. Second, they would probably accelerate the erosion of confidence in the IAEA and the inspection regime. Finally, governments that have foresworn nuclear weapons ambitions might decide to reconsider their previous choices.

The NPT was created as a grand bargain to ensure that states could have access to peaceful nuclear energy while promising to limit proliferation of nuclear weapons. It was designed as a cooperative measure, and it is ill equipped to handle determined cheaters. The IAEA was created to ensure that the grand bargain was maintained and that there would be no crossover from civilian energy and scientific endeavors to weapons programs. It was not designed to detect clandestine weapons programs unrelated to peaceful energy research. The United States would like to see changes in the NPT—most specifically in Article IV, which allows a

country to "develop research, production, and use of nuclear energy for peaceful purposes"—to close a loophole that is interpreted as endorsing these states' acquisition of uranium enrichment or plutonium reprocessing facilities. Washington would also like to put more enforcement teeth into the regime. The global community, however, has been slow to act, and an international conference convened by the United Nations in May 2005 failed to resolve any of these issues. Iran's chief negotiator, Hassan Rohani, warns that:

> termination of fuel cycle activities as demanded of Iran means you have killed the NPT. If you take out Article IV, all developing countries will step out of the treaty. . . . Termination is war between the North and the South. The Americans say forget about Article IV, forget about the disarmament promised in Article IV. . . . The U.S. today is trying to create a second discrimination, one between those that have peaceful nuclear technology and those not allowed to have peaceful nuclear technology.[38]

American attitudes toward the EU–3's diplomatic strategy reflect a growing skepticism about the efficacy of the NPT and the IAEA. Eroding support for the treaty is likely to accelerate an equally diminishing level of confidence in the institutions and its inspections. Both the NPT and IAEA have failed to keep up with determined signatory proliferators, such as Iraq and North Korea. New measures, such as the Additional Protocol, which calls for commitments to additional safeguard mechanisms, are designed to enhance the capabilities of the IAEA inspection regime. However, the protocol itself does not allow free and unfettered inspections of suspect facilities. The IAEA must operate in a team mode most of the time and needs permission from the host government to inspect facilities, restrictions that can severely hamper inspectors' ability to carry out surprise and unconstrained inspections. The greatest threat to the IAEA and NPT, however, would be the degree of opacity with which Iran crossed the nuclear threshold. A successful, opaque crossing would probably weaken the support of the international community and seriously harm further efforts by the IAEA to operate.

On occasion, the IAEA has gone beyond its usual mandate. It expanded its inspection capabilities beyond its normal operating constraints in Libya, Belarus, Ukraine, and South Africa. How do we apply these lessons to Iran and strengthen the IAEA's hand? The challenge would be to define different ranges of inspection authority when there are cases of clear violation—in other words, create a more benign regime for routine inspections, and a more extraordinary regime for suspected or actual

violators. The violators would have to appear before the UN Security Council and expunge the violation by admitting what they have done and allowing more permanent monitoring. The Security Council would hold the primary authority in addition to the IAEA and NPT, thereby shifting the burden of proof from the IAEA to the suspect state and triggering further international scrutiny. A broader set of authorities would be required for the IAEA to conduct more intrusive inspections and interviews with scientists. However, as the global nonproliferation community approached the 2005 NPT Review Conference in late May, there was little consensus on how to strengthen both the NPT and IAEA. A confirmed violation in Iran might have a galvanizing effect on the community to make the changes necessary to shore up the regime and place further emphasis on counterproliferation efforts, such as the Proliferation Security Initiative.

Finally, and perhaps most significantly, governments that have foresworn nuclear weapons development could reconsider their willingness to comply with obligations standards successfully breached by Iran and North Korea. Certainly, Japan, South Korea, and Taiwan will be influenced by the North Korean situation. And, despite skepticism over falling dominos in the Middle East, we cannot rule out the possibility that the Iranian case will affect choices yet to be made by Saudi Arabia, Egypt, Syria, Iraq, and Turkey. Other countries with capacity and regional weight—such as South Africa and Brazil—would surely take notice. To what degree and how quickly these impacts would be reflected in national decisions is impossible to say. Iran's nuclear capability would increase pressure on some governments, but technical and political constraints would also affect whether or how quickly more countries develop nuclear weapons.

Chapter Three

U.S. Policy Options

We, the Iranian people, within the borders of our country, will cut off any hand that harms our scientific, natural, human, or technological interests. We will cut off the hand that is sent to invade and work against our people's interests. We will do this with no hesitation. . . . If the enemy has the audacity to harm and invade, our blows against it will not be limited to the borders of our country. . . . If someone harms our people and invades, we will endanger his interests anywhere in the world.[39]

—Supreme Leader Khamenei, July 6, 2004

A nuclear-armed Iran would increase pressure on the United States from the international community to engage rather than confront Iran. Some would see a nuclear-armed Iran as a major failure for American foreign policy. They would argue that U.S. determination to change regimes in Iraq and Iran and preference for sticks rather than carrots contributed to Iran's decision to pursue nuclear weapons. Others would argue that the European policy of critical dialogue and preference for carrots over sticks simply encouraged Iran to play for time and deflect international pressure. Regardless of the debate, many in the international community would renew their calls for the United States to engage and negotiate with Iran. Washington could decide to adopt a more accommodating strategy for dealing with Iran, or it could choose a more dramatic course. Starkly put, the choices become either to live with a nuclear-armed Iran or to do something about it.

What models or issues would affect U.S. national security policy when faced with a nuclear-armed Iran? Pakistan offers one model. Before the horrific attacks of September 11, 2001, the United States had placed sanctions on Pakistan because of its nuclear tests. The need to garner Pakistani support for the war on terror necessitated a change in policy

to acceptance of Pakistan as it is—with a nondemocratic government, strident Islamist extremist groups that are virulently anti-American, and nuclear weapons. The difference between U.S.-Iran and U.S.-Pakistan relations probably lies mostly in Tehran's evident willingness to challenge the United States and the prevailing status quo in the region.

An issue that will have considerable bearing on U.S. and EU policy is the clarity with which the Iranians cross the nuclear threshold. An Iranian decision to adopt an opaque approach—remaining within the NPT, appearing to comply with its international obligations, and continuing with weapons research and development in secret—would allow the United States and the European Union to be ambiguous in their policy response. In our view, Iran will make this choice. However, should Iran choose a transparent nuclear breakout, renounce the NPT, or conduct an overt demonstration of its nuclear weapons and missile capabilities, then Washington and its allies will be faced with a clear and difficult decision.

In either case, U.S. options are few: either do something to reverse the Iranian capability, or accept the situation. Whether the United States could eventually accept a nuclear-armed Iran in the same way it has accepted a nuclear-armed South Asia depends to some degree on the internal political dynamic in Iran. A government that is nuclear-armed and dominated by conservative clerics and politicians following a hard line on foreign policy and security issues might become less risk-averse and act more aggressively toward its neighbors and foes. It might demand that its Muslim and Arab neighbors adopt its political and security visions. It might shelter its extremist surrogates and groups using terror tactics under its nuclear umbrella and encourage them to try to destabilize Israel, spoil peace talks, cow Iraq, squelch anti-Syrian efforts in Lebanon, or shape the oil market. It would be difficult for the United States, Europe, Russia, China, or other Asian governments—with their dependence on Gulf energy resources—to ignore Iran in a spoiler mode.

The United States and other governments could develop a strategy to roll back the Iranian nuclear weapons capability or change the regime. But if there were leadership in Tehran that was willing to work with Washington more constructively on matters of mutual concern, then the issue of how the United States deals with a nuclear-armed Iran might be different. If so, accepting a nuclear-armed Iran would require a mixture of diplomatic and economic engagement balanced by a muscular deterrent approach.

Rolling Back the Iranian Nuclear Program

President Bush has stated that "the development of a nuclear weapon in Iran is intolerable."[40] Thus, once Iran crosses the nuclear threshold, it is reasonable to expect the United States to adopt a course of trying to roll back the Iranian capability. The question becomes: At what cost would the Bush administration be willing to pursue this strategy? For the United States, the potential efficacy of diplomatic and economic incentives and disincentives may be severely diminished, and the costs of a military solution no longer acceptable.

A rollback strategy involves a series of measures designed to reduce Iranian motivations for retaining its nuclear program along with coercive measures to inflict sufficient punishment on the regime should it not comply. It also sends a definitive signal to other potential proliferators. Such measures should reduce or eliminate the perceived benefits Iran expects to obtain from its nuclear capability. A potentially effective strategy could include a coordinated series of escalating options ranging from providing security assurances to Iran, political isolation to economic sanctions and, finally, military action.

Security Assurances, Coercive Diplomacy, and Economic Sanctions

Security assurances to Iran would be designed to reduce the motivation of the Iranian regime to maintain its nuclear weapons capability. A promise not to attack Iran if it gives up its nuclear weapons might be of use in dissuading it from crossing the nuclear weapons threshold, but it would probably be a non-starter once Iran takes that step. Without sufficient sticks, such as the threat of military force, Iran has little incentive to give up its anticipated nuclear capability for vague security assurances. However, such a strategy employed as a carrot along with more coercive options might have some benefit. Assuming a primary driver of Tehran's nuclear intent is the fear of regime change, the United States could design a series of diplomatic and economic measures to alleviate this fear.

- Some experts believe Washington would have to renounce regime change as a policy goal and follow through with recognition of the Iranian regime, normalization of relations, and possibly support for initiatives, such as international loan guarantees and unrestricted sales of highly desired civilian technology. Agreeing to let Iran join the WTO is unlikely to be sufficient.
- For its part, Iran would need to take credible steps to show that it has no aggressive or subversive designs toward its neighbors. The

United States could not offer security guarantees that leave Iran free to take hostile action through surrogates.

- Normalization would not mean that all contentious issues between Tehran and Washington suddenly disappear. It would require that normal diplomatic channels be reestablished through which all issues could be addressed. The United States would also need to promote a larger dialogue with Iran's neighbors to develop a regional security framework that addresses their own and Iran's security concerns.

Rollback as a strategy has had some successes. In the case of Libya, sanctions fatigue, a severely weakened economy, exhaustion with its long status as an international pariah, succession worries, and the U.S. interdiction of centrifuge components under the Proliferation Security Initiative led Libyan leader Muammar Qadhafi to renounce his WMD aspirations and acquisitions. South Africa rolled back, and several Eurasian states—including Ukraine—agreed to relinquish Soviet-era nuclear weapons stockpiles on their territories. A number of countries have chosen not to pursue nuclear weapons capability despite their technical ability to do so. In almost all cases, the decision to roll back was based on a perception that domestic costs far outweighed the benefits.[41]

For the Iranian regime, however, possessing nuclear weapons capability provides significant domestic as well as international benefits. An Iranian-focused rollback strategy would require tightening elements of the nonproliferation regime as part of a larger effort to isolate the Iranian regime internationally, thereby negating the international prestige and pride Tehran associates with a Persian bomb. For this to happen, it would be essential for the international community to make clear to Iran that it has a stark choice: either it can have nuclear weapons, or it can have good relations with the outside world. Unfortunately, while the EU, Russia, and Asian governments may agree with this approach in principle, there will be no consensus on how to enforce it. Additionally, once Iran has attained nuclear weapons status, it is unlikely to capitulate solely in response to threats of political and economic isolation without incentives.

Scholars agree that a coordinated international effort to implement economic sanctions would have a significant impact on Iran. Despite the recent bonanza from unanticipated oil profits, Iran's economy remains weak, and efforts to meet the demand for jobs, housing, and consumer goods lag.[42] Unemployment coupled with a need for foreign

investment to stimulate growth make it susceptible to sustained economic pressure.[43] U.S. efforts to force compliance from Iran through sanctions have failed, largely because they were unilateral. Similarly, efforts to gain international support for an economic boycott have failed, and there is no reason to assume that an effort pegged to Iran crossing the nuclear weapons threshold would gain widespread support. If it did, the effort would be costly to the United States in terms of incentives to other boycotters. And, if consensus is achieved, it is likely to be short-lived. Economic sanctions hurt people and not governments, for the most part, making it difficult to sell this policy at home or abroad. To be effective, sanctions would have to be applied before nuclear status is achieved—although the examples of sanctions already applied to Iran, Iraq, and North Korea are not encouraging in this regard. It is unlikely, in our judgment, that a sanctions-only approach after the fact will achieve the desired outcome.

Use of Military Force

At the high end of the rollback ladder, several military options could be considered in order to encourage Iran's government to eliminate the weapons program outright, give up its nuclear intent, and, perhaps, change the regime. In our view, military operations are not likely to achieve these results and will almost certainly have unintended consequences, such as rallying popular support for an unpopular regime. Moreover, without clear evidence of Iranian provocation—that is, beyond the actual act of acquisition—a military strategy is likely to cost the United States international support and political effectiveness.

Several factors would need to be considered before the United States decided on using a unilateral military option or pursuing a multilateral military or diplomatic solution. These factors include the sense of urgency; the status of cooperation between the United States, the EU–3, and the international community; and the events leading up to an Iranian nuclear breakout. American actions may be somewhat restricted if tied too closely to a joint U.S.–EU approach, unless the EU agrees to give military support should all other options fail. Governments, however, historically are loath to give such blank checks. Support for combined military action might be more forthcoming if the United States and its allies agreed on the redlines that would trigger a response should Iran cross them. Again, governments do not, as a rule, tie their hands by committing themselves to cooperate automatically in advance.[44]

Once a decision had been made to employ force, the questions then become: How much, and to what end? A series of strikes and raids

on WMD targets that demonstrate U.S. and international resolve could compel Iranian leaders to give up their nuclear weapons programs, particularly in the face of additional diplomatic and economic pressures coupled with fears of further escalation. However, such a strategy is inherently problematic. Iran's nuclear program is well dispersed and hidden, the result of lessons learned from the 1981 Israeli attack on Iraq's nuclear reactor. Locating and destroying critical elements of Iran's nuclear program, with or without a ground invasion, would be an extraordinarily demanding mission with highly uncertain effects. Moreover, uncertainty about the full extent of Iranian capability and about its willingness to use nuclear weapons could deter the United States from taking even limited military action. Accurate information on Iranian nuclear force and its retaliatory capability would influence a U.S. response, but such knowledge will be hard to acquire.

For similar reasons, a nuclear-armed Iran would likely deny the United States the option of an Iraq-style invasion to change the Iranian regime and eliminate its WMD program. An Iranian regime that thought its survival was threatened might adopt a "use them or lose them" mentality with its nuclear weapons. All forces in the region, including American, moderate Arab, and Israeli, would then be vulnerable to Iranian attack.

Additionally, as long as the U.S. Armed Forces are involved in major counterinsurgency efforts in Iraq and in counterterrorism operations in Afghanistan and elsewhere in the region, it is implausible that the United States could assemble the military capabilities required to conduct a successful conventional invasion of a country three times the size of Iraq. Efforts to support antiregime elements to overthrow the Iranian leadership are unlikely to succeed; the exile opponents of the Iranian government are unpopular in Iran, some because of their monarchist ambitions and others because of their past willingness to work for Saddam Husayn against Iran. These options rarely remain below the radar screen of the targeted regime; they could trigger terrorist retaliation but are not likely to escalate to use of nuclear weapons. Combined with diplomatic and economic elements in a rollback strategy, this approach may have merit over the long term. However, the short-term prospects for military options or support for regime opponents to roll back the Iranian nuclear capability or change the regime are modest at best.

Living with a Nuclear-Armed Iran

Scholars and government experts are divided on Iran's ultimate strategy and tactics when it finally completes its nuclear weapons research

and development. They are uncertain of popular support for nuclear weapons capability but are clear on popular support for Iran's right to nuclear energy. They agree, however, that the international community—especially the European Union, Russia, Pakistan, China, Iraq, and the Arab Gulf states—will watch the U.S. reaction closely before deciding their reaction to a nuclear-armed Iran. The key question would be: Could the United States live with a nuclear-armed Iran?

Iran's governments have been aggressively and shrilly anti-American in public speeches and demonstrations. Leaders have supported anti-American terrorism (in Lebanon, for example) and deplored it (the September 11 attacks on New York City and the Pentagon). They have cajoled and threatened regional friends and allies of the United States. But they have not behaved carelessly or irrationally. For Tehran, all situations are fraught with hazard, and all decisions are carefully and consensually made—all of which leads many analysts to conclude that the United States could probably deter Iranian regional adventurism, even after it crossed the nuclear threshold.[45]

Even if the United States adopted a rollback strategy, the world would have to live with a nuclear-armed Iran for some period of time once it crossed the threshold. Whether for the short term or the long term, Washington would have to determine the optimum way to contain and deter Tehran, if pursuing a strategy of engagement would mitigate the effects of a nuclear-armed regime, and whether a strategy of rollback through coercion or eventual regime change could work.

Prospects for Deterrence

In deciding it could live with a nuclear-armed Iran, the United States would have several goals in mind: deterring overt nuclear use, containing aggression and adventurism in the region, and preventing transfer of nuclear capability to terrorist surrogates. Threats of overt nuclear use by Iran may be the simplest to deter, although an inexperienced adversary such as Iran could easily miscalculate in a classical deterrence relationship. Many would perceive the U.S. strategic capabilities resident in the new triad (nuclear and nonnuclear offenses, defenses, and a responsive infrastructure) sufficient to deal with a limited Iranian capability. To ensure U.S. intent is understood, a clear declaratory policy would eliminate any doubt about its resolve to respond overwhelmingly to Iranian nuclear use. Furthermore, any extension of the U.S. nuclear umbrella to other countries in the region (such as the GCC) would require explicit communication to prevent miscalculation.

Deterrence based on rational actor assumptions necessitates a good understanding of the adversary. Cultural ignorance, inability to communicate, or gaps in knowledge on both sides will complicate the strategic situation. Furthermore, decisionmaking must be thoroughly considered in advance of possible crises to reduce the potential for missteps. The amount of time Iran has invested in planning and institutionalizing decisionmaking and responsibility as a nuclear weapons state is unknown. Confidence-building measures will be needed from the beginning of, or even preceding, negotiations but may be difficult to achieve while pursuing a rollback strategy. For the short term at least, Iran would likely be an unstable deterrence partner, requiring the utmost U.S. and EU attention to unintended consequences in order to avoid escalation. In the final analysis, it is likely that the Iranian regime could be deterred from overt nuclear use.

Misunderstandings between the United States and Iran are most likely to arise in the Persian Gulf region, where a more aggressive and adventurous Iran might try to exert influence with the unsubtle reminder that it is a nuclear-weapons state. Particularly troublesome would be overt aggressive acts such as conventional military strikes or special operations against Iraq, Pakistan, and the Arab Gulf states or an attempt to intimidate the United States by shutting down oil export capabilities through the Strait of Hormuz. We do not view the latter as a likely scenario, given Iran's dependence on open sea lines to export its oil, but the threat must be taken seriously. The United States might hesitate before launching a military attack against Iran, but Washington would have to communicate to Tehran clearly that it would not shrink from using conventional forces to punish aggressive Iranian actions.

Any effective U.S. military response would require a sustained commitment of force in the region and on Iran's borders. Although a continued U.S. presence may raise concerns in some parts of the region, a concerted effort to build regional partnerships and coalitions, along with success in Iraq, would help ameliorate them. This scenario requires the United States to continue planning a broad range of conventional military operations to defeat or punish Iranian or Iranian-supported challenges or assaults on U.S. interests in the region. On the downside, this too could have an escalatory effect, particularly if Iran perceived American power as presenting an imminent threat of invasion and regime change. Overall, even though Iran might become more assertive, most experts believe the United States and its allies should be able to deter and contain overt acts of significant consequence, though deterring more subtle intimidation by a nuclear-armed Iran would be more difficult.

Deterring Transfer to Terrorists?

Probably the most controversial issue for deterrence theory is a nuclear-armed Iran providing its new weapons and technology to terrorists. Is Iran likely to transfer nuclear capability to terrorists/surrogates? If the answer is yes, the next questions are: Would we know it, and could we place Iran at risk in order to avoid it?

Most experts agree that the Iranian government is unlikely to share its new nuclear weapons technology with terrorist groups, including the Lebanese Hizballah. Iranian intelligence officers and IRGC personnel will continue to train surrogates and provide safe haven for a select few. Iran's WMD programs are probably under the control of the IRGC, whose leaders would understand the risk to the regime if caught passing on sensitive technology to extremist groups. Consensus is important in Iranian decisionmaking, but the IRGC or so-called rogue elements may be able to circumvent senior government decisionmakers opposed to sharing the new and dangerous technology with surrogates.[46] The stakes would have to be very high—perhaps regime survival—before the IRGC and its political patrons would risk giving nuclear weapons to terrorists. The harder—and probably unanswerable—question is whether Iranian official controls would be durable enough to prevent "leakage" by rogue actors.

The risk that pro-Iranian terrorist groups would be heartened by their patron's new capabilities also presents a new challenge for deterrence. Iran is not likely to provide nuclear weapons assistance to Sunni religious extremists or terrorist groups; it fears them more than it favors them. A more plausible concern is that a group long affiliated with Iran—for example, Hizballah in Lebanon—would feel emboldened to take more aggressive action against Israel, assuming that it is protected by a nuclear-armed Iran.

And the Answer Is?

To strengthen its deterrence position vis-à-vis a nuclear-armed Iran, the United States would need to take several steps. These include reassuring allies and friends; strengthening preemptive and retaliatory military capabilities as well as active and passive defenses; and reinforcing dissuasion and nonproliferation regimes to prevent further proliferation.

Reassuring allies and friends means convincing them that we would keep our commitments to their security, consult with them as crises arose, and not place them in dire jeopardy. Developing coalitions and partnerships would be essential to blunting potential Iranian

aggression or intimidation in the region. Additionally, extending the American nuclear umbrella to our partners could alleviate their security fears and prevent Iran from bullying its neighbors. However, as previously suggested, nuclear guarantees must be explicit and understood by Iran and the neighbors to avoid miscalculation. At the same time, they must avoid striking fear in allies and partners of a U.S. overreaction—a fine line to walk.

Effective deterrence requires a credible range of military options and assured capabilities to respond to attack. The ability of the United States to react quickly and effectively would depend on it maintaining a military presence in the region, even though such presence may not be welcomed in some quarters. Attributing a terrorist attack and making the connection to a state is another difficult issue. U.S. ability to say that an attack was attributable to Iran, and have that assessment believed outside U.S. Government circles, would continue to be seriously constrained in Europe and the Middle East.

A nuclear-armed Iran would underscore the region's interest in and request for defenses against nuclear attack. Means of defending against both shorter- and longer-range missiles would be required. One option is a more robust U.S. and allied defense against ballistic missiles. This would have an impact on U.S. strategic missile defense deployments at home and in theater, given Iran's long-range missiles. Other options, such as cruise missile defense and enhanced passive defensive capabilities, would increase in importance. At the same time, given unconventional forms of missile delivery, the United States and its allies would need more robust detection capabilities and enhanced border protection measures. The best the United States and its regional friends can do is to layer defensive capabilities to complicate the adversary's calculus of his chances for a successful operation. This calculus can be strengthened by being more explicit about the consequences of such acts.

To the extent that security would be a factor motivating states to seek nuclear weapons in response to a nuclear-armed Iran, an extension of the U.S. security guarantee could be effective, but there would have to be a clear understanding that protection is contingent upon their not acquiring nuclear capability. The United States should not extend its nuclear security guarantees lightly, but it merits consideration if Iran goes nuclear. This would also have an important dissuasion effect in preventing other nations from considering nuclear capability and would be essential in reestablishing the global nonproliferation regime.

Conclusion

Evidence suggests and most scholars concur that Iran is working toward the capability to produce nuclear weapons independently of any other government or individual. Can the United States live with a nuclear-armed Iran? Despite its rhetoric, it may have little choice. The potential for rollback once the threshold has been crossed is lower than preventing it in the first place, and the costs of rollback may be higher than the costs of deterring and containing a nuclear Iran. Even if the United States decides to embark on a rollback strategy, it would have to maintain a live-with-it deterrence strategy while other diplomatic, economic, and military options play out. The good news is that much of the capability needed for deterrence and containment is the same as that needed for more robust military options. That may enable the United States to play both strategies for an undetermined length of time.

Finally, with the election of an avowed hard-liner as president, Iranians and Americans wonder if the stage may be set for a dramatic policy initiative reminiscent of the visit of U.S. President Richard Nixon, a staunch anti-Communist, to China after his second inaugural. Only a true hard-liner, it is argued, could risk such an initiative. Such a move by President Ahmadinajed could only be made with Supreme Leader Khamenei's approval, and there is no indication that he would sanction such a gesture, especially without a promise of concessions from the United States.

Endnotes

[1] Michael Slackman, "Winner in Iran Calls For Unity; Reformists Reel," *The Washington Post,* June 26, 2005, A1, 10.

[2] R. Scott Billquist, "Europeans Win Tentative Vow From Negotiator," *The Washington Post,* May 26, 2005, A20.

[3] Mark Lavie, "Sharon Rules Out Attacking Iran Over Nukes," Jerusalem AP, April 13 2005.

[4] Ibid.

[5] See Kori N. Schake and Judith S. Yaphe, *The Strategic Implications of a Nuclear-Armed Iran*, McNair Paper 64 (Washington, DC: National Defense University Press, 2001).

[6] Although both studies assumed Iran was embarked on efforts to acquire nuclear weapons self-sufficiency, the groups that met at the National Defense University were divided on the question of whether Iran has gone past the point of no return in its research and development. When polled, the group decision was inconclusive: 40 percent believed Iran had not yet reached the point of no return, 40 percent thought they had, and 20 percent had no opinion!

[7] See, in this paper, appendix A, "A Time Line of Iran's Path to Nuclear Weapons Capability," and appendix B, "Iran's Nuclear Program: Status, Risks, and Prospects," both by David Albright, director of the Institute for Science and International Security in Washington, DC.

[8] See, in this paper, appendix C, "Walking the Tightrope: Israeli Options in Response to Iranian Nuclear Developments," by Gerald Steinberg, director of the Program on Conflict Management and Negotiation at Bar-Ilan University, Ramat Gan, Israel, and Fellow, Jerusalem Center for Public Affairs.

[9] "Iran May Resume Uranium Enrichment Within Six Months, Says Rafsanjani," *Iran Expert*, December 5, 2004, available at <www.iranexpert.com/2004/rafsanjani5december>.

[10] "Iranian FM Reaffirms Tehran's Right to Nuclear Power for Peaceful Purposes," *War Wire,* February 14, 2005, available at <www.spacewar.com/2005/050214153124.cztygouq.html>.

[11] Britain, France, and Germany are the so-called EU–3 powers negotiating with Iran on behalf of the European Union. In return for ending its research programs, Iran would receive a range of economic, political, and security benefits from the EU and other nations. See appendix B in this paper.

[12] See appendix A.

[13] David Albright, "Iran's Nuclear Program: Status, Risks, and Prospects," paper prepared for a conference on *Iran After 25 Years of Revolution*, sponsored by the National Defense University and the Woodrow Wilson Center, November 15, 2004. See also articles published by Albright and Corey Hinderstein in the *Bulletin of the Atomic Scientists*, including "Iran: Countdown to Showdown," vol. 60, no. 6 (November/December 2004), 67–72; "Iran: Player or Rogue," vol. 59, no. 5 (September/October 2003), 52–58; "Iran: Furor Over Fuel," vol. 59, no. 3 (May/June 2003), 12–15; and "The Centrifuge Connection, vol. 20, no. 2 (March/April 2004), 61–66. For information on satellite images of Iranian nuclear sites discussed in this paper, see the Institute for Science and International Security Web site, available at <www.isis-online.org/images/main_satellite_index.html>.

[14] We are grateful to several Iranian scholars, including Professor Bahman Baktiari and Babrak Kamel of the Persian Service at the British Broadcasting Company, for sharing these insights.

[15] For the application of this concept to great powers, see Jack Snyder, *Myths of Empire: Domestic Politics and International Ambition* (Ithaca, NY: Cornell University Press, 1991).

[16] According to an *Al-Ahram* report in October 2003, a five-member committee reported to the National Security Council on the nuclear program issue; its members then included Foreign Minister Kamal Kharrazi, Defense Minister Ali Shamkhani, National Security Council Secretary Hassan Rohani, Foreign Affairs Adviser Ali Akbar Velayati, and Minister of Internal Security Ali Yunisi. Rohani became a leading negotiator in Iran's nonproliferation talks with the EU. Mustaffa El-Labbad, "A Bird with Just One Wing," *Al-Ahram Weekly*, October 10, 2003, available at <http://yaleglobal.yale.edu/display.article?id=2609>.

[17] Iranian sources say Ahmadinejad served in Iraq during the 1980–1988 war but are uncertain of the nature of his activities there. He apparently also worked in the Interior Ministry, but his duties are unknown. Before his appointment as a provincial governor and election as mayor of Tehran in 2003, Ahmadinejad, who received a doctorate in engineering, was a university professor and member of the University Professors' Basij organization. Interviews, June 27, 2005; Michael Slackman, "Winner in Iran Calls For Unity; Reformists Reel," *The Washington Post,* June 26, 2005, A1, 10.

[18] Ahmadinejad could, for example, keep Defense Minister Shamkhani and IRGC Commander Safavi in their positions and appoint hard-liners Ali Larijani and Mohsen Rezaie, a former IRGC commander, or *Majles* Speaker Gholam-Ali Haddad-Adel, whose daughter is married to Supreme Leader Khamenei's son, to senior advisory posts.

[19] Professor Bahman Baktiari, presentation at Wilton Park, United Kingdom, November 2004.

[20] Fars News Agency, October 27, 2004; "Iran: Majles Orders Resumption of 'Peaceful Nuclear Activities,'" *Tehran Jomhuri-ye Eslami*, May 16, 2005, 1–2; see IAP20050517011025, Foreign Broadcast Information Service (hereafter referred to as FBIS); see also draft paper by Babrak Kamel, *Conservative Factionalism and Iranian Nuclear Strategy*, March 30, 2005, 33.

[21] "Iran Law Makers Want Nuclear Development," Associated Press, May 28, 2005; Ali Akbar Dareini, "Iran's Guardian Council Approves Law Forcing Government to Develop Nuclear Technology," Associated Press, May 28, 2005. The official Iranian declarations speak publicly of "the nuclear issue" and "nuclear technology" and do not specifically mention nuclear *weapons.* "Iran's Guardian Council Approves Bill Making Nuclear Technology Obligatory," *Tehran Vision of the Islamic Republic of Iran*, at FBIS, IAP200505288011015, May 28, 2005; "Iran: Khamene'i Hails Majles Stand on Nuclear Issue, Warns of 'Enemy Plans," *Tehran Voice of the Islamic Republic of Iran, Radio 1*, in FBIS IAP20050529012.

[22] See <www.dailytimes.com.pk/default.asp?page=story_29-3-2005_pg4_19>.

[23] Some of the nuclear revelations came from the National Council of Resistance, a cover name for the outlawed Mojahedin-e Khalq (MEK), and an unknown number of alleged nuclear spies were arrested. According to the Iranian press, the Intelligence Ministry linked those arrested to the MEK, Iraq, the United States, and/or Israel, but former Intelligence Minister Ali Fallahian, now a member of the *Majles*, accused Khatami's supporters of spying. On August 31, Iranian Intelligence Minister Ali Yunesi said that "dozens of spies, including some nuclear spies operating in the main state institutions and organizations had been identified and arrested." The conservative press criticized Rohani in particular, referring to "dark motives" and "treasonous policies," which "could annihilate thousands of innocent people." See Fars News Agency, November 17, 2004, and December 2, 2004, accessed at <www.farsnews.ir/>; Babrak draft paper, 28–32.

[24] See Iranian Students News Agency, February 4, 2005; Babrak cites Rohani saying that Khamenei had approved all of Iran's negotiating positions. Kamel, 42–43.

[25] See, for example, Kamel, 17–19.

[26] An Iranian official who had met with American nonproliferation specialist George Perkovich, of the Carnegie Endowment for International Peace, at a conference in Tehran in March 2005 expressed support for Perkovich's recommendations for alternative, overt, and legitimate joint projects on uranium enrichment—apparently the suggestion was to process Iranian uranium in India, thereby negating the need for Iran to build facilities. See George Perkovich with Silvia Manzanero, draft, "The

Global Consequences of Iran's Acquisition of Nuclear Weapons," available at <www.npec-web.org/projects/Iran/Perkovich.pdf>.

[27] Akbar Hashemi-Rafsanjani, *Quds* [Jerusalem] *Day sermon*, December 14, 2001, cited by Babrak Kamel.

[28] Many Israelis were born in Iran—including President Moshe Katsav, who was born in the same city as President Khatami, according to Israeli press reports—and Defense Minister Shaul Mofaz.

[29] Comments made at NDU, January 26, 2005.

[30] Ibid.

[31] Ibid. See the paper by Gerald Steinberg in appendix C.

[32] Ibid.

[33] The three wars are the 8-year between Iraq and Iran, 1980–1988; the war to liberate Kuwait, 1990–1991; and the 2003 war to remove the regime of Saddam Husayn.

[34] In meetings over the past several years, Iranian officials, diplomats, and scholars—as well as Gulf scholars with Western counterparts—have made this comment.

[35] In the 1980s, as a result of Iranian-inspired anti-U.S. demonstrations and riots while on pilgrimage which led to the deaths of more than 400 Iranian pilgrims, Iran was banned from sending pilgrims on *hajj* for several years. Then President Rafsanjani initiated restoration of relations and *hajj* privileges with the Saudis in the 1990s.

[36] Iraq is committed to comply with all United Nations Security Council resolutions from the Kuwait War, which include a ban on new weapons of mass destruction development, but it is difficult to see this restriction in place once Iran has nuclear weapons and if Iraq remains an American ally.

[37] Andrew Feickert, "Iran's Ballistic Missile Capabilities," Congressional Research Service Report, RS21548, August 23, 2004.

[38] Quoted by George Perkovich, "For Tehran, Nuclear Program Is a Matter of National Pride," Yale Global, March 21, 2005, available at <www.carnegieendowment.org/publications/index.cfm?fa=print&id=16694>.

[39] Iranian television, BBC Monitoring, July 6, 2004.

[40] George W. Bush, remarks at the Newspaper Association of America Annual Convention, Washington, DC, April 21, 2004, available at <www.whitehouse.gov/news/releases/2004/04/20040421-5.html>.

[41] See Kurt M. Campbell, Robert J. Einhorn, and Mitchell B. Reiss, eds., The Nuclear Tipping Point: Why States Reconsider Their Nuclear Choices (Washington, DC: The Brookings Institute Press, 2004).

[42] See, for example, Perkovich, "The Global Consequences of Iran's Acquisition of Nuclear Weapons."

[43] Economists on Iran differ sharply with economists from Iran on the country's economic prospects and performance; they agree, however, on the need for legal and political reforms to make Iran a safe and attractive place for foreign investment. See unpublished papers from INSS–Woodrow Wilson conference on Iran After 25 Years of Revolution, held in November 2004; papers to be published in joint INSS–Wilson Center publication.

[44] Schake and Yaphe.

[45] See, for example, Kenneth M. Pollack and Ray Takeyh, "Taking on Tehran," Foreign Affairs 84, no. 2 (March/April 2005), 20–34.

[46] Rogue elements could include individuals such as Ali Mohtashami-pur, now a reformist and Majles member; in the 1980s, he was a chief architect and hard-line supporter of exporting Iran's revolution and encouraged Hizballah terrorist operations against American, French, and moderate Arab targets.

Appendix A

Timeline of Iran's Path to Nuclear Weapons

David Albright

1957: Iran and the United States sign a civil nuclear cooperation agreement that provides for technical assistance and the lease of several kilograms of enriched uranium. It also calls for both countries to cooperate in research on the peaceful uses of nuclear energy.

1967: Startup of the U.S.-supplied thermal research reactor at the Tehran Nuclear Research Center.

1968: Iran signs the Nuclear Non-Proliferation Treaty (NPT). The treaty is ratified by Iran in 1970.

1974: The shah establishes the Atomic Energy Agency of Iran and announces that Iran will produce 23,000 megawatts of nuclear power by the end of the century. Iran contracts with a German company to build a power reactor at Bushehr.

1975: Iran and the United States sign a trade agreement, which calls for the purchase of eight reactors.

1976: Iran purchases stakes in Eurodif's Tricastin uranium enrichment plant in France and the RTZ uranium mine in Rossing, Namibia. South Africa agrees to sell Iran $700 million of yellowcake. In return, Iran agrees to finance an enrichment plant in South Africa.

1977: Iran contracts with a French company to build two reactors at Darkhovin. Following the Islamic revolution, Iran cancels the contract in 1979.

1979: Following the takeover of its embassy in Tehran, the United States cuts off all nuclear agreements with Iran.

1984: Iran opens a nuclear research center at Isfahan.

1985: Iran begins its gas centrifuge program during the war with Iraq, in which both use chemical weapons against each other. Iran claims the only purpose of its centrifuge program is to make fuel for the German-supplied power reactor under construction at Bushehr. The claim is dubious; by 1985, Germany had suspended all work at the reactor, which was heavily damaged during the war, and did not resume construction at war's end. The decision is widely perceived as being part of an effort to make highly enriched uranium for nuclear weapons.

1987: Iran announces plans to set up a yellowcake plant in Yazd province and signs a nuclear cooperation agreement with Pakistan.

1990: Iran signs nuclear cooperation agreements with China and the Soviet Union.

1992: International Atomic Energy Agency (IAEA) inspections in Iran find no evidence of illegal nuclear activity. A followup visit 1 year later also detects no evidence.

1994: Iran and China announce an agreement to build a 300-megawatt reactor near Tehran.

1995: Russia signs a contract to finish the Bushehr reactor, and Iran accelerates its gas centrifuge program. While no one has produced compelling evidence that Iran has a nuclear weapons program, the timing, scope, and long secrecy of the program lead many nations to conclude that Iran either had or has a nuclear weapons program.

1997: China agrees to halt nuclear assistance to Iran.

2002: The National Council of Resistance in Iran, an Iraq-based opposition group, reveals the existence of the previously unknown uranium-enrichment facility at Natanz and a heavy-water production plant at Arak.

2003: International focus shifts to Iran's secret nuclear programs and its violations of its IAEA safeguards agreement and the NPT. In October, the foreign ministers of the United Kingdom, France, and Germany (known as the European Union [EU]–3) and Hassan Rohani, secretary of the powerful Supreme National Security Council, reach agreement requiring Iran to cooperate fully with the IAEA to resolve outstanding issues, voluntarily suspend its activities related to uranium enrichment and reprocessing, and sign and start the ratification process of the IAEA

advanced safeguards protocol.[1] In return, the EU–3 foreign ministers promise that their governments will recognize Iran's right to the peaceful uses of nuclear energy in accordance with the NPT, and express their willingness to help resolve the situation with the IAEA board of governors and promote regional security and stability. They also commit their governments to provide Iran with easier access to modern technology and supplies. Iran signs the Additional Protocol and announces it will act as if it were in force pending ratification by its parliament.

2004: Additional undeclared Iranian nuclear activities are revealed, including secret acquisition of advanced P2 centrifuge designs and components from Pakistan. Iran is slow to suspend its centrifuge operations, deciding that some components would continue to be made by private companies having contracts that, it said, could not be broken. In May, Iran informs the IAEA that it is not committed to ending production of uranium hexafluoride, the chemical form of uranium used inside gas centrifuges. Pressure builds on the EU not to provide benefits to Iran. On June 23, Iran tells the IAEA that it will resume manufacturing, assembling, and testing centrifuge components, but will not restart enriching uranium and will conduct all its activities under IAEA supervision. Four days later, Iran cuts the IAEA seals on its existing stock of components and starts assembling centrifuges.

Iran announces in September that it will likely start enriching uranium later in the year. IAEA Director Mohamed El-Baradei tells the IAEA Board of Governors on September 1 that Iran intends to convert 37 metric tons of yellowcake into uranium hexafluoride, the "feed" material that is enriched in gas centrifuges. While 37 metric tons is a small quantity for a civilian nuclear power program, it is sufficient material to make roughly five crude nuclear weapons. The IAEA calls on Iran to suspend all enrichment-related activities immediately and reconsider its decision to construct a heavy-water research reactor. Iranian officials call the resolution illegal or unjust and vow to persist in developing the entire fuel cycle. The Iranian public claims strong support for continuing all nuclear activities. Iranian Vice President Reza Aghazadeh tells reporters that Iran continues to produce uranium hexafluoride gas, although the amounts produced appear to be relatively small. Rohani, the EU's counterpart in negotiations, criticizes the resolution but stops short of rejecting it outright or foreclosing negotiations. In November, the EU and Iran agree to re-impose and extend suspension of Iran's nuclear activities. There are no further revelations about undeclared nuclear activities in

Iran, and Iran apparently suspends operations. Meetings between the EU–3 and Iran continue through spring 2005, but are inconclusive.

2005: Meeting with the EU–3 foreign ministers in Geneva in late May, Iran pledges to honor commitments made in talks in Paris earlier in the year to suspend uranium-enrichment activities, which British Foreign Minister Jack Straw interpreted as a "reaffirmation of Iran's commitment not to seek nuclear weapons." Hassan Rohani, the chief Iranian negotiator, says an agreement with the EU could be reached "within a reasonably short time." The EU, for its part, promises to submit detailed proposals to implement the Paris agreements by the beginning of August 2005. The next day, the EU supports—and the United States does not oppose—Iran's application for membership in the World Trade Organization.

Note

[1] "Agreed Statement at the End of a Visit to the Islamic Republic of Iran by the Foreign Ministers of Britain, France, and Germany," October 31, 2003.

Appendix B

Iran's Nuclear Program: Status, Risks, and Prospects

David Albright[1]

The next several months may well decide whether Iran will develop a capability to make nuclear weapons—in particular, developing the wherewithal to produce separated plutonium and highly enriched uranium (HEU). The outcome depends critically on negotiations being carried out by Great Britain, France, and Germany with Iran to establish a framework requiring Iran to suspend permanently "enrichment- and reprocessing-related activities"—the activities necessary to produce HEU, separate plutonium, and build an indigenous nuclear reactor. In return, Iran would receive a range of economic, political, and security benefits from the European Union (EU) and other nations. A recent decision by Iran to suspend temporarily its enrichment- and reprocessing-related activities now permits these negotiations on a permanent suspension to proceed.

The most advanced of Iran's sensitive nuclear projects involves gas centrifuges, sophisticated devices to enrich uranium. This project started 20 years ago and progressed in secret until late 2002. By the time Iran revealed this program to the International Atomic Energy Agency (IAEA) in early 2003, it had almost reached an industrial scale at the Natanz facility, near Kashan in central Iran. In the process, it had also violated its IAEA safeguards agreement multiple times.

Despite repeated attempts, Iran has convinced few that the purpose of its large nuclear program is purely peaceful. For example, Iran declared to the IAEA in 2003 that it began its gas centrifuge program in 1985 during its bloody war with Iraq. This decision is widely perceived as having been part of an effort to make HEU for nuclear weapons. Iran claimed that the only purpose of its centrifuge program was to make fuel for the German-supplied Bushehr power reactor—a claim that is highly dubious, given the reality that by 1985, Germany had suspended

all work at the reactor. After the war with Iraq ended, Germany never resumed construction, and in 1995, Russia signed a contract to finish it. Yet throughout the decade, while the fate of the reactor at Bushehr was uncertain, Iran accelerated its gas centrifuge program. Although no one has produced a "smoking gun" proving that Iran has a nuclear weapons program, the timing, scope, and long secrecy of the program have led many nations to conclude that Iran either had or has one. In any case, once it finishes its uranium enrichment or reprocessing facilities, Iran could decide to obtain nuclear weapons and proceed quickly to produce nuclear explosive materials in these facilities. For these reasons, many nations believe Iran should be persuaded to abandon at least its enrichment- and reprocessing-related activities.

Background on Suspension

Soon after the IAEA focused on Iran in early 2003, the suspension of activities related to uranium enrichment and plutonium reprocessing was viewed as being at the heart of any potential solution to the conflict over Iran's nuclear program. Although initial concern focused on Iran's secret nuclear programs and its violation of its IAEA safeguards agreement and the Nuclear Non-Proliferation Treaty (NPT), many believed that bringing Iran into compliance with the NPT was not sufficient to solve this crisis.

October 2003 Tehran Agreement

Because of the European Union's relationship with Iran, Britain, France, and Germany, called the EU–3, took the lead in negotiating a suspension in Iran's uranium enrichment and reprocessing activities. In October 2003, the British, French, and German foreign ministers and Hassan Rohani, secretary of the powerful Supreme National Security Council, reached an agreement requiring Iran to cooperate fully with the IAEA to address and resolve outstanding issues, voluntarily suspend its activities related to uranium enrichment and reprocessing, and sign and start the ratification process of the IAEA advanced safeguards protocol.[2] In return, the EU–3 foreign ministers promised that their governments would recognize Iran's right to the peaceful uses of nuclear energy in accordance with the NPT and expressed their willingness to help resolve the situation with the IAEA board of governors and promote security and stability in the region. They also committed their governments to provide Iran easier access to modern technology and supplies once international concerns were fully resolved. The latter was conditioned, according to a participant

in the meeting, on an indefinite continuance of the suspension of enrichment activities.

At first, Iranian cooperation with the IAEA appeared to improve. Iran signed the Additional Protocol and announced it would act as if it were in force pending ratification by its parliament. It also started to implement the suspension itself. In early 2004, some EU officials wanted to start to deliver some incentives to Iran. They were concerned that Iran needed some immediate benefits to build domestic support for the October agreement, which powerful factions within Iran were known to oppose. Problems in implementing the agreement had developed, however, leading to pressure on the EU not to provide benefits. Additional undeclared Iranian nuclear activities were revealed, including its secret acquisition of advanced P2 centrifuge designs and components from Pakistan. Iran was also slow in suspending its centrifuge operations, deciding that some components would continue to be made under contracts with private companies that, it said, could not be broken. Iran also asserted in a May 18, 2004, letter to the IAEA that it was not committed to ending its production of uranium hexafluoride, the chemical form of uranium used inside gas centrifuges. The EU believed that to be a reinterpretation of the October 2003 agreement. Also contrary to the EU's understanding was Iran's intention to build a heavy-water research reactor. Then, on June 23, Iran told the IAEA that it would resume manufacturing centrifuge components and assembling and testing centrifuges. But, Iranian officials said, it would not restart enriching uranium, and it would conduct all its activities under IAEA supervision.

On June 27, Iran cut the IAEA seals on its existing stock of centrifuge components and started assembling centrifuges. Manufacturing of certain key components was delayed because Iran had dismantled its centrifuge manufacturing capabilities at military sites and moved the equipment and components to the Natanz site, partly as a way to avoid IAEA inspections at these military facilities.

September 2004 IAEA Board of Governors Meeting

The director general of the IAEA, Mohamed al-Baradei, reported to the board of governors on September 1, 2004, that Iran intended to convert 37 metric tons of yellowcake into uranium hexafluoride, the feed material that is enriched in gas centrifuges. It was a surprising revelation—37 metric tons is a small quantity for a civilian nuclear power program. But it would be a large amount for a fledgling nuclear weapons program—enough material to make roughly five crude nuclear weapons. Iran's processing of

yellowcake represented another step in the abandonment of its agreement with the EU. Iranian officials reportedly also stated in September that Iran would likely start enriching uranium later that year.

The breakdown of the agreement alarmed members of the European Union and the United States. Joschka Fischer, the German Foreign Minister and a leader of the EU's effort in Iran, said on September 13: "There is a risk Iran is making a huge error. I hope they understand that. If not, we will end up in a very serious situation." The suspension issue dominated the IAEA's board of governors meeting, held September 13–18. During the contentious debate over a resolution on the matter, the United States argued that Iran should be referred to the United Nations (UN) Security Council and tried to add language to a draft resolution requiring Iran to remedy "all failures identified to date" no later than October 31. The EU refused to accept such a rigid trigger, preferring to give Iran one last chance for a negotiated solution, with language included in the resolution requiring the board to make a "definitive determination on whether or not further steps are required." Members of the nonaligned movement, led by South Africa and Brazil, were alarmed that the resolution would deny Iran the right to peaceful nuclear activities, namely the right to process uranium for nuclear fuel.

In the end, the board adopted a consensus resolution that was somewhat weaker than the original EU proposal, but considerably stronger than that called for by the nonaligned members. It called on Iran to suspend all enrichment-related activities immediately and as a matter of necessity to reconsider its decision to construct a heavy-water research reactor. The resolution created a trigger for action, stating that the board "will decide whether or not further steps are appropriate" in November. The EU and the United States left little doubt that failure on Iran's part could lead to a referral to the Security Council. The board meeting and resolution also focused on the IAEA's 2-year effort to verify that Iran's nuclear program was solely for peaceful purposes. The IAEA began its intensive investigation in 2002 after learning that Iran was building nuclear sites in secret. Complicating the process, Iran provided a series of incomplete and changing declarations and delayed inspectors' access to key sites.

The new resolution required the IAEA to produce a comprehensive report before the November meeting that recapitulated its findings since September 2002 and analyzed in detail the implications of those findings with regard to Iran's implementation of its IAEA safeguards agreement. It stated that the board will also consider this report

in deciding future steps. After the meeting, Fischer issued a statement expressing the EU's keen interest in resuming negotiations that might persuade Iran to suspend uranium enrichment activities permanently in return for more immediate benefits.

Iran initially sent a mixed signal in response to the board's resolution. Many Iranian officials called the resolution illegal or unjust and vowed to persist in developing the entire fuel cycle. The Iranian public was widely reported to support strongly continuing all nuclear activities. Iranian Vice President Reza Aghazadeh said to reporters soon after the meeting that Iran continued to produce uranium hexafluoride gas, although the amounts produced appeared to be relatively small. Hassan Rohani, the EU's counterpart in negotiations, criticized the resolution but stopped short of rejecting it outright or foreclosing negotiations.

New Suspension Deal

Following meetings in Vienna and Paris during October and November 2004, the EU and Iran agreed to reimpose and extend a suspension on Iran's nuclear activities. The model for agreement still holds. Under its terms, which call for a comprehensive suspension and no new revelations about undeclared nuclear activities, Iran could expect to avoid being referred to the UN Security Council. Once the IAEA confirmed Iranian cooperation, the EU would begin negotiations on a permanent suspension in return for long-term benefits. Iranian officials have said that they view any suspension as temporary. While the arrangement between the EU and Iran does not explicitly discuss the duration of the suspension, it reportedly commits Iran to continue with the suspension while details of a longer-term agreement are worked out. The suspension, nuclear-related benefits, and the necessary restructuring of the Iranian nuclear program are discussed below.

The nonnuclear benefits proposed by the EU–3 are substantial. Although many had been offered earlier, the EU–3 created a set of benefits in a single package that was apparently presented to the Iranians in October 2004 in Vienna. The EU said it would be ready to resume negotiations on trade and cooperation agreements with Iran, and that this cooperation could develop into broader areas including investment, earthquake-proof buildings and seismology, scientific research, civil aviation, railway transport, petrochemical industry, communication and information technology, car manufacturing, and nonnuclear energy needs. The EU would also continue to support Iran's admission to the World Trade Organization. Furthermore, the EU proposed security assurances;

cooperation against drug trafficking and terrorism, including listing anti-Iranian Mujahideen-e khalk as a terrorist organization; and support for an initiative creating a Middle East weapons of mass destruction–free zone. In addition, the EU would cooperate with Iran to establish and develop an effective national system of export, transit, and end-use control of WMD-related goods and technologies, including dual-use and containing enforcement procedures with appropriate penalties.

If Iran refused to suspend or did not maintain its agreed suspension of enrichment, Britain, France, and Germany said they would join the United States in referring the Iranian nuclear issue to the UN Security Council. In doing so, they would cite Iran's past noncompliance with its safeguards obligations and failure to respond to repeated requests of the board of governors to suspend key activities. The EU–3 told the UN Security Council that they would support a series of incremental actions, starting with a political call for suspension. If that was not successful, the Security Council could consider making the suspension mandatory and strengthening the powers of the IAEA to undertake inspections in Iran. If Iran subsequently rejected Security Council demands, the EU–3 would support taking further actions under Article 41 of the UN Charter, in applying sanctions on Iran.

The EU Deal and Its Impact on Iran's Nuclear Program

Britain, France, and Germany outlined their approach to Iranian nuclear issues in an October 12, 2004, paper presented at a Group of Eight (G–8) meeting in Washington, DC. In this paper, which was obtained by Agence France Presse, the EU focused on a two-step process whereby Iran would immediately suspend all enrichment- and reprocessing-related activities and agree in the longer term to a permanent cessation to its sensitive fuel cycle activities.

Short-Term Conditions

The European Union recognized Iran's right to develop, research, and use nuclear energy for peaceful purposes. However, because of Iran's past failures to comply with its safeguards obligations and widespread concern that Iran might be developing nuclear technology for purposes forbidden under the NPT, the EU insisted that Iran suspend activities related to developing the nuclear fuel cycle since mastering this technology would provide Iran with the option of a military capability.

Although Iran agreed in October 2003 to suspend certain activities to build confidence with the IAEA and the international community, it only partially implemented the suspension and later retracted most of it. As a result, the EU paper was more explicit in defining a suspension of Iran's gas centrifuge and reprocessing programs. It defined suspension to include:

- the manufacture and import of gas centrifuges and other components
- the assembly, installation, testing, or operation of gas centrifuges
- the production of feed material for enrichment processes, including all activities to test or operate the uranium conversion facility (UCF)
- all other enrichment and reprocessing activities, including work to construct or operate any plutonium separation facility.

The definition was to ensure that Iran understood that it must verifiably stop all key activities related to gas centrifuges, from component manufacturing to feed material production. Iran, for example, has argued for exempting from suspension portions of its uranium conversion facility near Esfahan, which has been converting yellowcake into uranium hexafluoride. In late October 2004, Iranian atomic officials announced that the UCF was 70 percent operational and construction and testing were continuing.[3] Although the suspension does not appear aimed at stopping construction activities, the definition would require Iran to halt processing yellowcake into refined forms even in tests. This definition would appear to cover not just uranium hexafluoride but also uranium tetrafluoride, uranium oxide, and other chemical compounds produced in the UCF.

One problem remained in implementing the EU definition of suspension at the uranium conversion facility. The language in the September 2004 resolution called on Iran to suspend the production of feed material immediately, including through tests of production at the UCF. This language was weaker and less inclusive than the EU language noted above and, moreover, could be interpreted to apply only to uranium hexafluoride and not its precursors, particularly uranium tetrafluoride, the immediate precursor of uranium hexafluoride. The inclusion of uranium tetrafluoride in the suspension is important because it would prevent Iran from increasing its stock of this material and rapidly converting it into uranium hexafluoride if it opted out of the suspension.

Iran accepted the more restrictive language on its activities at UCF. In its November 14, 2004, letter to the IAEA, Iran wrote that the

suspension included "all tests and production for conversion at any uranium conversion installation."[4] However, it also stated that it would continue to operate the facility until November 22, producing uranium tetrafluoride but no uranium hexafluoride during that period. Of the 37 tons of yellowcake assigned to the UCF last summer, the operator told the IAEA in October that about 22.5 tons had been fed into the process.[5] By October 14, the facility had made about 2 tons of uranium tetrafluoride and evidently no uranium hexafluoride. It remains unclear how much uranium tetrafluoride will have been produced by the time the suspension starts.

The EU does not call for the removal from Iran of already produced uranium hexafluoride or its precursors, such as purified uranium oxide or uranium tetrafluoride. It accepts their presence of existing stocks of uranium tetrafluoride, uranium fluoride, and other uranium compounds in Iran under stringent safeguards. In addition, a range of other key items, such as enriched uranium, centrifuge components, manufacturing equipment, and centrifuge-related materials, will require careful monitoring.

Nor does the EU–3 paper explicitly state that uranium-mining activities are included in a suspension. Work continues on Iran's first two uranium mines, the Saghand mine in Yazd and the Gehine mine near Bandar Abbas. According to the November 2004 IAEA safeguards report, the Saghand mine and associated yellowcake production mill each have a capacity of 50 tons of uranium per year. Ore production is expected to start by the end of 2006. The Gehine mine and associated mill each have a capacity of 21 tons of uranium per year. Mining operations had started as of July 2004, and a test quantity of yellowcake has been produced at the mill from the mined ore, according to the IAEA.

Despite some omissions from the initial suspension, the suspension as agreed is adequate. If fully implemented, the agreement can demonstrate Iran's commitment to finding a way to solve this crisis and lay the basis for a long-term negotiated agreement between the EU and Iran.

Long-Term Goals and Their Implications for Iran's Nuclear Program

The heart of the EU proposal for a long-term agreement with Iran is to obtain lasting assurances about the peaceful purposes of its nuclear program and to reward Iran for its cooperation. The undertakings requested of Iran in the nuclear field would have far-reaching effects on its fuel cycle activities, although it would receive substantial and lasting economic, energy, and security benefits in return. The EU proposal would shift Iran's nuclear program to production of nuclear electricity

in imported light-water power reactors, including the Russian-supplied Bushehr reactor, and to a range of civil nuclear energy activities, including nuclear medicine, nuclear research, nuclear safety, and industrial isotope applications. If a long-term agreement were negotiated, Iran would retain a significant and sophisticated nuclear energy program that would be well integrated with national nuclear programs throughout the world. Key voluntary Iranian nuclear constraints as outlined in the EU October paper include:

- commitment of full cooperation and transparency with IAEA to resolve all remaining issues and to implement the advanced protocol. Ratification of the protocol would occur by the end of 2005.
- objective guarantees that Iran would not develop a nuclear weapons capability; that is, it will cease to develop or operate facilities that would give it the capability to produce fissile material, including any enrichment or reprocessing capability. This means that in addition to Iran stopping enrichment-related activities, it would also abandon the development of indigenous reactors, such as the heavy-water reactor at Arak, and send any spent fuel from its power and perhaps imported research reactors outside of Iran.
- substitution of a light-water research reactor for the heavy-water research reactor project planned at Arak. The EU would support the acquisition of this reactor, but it apparently would be imported, designed to avoid the use of HEU fuel, and severely limited in its production of plutonium. The two goals can be achieved by using fuel enriched to about 19 percent uranium-235. This material would still be low-enriched uranium. When irradiated in a reactor, little plutonium would be produced.

Russia has agreed to provide and reprocess fuel and take back spent fuel from Iran. The EU has agreed to support Russian-Iranian cooperation in the field of power reactors, fuel supply, and management, which could include reprocessing of the spent fuel outside Iran. If separated plutonium is produced, it would evidently not be returned to Iran.

For its part, Iran could expect wide-ranging nuclear cooperation with the EU, which would give Iran political assurances of access to the international nuclear fuel market at market prices consistent with G–8 and Nuclear Supplier Group assurances, as well as with spent fuel being returned and reprocessed outside Iran. This condition could imply that

EU nations would provide fuel to Iran and take back the spent fuel. Any reprocessing would likely occur well after the fuel is returned.

The Bush administration in spring 2005 said it supports the EU initiative toward Iran, although it has indicated willingness to accept Iran obtaining nuclear power or research reactors. Thus, it is unclear whether this policy could become G–8 policy. During the process of creating a permanent suspension, the EU and other countries should propose that Iran verifiably dismantle its existing facilities and items related to uranium enrichment and reprocessing. Although such an effort is currently premature and, in any case, would depend on negotiations succeeding on long-term issues, it would have the benefit of creating an irreversible arrangement, similar to what was done in Libya and South Africa.

Remaining Safeguards Issues

In parallel with suspension negotiations, the IAEA has been trying to resolve other safeguard issues with Iran. Although the IAEA reported in November 2004 that all the declared nuclear material in Iran had been accounted for and, therefore, had not been diverted to prohibited activities, the IAEA is "not yet in a position to conclude that there are no undeclared nuclear materials or activities in Iran."

During summer and early fall 2004, the IAEA cleared up some outstanding safeguard issues, including Iran's experimental laser enrichment activities, and no additional undeclared Iranian nuclear activities emerged. Other safeguard issues remain, according to the IAEA, including the origin of enriched uranium contamination found at various locations in Iran, and the extent of efforts to import, manufacture, and use centrifuges of both the P1 and P2 designs.

The IAEA was able to assess that Iran had not produced HEU at its two major declared research and development sites, Kalaye and Natanz. However, the IAEA needs to do more work to establish that undeclared enrichment has not taken place at other locations and that no undeclared enriched uranium has been imported from abroad. The IAEA is still investigating Iran's P1 and P2 gas centrifuge program. An important issue outstanding is whether Iran conducted any P2 work between 1995—when Iran first received the P2 designs from overseas—and 2002, which is when, Iranian officials say, work on the P2 started. The inspectors need more cooperation from Pakistan. Although it is providing information and sampling data, the government of Pakistan refuses to allow the IAEA to question A.Q. Khan or take samples in the country. Without

this type of access, the IAEA might not be able to finish its assessments of Iran's nuclear program and declaration.

Weaponization Issues

Questions remain about whether Iran has conducted activities to research, test, and produce a nuclear weapon, a process called nuclear weaponization. Although the U.S. Government and Israel have stated for years that Iran has a nuclear weapons program, they have not provided the IAEA or the public with the location of any nuclear weaponization sites or any direct evidence of such activities. They have arrived at their conclusion that Iran has a nuclear weapons program largely through assessments.

One theory is that the Khan network, which supplied both Libya's and Iran's gas centrifuge program, supplied Iran with a weapon design. Libya received detailed nuclear weapons design and fabrication documents from the Khan network, leading to suspicions that Iran also received them, something Iran and Pakistan deny. The design supplied to Libya appears to be for a Chinese warhead that was tested on a missile in the mid-1960s and provided to Pakistan in the early 1980s. The warhead has a mass of about 500 kilograms and measures less than a meter in diameter, small enough for the Iranian Shahab-3 missile. If Iran received this information, it would have been able to shorten the difficult process of developing a deliverable nuclear warhead. If it received the designs several years ago, Iran could have already finished all the necessary research and development for a nuclear warhead and perhaps even stockpiled key components.

The IAEA is evaluating Iranian sites that could have been or potentially could be used for nuclear weaponization activities, although no unambiguous sites have been identified. Nonetheless, the IAEA has sought to visit several sites to check out suspicions of nuclear weaponization work.

Lavizan-Shian. In early June 2004, ABC News received information about Lavizan, in the northeastern section of Tehran. ABC asked the Institute for Science and International Security (ISIS) for help in assessing the information. The initial information suggested the site was involved in some type of nuclear weaponization. An August 2003 overhead image of the site obtained by ISIS shows large buildings inside a secure perimeter. In a second image, from March 2004, the buildings have been removed and the earth scraped. Even the roads and walkways have been removed or covered. The site's destruction raises concerns because it is the type of measure Iran would take if it were trying to defeat the powerful environmental sampling capabilities of IAEA inspectors. When Iran deployed less

extensive deception measures at other sites, inspectors discovered evidence that forced Iran to amend its previous statements. The Lavizan site was also known to house radiation-detection devices called whole-body counters, which Iran procured overseas in the early 1990s under false pretenses. The equipment itself is not direct evidence of a nuclear weapons program, but it could be out of place at a site that has no nuclear activity.

The IAEA became aware of the Lavizan-Shian site in 2003. Its suspicions apparently increased in early 2004 when commercial satellite imagery showed that dismantling had begun. The ABC News report about the site and the parallel publication of an ISIS report caused considerable public and government discussion. The IAEA asked for and received permission to visit. Iran told the IAEA that the site had no nuclear material requiring a declaration and that no fuel cycle activities were conducted there. The Iranians described Lavizan as owned by the Military Industrialization Organization (MIO). Until 1998, it was the Physics Research Center, and afterward, a biotechnology institute. The body counters arrived after 1998. Later, the counters were moved again. One went to an MIO university in Esfahan, the other to a private clinic in Tehran. Iran provided a basic description of activities at the site but was unwilling to provide detailed explanations about its activities or equipment, citing security concerns. The September 2004 IAEA director general's report to the board of governors said that Iran had declared the site as a place to study "preparedness to combat and neutralization of casualties due to nuclear attacks and accidents (nuclear defense) and also support and provide scientific advice and services to the Ministry of Defense." Iran said the site was razed because the land was being returned to the city of Tehran after a dispute between the municipality and the ministry. Iran provided the IAEA with supporting documents, including yellowed local newspapers discussing the transfer of property. As of November 2004, the IAEA was analyzing these documents to determine their authenticity.

The IAEA took environmental samples at Lavizan. As of November, the vegetation and soil samples showed no evidence of nuclear material, although the IAEA pointed out in the November safeguards report that the "detection of nuclear material in soil samples would be very difficult in light of the razing of the site." In addition, Iran allowed IAEA access to the two whole-body counters that had been located there, and the IAEA took environmental samples of them. In addition, the IAEA took samples at a trailer that held one of the counters while it was located at Lavizan. Iran has not presented to the IAEA the trailer said to house the other counter. Results for these samples are unknown. In October 2004,

in response to an IAEA request, Iran provided some information about efforts by the Physics Research Center to acquire dual-use materials and equipment that could be useful in uranium enrichment or conversion activities.[6] The IAEA awaits additional information and clarifications from Iran about this matter.

Iranian statements about Lavizan's purpose and fate have raised additional questions. Given the power of the Iranian military, how could it lose a dispute with municipal authorities, particularly given the large size of the adjacent park and the considerable investment already made at the site? Or had the military decided that the site was compromised, and moved to improve its cover story by transferring the site to municipal authorities? No direct evidence points to the site being involved in nuclear weaponization, centrifuge activities, or other banned activities such as biological weapons work, but the IAEA investigation remains incomplete and further Iranian cooperation and information are required.

Parchin. Information obtained by ABC News led ISIS to acquire satellite images of the Parchin military complex, located about 30 kilometers southeast of Tehran. This huge complex is dedicated to research, development, and production of ammunition, rockets, and high explosives. The site, owned by Iran's military industry, has hundreds of buildings and test sites. Within the larger complex, there is an isolated, separately secured site that is a logical candidate for nuclear weapons–related activities. But evidence of nuclear weapons work is ambiguous. The IAEA has known about this site for some time and has independently assessed its potential for nuclear weapons work. Several weeks before the September 2004 board of governors meeting, the IAEA asked Iran about visiting the location, but Iran expressed willingness to allow a visit only after ABC News and ISIS revealed their findings during the September board meeting. Although the timing of the ABC News report was not intentional, the reports caused considerable controversy at the board meeting, intensifying pressure on Iran to permit an IAEA visit. However, as of mid-November, the IAEA still had not visited Parchin.

High-explosive testing facilities at Parchin could be useful to a nuclear weapons effort, particularly by providing the capability to research and develop high-explosive components for an implosion-type nuclear weapon. Buildings in one area appear to have flash X-rays and fast cameras for recording explosions. Evidence against the area being solely dedicated to high-explosive work is another building that appears to have a pad oriented for testing small rocket motors, not high explosives.

Nearby, but more isolated, is what appears to be a high-explosive testing bunker, perhaps still under construction. Such a bunker, which is partly buried, would allow the study of large explosions for a variety of purposes, including the development of nuclear weapons. The presence of this structure has increased suspicion that the site might be involved in researching nuclear weapons. This bunker could be where Iran would test a full-scale mock-up of a nuclear explosive using natural or depleted uranium as a surrogate for a highly enriched uranium core. Such tests can provide key confirmation that a nuclear weapon will work adequately. Iraq had constructed a high-explosive testing bunker at Al Atheer before the 1991 Persian Gulf War partly for such a purpose. The bunker at Parchin has some similar characteristics, such as being partly buried. However, the imagery of the bunker at Parchin is not sufficient to draw detailed comparisons.

Timetable to a Bomb

Uncertainty surrounds whether Iran will accept a permanent suspension of its enrichment- and reprocessing-related activities. In addition, the IAEA has not yet finished its investigation of Iran's nuclear program. Iran could decide to restart its fissile material production programs, if it cannot successfully negotiate a long-term deal with the EU or if it decides that its national interest is best served by obtaining nuclear weapons capability. If it does, how soon could it produce enough fissile material for a nuclear weapon? How large could its capacity to produce nuclear explosive material become?

The answers to these questions are complicated and depend on many factors. For example, if Iran ends the suspension, would the UN Security Council impose economic and military sanctions, harming its effort to scale up its gas centrifuge program or build a heavy-water reactor? Would IAEA inspections continue, implying that Iran might move to develop a nuclear weapons capability but produce only low-enriched uranium and not any highly enriched uranium? Would Iran withdraw from the NPT, expel inspectors and concentrate on building secret nuclear facilities? What resources would Iran apply to finishing its uranium enrichment facilities? Would there be military strikes against Iranian nuclear sites?

Despite these uncertainties, a preliminary understanding of the time needed for Iran to build its first nuclear weapon can be gained by using publicly available information. In this case, the estimate assumes that Iran will proceed at a pace similar to the one it achieved prior to the most

recent suspension agreement. One Israeli intelligence report, a portion of which was leaked to the media, claims that Iran could get enough HEU for a first nuclear weapon by early 2007, assuming the absence of a suspension.[7] As discussed below, this date is unlikely to be realistic anymore. In early 2005, U.S. intelligence officials estimated that Iran could have a nuclear weapon by the end of the decade or early in the next decade.[8] Despite their disagreement, these more recent estimates of the timeline for Iran to build its first nuclear weapon have moved the date back from publicly available assessments of just 1 year ago. Reasons for the change include Iran's October 2003 suspension of its enrichment program and greater appreciation outside Iran of technical problems in Iran's centrifuge program learned as a result of the inspection effort. Iran now must solve these problems on its own, since outside technical assistance is no longer available from the Khan network.

The Problem with Centrifuges

The key to predicting a timetable is understanding the pace and scope of Iran's gas centrifuge program, such as the schedule for establishing a centrifuge plant that would hold about 1,500 to 2,000 centrifuges. Such a facility could produce enough HEU for about one nuclear weapon a year. Currently, the Natanz pilot plant is slated to hold 1,000 centrifuges, although that number could be increased. If the suspension does not last and Iran withdraws from the NPT, Iran may choose to install its first several thousand centrifuges in a small, hidden facility that would be extremely difficult to detect.

In any case, by spring 2004, Iran had assembled about 1,140 centrifuge rotors, a reasonable indicator of the number of centrifuges it possessed.[9] However, only about 500 rotors were good enough to operate in cascades, according to knowledgeable officials. According to the September IAEA safeguards report, after resuming centrifuge manufacturing in June, Iran had assembled and tested about 70 centrifuge rotors by mid-August at the Natanz pilot plant. The November IAEA report stated that by October 10, 2004, Iran had assembled a total of 135 rotors, bringing the total number of assembled rotors at Natanz to 1,274. As mentioned above, a large number of these rotors may not be usable in an operating cascade.

With this information, the intelligence estimates can be understood. If Iran had not suspended its activities again and if it made and tested about 70 to 100 centrifuges per month, it could have had roughly 800 to 1,000 good centrifuges by the end of 2004. It could then build another 800 to 1,200 good centrifuges in 2005, resulting in about 1,600

to 2,200 centrifuges. Another major assumption is that Iran can operate larger cascades successfully in this relatively short period of time. Given another year to make enough HEU for a nuclear weapon and a few more months to convert the uranium into weapon components, Iran could have its first nuclear weapon by early 2007. By this time, Iran would also have had sufficient time to prepare the other components of a nuclear weapon.

Because centrifuges are flexible, even if the cascades at the plant are arranged to produce only low-enriched uranium, weapons-grade uranium can be produced by batch recycling—that is, sending the end product back into the feed point of the cascade over again until the desired level of enrichment is reached. Total HEU production would not be affected significantly. However, this scenario of an early 2007 date in the absence of a suspension must be viewed as Iran's best case under prevailing conditions. Iran could encounter technical difficulties that would significantly delay bringing a centrifuge plant into operation. The U.S. assessment appears to judge that Iran would encounter significant technical difficulties, including trouble making so many centrifuges. In addition, Iran does not appear to have accumulated enough experience to operate a cascade of centrifuges reliably. Iran had assembled 164 centrifuges into a cascade just before the 2003 suspension, but it did not operate it. Thus, it does not have sufficient experience in operating the cascade to be certain it would perform adequately. Centrifuges can crash during operation, causing other centrifuges in the cascade to fail—in essence, destroying the entire cascade. Thus, Iran could need several more years to gain necessary experience in operating test cascades and to build and operate a plant able to make enough HEU for nuclear weapons.

Alternative Production-Scale Plant Sites

Over a much longer period of time—one or two decades—Iran could greatly increase its capability to make enriched uranium in the absence of a suspension. Near the Natanz pilot plant are huge underground buildings, built to a depth of 75 feet and able to withstand aerial attack. If finished, they are slated to hold tens of thousands of centrifuges. If Iran decides to install all the centrifuges slated for these two underground buildings, it would have a capacity to produce an estimated 150,000 to 250,000 separative work units per year, depending on whether Iran deploys the more advanced P2 centrifuge. This capacity is roughly enough to provide low-enriched uranium for one or two nuclear power reactors like the Bushehr reactor per year. Alternatively, the same capacity could be used to produce roughly 500 kilograms of weapons-grade uranium an-

nually. At 15 to 20 kilograms per weapon, that would be enough for 25 to 30 nuclear weapons per year. Natanz could be operated to make low-enriched uranium fuel until Iran decided it wanted to make weapons-grade material. It would not take long to enrich the low-enriched material to weapons grade. If Natanz were operating at full capacity and batch-recycled the low-enriched uranium, the facility could produce enough weapons-grade uranium for a single weapon within days.

Arak Heavy-Water Reactor

Although most concerns focus on Iran's gas centrifuge program, its indigenous reactor project could also provide the material for a nuclear weapon, although on a slower schedule than the gas centrifuge facilities. In May 2003, Iran told the IAEA that it intended to build a 40-megawatt-thermal heavy-water reactor at Arak, although construction of the reactor has not started. Iran declared that the reactor is planned to be finished in 2014. This reactor would be included in any suspension arrangement. Arak is the site of the heavy-water production facility whose existence was first revealed publicly by an Iranian opposition group in August 2002. Production is expected to start this year.

Iran told the IAEA that this reactor is part of a long-term program to manufacture heavy-water power reactors. However, heavy-water reactors raise additional concern because they are easier to use to make weapons-grade plutonium than light-water reactors. In addition, Iran would likely need two decades to deploy such a power reactor. Before any long-term plan could be realized, however, the reactor at Arak would need to produce about 10 kilograms of weapons-grade plutonium annually, or enough for about two nuclear weapons each year. Before it could use any of the plutonium in a nuclear weapon, Iran would have to separate it from the irradiated fuel. Although Iran has stated that it does not plan to build a plutonium separation plant, it revealed to the IAEA undeclared irradiation and processing of natural uranium targets. This revelation has increased suspicion that Iran was researching plutonium separation. In addition, information about procurement activities for a series of hot cells raises additional suspicion that Iran intends to build facilities at Arak to separate plutonium.

Conclusion

Iran does not appear to have nuclear weapons and seems unlikely to be able to make them for at least several years. Nonetheless, the Iranian nuclear situation requires urgent attention and justifies universal demands

that Iran permanently suspend its enrichment- and reprocessing-related activities. More than 2 years have passed since secret Iranian nuclear sites were first brought to public attention, and Iran is still suspected of being unwilling to abandon its fissile material production programs. Iran has too often dictated the pace of diplomatic progress, giving the impression that it is playing for time. If a way is not found soon to create a comprehensive permanent suspension, Iran could soon build up unstoppable institutional and public momentum to finish and operate its enrichment plant and outlast the current international diplomatic effort.

Notes

[1] This paper draws from four articles recently published by the author and Corey Hinderstein in the *Bulletin of the Atomic Scientists*, particularly their most recent article, "Iran: Countdown to Showdown," in vol. 60, no. 6 (November/December 2004), 67–72. For more information, see also "Iran: Player or Rogue," in vol. 59, no. 5 (September/October 2003), 52–58; "Iran: Furor Over Fuel," in vol. 59, no. 3 (May/June 2003), 12–15; and "The Centrifuge Connection," in vol. 60, no. 2 (March/April 2004), 61–66. For information on satellite images of Iranian nuclear sites discussed in this paper, see the Institute for Science and International Security Web site, available at <www.isis-online.org>. It was prepared for *Iran After 25 Years of Revolution*, a conference sponsored by the Institute for National Strategic Studies at the National Defense University and the Woodrow Wilson Center, November 16–17, 2004.

[2] "Agreed Statement at the End of a Visit to the Islamic Republic of Iran by the Foreign Ministers of Britain, France, and Germany," October 31, 2003.

[3] "Iran Says Uranium Conversion Plant Nearly Finished," Reuters, October 24, 2004.

[4] International Atomic Energy Agency Director General, *Implementation of the NPT Safeguards Agreement in the Islamic Republic of Iran*, GOV/2004/83, November 15, 2004. This letter was quoted on page 27, paragraph 132.

[5] Ibid., 28, paragraph 135.

[6] Ibid., 22, paragraph 103.

[7] Dan Williams, "Israel: No Bomb Capability Until 2007," Reuters, July 22, 2004.

[8] In his testimony before the Senate Select Committee on Intelligence, Defense Intelligence Agency director Vice Admiral Lowell E. Jacoby, USN, stated, "Unless constrained by a nuclear nonproliferation agreement, Tehran probably will have the ability to produce nuclear weapons early in the next decade." See VADM Jacoby, "Current and Projected National Security Threats to the Untied States," testimony before the U.S. Senate Select Committee on Intelligence, 109th Congress, February 16, 2005, available online at <http://intelligence.senate.gov/0502hrg/050216/witness.htm>.

[9] International Atomic Energy Agency Director General, Implementation of the NPT Safeguard Agreement in the Islamic Republic of Iran, GOV/2004/34, June 1, 2004, annex 1, page 11.

Appendix C

Walking the Tightrope: Israeli Options in Response to Iranian Nuclear Developments

Gerald Steinberg

The Iranian government's effort to develop nuclear weapons production capability poses a formidable challenge to Israeli policymakers. From the Israeli perspective, the current Iranian regime is highly dangerous; its frequent emotion-filled declarations of intent to "wipe Israel off the map" are matched by actions. Armed with nuclear weapons, the radical Islamic leadership could trigger confrontations and crises that would quickly escalate out of control, particularly given its very limited knowledge of and contact with Israel, and its close links with terror groups such as Hizballah and Hamas. Iran, with these allies or subsidiary groups, is viewed as posing an existential threat and the greatest danger to national survival. Furthermore, Israeli leaders are cognizant of the proliferation dynamic that could be generated by Iranian acquisition of nuclear weapons: Egypt, Syria, Saudi Arabia, Algeria, Turkey, perhaps Libya, and other states in the region might be tempted or pressured to follow suit. Thus, within a decade after Iran crosses the nuclear threshold, the Middle East would become a highly unstable multipolar nuclear system. And, as a result, the structure of the nonproliferation regime, including the Nuclear Non-Proliferation Treaty (NPT) and the International Atomic Energy Agency (IAEA) safeguards system, would unravel completely.

This nightmare scenario is not new and did not suddenly become apparent following the revelations regarding the extent of the links between Iran and A.Q. Khan, the head of the Pakistani "nuclear Walmart," to use IAEA director Dr. Mohammed El-Baradei's terminology. The evidence

that Iran has been secretly acquiring facilities and materials for an illicit nuclear weapons capability, in violation of its NPT commitments, has been increasingly evident. For many years, Israel has been monitoring Iranian efforts to enrich uranium, separate plutonium, and take other measures toward the production of nuclear weapons. Over a decade ago, in the early 1990s, the late Prime Minister Yitzhak Rabin warned of the dangers of a radical Iran armed with nuclear weapons, and Deputy Defense Minister Mordechai Gur responded to questions on this issue raised in the Knesset by invoking Israel's deterrent capability.

During this decade, Israeli leaders have struggled with this issue, seeking to define and implement an effective policy that would stop, or at least slow, the Iranian acquisition effort. High-level interdepartmental committees were formed to consider the diplomatic and military options and their implications in detail. Attempts were made to persuade suppliers, such as Russia, China, and North Korea, to "turn off the faucet" through which the advanced technologies and expertise flows into Iran, both with respect to ballistic missiles and nuclear technology. This issue was also at the top of the agenda in bilateral discussions on security and diplomatic issues held with the U.S. Government, as well as in the growing number of strategic dialogues with Great Britain, other European governments, and elsewhere. At the same time, public attention and speculation by analysts and journalists included the possibility of military action, similar to the 1981 operation in which the Israeli Air Force targeted the Osiraq reactor complex in Iraq. According to the Begin doctrine, "Under no circumstances would we allow the enemy to develop weapons of mass destruction against our nation."[1] Given the deep rejectionism, the asymmetries, and Israel's vulnerability, a "balance of terror" was seen as ineffective and unstable.[2]

But beyond the inherent difficulties in launching an effective military response, as well as diplomatic costs and other complicating factors, Israeli leaders during the 1990s sought to avoid an armed confrontation that would create hostility and bitterness among the Iranian public, which is seen as far less obsessed with Israel than is the radical Islamic leadership. Thus, Israeli officials consistently refer to Iran as a military threat, but not an enemy (in contrast to Syria or Iraq under Saddam). This does not rule out a military option; Iran has learned the lessons of the 1981 Osiraq operation and dispersed, hidden, and hardened its nuclear facilities, but Israel and the United States have also advanced significantly in terms of intelligence, targeting, and penetration. A preventive strike, however, is clearly a problematic option.

Another approach adopted by some Israeli policymakers argued that diplomatic efforts to slow Iran's effort to acquire the technology and materials necessary for the production of nuclear weapons (particularly fuel cycle components) would allow time for Iranian political dynamics to unfold, leading to regime change. When the "reform movement" in Iran was seen to be gaining momentum and support under President Khatami and other "moderate" leaders, it was possible to envision a post-revolutionary government that would not be interested in pursuing nuclear weapons or would view the costs of proceeding as too high. Or, if this approach failed, such a pragmatic leadership would at least not be obsessed by Israel, and a nuclear weapons capability would be far less threatening and destabilizing. However, in the past few years, the reform movement seems to have weakened, thereby also reducing the likelihood of such outcomes. Still, some Israeli officials place primary emphasis on regime change, but this hope is not seen as a likely scenario in the foreseeable future. In addition, the available evidence indicates a broad Iranian national consensus, including reformists, in favor of pursuing nuclear weapons as a "national right."

Given these obstacles to halting the Iranian nuclear weapons program, increasing Israeli attention and resources are being focused on dealing with this potential outcome. In close consultation with the U.S. Government and with major American assistance, missile defense programs and testing have been accelerated, and new technology, including extended range ballistic missile defense (BMD) and boost phase intercept (BPI) concepts, is under discussion.

In addition, some Israelis have begun to examine potential deterrence options vis-à-vis a nuclear Iran. Since the 1948 war, deterrence has been a major component of security policy, and it is widely credited with providing a degree of stability in relations with Syria, persuading Saddam Husayn not to risk the use of chemically armed missiles during the 1991 war, and in many other situations.[3] Perhaps the Iranian government, including its current radical regime, and, more importantly, under a post-Islamic leadership, would understand the requirements of stable mutual deterrence. And perhaps a multipolar regional system of deterrence could evolve, in which Israel's legitimacy would no longer be challenged and its survival would not be threatened. At some point, the optimists in this group noted, regional arms control and cooperative security discussions might resume, this time including Iran, Syria, and post-Saddam Iraq.

Each of these approaches is inherently complex and risky, and this is reflected in the continuing emphasis on the need for halting Iran's nuclear

weapons acquisition efforts to date. Jerusalem, like Washington, is grappling with the rapidly closing window within which Iran might be stopped short of the finish line. Hopes that the political leadership of the IAEA would suddenly acknowledge the overwhelming evidence of cheating, which the agency's own reports show began almost two decades ago,[4] and declare Iran to be in noncompliance appear to be declining (if such hopes were ever realistic), and the time remaining for the imposition of sanctions to prevent the production of enriched uranium is fading. The European troika's difficulty in changing Iran's objectives speaks for itself, although this process seems to have slowed the pace of uranium enrichment during the past year and may be able to extend the timeframe further for a diplomatic solution.[5] With some time, some American scholars argue, American involvement in the application of carrots and sticks can halt Iran's nuclear efforts before they are completed. "By promising strong rewards for compliance and severe penalties for defiance, Washington can strengthen the pragmatists' case that Tehran should choose butter over bombs."[6] But the obstacles are formidable, and in this framework, military action also cannot be ruled out, even though the obstacles and risks are formidable.

On this basis, it would be prudent to consider alternative scenarios in which Iran achieves a nuclear weapons capability, either overtly or similar to the Israeli policy of nuclear ambiguity. Furthermore, given regional dynamics and national (or regime) security perspectives, the proliferation of similar capabilities around the region within a decade must also be considered likely and should be addressed. While not the preferred outcome, from the Israeli perspective, "thinking about the unthinkable" is an important exercise in planning for the future.

Threat Perceptions

Iran's drive for nuclear weapons began under the shah and has numerous explanations, including regional power ambitions, the sense of vulnerability in a hostile Arab- and Sunni-dominated region, and a history of warfare, including the Iraqi invasion and 8-year-long war during the 1980s. In addition, the survival of the regime is under threat, both from internal pressure and from the U.S. Government. Weapons of mass destruction (WMD) are seen as a form of insurance policy.[7]

But all of these factors notwithstanding, from the Israeli perspective the impact of Iranian nuclear weapons on its own security is understandably paramount. While Iran is not a confrontation state bordering Israel, and there is no history of direct military clashes, its extreme Islamic ideology, declarations of extreme hostility, rejection of the very concept of

Jewish sovereignty, and support for terrorist groups such as Hizballah and Hamas are seen as posing an existential threat to Israel. Indeed, while threat levels posed by Syria, Egypt, Jordan, and Iraq have declined, and after Palestinian terror attacks have shown a major decrease, Iran has emerged as the major strategic threat to Israel. In the terminology of international relations theory, Iran is a revisionist state, uninterested in preserving the status quo, but rather seeking to expand and use its capabilities to alter the international and regional political framework.

As noted, the Iranian regime is obsessed by Israel, reflecting an extreme Islamic ideology, the standard exploitation of anti-Israel policies to gain power in the regional environment (used earlier by Nasser, Assad, and others), and the effort to divert domestic political unrest away from hostility to the restrictions and failures of the Islamic regime. In December 2001, then-President Hashemi Rafsanjani called the establishment of the Jewish state the "worst event in history" and declared, "In due time the Islamic world will have a military nuclear device, and then the strategy of the West would reach a dead end, since one bomb is enough to destroy all Israel." Similarly, Iran's supreme leader Ayatollah Ali Khamenei declared "that the cancerous tumor called Israel must be uprooted from the region."[8]

This obsession is often translated from the rhetoric of hatred and threats of destruction (including highly anti-Semitic programs on Iranian television) into actions, such as providing shiploads of missiles, explosives, and weapons to Palestinian terror groups (as in the case of the Karine-A, Santorini, and other arms ships captured en route to Gaza by the Israel Defense Forces [IDF]). Reports in the Israeli press and from Israeli security officials increasingly present evidence of Iranian financing, planning, training, intelligence, and other involvement in suicide bombing and other terror attacks by groups such as Hamas, the al Aqsa brigades, and Islamic Jihad.

Iran, in cooperation with Syria, is also the major supporter of Hizballah's attacks from southern Lebanon, and constitutes a local extension of Iranian power up to the Israeli border and inside Israeli territory. For many years, Hizballah led the attacks against Israeli towns, and, since the Israeli withdrawal from Lebanon in May 2000, this group has continued to launch periodic limited attacks across the border. Israeli security officials report that in the last 4 years, Hizballah has deployed over 10,000 tactical missiles (according to some sources, the number has reached 13,000, including the Iranian-made Fajr-5, with a range of 75 kilometers), many of which are capable of reaching cities and industrial centers in a

significant part of the country. This strategic deployment provides an umbrella for periodic attacks on the Israeli side of the border and a deterrent against Israeli escalation in response. It is also the model for Palestinian groups operating in Gaza, which have been firing missiles at Israeli towns on the other side of the separation fence, with direct participation, assistance, and involvement as acknowledged by Lebanese Hizballah leader Hassan Nasrallah. This confrontation is inherently unstable, and at some point, Hizballah's salami tactics are likely to trigger a rapid escalation into a full-scale confrontation.

In addition, Hizballah, aided directly by Iranian officials, is viewed by Israel and others as being responsible for the terror blasts in Buenos Aires, Argentina, that destroyed the Israeli embassy and the Jewish community building in 1992 and 1994, killing dozens of people. And in the realm of religious and propaganda warfare, Hizballah (via its Al Manr satellite television broadcasts) has emerged as one of the most virulent sources of incitement and anti-Semitism.[9]

The Iranian effort to acquire nuclear weapons and ballistic missiles with ranges capable of reaching Israel (and far beyond) cannot be separated from its support for terrorist groups and the deep-seated animosity of the regime toward Israel. Missiles on parade in Tehran are decorated with slogans such as "Wipe Israel off the map," and Israel is referred to as "the Zionist entity," reminiscent of the rejectionist slogans of the Arab governments and Palestine Liberation Organization leadership in earlier decades. Iran's direct role in Hizballah and Hamas terror attacks is an ongoing reflection of these objectives.

This combination of religious hatred, the perceived domestic political importance of this cause for an increasingly unpopular regime, and the growing strategic capabilities creates a framework for escalating violence and confrontation with Israel.

Response Options

Since the United Nations partition resolution of November 29, 1947, which triggered a campaign of terrorism followed in May 1948 by the Arab invasion, Israel has been a country under siege. Given its minuscule territory and consequent lack of strategic depth, small population, and limited resources, Israel has given the highest priority to security and strategic issues. The nature of the warfare has changed as specific threats have evolved.

These responses have taken different forms, including preventive and preemptive attacks (the 1967 war and the Osiraq operation),

investment in defensive systems, seizure of territory (the Judea and Samaria regions of the West Bank, southern Lebanon), and deterrence through "disproportionate response." The support, assistance, and coordination with the United States have generally served as force multipliers, increasing the capabilities, range, and firepower of the IDF and the impact of deterrence threats and Arab perceptions.

In addition, the U.S. assurances have, in some cases, allowed Israel to take some risks—including the withdrawal from Sinai after the 1956 Suez war, the 1970 cease-fire with Egypt that ended the war of attrition, disengagement agreements with Egypt and Syria after the 1973 war, the Oslo framework and (failed) experiment with Palestinian autonomy, and the withdrawal from Lebanon. These risks have also contributed to escalation and high costs for Israel, but, over time, they have also brought some stability and a modicum of (cold) peace in the case of Egypt and Jordan and, informally and on a limited basis, with Syria. Thus, these strategies are likely to be applied to the developing Iranian threat, as deemed appropriate.

Defense Options: The Arrow, the Wall, and BPI

In the late 1980s, the proliferation of ballistic missiles in the region, as highlighted in the Iran-Iraq "war of the cities," coupled with the threat of WMD warheads, led Israeli defense planners to begin development of strategic missile defense systems. For this purpose, Israel can be considered to be a cluster of point targets, in sharp contrast to area BMD concepts and requirements, making the technical obstacles more manageable. This resulted in the "Wall" (*Homa*) BMD program, which included the design, development, testing, and deployment of the Arrow interceptor, along with advanced detection, early warning, and terminal targeting systems. A significant portion of the research and development costs were financed with U.S. Government assistance, and the level of cooperation in this area remains high.

During the 2004 Iraq war, a number of advanced Arrow BMD batteries were deployed and operational, along with U.S. Patriot PAC–2 interceptors. Since then, and in response to the Iranian testing of its Shahab-3 ballistic missile, the Arrow and its accompanying components continue to be improved and tested.

The logic of the Israeli strategic missile defense program goes beyond providing a defense against WMD warheads. It is designed to influence the strategic calculations of potential attackers, such as Iran. Given that Iran's arsenal of offensive missiles and nuclear warheads will be

limited, the combination of reduced probability of penetration and ensured massive destruction in response (discussed in the section on deterrence below) are seen as making the risks of a first strike extremely high.

At the same time, Israeli officials and analysts are also aware of the limitations of BMD, including the unfavorable cost-exchange ratio and the availability of delivery systems other than ballistic missiles. Thus, while this approach is important in countering the expected Iranian threat, it is not the only or the central element in Israeli strategy.

Building Stable Bilateral Deterrence: Israel-Iran

Faced with continuing threats to national survival, Israel has always placed primary emphasis on maintaining a credible and robust deterrence capability. The deep structural asymmetries in the region (territorial extent, demography, and so forth) make Israel appear to be vulnerable to a crippling first strike, and the capability to inflict overwhelming and disproportionate retaliation regardless of the extent of the initial attack has been a central feature in deterring attack. This is the case with respect to conventional warfare (based on overwhelming air superiority and highly mobile ground forces), as well as providing the foundation for the development of the Dimona nuclear complex, Jericho ballistic missile technology, and the policy of "deliberate ambiguity."

In the conventional sphere, the record has been mixed. In the 1973 war, Egypt and Syria were not deterred by what Israeli leaders viewed as overwhelming superiority. But this was the last of the major attacks by the Arab "confrontation states," and the response was sufficient to lead Anwar Sadat to end the cycle of wars and become the first Arab leader to recognize the legitimacy of Israel. With respect to low-level warfare and terror campaigns, the weakening of Israeli deterrence during the 1990s is widely seen to have contributed significantly to Arafat's strategy and the decision to use violence to achieve Palestinian objectives. Thus, one of the major goals in the Israeli response was to reestablish the deterrence image, not only in the eyes of the Palestinians, but also throughout the region.

In addition, polls and other evidence demonstrate that Israelis from across the political spectrum view the ambiguous nuclear deterrence policy and the weapon of last resort as successful in preventing additional wars and limiting the level of attacks during the wars that did occur. For example, according to the available evidence (including statements by Egyptian war planners), Cairo opted for a deliberately limited strategy in the 1973 war to avoid triggering an Israeli strategic response.

In 1991, the decision by Saddam Husayn not to use chemical or biological warheads in the missile attacks on Israel is also attributed to fear of overwhelming Israeli retaliation. Furthermore, Shimon Peres and others claim that Israel's nuclear capability and the realization that Israel could not be "wiped off the map" without massive retaliation throughout the Middle East were primary factors in initiating peace processes with Egypt, Jordan, and beyond.[10]

However, the development of an Iranian nuclear capability and a multipolar nuclear environment would end the Israeli nuclear monopoly and fundamentally change the calculus of strategic deterrence in all major dimensions. In terms of capabilities and maintaining an assured second-strike capability, Israeli planners are well aware of the need to reduce vulnerability by dispersing and hardening retaliatory systems. Given the small size of Israel's territory, reliance on land-based ballistic missiles and the ability to scramble long-range aircraft is understood to be problematic, and additional options are necessary. International press reports have claimed that the diesel-powered submarines that were built in Germany and delivered in recent years provide the foundation for a sea-based strategic retaliatory force, including cruise missiles. In all likelihood, such a force would not replace the aircraft and land-based missile components, but would provide an additional "insurance policy."

In the context of a multipolar nuclear Middle East and the need for a credible second-strike capability, maintenance of Israel's policy of deliberate ambiguity would become increasingly difficult. In terms of capabilities, the movements of a submarine force, and the dispersal of aircraft and ballistic missiles in hardened structures, would be more visible than the current requirements. Smaller and more advanced warheads required for these advanced delivery systems may also need testing, thereby changing the Israeli policy in a fundamental manner.

Credibility and communications are also central components of stable deterrence, and a more overt and visible nuclear weapons capability may be seen as necessary to avoid Iranian (and wider regional) misperceptions, particularly given the isolation of decisionmakers in Iran. An Israeli decision to disclose its nuclear capabilities or to test a weapon (or long-range ballistic missile) in public might be viewed as necessary to highlight the ability to inflict massive destruction in response to a first strike.

However, the isolation of Iran's leaders, the fog that surrounds its decisionmaking structures, the absence of direct channels of communication with Israel, and its radical faith-based revisionist objectives will make the development of stable deterrence extremely difficult. While

the Iranian leadership is not seen as suicidal or particularly prone to high-stakes risk taking (in contrast to Saddam Husayn and other Arab leaders), there are likely to be many misperceptions regarding Israeli intentions and redlines. And, with many potential triggers for crises and escalation between Tehran and Jerusalem, including Hizballah, Hamas, and extremist elements within Iran, the difficulties in managing these crises in a nuclear environment will pose formidable challenges.

To diminish these dangers, Iranian leaders will have to renounce their destabilizing revisionist and revolutionary objectives and develop links, including diplomatic relations, with Israel. During the Cold War, the 1962 Cuban missile crisis and management of ongoing strategic relations proved difficult enough, even with diplomatic ties and periodic summit meetings between U.S. and Soviet leaders. This is also true with respect to India and Pakistan, which came close to mutual destruction following their respective decisions to test nuclear weapons. The policy of boycotting the "Zionist entity" must be seen as particularly irresponsible and dangerous for a country armed with nuclear weapons and itself a target for massive retaliation. In addition, in order to develop a stable deterrence relationship, ties with destabilizing terrorist groups and extremists will need to be cut, for the survival of Iran itself, in this environment.

Toward a Stable Multipolar Deterrence Relationship

As argued here, an Iranian nuclear capability would trigger (or accelerate) regional proliferation, including Egypt, Syria, Saudi Arabia, Algeria, and elsewhere. Within a decade, the Middle East is likely to have five or more nuclear powers, making creation and management of a system of stable deterrence far more complex, particularly given the inherent instabilities, history of conflict, and deep hostilities.

In this environment, the survival of these nations and the prevention of nuclear warfare will require measures to address the mutual fears of surprise attack, including direct communications, particularly in crisis situations. Those regimes in addition to Iran that continue to boycott Israel, such as Syria, Saudi Arabia, and Algeria, will also need to establish links and ensure that myths and misperceptions are replaced by realistic analysis. Command and control systems in these countries will be necessary to prevent access by extremist groups whose ideological or religious beliefs envision warfare and destruction on a massive scale.

This process will require the active intervention of outside powers, including the United States, Europe, Russia, and China. The relatively passive (and often low-priority) approach used during the multilateral

arms control and regional security framework, created in the context of the 1991 Madrid conference, failed to produce significant results. While grand regional disarmament agreements are highly unrealistic in the existing political and strategic environment (as explained below), tangible limited measures to reduce instability and increase communications and coordination are possible and necessary. These should become high-priority objectives for the United States, with the cooperation (to the extent possible) of the other major powers.

A U.S.-Israel Defense Pact or NATO Membership?

The prospects of an Iranian nuclear weapons capability and wider regional proliferation have revived unofficial discussions of the costs and benefits of different formal security alliances, including a U.S.-Israeli defense treaty and North Atlantic Treaty Organization (NATO) membership. The previous discussions have noted the perceived advantages of an Israel-U.S. bilateral treaty, in terms of enhanced Israeli deterrence (assuming that the U.S. deterrence image is robust), easier access to advanced weapons, and a reduced economic burden from ongoing defense expenditures. These dimensions would be particularly significant in the cooperative development and operation of advanced missile defense systems, perhaps to include Turkey and NATO, as well as in aspects related to maintaining a credible second-strike deterrent vis-à-vis Iran and other potential adversaries.

In contrast, Israeli policymakers also note that after almost four decades of close security cooperation, a formal treaty may not provide much more in terms of deterrence or security assurances. It may also reduce Israeli freedom of action and have other costs, particularly if a less supportive U.S. Government is elected in the future.

The option of NATO membership is perhaps more symbolic and less tangible in terms of direct benefits, but the development of formal security links to both the United States and Europe may provide a useful alternative, at little cost for Israel. However, opposition to a formal alliance with Israel from France and other NATO members who maintain close relations with the Arab regimes would have to be overcome.

Messianic Visions: A Middle East Zone Free of WMD

One of the proposed means to prevent Iranian acquisition of nuclear weapons is a grand agreement that would include, in addition to resolution of U.S.-Iran issues, a tradeoff involving Israel's nuclear deterrent option. The range of such proposals is quite wide, including some

that envision a freeze on the Israeli nuclear program and accession to the NPT as a nuclear weapons state (a scenario that is off the scale, even in the realm of highly unrealistic suggestions, as it would require opening up the NPT to amendment and requiring re-ratification by all of the signatories). At the other end of the scale, there is also discussion of Israel relinquishing its nuclear capability by joining the NPT and submitting to IAEA safeguards as a non–nuclear weapons state, or the development of a Middle East nuclear weapons–free zone.

As long as the Middle East conflict is unresolved and the threats to Israeli survival remain, none of the grand bargain concepts that expect Israel to give up its nuclear deterrent option in return for international guarantees with respect to Iran can be considered viable. As the cases of Iraq, North Korea, and now Iran clearly demonstrate, the ability of international mechanisms such as the IAEA to monitor effectively and assure compliance with nonproliferation treaties is far from adequate. Furthermore, the United States and the other members of the United Nations Security Council have shown that they will not take risks regarding their own interests by using force or even imposing effective sanctions to gain compliance. From the perspective of core Israeli security perceptions and requirements, these Kantian idealistic hopes are not credible options in a Hobbesian Middle East characterized by warfare and continuous terrorism, which are, in turn, fuelled by deep hostility and perceived threats to survival.

In the long term, however, and assuming that the region survives the proliferation of nuclear weapons, the potential for negotiation of a Middle East nuclear weapons–free zone is likely to increase. In contrast to the international and universal arms control framework—including the NPT, IAEA, and Chemical Weapons Convention, which have proven highly ineffective in the case of Iran, as well as Iraq and Libya—a system of mutual inspection based on a specially tailored verification regime, could, in theory, be successful.

In the process of learning to develop and manage a stable deterrence relationship, direct communication links will eventually be established. The populations of the respective players, including Iran, may go through a process similar to that of the United States and Soviet Union, as well as Europe during the Cold War, and demand measures that reduce the risks of mutual assured destruction. This process will be assisted by, and could also lead to, internal political changes, including democratization, in order to create more responsive and accountable governments (although, realistically, the politics of extremist nationalism and religious exclusivity will remain very powerful forces).

At the same time, the zero-sum frameworks that have dominated may develop into more cooperative situations, in which confidence- and security-building measures may evolve due not to pressures and inducements from the outside, but from the internal recognition of the elements necessary for national survival.

Conclusion

For all of the reasons explained in this analysis, this process, if it happens, could take many years or decades, and during this period, avoidance of nuclear destruction will be tenuous, at best. For the current political and strategic horizon, the prevention of Middle East nuclear proliferation by focusing on halting the illicit Iranian acquisition of fissile material remains the best policy option for the United States, Israel, Europe, Russia, China, and for the region. If this process is unsuccessful, the measures required for a stable deterrence system would become central, and might encompass a formal Israeli-U.S. defense treaty or Israeli membership in NATO. Other regional steps, such as mutual recognition and reliable communications, would be necessary in order to manage the relationship and prevent nuclear destruction. In parallel, consideration of confidence- and security-building measures and efforts to develop a nuclear weapons–free zone should also be on the agenda, within a realistic framework if they are to be effective. At the same time, proposals that lack credibility and are based on amorphous and unreliable "international guarantees"—such as those that have failed to prevent Iran, Iraq, Libya, and other countries from violating their NPT commitments and that will endanger Israel's survival—are counterproductive and unrealistic.

Notes

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[4] Links to the relevant IAEA documents are available at <www.iaea.org/NewsCenter/Focus/IaeaIran/index.shtml>.

[5] The *troika* referred to is the so-called EU–3 of the European Union—Great Britain, France, and Germany—who have been negotiating with Iran on nuclear issues.

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Reassessing the Implications of a Nuclear-Armed Iran

Can the United States live with a nuclear-armed Iran? Despite strong policy preferences to the contrary, Washington may have little choice.

Evidence suggests, and most scholars agree, that Iran is working toward self-sufficiency in a complete nuclear fuel cycle that would enable it to produce nuclear weapons. Building on an earlier study from 2001, Dr. Judith Yaphe and Colonel Charles Lutes reexamine Iran's movement toward becoming a nuclear-weapons state and the implications of that development for stability in the Middle East, global nonproliferation efforts, and U.S. security and defense policy. The original study postulated that Iran was determined to acquire nuclear weapons and the long-range missile systems needed for their delivery, and, in fact, was well on its way to achieving those objectives. Four years later, the world is a different place: the terrorist attacks of September 11, U.S. intervention in Afghanistan and Iraq with their subsequent developing democracies, and new evidence of Iranian acquisition of nuclear weapons-related technologies all necessitate a reexamination of a nuclear-armed Iran.

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