

Managing Nuclear Proliferation in the Middle East

CURRENT U.S. EFFORTS to stop Iran's nuclear program have failed. Fortunately, however, because of technical limits, Iran appears to be two to three years away from building an enrichment facility capable of producing sufficient weapons-grade uranium quickly enough to support a credible nuclear weapons option. As a consequence, the incoming U.S. administration will likely have some breathing space to develop a new diplomatic approach to prevent Iran from acquiring a nuclear weapons capability. Part of this new approach should involve direct and unconditional talks between the United States and Iran on a range of bilateral issues, as well as formal nuclear negotiations between Iran and the EU-3 plus 3 (France, Germany, and the United Kingdom, plus China, Russia, and the United States). To make these negotiations effective, the new administration should seek agreement among the EU-3 plus 3 to support stronger political and economic sanctions if Iran rejects an offer to resolve the nuclear issue and improve bilateral relations with the United States. Faced with more attractive inducements and the prospect of more serious sanctions, the Iranian regime might be persuaded to limit its nuclear activities below the threshold of a nuclear breakout capability.

If this new diplomatic effort fails to stop Iran from achieving completion of a nuclear breakout capability (that is, the ability to produce sig-

nificant amounts of weapons-grade uranium), the United States will face a difficult choice: It could accept Iran as a nuclear-capable state with a breakout option and try to build firebreaks to prevent Iran from actually producing such material (and building nuclear weapons). If that fails, the United States could attempt to contain and deter a nuclear-armed Iran, while seeking to discourage others in the region from developing nuclear weapons. Or the United States could decide to attack Iran's nuclear facilities in an attempt to damage and set back Iran's breakout capability. But that choice has uncertain prospects for success and very high likelihood of wider conflict and instability. Complicating this dilemma is Israel, which faces a perceived existential threat and could decide to take matters into its own hands even before the United States has decided that the course of diplomacy has been exhausted. Neither an American nor an Israeli military option is likely to produce sufficient gain to be worth the potential costs, but, paradoxically, without a credible military threat, Iran is much less likely to make nuclear concessions that meet U.S. requirements. Therefore, the next U.S. administration will want Iran to believe that it is prepared to use force if Iran rejects a diplomatic solution.

To prepare for dealing with these difficult choices—and mitigating the downsides of whatever decision is taken—the next U.S. administration will need early on to begin a quiet discussion with countries, especially Israel and the Arab Gulf states, which will be most directly affected by a nuclear-armed Iran. Iran is already a dangerous adversary and a nuclear-capable or -armed Iran would be more dangerous. If Iran acquires nuclear weapons, it is likely to behave like other nuclear weapons states, trying to intimidate its foes, but not recklessly using its weapons, nor giving them to terrorists, if faced with a credible threat of retaliation by the United States. While a nuclear Iran will prompt a regional nuclear arms race—indeed it already has begun—none of the Arab states has a capability to develop an indigenous weapons program for at least a decade.¹ American diplomacy will have an opportunity to shape the regional reaction to a nuclear Iran but will also be constrained by the universal perception of inconsistency in its handling of the Israeli nuclear arsenal. If diplomacy or force fails to prevent Iran from acquiring nuclear weapons, a declared U.S. nuclear umbrella for the region or parts of it should be a

key mechanism for deterring Iran, reassuring Israel, and incorporating our other allies into an effective regional balance.

BACKGROUND AND DIPLOMATIC STATE OF PLAY

The Middle East has been a hotbed of nuclear proliferation for five decades. Driven by security fears, regional ambitions, and nationalism, at least seven Middle Eastern states have sought to acquire a nuclear weapons capability. Israel was the first and so far the only successful claimant and has demonstrated repeatedly its determination to maintain its monopoly on nuclear weapons in the region, by force if necessary. Israel has also threatened the use of its nuclear arsenal against its enemies at least once.² Most estimates suggest Israel has a substantial number of sophisticated nuclear weapons that can be delivered by aircraft (F-15Is), missiles (Jericho), and perhaps submarine-launched cruise missiles. In September 1986 an Israeli technician, Mordechai Vananu, revealed that the Dimona facility, where he worked, had already produced enough plutonium to construct a large number of nuclear weapons and possessed the technology for sophisticated, high-yield nuclear weapons.

Egypt, Iraq, Algeria, and Libya all made unsuccessful nuclear attempts in the past. President Gamal Abdel Nasser of Egypt sought to match Israel in the early 1960s, but his efforts were stymied by technical difficulties, Israeli sabotage, and the refusal of his Soviet patrons to provide assistance. President Anwar Sadat finally abandoned the Egyptian program after the October 1973 War, as part of a larger political strategy of peace with Israel and alliance with the United States. The demise of Iraq's nuclear effort was more violent. Launched by Saddam Hussein under the guise of a civilian nuclear program in the mid-1970s, Iraq's main French-supplied nuclear research reactor was destroyed by an Israeli raid in 1981. Iraq's subsequent secret enrichment program was largely destroyed by U.S. bombs during the 1991 Gulf War and—we now know—completely dismantled by UN inspectors and sanctions following that war. The U.S. invasion of 2003 has extinguished Iraq's ability to revive its nuclear program for the foreseeable future.

In North Africa Algeria secretly acquired a heavy-water research reactor from China in the mid-1980s but joined the Non-Proliferation Treaty

(NPT) and accepted International Atomic Energy Agency (IAEA) inspections under pressure from the United States, France, and other countries when the project was revealed in 1991. It has apparently abandoned any efforts to develop nuclear weapons. Libyan leader Colonel Muammar Qaddafi quixotically pursued nuclear weapons on and off starting in the early 1970s, most recently giving up a nascent centrifuge enrichment program (based on black-market technology from Pakistani scientist A. Q. Khan) in a December 2003 deal with the United States and the United Kingdom to lift political and economic sanctions.

Most recently, Syria's efforts to build a secret research reactor with North Korean assistance—as a counter to Israel's nuclear capabilities—were abruptly terminated by an Israeli air raid in September 2007. Even though a number of Arab states have announced plans to revive or initiate nuclear power programs, none of these states has the scientific and industrial infrastructure or the skilled human capital to advance quickly, even with a crash program. Moreover, none of the established nuclear suppliers is prepared to export fuel-cycle technology or facilities to the region. In these circumstances, the only near-term option for an Arab country is to seek to purchase nuclear material or weapons from another state. At least one state probably has already set the diplomatic basis for doing so: Saudi Arabia with Pakistan.

With the destruction of the Syrian reactor, the only Middle Eastern country aside from Israel within reach of developing a nuclear weapons capability is Iran. Like others in the region, Iran's historical interest in nuclear weapons is deeply rooted. As part of his ambition to secure Iran's dominance in the Persian Gulf, the shah Mohammad Reza Pahlavi began an extensive nuclear power program in the mid-1970s, which included plans to develop civilian fuel-cycle facilities (both enrichment and reprocessing) that would have created a latent nuclear weapons option. The 1979 revolution shattered the program, as scientists fled the country and sources of external assistance dried up. Even though Supreme Leader Ayatollah Ruhollah Khomeini was religiously suspicious of nuclear technology, the program slowly reformed in the mid-1980s, as Iran began small-scale research on centrifuge enrichment technology that it had secretly acquired from Pakistan. After Khomeini's death in 1989, the new supreme leader, Ayatollah Ali Khamenei, and President Ali Akbar Hashemi Rafsanjani expanded the covert enrichment program and pur-

sued nuclear reactor deals with Russia and China. Although U.S. diplomatic pressure limited official nuclear assistance from Moscow and Beijing, Iran was able to purchase design technology for the production of heavy water and heavy-water research reactors from Russian scientists and nuclear institutes. This Russian technology allowed Iran to begin a secret plutonium production program to complement the existing secret enrichment program.

Iran's secret enrichment and heavy-water reactor programs were publicly exposed in August 2002 by an Iranian dissident group.³ After the U.S. invasion of Iraq in March 2003, Washington spurned an overture from Tehran to begin bilateral discussions on nuclear and other issues. Iran turned to France, Germany, and the United Kingdom (the EU-3), which agreed to negotiate with Iran and block U.S. efforts to refer Iran to the UN Security Council, where it would be subject to sanctions for violating the NPT. The EU-3's condition was that Iran suspend its enrichment and reprocessing activities and cooperate with the IAEA to clear up questions about its past nuclear violations. Between the beginning of EU-3 negotiations with Iran in October 2003 and their collapse in August 2005, Iran did suspend some critical aspects of its enrichment program, but the stormy negotiations never came close to resolving the central issues. The EU-3 demanded that Iran accept a permanent, or ten-year, moratorium on its enrichment and reprocessing programs, whereas Iran insisted on its right to develop a commercial-scale enrichment facility. As a concession, Iran offered to provide additional political commitments and transparency arrangements to strengthen confidence that it would not divert the facility for military uses. The EU-3 experience illustrates that the current leadership in Iran, though deeply committed to acquiring a nuclear weapons capability, may be willing to accept tactical delays and limits if confronted with sufficient pressures and risks.

After the election of President Mahmoud Ahmadinejad in August 2005, Iran resumed its enrichment activities, apparently calculating that the mounting turmoil in Iraq weakened American options to punish or attack Iran. The IAEA board of governors responded by referring the Iranian nuclear file to the UN Security Council. In New York, the EU-3, joined by China, Russia, and the United States, supported a series of UN Security Council resolutions that imposed targeted sanctions on Iran and sought to pressure the Islamic Republic to again suspend its enrichment

and reprocessing activities. In return, the EU-3 plus 3 offered to suspend the UN sanctions while negotiations took place. With the pain of sanctions blunted by high oil prices and broad economic sanctions blocked by divisions among the big powers, Iran said it was prepared to negotiate with the EU-3 plus 3 but rejected suspension as a condition for any talks.

In an effort to find a compromise, the European Union's foreign policy chief, Javier Solana, proposed a two-step solution in 2007. First, there would be a "double freeze," in which Iran would refrain from installing additional centrifuge machines (while continuing to operate the existing machines) and the EU-3 plus 3 would refrain from imposing additional Security Council sanctions (while the existing sanctions would continue in force). In exchange for the double freeze, Iran would begin talks with the EU-3 plus 3 (minus the United States) at the level of political directors. After six weeks, in the Solana scenario, both sides would move to a full double suspension (that is, Iran would suspend operation of existing centrifuges, and the Security Council would suspend existing sanctions), and the United States would join the negotiations.

In July 2008, amid hints that Iran might be interested in elements of the Solana proposal, the Bush administration decided to send Undersecretary of State William Burns to join the EU-3 plus 3 "prenegotiations" between Solana and Iranian nuclear negotiator Saeed Jalili over the terms and conditions for holding formal nuclear negotiations. The U.S. decision reflected an important tactical adjustment—ending the U.S. administration's previous refusal to enter nuclear talks with Iran until suspension was in place—but it did not change the objective of achieving suspension during formal nuclear negotiations. In fact, the decision to send Burns was intended to bolster the EU-3 plus 3 demand for suspension and to deflect any Iranian effort to accept a freeze without committing to full suspension within a short period. In this scenario, Washington feared that Iran would use the freeze to exploit differences among the EU-3 plus 3, reducing the risk of additional sanctions or military attack while it continued to work on resolving technical problems with its existing centrifuges. Iran, however, refused to accept even temporary limitations on its enrichment activities, and the most recent UN Security Council resolution, passed in September 2008, adds nothing to existing sanctions.

Aside from the disagreement on conditions to begin formal negotiations, the two sides remained far apart on the core nuclear issue. In a May 2008 proposal to the UN, Iran's foreign minister offered to accept an "enrichment and nuclear fuel production consortium" in Iran, as well as "improved supervision by the IAEA" to provide assurances that the facility would not be used for military purposes.⁴ Drawing on the earlier EU-3 proposals, the EU-3 plus 3 offered to provide technical and financial assistance to Iran's civil nuclear program if Iran would accept a ten-year moratorium on its enrichment and reprocessing (that is, the heavy-water research reactor) programs. The proposal offered Iran access to modern, European-designed, light-water power and research reactors and legally binding assurances of fuel supply.

Iran, however, has rejected reliance on foreign-supplied fuel and insists that it needs its own plant to produce low-enriched uranium (LEU) for power reactor fuel. Iran's planned industrial-scale enrichment plant at Natanz is designed to produce roughly enough LEU every year to meet the annual fuel requirements for the Russian-supplied Bushehr nuclear power plant, Iran's only nuclear power facility. Although Russia has contracted to provide fuel for the lifetime of the Bushehr facility (and to dispose of the spent fuel in Russia), Iran argues that the Natanz enrichment plant is necessary as a backup in case Russia cuts off fuel supplies. Even if Iran produced its own LEU, however, it does not have the technology to fabricate fuel elements for the Bushehr reactor, a fact that reinforces suspicions that the real purpose of Iran's enrichment effort is military rather than civilian.

Progress at the IAEA also seems frozen. Although the IAEA has resolved most questions about Iran's past secret enrichment and reprocessing activities, the agency and Iran are locked in a standoff over Iran's nuclear weaponization program. In its May 2008 report, the IAEA offered extensive documentation (provided by the United States and other countries) of past Iranian weaponization research efforts, including efforts to design a nuclear warhead for the medium-range Shahab-3 missile. Iran claims that these documents are "forgeries"—an explanation that the IAEA does not accept. Until the weaponization issue is resolved, the IAEA cannot officially close the nuclear file, and Iran will remain in "noncompliance" with its NPT commitments, a situation that the EU-3 plus 3 believes provides the legal basis for the UN Security Council

demand that Iran suspend its enrichment and reprocessing programs until “international confidence” is restored in Iran’s nuclear intentions.⁵ In the meantime, the IAEA reports that Iran continues to deny the agency’s inspectors full access to facilities and activities, including facilities for the production of centrifuge parts and equipment. Under the circumstances, it seems likely that Iran has stockpiled some of these parts and equipment in a secure location, creating options to build a covert enrichment facility or to rebuild in the aftermath of an attack on its IAEA-safeguarded facilities.

TECHNICAL STATUS OF IRAN’S PROGRAM

Although diplomatic efforts to stop Iran’s nuclear program have so far failed, Iran still appears to be at least two to three years away from acquiring a nuclear breakout capability (sufficient to use civilian nuclear facilities and safeguarded nuclear materials to produce enough weapons-grade material for a few nuclear weapons within a few months of achieving the capability).⁶ The inherent difficulty in detecting and monitoring a weaponization program means the most reliable measure of Iran’s nuclear weapons capacity is its ability to produce fissile material, the most challenging technical barrier to developing nuclear weapons.

According to the most recent IAEA report, of September 2008, Iran has completed a 3,000-centrifuge machine unit at the Natanz enrichment plant and about one-third of a second 3,000-machine unit. A total of 16 such units are planned for the facility. As of September 2008, Iran has produced about 480 kilograms of low-enriched uranium hexafluoride (UF₆) and is producing about 2 kilograms of low-enriched UF₆ every day. According to IAEA, Iran has steadily overcome early technical problems with its P-1 centrifuge machines and appears to be operating the machines at more than 75 percent of their design output. The P-1 machine is an older design developed in Europe in the 1960s and has a number of features that make it difficult to manufacture and operate. The P-1 is also considered very inefficient compared to more modern centrifuge machines.

In addition to the P-1, Iran is developing two new types of machines (dubbed the IR-2 and IR-3), which are based on the more advanced P-2 centrifuge, a machine developed in Europe in the 1970s that is about

twice as powerful as the P-1. These new machines display clever technical innovations that illustrate Iran's growing mastery of centrifuge technology, but they are still at an early stage of development and are deployed only in very small numbers at Natanz. Moreover, Iran is apparently still dependent on foreign suppliers for some of the essential materials and components for the IR-2 and IR-3 machines.⁷ As a consequence, concerted export controls and interdiction efforts can delay Iran's acquisition of a substantial enrichment capacity based on these more advanced machines.

The timeline for Iran's acquisition of a nuclear breakout capability depends on how quickly it can master centrifuge technology and install significant numbers of centrifuge machines and produce a large stockpile of low-enriched uranium, which, in turn, can be used as feed material to produce weapons-grade or highly enriched uranium (HEU). The most recent U.S. National Intelligence Estimate (NIE), released in December 2007, predicts with "moderate confidence" that "Iran probably would be technically capable of producing enough HEU for a weapon sometime during the 2010 and 2015 time frame." At its current production rates, Iran is likely to accumulate a sufficient stockpile of LEU to support production of a weapon's worth of HEU by late 2009. Very roughly, about 1,000 kilograms of low-enriched UF₆ is sufficient to produce enough HEU for a single simple nuclear weapon.⁸

Being able to produce enough highly enriched uranium for a single weapon, however, may not make for a practical nuclear weapons option. For example, assuming it was operating at maximum efficiency, the existing pilot-scale facility of P-1 machines would need to operate for nearly a full year (starting with natural uranium) or several months (starting with LEU) to produce enough HEU for a single weapon. Even a pilot-scale facility with the more efficient centrifuge machines based on P-2 technology would likely take a few months of continuous operation to produce its first bomb's worth of HEU. Since the IAEA would quickly detect the shift in production from low- to highly enriched uranium, these pilot-scale facilities would be vulnerable to military preemption during the time required to produce a weapon's worth of HEU.

To reduce the risk of preemptive action, Iran might wait until it has installed a much larger number of centrifuge machines and accumulated a larger stockpile of LEU, which would allow it to produce a large

amount of HEU before effective preemptive action could be taken. For example, the industrial-scale enrichment facility planned by Iran (designed for 54,000 thousand machines) would be capable of producing enough HEU for a handful of nuclear weapons within a few months or even weeks, once a political decision was made to break out and use the facility for military production.⁹ Building a large-scale enrichment facility is likely to take at least several more years and could be delayed even further if international efforts successfully restrict Iranian access to essential materials and equipment.

In other words, defining Iran's breakout options is based on political strategy as well as technical capacity.¹⁰ In the worst-case scenario, Iran might choose to break out once it has a minimum capacity, that is, a sufficient stockpile of LEU and enough centrifuges to produce enough HEU for a single bomb within a few months. Alternatively, rather than build a single nuclear weapon as quickly as possible, Iran might choose to install the enrichment capability necessary for building a small arsenal of weapons before making a political decision whether or not to break out. These different scenarios mean there are different definitions of what constitutes the so-called point of no return. Israel, whose very existence could be threatened by a single Iranian bomb, is inclined to adopt a worst-case assessment and therefore conclude that the time remaining for diplomacy is limited.

In contrast to its uranium enrichment program, Iran's program to develop a plutonium production capability is clearly several years away from fruition. Construction of a 40 megawatt heavy-water research reactor at Arak began in the mid-1990s, and Iran says the reactor is planned to be operational by 2014, although delays seem likely. Operating at maximum capacity, the Arak reactor is theoretically capable of producing enough plutonium for one or two nuclear weapons annually. However, Iran has announced that it does not intend to build a reprocessing plant, which would be necessary to separate plutonium from the reactor's spent fuel. In the past, Iran has carried out secret reprocessing experiments involving very small quantities of plutonium, but design and construction of an industrial-scale reprocessing plant would be a significant technical hurdle and relatively difficult to hide.

The status of Iran's ability to design and fabricate a deliverable nuclear weapon is uncertain. According to the 2007 NIE, Iran halted its nuclear

weaponization efforts in 2003, as part of a broader decision to allow international inspections of its previously secret enrichment and heavy-water research reactor programs. At that time, the U.S. intelligence community believed that Iran was experiencing serious technical difficulties perfecting an implosion weapon that could be delivered by the Shahab-3 intermediate range missile, capable of striking Israel. The NIE acknowledged, however, that the United States has only “moderate confidence” that Iran has not resumed its weaponization program since 2003, and other intelligence agencies (such as those in Israel, France, and the United Kingdom) believe that Iran has most likely reconstituted weaponization research and may have made significant advances in developing a nuclear warhead for missile delivery. Given the inherent difficulty in detecting and monitoring a weaponization program, which involves relatively small numbers of personnel and easily hidden facilities, it is probably not possible to have much confidence either way.

Complicating any technical assessment and evaluation of breakout scenarios is uncertainty about possible covert nuclear activities and facilities. Even if Iran does not currently possess significant covert fissile material production facilities, which the NIE assumed to be the case in December 2007, it seems very plausible that Iran would favor this route in the future if it decides to build nuclear weapons. If undetected, a covert enrichment facility would allow Iran to produce nuclear weapons with little or no warning, and without the risk that it could be destroyed before the first batch of weapons-grade material could be produced. For Tehran, *sneak out* is better than *break out*. From its past behavior, the Islamic Republic does not feel obligated to respect its international nuclear treaty commitments, and it seems prudent to assume that any nuclear deal with Iran would be vulnerable to cheating, if Iran thinks it can get away with it.

PROPOSING A NEW WAY FORWARD

Barring a breakthrough, the next U.S. president will need to develop an approach to overcome the current diplomatic stalemate and get international nuclear negotiations started. Assuming he is successful, the new president will also need to decide on a negotiating strategy: what kind of limits to seek on Iran’s nuclear activities and what kind of concessions

(both nuclear and non-nuclear) to make in return; how a nuclear deal intersects with other U.S.-Iranian issues; and, finally, how to respond if an acceptable deal cannot be negotiated. Fortunately, the new administration will not be operating under desperate time constraints. As already explained, technical problems and export controls have appeared to slow the pace of Iran's nuclear development, and the new president should have time to put his team together, consider options, and build international support for his new approach. Many elements of the next administration's diplomatic approach can be built on the existing strategy, but we recommend several additional features to enhance prospects for success.

Getting to the Table

The immediate diplomatic issue facing the new administration will be whether to propose dropping the EU-3 plus 3 demand that Iran suspend its enrichment and reprocessing activities as a precondition for formal international nuclear negotiations.¹¹ We recommend proceeding cautiously. The United States should drop or modify this demand only as part of a broader negotiating strategy agreed upon by the EU-3 plus 3, including the incentives to be offered to Iran and the actions the EU-3 plus 3 are prepared to take if Iran rejects this offer. Developing this negotiating strategy will require high-level bilateral and multilateral consultations with the EU-3 plus 3 governments, as well as with governments in the region, during the opening months of the new administration.

In the meantime, as discussed in chapter 3, we recommend that the new administration offer to resume direct bilateral talks with Iran (preferably with a representative of the supreme leader) on a range of issues, including the nuclear issue, U.S.-Iranian relations, Iraq, and the Israeli-Palestinian peace process, without requiring Iran to suspend its enrichment and reprocessing activities as a precondition for such talks. The Bush administration has already authorized bilateral talks on Iraqi security and has allowed Ambassador Burns to participate in the EU-3 plus 3 meetings with Iran to negotiate terms for achieving suspension, but it has continued to insist that Iran suspend enrichment and reprocessing activities before holding broader, bilateral discussions at more senior levels.

While seeking to engage Iran directly, the new administration should not abandon the EU-3 plus 3 framework for nuclear negotiations. Like any multilateral group, the EU-3 plus 3 can be ungainly, and the parties differ significantly in their perceptions of the Iranian nuclear threat and how to deal with it. Nonetheless, a multilateral approach supported by the major powers is likely to be more effective in influencing Iran's behavior than a purely bilateral negotiation between the United States and Iran. At the same time, opening a bilateral channel with Iran may help to invigorate the multilateral process. In particular, Washington can bolster the existing EU-3 plus 3 package by offering to add improvements in U.S.-Iranian relations to an overall solution to the nuclear issue.

As direct U.S.-Iranian talks and consultations with the EU-3 plus 3 proceed, the new administration can consider its position on the suspension issue. In response to the new administration's offer to hold bilateral talks and the perception that a new administration may be able to muster stronger international pressure, Iran may agree to a freeze or suspension, perhaps for some limited period. Alternatively, the United States, in consultation with the other EU-3 plus 3 countries, may agree to relax the requirement that Iran freeze or suspend enrichment and reprocessing as a condition for beginning formal nuclear negotiations with the EU-3 plus 3, as part of an agreement on a new package of carrots and sticks. Clearly, however, if the EU-3 plus 3 agrees to drop the precondition, it must also agree that the talks cannot proceed endlessly while Iran continues to enrich uranium and build its heavy-water research reactor. Once formal negotiations have begun, the United States (and the other parties) should make clear to Iran that the negotiations are not sustainable unless Iran agrees to suspend its enrichment and reprocessing activities as long as the negotiations are taking place. Otherwise, Iran will have every incentive to drag out the talks while it continues to develop its nuclear capabilities.

Terms of a Nuclear Deal

Assuming that nuclear negotiations between the EU-3 plus 3 and Iran begin, the primary nonproliferation objective of the next president should be to limit as much as possible Iran's acquisition of fuel-cycle facilities capable of producing fissile material, that is, enriched uranium and separated plutonium. Given Iran's propensity for violating its

nuclear commitments, any agreement must include strong verification mechanisms.

On the enrichment side, the new administration should endorse the basic elements of the existing EU-3 plus 3 proposal to assist Iran's civilian nuclear power program, including giving Iran access to advanced power reactors and fuel guarantees in exchange for a ten-year moratorium on Iran's enrichment activities. To make this existing offer more attractive to Tehran, the administration should endorse the position already taken by the other EU-3 plus 3 governments that Iran has a "right" under the NPT to develop enrichment capabilities for its civil nuclear program, once Iran has resolved questions about its past nuclear actions and once "confidence" is restored in Iran's nuclear intentions.¹² Such a concession would provide Tehran a face-saving argument that the moratorium is not a permanent sacrifice of its national rights and pride.

In addition, the EU-3 plus 3 should consider making its offer of legally binding fuel guarantees more concrete by agreeing to provide a repository of Russian LEU fuel for Iran's Bushehr power reactor at a facility in Iran under IAEA safeguards. Such an offer would undercut Iran's argument that it needs to build the Natanz enrichment plant as a backup to provide fuel for Bushehr if the Russians renege on their contract to provide lifetime fuel services to the reactor. A fuel repository in Iran does carry some risks. Even though the LEU fuel is not directly usable in nuclear weapons, Iran could seize and convert the fuel into feed material for a clandestine enrichment facility. In practical terms, however, it would be time-consuming for Iran to move the fuel assemblies to the Esfahan nuclear center, where their metal cladding would have to be removed to recover the low-enriched uranium dioxide and then the uranium dioxide would have to be converted to uranium hexafluoride before it could be used as feed material for enrichment. Since IAEA inspectors would know of the fuel seizure very quickly, the EU-3 plus 3 would have time to take action before Iran could convert the material for use in a nuclear weapons effort. Thus, while a stockpile of LEU fuel represents a potential nuclear risk, it is far less risky than allowing Iran to continue to develop its own enrichment capacity.

From a nonproliferation standpoint, a total moratorium on enrichment facilities is far superior to various possible arrangements to limit or circumscribe Iran's enrichment program. Even a limited enrichment

program would provide additional options for Iran to resume its efforts to develop a large-scale enrichment capability if it decides to renege or tries to cheat on the agreement. Moreover, a limited enrichment program is more likely to contribute to pressure on others in the region to pursue their own nuclear hedge, and it sets a dangerous precedent that a country caught seeking to develop a nuclear weapons option under the guise of a civilian program is allowed to benefit from its violations of the NPT. Concession on this point carries a very heavy potential price in terms of the long-term viability of the international nonproliferation regime.

The “zero option”—a multiple-year moratorium on Iran’s enrichment activities—may not be achievable, however. From the beginning of its nuclear negotiations in 2003, Iran has rejected demands to suspend its enrichment program for a long period, and the United States and other countries may not be able to force Iran to roll back its program now that Iran has achieved a rudimentary enrichment capacity. Therefore, in the end game of the negotiation, the United States may need to consider an ultimate fallback that allows Iran to maintain a limited enrichment capacity under strong international supervision and inspection if that is necessary to obtain a long-term moratorium on the construction of a large facility.

If it becomes necessary to accept an enrichment option, the administration should focus on limiting the size of the facility (that is, the number of a given type of centrifuge machines), for size determines how quickly Iran could theoretically use the facility to produce highly enriched uranium for nuclear weapons. For example, Iran could maintain a research and development program on new centrifuge types in exchange for deferring a decision for ten years or more on whether to build a commercial-scale enrichment facility. In addition, any low-enriched uranium produced in Iran could be exported to Russia for fabrication into fuel elements for the Bushehr nuclear power reactor, which would prevent Iran from building up a stockpile of LEU that it could use to produce weapons-grade uranium. Such arrangements would seek to keep Iran as far away as possible from nuclear breakout at the allowed facility. To reduce the risk of breakout, the United States could seek a Security Council resolution declaring that any violation of IAEA safeguards at the allowed facility would constitute a “threat to peace and

security,” thereby authorizing members to take any actions necessary to prevent Iran from using the facility to produce nuclear weapons.

If a final agreement allows Iran to maintain a limited enrichment program, it is critical that monitoring and verification measures be enhanced beyond the existing IAEA safeguards system to guard against the threat that Iran will seek to circumvent the agreement by building clandestine enrichment facilities. In general, intelligence agencies and international inspectors would find it easier to detect covert enrichment activities if no overt activities are permitted. Aside from requiring that Iran implement the IAEA Additional Protocol, which gives the agency some added tools to detect clandestine nuclear activities, the United States could insist that the standard IAEA inspection protocol for enrichment facilities be bolstered by additional real-time monitoring devices installed in the facility and by the continuous presence of international inspectors. In any event, the United States and other countries will need to maintain an independent intelligence effort to detect Iranian efforts to cheat on the agreement. This intelligence mission should be a high priority for the next administration, as it has been for recent administrations.

Even if the United States decides to accept some limited enrichment activity in Iran, the administration should not agree to negotiate on the basis of Iran’s proposal for locating an international “enrichment and nuclear fuel production consortium” in Iran.¹³ Under such an arrangement, an enrichment facility in Iran would include some international ownership and operation including the presence of foreign managers and technicians at the facility. Depending on the details, such a multilateral facility would impose some constraints on Iran’s nuclear weapons option, but it has two inherent drawbacks. First, once such a facility is operational, Iran could “nationalize” it and quickly produce a large quantity of highly enriched uranium—within a few months or weeks, depending on different scenarios. Second, a large-scale enrichment program would provide ample cover for a smaller covert facility. To build, operate, and maintain a commercial-scale facility, Iran would need to train a large number of technicians and operators and establish an extensive infrastructure of support facilities to produce centrifuge components, activities that would make it harder to detect an Iranian effort to divert personnel and equipment for a smaller clandestine facility. Finally,

if the United States agrees to participate in or accept a multilateral enrichment facility in Iran, it will be difficult to reject similar requests from other states in the region demanding equal treatment.

On the plutonium side, the United States should also require that Iran suspend work on its heavy-water research reactor or redesign the reactor so that it is capable only of low-power operations and therefore incapable of producing significant amounts of plutonium. Other measures could include arrangements to remove all spent fuel from the heavy-water reactor (as Iran has already agreed to do in the case of fuel from the Bushehr nuclear power plant, which will be shipped to Russia) as well as Iranian political commitments not to develop reprocessing technology. The Additional Protocol also gives the IAEA rights to environmental sampling, which can help detect clandestine reprocessing operations.

Any new U.S. proposal, however, should not be limited to a strictly “nuclear for nuclear” deal because Iran’s interest in acquiring a nuclear weapons breakout capability far outweighs its interest in obtaining external assistance for its nuclear power program. Although the Bush administration has been willing to support the nuclear carrots offered by the EU-3 plus 3, such as legally binding fuel assurances, it has not been willing to offer improved U.S.-Iran bilateral relations as part of a nuclear deal, arguing that these inducements need to be saved for resolving other issues, such as Iran’s support for terrorist groups, opposition to the Israeli-Palestinian and Israeli-Syrian peace processes, and efforts to destabilize Iraq. Given the importance of the nuclear issue—and the potential threat a nuclear-armed Iran would pose to U.S. interests and the security of its allies—we recommend that the new administration be prepared to offer some of these bilateral inducements if Iran meets U.S. nuclear demands. Such inducements could include normalization of bilateral political relations, lifting of U.S. economic sanctions, assurances against attempting regime change, and “respect” for Iran’s status in the region. As a negotiating tactic, it makes sense to see whether these inducements are sufficiently attractive to obtain Iranian nuclear concessions before considering compromises in the essential U.S. nuclear demand for a long-term moratorium of Iran’s enrichment and reprocessing activities.

Increasing the Pressure

Bigger carrots alone are unlikely to produce a satisfactory solution, unless Iran believes that the consequences of rejecting the new EU-3 plus 3 and bilateral American offers will be severe. Iran's ruling elite, including the increasingly influential Iranian Revolutionary Guard and, most important, Supreme Leader Khamenei, appears confident that Iran's star is on the rise and U.S. power is on the wane. Any U.S. overture suggesting that the United States is prepared to relax conditions and terms of a nuclear deal is bound to reinforce Iran's perception that it does not need to compromise on its nuclear ambitions. The biggest challenge for the new president will be to convince Iran's leadership that rejecting a more generous offer will mean significantly greater cost and risk in terms of political isolation, economic punishment, and potential military action.

Therefore, any new U.S. proposal for a more attractive offer to resolve the nuclear issue must be matched by prior agreement on the steps the EU-3 plus 3 is prepared to take to increase pressure if Iran were to stall or reject a new offer or table an unacceptable counteroffer. The administration should work to build support for broader sanctions that go beyond the targeted sanctions already passed by the Security Council. These broader sanctions could include a comprehensive arms embargo, limits on investment and technology transfers to Iran's oil and gas industries, and even restrictions on the import of refined petroleum products. If Iran believed these types of sanctions were imminent, it would be more likely to make concessions to delay or limit its nuclear program. In addition to working through the Security Council, the United States and its allies should also continue efforts to increase "informal" economic sanctions against Iran by persuading private businesses and other governments to limit exports and investments in Iran. With support from the United Kingdom and France, the European Union and some other individual European states already have taken some significant steps to limit financial transactions and oil and gas investment in Iran. As the new U.S. administration moves to improve trans-Atlantic relations across the board, it should be in a stronger position to overcome the reluctance of some European states to impose even stronger informal sanctions against Iran.

More effective UN sanctions require cooperation by Russia and China. Although both countries have supported sanctions targeted

against entities and individuals directly associated with Iran's nuclear and missile programs and have limited their own assistance to these programs, they have not been willing to support broader economic sanctions that would hurt their core bilateral relationships with Tehran. These differences over sanctions reflect and reinforce a deeper disagreement over the Iranian nuclear issue. Compared with the Western powers, Russia and China are extremely skeptical that sanctions can force Iran to give up its enrichment program, and they fear that an escalating UN Security Council confrontation with Iran will pave the way for a military attack by the United States or Israel. Moreover, they seem to be more willing to accept and tolerate Iran as a nuclear-capable country with a large safeguarded enrichment capacity that will not actually build nuclear weapons. Even if Iran eventually builds nuclear weapons, Russian and Chinese officials argue that Iran will act as a responsible nuclear power, susceptible to being managed through the usual tools of deterrence and containment.

As a result, Russia and China are likely to resist making firm commitments to support stronger sanctions in exchange for a more generous offer to Iran from the United States. Furthermore, if the EU-3 plus 3 negotiations actually get under way, Russia and China would certainly be reluctant to declare the talks a failure and return to the Security Council. Nonetheless, both would prefer that Iran not acquire a nuclear weapons capability because of the threat this capability would pose to their interests in the Middle East, and neither wants its overall relationship with Washington and Europe to be damaged because of a fundamental disagreement over Iran.

Therefore, the new U.S. president will need to make Iran a central issue in Washington's bilateral relationship with Moscow and Beijing and enlist the support of European and Japanese leaders to place the same emphasis in their own relations with the Russians and Chinese. With Moscow, the Iranian issue has become entangled with a range of contentious bilateral U.S.-Russian issues, such as missile defense in Europe and NATO expansion to Georgia and Ukraine. In particular, the short war between Russia and Georgia in August 2008 has raised serious questions about how likely Moscow will be to provide any further support for the international effort to stop Iran's nuclear weapons program. Russia has reacted harshly to the nearly universal criticism of its operations

in Georgia, suspended its participation in NATO–Russia Council activities, and made clear it will link the Georgia issue to other global issues. Iran has been careful not to criticize Russia’s operations in Georgia, undoubtedly hoping a quiet posture will be repaid by Russian opposition to any new Security Council sanctions on Iran. Trying to keep these issues unlinked will be an important challenge for the next administration. As long as Russia and the Western powers remain opposed over Georgia and related issues, a common approach toward Iran will be more difficult to coordinate. On the other hand, progress on addressing disputes with Moscow over the countries on its borders may facilitate cooperation toward Iran.

The new president will need to decide how to prioritize these various issues and whether to propose trade-offs with Moscow. The president and European leaders will need to weigh the value of pressing ahead with EU and NATO membership for Georgia and Ukraine against the risk that Moscow will retaliate by withdrawing support for pressing Iran. One option for the president is to defer development of missile defenses in Europe (which are primarily directed against the Iranian missile threat) if Russia agrees to cooperate with a new U.S. diplomatic strategy to prevent Iran from acquiring a nuclear weapons capability. The president would make clear to Moscow that if the EU-3 plus 3 negotiators fail to agree on an effective approach, then the United States would have to proceed with missile defense in Europe. Another carrot to Moscow for its cooperation on Iran could be the expansion of U.S.-Russian nuclear cooperation, including support for the planned Angarsk international enrichment center in Siberia, which could provide an alternative to Iranian enrichment and help Russia provide expanded enrichment services to nuclear power facilities worldwide.

Unlike Russia, the Chinese view toward Iran has not become entangled with broader geostrategic issues and big-power rivalry with the United States but is largely driven by China’s growing dependence on Iranian oil and gas. Moreover, China, unlike Russia, has a strong incentive to avoid a crisis that could lead to price spikes and supply disruptions. This reliance on oil from the Middle East has made Beijing extremely reluctant to risk damaging its bilateral relationship with Tehran. However, the next administration has a clear path to affecting China’s behavior: Beijing has typically not been willing to use its veto to

block actions that the other permanent members of the Security Council support. If the United States and its European allies are able to reach agreement with Russia on a new diplomatic strategy—including the threat of broader economic sanctions if Iran rejects a more generous offer—then China is less likely to block consensus by using its veto in the Security Council.

Consult with Allies in the Region

In addition to reaching agreement on a new strategy with the EU-3 plus 3, the president will need to coordinate with America's Middle Eastern allies who feel directly threatened by Iran's nuclear program and its rising regional influence. The most important of these is Israel. There is a strong consensus in Israel that Iran cannot be allowed to acquire a nuclear weapons capability given the oft-repeated threats by President Ahmadinejad to wipe Israel off the map. From left to right on the political spectrum, Israelis see an existential threat to their survival from a nuclear Iran. Israeli leaders are determined to maintain Israel's regional monopoly on nuclear weapons. Israel's leaders fear Israel's strategic room for maneuver in the region would be constrained by an Iranian nuclear deterrent. Outgoing prime minister Ehud Olmert, for example, declared that Israel will not tolerate a nuclear Iran. The success of the Iranian-backed terrorist groups Hezbollah and Hamas in the last few years adds to the Israeli concern.

From discussions with Israeli military and intelligence officials at the November 2007 Saban Forum in Jerusalem, it is clear that Israel has been planning for some time for a military operation to prevent Iran from acquiring nuclear weapons. Israelis say the mission is not an "impossible" one. Given the distances involved and the number of potential nuclear targets, Israelis concede that they have limited capabilities to destroy Iran's nuclear program, but they claim an Israeli attack could set Iran's program back a few years and help galvanize international diplomatic efforts to address the issue. The 2007 attack on the Syrian reactor is widely believed in Israel to have been in part a message to Tehran, and the success of the raid and lack of international repercussions may have given Israeli leaders more confidence that a similar feat could be achieved in Iran.

The next president will have to make a decision about a potential Israeli military attack against Iranian nuclear facilities. He will have three options:

—The president could give Israel a green light, allowing Israel to transit American-controlled airspace over Iraq. The benefit of this option would be that the United States could coordinate with Israel before the strike on options to manage the consequences of an attack.

—The president could avoid making a clear decision, which Israel is likely to see as an amber light, namely, U.S. passive acceptance of an Israeli strike. The drawback of this option is that it will entail many of the costs of the first one without any of the benefits.

—The president could decide on a red light, actively discouraging an Israeli attack, either because he has concluded that the United States can carry out the attack more effectively and with fewer political complications on its own or because he decides that the likely costs of an Israeli or American military attack outweigh the potential benefits.

Whatever policy the United States chooses, an Israeli attack on Iran's nuclear installations would almost certainly be seen by Iran (and the rest of the world) as American-approved if not inspired. The aircraft in any strike would be American-produced, -supplied, and -funded F-15s and F-16s, and most of the ordnance would be from American stocks. As a result, Iran would likely choose to retaliate against both Israeli and American targets. To demonstrate its retaliatory prowess, Iran has fired salvos of missiles (some of which are capable of striking Israel), and Iranian leaders have warned they would respond to an attack by either Israel or the United States with attacks against Tel Aviv, U.S. ships in the Persian Gulf, and other targets. Even if Iran chooses to retaliate in less risky ways, it could respond indirectly by encouraging Hezbollah attacks against Israel and Shi'i militia attacks against U.S. forces in Iraq, as well as terrorist attacks against U.S. and Israeli targets in the Middle East and beyond. The Israelis are already aware of the risks of an attack, especially the possible cost in American lives and the implications for U.S.-Israeli relations should there be American casualties after an Israeli attack. Given these risks, Jerusalem may be willing to give diplomacy a chance in the near term, but the Israelis will feel compelled to act if they judge that the new administration's diplomatic push has failed.

An Israeli attack on Iran would adversely affect key strategic American interests, and it is not likely to be a long-term solution because Iran would seek to rebuild its nuclear program after an attack. In addition to Iranian retaliation against both U.S. and Israeli targets, short-term oil prices would skyrocket and long-term prices would rise if the resulting conflict affected shipping and oil production in the Gulf. As a result, the president would still need to implement a strategy to deal with the basic problem within a more complicated diplomatic environment. Specifically, Iran could argue it was the victim of aggression, could withdraw from the NPT, and could then attempt to rapidly rebuild its nuclear program without international inspection.

Moreover, an Israeli air strike on Iran most likely would transit airspace under the control of the United States in Iraq. The most direct route from Israel to Natanz is roughly 1,750 kilometers across Jordan and Iraq. As the occupying power, the United States is responsible for defending Iraq's airspace. The alternatives via Turkish airspace (over 2,200 kilometers) or via Saudi airspace (over 2,400 kilometers) would also put the attack force into the skies of American allies equipped with American fighter aircraft. In Turkey's case it would be a NATO ally that the United States has a commitment to defend and in which it has a large airbase.¹⁴ The United States could expect severe diplomatic problems at a minimum if these routes were used by Israel without the consent of the states involved (a certainty) and if America were seen to be complicit in the Israeli attack. If Iran were to retaliate against the overflown state, the United States would be called on to defend it.

The United States at least once before persuaded Israel not to use force against a military threat. In the 1991 Gulf War, President George H. W. Bush pressed Prime Minister Yitzhak Shamir not to attack Iraqi Scud missile launchers that were attacking Israel. Most important, the president refused to give the Israelis the Identification Friend or Foe (IFF) codes or approval to enter Iraqi airspace, thus indicating that Israeli aircraft would be flying in harm's way. Israel's preferred option of a limited ground-force incursion into western Iraq was also turned down. In turn, the United States committed to stepping up its own attacks on Iraqi Scuds, with little or no immediate effect on Scud launches, although the rapid success of the U.S.-led military attack on Iraqi forces in Kuwait ended the Scud threat in short order. In this sense, it was easier for Wash-

ington to persuade Jerusalem to stand down while the United States was mounting its own military operation; it would be much more difficult to convince Israel to refrain if the United States itself were not willing to act.

Whatever decision the new administration takes, it should engage Israel in a discussion on how to ensure that Iran does not threaten Israel with nuclear weapons if diplomatic actions ultimately fail to prevent Iran from acquiring those weapons. At the end of the day, the United States is probably not going to be willing or able to prevent Israel from carrying out an attack against Iranian nuclear facilities if Israel decides that it can execute an attack successfully and believes that it has no other choice. If Israeli leaders are uncertain about the effectiveness and consequences of a military raid, however, joint planning with the United States on how to contain and deter a nuclear-armed Iran could influence their decision. For example, if Israel were confident that a formal U.S. assurance that a nuclear attack on Israel would be met by a U.S. nuclear attack on Iran, Jerusalem might be more inclined to calculate that the risks of living with a nuclear-capable Iran were manageable. Therefore, the new administration should begin a quiet policy-planning exercise with Israel to consider options if diplomacy fails.

Specifically, the next president should consider extending an American nuclear guarantee to Israel. At the Camp David summit in 2000, Ehud Barak, Israel's prime minister at the time, requested that a U.S.-Israeli mutual defense treaty be signed to provide Israel with a nuclear guarantee against Iran. The idea died when the Israeli-Palestinian peace process collapsed, but it is an idea worth revisiting. Although Israel has adequate nuclear resources to retaliate massively against an Iranian nuclear attack, we reiterate that a guarantee of U.S. retaliation against Iran would provide important psychological and political reassurance to the Israeli public and strengthen deterrence against Iran.

In addition to Israel, the Sunni Arab regimes—Egypt, Jordan, Saudi Arabia, and the smaller Gulf states—feel directly threatened by the Iranian nuclear program. These states cannot be counted on to make a substantial contribution to U.S. diplomatic efforts, however, primarily because they are too weak and too frightened of Iran to take an exposed position. While Arab leaders may quietly urge the United States to take care of the Iranian nuclear threat, including through military attacks if necessary, or make noises about turning to China, France, or Russia for

arms and security assurances, they are not ready to reduce ties with Washington (especially with a new president), nor are they willing to incur Iran's hostility. In addition, these states will not align publicly with the United States because of a deep popular resentment of U.S. nonproliferation policy in the region. Within the Arab world, the failure of any Arab country to develop nuclear weapons is deeply frustrating and humiliating, and the United States is blamed for "allowing" Israel to have nuclear weapons. Washington has never seriously pressed Israel to sign the Non-Proliferation Treaty or to give up its nuclear program, arguing instead that a stable peace between Israel and its neighbors must be achieved before Israel should consider changing its policy on the NPT.

Nonetheless, U.S. consultations with the Arab states will be important for managing the consequences if diplomacy fails and the United States decides to live with or attack Iran's nuclear facilities. Because of this, the next administration should begin quiet discussions with major Arab states. Most important, the next administration should reach out to Riyadh because Pakistan may already have given a commitment to Saudi Arabia to provide it with a nuclear deterrent in the event that Iran or any other country threatens the kingdom.¹⁵

Since no Arab state has the technical or industrial capacity to build its own bomb in the next decade or more, the United States should focus its concerns on the possibility that one or more of the super-rich Gulf states might try to buy one. If Saudi Arabia already has such an arrangement with Pakistan, it is conceivable that other wealthy Gulf states—most notably, the United Arab Emirates—might do the same. To reduce this risk, the next administration will have a variety of options. One would be to extend any nuclear umbrella and security guarantees offered to Israel to the Saudis and other Gulf states. Such a formal commitment would reduce the incentive for the Saudis to get a weapon from Pakistan and would make clear to the Iranians that the United States will not tolerate nuclear blackmail in the Persian Gulf. The issue of Israel will again complicate the issue. The Arabs will ask why they must forgo their own nuclear weapons program but Israel does not, and the United States must articulate that any nuclear umbrella does not include U.S. protection for Israel should it initiate conflict against these Gulf states. Of course, the United States already has such a nuclear commitment to Turkey through the NATO alliance. Unlike the Arab states, Turkey has a well-developed

industrial and scientific infrastructure, but it has not invested resources in the development of its nuclear sector beyond small-scale scientific research. Therefore Turkey does not have the technical capability to build its own bomb in the near term. Moreover, in our discussions with Turkish officials and experts, we did not detect a strong motivation to acquire nuclear weapons to counter Iran. The Turks see Iran as a “peer competitor,” and they believe that Iran’s nuclear program is an element of Iran’s effort to strengthen its influence in the region, but they do not generally see Iran as a military threat that would justify the expense and risk of acquiring nuclear weapons, especially since Turkey already has U.S. nuclear assurances under NATO.

Another option is for the president to make a declaration that the United States would respond with overwhelming force were Iran to use its nuclear arsenal in any capacity. This would be a unilateral American commitment to react not tied to a specific country or set of countries. As such, it would provide more ambiguity and require less “buy-in” from the Arabs, who could simply take advantage of the declaration without having to endorse it. Of course, they would not have any concomitant commitment to refrain from pursuing their own nuclear programs either indigenously or through Pakistan. Therefore, the more informal an American security commitment is, the less credibility it will have both for Iran and the Arabs.

A final option would be to combine elements of the first two in a hybrid: Israel might want a formal treaty commitment; the Arabs may prefer a declaratory commitment.

Understand the Feasibility of Deterrence

If diplomatic efforts fail, the president will have to confront the difficult choice of living with a nuclear-capable, even a nuclear-armed, Iran or undertaking military action. As noted, some have argued that once Iran gets nuclear weapons, it will not behave according to the rules of other states. The history of the Islamic Republic suggests otherwise, however.

We believe that Iran would be likely to behave like a “normal” nuclear weapons state. It will try to use its nuclear status for political advantage and to intimidate other states, which already fear Iran’s power and influ-

ence. If Iran acquires nuclear weapons, it will appear impervious to American pressure and threats, and the weak Arab states of the Gulf are more likely to accommodate Iranian interests on a range of issues from setting oil prices and production levels to allowing American forces and bases in the region. At the same time, Iran is likely to avoid conflicts that could escalate into a nuclear exchange with another nuclear power because Iranian leaders recognize that a nuclear war would be devastating for the Iranian nation and culture. Similarly, Iran is not likely to transfer nuclear weapons to a terrorist organization, even Hezbollah, because of the risk that it would be held accountable if Hezbollah were to use its weapon. The United States can reduce the risk that Iran would transfer nuclear weapons to Hezbollah by strengthening American technical capabilities to trace the origins of nuclear materials back to Iran and by making clear in public and private statements that it would retaliate if Iran engages in such transfers. Throughout its history, the Islamic Republic has behaved like a very disagreeable state, but it has been careful to avoid taking actions that would lead to catastrophic consequences for itself.¹⁶

As such, Iran will be subject to the same deterrence system that other nuclear weapons states have accommodated themselves to since 1945. Nonetheless, even rational states can find themselves faced with the possibility of nuclear use, as happened with the United States and the Soviet Union during the Cuban missile crisis and with India and Pakistan during the Kargil crisis. There is a danger that a future Israeli-Hezbollah war in southern Lebanon, for example, could escalate to a nuclear confrontation. In such a scenario, a nuclear-armed Iran could threaten to attack Israel to prevent it from destroying Hezbollah, and Israel could feel compelled to preemptively attack Iranian nuclear forces before they could be fully mobilized or used. As in the cold war logic of "crisis instability," both Israeli and Iranian nuclear forces and societies are likely to be vulnerable to preemption, which tends to drive leaders toward early use of nuclear weapons. In addition, if Iran acquires nuclear weapons, there would be some risk of accidental or unauthorized use or loss of control if Iranian nuclear security were breached. It is impossible to evaluate how serious this potential risk would be because no one knows what mechanism for nuclear command and control and security a nuclear Iran would put into place.

Build a Credible Threat of Force, but Be Wary of Using It

Is there an effective military option that could damage Iran's program significantly for an extended period of years at a cost that would be acceptable? The United States might decide to use military force against Iran's nuclear facilities under three distinct scenarios:

—A *preventive scenario*, in which the United States attacks Iran's overt, safeguarded nuclear facilities to prevent Iran from using these facilities in the future to produce fissile material for nuclear weapons.

—A *preemptive scenario*, in which the United States attacks Iran's nuclear facilities after Iran has begun to execute nuclear breakout (for example, by expelling inspectors from the facilities) but before Iran has been able to produce enough weapons-grade uranium or separated plutonium for a bomb.

—A *Syrian scenario*, in which the United States detects and destroys a secret nuclear facility in Iran before it is operational.

From a political standpoint, the second and third scenarios would be easier for the president to justify and defend domestically and internationally. Even the first scenario might have some acceptance if it appeared that Iran had ignored generous offers by the United States to resolve the nuclear dispute diplomatically. In all cases, however, the decision to use force should be based primarily on the expected utility of the attack versus the expected risk. Although Iran's nuclear facilities are dispersed and some, such as the main production hall at Natanz, have been hardened against attack, the United States has the resources to destroy or heavily damage known nuclear targets in Iran and nearby air defenses. Iran's conventional military forces are still relatively weak and its air force is still heavily reliant on old U.S. equipment. U.S. intelligence is unlikely to have a complete picture of all the installations in the Iranian program, however, and Iran has almost certainly taken the precaution of hiding some key equipment, materials, and components in secure locations. As a result, some parts of the nuclear program would likely survive an American strike.

Given these unknowns, the utility of an attack is uncertain at best. The U.S. intelligence community is unlikely to be able to give the next president a clear assessment of the consequences of an attack on Iran's nuclear program. More likely, he will be told that an attack would probably set

back Iran's program by some range, such as two to ten years or five to fifteen years, depending on certain assumptions and uncertainties. Intelligence assessments will likely be more certain about the short-term impact of one to two years than about the longer-term impact. Intelligence will also be uncertain about the ability of the United States to detect and attack rebuilt facilities, especially if Iran leaves the NPT and ends the presence of international inspectors.

A U.S. military attack on Iran has potentially dangerous ramifications. In an optimistic scenario, Iran would respond cautiously, perhaps limiting its retaliation to indirect attacks through proxies and terrorist operations, to avoid the risk of a broader conflict with the United States. In this scenario, Iran would play the victim, seeking to mobilize regional and international condemnation of the United States. Alternatively, Iran may carry out its threats to attack Tel Aviv and U.S. ships in the Persian Gulf, actions that would almost certainly lead to a broader conflict. A war with Iran may be similar to the 2006 war between Israel and Hezbollah in Lebanon, in which there were hundreds of clashes, dozens of air strikes, and extended salvos of missiles and rockets—close to 4,000—into cities. A war with Iran would not be fought in the relatively small space of the Galilee, however; it could spread across the whole of the Middle East from Lebanon to the Khyber Pass and include attacks on U.S. targets.

The regional political consequences of an attack are difficult to predict. As noted earlier, quiet satisfaction might emanate from Arab palaces, but the reaction in the Arab and Islamic street would be violently negative. An early casualty of military confrontation could be the government of Prime Minister Nouri al-Maliki in Iraq. The Shi'i population and the Shi'i warlords in Iraq would align themselves with Iran, whereas the Kurds would be in a precarious situation, torn between the United States and Iran. In addition, President Hamid Karzai's government in Kabul would face dangerous challenges, and given its growing weakness, could collapse. As a result, the United States would find the twin insurgencies in Iraq and Afghanistan burning more intensely while it struggled to destroy targets deep inside Iran. Of course, the potential ramifications of an attack on the domestic politics of Iraq and Afghanistan will depend on the circumstances at that time. For example, the more that the Iraqi government is able to take over internal security

responsibilities and address domestic political issues, the more able it will be to weather the reaction to an American attack on Iran.

Any future conflict in the Gulf could also have an enormous impact on the world energy market at a time when oil prices are already at unprecedented highs. In the short term, nervous oil markets are certain to increase prices in the aftermath of an attack, but the consequences would be even more severe and enduring if the conflict escalates. Although Iran is likely to be reluctant to escalate by attacking oil tankers and Arab oil installations—actions that would invite a major U.S. retaliation—Iran could carry out desperate measures should it conclude the United States was seeking to disable Iran's air and naval forces or attempting regime change in the conflict. Once started, a war may be difficult to contain.

We assess the military option to be unappealing. In deciding whether to use military force, the president will be faced with irresolvable uncertainties, both about the effectiveness of an attack, in terms of its impact on Iran's nuclear program, and about the risks of an attack, in terms of triggering a broader conflict with Iran and implications for regional politics and oil prices. In short, launching an attack would be a gamble not worth taking except as a last resort when and if diplomacy has indisputably failed to prevent Iran from developing a nuclear breakout option. Moreover, it is clear that a military strike is not likely to terminate Iran's nuclear efforts. If anything, Tehran would likely emerge even more determined to acquire nuclear weapons. At the same time, the credible threat of force—the perception in Tehran that the United States might be prepared to use force—is an essential element of a successful diplomatic strategy. Therefore, whether or not the United States is ultimately prepared to use military force, the next administration must convince Iran that it is willing and able to attack if Tehran does not agree to a diplomatic resolution acceptable to Washington. In any event, force needs to be retained as an option if Iran attempts a nuclear breakout or if the United States detects a secret nuclear facility in Iran.

CONCLUSION

Preventing further nuclear proliferation in the Middle East will be a vexing problem for the next president. Iran is the heart of the problem but not all of it. The U.S.-U.K. invasion of Iraq and the Israeli bombing of

Syria have sent strong signals to Iran and others: if you do not have a nuclear deterrent you can be attacked by stronger powers. Moreover, Iran has historical aspirations to assert its regional primacy, and its nuclear program has become intertwined with national pride and ambition. Iran's current pursuit of a nuclear deterrent would almost certainly be the policy of any regime in Tehran. Had the shah not been overthrown and were his son on the throne today, for example, Iran would probably have a nuclear deterrent by now. The Islamic Republic regime is particularly difficult and dangerous, and acquisition of a nuclear weapons capability will make it even more so. Fortunately, technical problems and export controls have delayed Iran's acquisition of a nuclear weapons breakout capability. The next president will not be at the eleventh hour on assuming office, but he may be there by the end of his first term.

The existence of Israel's nuclear arsenal has undermined the legitimacy of U.S. efforts to promote nonproliferation in the region and strengthened pressures on Arab countries to seek their own nuclear capabilities. The nearly universal perception in the region and elsewhere that the United States pursues an inconsistent policy on nuclear proliferation in the Middle East—which effectively protects Israel's nuclear monopoly—makes the diplomatic challenge to pressure Iran even more complex because it makes it more difficult to rally Arab pressure against Iran. This problem has no obvious solution, because Israel is not prepared to abandon or limit its nuclear weapons program as part of a diplomatic effort to address the Iranian nuclear issue, and even if Israel were prepared to sign the NPT, that would not change Iran's plan to develop an enrichment capacity under the NPT. However, the EU-3 plus 3 countries will have to portray any diplomatic agreement with Iran as a step toward achieving the ultimate objective of a Middle East free of nuclear weapons, and the U.S. president should be prepared to reaffirm U.S. support for this ultimate objective.

The next president will need to authorize tough and direct diplomacy with Tehran, going beyond the limited steps that the current administration has authorized. The new administration should return to the formula of Presidents George H. W. Bush and Bill Clinton and be open to direct, authoritative negotiations with Iran on the full agenda of issues. These bilateral talks should be well prepared and well coordinated with

our allies in the region and around the world. As discussed in chapter 3, soon after taking office, the new administration should seek a direct channel to an authorized representative of Iran's supreme leader to discuss a broad range of issues, including the nuclear dispute. The substance of the discussions should remain confidential and the level of diplomacy decided as the talks progress. The administration should be open to engagement on the presidential level, if that is necessary to secure U.S. interests.

Even as the administration seeks to restore a bilateral channel with Iran, the next president and his team should develop a new package of inducements and pressures, in close coordination with our allies, to prepare for international nuclear negotiations with Iran and the EU-3 plus 3. The new U.S. administration should preserve the existing EU-3 plus 3 framework for nuclear negotiations because a coalition of big powers is more likely to be effective in influencing Iranian behavior than unilateral U.S. efforts would be. An early decision for the new administration and the EU-3 plus 3 is whether to maintain their current demand that Iran suspend its enrichment and reprocessing activities as a condition for beginning formal negotiations. If this objective proves unobtainable, the United States should be prepared to agree with the other EU-3 plus 3 countries to relax the demand as a condition for beginning talks, provided that the other powers agree to press Iran to accept suspension as a basis for keeping the talks going. Otherwise, Iran will be content to let the talks spin out while it spins centrifuges.

In these negotiations, the United States should support the current EU-3 plus 3 offer to provide assistance to Iran's civil nuclear power program, including guarantees of fuel supply, if Iran agrees to a multiple-year moratorium of its enrichment and reprocessing programs. From a nonproliferation standpoint, a complete moratorium is far and away the best outcome. If a complete moratorium is not possible, however, the United States should consider arrangements that would sharply limit Iranian breakout capabilities, such as limiting the number of centrifuges that Iran is allowed to operate. Enhanced international monitoring and verification of Iran's nuclear activities must be part of the package because of the high danger that Iran will renege or cheat on any agreement that constrains its nuclear program in meaningful ways.

This new package should also go beyond the nuclear dimension to try to achieve a more fundamental and enduring security understanding with Tehran. At a minimum, it should include explicit commitments by the United States renouncing regime change, but the United States should also be prepared to lift economic sanctions and normalize political relations if Iran meets American nuclear demands. Although these incentives are of little appeal to the hard-line elements of the regime, they may strengthen the argument of some factions within the Iranian elite.

Bigger carrots alone, however, will not be effective. As long as Iran perceives the United States as being on the defensive in the region, it is not likely to accommodate U.S. demands. American nuclear nonproliferation strategy needs to be buttressed by effective policies that reverse our weakness in the region and put new pressures on Iran. Agreement on tougher sanctions in the United Nations, as well as informal sanctions imposed by private industry and nongovernmental organizations, will be necessary to persuade Iran to accept a long-term moratorium on its enrichment and reprocessing programs. Such an agreement will require focused diplomacy with Moscow and Beijing, especially to achieve a set of UN sanctions if Iran rejects a more generous offer from the EU-3 plus 3 and an American side offer to improve bilateral relations with Iran as part of a nuclear deal. In addition, the more Iran believes that its nuclear program risks triggering a military attack, the more likely Tehran will be to accept a diplomatic solution that limits or delays its nuclear ambitions.

Even the toughest diplomacy and sanctions may not be sufficient to keep Iran from crossing the nuclear threshold. This is even more the case because Tehran is seeking an ambiguous crossing—it wants to acquire a latent capability to produce weapons-grade fissile material without actually producing such material and building nuclear weapons, at least for some period of time. The next administration will want to study carefully its military options and have a serious military contingency available. The use of force is an unappealing option with high risks and limited gains, but the next administration needs to convince Iran that is a serious threat, if diplomacy is going to be successful.

The next administration should also engage in a serious and discrete dialogue with Israel on its military plans. History demonstrates Israel will use force to protect its monopoly on nuclear weapons in the region.

Israel views a nuclear-capable Iran as an existential threat and is prepared to run high risks in exchange for inflicting even limited damage on Iran's nuclear program. The next president may not be able to dissuade Israel from attacking Iran, but he should not leave Jerusalem uncertain as to the United States' views. Most important, if the next president rejects an American military option, he should make clear to Israel as privately as possible that the United States opposes an Israeli attack. At the same time, the administration should offer Israel a credible security alternative based on deterrence and missile defenses and backed by formal commitments.

If diplomacy fails and military force is not used, the next administration will have to develop a strategy to contain and deter a nuclear-capable Iran. In the first instance, this means building firebreaks—including the threat of sanctions and force—to dissuade Iran from using overt nuclear facilities or building covert facilities to produce weapons-usable fissile material. The president must recognize, however, that preventing Iran from crossing the nuclear threshold will grow more difficult, the closer Iran comes to the threshold. If Iran builds a nuclear bomb, the danger of a nuclear arms race in the region is real but not immediate. No other state is technically capable of developing a weapons capability on its own for at least a decade. The real immediate danger is an arrangement like the one that may exist between Saudi Arabia and Pakistan: a bomb on demand in return for financial assistance over a prolonged period of time.

If Iran acquires nuclear weapons, it is likely to behave like a "normal" nuclear weapons state, not recklessly using the bomb or giving it to terrorists, but trying to extract maximum leverage from its nuclear deterrent to increase its influence and defend itself from external threats. This behavior will include trying to intimidate other states, especially the small Gulf states, and perhaps providing a nuclear umbrella to Iranian allies, such as Hezbollah in Lebanon or, less likely, the Hamas state in Gaza. Under these circumstances, the danger of nuclear use arises not from recklessness or fanaticism, but from possible escalation of conventional conflicts, plus the possibility of accidental or unauthorized use or loss of control. The next administration should not be sanguine about the difficulties of managing these risks.

Thus, the next president should consider extending America's nuclear umbrella and security arrangements to both Israel and U.S. allies in the Persian Gulf (Turkey already has one through NATO). The goals of such an approach would be to discourage Iranian adventurism, reassure allies, and encourage nuclear restraint. Such an extension of the American nuclear umbrella should be done through treaty and be subject to the consent of the Senate. Promising American defense to other countries—either by treaty or by public declaration—is not a trivial matter and must be fully debated by the public and Congress. It is not too soon to begin such a debate.

The first order of business for the next president, however, will be to muster stronger commitments from the existing international coalition (primarily the EU-3 plus 3 plus Japan and the other EU countries) to confront Iran with a clear choice. To muster this support, especially from reluctant partners like Russia and China, the new administration will need to make Iran a central issue in overall relations with those countries. Faced with the threat of serious international sanctions and political pressure (and the implicit threat of force), Tehran may feel forced to accept delays and limits on its nuclear program. This would not represent a fundamental shift in Iran's nuclear ambitions but rather a tactical adjustment to avoid risks and penalties. To make this tactical adjustment more likely (and to play on internal divisions within Iran), the United States should be prepared to offer a fundamental improvement in bilateral relations if Iran makes nuclear concessions.

NOTES

1. For example, see the International Institute of Strategic Studies report, *Nuclear Programmes in the Middle East: In the Shadow of Iran* (London: 2008), which comes to the same conclusion.

2. In 1991 Israel warned Iraq that it would use nuclear weapons to respond to any chemical or biological attack on Israel. Jordan's King Hussein passed the message to Baghdad, according to a new biography by Avi Shlaim, *The Lion of Jordan: The Life of King Hussein in War and Peace* (London: Penguin, 2008).

3. The Iranian dissidents got the information from Israeli intelligence, who fed it to them through a cutout, according to former Israeli Defense Forces chief of staff Moshe Ya'alon; see Adrian Levy and Catherine Scott-Clark, *Deception: Pakistan, the United States and the Secret Trade in Nuclear Weapons* (New York: Walker, 2007), p. 525.

4. “Iran Says Ready to Start ‘Serious, Targeted’ Negotiations,” Agence France-Presse, May 21, 2008.

5. The NPT does not restrict the development of any nuclear activities for peaceful purposes. Hence an NPT party is allowed to develop enrichment capabilities for civil nuclear purposes, a right that Iran claims. The counter legal argument is that the NPT does not allow a country to pursue a military option under the guise of a peaceful nuclear program, and there are sufficient grounds to doubt that Iran’s nuclear intentions are truly peaceful, including persistent violations of its NPT obligations and evidence of secret nuclear weapons research and development.

6. For most simple nuclear weapons, approximately twenty to twenty-five kilograms of highly enriched uranium—uranium enriched to about 90 percent U-235—would be required for each weapon, while approximately six to eight kilograms of separated plutonium-239 would be required for each plutonium-based bomb.

7. In contrast, Iran reportedly has sufficient components and materials on hand to make thousands of the older and less reliable P-1 machines.

8. Assuming perfect efficiency, about 27 to 29 kilograms of 3.5 percent LEU are required to produce 1 kilogram of 90 percent HEU. Therefore, a stockpile of about 540 to 725 kilograms of LEU would be needed to produce 20 to 25 kilograms of HEU. Note that these figures are given as amounts of uranium contained in uranium hexafluoride (UF₆), not amounts of total UF₆. The comparable numbers for UF₆ are about 700 to 900 kilograms of low-enriched UF₆. Assuming some inefficiencies and losses, 1,000 kilograms of low-enriched UF₆ is a rough estimate of the amount required to produce enough HEU for a single bomb, although the actual amount required could be higher if inefficiencies are greater.

9. The exact time required for nuclear breakout is difficult to calculate because it includes both the time required to reconfigure the plant from the production of LEU to production of HEU as well as the actual operating time to produce the first bomb’s worth of HEU. In general, the more time that is taken to reconfigure the plant, the more efficient the plant operation and therefore the less operating time would be required. Conversely, the less time taken to reconfigure the plant, the less efficient the operation and therefore the more operating time required to produce a given quantity of HEU.

10. For further discussion of Iran’s breakout options, see International Institute for Strategic Studies, *Iran’s Strategic Weapons Programmes: A Net Assessment* (London: 2005).

11. The various Security Council resolutions on Iran do not specifically mandate suspension as a condition for nuclear negotiations, but the EU-3 plus 3 has made this demand in public statements and in private meetings with Iranian officials. For example, the June 12, 2008, letter from EU-3 plus 3 foreign ministers to Iran says, “Formal negotiations can start as soon as Iran’s enrichment-related and reprocessing activities are suspended.”

12. The current U.S. position offers to reaffirm Iran’s right to “nuclear energy for exclusively peaceful purposes” but does not explicitly acknowledge enrichment as one of those rights.

13. Iran has not provided details on its proposal, but some nongovernmental experts in the United States and Europe have developed their own ideas for such a multilateral enrichment facility. For example, see William Luers, Thomas R. Pickering, and

Jim Walsh, "A Solution for the US-Iran Nuclear Standoff," *New York Review of Books* 55, no. 4 (March 20, 2008).

14. See Whitney Raas and Austin Long, "Osirak Redux? Assessing Israeli Military Capabilities to Destroy Iranian Nuclear Facilities," *International Security* 3, no. 4 (Spring 2007).

15. Shortly after Pakistan tested its nuclear weapons in 1998, Saudi defense minister Prince Sultan bin Abdul Aziz toured Pakistan's nuclear and missile facilities outside Islamabad. Pakistan's famous A. Q. Khan provided some of the color commentary for these unprecedented tours. At the time, U.S. officials expressed concern that the Pakistanis might have promised to provide a nuclear weapon to the kingdom. Sultan had been defense minister since 1962 and today is also crown prince. After Pervez Musharraf took control of Pakistan in a coup in 1999, the nuclear relationship continued and matured. In October 2003 then-crown prince Abdullah bin Abdul Aziz visited Pakistan for a state visit. Several experts reported after the trip that a secret agreement was concluded that committed Pakistan to provide Saudi Arabia with a Pakistani nuclear weapon deterrent to be deployed to the kingdom if Saudi Arabia felt threatened by a third-party nuclear program in the future. Both countries, of course, denied the stories. See, for example, Arnaud de Borchgrave, "Pakistan and Saudi Arabia in Secret Nuke Deal," *Washington Times*, October 22, 2003; and Amir Mir, "Where Terror and the Bomb Could Meet," *Asia Times*, July 7, 2005.

16. In the defining event of modern U.S.-Iran relations, the hostage crisis of 1979-81, Iran took actions that were in clear violation of international law, but when it perceived that an action would provoke a massive violent American response, it desisted from that course. In the summer of 1980 Iranian leaders repeatedly threatened to put the American hostages on trial for espionage. President Jimmy Carter made clear that any trials would produce a military response and Iran retreated. In the 1988 undeclared naval war in the Persian Gulf between the United States and Iran over reflagged Kuwaiti tankers, Iran attacked U.S. Navy ships but was careful to keep the conflict from escalating into a full-scale war. When the USS *Vincennes* inadvertently shot down an Iran Air civilian airliner, Ayatollah Khomeini sensed the conflict was getting out of control and agreed to a cease-fire with Iraq and the United States. Similarly, throughout the Iran-Iraq war, Iraq was the first to use chemical weapons on the battlefield, not Iran, and it was Iraq that first used missiles against Iranian cities. In the mid-1990s when the United States determined that Iran was behind the terrorist attack on the U.S. Air Force barracks at Khobar, Saudi Arabia, and warned that any further attacks would prompt a military retaliation, Iran desisted from targeting American military facilities in the Gulf and elsewhere. Today, Iran is careful to limit its support of anti-American insurgents in Iraq and Afghanistan to low-intensity conflict and asymmetric warfare to preclude a major American military response. The Iranian decision in 2003 to cease development of its nuclear weaponization program and to acknowledge publicly its secret efforts to develop fissile material production facilities probably reflected its calculus of the risks involved in provoking the United States in the aftermath of the invasion of Iraq and the toppling of Saddam Hussein.

