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I. INTRODUCTION AND EXECUTIVE SUMMARY

The United States needs a new strategy for effectively constraining Iran's future nuclear capabilities. The Trump administration's current approach has little chance of succeeding. But simply returning the United States to the Joint Comprehensive Plan of Action (JCPOA) is not a long-term solution. By the time the United States would return to the 2015 deal, key nuclear restrictions would soon expire. Moreover, achieving the wide domestic support needed to make a nuclear deal with Iran politically sustainable in the United States would not be served by simply turning the clock back to before Trump took office.

The United States needs to pursue a renewed nuclear bargain with Iran, building on the solid foundation of the original and addressing its shortcomings. Diplomacy must play a central role in that effort, which will require:

- Mending fences with the Europeans and other key negotiating partners to rebuild the broad international support needed to press Iran to come to the negotiating table and accept meaningful restraints;
- Abandoning the current administration's excessive demands in favor of a more realistic negotiating position that keeps Iran a safe and verifiable distance from the nuclear weapons threshold for an extended period of time, while demonstrating to Iran a willingness to accept an outcome compatible with Tehran's legitimate interests;
- Pursuing a new deal focused on the nuclear issue, while actively and effectively although separately and in parallel—implementing a broad strategy for addressing the other dimensions of the Iranian challenge, including its aggressive regional activities and its missile program;

- Improving the incentives (primarily sanctions relief) that would be offered to Iran, both in terms of their scope and their reliability to deliver anticipated benefits, in order to persuade Iran to accept a renewed bargain that goes beyond the JCPOA in important respects, especially in terms of the duration of its nuclear restrictions; and
- Making every effort to gain wide domestic support in the United States for any new negotiated outcome in order to make it durable and politically sustainable, despite presidential leadership transitions in Washington.

While diplomacy should take center stage in efforts to constrain Iran's future nuclear capabilities, diplomacy alone is not enough. The Trump administration's anti-Iran campaign has put great pressure on Tehran, but it has also reinforced Iranian opposition to U.S. demands and resistance to even engaging with the United States. To promote productive negotiations—and in the event that negotiations fail—diplomacy will have to be complemented by other policy tools that do not require Iran's participation or consent, such as sanctions, counterproliferation measures, and deterrence. These more coercive policy tools can impede and discourage Iran's movement toward the nuclear weapons threshold and provide incentives for Iran to negotiate seriously. But in the end, nuclear restraint must be Iran's choice and is best codified in a renewed nuclear agreement.

The current impasse

Preventing Iran from acquiring nuclear weapons has been a bipartisan U.S. national security priority for over three decades. The JCPOA, concluded by the Obama administration in 2015, was a major step toward that objective, effectively blocking Iran's pathways to nuclear weapons in the near and medium terms, and providing a promising platform for achieving a permanent solution in the future. But the Trump administration opposed the JCPOA, claiming both that the deal itself was flawed and that it failed to address other objectionable aspects of Iranian behavior, including its missile program and destabilizing regional activities.

Determined to fulfill a campaign promise, President Trump decided in May 2018 to withdraw from the JCPOA and re-impose sanctions against Iran that were suspended under the agreement. His administration hoped that its "maximum pressure campaign" would compel Tehran to accept a comprehensive new deal containing not just more rigorous nuclear restrictions than in the JCPOA, but also a resolution to a wide range of U.S. concerns about Iran's activities, including its support for regional proxies, its activities in Syria, and its missile program. The administration's demands were set forth in a highly ambitious list of 12 "requirements" outlined by Secretary of State Mike Pompeo soon after U.S. withdrawal. The combination of U.S. demands that the Iranian leadership was certain to reject, together with positions taken by senior administration officials both before and after assuming office, has persuaded many observers that the administration's true goal is to promote the collapse of the Iranian regime.

Although it is too early to calculate the full impact of the U.S. pressure campaign, it is already clear that it is taking a heavy toll on the Iranian economy, magnifying deep-seated problems caused by many years of mismanagement and corruption. But despite the economic distress caused by the re-imposition of U.S. sanctions, the Trump administration is unlikely to achieve its goals, whether to force Iran to capitulate to its demands or to collapse the regime.

A significant impediment to the administration's strategy is a lack of support, and often outright opposition, from countries whose cooperation would be needed to pressure Iran to come to the negotiating table and accept meaningful restrictions. Determined to preserve the JCPOA despite the U.S. departure, some Europeans have sought to circumvent U.S. sanctions in order to shield Iran from economic pressures that could lead it to leave the JCPOA as well. They recognize that their efforts, including the creation of INSTEX (the Instrument for Supporting Trade Exchange), a mechanism designed to facilitate trade with Iran without running afoul of U.S. sanctions, will have only a modest effect in reducing the impact of sanctions. It appears that their strategy is to buy time by persuading Iran to remain in compliance with the JCPOA for another couple of years in the hope that a successor U.S. administration will take office in early 2021 with a more positive attitude toward the agreement.

Reflecting their deteriorating bilateral relationships with the United States and their relatively close ties with Iran, Russia and China are more openly hostile to the U.S. anti-Iran campaign—and less concerned about Iran's regional and missile activities—than the Europeans. Both have defended Iran in the U.N. Security Council, including on missile issues, and have pledged to maintain and even expand economic relations with Iran despite U.S. sanctions.

But the principal reason the administration's strategy will fall short is Iran's determination to resist U.S. demands and its resilience in the face of external and internal pressure. While acknowledging the harm the sanctions are doing, Iran's leaders use the domestic hardships to mobilize public resistance to U.S. "bullying." With decades of experience coping with sanctions, they have activated a strategy to mitigate their effects, including through smuggling operations (especially to get Iranian oil to market), diplomatic outreach to undermine international support for sanctions, and budgetary assistance to Iranians whose loyalty is deemed essential to regime stability. Iran's leaders seem confident that their mitigation strategy—together with efforts by Europeans, Russians, Chinese, and others to maintain economic relations, as well as the implicit threat of repressive methods to stifle domestic dissent—will be enough to withstand U.S. pressure and maintain their grip on power.

Iranians say they will remain in the JCPOA as long as they receive the economic benefits to which they are entitled under the terms of the agreement. They are waiting to see how much revenue they can preserve from oil exports and how effective the Europeans and others will be in protecting Iran's commercial links to the world. In the meantime, they seem to derive political value from isolating the United States from its traditional partners and from being seen by the international community as showing great restraint and responsibility in the face of extreme provocation by Washington.

The dispute between the United States and Iran is currently at an impasse. Despite mounting economic pressures, there are no signs that Iran will give in to U.S. demands. A U.S. strategy intended to force Iran to accept stricter nuclear limits and constrain its behavior in other ways has resulted in Tehran digging in its heels and made it more likely that Iran will rebuild its nuclear program in the near term than if the United States had remained party to the JCPOA.

The situation is not stable. A frustrated Trump administration could provoke Iran to leave the JCPOA in the hope that it would enable the United States to mobilize greater international support for confronting the regime. Or Iranian opponents of the JCPOA and the government of President Hassan Rouhani could finally prevail with their argument that continued nuclear restraint makes little sense in the face of U.S. efforts to strangle the Islamic Republic.

The United States needs a new strategy to effectively constrain Iran's nuclear capabilities over the long term—one that employs a wide range of policy tools, including sanctions, counterproliferation measures, and deterrence, but gives a central role to diplomacy.

Sanctions as leverage for negotiations

While U.S. withdrawal from the JCPOA and re-imposition of sanctions were a serious setback in addressing the Iranian nuclear issue, sanctions pressure, if appropriately applied, can still play a significant role in achieving a new nuclear bargain. Depending on whether Iran remains in the JCPOA, the application and role of sanctions in U.S. strategy will change. But in all scenarios, the United States should make clear that the main purpose of sanctions is to provide leverage for negotiations and not to bring down the Iranian regime. And a modified approach toward implementing current sanctions—minimizing as much as possible the image of the United States standing alone, threatening its friends as much as Iran—could help build a more collaborative approach to addressing the various dimensions of the Iranian challenge.

As long as Iran remains in the JCPOA, the United States should look for ways to make reasonable exceptions to sanctions enforcement, such as the Trump administration's exceptions for foreign companies working with Iran's nuclear industry on JCPOA-approved projects or for oil importing countries allowing them temporarily to continue purchasing Iranian oil. It should also provide warnings to foreign governments when their companies are engaged in sanctionable activity and give them an opportunity to work with their companies to stop the activity before sanctions are imposed. And it should extend an olive branch to the Europeans by assuring foreign banks and companies that use INSTEX for humanitarian transactions that they will not be sanctioned, and by allowing U.S. companies to use that mechanism for such transactions as well.

If Iran decides to leave the JCPOA and rebuild its nuclear program, the United States should ramp up sanctions pressure to induce Tehran to halt its buildup and negotiate significant constraints. Acting alone or in conjunction with its European partners, Washington should invoke the "snap-back" provision of the JCPOA, which would restore all previous U.N. Security Council sanctions against Iran. While some countries friendly to Iran can be expected to resist strict enforcement of restored sanctions, snap-back would nonetheless significantly intensify pressures on Iran. The United States should also seek to diversify the scope of its own sanctions—targeting, for example, the light consumer goods industry—in order to signal to Iran that its coping mechanisms will have a hard time keeping up with evolving pressures.

Counterproliferation to impede sensitive Iranian imports

U.S.-led counterproliferation efforts—the use of national and multilateral export controls, interdiction of individual transfers, intelligence sharing, and other tools to prevent the acquisition of nuclear-related material, equipment, and technology—have impeded and slowed Iran's pursuit of sensitive nuclear capabilities. But over the years, Iran's illicit procurement network has managed to find weaknesses in those controls, and by now Tehran has indigenized key elements of its nuclear program. Still, to upgrade its nuclear capacities, Iran will continue to look to foreign suppliers, and it remains an important U.S. objective to ensure that Iran's procurement serves only legitimate civil nuclear requirements consistent with its international commitments.

As long as Iran remains in the JCPOA, the United States should be prepared to widen exceptions to its sanctions against foreign entities for engaging with Iran's nuclear industry—beyond existing exceptions covering the Arak reactor, the Fordow facility, and the Bushehr nuclear plant—to permit Iran to procure items in support of JCPOA-permitted nuclear activities, such as the replacement of broken parts. At the same time, a key U.S. counterproliferation objective should be to ensure that Iran uses the U.N. Security Council and JCPOA-mandated procurement channel for all permitted nuclear-related imports and does not pursue illicit nuclear-related imports outside the channel.

If Iran leaves the JCPOA and starts rebuilding its nuclear program, the United States, as recommended earlier, should support the snap-back of previous Security Council sanctions, which would bring back legally binding prohibitions on the transfer of most nuclear- and ballistic missile-related items to Iran. In these circumstances, the U.S. objective would be to impede Iran's ability to enhance its nuclear capabilities quantitatively and qualitatively by seeking broad support for preventing Iran from acquiring materials and equipment from abroad. But unlike during the pre-JCPOA period, when a strong international consensus supported a near-total embargo on nuclear-related transfers to Iran, countries that regard Iran's JCPOA withdrawal as justified could be reluctant to enforce the restored restrictions conscientiously.

Deterring movement down the path toward nuclear weapons

Using a variety of diplomatic, economic, and military tools, the United States and its partners can impede Iran's nuclear program by explicitly or implicitly threatening Tehran with adverse consequences if it proceeds down the path toward nuclear weapons. They may seek to discourage three increasingly threatening stages of Iranian activity.

Deterring Iran's departure from the JCPOA. Despite U.S. withdrawal, it is clearly in the U.S. interest for Iran continue abiding by the JCPOA. But having withdrawn, the Trump administration hardly has the standing to call on Iran to stick by the nuclear deal. That job falls largely to America's P5+1 partners (China, France, Germany, Russia, and the U.K.). The Europeans have mainly sought to use positive incentives, hoping that INSTEX and other devices will convince the Iranians that remaining in the agreement will serve their economic interests. But the Europeans have also signaled to Iran that its withdrawal could trigger the snap-back of U.N. sanctions, making its economic situation considerably worse. They should reinforce that deterrent message.

Deterring a significant nuclear buildup. If, despite warnings, Iran decides to leave the JCPOA, the United States and other states should try to discourage a rapid or substantial increase in Iran's nuclear capabilities. Threatening major adverse consequence for any increase beyond JCPOA limits is unlikely to be credible and effective as a deterrent. Instead, the United States should work with others, including the Europeans and even the Russians and Chinese, to identify particularly provocative Iranian actions—such as resuming enrichment at the Fordow facility, curtailing cooperation with the International Atomic Energy Agency (IAEA), enriching to 20 percent or greater, returning to the Arak reactor's original design, or engaging in activities related to the development of nuclear weapons—and signal to Iran that such actions could trigger a strong international reaction.

Deterring breakout to the production of highly enriched uranium (HEU)/nuclear weapons. The most consequential action the United States and its partners would need to deter is Iran's use of its nuclear infrastructure to produce HEU for the manufacture of

nuclear weapons. While the United States should threaten severe economic sanctions in the event of such a breakout attempt—for example, a global secondary sanctions program targeting any transaction with Iran—the threat of dire economic consequences may not be enough to deter an Iran that has made a decision to go for nuclear weapons. Therefore, U.S. presidents should declare that the United States is prepared to use military force, if necessary, to stop Iran from producing nuclear weapons.

Diplomacy: Seeking a negotiated solution

Sanctions, counterproliferation measures, and deterrence can impede Iran's efforts to enhance its nuclear capabilities and place pressures on it to restrain its nuclear program. But coercive tools alone cannot ensure that Iran will not acquire nuclear weapons. They must be complemented by efforts to achieve Iranian support for effective negotiated limits.

Since completion of the JCPOA, it has been widely recognized, including by the agreement's supporters, that further negotiations would be needed to seek improvements in the deal, especially to ensure that key restrictions and monitoring measures do not lapse between 2023-35, as originally agreed under the deal's various "sunset" provisions. Further negotiations are required whether or not Iran continues to abide by the JCPOA. If Iran sticks with the agreement, negotiations would need to get underway relatively soon to deal with these rapidly approaching sunsets. And if Iran leaves the JCPOA and begins ramping up its nuclear program long before key provisions are scheduled to expire, the need for negotiations would be more urgent—and the negotiating challenge of seeking to roll back a revived and growing program would be significantly greater.

Nuclear negotiations in the context of overall U.S. Iran policy. The Obama administration confined negotiations with Iran to the nuclear issue and pledged that it would counter other elements of Iranian behavior, including its regional activities and missile program, separately. The Trump administration has adopted a different approach. It says it favors a comprehensive new deal that would address the full range of U.S. concerns about Iranian behavior and that would meet its 12 highly demanding requirements.

Leaving aside the unrealistic and excessively demanding character of the administration's 12 requirements, the approach of seeking a comprehensive agreement covering the full range of disparate U.S. concerns—and apparently linking a resolution of each of those concerns to the resolution of the others—is likely to prove unworkable and counterproductive. It would hold new nuclear restraints—a high national security priority—hostage to the resolution of other issues that may be less tractable, less resolvable in the same timeframe, or a lower national priority. Rather than address the nuclear issue in a mega-deal covering all of Iran's provocative activities, the United States should pursue future nuclear restraints separately.

But to ensure adequate domestic support for a new nuclear deal and make it sustainable, any new diplomatic effort on the nuclear issue will have to be part of a broad and widely supported strategy that demonstrates that all problematic elements of Iranian behavior are being actively and effectively pursued—in parallel, but on different tracks.

Slim prospects for near-term negotiations. Although the Trump administration says a key purpose of its maximum pressure campaign is to bring Iran to the negotiating table, it seems in no rush to engage, perhaps waiting for the effects of the re-imposed sanctions to sink in and provide additional negotiating leverage. For their part, the

Iranians, without closing the door to future negotiations under the right conditions, have ruled out talks on the nuclear issue for now. They resent being pressured to renegotiate a deal they believe already contains major Iranian concessions, especially with a U.S. government they regard as untrustworthy and dedicated to regime change.

U.S. objectives in future nuclear negotiations. The Trump administration's demands on the nuclear issue, especially the requirement that Iran abandon its uranium enrichment program altogether, are not achievable. The United States does not have the leverage to compel such outcomes, and Washington would not have the support of any of its former P5+1 partners if it insists on them.

U.S. objectives in any future nuclear negotiations—whether the product of negotiations is an amended JCPOA, a supplement or follow-on to the JCPOA, or a new agreement—should be:

- To ensure a sufficiently long breakout time at declared enrichment facilities. This
 would require a combination of restrictions on enrichment capabilities and effective
 monitoring measures capable of providing confidence that any Iranian breakout
 attempt at declared facilities would be detected promptly and the international
 community would have plenty of time to block it before Iran could produce enough
 HEU for a nuclear weapon.
- To prevent undeclared activities and facilities. This would require broad IAEA
 monitoring measures to deter and detect any diversion of equipment and materials
 from declared civil nuclear activities to a covert program, measures to monitor
 Iranian nuclear-related imports, and effective and timely inspection arrangements
 capable of resolving concerns about activities at undeclared locations.
- To block the plutonium path to nuclear weapons. This would require agreement on a series of constraints on heavy water reactors, reprocessing, and spent reactor fuel.
- To ensure long-lasting restraints. This would require deferring or, in some cases, eliminating the JCPOA's expiration dates.

Elements of a new nuclear deal. Whether or not Iran remains bound by the JCPOA, the following are some key outcomes the United States should seek in any future negotiations (a more complete set of desired outcomes is in Chapter VII):

- While the United States should pursue the longest possible breakout time at declared facilities, a period as short as six months should be adequate, provided other elements of the agreement increase the likelihood of timely intervention to thwart a breakout attempt (e.g., expeditious IAEA investigation timeframes).
- The United States can be flexible on the particular mix of restrictions on Iran's
 enrichment program. Any given breakout time—whether six months, 12 months, or
 anything in between—can be achieved with differing combinations of restraints (e.g.,
 on numbers and types of centrifuges, enrichment level, enriched uranium stocks).
- JCPOA restrictions on the plutonium path should be retained: A ban on reprocessing and the construction of heavy water reactors, the completion of Arak reactor conversion, and the shipment of all spent reactor fuel out of Iran.

- The JCPOA's Section T commitment not to engage in activities associated with nuclear weapons development should be retained and the IAEA's authority to verify Section T should be affirmed.
- The current procurement channel for monitoring and approving nuclear-related imports should be retained or, at a minimum, the IAEA and parties to the new agreement should receive advanced notification of all transfers to Iran of nuclear and dual-use items on the control lists of the Nuclear Suppliers Group (NSG).
- The JCPOA's timelines should be accelerated for gaining IAEA access to suspect facilities in Iran, for escalating to the policy level cases of Iranian denial of access, for taking issues to the Security Council, and for seeking and obtaining a Security Council response.
- Enrichment-related restrictions should remain in place for at least 15 years from the time a new arrangement takes effect. Monitoring arrangements of limited duration should be extended for five years after the expiration of the enrichment restrictions. Bans on reprocessing- and heavy water-related activities and Iran's adherence to the IAEA Additional Protocol should be permanent.

In evaluating possible negotiated outcomes, it will be important to think afresh about how various constraints contribute to the goal of preventing an Iranian nuclear breakout. In particular, given what most experts believe is the greater probability of Iran breaking out covertly, a higher priority should be given to boosting the capability to detect covert activities relative to the objective of maximizing breakout time at declared facilities, which received top (and perhaps inordinate) priority in negotiating the JCPOA.

The form and legal character of a new nuclear arrangement. To make JCPOA restraints more effective and durable, negotiations must alter the original JCPOA bargain. It is not an option for the United States to simply rejoin the JCPOA and ignore the impending sunsets. The altered bargain can take several forms, including an amended JCPOA, a JCPOA left unchanged but supplemented by additional or follow-on measures, or a new agreement. A U.S. administration can be flexible on this, adopting an approach that can be supported both in Iran and domestically in the United States.

Whatever form a new arrangement takes, a key decision will be whether it should be a non-binding political commitment like the JCPOA (i.e., a "plan of action"), or preferably, a legally binding agreement approved by Congress. If achievable, the latter option would make the agreement more sustainable domestically and perhaps give Iran greater confidence that a deal it makes with one U.S. administration will survive presidential transitions. A treaty ratified by two-thirds of the Senate would best promote the agreement's longevity, but that threshold would be too high on an issue as contentious as Iran. A good alternative would be a congressional-executive agreement requiring approval by a simple majority vote by both houses of Congress.

Parties to an agreement. While bilateral engagement, especially between the United States and Iran, will be essential in negotiating a new arrangement, as it was in negotiating the JCPOA, the agreement should be multilateral to give it greater international credibility and legitimacy. The original parties to the JCPOA, given their expertise and intimate familiarity with the subject, could be participants in a new arrangement. U.S. regional partners should be fully and actively consulted in the course of negotiations.

Starting point for negotiations. An issue that any U.S. administration would need to address in approaching a revised nuclear arrangement is whether to re-enter the original JCPOA at the outset of negotiations or remain outside. An argument for remaining outside is that re-imposed sanctions would remain in place and provide additional negotiating leverage. In addition, rejoining the original deal, even for the purpose of negotiating a better one, could be criticized by JCPOA opponents. An argument for rejoining the deal at the outset of negotiations is that it may be necessary to get Iran and others to the negotiating table. In any event, the choice can be made when there is a real prospect of beginning negotiations, depending on conditions at the time.

Whether the United States re-enters or remains outside, it should regard the JCPOA text as the starting point for negotiations—whether it is amended, supplemented, or used as the basis of a new agreement. The extraordinarily detailed JCPOA and its annexes provide the clarity and specificity needed for effective implementation. Negotiators should not start from scratch, even as they seek new or modified provisions.

Offering incentives for Iranian nuclear restraint. The Iranians do not want a new or modified deal. They want to preserve the JCPOA, which contains all the concessions they want to make, and then rebuild their nuclear program when key restrictions expire. Growing sanctions pressure gives them strong incentives to reconsider this posture, but it will not enable the United States to dictate the terms of a new arrangement. If Washington wants stronger or longer-lasting restrictions than those contained in the JCPOA, it will need to offer incentives to Iran, mainly in the form of sanctions relief. At the same time, the United States will need to consider that the more sanctions relief it provides to get a nuclear deal, the less leverage it will have to promote Iranian restraint in other areas, including its missile program and regional activities.

A starting point in an incentives package would be the restoration of the JCPOA's sanctions relief measures. But given Iran's disillusionment with the sanctions relief provided under the JCPOA, it will be necessary to give Iranians confidence that sanctions relief will actually result in economic benefits. Such steps could involve providing clear guidance on sanctionable behavior so that foreign entities do not stay away out of excessive caution; assuring such entities that if they inadvertently engage with sanctioned Iranian entities, they would have sufficient time to unwind their engagement without fear of penalty; and agreeing that licenses approved for dealing with Iran (e.g., in the area of civil aviation) would only be revoked in the event of a material breach of their terms.

For the nuclear restrictions recommended above, the United States would have to go beyond sanctions relief offered in the JCPOA. In particular, the United States should consider partial relaxation of the primary U.S. embargo that, with a few exceptions (e.g., on food and medicines), prevents American individuals and entities from dealing with Iran. In particular, Washington should consider permitting Iranian access to consumer goods, allowing U.S. technical support for Iranian light industry, and permitting limited access for U.S. dollar clearing operations.

The road ahead

The Trump administration's decision to withdraw from the JCPOA was a significant setback to the goal of constraining Iran's future nuclear capabilities. Its re-imposition of far-reaching U.S. sanctions and unrealistic demands for a fundamental reorientation of Iranian behavior will not produce the comprehensive new deal it says it favors. Instead, its actions have stiffened Iranian resistance to U.S. demands and to negotiating with the

United States, alienated potential partners needed to press Iran to accept meaningful restraints, given a boost to hardline elements in Tehran, and increased the likelihood that Iran's leaders will decide to leave the JCPOA and rebuild their nuclear program much sooner than they would be allowed to do under the agreement.

Whether or not Tehran remains in the JCPOA, preventing Iran from achieving a large-scale uranium enrichment capability and reducing its breakout time to a matter of a few weeks will remain a critical national objective. But to overcome the current impasse between Washington and Tehran, the United States will need to make adjustments in its current approach, including by healing the rift with the Europeans and other potential partners, showing greater flexibility in enforcing U.S. sanctions, credibly disavowing a policy of regime change, and adopting realistic negotiating objectives that signal to Iran a willingness to accept an outcome compatible with its interests.

It would be best for the Trump administration to make such adjustments, both because the situation could deteriorate significantly in the next two years unless the impasse is overcome and because the Trump administration would be in a good position to command broad domestic support for a more promising Iran strategy. But the likelihood of the current administration making what it would see as fundamental changes in its position is probably very small. If that is the case, the responsibility for getting the Iran nuclear issue back on track would fall to a successor administration.

In the near term, therefore, prospects for productive negotiations on Iran's nuclear program are slim. In these circumstances, policy tools for constraining Iran's nuclear capabilities that do not rely on Iranian participation or consent—including sanctions, counterproliferation measures, and deterrence—should be pursued. But while implementing these policy tools and waiting for favorable conditions for negotiations to emerge, it is important for interested governments and outside experts to begin thinking about such questions as how to get negotiations underway, the contents of a new agreement, and how to obtain the necessary domestic and international support. The authors hope this report will contribute to that preparatory effort.

II. THE CURRENT IMPASSE

In May 2018, President Trump withdrew the United States from the JCPOA and re-imposed sanctions against Iran-a step that, he argued, would compel Iran to accept a "new deal." Nearly 10 months later, key questions remain about the Trump administration's efforts on Iran and about the future of Iran's nuclear program. What will be the economic impact on Iran of the administration's maximum pressure campaign? Will the Europeans and other states be able to moderate the effects of the sanctions in the interest of encouraging Iran to remain in the JCPOA? Will the U.S. pressure campaign force a major shift in Iranian behavior? Will Iran stay in the JCPOA despite the powerful pressures it is facing? Will Iran be willing to enter into new negotiations on its nuclear program and perhaps other aspects of its behavior? And—most fundamentally—will Iran be willing to continue to restrain its nuclear capabilities and forgo the acquisition of nuclear weapons or the physical infrastructure that would enable it to produce them rapidly?

The Trump administration's anti-Iran campaign

Since the president's May 2018 speech, the administration has made clear that the goals of its Iran policy go well beyond achieving constraints on Iran's nuclear program that are more restrictive and permanent than those contained in President Obama's nuclear deal. Instead, it seeks a fundamental reorientation of Iranian behavior and perhaps regime change.

In a separate May 2018 address outlining the administration's Iran strategy, Secretary of State Mike Pompeo said President Trump "is ready, willing, and able to negotiate a new deal" with Iran and outlined 12 highly ambitious requirements that any new deal would have to meet. The list of requirements includes the termination of all uranium enrichment in Iran, a ban on all nuclear-capable missiles, the end of all support for Hezbollah and other proxies, and the withdrawal from Syria of all forces under Iranian command. Subsequently, this list has sometimes incorporated a 13th requirement, an improvement in Iranian human rights practices.

SECRETARY OF STATE MIKE POMPEO'S 12 DEMANDS OF IRAN

- 1. Iran must declare to the IAEA a full account of the prior military dimensions of its nuclear program, and permanently and verifiably abandon such work in perpetuity.
- 2. Iran must stop enrichment and never pursue plutonium reprocessing. This includes closing its heavy water reactor.
- 3. Iran must also provide the IAEA with unqualified access to all sites throughout the entire country.
- 4. Iran must end its proliferation of ballistic missiles and halt further launching or development of nuclear-capable missile systems.
- 5. Iran must release all U.S. citizens, as well as citizens of our partners and allies, each of them detained on spurious charges.

- 6. Iran must end support to Middle East terrorist groups, including Lebanese Hezbollah, Hamas, and the Palestinian Islamic Jihad.
- 7. Iran must respect the sovereignty of the Iraqi government and permit the disarming, demobilization, and reintegration of Shiite militias.
- 8. Iran must also end its military support for the Houthi militia and work toward a peaceful political settlement in Yemen.
- 9. Iran must withdraw all forces under Iranian command throughout the entirety of Syria.
- 10. Iran must end support for the Taliban and other terrorists in Afghanistan and the region, and cease harboring senior al-Qaida leaders.
- 11. Iran must end the Islamic Revolutionary Guard Corps Quds Force's support for terrorists and militant partners around the world.
- 12. Iran must end its threatening behavior against its neighbors.

Senior administration officials have repeatedly emphasized the broad character of what they are demanding from Iran. In a statement on November 2, 2018, President Trump asserted that, "The United States remains open to reaching a new, more comprehensive deal with Iran that forever blocks its path to a nuclear weapon, addresses the entire range of its malign actions, and is worthy of the Iranian people." In a press availability on November 5 to discuss the imposition of the most consequential round of sanctions, Secretary Pompeo said Iran "can either do a 180-degree turn from its outlaw course of action and act like a normal country, or it can see its economy crumble," and he added that "until Iran makes changes in the 12 ways that I listed in May, we will be relentless in exerting pressures on the regime." And in a speech to the Hudson Institute in September, State Department official Brian Hook, the administration's special representative on Iran, stated that the administration is seeking a new deal that addresses "the totality of threats that Iran presents."

While talking about reaching a new comprehensive deal with Iran, administration officials do not seem to be looking to negotiate separate solutions to their various concerns about Iranian behavior. Instead, they appear to be counting on their maximum pressure campaign to compel a basic change in Iran's outlook, priorities, and policies that will be reflected in an across-the-board capitulation to U.S. demands.

Because it is hard to imagine that any government in Tehran operating under the current Iranian regime would be willing or politically able to accept the far-reaching demands of the Trump administration, many observers assume that the true objective of the administration's maximum pressure campaign is the collapse of the Iranian regime. This suspicion persists, notwithstanding repeated assertions by administration officials that the objective is only to change Iran's behavior. In part, it persists because of positions taken by senior officials on fundamental aspects of Iranian governance. Comments by Secretary Pompeo that Iran needs to become a "normal country," or former U.N. Ambassador Nikki Haley's statement that the JCPOA was a problem less

because of its terms than because of the nature of Iran,⁶ contribute to this impression. It is also reinforced by views articulated by senior officials before they joined the Trump administration, such as remarks by John Bolton, who stated at a July 2017 conference of the exiled Iranian anti-regime group Mujahedeen-e-Khalq (MEK): "The declared policy of the United States should be the overthrow of the mullahs' regime in Tehran. The behavior and the objectives of the regime are not going to change and, therefore, the only solution is to change the regime itself." As national security adviser, Bolton addressed Iran's leaders in a February 2019 response to the Islamic Republic's 40th anniversary celebration, saying, "I don't think you'll have many more anniversaries to enjoy."

The administration's anti-Iran campaign has been one of its top foreign policy priorities. In conjunction with its re-imposition of sanctions in August and November 2018, it has sent interagency teams of experts around the world to urge governments and private entities not to engage in newly sanctionable activities and to warn them of the consequences if they do. Given the importance it attaches to driving down Iranian oil revenues, the administration has been especially active with purchasers of Iran crude oil, urging them to halt their purchases altogether, while urging other major oil producers, particularly Saudi Arabia, to boost oil production, both to enable countries to find alternatives sources of supply as well as to avoid oil price spikes that could raise gasoline prices in the United States.

In addition to re-imposing U.S. sanctions suspended under the JCPOA, the administration has issued several rounds of new sanctions, especially related to Iran's missile program, and has encouraged the Europeans to do the same. At a meeting of the U.N. Security Council (UNSC) on December 12, 2018, Secretary Pompeo called on the Council to re-impose the missile restrictions of UNSC Resolution 1929 that were replaced by the less rigorous constraints contained in UNSC Resolution 2231, and urged the Council "to establish inspection and interdiction measures, in ports and on the high seas, to thwart Iran's continuing efforts to circumvent existing arms restrictions."

Throughout the period following the U.S. JCPOA withdrawal, the administration has looked for opportunities to make its public case about Iran's malign activities—portraying Iran as the principal, if the not the sole, source of instability in the Middle East-and to call on other countries to join in pressuring Iran. In December 2017, Ambassador Haley brought her counterparts on the Security Council to the Defense Intelligence Agency in Washington, DC, in a high-profile effort to prove that missiles fired into Saudi Arabia by Houthi rebels in Yemen were supplied by Iran. 10 In September 2018, days after mortar and rocket strikes by Shiite militia landed in Baghdad's Green Zone and near the U.S. Consulate in Basra, the White House issued a statement that, "The United States will hold the regime in Tehran accountable for any attack that results in injury to our personnel or damage to United States government facilities."11 At a meeting of the U.N. Security Council on September 26, 2018, that he personally chaired, President Trump charged Iran with exporting "violence, terror, and turmoil," warned that "any individual or entity who fails to comply with [U.S.] sanctions will face severe consequences," and urged Council members to work with the United States "to ensure the Iranian regime changes its behavior and never acquires a nuclear bomb."12 Also in September, the State Department's Iran Action Group issued a 48-page report entitled, "Outlaw Regime: A Chronicle of Iran's Destructive Activities."13

In a major speech at the America University in Cairo on January 10, 2019, Secretary Pompeo sought to rally the Arab world against Iran: "The nations of the Middle East will never enjoy security, achieve economic stability, or advance the dreams of their people if Iran's revolutionary regime persists on its current course." Questioned during his Middle East trip whether Trump's decision to withdraw U.S. troops from Syria would adversely affect the administration's Iran policy, Pompeo said: "There's no change in our counter-Iran strategy; America's still committed to taking down the malign influence [of] the Islamic government of Iran." At an international conference in Warsaw on February 14, 2019, initiated by the United States to focus attention on Iran, Vice President Mike Pence recited a long litany of concerns about Iran and declared that "freedom-loving nations must stand together to hold the Iranian regime accountable for the evil and violence it's inflicted on its people, on the region, and the wider world." At the same meeting, the vice president called on the British, French, and Germans to join with the United States in withdrawing from the JCPOA, an appeal the Europeans immediately rejected.

While maintaining a consistent, maximalist position on the goals of U.S. Iran policy—not deviating from the 12 demands outlined by Pompeo-the administration has on a few occasions demonstrated flexibility in pursuing its economic pressure campaign, in large part because it has encountered strong pushback about some of the uncompromising elements of its sanctions strategy, including from the Europeans and oil importing states. Although initially threatening to impose sanctions if purchasers of Iranian crude did not eliminate their imports, the administration issued exceptions to eight importing states, allowing them temporarily to continue their imports, presumably at reduced levels. Their excepted status is due for renewal in early May 2019 and probably will be made contingent on further such reductions. Similarly, while re-imposing sanctions on the Atomic Energy Organization of Iran (AEOI) and 23 of its subsidiaries and threatening to impose sanctions on foreign entities that deal with them, the administration issued waivers allowing foreign companies to continue cooperating with Iran's nuclear entities on projects with non-proliferation benefits authorized by the JCPOA. The administration has also taken a pragmatic approach in not pursuing sanctions that could have been applied against Iraq for purchasing Iranian electricity and against India for its development of the Chabahar port, widely seen as critical for Afghan reconstruction efforts.

Given the resistance of key countries to its maximum pressure campaign and the determined efforts of Iran to circumvent and blunt the impact of sanctions, the U.S. administration seems to recognize that coercing Iran to change its behavior will not happen overnight. It points out that the stiffest sanctions only restarted in November 2018 and that their effects will not be fully evident for many months. Nonetheless, the administration is expressing confidence that its pressure campaign is already showing impressive results and will ultimately succeed in having a decisive impact on Iranian decisionmaking—or in destabilizing the Iranian regime.

Administration officials continue, from time to time, to talk about negotiations and achieving a comprehensive new deal. But they do not elaborate on what they have in mind about a new deal—its contents or how it might be pursued. That may be because they are not serious about negotiating with Iran or, to give the administration the benefit of the doubt, they believe the current priority must be to ramp up pressures and provide leverage for negotiations—and that thinking about negotiations can come later.

Some observers speculate that, if the pressure campaign does not seem to be producing the desired results, the Trump administration will seek to provoke Iran to withdraw from the JCPOA or to take steps that would be seen as violating the agreement—and then use Iran's actions to mobilize much stronger international pressures or even to justify military action against Iran's nuclear facilities. One scenario might be to press the IAEA—perhaps on the basis of information contained in the Iranian nuclear archive acquired by Israeli intelligence—to call for an inspection of a highly sensitive military site in Iran and then use the anticipated Iranian denial of IAEA access to charge Iran with violating the JCPOA and to call for the snap-back of previous Security Council sanctions.¹⁷

A recent news report suggests that the Trump administration may be pressing the IAEA to take a more aggressive approach in seeking inspections in Iran. According to that report, the administration, citing a previously unknown Iranian nuclear facility mentioned in the Iranian nuclear archive acquired by Israel intelligence, called on the IAEA to reinvigorate its investigation of Iran's past, and possibly ongoing, nuclear weapons program and threatened sanctions against the IAEA's technical cooperation program with Iran. A January 2019 gathering of foreign diplomats at the U.S. Mission to the IAEA was reportedly not sympathetic to the U.S. approach.¹⁸

Europeans and others remain committed to the JCPOA and to keeping Iran on board

According to many commentators, the Trump administration's decision to withdraw from the JCPOA and re-impose sanctions has caused the greatest divide between the United States and its European allies since the George W. Bush administration invaded Iraq. Actually, the current rift is even wider. While a handful of European states went along with the Iraq invasion, the EU has been audibly critical of the withdrawal decision on behalf of all of its member states.¹⁹

The Trump administration's anti-Iran campaign is only one factor among many in the current trans-Atlantic divide, including the president's withdrawal from the Paris climate accord, his uncertain commitment to NATO, his attacks on the European Union, his poor personal relations with key European leaders, and his instigation of trade frictions. Nevertheless, it is a critical factor, with extraterritorial threats to penalize European (and other foreign) entities for engaging with a JCPOA-compliant Iran causing resentment toward the United States and toward the administration's use of the U.S. dollar as a coercive tool.

France, Germany, and the United Kingdom—the three European states that participated in the JCPOA negotiations—strongly opposed U.S. withdrawal. They regard the JCPOA as a major international achievement (not least because Europe played a significant role); they share the IAEA's assessment that Iran has complied with its commitments; and they believe the deal effectively blocks Iran's path to nuclear weapons, at least for a substantial length of time. In an early 2018 effort to stave off U.S. withdrawal, they engaged in intensive negotiations with the Trump administration on supplemental measures that could strengthen the JCPOA. And although they were making substantial progress toward addressing the president's stated concerns about the shortcomings of the JCPOA, Trump decided to terminate those negotiations and withdraw anyway, which produced hard feelings among the Europeans, who believed their good faith efforts to accommodate the administration had been dismissed out of hand.

Since U.S. withdrawal in May 2018, the principal European goal has been to preserve the JCPOA in America's absence, and especially to persuade Iran to remain in the agreement and to comply with its nuclear restrictions. That has meant seeking to assure the Iranians that, despite the re-imposition of U.S. sanctions, they would continue to receive at least sufficient benefits to conclude that it is in their interest to remain in the agreement.

In defiance of the Trump administration's maximum pressure campaign, the Europeans set out to moderate and circumvent U.S. sanctions, both to protect their own companies from secondary sanctions and to shield Iranians from economic pressures that could lead them to walk away from the JCPOA. On June 4, 2018, EU High Representative Federica Mogherini and the foreign and finance ministers of Britain, France, and Germany wrote to Secretary Pompeo and Treasury Secretary Steven Mnuchin asking for wide-ranging exceptions to U.S. sanctions that would allow European companies to deal with Iran without penalty, but the appeal was rejected. On June 6, the European Commission updated its 1996 "blocking regulation" that prohibits EU entities from complying with U.S. extraterritorial sanctions and allows them to recover damages from such sanctions, that decide that engaging with Iran is not in their commercial interest.

Over U.S. objections, the British, French, and Germans (the E3) have created INSTEX, a mechanism aimed at facilitating trade with Iran by creating a barter system not subject to U.S. sanctions. It is being registered in France and headed by a German official, and the three governments will serve as its shareholders. Although the E3 announced INSTEX's creation in a joint statement on January 31, 2019, before the mechanism can become operational, details must be worked out by the E3 and a corresponding Iranian entity must be established. The E3 stated that INSTEX will focus initially on pharmaceuticals, medical devices, and agri-food goods and aims "in the long term to be open to economic operators from third countries." Although the Europeans hope INSTEX will help stimulate substantial commercial activity with Iran, many observers believe it will mostly be confined to transactions in humanitarian goods, whose trade is exempted from U.S. sanctions, meaning that there is a low likelihood of sanctions being applied against entities involved in such trade.

Although the Europeans have scaled back their ambitions for INSTEX (originally called the Special Purpose Vehicle) by confining it initially to trade in humanitarian goods, Vice President Pence made clear at the February 2019 Warsaw conference that the United States remains strongly opposed to the new mechanism: "They call this scheme a 'Special Purpose Vehicle.' We call it an effort to break American sanctions against Iran's murderous regime. It's an ill-advised step that will only strengthen Iran, weaken the EU, and create still more distance between Europe and the United States." 23

European governments have had no illusions about their ability to reduce the impact of U.S. sanctions on Iran. They recognize that no amount of governmental encouragement will persuade major international banks and businesses to engage with Iran and run the risk of being cut out of the U.S. market and the U.S.-led international financial system. Their hope is that small- and medium-sized companies with little or no exposure to the U.S. financial system will do enough business with Iran to buttress the argument within Tehran for staying in the JCPOA.

The Europeans are worried that, over time, pressures within Iran for JCPOA withdrawal will mount, as the case for continued nuclear forbearance in the face of harsh economic sanctions will become less tenable. Their strategy is therefore to buy time—to persuade Iran to hang on for another couple of years—in the hope (which they make little effort to conceal) that a successor U.S. administration will take office in early 2021 with a much more positive attitude toward the JCPOA.

In a succession of statements by European officials and high-level meetings with Iranians, the Europeans, especially the E3, have sought to demonstrate a strong political commitment to ensuring that Iran will continue to realize economic benefits as long as it remains in the JCPOA. A joint statement by Britain, France, Germany, and the EU in November 2018 expressed deep regret for the re-imposition of sanctions by the United States, asserted that Iran was abiding by its JCPOA commitments, and pledged to "work on ... the preservation and maintenance of effective financial channels with Iran and the continuation of Iran's export of oil and gas." ²⁴ By essentially taking Iran's side on JCPOA and sanctions issues, the Europeans have helped to bolster the argument within Tehran that sticking with the agreement earns important political dividends for Iran—the image of a JCPOA-compliant supporter of multilateralism, the wide support of the international community, and the international isolation of the United States.

While sharply differing with the United States on the JCPOA and re-imposition of sanctions, the Europeans mostly share U.S. concerns about Iran's non-nuclear behavior. But in their view, those concerns can be addressed most effectively if the JCPOA is intact, if Iran and its critics are able to engage one another diplomatically, and if demands for changes in Iran's policies and activities are realistic and not expressed in terms threatening to the Iranian regime. Several Europeans, especially the French and British, have been outspoken in their opposition to a range of Iran's policies—including its support for regional proxies, intervention in Syria, ballistic missile program, and human rights record—even as they work to facilitate continued trade with Tehran. Moreover, while seeking to provide economic incentives for the Iranians to remain in the JCPOA, the E3 have warned them of the adverse consequences should they decide to leave, including the possible snap-back of all previous Security Council sanctions.

But historically, many Europeans have been reluctant to jeopardize their trade with Iran on issues of concern outside the nuclear realm. The views of the EU's 28 members toward Iran are not uniform.²⁵ Some are not as concerned as others by Iranian non-nuclear activities, and a significant number are wary of adopting new EU sanctions for fear of prompting Tehran to withdraw from the JCPOA. Although the E3 proposed that the group adopt a new round of missile-related sanctions, the proposal failed to achieve the consensus required for an EU decision.

However, in the first sanctions imposed by the European Union against Iran since before completion of the JCPOA, the EU decided on January 8, 2019 to penalize Iran's intelligence service and two individuals for involvement in a series of assassination plots in Europe in recent years, including the killing of two Dutch nationals of Iranian origin and unsuccessful assassination attempts in Denmark and France. Dutch Foreign Minister Stef Blok said European diplomats have warned Iranian authorities that, unless Iranian-sponsored violence in Europe is stopped and Iran cooperates fully with the criminal investigations, further sanctions cannot be ruled out. At the same time, reflecting the European desire to protect the JCPOA, Blok stated that the nuclear deal and assassination plots should be treated as separate issues.²⁶

In another European action against Iran, Germany—on a national basis and at the urging of the United States—revoked the landing rights of Iranian airline Mahan Air for transporting military equipment and personnel to Syria and other Middle East war zones. The German decision in January 2019 was praised by U.S. Treasury Secretary Steve Mnuchin, who said that Mahan Air, which has been sanctioned by the United States since 2011, "routinely flies [Islamic Revolutionary Guard Corps-Quds Force personnel] and weapons to Syria, is subject to terrorism secondary sanctions, and should be denied access around the world." A German government official said the measure against Mahan Air does not signal the imposition of broader sanctions against Iran.²⁷

Russia and China. Like the Europeans, Russia and China want to maintain the JCPOA and oppose the U.S. re-imposition of sanctions. And they presumably share the European (and American) view that Iran should not be allowed to acquire nuclear weapons. But in the current standoff between Washington and Tehran, Moscow and Beijing have aligned themselves much more with Iranian interests than have the Europeans, reflecting their much stronger bilateral ties with the Islamic Republic. They, and especially Russia, have become the chief defenders and protectors of Iran in the Security Council and other international forums, and they have both looked for ways to circumvent U.S. sanctions and preserve, and even expand, their economic ties with Iran.

Consistent with the sharp deterioration of the U.S.-Russian relationship, Moscow has been the most vociferous in its condemnation of the U.S. anti-Iran pressure campaign. During a visit to Russia by Iranian Foreign Minister Javad Zarif just a few days after the United States left the nuclear deal, Russian Foreign Minister Sergei Lavrov strongly pledged Russia's support for maintaining the agreement and told Zarif, "We need to defend the legitimate interests of each of us together." At a U.N. Security Council meeting attended by Secretary Pompeo to call for the restoration of all previous Security Council restrictions on Iran's ballistic missile activities, Russian Ambassador Vassily Nebenzia accused the United States of fomenting anti-Iran hysteria, demonizing Iran, and exacerbating an already difficult situation in the Middle East. ²⁹

Russia has defended Iran against accusations that it has violated missile-related UNSC resolutions. Despite a finding in November 2017 by the U.N. Panel Experts on Yemen that missiles fired into Saudi Arabia by the Houthi rebels were manufactured in Iran, Russia vetoed a British-drafted UNSC resolution condemning Iran for violating the Security Council arms embargo against Yemen, arguing that there was no proof that the missiles had actually been supplied by Iran.³⁰ In addition, in response to claims by the United States and several Europeans that Iran's ballistic missile tests were inconsistent with UNSC Resolution 2231, the Russians have asserted that Iran's missiles were not "designed to be capable of delivering nuclear weapons" and therefore were not in violation of the resolution's missile restrictions.³¹

According to press reports, Russia is determined to help Iran counter U.S. efforts to cripple its oil exports. In May 2017, Russia and Iran agreed to begin oil transactions under an "oil for goods" program established in 2014, under which Moscow, using a formerly dormant Soviet state enterprise (Promsyryoimport), purchases Iranian crude oil and resells it to third countries, with Russian payments to Iran—denominated in euros, according to the Iranian oil minister—used to pay for Russian goods and services, such as power generation, railway infrastructure, or agricultural products. The amount traded to date has been relatively small, roughly 100,000 barrels, and has mainly involved the supply of Iranian oil to Syria, for which it was sanctioned by the United States

in November 2018.³² However, the network could be used in the future to facilitate transactions with entities, individuals, or countries that are not concerned by U.S. sanctions. Russian Energy Minister Alexander Novak, presumably trying to make the case that these transactions are not sanctionable, claimed that the program did not involve direct purchase of Iranian oil by Russia, and suggested that Russian-Iranian engagement would continue: "We believe we should look for mechanisms that would allow us to continue developing cooperation with our partners, with Iran."³³

For China, the Iranian political connection is not as strong as it is for Russia, which has upgraded what it calls its "strategic partnership" with Tehran in the course of its close cooperation in Syria. But Beijing highly values its bilateral ties with Iran, seeing the country as a major regional player and an important partner in the Belt and Road regional infrastructure project, and is heavily reliant on Iran as a source of its energy supplies. Although Beijing's anti-U.S. rhetoric is no match for Russia's, it remains strongly critical of U.S. JCPOA withdrawal and Washington's anti-Iran campaign. On the margins of the U.N. General Assembly in September 2018, Chinese State Councilor and Foreign Minister Wang Yi told his Iranian counterpart, according to the Chinese Foreign Ministry: "The Chinese side supports the Iranian side in maintaining its legitimate rights and interests, opposes unilateralism and hegemony, and advocates safeguarding the [JCPOA] on the Iranian nuclear issue." Regarding U.S. efforts to isolated Iran economically, Wang said, "The legitimate right of all countries to normal economic relations and trade with Iran should be respected." In the Security Council, China tends to follow the Russian lead in defending Iranian interests.

However, while taking a back seat to Russia in defense of Iran, China has significantly greater economic interactions with Iran than does Moscow. The Chinese have long been one of Iran's primary oil customers and Chinese investment in Iran stretches from the oil and gas sector to the Tehran subway system. In the past, China has also been prepared to absorb the effects of U.S. sanctions in order to maintain these economic relations. In 2012, the United States imposed sanctions on the Chinese Bank of Kunlun over its banking connections with Iran, something that the United States had been threatening to do for nearly two years. Despite U.S. sanctions, the Bank of Kunlun maintained its relationship with Iran. China has consistently railed against U.S. unilateral sanctions and asserted its right to keep doing business with Iran, including buying Iranian oil.

Yet, below this public message of defiance toward U.S. sanctions, China has been prepared to sacrifice some economic engagement with Iran in order to maintain balance in its relations in the Middle East and to avoid an overt conflict with the United States. During 2012-13, China reduced its purchases of Iranian oil and instead bought more oil from Saudi Arabia and other producers. Presently, while stating publicly that they would not comply with U.S. sanctions, the Chinese have reduced, at least somewhat, their purchases of Iranian oil. In July 2018, the Chinese were purchasing nearly 800,000 barrels per day. By October, imports had dropped to only 250,000 barrels per day. Similarly, Chinese banks have reportedly told their customers that they will not do business with Iran if a U.S. sanctions exception is not in place. This includes, notably, the Bank of Kunlun.³⁶

With these conflicting messages, it is sometimes difficult to make out the precise contours of Chinese policy, made more complicated by the opaque nature of Chinese decisionmaking. What seems likely is that the Chinese are maintaining their traditional, flexible posture vis-à-vis Iran and the United States, willing to offer cooperation to the

United States if it suits their interests but prepared to do business with Iran when advantageous and on China's terms. Press reports that China is looking to parlay its continued oil purchases into a more profitable investment arrangement at the Yadavaran oil field may be a case in point, with the Chinese ready to take advantage of Iran's desperation to advance their own interests.³⁷

Such a flexible approach may permit some measure of U.S.-Chinese cooperation on Iran, especially if Beijing places importance on improving or at least maintaining its bilateral relations with Washington. On the other hand, China clearly does not share U.S. concerns about Iran's overall foreign and domestic behavior, particularly if Tehran remains in full compliance with the JCPOA. So if China loses interest in putting Sino-American relations on a more positive track, it may be inclined to pay less attention to U.S. sanctions threats and to look the other way when Iran behaves in a manner that the United States considers unacceptable.

Iran's economy and the impact of the maximum pressure campaign

It is obvious to anyone who has spent time looking at data or listening to anecdotal accounts that the Iranian economy is in dismal shape and has been for some time. Iran's macroeconomic situation has suffered a precipitous decline recently, magnifying what was likely to be a difficult recovery job in any event, due to years of mismanagement and corruption. Inflation has once more emerged as a major problem, with Iran's statistics center reporting in late January 2019 that Iran's 12-month inflation rate was 20.6 percent.³⁸ Recent GDP growth is very likely to be reversed in the coming years; the International Monetary Fund has reported that it believes Iranian GDP will contract by over 3 percent in 2019, informed by domestic Iranian projections of contraction between 2 and 5 percent depending on how much oil Iran is able to sell. Unemployment remains a serious issue (hovering around 30 percent), especially since its solutionreliable, consistent foreign investment—was never remotely given a chance under the JCPOA because of the short duration of its full implementation. Since unemployment is particularly concentrated in Iran's large youth population, the result is that many young Iranians have never had a reliable job and consequently are struggling to establish a stable lifestyle. Iran's banking system is showing intensified signs of strain, particularly as the currency has devalued by over a factor of 10, hard currency has become difficult to obtain, and liquidity has drained. Taken together, the picture is hardly one of economic vibrancy, the promise of which was central to Hassan Rouhani's candidacy for president in 2013 and the absence of which is the principal source of current domestic unrest.

Sanctions are making the situation palpably worse. As of March 2019, the U.S. decision to re-impose sanctions in 2018 is having a clear effect on the willingness of the international private sector to engage or remain engaged with Iran.

Re-imposed U.S. sanctions involve the following:

- Restrictions on Iranian oil exports;
- · Limitations on how Iran can use oil and gas revenues;
- Prohibitions on investment in Iran's oil and gas sector;
- Restrictions on trade in U.S. dollar and Iranian banknotes;
- Prohibitions on trade in a variety of precious and semi-finished metals;
- Prohibitions on support for Iran's automotive manufacturing sector;
- Limitations on trade with Iran in civil aviation;
- Targeted sanctions on Iran's shipping, banking, and other service sectors; and,
- Redesignation of hundreds of Iranian entities and individuals on the Specially Designated Nationals and Blocked Persons list.

Iran's links to the world economy never really recovered after the JCPOA took effect because the international private sector remained very reluctant to re-engage with Iran. A few banks and businesses decided to restart their ties with Iran, such as Oberbank, Peugeot, Total, Maersk, Eni, and CMA CGM. But with the announcement that U.S. sanctions would be reimposed, these entities reversed course, electing to extricate themselves. Without these interested participants, Iran's ability to engage in diverse business activities will be sharply limited, and given Iran's plan to branch out into new sectors to reduce its dependence on oil and gas, this will hamper not only its current activities but its future prospects as well.

Given the importance of hydrocarbons to the Iranian economy, the reduction of Iranian oil revenues is still the most crucial test of the impact of U.S. sanctions. Here, the Trump administration has been more effective than many analysts predicted prior to the start of the sanctions campaign, although it has scaled back its initial reductions goal. Rather than reductions to zero exports—an initial, overly optimistic, and eventually set-aside U.S. objective—oil exports have been reduced to approximately 1.2 million barrels per day, or 50 percent of the pre-sanctions amount. Moreover, the Trump administration's issuance of exceptions to key oil importing countries is an indication that it now sees the reduction of Iranian oil revenues as an incremental process.

Still, the oil sanctions have had a significant impact. Iran's lost revenue—at current oil prices—stands at approximately \$60 million per day, and what revenues it is still earning are required under U.S. sanctions to be held in escrow accounts abroad that are largely off-limits for Iranian use, except for humanitarian or bilateral trade. And while depriving Iran of all oil revenues is probably a bridge too far, the Trump administration's threats to impose sanctions if importers do not go to zero may affect the decisions of some importing countries. Japanese representatives, for example, have indicated they will reduce their purchases to zero if they are not granted an exception in the May 2019 renewal process,³⁹ and South Korea can be expected to follow suit. If oil prices remain low, it will be easier for countries to make further reductions in their purchases from Iran.

However, sustaining sanctions momentum may be difficult. While oil sanctions have been effective to date, the reductions reached so far have been—to a significant extent—the "easy" barrels. Major reducers have included European countries, Japan, and South Korea, where governments may disagree with the Trump administration's sanctions strategy, but where major companies have a stake in remaining integrated with the U.S. economy. Much harder to remove from the market will be the barrels purchased by China and India, the two largest importers of Iranian crude oil. The experience of the 2012-13 oil sanctions, when China was only prepared to make limited reductions and the Indian government was reluctant to encourage and coordinate reduced purchasing activity by its private companies, suggests that both countries will seek to sustain imports at a high level.

The trade war that the Trump administration has waged against both countries might also contribute to their refusal to cooperate, even if oil production in other countries (not least the United States) reduces the need for Iranian oil in the global economy. Low oil prices might also reduce the overall perceived value of deeply discounted Iranian oil when weighed against the possible threat of sanctions. So far at least, the Trump administration has not achieved cuts as deep as the Obama administration did in its first eight months of oil sanctions. It is uncertain, at this stage, if the administration will be able to drive Iran's oil exports below 1.2 million barrels per day, or how fast.

In addition, sanctions evasion is going to be harder to police. As long as Iran remains in compliance with the JCPOA, Europe will be an active sanctions opponent, not a sanctions partner. Although their efforts to erect INSTEX were halting and long delayed, the Europeans are committed to making it work and they will continue to encourage their companies to engage with Iran in the face of U.S. pressures and even the possibility of sanctions. In these circumstances, they are unlikely to cooperate with U.S. sanctions enforcement, which will sustain some economic activity that the re-imposition of sanctions has sought to curtail.

However, even if oil exports cannot be driven much lower, INSTEX is more successful at facilitating trade than most observers expect, efforts to evade sanctions are widespread, and sanctions enforcement proves to be uneven, the U.S. maximum pressure campaign will still take a huge toll on Iran. It will not just cause hardships in the near term but will also undermine prospects for long-term economic recovery. It is already causing, and will continue to cause, much economic pain. But the true test of the effectiveness of U.S. sanctions is not how much pain they cause but whether they succeed in achieving the administration's objectives. And by that measure of success, the sanctions campaign will almost surely fall short—either in compelling Iran to buckle under America's far-reaching demands or in upending the Iranian regime.

While openly acknowledging the economic harm the sanctions are causing, Iran's leaders use the domestic hardships to mobilize public resistance to U.S. "bullying" and "unjust demands" and to rally support for the government. In a January 14, 2019 address, President Rouhani struck a typically defiant tone:

"We do not fear plots against us. The problems will not last. Neither the United States, nor the Zionists, nor some of their henchman are able to bring this great nation and its brave leadership to its knees. We are standing up to the enemies with all our might... The United States has imposed sanctions on shipping, banking, and oil, but we will stand up to the sanctions. It is not easy to have banking relations with other countries, but we can do it. Transporting goods is not easy, but we are importing livestock and meat to the country."

Of course, Iran's anti-sanctions efforts are not confined to rhetoric. It has a well-honed, multifaceted strategy for mitigating the effects of U.S. pressures. For instance:

- The Iranians almost certainly have reactivated their clandestine smuggling operations, begun during earlier periods of sanctions. Foreign Minister Zarif, in fact, has bragged about them.⁴¹ Iranian activities in this area can be expected to involve the covert export of oil, something that its ship captains facilitate by turning off their transponders in open water.
- Iranian diplomats have fanned out across the globe in an effort to persuade other
 countries to push back against U.S. efforts to pressure and isolate Iran, while Iranian
 energy officials have reached out to traditional customers in an effort to sustain
 sales, including by offering discounts or attractive terms (such as embedding the
 cost of transportation or insurance into contracts, or offering investment in Iran's
 oil and gas sector).
- The Iranians have also begun to use private sector actors to move Iranian oil, which—though probably imagined as an evasion mechanism—has the benefit (despite the vulnerability to corruption) of involving nongovernmental actors in the oil industry, where the government's role is constitutionally protected. This effort remains halting, but nearly 1 million barrels of oil were discharged via private brokers in the later months of 2018.⁴²
- Concerned by public protests against economic conditions that have broken out across the country in the past year, Iran's leaders are seeking to ensure that sanctions do not contribute to further unrest. In addition to being ready and willing to use whatever repressive methods are necessary to stifle domestic dissent, the government is trying to ameliorate the living conditions of the most vulnerable Iranians, whose loyalty is deemed essential to regime stability. Thus, the labor minister has talked about giving roughly \$24 to \$72 of aid to poor Iranian families, and the Rouhani budget request for 2019 included \$1 billion more than the previous year in direct subsidies for basic goods and a 20 percent increase in the salaries of state employees and pensioners.
- The Rouhani government has pursued reforms designed to reduce Iran's exposure to international pressures. In an effort to avert a decision by the multilateral Financial Action Task Force (FATF) to re-impose stiff countermeasures against Iranian banking, the government, despite opposition by hardliners, has worked to amend Iran's anti-money laundering and counter terrorism financing legislation so as come into compliance with FATF standards. The FATF has now given Iran until June 19, 2019 to reach a resolution. Less visibly, Iranian officials have followed up on Rouhani campaign promises to remove security organizations from their economic perches, thereby reducing the vulnerability to sanctions of key segments of the Iranian economy by severing their connections to sanctioned Iranian entities. The Islamic Revolutionary Guard Corps' (IRGC) ownership stake in Iran's telephone and cellphone companies, for example, was sold late 2018.
- Since September 2018, "economic crimes" have been highlighted as a judicial priority. Speculators and others have been arrested for their alleged manipulation of markets to their own advantage, with two found guilty of hoarding gold being executed in November 2018.⁴⁶ The government's high-profile crackdown on

such practices serves to deter behavior that could exacerbate Iran's economic woes, assigns blame to third parties and criminals for Iran's lackluster economic performance, and diverts public attention from its economic difficulties.

Tehran's sanctions mitigation strategies, together with the efforts of the Europeans, Russians, Chinese, and others to maintain economic relations with Iran, will not shield Iranians from the harsh impact of U.S. sanctions. But they will probably do enough to allow Iran's rulers to resist U.S. demands and maintain their grip on power. After all, this is a regime that has a great deal of experience coping with intense pressures. As Suzanne Maloney points out, this "revolutionary system has survived successive crises, and a formula of repression, smuggling, and tactical cooperation with other world powers may enable the regime to muddle through."47

Whether the Trump administration's maximum pressure campaign can achieve its goals is not just a function of the negotiating leverage its sanctions can generate; it is also a function of how realistic and achievable its goals are. Even if the current pressure campaign were able to put Iran under far greater economic stress than it is likely to achieve, the prospect of compelling the Iranian regime to capitulate or collapse would be remote. With roughly the same amount of negotiating leverage the Obama administration was able to muster in the run-up to the JCPOA—and perhaps significantly less, given sharp differences among the countries needed to bring pressure to bear on Iran—the Trump administration is seeking to achieve much, much more. It is not a recipe for success.

Will Iran stay bound by the JCPOA?

Thus far, the Trump administration has managed to achieve something that most observers, including the authors, thought was inconceivable: re-imposing the sanctions suspended pursuant to the JCPOA while Iran remains compliant with the JCPOA's nuclear restrictions. Continuing to abide by the nuclear deal contradicts the position taken by Iranian officials even before the JCPOA went fully into effect in 2016—that Iran would not fulfill its part of the deal if the United States failed to live up to its commitments. In fact, to underscore the link between the suspension of U.S. sanctions and Iran's compliance with its nuclear restraints, Tehran's domestic procedures for adopting the JCPOA were delayed until after the U.S. Congress had considered the agreement under the Iran Nuclear Agreement Review Act, when it became certain that the United States would implement the JCPOA's required sanctions suspensions and removals. In June 2016, Supreme Leader Ali Khamenei reaffirmed that linkage: "If the United States tears up the JCPOA, we will set it on fire."48

But ever since the United States withdrew from the JCPOA in May 2018, Iran has taken the position that it will continue to adhere to the deal as long as it serves its interests, particularly in the economic realm. The Iranians have sought to place the burden largely on the Europeans for ensuring that Iran will receive economic benefits despite the reimposition of U.S. sanctions, constantly goading them to stand up to the Americans and turn their political expressions of support for Iranian adherence to the JCPOA into "practical guarantees" for safeguarding Iran's economic interests. Early on, they praised European efforts to establish a special vehicle for facilitating trade with Iran and pressed European officials to accelerate its implementation.

At the same time, however, the Iranians are realistic about the benefits Europe can deliver, acknowledging publicly that European governments cannot compel private sector companies to engage with Iran and that many of them will prefer the American market to the Iranian market. ⁴⁹ Therefore, while pressing the Europeans, they point out that they have other options. On a visit to India to call for stronger Indo-Iranian economic relations, Foreign Minister Zarif said, "We continue to work with the Europeans for the Special Purpose Vehicle but we are not waiting for them. We are working with our traditional partners like India, like China, like Russia." ⁵⁰ Moreover, the Iranians know that the key determinant of whether they can weather U.S. sanctions is not the efficacy of INSTEX, but their ability to sustain oil export revenues at a significant level—and they express confidence that they can continue to do so. Referring to the stated U.S. goal of driving oil revenues to zero, Zarif argued that "they'll never be able to do it, period. We have always had various ways of selling our oil and we will continue to have ways of selling our oil." ⁵¹

So, for the time being at least, the Iranians seem prepared to stick with the JCPOA. Contributing to what the International Crisis Group calls their "strategic patience" in remaining bound by the deal is the political value they seem to derive from isolating the United States from its traditional partners and from being seen by the international community as showing great restraint and responsibility in the face of extreme provocation by the United States. ⁵² The Iranians may also believe, perhaps with encouragement from the Europeans, that if they can hang on for two more years, there will be an administration in Washington that is less hostile toward Iran and more favorably disposed to the JCPOA. But probably the decisive factor in keeping Iran on board so far is a recognition that, no matter how bad conditions may look now, they would be a lot worse if it decided to leave the agreement and restart its nuclear program. In that event, previous Security Council sanctions could snap back, U.S.-European differences on Iran could end, U.S. efforts to mobilize international pressures against Iran could be given a huge boost, and the risks of a military confrontation could grow. And Iran would no longer occupy the moral high ground.

Iran's readiness to stick with the JCPOA so far may give some in the Trump administration the impression that it can continue indefinitely to have the best of both worlds—Iranian nuclear restraint and U.S. freedom to apply maximum pressure to compel Tehran to capitulate to its demands. But the United States should not take continued Iranian compliance with the JCPOA for granted.

It has only been a few months since the re-imposition of U.S. sanctions, and their full impact is still uncertain. Before making a decision on whether to stay bound by the JCPOA, the Iranians may be waiting a while longer to see whether the efforts of the Europeans, Russians, Chinese, and others to circumvent the U.S. sanctions, as well as Iran's own coping mechanisms, are sufficient to make the impact of the U.S. pressure campaign tolerable. An important benchmark will be May 2019, when the current exceptions to oil sanctions are scheduled to expire. Depending on how the Trump administration decides to proceed, the countries that received exceptions in November 2018 may be able to obtain another exception with only modest additional reductions in oil imports from Iran, or they may be required to make drastic cuts or even go to zero in order to avoid sanctions. Brian Hook, the administration's special envoy on Iran, told *Bloomberg* in January 2019 that the administration is "not looking to grant new waivers" and remains committed to get to zero imports of Iranian crude. 53

The outcome of the next round of exceptions, together with the effectiveness of Iran's clandestine efforts to get its oil to market and the readiness of countries such as China and Russia to defy U.S. sanctions threats, will determine how much crude oil Iran will continue to sell. While Iran's leaders may believe they can cope with oil sales at roughly 1 million barrels per day, reductions significantly beyond that level would be much more difficult to tolerate. Every barrel that is not sold means less money available for redistribution programs intended to protect vulnerable populations and to quell political unrest at all population strata.

At some point, though it is difficult to predict exactly when, the economic pain of sanctions could become so great that the argument in Tehran that JCPOA compliance is in Iran's economic interests would no longer have credibility. That point may now be closer than in the past. Iranian Supreme National Security Council Secretary Ali Shamkhani said on January 7, 2019 that "the Europeans' opportunity to execute their commitments to our country under the JCPOA … has ended." As one commentator put it, "the high ground does not pay the bills." 55

In combination with the evolving economic impact of sanctions, domestic politics will weigh heavily on whether Iran will stay in the JCPOA. Growing hardships and popular resentment toward what is universally seen as America's harsh and unjustified pressures could tip the scales toward withdrawal. The IRGC and other hard-line elements of the regime, which have long chafed under the nuclear deal, may be eager for rebuilding Iran's nuclear program to bolster deterrence and strengthen Iran's regional position. Jockeying for position in the run-up to the Iranian 2020 parliamentary elections, the 2021 presidential election, and the impending succession battle for the position of supreme leader could shift the domestic debate in a direction away from remaining in the JCPOA.

Iranian calculations about the longevity of the Trump presidency and the prospects for new negotiations with the United States could also play a role in Iranian decisionmaking. Iranian hopes that Trump will be a one-term president (or less) may have contributed to their willingness to stick with the JCPOA so far. But if it looks as if Trump could win a second term, the prospect of having to deal with an extremely hostile U.S. administration for six more years could push Tehran toward withdrawal. Moreover, if Iranians believe that new negotiations with the United States and others will eventually take place, they may figure that remaining within the JCPOA's nuclear limits would put them in a weak negotiating position and that rebuilding their nuclear program would give them necessary leverage to achieve a better outcome. Conversely, keeping Iran in the JCPOA and forestalling the accumulations of Iranian negotiating capital is very much in the U.S. interest—both from the standpoint of U.S. negotiating leverage and, more fundamentally, because it prevents Iran from moving toward a nuclear breakout capability.

Few knowledgeable observers would have predicted that Iran would remain bound by the JCPOA this long after U.S. withdrawal and re-imposition of sanctions. But how much longer is a matter of conjecture. Given the opacity of Iranian decisionmaking, it may well be difficult from the outside to detect a shift in Iranian internal thinking toward continued compliance, which could come quickly and without much notice.

Iran's nuclear program: Still compliant but preparing to rebuild

While remaining in compliance with the JCPOA, Iran has made preparations for exceeding the JCPOA's nuclear limits—both to pressure the Europeans and others to deliver economic benefits that would enable Iran to remain in the deal and to get ready to rebuild its nuclear capabilities in the event that it decides it can no longer remain bound.

Since implementation of the JCPOA began in January 2016, the IAEA has issued 14 quarterly reports on Iran's compliance with the deal. With the exception of a couple of very small overages in Iran's inventory of heavy water, which were rectified almost immediately, the IAEA director general has reported that Iran has been implementing its nuclear-related commitments under the JCPOA. It has remained within the limits on centrifuge numbers and types, enrichment level, and stocks of low-enriched uranium (LEU), and it has allowed the IAEA to conduct "complementary access" inspections of all sites and locations in Iran that the IAEA needed to visit.

In a series of statements since the May 2018 U.S. withdrawal, Ali Akbar Salehi, head of the AEOI, announced a variety of JCPOA-compliant steps Iran has taken in accordance with an order by Supreme Leader Khamenei on June 4 to prepare for achieving a 190,000 separative work units (SWU) uranium enrichment capacity in the event of the collapse of the JCPOA.⁵⁶ These steps include:

- By July 2018, a plant for manufacturing centrifuge rotors had been completed at Natanz. Salehi said that the plant, whose construction began before the JCPOA was completed, was not yet operating but had the capacity—if a decision to mass produce centrifuges were made—to build 60 advanced IR-6 centrifuges per day, each with an enrichment capacity of 10 SWU, for an annual production capacity of close to 190,000 SWU. Salehi said Iran had already acquired the materials necessary to build 60 IR-6 centrifuges per day.⁵⁷
- Salehi announced in July 2018 that, under the JCPOA, Iran had increased its stocks of yellowcake (concentrated uranium ore) from 500 tons to roughly 950 tons, mostly through purchases from Kazakhstan and Russia.⁵⁸
- In June, the AEOI website stated that, for the first time since 2009, production of uranium hexaflouride (UF6)—the feedstock for uranium enrichment—had resumed at the Uranium Conversion Facility at Isfahan, noting that the resumption of UF6 production "paves the way for carrying out the supreme leader's order to prepare for an increase in enrichment capacity."⁵⁹
- In December 2016, reportedly angered by the extension of the U.S. Iran Sanctions Act, President Rouhani ordered Salehi to produce a plan within three months for nuclear-powered ships and their fuel. ⁶⁰ In a quarterly report, the IAEA confirmed that it had been notified by Iran of a "decision that has been taken to construct naval nuclear propulsion in the future." ⁶¹ Because fuel for naval reactors often consists of uranium enriched to levels that can be used in nuclear weapons, an Iranian naval nuclear program would be a significant source of concern, although it is doubtful that a serious program.
- In a January 2019 television interview, Salehi announced that Iran had begun "preliminary activities for designing" modern 20 percent enriched fuel for the Tehran Research Reactor.⁶² Salehi added that Iran had halted the production of 20 percent enriched uranium under the JCPOA and had no need current to produce 20 percent material because it had sufficient stockpiles on hand. But he claimed that, if Iran wanted to withdraw from the JCPOA and produce 20 percent enriched uranium, it could so within four days.⁶³
- Subsequently, Salehi indicated that Iran would be able to reconstruct the Arak reactor using its original design, which was optimized for plutonium production.⁶⁴

So, Salehi has been sending a mixed message. On the one hand, he and his government are signaling that it is prepared to leave the JCPOA and ramp up its nuclear program: "If we have to go back and withdraw from the nuclear deal, we certainly do not go back to where we were before. ... We will be standing on a much, much higher position." But on the other hand, Salehi expressed the hope that the collapse of the deal will not happen because, in his view, "Iran's withdrawal ... will work to the detriment of all sides." 66

An unstable stalemate

The contest between the Trump administration and Iran is currently at an impasse. The administration's maximum pressure campaign, despite the efforts of U.S. friends and rivals to undermine it, is exacerbating Iran's endemic economic problems and putting an Iranian government already beset by domestic unrest under growing stress. But there are no signs that the pressures will either force Iran to give in to the administration's unrealistic demands or provoke the people of Iran to take action against the regime that has ruled them for 40 years. And contrary to expectations, Iran has chosen, at least for the time being, to stay in the JCPOA and remain compliant with its nuclear restrictions.

But the situation is not stable. Frustrated by a lack of progress in achieving its goals, the Trump administration could seek to precipitate a crisis that could lead Iran to take steps that would help the administration build much stronger international support for its anti-Iran campaign. Or Iran, either provoked in this way or simply deciding that it can no longer show restraint in the face of mounting U.S. pressures, could withdraw from the JCPOA and begin executing its plans to ramp up its nuclear capabilities. Whatever the trigger, tensions would increase and the confrontation between the United States and Iran could escalate dangerously.

One of the most important bipartisan goals of U.S. national security policy over the past 30 years—denying Iran nuclear weapons or the infrastructure needed to build them rapidly—could well be a casualty of such a chain of events. The JCPOA was a valuable means of promoting that goal—not perfect, but an effective near- and medium-term solution and a promising platform for achieving a reliable, permanent solution. But the Trump administration cast it aside in the expectation that it could generate pressures strong enough not only to achieve a much better nuclear deal, but a fundamental change in Iran's behavior and political orientation.

That strategy is not working and will not work. The United States needs a new strategy, one that employs a range of policy tools for delaying and ultimately preventing an Iranian nuclear weapons capability and that returns one of those tools—diplomacy—to the center of U.S. policy.

III. IRAN'S CIVIL NUCLEAR PLANS

Despite boasting one of the world's largest reserves of oil and unassociated natural gas, Iran has long declared an intention to rely significantly on nuclear power to meet domestic electricity requirements. Iranian officials have argued that diversifying the country's energy portfolio in this manner would help ensure energy security and independence, and allow them to devote a larger share of their fossil fuel production to boosting much-needed export revenues. While the United States and several other Western countries have argued that nuclear energy made little economic or practical sense for Iran—and have suspected that its interest in nuclear energy was motivated largely by a desire for nuclear weapons—Tehran has maintained that it has a sovereign right to make its own energy choices and, as a member of the Nuclear Non-Proliferation Treaty (NPT), to pursue nuclear energy for peaceful purposes.

Initially conceived before the 1979 revolution, Iran's declared nuclear power plans have been ambitious. At the September 2002 General Conference of the IAEA, it announced an intention to "construct nuclear power plants with a total capacity of 6000 MW (megawatts) within two decades." By 2006, it boosted its nuclear power goals to 20,000 MW of electricity that would be realized by constructing up to 20 power reactors of the same size as the first reactor constructed by the Russians at Bushehr (1000 MW). In addition, Iran has planned to pursue a variety of small power reactor projects, including the 360 MW reactor at Darkhovin that was to be designed and constructed largely indigenously and notional Chinese-produced reactors of 100 MW.

Although Iran's plans to acquire nuclear power reactors raised questions about its intentions, of much greater concern was its argument that it needed a large-scale uranium enrichment program to produce enriched uranium fuel for its power reactors. This has been a fundamental part of Iran's public justification of its enrichment program since 2003, after the Natanz underground enrichment facility was made public and identified as capable of housing over 50,000 centrifuges. In 2014, Iran's supreme leader, Ali Khamenei, announced an intention to build an enrichment capacity of 190,000 SWUs, roughly equivalent to 190,000 IR-1 first-generation Iranian centrifuges or fewer centrifuges of more advanced, efficient design that are currently under development. More recently, the Atomic Energy Organization of Iran has reaffirmed the 190,000 SWU goal. The stated rationale for a 190,000 SWU capacity is that it could produce enough LEU fuel annually to power a Bushehr-type 1000 MW reactor for roughly a year; however, experts have judged that Bushehr could be fueled by far less than 190,000 SWU, perhaps in the range of 100,000 SWU.

The JCPOA prevented Iran from building an enrichment capacity of 190,000 SWU. Indeed, the nuclear deal capped Iran at around 6000 IR-1 centrifuges (roughly 6000 SWU), which, together with other JCPOA restrictions, increased Iran's breakout time from about two to three months to approximately a year. 190,000 SWU (which the Iranians have referred to as an "industrial-scale" enrichment capacity) would lower breakout time to a matter of weeks, particularly when combined with much larger stocks of available enriched uranium.

Like many countries with large, advanced nuclear power programs—such as Japan, South Korea, and several European states—Iran could purchase enriched uranium fuel relatively inexpensively from the international market, rather than go through the trouble and expense of building a large domestic enrichment capacity to produce uranium fuels

indigenously. Indeed, the Russian-constructed Bushehr 1 reactor is now operating on fuel supplied by Russia, which is obligated to provide the reactor's first 10 core loads and which has offered to supply fuel for the life of the reactor. Moscow has reportedly also offered to supply enriched fuel for the lifetimes of Bushehr units 2 and 3. Russia also committed to taking back to Russia all spent fuel from Russian-supplied reactors, eliminating any justification for Iran to pursue spent fuel reprocessing.

However, Iran rejects the idea of relying indefinitely on foreign sources of enriched uranium and insists on having the enrichment capacity to produce its own power reactor fuel, at least as a backup. It argues that foreign sources of supply are inherently unreliable and can be cut off for political reasons. In that connection, Tehran cites a litany of complaints about the Islamic Republic's treatment at the hands of the international community, including its experience with the French-led enrichment consortium Eurodif, 73 the difficulties it has encountered historically with international companies in the area of oil extraction and production, and U.N. Security Council resolutions in which a unified Council targeted and punished Iran.

While some of Iran's concerns about reliance on foreign supplies to meet its electricity needs are understandable, at least from an Iranian perspective, the argument that a large-scale Iranian enrichment capability is needed to avoid politically motivated fuel supply cutoffs or pressures has little merit. It is noteworthy that, even though Russia supported U.S.-led efforts in the run-up to the JCPOA to pressure Iran and impede its fuel cycle programs, Moscow successfully resisted U.S. efforts to stop its construction of the Bushehr 1 reactor—and it successfully negotiated exemptions for light water power reactors (like Bushehr) from U.N. Security Council sanctions resolutions that enabled it to complete and fuel the reactor. Most recently, the Trump administration exempted the Bushehr project from its re-imposition of sanctions. At present, the politically diverse group of countries capable of providing enrichment services—including friends of Iran such as Russia and China-increases the likelihood that Iran will continue to find suppliers willing to make lucrative fuel supply deals. In the wake of U.S. JCPOA withdrawal, resistance by key states to following Washington's lead in re-imposing sanctions is another indication why, in the absence of an extreme provocation such as an Iranian breakout toward nuclear weapons, it may be difficult to impose a reactor fuel supply embargo on Iran.

Moreover, although experts believe that a politically diverse and well-supplied international market in enrichment services provides significant assurance against capricious supply cutoffs, the international community has acted to provide an additional fuel supply guarantee. With the encouragement of the United States, the IAEA has established an international nuclear fuel bank to provide reliable access to nuclear fuel at reasonable prices to countries in compliance with their non-proliferation obligations whose normal supplies have been disrupted.

But reliable access to foreign enriched uranium supplies is not the only reason why Iran has little reason to embark on an industrial-scale enrichment capability. Equally important, the ambitious nuclear power program that Iran cites to justify a large domestic enrichment effort has been very slow to materialize.

In a 2007 journal article, Javad Zarif, then the Iranian ambassador to the United Nations, stated that Iran planned to achieve its goal of 20,000 MW of installed capacity by 2020.⁷⁴ Yet Iran still has only one operating power reactor (Bushehr 1). Work on Bushehr

units 2 and 3 has hardly begun, with the pouring of concrete for the first of those units not planned until the third quarter of 2019 and completion of those reactors unlikely for at least another six to eight years, ⁷⁵ especially given the challenges faced by the financially strapped Russian nuclear industry in meeting domestic reactor construction goals. Other reactor builders, including China and France, have held discussions with Iran about nuclear power projects, but so far no deals have been reached.

Even if Iran's purchases of foreign reactors were more robust, they would hardly justify greater Iranian enrichment capacity. As indicated earlier, Russia is obligated to provide at least 10 fuel loads (roughly 10 years of reactor operation) for all Russian-built reactors and has offered to supply fuel for the life of those reactors. While Iran says it wants to take over responsibility for fueling Russian-supplied reactors, Iranian fabrication of fuel elements for those reactors is not feasible (or safe) without Russian technical assistance—and even though Iran and Russia have a vague agreement about cooperation in the fabrication of fuel for Russian reactors, Moscow has little intention (or commercial incentive) to teach Iranians how to undermine the Russian nuclear industry's lucrative business of supplying reactor fuel. Other potential foreign reactor providers would have similar incentives to supply fuel for any reactors that they sell Iran.

Iran would have a stronger case for indigenously providing enriched fuel for power reactors it designs and constructs domestically. Since 2008, Iranians have talked about designing and constructing a 360 MW reactor at Darkhovin, but little headway has been made on that project. Satellite imagery from early 2018 shows a large hole has been dug at the planned reactor site, but no further work is evident. At the present time, the IAEA's Power Reactor Information System (PRIS) does not even include the facility as being under construction.⁷⁷ Construction and operation of an Iranian-designed and -built power reactor is at least a decade or more away from fruition.

The slow pace of power reactor construction in Iran, whether foreign-or Iranian-designed, therefore provides no persuasive justification for the ramping up of Iran's enrichment capacity, at least for quite some time. In addition, it remains uncertain whether Iran is currently in a position to expand its enrichment program efficiently. Presumably, Tehran would not want to build up its enrichment program using relatively primitive IR-1 centrifuges. Using IR-1s, a 190,000 SWU capacity would require four enrichment facilities the size of the 50,000-centrifuge capacity Natanz plant, whereas using more efficient centrifuges could enable that capacity to be fully housed at Natanz. But unless Iran elects to exceed the JCPOA's limits on research and development for advanced centrifuges—which were intended to impede industrial production or use of advanced centrifuges until well after 2030—its ability to gain confidence in the performance of more efficient designs will be significantly delayed. And until Iran gains such confidence, building an industrial-scale enrichment program would make little sense.

So, for a variety of reasons—including the availability of relatively low-cost foreign fuel supplies for foreign-built reactors, the technical and practical difficulty of Iran fabricating fuel for foreign-built reactors, the absence of indigenously designed and built power reactors for many years to come, and the time-consuming challenge of designing and effectively mass-producing high-performance centrifuges—there is no persuasive justification, from the perspective of rational civil nuclear energy planning, for Iran to ramp up its enrichment capacity in the near and medium terms. And without such a justification, an Iranian decision to pursue a major expansion of its enrichment program would only raise additional suspicions about its intentions.

There is a plausible justification for Iranian production of enriched uranium in the near term: to produce the enriched fuel needed to operate Iran's research and isotope production reactors. For example, the Arak reactor (when converted from its original natural uranium-fueled design) will require LEU fuel. 2,000 SWU would be sufficient to fuel the Arak reactor annually. And unlike the formidable technical challenge of fabricating fuel for foreign-supplied power reactors, Iranian nuclear experts are fully capable of manufacturing the less complex fuel elements used in research reactors.

IV. SANCTIONS

Sanctions should play a significant role in any future U.S. effort to prevent Iran from acquiring nuclear weapons. They can serve as a deterrent, holding at risk Iran's future economic prosperity if Iran decides to exceed JCPOA limits and pursue a large-scale enrichment program. Taken in combination with broader counterproliferation efforts, sanctions can deny Iran the goods and services that it needs to supply its nuclear program. And most importantly, sanctions can create the leverage necessary in any future negotiating scenario to persuade the Iranians to accept significant limits on their nuclear program in exchange for sanctions relief, as they did in the JCPOA.

But paradoxically, sanctions can also be one of the greatest impediments to the U.S. effort to deny Iran nuclear weapons because, depending on their application and rationale, they can convince Iranian leaders that negotiations are futile. They can also alienate the potential partner countries whose cooperation is critical to get Tehran to accept meaningful restraints. Indeed, the re-imposition of U.S. sanctions ordered by Donald Trump in May 2018, together with his administration's unrealistic demands for a comprehensive settlement, is one of the most likely instigators of a near-term Iranian nuclear build-up. The way in which the United States wields sanctions can and should be different from the current approach—whether Iran remains in compliance with the JCPOA or whether it decides to leave the JCPOA and restart its nuclear program.

While Iran abides by the JCPOA

So long as Iran complies with the JCPOA, we recommend a U.S. sanctions strategy that:

- 1. demonstrates that the main purpose of pressure is to provide leverage for negotiations and not to bring down the regime;
- 2. makes reasonable exceptions to sanctions enforcement;
- 3. minimizes the image of the United States standing alone and threatening its friends as much as Iran: and
- 4. rebuilds a more a collaborative international approach toward addressing the various dimensions of the Iranian challenge.

Pressure but not regime change. The first element is essentially the "dual track" strategy of pressure and negotiations that was the centerpiece of U.S. policy toward Iran from 2006-13. At various times, the Bush and Obama administrations emphasized different parts of the two tracks. But throughout that time period, there was a rigorous insistence that regime change was not the objective and that it was possible to negotiate with the current Iranian government.

The United States should make clear that regime change is not a predicate for successful negotiations. But doing so convincingly will be very difficult (and perhaps impossible) for the Trump administration, given its rhetoric, the long-standing and well-publicized positions of some senior officials in favor of regime change, and the administration's demand for a fundamental reorientation of Iranian behavior that seems incompatible with the preservation of the current regime. If sanctions are to result in Iran's willingness to negotiate seriously, rather than a determination to stiffen its resistance, the Trump administration or its successor will have to take regime change off the table as a matter of U.S. policy and, just as importantly, it will need to adopt a realistic negotiating position

that signals to the Iranians that negotiating an outcome consistent with their interests may be possible.

Rebuild international support for addressing Iran's objectionable behavior. A second element of sanctions strategy should be to restore as much as possible a multilateral approach toward Iran. Given the central role that the United States and the U.S. dollar play in the international economy, the United States is able to impose major costs on Iran without the active support of international partners, a hard truth that Iran is now re-learning. But in the absence of wide support, cracks will emerge in the sanctions framework that Iran may be able to exploit.

It is still too early to assess definitively, but there are at least some indications that cracks are forming. After a brief suspension, Chinese banks are reportedly back to working with Iran. ⁷⁸ India, South Korea, and China are reportedly working on mechanisms that would reduce the need for banking activity to support trade. ⁷⁹ And the E3 created INSTEX to facilitate trade with Iran, even if the original vision of that mechanism has become more modest. Together with strenuous efforts by Iran to evade sanctions by using a combination of front companies, unconventional financial channels, and smuggling, these cracks in the U.S. maximum pressure campaign can help Iran muddle along.

One means of promoting a more widely supported approach to pressuring Iran is to focus on Iranian activities that are commonly seen as problematic, such as ballistic missile tests, missile-related exports and other assistance to proxies such as Hezbollah and the Houthis, the IRGC's presence in Syria and elsewhere, plots to assassinate Iranian dissidents in Europe, and threats to navigation in the Persian Gulf. The United States should push for sanctions by the Europeans and others in these areas as well as for U.N. sanctions for violations of UNSC Resolutions 2140 and 1701, dealing with Yemen and Hezbollah respectively.⁸⁰

The Trump administration has already done some of this, including pressing the EU to adopt missile sanctions. But so far, the EU—which requires a consensus of all 28 members to act—has not gone along, in part because the members do not have a common view of the Iranian missile threat, but mainly because many members do not want to be seen as supporting the administration's Iran policy. This resistance will be hard to overcome. The administration will need to encourage the Europeans to set aside their differences on the JCPOA and work together to counter aspects of Iranian behavior that they all oppose.

Making reasonable exceptions to sanctions enforcement can help rebuild common ground between U.S. and partner approaches, soften the harsh image of U.S. sanctions prevalent internationally today, and perhaps reduce the motivation of key countries to undermine U.S. sanctions policy. A useful step in that direction was the Trump administration's decision to waive sanctions that would otherwise have been applied to ongoing JCPOA nuclear projects such as the conversion and modernization of the Arak reactor, the repurposing of the Fordow facility for stable isotope production rather than uranium enrichment, and the Bushehr nuclear power project that uses Russian-supplied fuel and sends irradiated fuel back to Russia. The failure to issue those waivers would have restored nuclear risks at Arak and Fordow, led to a major fight with Moscow over Bushehr, given the Iranians a convenient reason to withdraw from the JCPOA, and increased tensions with needed partners by subjecting British, Russian, and Chinese companies to possible sanctions.

Another useful step was the administration's decision to grant exceptions to a significant number of countries that import Iranian crude oil, allowing them to continue purchasing Iranian oil without fear of U.S. sanctions, provided they make significant reductions in those purchases at 180-day intervals. Although the administration has not made public its understandings with individual countries regarding the rate at which they will draw down their imports, this resembles the incremental approach to reducing Iran's oil revenues that was adopted by the Obama administration, which granted oil importing countries an exception if they reduced their purchases by roughly 20 percent every 180 days. The Trump administration's exceptions, which contrast sharply with earlier statements about penalizing oil purchasers if they did not go to zero imports by November 2018, appear to indicate an approach that is more pragmatic and mindful of the interests of partners than the administration's uncompromising rhetoric would suggest.

More can be done. For example, before imposing penalties on foreign companies and banks engaged in activities that Washington considers sanctionable, the United States should consult with the governments of the entities involved, warn them of the possibility of sanctions, and give them the opportunity to work with their firms to address U.S. concerns and discontinue any sanctionable activity. In the past, such consultative efforts to halt sanctionable behavior without actually having to impose sanctions were the norm in U.S. policy. Reinforcing that approach to sanctions implementation could, to some extent, ameliorate the international impression of a strident, quick-draw Trump administration sanctions policy.

Additionally, the United States could extend an olive branch by working with Europe on INSTEX. Not only should the Trump administration make clear that it will not impose sanctions on foreign banks and companies that participate in INSTEX's humanitarian-focused transactions; it should also allow U.S. companies to utilize INSTEX for such transactions and encourage other countries to do the same. Helping Iran manage its humanitarian needs would also combat the perception that the United States is seeking to starve Iran's population and undermine popular support for the regime—a perception that Iran's leaders are encouraging and that increases resistance within Iran to negotiating with the United States.

The Trump administration—in rhetoric, if not entirely in practice—seems to want to hit Iran as hard and as fast as possible in the hope that the regime will buckle quickly and either accept the administration's far-reaching demands or collapse. Perhaps the administration is in possession of information suggesting that Iran is so vulnerable and the regime so fragile that such a strategy will achieve its desired outcome. But if the strategy doesn't work—and most experts on Iran and its politics strongly doubt that the Islamic Republic is on the brink of either capitulating or collapsing—it could have significant downsides.

A strategy of maximizing pain in the short run—especially if linked to demands that no Iranian government would be willing or politically able to accept—will motivate the Iranians to dig in their heels rather than negotiate, give them little incentive to stay in the JCPOA, and further alienate partners whose support is needed both to pressure and negotiate with Iran. Moreover, if all-out sanctions pressure fails to prevent Iran from leaving the JCPOA and starting to rebuild its nuclear capabilities, the United States will be left with few good options for threatening to further escalate pressures to deter the Iranians from ramping up quickly and provocatively and, eventually, from breaking out and pursuing nuclear weapons.

In contrast, we recommend a more measured sanctions approach—one that preserves leverage for future negotiations but reduces Iranian incentives to leave the JCPOA, seeks to mend fences with partner governments, and signals to the Iranians that entering into nuclear negotiations is in their interest. At the same time, it would leave open options for a rapid escalation of pressures if Iran decides to leave the JCPOA and restart its nuclear program.

If Iran leaves the JCPOA and restarts its nuclear program

In the event that Iran leaves the JCPOA and rebuilds its nuclear program, the main objectives of U.S. sanctions policy should be to reconstitute as much as possible a global coalition of countries willing to demonstrate the ability to impose a truly debilitating economic cost on Iran if it is not willing to halt its buildup and negotiate significant new nuclear constraints.

In some respects, an Iranian decision to withdraw from its nuclear commitments would make the U.S. job easier. The Europeans would no longer be focused on incentivizing Iranian JCPOA compliance and could be expected to be more amenable to joining with Washington to pressure Iran. In addition, Iran, which had occupied the moral high ground and effectively cast itself as victim, would forfeit much of the international sympathy it has received in the wake of Trump's renunciation of the JCPOA. And the prospect of Iran once again building up its nuclear capabilities and reducing the time it would need to produce nuclear weapons would remind the international community of the dangers of a nuclear-armed Iran and the need to band together again to prevent it.

But in other respects, re-mobilizing international support for pressuring Iran would still be a challenge. Tehran would be using its formidable public diplomacy skills to place the entire blame for the demise of the JCPOA on the United States, arguing that Iran had no choice but to leave the deal because, as a result of America's "illegal" re-imposition of sanctions, it was not receiving the economic benefits to which it was entitled. While Russia and China would undoubtedly be concerned by the restart of Iran's nuclear program, they and many other countries, include some Europeans, would see merit in the Iranian argument and be reluctant to penalize Iran by stepping up sanctions.

Snapping back previous UNSC resolutions. Nonetheless, in the wake of Iran's withdrawal, the United States should seek the implementation of the snap-back procedures outlined in the JCPOA and in UNSC Resolution 2231, which give any "JCPOA participant state" the right to trigger the restoration of all previous Security Council sanctions against Iran. Although Iran and its supporters may argue that the United States, having withdrawn from the JCPOA, should not be able to trigger snap-back, Resolution 2231 (paragraph 10) defines "JCPOA participant" to include the United States, without reference to its status under the JCPOA, and so the United State retains the right to invoke snap-back. Given the unexpected situation following U.S. withdrawal from the deal, some on the Security Council might balk at this outcome, despite the plain language of the resolution. Or Washington may choose not to exercise that right itself for other reasons, as Pompeo indicated when he urged the UNSC to re-impose previous missile sanctions against Iran, but did not take any action in this regard himself. In either case, it could encourage France, Germany, or the United Kingdom to trigger snap-back.

The Iranians have indicated that the JCPOA gives them the right to respond to U.S. withdrawal by partially reducing their own commitments under the deal without violating it, and therefore without providing other JCPOA participants a justification for triggering snap-back. They say that their position is supported by JCPOA Article 36, which states:

"If the issue still has not been resolved to the satisfaction of the complaining participant, and if the complaining participant deems the issue to constitute significant non-performance, then that participant could treat the unresolved issue as grounds to cease performing its commitments under this JCPOA in whole or in part and/or notify the U.N. Security Council that it believes the issue constitutes significant non-performance."

But notwithstanding the Iranian argument, the Europeans have tried to disabuse Tehran of the idea that it can legally shed some of its commitments without justifying a European response, and the Europeans have warned Tehran that any departure from the deal would entitle other JCPOA participants to invoke snap-back. Nothing in Article 36 requires other participants to continue providing sanctions relief if Iran withdraws from the JCPOA or stops fulfilling its terms in whole or in part. The Europeans should continue to underscore with Iran that, should it invoke an Article 36 right to cease abiding by its commitments "in whole or in part," they would have the right to do the same, including through invocation of the snap-back provision.

So if Washington invokes snap-back or can persuade Paris, London, or Berlin to do so, a wide range of multilateral sanctions going beyond what the Trump administration unilaterally re-imposed in 2018 will come back into force—and all U.N. members will be legally required to implement them. But despite this legal requirement, it is uncertain how conscientiously the re-imposed sanctions would actually be enforced. In the absence of a rapid and provocative nuclear buildup by Iran, some countries, perhaps including Russia and China, might well take a less than enthusiastic approach toward enforcement.

However, even if some countries do not implement the re-imposed Security Council sanctions faithfully, many others, including important trading partners of Iran, will feel obliged to honor their legal obligations, and this could add significantly to the economic pressures applied by the Trump administration in 2018. Moreover, a potential benefit of seeking snap-back is that the process unfolds in deliberate stages, providing an opportunity for diplomacy and giving Iran an incentive to halt or reverse its nuclear restart before the re-imposition of multilateral sanctions can be formalized.⁸¹

Promoting renewed national sanctions. Assuming Iran does not stand down (after all, it had to know in advance that snap-back could well follow its withdrawal or its cessation of performance in whole or in part), the United States should use the restored multilateral sanctions as the legal basis for urging other countries to build on that foundation with national sanctions of their own—as it did successfully with likeminded partners from 2006 to 2013. Washington should urge the EU to adopt measures that replicate and eventually expand upon the sanctions regime it had in place prior to the JCPOA. It should also call for the adoption of unilateral, autonomous sanctions by Japan, South Korea, Australia, Canada, and a variety of other U.S. partners. The main targets of sanctions should be Iran's financial and trade links, just as they were in the pre-JCPOA period. And just as in the earlier period, the United States and its partners should develop a cooperative approach to enforcement, working together to identify Iranian evasion and smuggling schemes and to shut them down.

Meanwhile, the United States would continue to implement its own unilateral sanctions, issuing warnings of further executive branch measures and working with Congress on additional legislation to signal its intention to continue escalating costs if necessary.

Diversifying sanctions. These efforts will generate real pressure on Iran, even if the measures imposed are unoriginal. But in time, there will be a need for new and diverse sanctions to demonstrate to Iran that its situation will continue to worsen and that its coping mechanisms will have a hard time keeping up with the evolving pressures. A potential target is the light consumer goods industry that Iran is trying to develop. Squeezing that domestic industry would mean that Iran would either have to continue importing light consumer goods from abroad (with a higher import cost, exacerbated by a weak rial, than the cash-strapped country can afford) or do without, adding to domestic discontent. Likewise, the United States may identify burgeoning export sectors that could be sanctioned. In 2013, for example, the United States was preparing to impose sanctions against the import of Iranian cement, which had been an emphasis of the Iranian government at the time, until the Joint Plan of Action (JPOA), a November 2013 interim agreement banning new sanctions, obviated that possibility. Other export industries may emerge in coming years that can be identified and prioritized for targeting. For example, construction services, particularly in Iraq and Syria, may be an avenue through which Iran attempts to enhance its revenue stream.

In considering targets for expanded sanctions, the United States should focus on what sort of effects it wishes to have on the goals and priorities of Iran's leaders. In 2013, for instance, the United States decided not to sanction Iran's import of luxury automobiles, but instead targeted the domestic manufacture of cars so as to undermine President Mahmoud Ahmadinejad's reform agenda and highlight the degree to which wealthy Iranians were wasting precious hard currency on extravagances. The lengths to which Iran's current leaders are going to address the sources of unrest that swept through Iran in 2018—including proposals for reinstituting rationing, aid packages to Iran's poorest population segments, and mandatory retirement of older government workers—reveal their acute sensitivity to instability in the country. Unemployment appears to be a particular source of vulnerability and concern within the leadership. Prioritizing Iranian unemployment as a sore spot worth prodding—including by targeting foreign investment and industrial development—may create the same sorts of incentives for reaching an agreement that motivated the Rouhani administration in 2013 and kept the Iranians negotiating through the rough economic times they faced during those talks.

Using sanctions to achieve realistic goals. Sanctions can provide the leverage necessary to induce Iran to restrain its future nuclear capabilities in exchange for sanctions relief, just as they were essential in achieving the strict limits contained in the JCPOA. But depending on how they are applied and the political context in which they are applied, sanctions can be counterproductive. The Trump administration's maximum pressure campaign—by widening the rift with partner governments whose support would be critical to any successful negotiation, reinforcing the Iranian belief that the U.S. goal is regime change rather than a better nuclear agreement, and making unrealistic demands that convince Iranians that there is little to be gained by coming to the negotiating table—has reduced prospects for serious talks.

The preceding recommendations for a U.S. sanctions strategy start from the premise of reimposed sanctions, retain most of those re-imposed sanctions, and even call for significantly expanded sanctions in the event that Iran leaves the JCPOA and restarts it nuclear program. But at the same time, the recommended approach aims to implement the restored sanctions in a way that increases the chances of getting productive negotiations underway. And that requires not just making some adjustments in sanctions implementation—such as carving out additional exceptions to accommodate the interests of partner governments—but, most importantly, putting the leverage provided by the re-imposed sanctions in the service of achieving realistic negotiating objectives, with attractive inducements for Iran.

V. COUNTERPROLIFERATION

Sanctions and counterproliferation are closely related tools for constraining Iran's future nuclear capabilities, but each plays a distinct role. While sanctions may discourage or impede proliferation-sensitive transfers to Iran, their principal purpose is to pressure Tehran, alter the decisionmaking calculus of its leaders, and convince them to significantly limit their nuclear and missile programs. While counterproliferation efforts may affect the calculus of Iranian leaders-by making the acquisition of desired capabilities more difficult and costly—their principal purpose is to prevent the acquisition of sensitive goods and technologies. Effective counterproliferation methods can complicate and slow the pace of destabilizing programs and thereby create time and space for negotiations aimed at more conclusively constraining those programs.

Early counterproliferation efforts. In the 1990s, before the wide-ranging sanctions that devastated the Iranian economy in the run-up to the JCPOA, Washington actively sought to prevent transfers of facilities, equipment, and technology that would have advanced Iran's nuclear capabilities. Often acting on the basis of intelligence information about Iranian procurement efforts, the United States frequently intervened diplomatically with government agencies, state-owned enterprises, and private firms and traders to urge them not to engage in nuclear cooperation with Iran and especially not to transfer sensitive fuel cycle facilities and equipment.

U.S. counterproliferation policy of the 1990s achieved some important results. In 1995, at U.S. urging, Russia agreed that a plan by Minatom, the Russian atomic energy agency, to sell Iran a complete uranium enrichment facility would not go forward. In 1997, at a summit meeting between President Bill Clinton and Jiang Zemin, China agreed to cancel most existing nuclear cooperation with Iran-including the pending sale of two nuclear power reactors and construction of a uranium conversion facility-and not to engage in any new nuclear cooperation.83 In addition, the United States successfully lobbied several countries not to sell Iran a heavy water-moderated research reactor optimized for the production of plutonium.

Despite these successful counterproliferation efforts, Iran managed to acquire much of the equipment and technology needed to advance its uranium and plutonium programs, albeit slowly and at considerable expense. Although China halted its cooperation on the uranium conversion facility project, Iran was able, on the basis of blueprints Beijing had already handed over, to build the facility on its own. While Russia refused to cooperate on uranium enrichment, Iran had already begun its relationship with the black market network led by Pakistani nuclear scientist Abdul Qadeer (known as A. Q.) Khan to gain support for its centrifuge enrichment program. And Iran exploited weaknesses in the export control systems of several supplier states to acquire needed components and materials.

U.S. counterproliferation efforts were given a boost in December 2006 by the adoption of U.N. Security Council Resolution 1737, the first to impose legally binding prohibitions on the supply of goods and services that could contribute to Iran's sensitive nuclear activities as well as its ballistic missile program. Those penalties and restrictions were intensified in subsequent resolutions, such that by June 2010, when Resolution 1929 was adopted, the international community had largely prohibited any support that states might determine could contribute to Iran's nuclear and missile programs.

For its part, the United States actively engaged with partners in the NSG and the Missile Technology Control Regime (MTCR), as well as via various multinational organizations like NATO and the European Union, to promote broad international support for the UNSC restrictions and to urge all parties to tighten their national export control systems, especially with respect to Iran. In addition, the United States put in place a well-resourced, intelligence-supported national interdiction effort to identify Iranian proliferation networks and illicit transactions, engage diplomatically with other states to cooperate in stopping prohibited transfers, and impose sanctions against entities engaged in illicit behavior.

These U.S. and multinational counterproliferation efforts posed significant obstacles to Iran's destabilizing programs. They made Iran's acquisition of nuclear- and missile-related goods and technologies increasingly complex and time-consuming, available to Iran only at high cost and with significant risk of detection and interdiction. The Panel of Experts (POE) attached to the U.N. Security Council's sanctions committee on Iran documented several cases in which illicit Iranian transfers were detected and prevented before completion.⁸⁴

But thwarting all Iranian procurement attempts clearly proved impossible. POE reports underscored the degree to which Iran pursued supplies of carbon fiber, machine tools, and other items required to fabricate nuclear equipment and spare parts. Leakage from national and international controls was such that, by 2015, Iran had acquired the physical capacity to produce much of the equipment and components needed for its nuclear facilities. Iranian engineers and technicians had also learned how to bypass certain material shortages by relying on technology and materials they could more readily acquire (e.g., shift from centrifuges using maraging steel to centrifuges relying on carbon fiber that fell just below the NSG list's control threshold).

The procurement channel. Given its pre-JCPOA experience trying to stop illicit Iranian procurement, the United States gave high priority in the JCPOA negotiations to managing Iran's procurement of proliferation-sensitive technologies. The United States determined early in the negotiations that it would be necessary to monitor Iran's nuclear-related imports and to prevent those that could contribute to covert nuclear facilities or the stockpiling of equipment or materials for a breakout. For its part, Iran wanted to be out from under all UNSC sanctions as swiftly as possible. The United States firmly rejected the Iranian proposal that the UNSC's prohibitions simply end at the start of JCPOA implementation, insisting on the need for a period of continued transparency, monitoring, and control over Iranian nuclear trade. The parties eventually agreed on the "procurement channel," an arrangement that would allow Iran to purchase materials and equipment needed for its permitted civil nuclear program. But purchases—of items on the NSG's Part I list that are specifically for nuclear applications as well as of dual-use items on the NSG's Part II list that could be used in nuclear or non-nuclear applications would be subject to the review and approval of the P5+1 and the Security Council. This mechanism was intended to provide transparency regarding Iran's nuclear-related imports and to give the United States and its JCPOA partners the ability to veto Iranian acquisitions, for at least a significant period of time.

Annex 4 of the JCPOA outlined the terms of the procurement channel, which—due to its intersection with residual UNSC sanctions—was also addressed in UNSC Resolution 2231 and administered by the U.N. Secretariat. The JCPOA parties agreed that the procurement channel would remain in effect for 10 years, until 2025, after which

UNSC controls on Iranian procurement would lapse, along with the rest of Resolution 2231. The resolution also provided that any Iranian procurement of conventional arms or missile-related technology would be subject to veto in the Security Council—and therefore effectively banned—until after five and eight years had passed, respectively.

According to U.N. Secretary-General António Guterres, as of December 2018, 42 requests for approval had been made in the procurement channel since the JCPOA's "Implementation Day" in January 2016. Of these, 28 proposals had been approved by the Council, four had been denied, nine had been withdrawn by the proposing states, and one remained under review.⁸⁵ This would suggest that the procurement channel is operating as intended, with proposed transfers to Iran raised in the channel by the exporter (as required by Resolution 2231), evaluated on their merits, and approved or rejected. The secretary-general maintained that the "procurement channel continues to be a vital transparency and confidence-building mechanism."

What is not known is the extent to which attempts have been made to evade the procurement channel. In April 2018, the United Arab Emirates informed the U.N. Secretariat that it had seized four shipments between May 2016 and December 2017 containing dual-use items destined for Iran, including cylindrical segments of tungsten, a plasma mass spectrometer, capacitors, and a titanium rod. Soon thereafter, the United States informed the Secretariat that Iran had acquired aluminum alloys and carbon fiber that it believed should have been approved by the Procurement Channel. In his December 2018 report, the secretary-general stated that, contrary to the original UAE assessment, the tungsten and capacitors, according to their manufacturers, did not meet the criteria requiring prior Council approval, but that the mass spectrometer, according to its manufacturer, did. He also stated that the question of the titanium rod and the shipment of the two dual-use items reported by the United States required further review. Some observers contend that Iran continues to engage in illicit procurement of nuclear-related items outside the procurement channel, although the extent to which that claim is based on suspicion or evidence is difficult to assess.

Going forward, counterproliferation must continue to play an important role in constraining future Iranian nuclear capabilities. While Iran has already indigenized key elements of its nuclear program, it can still be expected to seek access to foreign supplies in the future—to acquire materials, equipment, and technology needed to upgrade its enrichment capacity quantitatively or qualitatively and possibly also to engage in activities more directly related to the development of nuclear weapons.

Re-imposition of U.S. sanctions. As part of its broader re-imposition of nuclear sanctions against Iran, the Trump administration, on November 5, 2018, renewed sanctions on the Atomic Energy Organization of Iran and 23 of its subsidiary bodies, making nuclear cooperation with Iran once again sanctionable. At the same time, however, it issued waivers permitting the continuation "for a temporary period" of ongoing cooperation on three projects authorized by the JCPOA: the conversion and modernization of the Arak reactor, the transition of the Fordow facility from uranium enrichment to stable isotope production, and the operation of the Russian-supplied Bushehr nuclear power reactor. The administration justified the waivers as "preserving oversight of Iran's civil nuclear program" and "prevent[ing] the regime from reconstituting sites such as Fordow for proliferation-sensitive purposes." 89

The November 2018 waivers should permit some legitimate civil nuclear cooperation with Iran to proceed, but there are some exceptions. The waivers do not provide for the disposition of the heavy water Iran produces and will require Tehran either to stop production or exceed the agreed threshold of 130 metric tons. Nor will the waivers allow Iran to engage in other procurements in support of its JCPOA-permitted nuclear program, such as replacement of broken parts. The United States should consider widening the waivers to permit Iran to engage in transactions in support of JCPOA-permitted activities, including projects authorized in Annex III of the JCPOA (e.g., on nuclear safety and security). Allowing such transactions would encourage Iran's continued use of the procurement channel, with attendant transparency benefits, rather than provide an excuse for its evasion.

While Iran remains in the JCPOA

As long as Iran does not exceed the JCPOA's nuclear restrictions, the U.S. counterproliferation objective should be to ensure that Iran uses the procurement channel for all permitted nuclear-related imports and does not pursue illicit nuclear-related imports through other means. Having withdrawn from the JCPOA, the United States is no longer a participant in the procurement channel and cannot block transfers submitted to the channel. But as a Security Council member, it will continue to receive information about transfers proposed via the channel as well as transfers that are exempted from the channel, such as for Arak and Fordow. If Washington objects to such a transfer—for example, because it believes an item exceeds the needs of the Arak or Fordow projects or is not intended for the declared end use—it could urge a European JCPOA member to block the acquisition. The United States could also go directly to the exporting country or firm and make the case for not proceeding with the sale.

Moreover, the United States will continue to use its own intelligence capabilities to monitor Iranian procurement efforts. If it acquires information that Iran is seeking goods illicitly outside the procurement channel, it could raise such an attempt directly with the exporting country or company, notify JCPOA participants and the Security Council, and press for an appropriate international response. While other P5+1 countries oppose U.S. JCPOA withdrawal and re-imposition of sanctions, they support the procurement channel and would regard Iran's efforts to bypass it as a violation of its JCPOA and Resolution 2231 commitments. To strengthen its efforts to stop illicit Iranian procurement, Washington could use existing executive authorities, such as Executive Order 13382, to threaten or impose sanctions against any individual or entity that facilitates abuses of the procurement channel or engages in illicit transfers outside of it.

If Iran leaves the JCPOA

As recommended in the preceding chapter on sanctions, if Iran withdraws from the JCPOA and restarts its nuclear program, the United States should itself invoke, or encourage the British, French, or Germans to invoke, the JCPOA's snap-back procedure, which would replace UNSC Resolution 2231 with previous UNSC resolutions on Iran. That would bring back the legally binding prohibitions on the transfer of most nuclear-and ballistic missile-related goods and technologies to Iran, with the exception of cooperation on Bushehr, which was exempted from those prohibitions at Russia's insistence. With Resolution 2231 replaced, the procurement channel would no longer exist.

In deciding to restart its nuclear program, Iran would probably terminate the Fordow conversion project and restore the facility to its original purpose of enriching uranium. It might also decide to revert to the Arak reactor's original design as a plutonium production reactor, although given its apparently declining commitment to the plutonium fuel cycle and the alarm that the reversion to the original design would produce in the international community, it is conceivable that it would seek to continue the Arak conversion project. In that case, participants in the project would need to decide whether to seek a Security Council exception to permit their continued participation, and the United States would need to decide whether the non-proliferation benefits of the project justified continuing to exempt the project from its re-imposed sanctions. In the more likely event that Iran terminates both projects, Washington could simply revoke the corresponding waivers.

With Iran rebuilding its nuclear capabilities and previous Security Council restrictions restored, the U.S. counterproliferation objective would be fairly straightforward: impede Tehran's ability to enhance its nuclear program quantitatively and qualitatively by seeking to prevent it from acquiring nuclear-related equipment and materials from abroad. But counterproliferation in these circumstances could be more challenging than in the pre-JCPOA period, when a strong international consensus supported a near-total embargo on nuclear-related transfers to Iran.

Stepping up counterproliferation efforts. Given the unique provisions of the JCPOA and Resolution 2231, not even permanent members of the Security Council can block snap-back and the restoration of legally binding Security Council restrictions on nuclear cooperation with Iran. However, some key U.N. members can be expected to object strongly to snap-back, arguing that Iran's decision to leave the JCPOA was justified by the U.S. withdrawal and termination of sanctions relief. Russia, China, and other friends of Iran may therefore be reluctant to enforce the snapped-back restrictions, or at least would fail to do so conscientiously. Much would depend on how Iran chooses to increase its nuclear capabilities and the broader geopolitical context at the time of JCPOA collapse. In all likelihood, the more rapidly and provocatively Iran rebuilds its nuclear capability and moves to a large-scale enrichment program, the less difficulty the United States would have in mobilizing international support for impeding Iran's nuclear-related imports.

So in the event Iran decides to build beyond JCPOA limits, the United States, with possibly uneven international support, will need to elevate the priority it gives to counterproliferation. This will require a broad diplomatic campaign to sensitize other countries to the risks of allowing Iran to acquire an industrial-scale enrichment capability, increased intelligence-sharing about Iranian procurement efforts, expanded international interdiction cooperation through such mechanisms as the Proliferation Security Initiative, assistance to strengthen the export control systems of supplier and transit/transshipment states that Iran looks to as sources of sensitive goods and technologies, and a readiness to impose U.S. sanctions against individuals and entities that facilitate Iran's illicit procurement.

Heading off North Korea-Iran cooperation. Given North Korea's long-standing cooperation with Iran on missiles—and the fact that the centrifuge enrichment programs of both countries are based on equipment and technology supplied by the A. Q. Khan network—it is important to be vigilant about possible North Korean nuclear cooperation with Iran. In the course of the current U.S. dialogue with Pyongyang on nuclear and missile issues, Washington should give a high priority to gaining a credible North Korean commitment not to engage in any nuclear or missile cooperation with Iran.

Preventing Iranian nuclear exports. While focusing on restricting transfers to Iran, U.S. counterproliferation efforts should also address possible Iranian transfers of nuclear and missile technology to proxy governments and non-state actors. 90 While Tehran has frequently provided missiles and missile technology to its regional proxies, it seems so far to have refrained from exporting nuclear equipment or technology. If in the future, however, Iran finds itself cash-strapped as a result of sanctions or other economic difficulties, it might be tempted to look to nuclear sales as a source of revenue. The United States has been sufficiently concerned by this possibility in the past that it prioritized and secured a binding prohibition on Iranian nuclear exports in UNSC Resolution 1737 in December 2006. Washington should make clear that it is prepared to act firmly, including with the use of military force, to prevent such nuclear transfers, and it should encourage other governments to adopt similar positions. Importantly, should UNSC Resolution 2231 be reversed in favor of snap-back, Iranian nuclear exports would be prohibited as a matter of international law.

VI. DETERRENCE

Deterrence can impede Tehran's nuclear program by explicitly or implicitly threatening Iran with adverse consequences if it proceeds down the path toward nuclear weapons. The United States can create and strengthen deterrence with a variety of policy tools, not just the threat of military force, and can use deterrence in a fashion that complements other pressure-building efforts, such as sanctions and counterproliferation. And if a combination of carrots and sticks is insufficient to induce Iran to accept new negotiated limits and forgo an industrial-scale enrichment program, deterrence may serve as the tool of last resort to dissuade the Iranians from breaking out and building nuclear weapons.

The United States and its partners may employ deterrence to discourage three increasingly threatening stages of Iran's nuclear activity: (1) leaving its JCPOA nuclear restrictions; (2) ramping up its enrichment capacity provocatively and moving toward a large-scale capability in the wake of its withdrawal; and (3) breaking out from a large-scale "civil" enrichment program to produce highly-enriched uranium for the production of nuclear weapons. And even if a new nuclear agreement is reached, deterrence will be needed to help protect against Iranian breakout.

Deterring Iran's departure from the JCPOA. It is clearly in the U.S. interest for Iran to continue abiding by the JCPOA and not exceeding its nuclear limits. But having withdrawn the U.S. from the JCPOA, the Trump administration hardly has the standing to call on Iran to stick by the nuclear deal. That job falls primarily to America's P5+1 partners, who have constantly and at the highest levels, collectively and individually, urged Iran not to follow Washington's lead in leaving the JCPOA.

Most of their efforts have been on the positive side, encouraging Iran to remain within the JCPOA by offering incentives. The Europeans, in particular, have been active in seeking innovative ways to assure Iran that, notwithstanding the Trump administration's re-imposition of sanctions, it will continue to receive the economic benefits to which it is entitled under the JCPOA. But the Europeans and Iranians know that devices such as INSTEX for facilitating continued trade with Iran cannot compete with the threat of being cut off from the U.S. dollar-led international financial system, and that most major banks and businesses will remain unwilling to conduct business in and with Iran. And the Russians, Chinese, and Iranians know that, despite their efforts—not always above-board—to sustain Iranian crude oil exports, U.S. oil sanctions have already produced a precipitous drop in Tehran's oil revenues and may continue to do more damage.

Positive incentives may, therefore, fall short. So, in addition to trying to convince Iran of the rewards it will reap if it stays in the JCPOA, the Europeans should threaten adverse consequences if it leaves. In the chapter on sanctions, we recommend that, if Iran decides to withdraw from the JCPOA and restart its nuclear program, the United States or one of its European P5+1 partners should respond by triggering snap-back. In an effort to deter such an Iranian decision, the Europeans, who are in regular contact with the Iranians, should make clear in advance that, in the event of Iran exceeding its JCPOA limits, snap-back would quickly be invoked. Although the Europeans have already signaled to the Iranians that withdrawal could result in snap-back, an unequivocal warning would have a stronger impact. Tehran needs to understand that, as bad as their predicament seems at the present time, it would get a lot worse.

Deterring a significant nuclear buildup. If, despite warnings from the Europeans and others, Iran decides no longer to be bound by the JCPOA, the United States, the Europeans, and presumably also the Russians and Chinese would have an interest in discouraging a rapid or substantial increase in Iran's nuclear capabilities.

It is far from certain that Iran would choose to ramp up its nuclear capacities quickly. It knows that moving swiftly and provocatively would hasten the restoration of at least some degree of P5+1 (or at least U.S.-EU) solidarity and strengthen Washington's case for tough enforcement of Security Council sanctions, which presumably would be snapped back to pre-JCPOA levels as a result of Iran's JCPOA departure. Iran also knows that moving quickly could heighten international concerns about its nuclear intentions and increase the likelihood of military pre-emption by the United States, Israel, or both.

Moreover, it is not clear that officials responsible for Iran's nuclear program are eager or technically ready to significantly expand nuclear capacities. With the adoption of the JCPOA, Iran's nuclear establishment presumably planned for a decade or so of slow but steady technological improvements, especially in the performance of advanced centrifuges undergoing limited research and development, but no increase in operational capabilities. Despite Iran's rhetoric that it was prepared to rebuild its nuclear program quickly (intended in large part to deter U.S. withdrawal), a shift in plans to mass produce, install, and operate advanced centrifuges well ahead of schedule—or, alternatively, to reinstall the old, inefficient IR-1s because more advanced centrifuges are not ready—may not be seen by Iranian nuclear officials as the best way to serve Iran's long-term nuclear goals.

Still, notwithstanding these reasons why Iran may wish to move relatively slowly in any steps to exceed the JCPOA's nuclear limits, domestic demands for a resolute response to the United States and its pressure campaign could create powerful incentives for a more aggressive nuclear buildup. The United States and its partners should therefore consider how best to deter such a buildup.

In the wake of U.S. withdrawal, the Trump administration has sought to discourage Iran from rebuilding its nuclear program. "I would advise Iran not to start their nuclear program," the president warned. "If they do, there will be very severe consequences." Secretary Pompeo followed by saying, "I hope they understand that if they begin to ramp up their nuclear program, the wrath of the entire world will fall upon them." Later, he clarified, "When I say wrath, don't confuse that with military action. When I say wrath, I mean the moral opprobrium and economic power that fell upon them." ⁹² It is uncertain what deterrent effect, if any, such statements have had or will have.

Threatening major adverse consequences for any Iranian increase beyond JCPOA limits is unlikely to be credible and effective as a deterrent. Especially in the case of a slow expansion in Iran's nuclear program, many states would be reluctant to impose stiff penalties. It would be much more credible to threaten a strong response to Iranian actions likely to be viewed as suspicious in terms of Iran's civil nuclear plans and indicative of a possible intention to move toward a nuclear weapons capability.

So, the United States should work with others, including the Europeans, Russia, and China, to identify Iranian steps that would be considered particularly provocative and urge those countries to signal Iran, individually or collectively, that such provocative steps could trigger a strong international reaction. Among those steps might be enriching to 20 percent or greater, exceeding a certain installed and operating SWU threshold, returning

to the Arak reactor's original design, resuming uranium enrichment at the Fordow facility, scaling back cooperation with the IAEA, refusing to ship spent fuel out of Iran, procuring sensitive materials and equipment illicitly, and engaging in activities related to the development of nuclear weapons (i.e., Section T activities).

Deterring an Iranian breakout to the production of HEU/nuclear weapons. Clearly, the most consequential Iranian action the United States and its partners would need to deter is a sudden breakout to the production of highly-enriched uranium for use in nuclear weapons. Iran could achieve this breakout either by acquiring a large-scale enrichment capability that it could then turn to HEU production, or by stockpiling LEU and then introducing it into a relatively small set of operational centrifuges optimally configured for enrichment to weapons-grade.

Deterring an Iranian nuclear breakout should involve both economic and military components. The U.S. president should state that, in response to Iranian breakout and movement toward the production of nuclear weapons, the United States would immediately impose severe sanctions on Iran—for example, a global secondary sanctions program in which any transaction with Iran, with the exception of transfers of humanitarian goods and services, would be sanctioned. To amplify the deterrent strength of the declaration, the president could seek congressional legislation authorizing the president to implement such sanctions, provided that the administration can provide credible evidence to Congress that an Iranian breakout is underway. Moreover, the U.S. administration should seek commitments from likeminded countries to join in making similar deterrent threats.

While the threat of severe economic sanctions would be credible in these circumstances, it is unlikely alone to be effective in deterring an Iranian breakout under all plausible scenarios. By the time Iran achieves a large-scale enrichment capability, it would have endured and survived some very tough pressures from at least the United States. And if Iran's leadership decides that the acquisition of nuclear weapons, despite all the attendant risks, is a compelling national security priority, it is unlikely to be deterred by the threat of yet another wave of sanctions.

The additional threat likely to have the most potent deterrent effect is the threat of the use of military force. At a minimum, a U.S. military attack would target Iran's nuclear facilities and, in order to minimize aircraft losses, the air defense network that protects them. But it could be significantly more extensive, and Iran's leaders would not know in advance the scale of the attack. Such military action would have the potential to thwart an Iranian breakout attempt, inflict a humiliating military defeat on the Islamic Republic, and perhaps jeopardize the stability of the regime.

The use of force would not prevent the regeneration of Iran's nuclear program in a matter of a few years and would undoubtedly lead to Iranian retaliation against U.S. and partner interests in the region. It might even encourage Iran's leaders to promptly restart their nuclear program with the dedicated intention of acquiring nuclear weapons as a means of responding to defeat and deterring future attacks. But if Iran's acquisition of nuclear weapons is truly imminent, the risks associated with these potential Iranian responses to military attack seem acceptable.

The effectiveness of the threat of military force as a deterrent would depend on its credibility in the eyes of Iran. In evaluating the likelihood that the United States would use military force, Iranians may believe they have received unclear or even contradictory signals from recent U.S. administrations.

The Obama administration considered a military strike, but believed there was time to address the issue diplomatically, notwithstanding some pressure from Israel to the contrary. Among the reasons for Obama's decision to set aside the military option in deference to sanctions-enabled diplomacy was that, at the time, an attack would have been directed at civil nuclear activities in compliance with IAEA safeguards; there were no indications of preparations to break out toward nuclear weapons; and consequently there was still an opportunity to address the threat of Iran's nuclear program peacefully. Many Obama administration officials are confident that, in different circumstances—in particular, if there was clear-cut evidence that the Iranians were moving precipitately toward nuclear weapons—the president would not have hesitated to authorize the use of force to stop them.

Iran may be uncertain of the signals coming from the Trump administration about the possible use of military force. On the one hand, President Trump has used strong rhetoric pledging to prevent Iran from acquiring nuclear weapons; he authorized a cruise missile attack against Syria in response to Bashar Assad's use of chemical weapons; and he has some advisers who have favored regime change and even the use of force against Iran. On the other hand, he has stridently condemned President George W. Bush's invasion of Iraq; took great pains to limit the scope of the cruise missile attack against Syria; retreated from his "fire and fury" rhetoric against North Korea; remarked on January 2, 2019 that the Iranians "can do what they want [in Syria]";93 and overall has been extremely reticent about involving the United States in conflicts in the Middle East and elsewhere.

The Iranians may believe that the United States and international community are not willing to use force or otherwise act decisively, given current divisions in Washington (including within the Trump administration), the present trans-Atlantic rift, and the poor state of U.S. relations with Russia and China. But they may also calculate that these differences would quickly be overcome in the event of an extreme nuclear provocation by Iran.

To reinforce the credibility of the threat to use military force to block an Iranian nuclear breakout, the United States should take several steps:

- U.S. presidents should declare that it is U.S. policy to prevent Iran from acquiring nuclear weapons and that the United States is prepared to use military force, if necessary, to achieve this objective.
- To demonstrate that Congress and the executive branch are unified in ensuring that Iran will not acquire nuclear weapons, the Congress should consider adopting an Authorization for the Use of Military Force (AUMF) to prevent Iran from acquiring nuclear weapons. To avoid abuse by the executive, the AUMF should state that, before military force would be authorized, the president would be required to make a certification to Congress—supported by credible evidence supplied to Congress by the intelligence community-that Iran is breaking out of its non-proliferation obligations and moving actively toward nuclear weapons. It should also make clear that, in the absence of such a certification, the use of force would explicitly not be authorized, either by the new AUMF or any other existing one. And of course, Congress would retain its authority to fund military operations or de-fund them if it believes the justification for them is lacking.

- · Especially if and when Iran acquires a large-scale enrichment capability that significantly reduces breakout time, the United States should have plans in place for stopping an Iranian breakout attempt with military force and should maintain ready military forces capable of executing those plans in an effective and timely manner.
- The United States should engage in quiet consultations with regional partners and key partners outside the region about the evolving nature of Iran's nuclear program, warning indicators of breakout intent, and potential triggers for military action.
- The United States should take any necessary steps to protect U.S. and partner interests in the region against Iranian and Iranian proxy responses to a U.S. military attack, including cooperation with partners to deploy effective defenses against missile and rocket attacks, efforts to enhance civil defense capabilities, and planning for mitigating the consequences of Iranian retaliatory actions.

VII. DIPLOMACY

Sanctions, counterproliferation, and deterrence can impede Iran's efforts to enhance its nuclear capabilities and place pressures on it to restrain its nuclear program. But coercive tools alone cannot ensure that Tehran will not acquire nuclear weapons or the ability to produce them rapidly. Such tools must be complemented by efforts to achieve Iranian support for agreed limits on its nuclear activities. Only verifiable, negotiated limits can provide confidence about the extent to which preventative measures have succeeded in impeding Iran's capabilities. And negotiated limits on the Iranian nuclear program can be an essential feature of a broad U.S. strategy to address the many dimensions of the Iranian challenge to regional and international security.

Whether or not the JCPOA survives, negotiations are needed

Negotiations to achieve Iranian nuclear restraint should be pursued whether or not Iran continues to abide by the JCPOA. Even before U.S. withdrawal cast doubt on the survivability of the JCPOA, it was recognized—by both supporters and opponents of the nuclear deal—that diplomatic efforts would be needed to continue nuclear restrictions and monitoring measures after the expiration of key JCPOA provisions between 2023 and 2035. If Iran chooses to remain bound by the JCPOA and the agreement survives, talks would need to get underway relatively soon to address the problem posed by the deal's sunset provisions.

If, on the other hand, Tehran leaves the JCPOA and begins ramping up its nuclear program long before the deal's limits are scheduled to expire, the need for negotiations to arrive at new restraints would be more urgent—and the negotiating challenge of seeking to roll back a revived and growing Iranian program would be significantly greater. Either way, it is essential for the United States to adopt a strategy for constraining Iran's future nuclear capabilities through negotiations.

Nuclear negotiations in the context of overall U.S. Iran policy

A fundamental question that any U.S. administration will face is how to relate its efforts to negotiate restraints on Iran's nuclear program to its efforts to deal with other dimensions of the Iranian challenge, including Iran's destabilizing support of Hezbollah, the Houthis, Hamas, and other proxy forces; its direct involvement in regional conflicts via the IRGC Quds Force in Syria and elsewhere; its role in acts of terrorism (including recent assassination plots in Europe); its expansive ballistic and cruise missile programs;⁹⁴ its threats to navigation in the Persian Gulf; its detention of citizens of the United States and other countries; and in general, its ambition to extend its influence in the Middle East at the expense of U.S. partners in the region.

The Obama approach and its critics. The Obama administration decided to confine its negotiations with Iran to the nuclear issue (although on the sidelines of the nuclear negotiations, it sought to secure the release of American citizens being held in Iranian prisons). It prioritized the nuclear issue because it believed that Iran's nuclear program posed the most urgent threat to the United States and its regional partners and that its acquisition of nuclear weapons would dramatically shift the regional balance and increase Tehran's readiness to act aggressively in the region. The administration also recognized that, while its P5+1 negotiating partners shared its assessment of the Iranian nuclear threat, there was no consensus, especially with the Russians and Chinese, on the non-nuclear threats and how to address them. The Obama administration calculated

that bringing those other issues into the talks would prolong and complicate the negotiations and most likely block any agreement, which would forfeit the opportunity to impose constraints on Iran's nuclear activities. Moreover, it believed that it would not be appropriate to address regional issues without the participation of America's regional partners, who were not present in the P5+1 talks with Iran.

At the same time, senior Obama administration officials argued that the JCPOA's focus on the nuclear issue would not inhibit their determination to counter the broader Iranian threat. They said they would push back vigorously against the full range of Iran's objectionable activities, but would do so separately from the nuclear negotiations.

A principal argument against the JCPOA by its opponents—aside from their criticism of the deal's sunset provisions and what they consider to be its inadequate verification arrangements—was that it failed to address the non-nuclear challenges posed by Iran, especially its missile program and other destabilizing regional activities. Indeed, despite testimony by U.S. intelligence officials that the Iranians used a majority of the sanctions relief provided by the JCPOA for domestic projects, 95 and the assessment of the Congressional Research Service that "it is not clear that the extra defense funds [available from sanctions relief] contributed to any expansion of Iran's regional activities, 96 critics claimed that the sanctions relief led to a significant increase in provocative Iranian regional behavior by providing Tehran a windfall of additional resources that could be used, for example, to fund its missile program or pay non-Iranian Shiite fighters to do Tehran's bidding.

Moreover, notwithstanding the Obama administration's contention that it would act firmly outside the nuclear negotiations to counter Iran's malevolent non-nuclear activities, the critics charged that the administration provided a weak and half-hearted response to those activities and even pulled its punches, including in addressing Iran's intervention in Syria, so as not to jeopardize the nuclear negotiations. The critics' argument that Obama's singular focus on the nuclear issue ignored, and even exacerbated, the broader Iranian challenge was heavily responsible for the inability of his administration to gain broad domestic support for the JCPOA, with a majority in the Congress, including some key Democrats, voting against it.

Trump seeks a comprehensive deal. The JCPOA's failure to address the Iranian challenge comprehensively is one of the main reasons given by the Trump administration for withdrawing from it. Rather than address the nuclear issue separately, the Trump team says it favors a comprehensive "new deal" covering not just more rigorous nuclear restraints than those contained in the JCPOA but the resolution of a full range of concerns about Iranian behavior, as set forth in the 12 requirements outlined by Secretary Pompeo in May 2018. Administration officials seem to be saying that their demands are essentially inseparable. As noted earlier, rather than looking to negotiate separate solutions to their various concerns, they appear to be counting on their maximum pressure campaign to compel an across-the-board capitulation to U.S. demands.

Leaving aside the unrealistic and excessively demanding character of the administration's 12 requirements, the approach of seeking a comprehensive agreement covering the full range of disparate U.S. concerns—and apparently linking a resolution of each of those concerns to a resolution of the others—is likely to prove unworkable and counterproductive. Such an approach could hold a favorable new nuclear deal—a high national security priority—hostage to the resolution of other issues that may be less

tractable, less resolvable in the same timeframe, or a lower national priority. It could also create pressures for unwarranted trade-offs among issue areas. Rather than address the nuclear issue in a mega-deal covering the full range of provocative Iranian activities, the United States should pursue a separate nuclear agreement.

Nuclear negotiations in the context of a broad Iran strategy. In order to ensure adequate domestic support for a new nuclear deal and make it sustainable, any new diplomatic effort on the nuclear issue will have to be part of a broad and widely supported strategy that effectively addresses all problematic elements of Iranian behavior in parallel—albeit separately. The United States should not tightly link negotiations on new nuclear restraints to progress in addressing other dimensions of the Iranian challenge. But to achieve the support of Congress, the American public, and key regional partner governments for its nuclear diplomacy and an eventual agreement, it will be essential for the U.S. administration to demonstrate convincingly that the various elements of a broad U.S. strategy toward Iran are being actively and effectively pursued.

This approach assumes that it is possible, and politically manageable domestically, for the United States to negotiate an essentially transactional deal with Iran on the nuclear issue and possibly other issues, while the two countries maintain an adversarial relationship in remaining areas. An approach mixing elements of cooperation and confrontation worked during the Cold War, when the United States and Soviet Union concluded mutually beneficial nuclear arms control agreements even while they competed globally.

A similar approach can work in the current U.S.-Iranian context, at least from the U.S. perspective, under certain conditions. In particular, a new nuclear agreement must be seen as effectively constraining Iran's future nuclear capabilities; any incentives provided Iran to get the nuclear deal (primarily sanctions relief) must be viewed as warranted and as not undercutting other U.S. objectives vis-à-vis Iran; and the administration must be seen to be pursuing an overall strategy that effectively addresses the full range of U.S. concerns with Tehran. And while a new nuclear deal does not depend on a significant improvement in U.S.-Iranian relations or a more stable and peaceful Middle East, a less confrontational U.S. relationship with Iran, a resolution of outstanding regional disputes, or a reduction of regional tensions (especially between Iran and Saudi Arabia and between Iran and Israel) would make it easier both to negotiate a new nuclear deal and to win domestic support for it.

Prospects for entering into negotiations

The Trump administration states that a key purpose of its maximum pressure campaign is to bring Iran to the negotiating table. On a number of occasions, President Trump himself has showed an interest in trying his hand at personal diplomacy with Iran. At a White House news conference with the Italian prime minister in July 2018, he said he is willing to meet with Iran's leaders "anytime they want." Earlier that month, he expressed confidence that negotiations will take place: "At a certain point, they're going to call me, and they're going to say, 'Let's make a deal,' and we'll make a deal."

But near-term prospects for negotiations are not promising. Although the Trump administration repeatedly calls for a new deal, senior officials seem less than enthusiastic about early engagement with Tehran, especially before the re-imposition of sanctions has had an opportunity to devastate the Iranian economy and give Iran's leaders more powerful incentives to accept U.S. demands. A number of statements

by senior administration officials suggest little interest in any engagement with Iran. For his part, National Security Adviser John Bolton argued, prior to entering office, that the Trump administration "may wish to consider rhetorically leaving [the possibility of further negotiations] open," but only because he believed it would "demonstrate Iran's actual underlying intention to develop deliverable nuclear weapons."99

Iranians have not ruled out future negotiations, but the Iranian government is not eager for them, at least under current circumstances. In an interview with NBC News, President Hassan Rouhani said, "If someone is interested in negotiations, he does not use the weapons of sanctions and threats. ... The United States must rebuild the bridge that it has destroyed with its threats, sanctions, and withdrawal from the JCPOA, so we can return to the initial conditions, and thus create a suitable atmosphere in which the two countries can make plans for their future."100 Asked whether Iran would engage with the Trump administration, Foreign Minister Javad Zarif told USA Today, "I'm not saying that we can't negotiate with this administration. ... [But] there has to be the foundations for fruitful dialogue. It doesn't have to be the next administration. It has to be a new approach. ... I believe human beings are able to change. This administration can have a different approach."101

Still, the door to engagement with the United States appears closed for now by Iran. In an August 29, 2018 meeting with President Rouhani and his cabinet, Supreme Leader Ali Khamenei asked rhetorically, "why would we talk to the current shameless and brazen officials who are wearing their swords against Iran? Therefore, no talks will take place at any level with the United States." ¹⁰² In an October 27, 2018 communique, the Iranian Ministry of Foreign Affairs reiterated the government line that "any talks with the oathbreaking, lawless, and anti-Iranian administration of Mr. Trump are useless." 103

While the Iranian people are often portrayed as pro-American, recent polling data from early 2018 shows that the U.S. government was seen unfavorably by 93 percent of Iranians, compared to 53 percent who had an unfavorable view of the American people. The same poll showed that in the three years following the completion of the JCPOA. confidence in the United States to fulfill the terms of the agreement fell from 45 percent to 12 percent. 104 These trends in public opinion were probably reinforced by the reimposition of U.S. oil, financial, shipping, and other sanctions on November 5, 2018.

Iranians across the political spectrum resent being pressured to renegotiate a deal they believe already contains major Iranian concessions; they find it difficult to negotiate while U.S. sanctions are increasing (once the JPOA was reached in November 2013, U.S. sanctions were frozen during the JCPOA negotiations); they resist the idea of pursuing a new agreement with a government they see as untrustworthy and unreliable for violating the existing one; and they see little to be gained in negotiations with an administration they believe is dedicated to regime change. Although the Trump administration hopes the intensification of sanctions pressure will sooner or later compel Iran to come to the negotiating table or simply accept U.S. demands, the impact, at least so far, of the reinvigorated sanctions, uncompromising demands, and apparent intention to topple the regime has been to stiffen popular resistance to U.S. pressures. This has played into the hands of hardline Iranian opponents of accommodation with the United States and put Iranian supporters of engagement with Washington on the defensive.

In addition, the Trump administration's shattering of the P5+1 unity that led to the JCPOA—and especially the bitter rift between the United States and its European allies—does not bode well for getting productive nuclear negotiations underway. The Europeans, Russians, and Chinese presumably all favor a return to negotiations. But for negotiations to have any chance of success, the United States will need support from its partners for a common negotiating position and a common willingness to place strong pressure on Iran to accept such a position. Today, however, likely U.S. partners in any future negotiations are deeply resentful of the Trump administration's unilateral approach, oppose its maximum pressure campaign (especially the threat of secondary sanctions against them), and believe U.S. negotiating demands are far too excessive.

Creating improved conditions for negotiations

Pressure will be essential to bring Iran to the negotiating table and achieve meaningful nuclear restraints. But pressure tied to unrealistic demands or aimed at promoting regime change will not result in successful negotiations. A pragmatic balance must be struck between the requirement for pressures strong enough to induce Iranian flexibility toward the negotiations and the requirement for Iranians to believe that negotiations can result in an agreement consistent with their interests. Striking that balance—and creating other conditions more conducive to getting talks underway—will require significant changes in the current U.S. approach.

- As discussed earlier, the United States needs to re-focus its sanctions campaign.
 U.S. sanctions policy should demonstrate that the main purpose of pressure is
 to provide leverage for negotiations and not to bring down the regime, and U.S.
 sanctions should be pursued in a way that narrows the rift with partner governments
 and rebuilds support for a multilateral sanctions coalition that can work together to
 pressure Iran to negotiate on the nuclear issue.
- The United States should signal—both publicly and privately, including to Iran—that it has firm but realistic goals for the negotiations (see below). Secretary Pompeo's demands on the nuclear issue, including a complete ban on enrichment and "anywhere, anytime" inspections, go beyond what any Iranian government would be willing or politically able to accept. Moreover, the administration has conveyed the impression that it is not really interested in bargaining over particular demands, but instead seeks a fundamental shift in Iran's overall behavior that would result in a capitulation to all U.S. demands. If the United States continues to take such an uncompromising approach, Iran will see little value in entering into negotiations.
- The United States should credibly disavow the objective of regime change. Trump administration officials have repeatedly stated that their policy is to change Iran's behavior, not to promote the collapse of the regime. But their public remarks often contradict that assertion and convey the impression, certainly in Iran, that their true goal is to upend the current regime. While many Iranians have serious and legitimate grievances against their system of government—as manifested in recent widespread protests—Iranian opponents of engagement will use perceived U.S. support for regime change to play on the public's fear of turmoil and chaos and rally support for the regime. Washington should express the view that any changes in Iranian governance will come from within, not from outside, and that the U.S. government is prepared to negotiate with the current regime in Tehran.

- While working with its regional partners to counter Iran's aggressive policies, the United States should indicate that, if the Iranians demonstrate that they are genuinely prepared to play a less disruptive and more constructive role in the region, Washington is willing, in close coordination with its regional partners, to engage directly with Tehran to explore whether real opportunities exist for reducing regional tensions or reaching a U.S.-Iranian modus vivendi. Although the likelihood of constructive dialogue on regional issues in the near term may be small, U.S. willingness to keep channels of communication open and to acknowledge that Iran has legitimate interests in the region (but not a license to destabilize its neighbors) could increase receptivity in Tehran to negotiating with Washington on further nuclear restraints.
- The United States will need to mend fences with the Europeans, whose support is essential for bringing Iran back to the negotiations and for achieving successful negotiating outcomes. Hard feelings toward Washington remain among the British, French, and Germans due to President Trump's abrupt dismissal of their efforts with administration officials in the spring of 2018 to salvage the JCPOA, his unilateral decision to withdraw against their strong advice, his administration's resistance to their appeals to grant sanctions waivers for European companies, and its threats to target European companies and banks directly. Washington has considerable work to do to get the Europeans back on the same team, including by adopting a more flexible approach to the imposition of sanctions (as discussed earlier) and by seeking a consensus with them on negotiating outcomes that can be supported on both sides of the Atlantic.
- The United States will also need to rebuild bridges to other important partners. Working closely with the United States, the Russians and Chinese made important contributions to achieving the JCPOA. But strong opposition in Moscow and Beijing to U.S. withdrawal and to U.S. threats to impose sanctions against their companies—as well as increasing strains in their bilateral relations with Washington—have aligned them much more closely with Iran than with their former P5+1 partners. The United States needs their help in future negotiations, both to support, or at least not undercut, sanctions pressures and to join with Washington to encourage Iranian acceptance of future nuclear limits. As in the case of the Europeans, this will require greater U.S. flexibility in the imposition of sanctions against them and greater realism about negotiating outcomes. It will also require a readiness to set aside current bilateral differences and work together in support of their shared interest in preventing Iran from acquiring nuclear weapons.
- The United States will also need to address concerns about re-engaging with Iran on the part of key U.S. partners in the Middle East. Unlike in Northeast Asia, where South Korea, China, and, to a lesser extent, Japan favor engagement with North Korea, key American partners in the Middle East—mainly Israel, Saudi Arabia, and the United Arab Emirates—have grave doubts about new negotiations with Iran, and they have demonstrated their ability to use their influence in Washington to stoke opposition to the JCPOA. They can be expected to favor a hardline agenda of pursuing maximum pressure in the interest of precipitating the collapse of the regime in Tehran. The pragmatic negotiating proposals that could bring the Europeans, Russians, and Chinese on board are likely to be seen by U.S. regional partners as not nearly demanding enough. In preparation for new negotiations, Washington will need to consult with them closely and make a persuasive case that the outcome

it is pursuing has the best chance of preventing an Iranian nuclear threat to the region. But more important than persuading them that a prospective nuclear deal is sound will be demonstrating that the United States is serious about countering the non-nuclear threats they face from Iran. It was the perception that the United States was not addressing those non-nuclear regional threats adequately, more than the supposed flaws of the nuclear deal itself, that led U.S. regional partners to oppose the agreement. An effective U.S. policy to thwart Iran's regional designs would go a long way to alleviate partner misgivings about new nuclear negotiations with Iran.

The United States must also be prepared to rely more heavily on international institutions in pursuing engagement with Iran. The Trump administration has been notoriously wary of depending on such institutions, but they will be critical in the effort to constrain Iran's future nuclear program. The U.N. Security Council will have an important role, whether in implementing UNSC Resolution 2231's transfer restrictions and procurement channel (if that resolution remains in effect) or in enforcing earlier, stricter UNSC resolutions (if they are snapped back into force). The IAEA and its Board of Governors will also play a crucial role, whether in continuing to monitor Iran's compliance with the JCPOA or in helping to develop and then to implement verification arrangements for a follow-on nuclear agreement. Members of the NSG will have to remain vigilant in maintaining export controls that can thwart Iranian illicit nuclear-related acquisitions. And while the United States is no longer a member of the Joint Commission, as long as that JCPOA multilateral implementation body exists, Washington will have to work with its members, especially the Europeans, to press for Iran's strict compliance with its nuclear restrictions. Used effectively, these multilateral bodies can give the United States leverage on the Iran nuclear issue that it would not have on its own.

U.S. objectives in future nuclear negotiations

While taking steps to reduce current obstacles to productive engagement with Iran, the United States government, internally and with Europeans and other negotiating partners, should consider the objectives of renewed negotiations on the nuclear issue.

U.S. policy must be to prevent Iran from acquiring nuclear weapons, but that requires not just preventing Iran from actually fabricating nuclear weapons. It also involves stopping Iran from becoming a threshold nuclear weapon state—that is, having the fissile material production capacity in place that would enable it, if it so decided, to break out of existing legal commitments and produce enough nuclear material for a bomb in less time than it would take the United States or others to detect the attempted breakout and intervene to block it. Preventing Iran from obtaining such a short breakout capability is especially important given Iran's previous program to develop nuclear weapons and its determination to keep its future nuclear weapons option open, as demonstrated by its preservation of secret files regarding its earlier weapons development efforts, which was exposed in April 2018 by Israeli intelligence.

The best way to achieve a long breakout time would be to eliminate any Iranian nuclear infrastructure for the production of enriched uranium or plutonium, primarily centrifuge enrichment and plutonium reprocessing facilities. But while Iran could possibly be persuaded to forgo reprocessing in perpetuity (having never invested much in that technology), getting Tehran to give up its enrichment capability altogether is exceedingly unlikely.

With Iranians across the political spectrum firmly committed to defending their supposed "right" to enrichment, the United States and its P5+1 partners failed in the JCPOA negotiations to secure the complete elimination of Iran's enrichment capability. Instead, they reached agreement on a substantial reduction of that capability, which increased Iran's breakout time from around two or three months to roughly a year, and they agreed on intrusive monitoring arrangements capable of providing very prompt warning of any breakout attempt.

Zero enrichment is still a non-starter. The Trump administration has now returned to the goal of zero enrichment, one of Pompeo's 12 requirements for a new deal with Iran. The administration's aggressive re-imposition of sanctions may well have given the United States more leverage on the nuclear issue than it had before U.S. withdrawal from the JCPOA, when the Iranians adamantly rejected any renegotiation of the deal's nuclear provisions, either to further reduce the limits on enrichment capabilities or to defer the dates when those limits are scheduled to expire. But the administration's harsh overall posture toward Iran has stiffened resistance in Tehran to making major concessions on politically charged issues that Iranian leaders believe were fairly settled in 2015-if not prior to then, as some Iranians point to the 2008 P5+1 reference to treating Iran like any other NPT party as an acknowledgment of Iran's right to enrich. 105 Moreover, while a ban on enrichment was not achievable when the United States had the unified support of the P5+1 countries, it is all but impossible now, when none of the other P5+1 would join the United States in pressing for a complete ban—and when it has yet to be proven that the post-withdrawal re-imposition of sanctions will be as devastating as the sanctions pressures faced by Iran in the run-up to the JCPOA.

With zero enrichment not in the cards, maximizing breakout time should be the primary U.S. objective in any future nuclear negotiations. But it is essential to take a fresh look at the concept of breakout time and to consider what elements of a future U.S. approach are most important to ensuring that Iran is kept sufficiently far away from the nuclear threshold.

Ensuring sufficiently long breakout time at declared facilities. One key component of maximizing breakout time involves declared enrichment facilities and activities. The goal is: (1) to have restrictions on enrichment activities at those facilities (e.g., numbers and types of centrifuges, enrichment level, enriched uranium stocks) that significantly lengthen the time it would take Iran to produce enough HEU for a single nuclear weapon, and (2) to adopt measures for monitoring those activities (e.g., remote, real-time monitoring) that can quickly detect cheating at those declared facilities. The idea is to have adequate time after detecting a breakout attempt to enable the international community to intervene effectively to thwart such an attempt.

The JCPOA contained unprecedented monitoring arrangements capable of near-immediate detection of cheating at declared facilities and a combination of restrictions on enrichment activities capable of preventing Iran from producing a bombs-worth of HEU in less than 12 months. With considerable justification, the Obama administration regarded the 12-month breakout time as a major achievement and featured it in its efforts to gain support for the nuclear deal in Congress and the American public. The 12-month period became a key criterion, perhaps the key criterion, for evaluating the merits of the JCPOA.

Why 12 months? Looking toward the requirements of a new or follow-on nuclear deal, it is important to ask how much breakout time is necessary to give the international community adequate time to intervene decisively and block a breakout attempt. The adequacy of breakout time at declared facilities depends on a variety of factors, including:

- How quickly Iranian breakout activities would be detected;
- Whether Iranian breakout activities are ambiguous and slow or, alternatively, brazen and rapid;
- Whether verification procedures provide opportunities for Iran to delay or obfuscate IAEA efforts to investigate and confirm suspected breakout moves;
- Prospects for gaining sufficient international support for strong actions to block breakout:
- The political will of the United States and others to act decisively to stop breakout, even in the absence of broad international support (e.g., a P5+1 consensus); and
- The range of options available to confront an Iranian breakout attempt, including diplomacy, the imposition of harsh sanctions, and the use of military force.

Even making pessimistic assumptions about several of these factors, the 12-month period seems unnecessarily long.

- Monitoring measures such as those in the JCPOA can ensure timely detection of cheating at declared facilities (well within two weeks).
- In the event of slow, ambiguous breakout activities, Iran can be expected to try to string out an IAEA investigation as long as possible. But rules on the timing of investigations, especially if those in the JCPOA are strengthened, can limit Iranian foot-dragging opportunities. And the more incremental Iran's breakout moves are, the longer it would take to execute a successful breakout, and the longer the international community would have to intervene effectively.
- In the event of a more brazen, rapid breakout attempt (e.g., sudden installation
 of more high-performance centrifuges, reconfiguration of centrifuge cascades to
 enrich at higher levels, eviction of IAEA inspectors), it would be easier to gain P5+1
 support for a strong, prompt collective response or even acquiescence to unilateral
 American actions.
- Responding to a breakout attempt with the imposition of harsh sanctions could take time to have an impact, especially if U.N. Security Council authorization is sought. But in the past, in the wake of strong provocations such as Iraq's invasion of Kuwait or North Korea's illicit reprocessing campaign (both actions less immediately threatening to international security than an Iranian surge toward nuclear weapons), the United States was able very quickly to mobilize resolute international responses. It is important to note that the impact of sanctions in such a scenario is not just their immediate effects but also the impact the Iranians calculate the sanctions will have over time and whether Iran believes the international response would be limited to sanctions.

- While broad international support for sanctions is preferable, unilateral U.S. sanctions can be both quick and effective. Following U.S. JCPOA withdrawal, the speed with which many foreign companies began to distance themselves from Iran, even before the re-imposition of U.S. sanctions took effect, is an indication that, if the United States is prepared to act boldly, Iran will begin paying a high price soon after its attempted breakout is detected. Moreover, the adoption in advance of legislation mandating U.S. sanctions in response to a breakout attempt—which would be triggered by an intelligence community assessment that such an attempt is underway—would help deter breakout and signal that a harsh response to breakout could be implemented quickly.
- The action most capable of thwarting an Iranian breakout attempt would be a military strike against Iranian enrichment and related facilities, most likely by the United States or a state in the region. The Obama administration chose not to carry out a military strike because, at the time, it would have been directed at compliant civilian nuclear activities under IAEA monitoring; there were no indications of breakout toward nuclear weapons; and potentially productive negotiations were underway to address the threat peacefully. But inhibition against using military force would be much less in the event of a clear-cut effort by Iran to violate its obligations and lurch toward nuclear weapons. And once the United States has concluded that such a breakout was underway, a military strike could be carried out in a matter of weeks, if not days.

Although the U.S. objective in new negotiations should be the longest possible breakout time, there is nothing uniquely important about a one-year breakout period. The JCPOA's 12-month period was not supported by the United States because it was assessed to be the minimum time required to allow the international community to intervene effectively. Instead, it became a key negotiating goal largely for political reasons: It was relatively easy to explain, politically saleable, and a stark and impressive improvement over the two- to three-month breakout time that prevailed when the JCPOA was concluded. And not least important, it was achievable. A shorter breakout time would have been adequate.

Preventing breakout at undeclared facilities. While focusing on breakout time at declared facilities is important, of equal or perhaps greater importance is preventing Iran from breaking out at undeclared—that is, covert—nuclear facilities. The U.S. intelligence community's 2007 National Intelligence Estimate assessed "with moderate confidence that Iran probably would use covert facilities—rather than its declared nuclear sites—for the production of highly enriched uranium for a weapon." 106 Many experts share this assessment.

Maximizing breakout time at declared facilities is very different than maximizing breakout time at covert facilities. A year's breakout time at the Natanz enrichment plant-based on a particular combination of nuclear restrictions and transparency measures—has no bearing on the time it might take Iran to produce fissile materials at clandestine facilities, which, by definition, are banned and not subject to the kind of specific limitations that determine breakout times at declared facilities. Preventing covert breakout requires measures that can provide confidence that Iran cannot operate key elements of a clandestine uranium fuel cycle without detection. Any undeclared nuclear facility or activity would be a violation of the nuclear agreement and its detection would be a presumptive indicator of breakout intent.

A clandestine fuel cycle requires access to nuclear materials and special equipment that successfully evade international monitoring. The JCPOA sought to prevent such access by greatly expanding the scope of IAEA monitoring to include such declared locations as uranium mines and mills, uranium conversion facilities, and centrifuge production and storage facilities. It also established a procurement channel requiring approval of imports for Iran's legitimate civil nuclear program and adopted highly intrusive technical and human monitoring arrangements at known enrichment and other sensitive facilities. In addition to detecting breakout from declared facilities, these measures were intended to deter and detect the diversion of equipment and materials from legitimate, JCPOA-permitted civil nuclear activities to a covert program.

Any approach to preventing covert breakout must address the possibility that Iran may try to circumvent such anti-diversion measures and pursue illicit activities at undeclared locations. To deter and detect such covert activities, a new nuclear agreement must provide for procedures that give the IAEA timely access to conduct technically effective inspections at any sites in Iran where the IAEA suspects violations may be taking place.

Finding a carefully hidden nuclear facility, especially a small and readily concealable one, can be extremely difficult. But it should be kept in mind that any successful covert enrichment program would require several undetected facilities and activities-either an entirely covert enrichment supply chain (including facilities for the production and storage of uranium ore, yellowcake, uranium hexaflouride, enriched uranium, and centrifuge components) or a combination of covert and declared facilities (for example, illicit diversion of LEU from a declared storage facility to a small, undeclared enrichment plant for further enrichment to weapons-grade HEU). While it may be possible to conceal one or two elements of a covert program (e.g., a small workshop for manufacturing centrifuge components), avoiding detection of the entire chain of activities and facilities-and movement of materials and equipment from one facility to anotherwould be a significant challenge, especially in the presence of monitoring and inspection arrangements at least as robust as those in the JCPOA. Importantly, this is a challenge that Iran attempted in the past to overcome but failed, as several clandestine facilities were detected long before the introduction of uranium, much less the production of HEU. Past success in discovering covert Iranian facilities is no guarantee for the future, but, at a minimum, Iran's past failures at hiding a clandestine program will loom large in the minds of decisionmakers in Tehran.

It is also important to take into account that the ability to detect covert activities and facilities is not exclusively the responsibility of agreed monitoring and inspection arrangements to be implemented by the IAEA. The primary source of information about any covert Iranian nuclear activities may well be the national technical or non-technical means of verification of the United States and other interested powers, which can complement and trigger the agreement's verification mechanisms. These capabilities are robust and effective, as the discovery of Iran's nuclear archive by Israel—which did not even involve nuclear material—demonstrates.

Blocking the plutonium path. While most international attention regarding Iran's nuclear intentions has focused on the uranium route to nuclear weapons, U.S. objectives in negotiating a new agreement should also focus on blocking the plutonium route, which should be easier to achieve. While Iran insisted in the JCPOA negotiations on preserving an enrichment program and ensuring that restrictions on that program would expire after 10 and 15 years, it agreed to a series of constraints on heavy water reactors,

reprocessing, and spent reactor fuel that seemed to suggest that it had lost interest in keeping open a plutonium option. Among those constraints were the modification of the Arak reactor to make it incapable of producing weapons-grade plutonium for several years, a 15-year ban on spent fuel reprocessing and a statement of intent not to pursue reprocessing thereafter, a 15-year commitment not to construct new heavy water reactors or produce heavy water in excess of agreed needs, and a requirement to ship all spent reactor fuel out of Iran "for all present and future reactors." Unlike in the case of enrichment, Iran has not made any discernible investment in reprocessing and, according to IAEA reports going back to 2003, its reprocessing-related experiments and activities have not gone beyond an initial stage of development.

Ensuring longer-lasting restraints. A critical U.S. objective in future negotiations is deferring or, in some cases, eliminating the JCPOA's expiration dates applicable to enrichment restrictions, plutonium-cycle restrictions, and certain monitoring measures. These expiration dates were the product of difficult negotiations, with the United States pressing for the longest possible restraints and the Iranians insisting on the shortest possible ones, in some cases less than five years. While the compromises reached were much closer to American than Iranian proposals, the sunset provisions were widely viewed by American audiences, including by JCPOA supporters, as one of the deal's shortcomings because, especially in the enrichment area, Iran would be allowed after 8, 10, and 15 years—depending on the particular restriction—to begin rebuilding its enrichment program and eventually achieve a large, industrial-scale enrichment program capable of producing enough HEU for a nuclear weapon in a matter of weeks. Ever since completion of the JCPOA, it has been anticipated, by JCPOA advocates and critics alike, that a key purpose of any future nuclear negotiations would be to address the sunset problem.

Elements of a new nuclear deal

Based on the foregoing objectives—ensuring sufficiently long breakout time at declared facilities, preventing undeclared facilities and activities, blocking the plutonium path to nuclear weapons, and ensuring longer-lasting restraints—the following are some of the key outcomes the United States should seek in future negotiations. These outcomes should be pursued whether Iran continues to abide by the JCPOA's nuclear restrictions or whether it withdraws and is in the process of building its nuclear capabilities beyond the limits of the JCPOA—although in the latter case, we would expect that achieving these outcomes would be a significantly greater challenge.

- While the United States should pursue the longest possible breakout time at declared facilities, a period as short as six months should provide sufficient time, provided other aspects of the agreement (e.g., rigorous monitoring arrangements and expeditious IAEA investigation timeframes) increase the likelihood of timely intervention to thwart a breakout attempt.
- The United States can be flexible on the particular mix of restrictions on Iran's enrichment program. Any given breakout time—whether six or 12 months or anything in between—can be achieved with differing combinations of restraints. The JCPOA's period of 12 months resulted from limits of roughly 6000 installed IR-1 centrifuges, 300 kilograms of low-enriched uranium, enrichment no greater than 3.67 percent, and other restraints. But there is no need to replicate those specific limits if the desired breakout time can be obtained with a different combination of restraints.

- Some key JCPOA restrictions on enrichment should be retained (e.g., enrichment permitted only at the Natanz facility and limits on the number of spare centrifuges), some restrictions should be added (e.g., a limit on the inventory of unenriched uranium hexaflouride), some existing restrictions can be relaxed (e.g., advanced centrifuges could be installed and operated but in reduced numbers to conform to an agreed aggregate ceiling on SWUs);¹⁰⁷ and some can be dropped (e.g., the ceiling on the inventory of heavy water).
- Key JCPOA restrictions on the plutonium route should be retained: a ban on spent fuel reprocessing (including research and development) and the construction of heavy water reactors; the completion of the conversion of the Arak reactor; and the requirement that all spent reactor fuel be shipped out of Iran.
- The JCPOA's Section T commitment not to engage in a variety of activities associated
 with nuclear weapons development and not to acquire technologies or equipment
 that could assist in such work (e.g., explosive diagnostic systems, explosively driven
 neutron sources) should be retained, and the IAEA's role in verifying Section T
 (including accounting for any dual-use Section T-related equipment located in Iran)
 should be explicitly affirmed.
- Most IAEA monitoring arrangements provided for in the JCPOA should be included in a new agreement, including continuous online enrichment monitoring, monitoring of the entire uranium enrichment supply chain (e.g., early-stage monitoring of uranium mines, mills, and conversion; centrifuge production, storage and assembly), and continued provisional and later formal adherence to the Additional Protocol. A new agreement should also include a "fallback" safeguards arrangement that would maintain IAEA safeguards on Iranian enrichment-related facilities and materials produced at those facilities in the event that Tehran were to withdraw from the NPT (which would otherwise allow IAEA safeguards to lapse and permit Iran to use those facilities and materials in a nuclear weapons program).¹⁰⁸
- Monitoring Iran's nuclear-related imports would be one of the most important ways of verifying its compliance with a new nuclear agreement and guarding against any preparations for nuclear breakout. The best approach would be to continue and extend the duration of the procurement channel if Resolution 2231 remains in effect or, if Resolution 2231 has been replaced by snap-back, to re-create the procurement channel under a new UNSC mandate. However, if agreement cannot be reached on maintaining the procurement channel—most likely because of opposition by Iran and perhaps some of its friends to giving participants the right to approve and even veto transactions—Iranian importers and foreign exporters should be required to provide advanced notification to the IAEA and parties to the new agreement of all transfers of nuclear and dual-use items on the control lists of the NSG.
- The JCPOA's timelines for gaining IAEA access to suspect facilities in Iran, for escalating to the policy level cases of Iranian denial of access, for taking the matter to the Security Council, and for seeking and obtaining a Security Council response, should be accelerated. In particular, a new agreement should clarify precisely when the clock starts for Iran's obligation to provide access to IAEA-requested sites. At present, the process could allow for extended, informal negotiations between the IAEA and Iran about identified facilities. A new agreement could make clear that the timetable to provide access or face escalation to the Joint Commission would

start when the IAEA first identifies a facility to Iran. The United States should also try to secure a shorter timeframe for allowing IAEA access than the existing 24 days, which affords some possibility of removing incriminating non-nuclear equipment or materials prior to an IAEA visit. While the presence of nuclear materials may be detectable even after extensive removal operations, illicit activities that do not involve nuclear materials could be more difficult to discover after such operations. To impede sanitization of suspect sites, Iran should commit not to undertake any activities, including the removal of equipment and materials, that change the character of such sites while access discussions are underway. Evidence of Iranian efforts to modify a site would be grounds for immediate referral to the Joint Commission. Considering that any IAEA identification of a suspect facility will likely be accompanied by monitoring via national technical means, this may help deter sanitization attempts and raise the risks of covert activities generally. Consideration should also be given to compressing the 30-45 day period for escalating a dispute to the Security Council, balancing the need to move expeditiously to thwart any breakout attempt with the need to allow time for diplomatic pressures to force Iran to provide necessary transparency and cease any non-compliant behavior before the matter reaches the Council.

- A new agreement should also make explicit that the IAEA has a right to gain access
 to any facility or location in Iran, including military facilities, where it has reason
 to believe non-compliant activities are taking place and to conduct inspections—
 consistent with widely recognized and practiced "managed access" methods—in a
 manner and with the equipment it deems necessary.
- The duration of new or modified restrictions on Iran's nuclear activities should extend beyond the JCPOA's scheduled expiration dates. While permanent bans on reprocessing- and heavy water-related activities should be pursued, permanent restrictions on enrichment-related activities are extremely unlikely. The United States should seek enrichment-related restrictions with durations of at least 15 years from the time a new nuclear deal takes effect. For the JCPOA's monitoring arrangements of limited duration (e.g., continuous surveillance for 20 years of centrifuge rotor tube and bellows production sites), the United States should seek to extend them for five years after the expiration of the enrichment restrictions in the new agreement. Monitoring measures of indefinite duration, such as the Additional Protocol, should remain indefinite.

Trade-offs among an agreement's constraints. In evaluating possible negotiated outcomes, it will be important to think afresh about how the various constraints contribute to the goal of preventing an Iranian nuclear breakout. Restrictions on Iran's declared enrichment program that lengthen breakout time should remain an important objective. But given what most experts believe is the greater probability that Iran would break out covertly, it would make sense in seeking a new deal to give a somewhat higher priority to boosting the capability to detect covert activities—and increasing the ability to respond to breakout attempts in a timely way—relative to the objective of maximizing breakout time at declared facilities, which received top (and perhaps inordinate) priority in negotiating and selling the JCPOA.

U.S. negotiators should therefore be alert to trade-offs among negotiating outcomes that could serve U.S. objectives for a nuclear deal. For example, they should be willing to accept a breakout time at declared facilities shorter than the JCPOA's 12 months

(somewhere between six and 12 months), both because it would still provide sufficient time to intervene decisively to thwart a breakout attempt and because it could provide leverage to gain Iranian approval of other U.S. goals of significant value, such as effective measures to detect diversion from declared to covert facilities, expedited procedures for gaining IAEA access to suspect facilities and for escalating compliance issues to the Security Council, and especially longer durations for key nuclear restrictions.

The United States should also consider trade-offs among the various restraints that determine breakout time at declared facilities. For example, achieving an operating enrichment capacity greater than the JCPOA's roughly 6000 SWU ceiling may have enough political salience for the Iranians that they might be prepared, in exchange, to accept concessions in other areas (e.g., LEU inventory, enrichment level) that would still enable the United States to meet its objective on breakout time.

Framing a proposal to the Iranians. The reaction of Iran's leaders to a proposal that denies them the ability for many years to achieve their stated goal of acquiring an industrial-scale enrichment program will be driven primarily by several hard-headed considerations, including the economic pressures they face, domestic demand for a large-scale enrichment capacity, the positive incentives they are offered (discussed below), and their assessment of the strategic implications of forgoing a short nuclear breakout capability for a period significantly longer than they anticipated under the JCPOA's sunset provisions. But there may be value in framing U.S. and partner nuclear demands in terms that appear reasonable to the international community and that can be justified within Iran as serving the legitimate needs of Iran's civil nuclear energy program.

As discussed earlier in the chapter on Iran's civil nuclear plans, there is no persuasive argument, from the standpoint of cost-effective planning, for Iran to build a 190,000 SWU enrichment program for the foreseeable future. To increase its use of nuclear power to generate electricity, Iran will rely on foreign vendors of power reactors (for the time being Russian) who are able and eager to provide enriched uranium fuel for the reactors they sell to Iran at a cost lower than the enriched fuel the Iranians could produce themselves (if the Iranians were capable of producing safe and technically reliable fuel for foreign-supplied power reactors, which they are not and will not be for years). Moreover, the well-supplied and politically diverse market in enrichment services—as well as the recently created international fuel bank—can alleviate any genuine concerns in Tehran about politically motivated cutoffs of enriched fuel supplies, which the Iranians claim require them to produce enriched uranium indigenously. And Iran's operation of domestically designed and constructed nuclear power reactors—which in significant numbers might provide the most plausible justification for an industrial-scale domestic enrichment capacity—is still decades away.

The most plausible case Iran can make for an indigenous enrichment capability is to provide fuel for current and perhaps future research and isotope production reactors. But the enriched uranium needed to fuel research reactors is a tiny fraction of what is needed for power reactors. Current fuel needs for Iranian research reactors could be easily met with an enrichment capacity of 2000 SWU, lower than the level permitted in the JCPOA.

A negotiated outcome along the lines of the proposals described above—essentially relying for a considerable period of time on foreign-supplied fuel for foreign-supplied power reactors and producing and retaining only enough enriched uranium domestically to fuel research reactors—could be framed as serving the legitimate near- and medium-

term needs of Iran's ambitious civil nuclear energy plans in the most cost-effective way, while leaving open the option of increasing enrichment capacity at a future time when such a capacity might be better justified technically and economically. Of course, an Iranian leadership determined to have a threshold nuclear weapons capability as soon as possible—and willing to pay an economic premium to attain it—will not be won over by such an argument. But if Iran's leaders see value in a deal that could alleviate intense economic pressures, if there is political support in Tehran for boosting Iran's civil nuclear energy program for reasons unrelated to nuclear weapons, and if the leadership is willing to defer still longer the ability to increase Iran's nuclear capacity, an argument along these lines might be viewed as a useful way to sell a new nuclear deal to their domestic audience. And it would be seen as fair and reasonable by the international community, including by countries with large-scale nuclear power programs that rely on imported enriched fuel for their power reactors, such as Japan and South Korea.

Working with Russia on a new nuclear agreement. Persuading Iran to accept a new nuclear deal will require the United States to mobilize the support of its former P5+1 partners as well as other key countries. Russia will be critical. In the JCPOA negotiations, Moscow shared the interest of its P5+1 partners in limiting Iran's enrichment program, both because it genuinely did not want Iran to acquire nuclear weapons and because it did not want to reduce Iran's dependence on Russia for the supply of enriched reactor fuel, which is a lucrative source of income for Russia's nuclear industry. It worked closely with the United States in pressing Iran to restrain its enrichment program, and it played a central role in implementing key measures, such as accepting nearly the entire inventory of Iran's enriched uranium in exchange for an equivalent supply of natural uranium.

Russia presumably continues to favor a limited Iranian enrichment capacity. It is obligated to supply the first 10 fuel loads for all Russian-built power reactors (Bushehr 1, which is currently operating, as well as Bushehr 2 and 3, which are in their very preliminary stages). Reportedly, it has offered to supply fuel for the life of those reactors, which would undercut Iran's argument for an industrial-scale enrichment program. As noted earlier, while Moscow and Tehran have an agreement, at the latter's urging, to cooperate in the fabrication of reactor fuel, Russian officials confide that they have no intention to assist Iran in the capability to fabricate fuel for Russian WER reactors, which would work against Moscow's commercial interests as well as raise serious legal and safety questions.

Of the P5+1 countries, Russia has by far the greatest influence with Iran. It has worked closely with Iran on the Bushehr projects for over 20 years, which has fostered strong relations between the nuclear establishments of both countries. The political ties between Moscow and Tehran have improved considerably in recent years, including as a result of the "strategic partnership" they forged in support of the Assad government in Syria and their cooperation to minimize the impact of the U.S. sanctions campaign against Iran.

Despite the current acrimonious and unproductive state of U.S.-Russian relations and Moscow's strong opposition to the Trump administration's JCPOA withdrawal and maximum pressure campaign, the two countries share a genuine interest in constraining Iran's future nuclear capabilities. While conditions are not promising at present for engaging Iran on the nuclear issue, the United States and Russia, in coordination with other P5+1 members, should look for early opportunities to begin consultations on the elements of a new nuclear deal. Such consultations might usefully take place initially at

an unofficial, nongovernmental level, given the deep divisions on JCPOA issues among the P5+1, and especially between the United States and Russia.

Regional or sub-regional measures. During the JCPOA negotiations, the Iranians often resisted restrictions that no other non-nuclear weapon states party to the NPT have had to accept. On provisions where they eventually agreed to be singled out in this way, they usually insisted on finite durations, after which they would be bound by the same rules as other non-nuclear weapon states.

To make certain nuclear restrictions and monitoring measures more politically palatable to Iran in a new nuclear deal, several experts have suggested regional or subregional (e.g., Persian Gulf) arrangements that could enable the Iranians to accept restraints that would not apply uniquely to them. Of course, the value of such arrangements is not only, or even primarily, that they might facilitate Iran's adherence to measures it might otherwise oppose. If achievable, they would also establish important new multilateral non-proliferation constraints in a region of great proliferation concern—the Middle East. Among the arrangements that have been proposed are the following:

- A Middle East ban on nuclear weapons tests, which would include three states (Egypt, Iran, and Israel) whose adherence to the Comprehensive Test Ban Treaty is a requirement for its entry into force;
- A regional ban on new heavy water reactors;
- A subregional ban on reprocessing and reprocessing facilities;
- A region-wide commitment to rely exclusively on foreign-supplied fuel for foreign-supplied power reactors;
- A regional commitment to remove all spent power reactor fuel from national territories;
- A commitment by regional NPT parties that, in the event of withdrawal from the NPT, all equipment and material under IAEA safeguards before withdrawal would remain under safeguards and not available for use in a nuclear weapons program;
- A regional agreement that all new reactors will use fuel enriched to 5 percent or below and that the use of fuel greater than 5 percent in existing reactors (which is currently the case in several research reactors in the region, including the Tehran Research Reactor) will be phased out;
- A region-wide commitment to notify the IAEA of all imports of nuclear trigger list and nuclear-related dual use items:
- An assurance of reliable enriched uranium fuel supply to countries of the region, perhaps provided by a consortium of fuel suppliers or a regionally focused arrangement under the auspices of the international fuel bank;
- A regional (or preferably global) commitment by NPT non-nuclear weapon states to prohibit activities related to the development of nuclear weapons, along the lines of JCPOA Section T; and,
- A subregional commitment to adhere to the IAEA Additional Protocol.

While adoption of such arrangements would be a major gain for non-proliferation in the Middle East—and might also facilitate Iranian support for some measures—pursuing them is not without risk. In particular, failure in an effort to gain a regional or subregional consensus might reduce the likelihood of gaining Iran's approval of measures it might otherwise be prepared to accept on its own (e.g., a ban on new heavy water reactors or reprocessing). Moreover, to avoid certain restraints, Iran and other regional states might play the Israel card, refusing to accept limits Israel is not prepared to accept, or taking the position that they will accept new limits only if Israel joins the NPT. Such risks need to be considered carefully before pursuing such multilateral arrangements.

Form and legal character of a new nuclear arrangement

To make JCPOA restraints more effective and durable, negotiations must alter the original JCPOA bargain. It is not an option for the United States to simply rejoin the JCPOA and ignore the impending sunsets. The altered bargain can take several forms, including an amended JCPOA, a JCPOA left unchanged but supplemented by additional or follow-on measures, or a new agreement. Although some strong opponents of the JCPOA have called for scrapping the deal altogether, others have proposed amending or renegotiating some of its provisions, particularly its sunset provisions and some inspection procedures. In light of Iran's adamant opposition to renegotiation of the JCPOA, supporters of the deal have talked about leaving the JCPOA intact but supplementing it with additional or follow-on measures. It is not clear whether, in light of U.S. withdrawal and the re-imposition of sanctions, Iranians would now be more inclined to consider modifications of the original JCPOA. If so, they can be expected to argue that, if the United States seeks to re-open the deal and demand changes advantageous to it, Iran will have every right to do the same. On this question of what form an altered JCPOA bargain should take, the United States can be flexible, adopting any approach that can be supported both in Iran and domestically in the United States.

Whatever form a new arrangement takes, a key decision will be whether it should be legally binding. The JCPOA is not legally binding under international law. Instead, it is a set of political commitments by its participants—a joint "plan of action"—that its participants can decide unilaterally to stop honoring without legal consequences. Although the JCPOA consists of over a hundred pages of precise and painstakingly negotiated language, it is not considered, at least from a narrow legal standpoint, to be an "agreement"—even though all of its commitments were adopted by mutual consent (i.e., "agreed"). To avoid the impression that it is legally binding, the lawyers refer to it as a "deal" or an "arrangement," not an agreement (the term is not found in the JCPOA), although it is commonly if not correctly described, including often in this report, as an agreement.

The Obama administration believed that precise, reciprocal commitments that could be effectively verified were at least as valuable as legally binding obligations, especially since Iran has not always honored its legal obligations. The administration also favored a non-binding JCPOA because such a political commitment would not require Congressional approval—and the administration knew that, with Republicans and several prominent Democrats opposed to the nuclear deal, congressional approval would probably not be achievable.

Members of Congress, especially the Republicans, strongly objected to the Obama administration's plan not to seek legislative consent on an issue of such major national importance. To give Congress a say on the JCPOA, it adopted the Iran Nuclear Agreement Review Act of 2015, which gave Congress a right to re-impose sanctions if the president was not able every 90 days to make a certification regarding Iran's implementation of the deal, as well as the opportunity at the outset to block the JCPOA by adopting a joint resolution of disapproval. But opponents failed to muster enough votes for such a joint resolution that would be needed to override an expected presidential veto. As a result, the JCPOA, without majority support in either the Senate or House, was allowed to take effect.

The Trump administration maintains that a new deal with Iran should take the form of a treaty that would be ratified by a two-thirds vote in the Senate, although as discussed earlier, the administration's conception of a "new deal" appears to encompass a range of Iranian activities that go well beyond the nuclear issue. In calling for a treaty, Special Representative Brian Hook contends that the JCPOA should have been submitted as a treaty, but, he asserts, the Obama administration "did not have the votes in the U.S. Senate, and so they found the votes in the U.N. Security Council, and that's insufficient in our system of government if you want to have something enduring and sustainable." 110

There would be great value in having a legally binding agreement approved by Congress. Such an outcome, if achievable, would help make the agreement more sustainable domestically in the United States—and perhaps contribute to greater confidence in Iran that an agreement it negotiated with one U.S. administration would survive presidential transitions.

Although a treaty ratified by two-thirds of the Senate would provide no guarantee that a successor administration would not invoke the treaty's withdrawal provision (and U.S. withdrawals from arms control treaties may have led Iranians to believe that treaties are no more durable than "plans of action"), a treaty would still be the best means of demonstrating domestic support and promoting, if not ensuring, an agreement's longevity. But two-thirds is a high bar, especially on an issue as contentious as Iran.

A good alternative to a treaty would be a congressional-executive agreement, ¹¹¹ which would require approval by a simple majority vote by both houses of Congress and could be coupled with implementing legislation, which could facilitate relatively smooth and non-contentious implementation of key provisions, such as the issuance of any necessary sanctions waivers.

While explicit Congressional buy-in via approval of a treaty or a congressional-executive agreement would have major benefits for elevating a new nuclear agreement's international standing and promoting its longevity, ensuring a favorable vote in either the Senate or in both Houses would place a very high premium not only on having a nuclear deal that, on its merits, could command wide political support, but also on having a broad strategy on Iran that also could command wide support domestically.

It is possible that, for a variety of reasons—including a desire to preserve greater flexibility in implementing the deal or uncertainty about how it would fare in a congressional vote—a U.S. administration will again opt for a non-binding political commitment along the lines of the JCPOA. Although such an approach would not require action by Congress, it is virtually certain that members of Congress would pursue legislation giving them a significant role, including authority to constrain the executive's ability to issue any

sanctions waivers needed to implement the deal. Before pursuing a nuclear deal as a political commitment, the administration would need to be pretty sure, on the basis of extensive consultations on the Hill, that it has sufficient political support in Congress to avoid crippling legislation or other reactions that could put the future of the deal in doubt.

A new multilateral deal. An early issue to consider is whether a new arrangement, whatever its legal character, will be bilateral or multilateral and, if the latter, which countries will participate. A multilateral arrangement negotiated and approved by a group of countries would be best, for many of the same reasons the JCPOA was multilateral. A group of countries with a common interest in preventing an Iranian nuclear weapons capability would have greater weight and be more successful in persuading Iran to accept restraints than the U.S. acting alone, especially considering that Iranians might find it easier politically to make concessions to several countries standing in for the "international community" than to appear to be giving in to the country they accuse of bullying them. Similarly, several participating countries can be effective in insisting on Iran's strict compliance with its commitments, as has been the case with the JCPOA. And a multilateral arrangement allows the burdens of implementation to be shared, such as responsibilities under the JCPOA for removing and receiving excess Iranian LEU, converting the Arak reactor, and transforming the Fordow facility.

In terms of participants, a good case can be made for once again involving the same parties that participated in the JCPOA negotiations. They are intimately familiar with the issues that will need to be addressed, and having the five permanent member of the U.N. Security Council as participants will facilitate any Security Council action that may be required. As in the case of the JCPOA negotiations, bilateral engagements will play an important role, especially bilateral engagement between the two principal protagonists, the United States and Iran. But in the end, the active participation and endorsement of all the participating countries will be critical to giving the outcome international credibility and legitimacy. America's regional partners have a critical stake in the outcome and should be fully and actively consulted throughout the nuclear negotiations.

Starting point for negotiations. An issue that any U.S. administration would need to address in approaching a revised nuclear arrangement is whether to re-enter the original JCPOA at the outset of negotiations (which would require reversing the reimposition of sanctions and restoring JCPOA sanctions relief) or remain outside the JCPOA (which would maintain the Trump administration's re-imposition of sanctions). An argument for remaining outside is that re-imposed sanctions could provide substantial leverage for negotiating a new arrangement. In addition, re-joining the original deal, even for the purpose of negotiating a better one, could be strongly criticized by JCPOA opponents. An argument for re-joining the deal at the outset of negotiations is that it may be necessary in order to get Iran and perhaps others to the negotiating table. In addition, the intention would be to be bound by the original deal only temporarily until an improved arrangement could be worked out. In any event, the choice can be made at a future date when there is a real prospect of beginning negotiations, depending on the conditions prevailing at the time.

Whether the United States re-enters or remains outside, it should regard the JCPOA text as the starting point for negotiations—whether it is amended, supplemented, or used as the basis of a new agreement. Negotiators should not start from scratch, even as they seek new or modified provisions.

The extraordinarily detailed JCPOA and its annexes have been widely praised for providing the clarity and specificity needed to implement the deal effectively. While ambiguities and differences of interpretation have inevitably arisen in the course of implementing the JCPOA, they have almost always been resolved cooperatively and the results have been published so that the public is aware of agreed interpretations of the common text. Future negotiations, in addition to seeking to resolve major sources of disagreement, can also aim to nail down further implementation details. Most of the JCPOA's text would probably survive a new negotiation intact, although if the negotiators decide to pursue a legally binding agreement, language appropriate for a political commitment (e.g., "intend," "plan") would be replaced by terms denoting legal obligation (e.g., "agree," "shall," "undertake").

While it would be desirable in a new agreement to achieve agreed, common formulations on as many issues as possible, there may be some issues where substantive agreement is reached but one or more parties, often because of domestic political sensitivities, insist on handling such understandings separately and not giving them much publicity. For example, although the JCPOA's various restrictions on the testing, production, and deployment of advanced Iranian centrifuges lapse between eight and 15 years, the United States sought restraint and predictability for those activities even after the formal restrictions expire. Iran agreed with the P5+1 countries on a timeline for its centrifuge activities after the expiration of formal restrictions. But instead of making the timeline part of the JCPOA, the Iranians provided it to the IAEA as part of a confidential planning document it is obliged to prepare and periodically update under the Additional Protocol. The P5+1 countries regard Iran's "voluntary" plan on the introduction of advanced centrifuges as part of Iran's JCPOA commitment. It is possible in future negotiations that some Iranian nuclear commitments could be handled in a similar fashion (e.g., through official public Iranian statements of policy, an Iranian official communication of plans to the IAEA, a U.N. Security Council resolution noting Iran's stated plans).

Offering incentives for Iranian nuclear restraint

To make a new nuclear agreement possible, the United States will have to put positive incentives on the table. And just as in the JCPOA negotiations, those positive incentives will consist primarily of sanctions relief. In considering what sanctions relief to offer, any U.S. administration will face a dilemma. Given Iran's disillusionment with the sanctions relief provided in the JCPOA—because it did not result in the major boost to the Iranian economy that was expected and that its leaders promised—Tehran will want greater and more reliable relief than it received in the JCPOA, especially if the United States insists on stronger or longer-lasting nuclear restrictions than those contained in the JCPOA. But the more sanctions relief the U.S. administration offers to achieve concessions on a nuclear deal, the more domestic critics and regional partners will object, and the less leverage the United States will have to promote Iran's restraint in non-nuclear areas, especially its aggressive behavior in the region.

We recommend an approach based on the following considerations:

 The United States should offer more for more—more sanctions relief than under the JCPOA in exchange for more Iranian nuclear concessions than under the JCPOA. To have significant strategic value and to make sanctions relief politically justifiable, the nuclear constraints in a new agreement would need to be favorable from a U.S. perspective—more restrictive, longer duration, and/or more verifiable than in the

JCPOA (and not just in comparison to the status quo at the time a new agreement is reached, when Iran may have built up its nuclear capabilities and reduced its monitoring commitments). This will be a challenge. The Iranians believe they made major nuclear concessions in the JCPOA and received less than they expected in return. Especially if the current round of re-imposed sanctions does not prove to be as devastating as the pre-JCPOA sanctions, the Iranian government will strongly resist giving the United States a better deal than it got in the JCPOA, and this resistance will be reinforced by Iranian hardliners. If the United States wants to improve upon the JCPOA, it will need to offer more in terms of sanctions relief and perhaps other incentives.

- In addition, whatever sanctions relief is offered by the United States (and others) would have to be seen by the Iranians as credible and likely to have the desired economic impact; otherwise it will have little value in inducing nuclear restraint. Iranian officials had unrealistic, inflated expectations about the positive economic effects of JCPOA sanctions relief. They did not fully appreciate the extent to which the U.S. non-nuclear sanctions that remained in force under the JCPOA—as well as the lack of transparency, problematic banking practices, and other factors making Iran an unattractive place to do business—would discourage international banks and businesses from engaging with Iran. While being clear with the Iranians about the relief it is not prepared to provide in a new agreement, the United States should take steps to increase the likelihood that the relief it is prepared to provide will result in real economic benefits, even if it fall short of unrealistic expectations.
- Sanctions relief provided to achieve a new nuclear deal must not undercut the U.S. ability to counter Iranian non-nuclear activities threatening to the United States and its regional partners. JCPOA critics charge that excessive and premature relief under the deal provided the resources Iran needed to support its regional proxies, build its missile capabilities, and engage in other destabilizing activities. Much of this criticism is off the mark or at least overstated. Iran pursued these activities even when the adverse impact of sanctions was at its peak, in part because many of these activities are relatively inexpensive or because they were a sufficiently high national priority to be pursued regardless of economic conditions. Still, sanctions can be a useful tool in addressing non-nuclear threats by putting pressure on Iran to alter its behavior. In a new nuclear deal, the United States should therefore make a firm separation between nuclear and non-nuclear sanctions relief and withhold the latter for use in pursuing non-nuclear objectives vis-à-vis Iran.
- To make sanctions relief in a new nuclear agreement politically palatable domestically, it will be necessary for the U.S. administration not only to achieve nuclear restraints that improve upon the JCPOA, but also to demonstrate that it is working actively—in parallel but separately—to address the non-nuclear dimensions of the Iranian challenge. Sanctions can play a significant role in dealing with these non-nuclear activities. But just as on the nuclear issue, sanctions alone will not be enough. It will require a wide range of policy tools in addition to sanctions, including diplomatic pressures, cooperation among regional partners, effective export controls and interdictions, military preparations and deployments, and—not least—engagement with Iran to explore prospects for reducing regional tensions and resolving regional disputes.

We recommend that sanctions relief under a new nuclear agreement include the following elements.

Restoration of JCPOA sanctions relief. The items selected for sanctions relief in the JCPOA were not chosen randomly. They were the result of extensive negotiations between the United States, Iran, and the rest of the P5+1. Importantly, they were designed to be interlocking and internally consistent, so that relief in one area was not inadvertently compromised by continued sanctions in another. Restoring the JCPOA's sanctions relief measures should be a starting point for constructing a package of incentives for a new nuclear agreement.

Even without providing new relief from sanctions, there are things that could be done to improve the operational effectiveness of JCPOA sanctions relief. The Iranians complained—with some justification—that there was inconsistent U.S. guidance given on how to strike an appropriate balance between discouraging objectionable Iranian nonnuclear behavior and making nuclear sanctions relief work. One of the clearest areas of potential conflict was the possibility that Iranian banks and businesses that were relieved of sanctions imposed for nuclear reasons would be subject to new sanctions for their involvement in non-nuclear activities of concern-and that foreign businesses and banks that decided, in the wake of nuclear sanctions relief, to deal with those Iranian entities would have scant opportunity to sever their connections and avoid fines or other sanctions penalties. To some extent, this is an unavoidable problem in that the United States can hardly offer Iran or third parties assurances that they will not be sanctioned for illicit activities not covered by an agreement. This would be akin to informing companies that they would not be affected if a business partner were to be found guilty of drug smuggling or human trafficking. At some level, there are fundamental risks that every company and bank must take in order to do business anywhere, but especially so with Iran.

But under the JCPOA, the United States could have taken a variety of steps to reduce uncertainty and improve confidence about engaging with Iran. For example, the United States could have announced-and should in any future agreement-that, although it will retain the right to impose sanctions on an Iranian company or bank if it were found to be violating U.S. sanctions laws, it will provide a limited safe harbor for third-party companies and banks to withdraw from business with that Iranian entity without penalty. The United States could say, for example, that so long as the third-party company or bank was not identified as complicit in the activities for which sanctions were being imposed, the United States would grant 180 days for it to unwind its business. This would be in keeping with the snap-back rules that were adopted by the Obama administration in association with the JCPOA as well as with the practice followed by the Trump administration with respect to sanctions imposed against Russian entities like United Company RUSAL, where the United States granted extensive leniency to foreign operators in order to avoid disrupting the aluminum market. Under such an approach, foreign companies would still have to know their partner or customer and take appropriate due diligence precautions. But if they know they would not face an immediate penalty for being associated with a newly sanctioned Iranian entity, they might be more inclined to engage with Iran in the wake of nuclear sanctions relief.

Similarly, in some specific areas of sanctions relief, there are steps that could be taken to provide greater certainty of benefit to Iran. For example, although in the JPOA and JCPOA, Iran was granted the ability to purchase civil aviation services and eventually

full planes, there were open questions about the licensing process, its speed, and consistency of application. Aviation companies had concerns about whether sanctions relief would be continued because, in the event that their ability to perform maintenance on airframes sold to Iran was curtailed, they could face legal liability. In the future, the United States could offer to lock in licenses, provided there are no indications that any support granted was diverted to non-agreed purposes. Licenses would only be severed in the event that there are material breaches of their terms, including diversion, rather than on the basis of policy change in Washington. Notwithstanding the active attempts on the part of several anti-JCPOA groups in Washington to prove otherwise, there were no documented diversions to illicit purposes of U.S. goods licensed as a result of JCPOA sanctions relief in the aviation sector. Nonetheless, the Trump administration refused to issue new aviation licenses and revoked licenses that were previously issued. In the future, such licenses should make clear the grounds for revocation and should indicate that the U.S. government could be liable for damages if it terminates licenses on insufficient grounds.

To make JCPOA sanctions relief more effective, there would need to be an extensive conversation among JCPOA participants, including Iran, about what worked and what did not. U.S. representatives would naturally be defensive in this exchange—as was the case during discussions about sanctions relief in the JCPOA negotiations—but it would be a useful means of obtaining information, even if the Iranians exaggerate problems with the JCPOA. Such conversations and feedback loops with industry partners should inform the parties in seeking to make improvements in the implementation of sanctions relief.

More sanctions relief would have to be offered. For the type of nuclear agreement that we have suggested, the United States would need to go beyond restoring JCPOA nuclear sanctions relief. This should include examining the U.S. primary embargo—which, with some humanitarian exceptions, has for decades prohibited U.S. individuals and companies from engaging in any economic activity with Iran—and identifying areas that could be relaxed or removed to facilitate Iranian trade. During his presidential campaign, Donald Trump once hinted at such an approach, wondering out loud why foreign companies should be able to benefit from the opportunity to engage with Iran while American companies would be deprived of that opportunity.

Relaxing or terminating the U.S. embargo would have several advantages:

- The United States would be more invested in any agreement reached, especially if core constituencies were to benefit from sanctions relief. Sanctions re-imposition and JCPOA withdrawal were easier for the Trump administration to pursue because U.S. engagement with Iran was very limited and re-imposed sanctions would fall on foreign entities, not Americans.
- The United States would receive commercial benefits from trading with Iran, beyond the benefits it already receives from trading in humanitarian goods.
- Foreign partners would see that U.S. companies are engaged with Iran and may be
 prepared to take similar levels of risk. This would assist U.S. efforts to increase the
 likelihood that foreign companies will take advantage of the opportunities provided
 by sanctions relief, further incentivizing Iran to accept a new nuclear deal.

U.S. and Iranian businesses would spend more time with one another, improving
prospects for better Iranian banking and business practices, providing greater
transparency, and expanding opportunities for people-to-people exchanges.

Reversing the U.S. embargo completely to achieve a nuclear agreement is unlikely to be politically feasible, nor would it be strategically sound, given the need for leverage to pursue regional issues and the risk that U.S. involvement in the Iranian economy would inadvertently assist objectionable Iranian activities. But some options for partial relief of the U.S. embargo merit consideration, such as:

- Permitting Iranian access to U.S. consumer goods;
- Allowing technical support for Iranian light industry involving items not contained on multilateral controls lists, including for the production of consumer goods domestically;
- Reversing the 2017 blanket travel ban;
- Permitting greater educational exchanges in areas that are not proliferationsensitive, including through facilitated financial channels for accredited universities and colleges (an initiative from the JPOA that was never fully implemented due to its challenges); and
- Permitting limited access for U.S. dollar clearing operations. One of Iran's major complaints under the JCPOA was that, given the ubiquity of the U.S. dollar as a trading currency, continued U.S. sanctions on U.S. dollar clearing made it very difficult to conduct international trade. Businesses are used to operating in and with the U.S. dollar, and the use of other currencies created headaches for businesses as well as anxiety, as it seemed to suggest that the JCPOA was impermanent, an anxiety reinforced by the U.S. withdrawal. The United States may need to address this problem directly by offering limited use of the dollar in trading activities with Iran. The United States could agree to permit limited and restricted transactions involving the U.S. dollar. These could involve either particular U.S., Iranian, and thirdparty banks that would be licensed to facilitate transactions or specific classes of transactions that would be allowed but reviewed, licensed, and monitored by the U.S. Treasury's Office of Foreign Assets Control to ensure their legitimacy. Such relief would not open the U.S. financial system to Iran, as Iranian businesses would still be limited and dependent on particular circumstances. Moreover, it is consistent with how existing U.S. general and specific licenses operate, which permit access to the U.S. financial system for limited and approved purposes, such as humanitarian trade. What we suggest is a widening of that aperture, enabling a broader set of trading activities, including with respect to consumer goods. By enabling Iran to use the U.S. dollar for limited trade, it might make it easier for banks to operate with Iran and for companies to accept contracts with Iran, and therefore reduce the nervousness felt by non-U.S. entities in conducting transactions with the Iranians.

Build on civil nuclear cooperation. Within the JCPOA, there are already provisions to increase civil nuclear cooperation between Iran and the outside world. Support for increased civil nuclear cooperation was designed in such a way as to be a true "winwin," in which such cooperation provided Iran with specific benefits, such as new power reactors, but also reduced Iran's ability and incentive to pursue technologies that would facilitate a future nuclear weapons capability. For example, returning spent reactor fuel

to its country of origin reduces Iranian incentives and justification for a reprocessing program. The stated intentions of Russia and China to move forward with nuclear projects in Iran, facilitated by the U.S. decision to waive sanctions that might have otherwise impinged on them, provide significant civil nuclear cooperation incentives. But there may be other activities—especially in the development of capabilities for the production of medical and industrial isotopes—that could be promoted in a future agreement. Or civil nuclear cooperation could also be more broadly interpreted to include cooperation in the construction of nuclear reactors for water desalination (Iran is suffering water shortages in parts of the country) or cooperation on the electrical grid to improve distribution of nuclear-generated electricity.

In addition, civil cooperation could be redesigned to provide greater nuclear reassurance, such as through the development of multinational research laboratories involving regional participants in areas of low proliferation sensitivity. Although the confidence-building value of such steps would be limited—as multilateral facilities would be unlikely to alleviate the range of concerns about Iran's program, especially its potential for a covert element—they would facilitate exchanges among regional nuclear scientists and engineers and provide insights into Iranian thinking about civil nuclear energy.

VIII. THE ROAD AHEAD

We do not know whether Iran intends at some point to revive its earlier efforts to acquire nuclear weapons. It suspended key activities relevant to the development of nuclear weapons in 2003, but continued its programs for producing fissile materials and missile delivery systems and kept open the option to pursue nuclear weapons in the future. The acquisition and disclosure by Israeli intelligence of secret Iranian records of previous nuclear weapons development efforts made clear that Tehran, at a minimum, was determined to preserve a weapons option.

It is very possible that Iran's leaders do not themselves know whether Iran will eventually opt for nuclear weapons—and that the decision on weaponizing their nuclear capability has, for the time being, been deferred. Whether Iran will decide to go for nuclear weapons will depend on many factors, including its perceptions of threat from the United States and from the region, whether it believes its national goals (especially its regional aspirations) can be met without nuclear weapons, the risks it calculates it would run by pursuing a nuclear weapons option (including harsh economic sanctions and military pre-emption), its relations with the United States and countries of the region, and—not least—the balance of domestic forces within Iran.

Whatever the probability that Iran will attempt to acquire nuclear weapons in the future, the United States must continue to give high priority to reducing that probability and ensuring that any such attempt will not succeed—by using such tools as sanctions, counterproliferation measures, and deterrence, but also by seeking to reach agreement with Iran on effective, long-term restraints that demonstrate that its nuclear program is devoted exclusively to peaceful purposes.

The JCPOA was an important step toward preventing an Iranian nuclear weapons capability. But, like all compromises, it was imperfect, especially because key nuclear restrictions were scheduled to expire after 15 years, allowing Iran to build up its nuclear capacity and shorten the time it would need to produce enough HEU for a nuclear bomb. It was always anticipated, including by the JCPOA's strongest advocates, that new negotiations would be needed to address this sunset problem—to ensure that Iran's capacity to produce fissile material rapidly would be blocked well beyond 15 years.

At the same time, it was recognized that getting stronger or longer-lasting constraints on Iran's nuclear program would not be easy. Iran's leaders believe they made major concessions in accepting deep cuts in their nuclear program and agreeing to highly intrusive monitoring measures, and they have been opposed to re-opening the deal, especially to making what they consider to be one-sided changes unfavorable to them. But U.S. supporters of fixing the sunset problem and addressing some other issues have believed there are factors that could overcome Iranian resistance to further negotiations, including the leverage provided by U.S. sanctions left in place by the JCPOA, Iran's strong interest in removing remaining barriers to trade and investment, and broad international support for keeping Iran far away from the nuclear weapons threshold.

The Trump administration's decision to withdraw from the JCPOA was a huge setback to efforts to achieve an effective, durable solution. Its re-imposition of far-reaching U.S. sanctions and unrealistic demands for a fundamental reorientation of Iranian behavior will not produce the comprehensive new deal it says it favors. Instead, it has stiffened Iranian resistance to U.S. demands and to negotiating with the United States, alienated potential partners needed to press Iran to accept meaningful restraints, boosted

hardline elements in Tehran, and increased the likelihood that Iran's leaders will decide to leave the JCPOA and rebuild their nuclear program much sooner than they would be allowed to do under the agreement.

Whether or not Iran remains in the JCPOA, preventing Tehran from achieving a large-scale uranium enrichment capability and reducing its breakout time to a matter of a view weeks will remain a critical national objective. But to overcome the current impasse between Washington and Tehran and create more promising conditions for engagement on the nuclear issue, the United States will need to make adjustments in its current approach, including by healing the rift with the Europeans and other potential partners, showing greater flexibility in enforcing U.S. sanctions, credibly disavowing a policy of regime change, and adopting realistic negotiating objectives that signal to Iran a willingness to accept an outcome compatible with its interests.

It would be best for the Trump administration to make such adjustments, both because the situation could deteriorate significantly in the next two years unless changes are made and because the Trump administration would be in a good position to command broad domestic support for a more promising Iran strategy. But it is unlikely that the current administration will make what it probably sees as fundamental changes in its position. If that is the case, the responsibility for getting the Iran nuclear issue back on track would fall to a successor administration.

So, in the near term, prospects for productive negotiations on Iran's nuclear program—even prospects for direct engagement with Iran on the nuclear issue—are hardly very good. In these circumstances, we will need to rely on policy tools that do not require Iran's participation or consent, including sanctions, counterproliferation measures, and deterrence. These policy tools can help impede Iran's nuclear program and put pressure on Tehran eventually to agree to negotiations. But while implementing these policy tools and waiting for more favorable conditions to emerge, it is important for interested governments and outside experts to begin preparing for diplomacy, including by examining the requirements for getting negotiations underway, the nuclear restrictions and monitoring arrangements a new agreement should contain, the incentives Iran should be offered to obtain such an agreement, and the participants, form, and legal character of a new nuclear deal. The authors hope this report will contribute to that preparatory effort.

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- 1. Upon indication that Iran has failed to comply with its JCPOA obligations, a complaint can be put to the Joint Commission as to the nonperformance.
- 2. The Joint Commission would then have 15 days to address this issue at its level or escalate consideration to the ministers of the states in question, as probably would happen in most extreme contingencies.
- 3. If unresolved, an Advisory Board would be appointed to offer a non-binding opinion on the situation. It would have 15 days to consider the matter.
- 4. After this 30 day process, the Joint Commission would have no more than five additional days to resolve the issue and, failing that, a report would be made to the UNSC.
- 5. Upon reaching the UNSC, it would have 30 days to consider the situation and to vote on a resolution as to whether to maintain the sanctions relief adopted in UNSC Resolution 2231. A permanent member of the Council could exercise its veto, which would then force the snap-back of pre-JCPOA sanctions.
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