Three nations in the Middle East dominate any present-day discussion of nuclear weapons, yet only one is subjected to an unprecedented degree of international scrutiny. Two have nuclear weapons; the third does not. Yet it is the third nation that is widely considered the threat to world peace and the target of ever increasing economic sanctions.

The first nuclear weapon state in the Middle East is Israel, an “undeclared” nuclear power whose official policy is to refuse to acknowledge its possession of at least sixty to eighty plutonium weapons, and possibly as many as four hundred. Israel never signed the nuclear Non-Proliferation Treaty (NPT) and is not subject to any verification measures by the International Atomic Energy Agency (IAEA). Aided by its close linkages with the United States, Israel’s nuclear weapons programme is shielded from any international oversight. It steadfastly refuses to participate in any conventions meant to address its own nuclear stockpile.

The second nuclear weapon state of consequence in Middle Eastern affairs is, of course, the United States, the preeminent nuclear superpower. American bases and troop deployments are spread across the region, operating under the auspices of the largest of its overseas military establishments, Central Command (Centcom). US bases in this region with nuclear-capable forces or that support nuclear missions include Incirlik in Turkey, Diego Garcia in the Indian Ocean, and Bahrain. The US Fifth Fleet is more-or-less permanently deployed at the Persian Gulf, and routinely includes at least
one to two aircraft carriers, several Aegis-class cruisers, and an unspecified number of Ohio-class ballistic missile and Los Angeles or Seawolf class attack submarines. Taken alone, the US Fifth Fleet is one of the largest mobile nuclear weapon strike forces deployed on the planet.²

Yet it is neither Israel nor the US Fifth Fleet that attracts international attention over nuclear weapons. Rather, it is Iran, despite repeated confirmation by the IAEA that no nuclear materials have been diverted from its indigenous nuclear fuel cycle programme. Iran has ratified the NPT and implements a safeguards agreement with the IAEA, under which it operates its uranium enrichment facility at Natanz. No concrete evidence exists that Iran has either an atomic explosive device or an active programme to manufacture one. Instead, there are memos of uncertain origin, a “laptop of death,” and a history of shadowy contacts with the notorious A.Q. Kahn in the 1990s.

Recent history

Prior to June 2009, political and media interest (at least outside Israel, where animus toward Iran borders on hysteria) over Iran’s nuclear fuel enrichment programme had in fact waned due to a three year diplomatic stalemate and the absence of a long-sought “smoking gun” to prove that Iran was acquiring a nuclear weapon. Until late 2009, apart from Iran’s growing stockpile of low-level (< 5% U-235) enriched uranium and the addition of many additional centrifuge units, there had been few new developments to report. The IAEA continued to certify that there is no diversion of declared nuclear material, but Iran had not complied with UN Security Council resolutions demanding the cessation of all uranium enrichment. Moreover, “significant questions” remained pertaining to specific data points having to do with Iran’s furtive explorations of nuclear technology and possible nuclear warhead designs. Iran’s declared facilities related to uranium enrichment remained subject to IAEA inspection and inventorying.

Three events in the summer and fall of 2009 renewed American obsession with Iran’s programme of uranium enrichment. In June 2009, widespread domestic protests greeted the declaration of victory by Iran’s incumbent presidential candidate Mahmood Ahmadinejad over rivals Mir-Houssein
Mousavi and Mehdi Karoubi. Disputes over the election’s outcome trig-
gered urban demonstrations, but it soon became clear that the opposition
agenda extended far beyond Mousavi’s loss. Iranian government and semi-
state agencies responded with broad and repressive measures, as hundreds
of protestors and opposition leaders were rounded up and jailed; some dem-
onstrators were shot in the streets, events which were captured on video by
cell phone and relayed to the world via YouTube. New upsurges of protest at
the end of 2009 attested to the longevity of the opposition and its willingness
to assume substantial risks.

While Iran’s government struggled with internal dissention, the United
States and E3 (France, Germany, and United Kingdom) reported that Iran
was building a second, underground “secret” enrichment facility at Qom.
Iran’s last minute disclosure to the IAEA and offer to open the facility to
inspection failed to preempt Iran’s serious blunder. There is no evidence that
the second enrichment facility under construction is intended to produce
bomb-grade uranium, but the location of the site in an underground mili-
tary facility was hardly encouraging. The circumstances of Iran’s disclosure
of the uncompleted Qom facility recalled how, in 2002, an Iranian dissident
group “outed” Iran’s construction of the original enrichment plant at Natanz.
Then, as now, Iran quickly agreed to IAEA inspection, but this after-the-fact
consent only exacerbated perceptions of Iranian evasiveness. To interna-
tional hawks, the Iranians had seemingly been caught with their hands deep
in the cookie jar at last. Obama’s diplomats swooped in to skillfully, if tem-
porarily, win over Russia, which had been holding out against the gasoline
sanctions advocated by the US.

Before Iran’s second uranium enrichment plant at Qom became public,
Ahmadinejad’s government had offered to engage the US and E3 in direct
talks on a wide range of topics, some involving issues of nuclear energy and
proliferation, some not. This offer was a more expansive version of previous
offers rejected out of hand by the Bush administration, which had insisted
on preconditions, including the suspension of uranium enrichment. Per-
haps to the Iranian government’s surprise, President Obama responded to
the proposal by agreeing to direct talks at the end of September 2009. Arms
controllers agreed that Obama was shrewdly calling Iran’s bluff, hobbled as
it was by domestic divisions as well as the latest flap over a new “secret”
programme. The long-awaited talks collapsed in October 2009. President
Ahmadinejad expressed receptiveness to offers by Russia and Turkey to act as “honest brokers” to store enriched uranium and to Russia’s offer to exchange Iran’s product for 20% U-235, required for medical isotope production. For making this overture, Ahmadinejad drew fire from many sectors of the political opposition including enigmatic “pragmatists” such as former president Rafsanjani and the Green Movement opposition. (The Western press utterly missed the significance of Ahmadinejad’s discomfiture in staking out a pro-diplomatic position.) Iran’s negotiators were induced to beat an awkward retreat to a posture of “no exchange, no transport”. Following the unproductive US-E3 talks, Russia and China signaled their willingness to consider further discussion in the UN Security Council despite their considerable trade ties with Iran and Russia’s active assistance in opening Iran’s Bushehr commercial nuclear power plant, but they dithered on the matter of opposing additional sanctions.

Accordingly, the three-year stalemate with respect to Iran’s uranium enrichment may be drawing to a close, which does not bode well for prospects for a peaceful resolution of the conflict over Iran’s nuclear technology programme. The West has prevailed on the diplomatic front; Iran’s belated disclosure of a second plant has cost it the cover otherwise provided by its historic cooperation with the IAEA process as well. Until September 2009, the IAEA under Director General ElBaradei patiently slogged through discussions about Iran’s prior exploratory efforts at possible militarization of its programme while certifying that all uranium was accounted for. ElBaradei’s parting shot as IAEA Director General in the Agency’s November 2009 official report chastised Iran over its late disclosure of the Qom plant, and the Board of Governors voted to report the matter to the UN Security Council for the first time since 2006. In response, various statements by Iranian politicians and officials threatened to reduce cooperation with the IAEA to the minimum.

Worse was to come. On 18 February 2010, the IAEA released its latest in a series of periodic reports addressing Iran’s compliance under its safeguards agreement with the IAEA. This was the first such report issued under the auspices of the new IAEA Director General Yukiya Amano. Although the report confirmed that all declared nuclear material was accounted for, and inspections were continuing, it criticized Iran’s lack of cooperation in explaining evidence with possible military dimensions, and for the first time,
suggested that Western fears of a military nuclear weapons programme were not unfounded:

The information available to the Agency in connection with these outstanding issues is extensive and has been collected from a variety of sources over time. It is also broadly consistent and credible in terms of the technical detail, the time frame in which the activities were conducted and the people and organizations involved. Altogether, this raises concerns about the possible existence in Iran of past or current undisclosed activities related to the development of a nuclear payload for a missile. These alleged activities consist of a number of projects and sub-projects, covering nuclear and missile related aspects, run by military related organizations.5

The “crisis” posed by Iran’s nuclear programme is now widely perceived as being at a watershed point. The end of 2009 witnessed the passing of yet another “deadline” imposed upon Iran by the United States and major European nations related to negotiations that ultimately seek the termination of uranium enrichment. The deadline was greeted by Iranian authorities with only another cycle of Revolutionary Guard war games. In December 2009, the New York Times published an op-ed advocating a US armed strike on Iranian atomic facilities.6 Meanwhile, the US House of Representatives, echoing the lopsided votes that preceded the Viet Nam War, passed a new energy sanctions amendment against Iran by 412-12.

Understanding the current impasse over Iran's nuclear fuel cycle programme requires more than a retelling of the tortured history of negotiations since 2002 or a parsing of disputed evidence for a nuclear weapons programme. With notable exceptions, nearly all of the commentary directed to Iran's programme devolves upon issues of “breakout,” numbers of centrifuges, or the launching of a new ballistic missile. Detached from historical context, Western media (and most politicians) portray Iran's efforts as one-sided, aggressive, threatening, irrational, and merely nationalistic. This viewpoint has only been exacerbated since June 2009, when Iran's internal turmoil following the elections exposed substantial cleavages within the Islamic Republic's political society. The question of Iran's ostensible quest for nuclear weapons is instead founded on perception and assumptions that are far more notional than objective. In late 2009, the revelation of a second, underground uranium enrichment facility under construction at Qom crystal-
lized the conviction of many that Iran was well on its way to an indigenous nuclear bomb, even though, as yet, no physical evidence exists for the bomb or its attendant programme.

A disinterested observer in 2009 could well wonder why, being already embroiled in two intractable wars in Iraq and Afghanistan, the United States (led by a Nobel Peace Prize-winning president) is yet lurching toward possible conflict with a third Southwest Asian nation, Iran. As this article is being written, the US and its allies are pressing toward a further sanctions resolution from the UN Security Council. Whatever the outcome in that forum, an impregnable bipartisan consensus in Washington will impose further economic measures against the Islamic Republic. On the surface, the prospect for any improvement in Iran’s relations with the West appears quite bleak.

**Nuclear reification and the global nuclear order**

Iran presents a crisis, but also an opportunity, to re-examine the post-Cold War nuclear order, possibly with a more pragmatic endpoint of non-proliferation that involves, rather than exempts, the nuclear weapon states that have ratified the NPT. This re-examination is a necessarily uncomfortable one for the United States, since it touches at the core of that country’s military-industrial complex, which has thrived since the end of World War II. It also looks at the role of nuclear weapons in global relations, including the hard question of why, after so many years and statements of good intentions, nuclear weapons are so organically bound up as a lodestar measure of superpower status.

Although nuclear weapons certainly have physical characteristics that are *sui generis*, prime among these being their untold destructiveness, they are endowed with more complex and significant political attributes that combine to create units of international exchange as well as conflict. Leading with the examples of the United States and Soviet Union (USSR), nuclear weapons are considered the platinum credit card of state power, influence, and nationalistic pride. Nuclear programmes are expensive, requiring the diversion and centralization of technical and military resources and investment of state revenue for the benefit of well-situated elites. As the US and USSR witnessed in the 1950s, nuclear weapon programmes are typically
accompanied by the transformation of political culture to accompany the exponential growth of the both internal and external security apparatus that acquire organic permanence even when the historic rationales for their creation no longer exist.

The symbiotic and interdependent relationship between nuclear weapons and other aspects of state/corporate centralism are not acknowledged within the established arms control community, which largely concerns itself with matters of technical capabilities and classic theories of “deterrence”. Far less attention is paid to the reification of such weapons in the polity of the declared nuclear weapon states—that is, the political, ideological, and even theological attributes attached to nuclear weapons. Stated differently, the perception of nuclear weapons by global elites is the more critical component to the decision to obtain them than is their actual use. Viewing nuclear weapons simply as a function of military capabilities is far too simplistic, since it involves far more than basic questions of deterring attacks from one’s adversaries. As Daniel Ellsberg has often observed, nuclear deterrence is both an offensive and defensive concept, so that the US has been enabled to advance its interests by threatening nuclear attack on numerous occasions. Indeed, as recognized in recent Nuclear Posture Reviews, the US is presently contemplating the preemptive use of nuclear weapons themselves under the rubric of weapons of mass destruction (WMD) counter-proliferation. Naturally, Iran is a prime focus of such speculative war planning.

Compounding this nuclear reification is the NPT itself. The Treaty was intended to be the capstone of a global security edifice and to be as significant to foreign relations as the Bretton Woods agreement was to world monetary policy. While seemingly pursuing the laudable goal of controlling the proliferation of nuclear weapons, it also attempted to juridically formalize a two-tiered hierarchy of nuclear weapon haves and have-nots. The NPT imposed a mandatory system of controls and verification on non-nuclear weapon states to which the declared five nuclear weapons states—China, France, the Soviet Union, United Kingdom, and United States—are exempt. In exchange, the five agreed to participate in the exchange of peaceful nuclear technology with ratifying non-nuclear weapon states and, in Article VI, of the Treaty, promised to undertake good faith negotiations toward disarmament—a promise whose fulfillment remains quite distant and inchoate.

The global nuclear order has manifested as the making permanent the pre-
eminent status of nuclear weapon states and their nuclear institutions. These institutions thrive on a particular symbiosis between threats and response, dominated in the first half century by the US-USSR rivalry. But the demise of the USSR as the United States’ main nuclear antagonist revealed a remarkable development: the US, and to a lesser extent the UK and France, proved unprepared to shed the nuclear war economy established in the 1950s. The vast nuclear infrastructure was institutionally animate, capable of sustaining its own interests regardless of an external threat to which thousands of nuclear warheads had any relevance. These nuclear institutions now operate much the same as large private corporations: serving constituents, seeking new missions, and acquiring political influence. Indeed, the semi-privatization of the laboratories earlier in the decade should not go unremarked.

The success of these institutions appears in sustained or increased funding—even in recessionary periods—new appropriations, and stable life-cycles even for expensive programmes with little apparent utility. Their bureaucratized linkages within the executive and legislative branches enable the perpetuation of specific foreign policies involving the distant projection of power, under such rubrics as “global strike” or “preempting threats”. Even counter-proliferation ably serves as a stalking horse for other foreign policy agendas, as illustrated by the 2003 Iraq war. Numerous security documents attest to the role of nuclear weapons in the “foreseeable future” in both an offensive and defensive mode. Irrespective of occasional diplomatic statements within international fora, this is the face of US nuclear institutionalization that appears to the world.

As the NPT was being ratified, a new class of nuclear weapon states was being born. Led by India, these nuclear-armed states did not sign the NPT and relied upon various degrees of indigenous technological development to acquire nuclear weapons. Ominously, each of these second generation nuclear weapon states were in regions of frequent armed conflict—India with China in 1961, India and Pakistan in 1971, Israel in 1956, 1967, 1973, 1982 (Lebanon), 2006 (Lebanon again), and 2008 (Gaza). The Democratic People’s Republic of Korea (DPRK), which withdrew from the NPT in 2003, remains in a state of perpetual cold war with its southern counterpart and the United States. The international community initially responded to the post-1967 nuclear-armed states with complete restrictions on nuclear cooperation with India and Pakistan, sanctions against the DPRK, and, at least
by the Arab nations, boycotts against Israel. However, in the recent “123 Agreement,” the United States recognized India’s *de facto* status as a full-fledged nuclear power. Since 9-11, the United States has been prepared to close its eyes to Pakistan’s nuclear weapons given Pakistan’s centrality in the “war on terror”. As for Israel, in the context of US politics at least, it is securely enrobed in the protective mantle of an overwhelming US Congressional majority.

The arsenals of the existing nuclear-armed states in the region are considered to be as follows: Israel is estimated to have about 100 plutonium warheads, probably boosted; Pakistan is estimated to have 70 to 90 HEU and plutonium warheads; and India is estimated to have 50 to 70 plutonium warheads, some boosted.

All three nations have devoted years to developing special-purpose ballistic missile and other delivery systems. Israel has an operational inventory of 50 Jericho II missiles (range 1500–1800 km) and has tested a true intercontinental ballistic missile (ICBM), the Jericho III (range > 4000 km). Israel also has a modern fleet of nuclear-capable F-15s and F-16s supplied by the US. Pakistan has a number of short-range solid-fueled ballistic missiles as well as a medium-range liquid-fueled ballistic missile, the Ghauri (range 1200 km). Pakistan is believed to be well along in researching both boosted fission and thermonuclear (fusion) warheads. It also, like Israel, possesses nuclear-capable F-16s as well as Mirages. India, the oldest regional nuclear power, has a dedicated strategic air, naval, and missile arm, and is testing advanced solid-fueled ICBMs.

Of course, this does not even begin to approach what the United States can deploy in the Persian Gulf region, which includes nuclear-armed aircraft carriers and Ohio-class Trident ballistic missile submarines hovering off Iran’s shore, as well as B-2 bombers from Diego Garcia.

In short, the nuclear establishment has widely signaled that they are prepared to “live with” India, Pakistan, and Israel, not only because they believe they are powerless to do anything about them, but also because these countries for now are prepared to live within the rules of the established order in which the US remains the world’s leading nuclear croupier. In other words, as long as certain nations led by the US remain the sole gatekeepers to the nuclear club, the occasional entry of a new member will not disrupt the balance.
Iran’s special status as a nuclear outcast arises out of a thirty-year history of hot and cold conflict in a region central to US strategic interests. Even if there were no nuclear issues, the US-Iran relationship has remained consistently hostile since President Carter in 1980 declared the willingness to protect the free flow of oil from the Persian Gulf by all means necessary. The Carter Doctrine has unerringly remained the official policy of all US administrations to the present day.\(^{20}\) Hence, Iran’s nuclear weapons programme has, despite the absence of direct proof, furnishes an easy target for domestic and international consumption. Taken in combination with Iran’s complex and somewhat opaque state organization and repression of internal dissent, few Western elites demonstrate any inclination for objectivity. Hyping the threat of a nuclear Iran provides the US government with a chance to impose sanctions against Iran and encourage a change of government to one more “friendly” to US interests.\(^{21}\)

**Perception versus fact**

In the eight years since the “outing” of Iran’s nuclear fuel enrichment programme, no hard evidence has come to light of any ongoing military programme that would make use of indigenously-enriched uranium, a situation confirmed by numerous US intelligence agencies in the December 2007 National Intelligence Estimate. Notwithstanding these facts, and the intensity to which Iran’s enrichment programme has been scrutinized, it is an article of faith among most American politicians and mainstream arms control organizations that Iran is well underway to producing one or more atomic weapons, if it has not already done so. The actual usefulness of such weapons garners little discussion. By dint of repetition, the conviction becomes fact, much as it did over Iraq’s alleged WMD before the 2003 war. Unfortunately, the revelation of a second enrichment plant and Iran’s execrable timing of its disclosure added another layer of circumstantial evidence suggesting that Iran is leaving a wide door open to “breakout” and becoming a nuclear weapon state. It is becoming increasingly difficult to provide alternative explanations for Iran’s behavior that carry much weight in a public discourse dominated by strident and increasingly bellicose Western voices, and its assertions of national sovereignty and self-determination are too easily inter-
preted as evasiveness and secretiveness.

Iran’s penchant for secretiveness may, in the end, overwhelm whatever legal justification under NPT Article IV it genuinely has for pursuing an indigenous uranium enrichment programme and the likelihood that it is, in fact, intended only to produce fuel and research isotopes. The tone of the February 2010 IAEA report suggests that the Agency’s patience in working with Iran may be all but exhausted. Iran correctly points out that the NPT encourages, and does not prohibit, such civilian programmes. Technically, it is not in violation of any treaty. Yet as long as Iran exhibits mannerisms consistent with a secret intent to develop nuclear weapons, the West’s impressions of Iran’s unspoken intent will take centre stage over whatever direct evidence (or lack thereof) is obtained by the IAEA and state intelligence agencies.

Despite the absence of concrete evidence of a programme to manufacture nuclear weapons, the circumstantial case against Iran admittedly gained considerable ground in 2009. The disclosure of the underground Qom facility, Iran’s aggressive rocket programme (including the launch of an advanced solid-fueled intermediate range ballistic missile in late 2009), and intractability with the remaining IAEA workplan issues lend support to those who believe that even if Iran has no active atomic weapons programme, it is laying a foundation toward nuclear “breakout”. As reflected in the IAEA’s February 2010 report, to use lawyer’s parlance, the evidentiary tipping point may be nigh where there is enough “to take the case to the jury.” Just before the IAEA’s report, Ahmadinejad announced that he had directed his engineers to initiate production of 20% enriched uranium to feed into a small research reactor dating from the Shah-era Atoms-for-Peace programme.22 The purpose of the research reactor is to produce scientific and medical isotopes, which did little to quell the buzz among foreign arms control experts.23

President Obama’s Iran policy, which he announced in the early months of his administration, was the so-called “unclenched hand,” namely, talks without preconditions and abstinence from the bellicose threats that routinely issued from his predecessor. The aftermath of the Iranian elections disrupted the relatively benign, if tepid diplomatic environment. Iran’s apparent rejection of the US demand to cease enrichment and ship its stock abroad for enrichment, combined with the above developments, have set the White House to obtain new UN Security Council sanctions or impose them itself.24
Because of these ominous developments, Iran’s nuclear programme requires a clear-eyed appraisal without becoming overwhelmed by Iran’s dynamic internal political situation or escalating rhetoric. For American observers, this approach is not only normatively desirable, but a practical necessity, since US policy toward Iran exhibits all the hallmarks of “manufactured consent”—the creation of a popular consensus (Iran has or soon will have nuclear weapons) despite (still) the absence of proof. Unfortunately, Iran’s elites appear to be their own worst enemy, as they seemingly have nothing but disregard for world opinion. In this context, the recent domestic conflict inside Iran only matters to US policymakers as a lever to extract concessions from Iran’s elites, as opposed to genuine human rights concerns. Even more than the credit sanctions imposed by President Bush (which still remain), the gasoline sanctions being considered in Congress are intended to affect broad swaths of the Iranian economy. The supporters of these new punitive measures explicitly link the subject of uranium enrichment to their conclusion that as a result of the flawed election outcome, the Islamic Republic lacks fundamental legitimacy.

If the foregoing seems somewhat gloomy, it is. Whatever the true facts on Iran’s nuclear programme, events since mid-2009 may prove an unfortunate tipping point to encourage further punitive measures toward Iran. Once isolated not only from the West and the IAEA, and abandoned by Russia and China, Iran’s elites will confront the unpalatable choice of ending enrichment (a blow to national sovereignty), or worse, may grasp the unthinkable. To do this, they must evict the IAEA inspectors, the necessary prelude to reintroducing low enriched uranium into the centrifuges to produce the 90-plus percent U-235, highly enriched uranium for military use. Somewhere along this timeline, Israel, perhaps aided by France or the US, may take matters into its hands and launch a preemptive strike, an event that might devolve into history’s second one-sided atomic war. Even if the war does not escalate, the effect on the region, not to mention already-depressed world economies, likely will be catastrophic.
The legal setting: conflicting objectives

One source of the controversy surrounding Iran's nuclear fuel programme arises from weaknesses built into the NPT itself. On one hand, Article IV of the NPT expresses the “inalienable” right of a signatory nation to develop a peaceful atomic energy programme. The same Treaty recognizes that within this “right,” there exists the potential that these same technologies can be applied toward building a nuclear weapon. This tension is particularly acute when fuel cycle facilities, such as those for uranium enrichment, are involved. Article III of the NPT does not prohibit or restrict a non-nuclear weapon state from developing an indigenous fuel cycle programme, provided such a country complies with NPT “safeguards” imposed on nuclear materials through agreement with the IAEA and, obviously, forbears from developing atomic weapons (NPT Article II).

A core problem within the NPT is how to balance these conflicting treaty goals. The result has been a shifting standard of proof that requires a state seeking a nuclear energy or fuel cycle programme such as Iran to demonstrate the negative—namely, that it has neither diverted nuclear materials nor engaged in any weapons-related or undeclared nuclear activity. As with other arms control treaties, enforcement is ordinarily understood to be dependent upon objective verification data yielded by inspections and reporting requirements, but in the case of Iran, issues of subjective intent have prevailed.

The other bargain within the NPT implicates the programmes of the nuclear weapon states. Part of the bargain for Article III’s intrusion into national sovereignty was NPT Article VI, by which the NPT nuclear weapon states (the China, France, Russia, United Kingdom, and United States) agreed to “pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a Treaty on general and complete disarmament under strict and effective international control.” Whether the US and other nuclear weapon states have satisfactorily performed their Article VI obligations is a vast subject left to other sections of this publication, but given the deployed stockpiles combined with modernized production and testing, there is much to criticize.

The potential for dual-use of a nuclear energy programme is not only legal but practical, since, in addition to enriching uranium to highly enriched
uranium (HEU) levels, spent nuclear fuel can be “reprocessed” for plutonium. Within the West, nuclear power proponents have historically dismissed any such linkage between their own atomic energy programmes and those of their allies and trading partners and nuclear weapons proliferation. Tens of nations have functioning nuclear energy reactors and a dozen or so enriched uranium. But in the case of Iran, the linkage to weapons is presumed, so that its nuclear fuel programme is widely viewed as a nuclear weapons programme in-being.

However, pre-revolutionary Iran, unlike nearby nuclear-armed states Israel and Pakistan, signed the NPT, in which it pledged as a non-nuclear weapon state to forbear using nuclear materials for anything other than for peaceful purposes. Iran committed to a verification and oversight regime administered by the IAEA. Prior to the NPT, the Shah's government had already signed a nuclear safeguards agreement with the IAEA for the purpose of verifying that nation's non-proliferation obligations, including the non-diversion of nuclear material. The 1974 safeguards agreement is the operative compact in force today between Iran and the Agency. Israel, Pakistan, and India have no such safeguards agreements with the IAEA.

One danger in this discussion is to place too much faith in the IAEA, which remains dominated by the “P5+1” (the five declared nuclear weapon states plus Germany), and which further institutionalizes the tensions identified above within the NPT. The IAEA was not founded as a nuclear police agency or regulatory watchdog. Rather, it was formed in the 1960s (when atomic energy was touted as “too cheap to meter”) primarily to promote the spread of atomic power around the world, more resembling a trade association than an enforcer. The IAEA remains structured around a set of agreements between the Agency and member nations; the Agency’s verification jurisdiction is limited to non-nuclear weapon states parties to the NPT. The IAEA has no power to inspect American nuclear facilities or facilities in countries (such as Israel) that never signed a comprehensive safeguards agreement. Nor does the IAEA have any jurisdiction to inspect military facilities where declared nuclear materials are not stored.

Under the individual safeguards agreements between the IAEA and NPT states parties, the IAEA certifies that the state party has not diverted nuclear materials from declared facilities. It may decide to take certain steps, including referral to the UN Security Council, if it believes it cannot carry out its
mandate or otherwise believes a state party may have violated provisions of the agreement. This process is central to the current standoff between the US and Iran, in which the United States, through the IAEA, has demanded that Iran prove it has not engaged in any nuclear weapons-relevant research, a difficult task that Western lawyers would recognize as attempting to “prove the negative,” or more dramatically, “guilty until proven innocent”.

Even in its February 2010 report, the IAEA has not declared outright that Iran has or ever had any nuclear weapons programme, although it is increasingly concerned with the volume of evidence submitted by other nations’ intelligence services. IAEA reports state that Iran has not diverted nuclear material. In contrast, the US position, bolstered by a large bipartisan consensus in Congress, considers Iran’s uranium enrichment as the functional equivalent of a nuclear weapon programme. Moreover, under the United States’ upside-down burden of proof standard, finding fault with Iran’s conduct is a relatively easy process.

The current impasse between Iran and the United States over uranium enrichment actually has little to do with the IAEA safeguards agreements or the shortcomings in reporting and verification by Iran to date. Rather, the conflict is over Iran’s refusal to abide by a political sanction selected by a few powerful states and endorsed by the UN Security Council, namely a demand to suspend uranium enrichment, an activity that many nations engage in and which is encouraged by NPT Article IV. To suspend this programme remains a non-negotiable issue for Iran.

Iran’s brief to the IAEA

The Iranian note to the IAEA of 24 March 2008 is perhaps Iran’s most comprehensive statement of the legal and political justification for its continuing resistance to the UN Security Council sanctions resolutions demanding cessation of its uranium enrichment programme. The central postulate of Iran’s March 2008 note is the “inalienable right” to peaceful nuclear energy guaranteed by NPT Article IV, and the violation of that article by the US-brokered sanctions. This point, standing alone, begs the question of whether Iran has met the conditions for exercise of this right under Articles II and III. These conditions would include:
• To not accept any nuclear weapons or other nuclear explosive devices (Article II);
• To not seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices (Article II);
• To enter into a safeguards agreement with the IAEA over all of its fissionable nuclear materials (Article III);
• To not divert any fissionable nuclear material subject to Article III;
• To follow all procedures provided in the safeguards agreement with respect to such agreements, including verification (Article III).

As of September 2009, the IAEA had never determined that Iran had violated any of these conditions. But since the United States and the E3 continue to insist that “unanswered questions” remain, particularly as to the acquisition of weapons information (via the “laptop of death” and other miscellany), the IAEA has likewise refrained from giving Iran any statement that it has completed the modalities required under the IAEA’s 2007 workplan. The IAEA remains unwilling to declare the nuclear issues closed, the consequence of enormous pressure from the West and Iran’s prickly history of responsiveness. Iran otherwise correctly points out that the United States opposed the 2007 workplan when it was announced.

Iran’s formal letter also correctly identifies the conflict between US demands that it cease uranium enrichment on one hand and the IAEA’s mandate to verify the non-diversion of fissionable material on the other. Since 2007, the IAEA agreed that it had no evidence of any such diversion. However, once the IAEA inserted commentary to both reports citing transparency issues and lack of forthrightness on Iran’s part, the door was open to the United States and its allies to impose the negative burden of proof upon Iran to establish an impeccable and possibly impossible performance history. Three UN Security Council resolutions have sanctioned Iran for its enrichment programme. Iran points out in its 24 March 2008 statement that since the enrichment programme is peaceful and subject to IAEA inspections, the UN Security Council resolutions violate Article IV of the NPT as well as the UN Charter. Therefore, in the absence of hard evidence of any diversion of nuclear materials into a weapons programme, or indeed any weapons programme at all, from whence does the right to sanction Iran originate? This question posed by Iran underscores the shaky legal foundation of the sanctions resolutions, even though for the moment, all five permanent members
of the UN Security Council have apparently reached some consensus as to their threshold legitimacy.

The UN Security Council’s morality lesson (if there is one) may be that uranium enrichment is special, since the difference between weapons-grade HEU and low-enriched uranium (LEU) is one of degree (albeit a quite substantial degree) only. However, NPT Article IV makes no such distinction between enrichment and other nuclear energy-related programmes. Moreover, the fact that the IAEA has never found any shortcoming, with respect to verification of Iran’s enrichment activities, deprives the sanctions orders of an evidentiary basis. Instead, the UN Security Council appears concerned of the possibility of Iran’s future withdrawal from participation in safeguards (to enable Iran to produce HEU and funnel the same to a weapons programme) and is acting on the worst case scenario, an eventuality Iran has consistently denied will come to pass.

In sum, while Iran overstates what the IAEA has actually concluded or decided, there is enough to its legal position to give pause to non-aligned nations with a stake in equitable enforcement of international agreements, who harbour concerns that the permanent members of the UN Security Council believe they can reshape treaty obligations to suit their own political purposes. For this reason, the continuing sanctions against Iran, whatever the disputed “facts,” erode the IAEA and NPT legal regimes.

**Iran at the crossroads**

The United States provided a number of restricted and classified intelligence records to the IAEA in February and March of 2008, some of which were not shown to Iranian officials. Some of these records pertained to military procurement of possible nuclear-related equipment, the “green salt” project (a uranium conversion technology), high explosives testing, and research into a missile re-entry vehicle. In February, Iran had declined to respond to some of these issues due to lack of time. During a meeting in Tehran on 21–22 April 2008, Iran agreed to address the alleged studies, procurement, and research activities of military related institutes and companies, as well as questions raised by the IAEA earlier in the year. Iran provided a written response to the Agency’s question on 23 May 2008.32
Iran claims many of the documents are forgeries or manipulated, contain inconsistencies, or otherwise refer to matters in the public domain. Iran has identified its work on high-speed detonators as for civilian or conventional military application. The IAEA confirmed that it had no information, apart from a document on uranium metal, on the actual design or manufacture by Iran of components of a nuclear weapon or of certain other key components, such as initiators, or on related nuclear physics studies. Obviously, Iran continued to defy the three outstanding UN Security Council resolutions demanding that it cease uranium enrichment.

The din of the Western press has drowned out any positive aspects of the IAEA reports. As the oft-quoted arms control expert David Albright told Congress in 2008:

The Iranians are certainly being confronted with some pretty strong evidence of a nuclear weapons program, and they are being petulant and defensive. ... The report lays out what the agency knows, and it is very damning. I've never seen it laid out quite like this.

The IAEA has emphasized that the Agency is troubled not so much by hard data, but by the general impression that Iranian officials are not being cooperative, and hence, are hiding something. This suspicion—not yet supported by empirical data of a weapons programme—was reflected in a June 2008 Congressional Research Service report. All of the nuclear materials are accounted for, but this is apparently no longer sufficient. Iran's protestations that it is subject to a double standard are inadequate to satisfy the inspectors or ward off further sanctions.

Iran has accumulated, subject to IAEA verification including surprise inspections, low-level (<5% U-235) enriched uranium suitable for the operation of a commercial scale nuclear power plant, but not a nuclear weapon. As of February 2010, Iran's uranium enrichment centrifuges had produced slightly over two thousand kg of LEU.

**Breakout paradigms**

The lacuna of direct, weapons-related evidence has had little effect on the US bipartisan near-consensus that Iran is doing both. This consensus survived the 2007 National Intelligence Estimate that found no evidence of
an ongoing nuclear weapons programme, and will easily shrug off the recent statement by the Office of the Director of National Intelligence that Iran’s accumulation of sufficient HEU from existing stockpiles of LEU for a bomb would take until 2013, far longer than most media accounts. The Director of National Intelligence, Dennis Blair, testified in March 2009 before a US Senate panel that Iranian advances in missile technology were not necessarily indicative of a desire to acquire nuclear weapons. Likewise, the many IAEA reports verifying the absence of any diversion of nuclear materials attract scant mention in the US. Western policy makers and arms control experts also give no weight to Iranian fatwas and pronouncements denouncing nuclear weapons and other forms of WMD. Instead, the burden of proof placed on Iran presents it with a nearly impossible task, particularly when so much is a matter of subjectivity instead of hard evidence.

In response, the arms control discourse has shifted from looking for actual evidence of a weapons programme toward speculation into when Iran can “breakout” from enrichment to production of atomic bombs. The advantage of this school of thought is that it need not rely upon any evidence of a weapons programme in place today, as long as advancements in uranium technology bring Iran closer to the day when it can begin production of HEU for bombs. As with current US strategic policies advocating preemption, the mere “threat” is enough.

The “breakout” threat is now incorporated into the official US position on Iran’s nuclear programme. In his statement to the IAEA Board on 9 September 2009, President Obama’s representative to the IAEA, Glyn Davies, remarked that uranium enrichment “moves Iran closer to a dangerous and destabilizing possible breakout capacity.” He added, “We have serious concerns that Iran is deliberately attempting, at a minimum, to preserve a nuclear weapons option.”

The topic of nuclear “breakout”—the hypothetical future transition from a civilian to military nuclear programme—provides endless employment for arms control experts to apply known facts (quantities of LEU produced) to speculative future outcomes. The principal flaw in the analysis is that, in the end, it rests on the same presumptions of bad intent as those (many in Israel and in Congress) who assert that Iran presently has an active, secret weapons programme. In fact, many countries, including the dozen or so that have active uranium enrichment such as Japan, have equal or greater “breakout” ca-
pability to develop nuclear weapons, but none of these have attracted IAEA notice or UN Security Council interest.

For example, arms control experts at the Institute for Science and International Security (ISIS) concluded in February 2009 that if Iran re-enriched all of its then-existing stock of LEU to HEU levels, it could manufacture enough HEU for a Hiroshima-sized atomic device.41 ISIS somberly announced that Iran had finally achieved a “nuclear breakout” capability, meaning that it had both the technological capacity and nuclear material for an atomic weapon, and required only the political decision to implement one. Of course, this leaves open a number of political and technical questions about how such an explosive device (weighing well over a ton) would be usefully deployed. Predictably, the American media obsessed over the benchmark, but not its practical relevance. Coincidentally, in the same month as the ISIS pronouncement, Iran successfully launched a small domestic satellite into orbit, thereby demonstrating to some that it now possessed the capacity to launch an intermediate-range ballistic missile at least capable of striking Israel. (Iran had launched a Russian-made satellite into orbit in 2005.) This was an impressive feat since only nine countries have launched domestically-produced satellites, but still quite a distance from acquiring a reliable ballistic missile force to which Iran would theoretically wish to entrust the fruits of its entire uranium programme for the last three years.

Not all agree with the nuclear breakout paradigm, which is the theoretical underpinning for most recent threat assessments directed at Iran by various arms control experts.42 New IAEA Director Amano opined in late 2009 that not only is there no evidence Iran has a weapons programme, but there is no evidence that it even wants to develop a nuclear weapon.43 As with the statements of the outgoing Director ElBaradei, Amano’s comments fell on deaf ears in the US, in contrasts with statements to the contrary by the US Joint Chiefs and Israeli intelligence.

Concerns about Iran’s newly found “breakout” capability obscure several basic facts. Any rush by Iran to feed LEU into the fuel enrichment plant or a clandestine enrichment facility would hardly escape IAEA notice; at a minimum, a necessary precondition to breakout would be the well-publicized expulsion of IAEA inspectors followed by months of frenetic enrichment activity as LEU was converted to HEU. The political blowback to Iran would be enormous, particularly since it occupies a leadership role among
the NAM on nuclear disarmament. Iran (in contrast to the US) has gone on record many times to renounce nuclear weapons in international fora. There are other reasons to believe that Iran’s vocal position (ignored by US opinion leaders) is not merely rhetorical; despite being repeatedly subjected to poison gas and nerve agent attacks from Iraq during the long war, the more technologically-capable Iran never employed chemical warfare in the conflict.

**Masks of deterrence**

Unfortunately, the West’s negative perception of Iran’s uranium enrichment programme has enhanced the position of those in the US who advocate a reinvigoration of the nuclear weapons complex and related defence sectors such as the manufacturers of global strike dual-use systems and missile defence. On the diplomatic side, the United States’ constant message that Iran is aggressively acquiring nuclear weapons has corroded domestic willingness to ratify the Comprehensive Test Ban Treaty and is exploited to justify American intransigence in considering further “concrete steps” to negotiate disarmament specified by NPT Article VI.

Iran is cited often in US reports as a principal justification for developing new dual-use weapons systems to preempt “emerging threats”. As refined by various internal strategy documents, the doctrines embrace first-use of nuclear or conventional weapons against all manner of threats to US “national security” by terrorist organizations, quasi-state institutions such as Hezbollah, or “rogue states” like Iran. Given the numerous non-state groups believed to nurse grievances against the US or one of its key allies, the universe of potential targets of a “global strike” is nearly infinite. Unlike the Soviet Union, the deterrence of which (we were told) required the largest and heaviest of weapons systems such as massive bombers, intricate underground silos, and ballistic missile submarines, the new “complex and challenging” security environment is now thought to require ever more sophisticated delivery systems and warheads.

President Bush renounced the Anti-Ballistic Missile (ABM) Treaty and in the last years of his administration moved ahead with plans to construct an ABM shield in Eastern Europe, to the understandable distress of the Russians. Bush averred that the shield was actually intended to address “the
Iranian threat,” which fooled few outside the US, since Iran lacked the capability (let alone any historical conflict) to seriously threaten Europe.\textsuperscript{45} President Obama informed the Russian Federation in 2009 that this was one of a number of retrograde Bush initiatives to be abandoned by the United States. But more recently, Secretary of State Clinton reintroduced the notion of a less expansive missile shield to ostensibly protect Middle Eastern allies such as Saudi Arabia.\textsuperscript{46}

\textbf{Ways forward}

A vital need exists within the United States to vigorously challenge the prevailing consensus among most political and media elites that Iran is either arming itself with nuclear weapons or is on the verge of doing so. Despite the hard lesson learned from the build up to the Iraq war, the sustained campaign of disinformation directed to the subject of Iran’s nuclear programme resembles American media attitudes toward Iraq in late 2002. What is particularly striking today is that this attitude has survived and prospered despite repeated US intelligence statements to the contrary and a lack of support from IAEA inspectors. If there is still no hard evidence of a military nuclear programme, the failure to find any is not from lack of trying over the last eight years.

Likewise, the Iranians must somehow overcome years of behaviour that only feeds Western perceptions of secretiveness. Instead of clinging to legal minutiae, Iran’s leaders must genuinely cooperate with IAEA pleas for cooperation and transparency. Instead of belatedly disclosing new programmes, they need to exercise good faith in informing the Agency as soon as a decision to proceed with construction is taken. Hopefully it is not yet too late, but enormous damage has been done by recent developments.

The standoff with Iran involves both “micro” and “macro” issues. The most immediate “micro” issue, which before June 2009 appeared to be shared by the Obama White House, was the resumption of direct talks between the US and Iran without preconditions and participation with European (and possibly Russian) negotiators, which would permit Iranian participation in a nuclear programme with appropriate international verification.

The harder issues are “macro,” requiring long-term and difficult paths
to mutual recognition and respect. As detailed in numerous histories, the relationship between Iran and the US has been punctuated by intervention and hostility since the 1950s. The US actively aided the overthrow of Mossadegh in 1953 and sponsored a repressive aristocracy for the next quarter-century. As some Americans recall the taking of the “embassy hostages” in 1980, many Iranians recall American support of Saddam Hussein during the Iran-Iraq war. American forces intervened toward the end of the war to sink Iranian ships and strike other facilities. This difficult history must be acknowledged.

The cycle of sanctions premised upon Iran’s pursuit of nuclear enrichment has been ineffective and should be suspended. Whatever the economic or environmental merits of Iran’s programme, Iran is correct in asserting that this is a privileged activity under NPT Article IV, particularly since, amidst all the hubbub, Iran has allowed the IAEA to inspect its facilities and account for all the uranium. Lacking a factual link to a military weapons programme, the US and its allies have only fallen back to suppositions of evil intent, or more recently, hypothetical “breakout” scenarios, that ought not to prevail in international forums. In the current situation, Iran is to be denied enrichment not because it violates any treaty or agreement, but because the UN Security Council ordered Iran to suspend its programme.

When subjective intent overpowers objective facts, states that are trying in good faith to ascertain precise “rules of the road” on regulated nuclear activities will undoubtedly suspect that political interests are superseding technical guidance. The IAEA’s verification that all declared nuclear material is accounted for has taken second chair to considerably less precise observations that Iran is “less cooperative” or provided “inadequate responses” to legacy issues. The IAEA should not be a politicized process, but a technically neutral one. Nor is it a military intelligence service.

The campaign of sanctions against Iran, instead of enhancing the goal of non-proliferation, erodes it. As noted throughout this chapter, the very nature of the question, the proof of a negative (prove to me you are not producing nuclear weapons) defies meaningful certainty as a standard. What is left is what is in the eye of the beholder. Simply denying the good faith of the opposite party in negotiations only guarantees a walkout. Punitive measures, also predicated on non-facts, only exacerbate the potential for failure.

The present controversy further arises in the setting of a flawed treaty.
If certain nuclear activities are indeed to be more regulated than others, or banned entirely, these should be clearly stated. If the standard for a permitted atomic programme is whether you are considered an enemy or friend, this is not a legitimate universal treaty goal. If the nuclear weapon states intended to promote the spread of peaceful nuclear energy within the NPT framework, that is a bed they have to be prepared to lie in, provided they treat the responsible agency (the IAEA) with the independence and objectivity required for the job.

The other overarching issue involves the interplay between NPT Articles II, III, IV, and VI, particularly as applied to Iran. By and large, the non-aligned state parties have performed well under their safeguards agreements with the IAEA. To date, the significant nuclear proliferators have been non-NPT signatories—Israel, India, Pakistan. Unfortunately, the nuclear weapon states have largely considered the disarmament directive of NPT Article VI like a feel-good suggestion akin to the 1928 Kellogg-Briand Pact renouncing war. A nice statement, but quite impossible in practice. Thus it is that nearly all official statements of US strategic guidance in this decade have declared that nuclear weapons will remain part of US defence strategy for the foreseeable future. This should not be so—as former IAEA Director General ElBaradei remarked in 2007, the nuclear weapon states have to “begin to take nuclear disarmament seriously.”
**Recommendations**

- Within the United States and the E3 countries, opinion leaders and the public need to educate themselves and vigorously challenge the prevailing consensus among most political and media elites that Iran is either arming itself with nuclear weapons, or is on the verge of doing so.

- Iranian leaders can exhibit more genuine cooperation with the IAEA and transparency around their uranium enrichment programme. Instead of belatedly disclosing new programmes, Iran’s government needs to exercise good faith in informing the Agency as soon as a decision to proceed with construction is taken. Whether or not such late disclosure is “technically” consistent with prior agreements, Iran’s situation is beyond such fine lines and its leaders must exhibit good faith.

- The United States and Iran need to continue engaging in direct talks without preconditions and with the participation of European and Russian negotiators, to achieve a result that is consistent with national rights under the IAEA.

- Iran should reaffirm its prior Non-Aligned Movement statements and its official and secular commitments to forswear atomic weapons and promote regional and universal nuclear disarmament.

- The cycle of sanctions premised upon Iran’s pursuit of nuclear enrichment should be suspended.

- The IAEA must remain technically neutral, employ sound expertise, and resist efforts to expand its jurisdiction based upon influence by the declared nuclear states.

- The US and Iran should take steps to de-militarize the Persian Gulf, particularly in the Strait of Tiran.
The legal non-proliferation regime, and the NPT in particular, must be rigorously examined to address the permanence of nuclear weapon institutions and to discount the value of such weapons in international relations.

Southeast and South Asian nations, without exception, should commit to a specific programme to defuse nuclear tensions and avoid a catastrophic arms race, accompanied by a commitment by the nuclear superpowers to honour such programmes and not introduce nuclear weapons in the region or sponsor/assist local nations to stockpile theirs.