

F E B R U A R Y 2 0 1 3 **Atomic Kingdom** *If Iran Builds the Bomb, Will Saudi Arabia Be Next?*

By Colin H. Kahl, Melissa G. Dalton and Matthew Irvine



Center for a New American Security

Acknowledgements

"Atomic Kingdom" is a part of a broader project at the Center for a New American Security (CNAS) analyzing the consequences of Iranian nuclearization. The project examines how the United States and its allies should better prevent Iran from acquiring nuclear weapons and, should these efforts fail, mitigate the consequences of a nuclear-armed Iran. CNAS gratefully acknowledges the Ploughshares Fund, United States Institute of Peace and the Carnegie Corporation of New York for their generous financial support.

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ATOMIC KINGDOM: IF IRAN BUILDS THE BOMB, WILL SAUDI ARABIA BE NEXT?

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I. EXECUTIVE SUMMARY

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This report, the second in a series assessing the potential consequences of Iranian nuclearization, examines the likelihood that Saudi Arabia will pursue nuclear weapons if Tehran succeeds in its quest for the bomb. We argue that the prospects of Saudi "reactive proliferation" are lower than the conventional wisdom suggests but that this should not reduce Washington's commitment to preventing the emergence of a nuclear-armed Iran.

It is widely assumed that Saudi Arabia would respond to Iran's acquisition of nuclear weapons by embarking on a crash program to develop their own bomb or by illicitly receiving nuclear weapons from its close ally Pakistan. If these options were not available, most analysts believe that the Saudis would be successful in securing a nuclear umbrella from Islamabad, including the possible deployment of Pakistani nuclear weapons on Saudi soil. These scenarios have been repeated so often in Washington and elsewhere that they have assumed a taken-for-granted quality.

Yet none of these outcomes represent the most likely Saudi response to a nuclear-armed Iran. The Saudis would be highly motivated to acquire some form of nuclear deterrent to counter an Iranian bomb. However, significant disincentives - including the prospect of worsening Saudi Arabia's security environment, rupturing strategic ties with the United States, damaging the country's international reputation and making the Kingdom the target of sanctions - would discourage a mad rush by Riyadh to develop nuclear weapons. And, in any case, Saudi Arabia lacks the technological and bureaucratic wherewithal to do so any time in the foreseeable future. Saudi Arabia is more likely to respond to Iranian nuclearization by continuing to bolster its conventional defenses against Iranian aggression while engaging in a long-term hedging strategy designed to improve civilian nuclear capabilities.

The Kingdom is also much less likely to illicitly acquire operational nuclear weapons from Pakistan than is commonly assumed. Despite longstanding rumors suggesting the existence of a clandestine Saudi-Pakistani nuclear deal, there are profound security and economic disincentives cutting against Riyadh's motivation to seek a bomb from Islamabad – as well as considerable, though typically ignored, strategic and economic reasons for Pakistan to avoid an illicit transfer. Pakistan also faces significant, seldom-recognized imperatives to avoid diverting its strategic attention from India by providing a nuclear guarantee to the Kingdom. Furthermore, even if Islamabad proved willing to extend its nuclear umbrella, a potential U.S. nuclear guarantee would likely "out compete" a Pakistani alternative.

Still, none of this is a reason to be sanguine about Saudi Arabia's reaction to a nuclear-armed Iran. The risks of the worst-case Saudi proliferation scenarios are lower than many contend, but they are not zero, and even a small risk of a Middle East with multiple nuclear powers should be avoided. Moreover, the most likely means of preventing a future Saudi bomb involves the provision of external nuclear guarantees that are themselves costly and undesirable in many respects.

Three recommendations follow from this analysis:

1. Emphasize prevention, while planning for the worst. Current U.S. policy rightly emphasizes preventing Iran from developing nuclear weapons, rather than deterring and containing a nucleararmed Iran. At the same time, quiet planning to establish a deterrence and containment architecture – including a possible nuclear guarantee to Saudi Arabia – should begin in case preventive measures (up to and including military force) fail. Such planning is absolutely essential to give Washington a menu of fully developed options that can be rapidly discussed with the Saudis (and others) to dissuade them from pursuing their own nuclear capabilities. 2. Make Saudi proliferation more difficult. Saudi Arabia's strong need to develop civilian nuclear energy to address a number of pressing domestic requirements provides the United States with an opportunity to shape the nature of this program. Washington should be willing to significantly expand civilian nuclear cooperation with Saudi Arabia, but only if Riyadh agrees to forgo uranium enrichment and spent-fuel reprocessing and implement various safeguards and transparency measures.

3. Maintain leverage over Pakistan. To further mitigate the prospect of a destabilizing nuclear arrangement between Saudi Arabia and Pakistan, the United States should maintain a robust economic and security relationship with Islamabad. This would allow Washington to influence Pakistani decisionmaking and avoid the danger that a U.S.-Pakistani strategic divorce could drive Islamabad into a deeper nuclear partnership with the Kingdom.

II. INTRODUCTION

The prospect that a nuclear-armed Iran could trigger a regional "proliferation cascade" - the widespread development of nuclear weapons by other Middle Eastern states - is one of the most commonly cited dangers associated with Tehran's nuclear ambitions. "It will not be tolerable to a number of states in that region for Iran to have a nuclear weapon and them not to have a nuclear weapon," President Barack Obama noted in a March 2012 interview. "The dangers of ... Iran getting nuclear weapons that then leads to a freefor-all in the Middle East is something that I think would be very dangerous for the world."1 Echoing this concern, Israeli Prime Minister Benjamin Netanyahu has frequently warned that a nucleararmed Iran would set off a "mad dash" by other regional countries to acquire the bomb.² And in December 2012, the National Intelligence Council's Global Trends 2030 report ominously stated that "[t]he future of nuclear proliferation hinges on the outcome of North Korean and Iranian efforts to develop nuclear weapons. Iran's success, especially, could trigger an arms race in the Middle East, undermining the nonproliferation regime."3 Numerous outside commentators have issued similarly dire predictions.4

The three countries most often mentioned as candidates for following Tehran into the nuclear club are Saudi Arabia, Turkey and Egypt. In a March 2012 *New York Times* op-ed, for example, *Ha'aretz* senior correspondent Ari Shavit argued:

An Iranian atom bomb will force Saudi Arabia, Turkey and Egypt to acquire their own atom bombs. Thus a multipolar nuclear arena will be established in the most volatile region on earth. Sooner or later, this unprecedented development will produce a nuclear event. The world we know will cease to be the world we know after Tehran, Riyadh, Cairo or Tel Aviv become the 21st century's Hiroshima.⁵ Echoing this concern, Israeli Defense Minister Ehud Barak flatly declared in June 2012: "A nuclear Iran will be the end of the nonproliferation regime: Saudi Arabia will turn nuclear immediately, Turkey within several years, and probably the new Egypt will start moving to do it."⁶

Nevertheless, the conventional wisdom that Iranian nuclearization will inevitably spark region-wide proliferation deserves closer scrutiny. Historically, "reactive proliferation" has been exceedingly rare. And in the current context, neither Egypt nor Turkey is likely to respond to a nuclear-armed Iran by pursuing the bomb. Egypt's new Muslim Brotherhood-dominated government views Iran as a regional rival, but Cairo does not see Iran's nuclear ambitions as an existential threat. Moreover, Egypt's aging nuclear infrastructure is in poor shape, and the country's leaders will be consumed for the foreseeable future with completing a rocky democratic transition and addressing almost insurmountable economic challenges. As a result, the Egyptian government is highly unlikely to divert scarce financial resources, put its peace agreement with Israel at risk and invite the ire of the international community by pursuing nuclear weapons.7

Ankara may have more anxiety regarding Iranian nuclearization, seeing it as a threat to Middle East stability and Turkey's growing regional influence. Turkey also has considerably more financial resources than Egypt does to devote toward a nuclear program and has ambitious plans to expand its civilian nuclear sector. However, it would likely take many years for Turkey to fully develop the nuclear or technical infrastructure needed to support an advanced nuclear weapons program. And, crucially, Turkey already possesses a credible nuclear deterrent in the form of its longstanding NATO security guarantee. If Iran crosses the nuclear threshold, Ankara is thus likely to aggressively pursue a Middle East nuclear-free zone while sitting comfortably under the American nuclear umbrella.⁸

More plausible is the prospect that Saudi Arabia would respond to an Iranian bomb by seeking one of its own. Indeed, of all the possible scenarios for reactive proliferation, this is the one discussed most often. In a widely read article in *Foreign Affairs*, for example, former U.S. Under Secretary of Defense for Policy Eric Edelman and his colleagues Andrew Krepinevich Jr. and Evan Braden Montgomery wrote:

Riyadh would face tremendous pressure to respond in some form to a nuclear-armed Iran, not only to deter Iranian coercion and subversion but also to preserve its sense that Saudi Arabia is the leading nation in the Muslim world. The Saudi government is already pursuing a nuclear power capability, which could be the first step along a slow road to nuclear weapons development. And concerns persist that it might be able to accelerate its progress by exploiting its close ties to Pakistan.⁹

Similarly, an October 2012 report from the Bipartisan Policy Center concluded that "Saudi Arabia would be very likely to try to follow Iran across the nuclear threshold. Should it do so, the world would face the possibility of an Iran-Saudi nuclear exchange – a catastrophic humanitarian event that would threaten the entirety of Gulf oil exports for an extended period of time."¹⁰ Indeed, the view that Saudi Arabia would pursue nuclear weapons if Iran acquires them has been stated so many times by officials and policy experts in Western countries, Israel and the Arab world that it has assumed a certain taken-for-granted quality.¹¹

This report, the second in a series assessing the potential consequences of Iranian nuclearization,¹² examines the likelihood that Saudi Arabia would pursue nuclear weapons if Tehran succeeded in its quest for the bomb. We argue that the prospects of Saudi reactive proliferation are lower than the conventional wisdom suggests "The view that Saudi Arabia would pursue nuclear weapons if Iran acquires them has been stated so many times by officials and policy experts in Western countries, Israel and the Arab world that it has assumed a certain taken-for-granted quality.

but that this should not reduce Washington's commitment to preventing the emergence of a nuclear-armed Iran.

Saudi leaders fear that nuclear weapons would empower Tehran to threaten the Kingdom and enable Iran's wider hegemonic ambitions. In response, Riyadh is likely to pursue *some form* of nuclear deterrent. However, the Saudis are unlikely to engage in a race to indigenously produce the bomb because doing so could make the Kingdom's strategic predicament worse, not better. It would complicate the Kingdom's national security, risk a strategic rupture with the United States, do great damage to Saudi Arabia's international reputation and potentially make Riyadh the target of international sanctions. Furthermore, technical and bureaucratic constraints make a Saudi dash to nuclear weapons implausible.

For this reason, some analysts think the Saudis would instead pursue a nuclear deterrent by illicitly acquiring operational nuclear weapons from Pakistan. Yet, given the risks and costs of such a move for both parties, we argue that Riyadh is much more likely to seek a nuclear security umbrella from either Pakistan or the United States instead – and that ultimately, a U.S. option would prove more attractive.

None of this suggests that Washington should be sanguine about the likely consequences of Iranian nuclearization. Whether or not Saudi Arabia develops a bomb in response, a nucleararmed Iran would have profoundly destabilizing consequences for the Middle East, including emboldening Iranian support for terrorism and regional militancy and increasing the prospects for nuclear crises between Iran, Israel and the United States.¹³ Moreover, although the provision of a U.S. nuclear security guarantee to the Kingdom may ultimately prove necessary - and is preferable to the emergence of a nuclear-armed Saudi Arabia or deeper nuclear cooperation between Riyadh and Islamabad - this outcome is still far from desirable. It would keep the United States bogged down in costly defense commitments in the Gulf for decades to come, entrenching ties to the least democratic countries in a democratizing region and limiting Washington's ability to strategically pivot toward Asia. Consequently, the best course of action for the United States remains a policy of preventing Iran from acquiring nuclear weapons in the first place, while also considering options for mitigating the prospects for Saudi proliferation should prevention efforts fail.

III. LESSONS FROM HISTORY

Concerns over "regional proliferation chains," "falling nuclear dominos" and "nuclear tipping points" are nothing new; indeed, reactive proliferation fears date back to the dawn of the nuclear age.14 Warnings of an inevitable deluge of proliferation were commonplace from the 1950s to the 1970s, resurfaced during the discussion of "rogue states" in the 1990s and became even more ominous after 9/11.15 In 2004, for example, Mitchell Reiss warned that "in ways both fast and slow, we may very soon be approaching a nuclear 'tipping point,' where many countries may decide to acquire nuclear arsenals on short notice, thereby triggering a proliferation epidemic." Given the presumed fragility of the nuclear nonproliferation regime and the ready supply of nuclear expertise, technology and material, Reiss argued, "a single new entrant into the nuclear club could catalyze similar responses by others in the region, with the Middle East and Northeast Asia the most likely candidates."16

Nevertheless, predictions of inevitable proliferation cascades have historically proven false (see The Proliferation Cascade Myth text box). In the six decades since atomic weapons were first developed, nuclear restraint has proven far more common than nuclear proliferation, and cases of reactive proliferation have been exceedingly rare. Moreover, most countries that have started down the nuclear path have found the road more difficult than imagined, both technologically and bureaucratically, leading the majority of nuclear-weapons aspirants to reverse course. Thus, despite frequent warnings of an unstoppable "nuclear express,"¹⁷ William Potter and Gaukhar Mukhatzhanova astutely note that the "train to date has been slow to pick up steam, has made fewer stops than anticipated, and usually has arrived much later than expected."18

None of this means that additional proliferation in response to Iran's nuclear ambitions is inconceivable, but the empirical record does suggest that regional chain reactions are not inevitable. Instead, only certain countries are candidates for reactive proliferation. Determining the risk that any given country in the Middle East will proliferate in response to Iranian nuclearization requires an assessment of the incentives and disincentives for acquiring a nuclear deterrent, the technical and bureaucratic constraints and the available strategic alternatives.

Incentives and Disincentives to Proliferate

Security considerations, status and reputational concerns and the prospect of sanctions combine to shape the incentives and disincentives for states to pursue nuclear weapons. Analysts predicting proliferation cascades tend to emphasize the incentives for reactive proliferation while ignoring or downplaying the disincentives. Yet, as it turns out, instances of nuclear proliferation (including reactive proliferation) have been so rare because going down this road often risks insecurity, reputational damage and economic costs that outweigh the potential benefits.¹⁹

Security and regime survival are especially important motivations driving state decisions to proliferate. All else being equal, if a state's leadership believes that a nuclear deterrent is required to address an acute security challenge, proliferation is more likely.²⁰ Countries in conflict-prone neighborhoods facing an "enduring rival"- especially countries with inferior conventional military capabilities vis-à-vis their opponents or those that face an adversary that possesses or is seeking nuclear weapons - may be particularly prone to seeking a nuclear deterrent to avert aggression.²¹ A recent quantitative study by Philipp Bleek, for example, found that security threats, as measured by the frequency and intensity of conventional militarized disputes, were highly correlated with decisions to launch nuclear weapons programs and eventually acquire the bomb.²²

The Proliferation Cascade Myth

Despite repeated warnings since the dawn of the nuclear age of an inevitable deluge of nuclear proliferation, such fears have thus far proven largely unfounded. Historically, nuclear restraint is the rule, not the exception - and the degree of restraint has actually increased over time. In the first two decades of the nuclear age, five nuclear-weapons states emerged: the United States (1945), the Soviet Union (1949), the United Kingdom (1952), France (1960) and China (1964). However, in the nearly 50 years since China developed nuclear weapons, only four additional countries have entered (and remained in) the nuclear club: Israel (allegedly in 1967), India ("peaceful" nuclear test in 1974, acquisition in late-1980s, test in 1998), Pakistan (acquisition in late-1980s, test in 1998) and North Korea (test in 2006).²³

This significant slowdown in the pace of proliferation occurred despite the widespread dissemination of nuclear know-how and the fact that the number of states with the technical and industrial capability to pursue nuclear weapons programs has significantly increased over time.²⁴ Moreover, in the past 20 years, several states have either given up their nuclear weapons (South Africa and the Soviet successor states Belarus, Kazakhstan and Ukraine) or ended their highly developed nuclear weapons programs (e.g., Argentina, Brazil and Libya).²⁵ Indeed, by one estimate, 37 countries have pursued nuclear programs with possible weaponsrelated dimensions since 1945, yet

the overwhelming number chose to abandon these activities before they produced a bomb. Over time, the number of nuclear reversals has grown while the number of states initiating programs with possible military dimensions has markedly declined.²⁶

Furthermore – especially since the Nuclear Non-Proliferation Treaty (NPT) went into force in 1970 - reactive proliferation has been exceedingly rare. The NPT has near-universal membership among the community of nations; only India, Israel, Pakistan and North Korea currently stand outside the treaty. Yet the actual and suspected acquisition of nuclear weapons by these outliers has not triggered widespread reactive proliferation in their respective neighborhoods. Pakistan followed India into the nuclear club, and the two have engaged in a vigorous arms race, but Pakistani nuclearization did not spark additional South Asian states to acquire nuclear weapons. Similarly, the North Korean bomb did not lead South Korea, Japan or other regional states to follow suit.27

In the Middle East, no country has successfully built a nuclear weapon in the four decades since Israel allegedly built its first nuclear weapons. Egypt took initial steps toward nuclearization in the 1950s and then expanded these efforts in the late 1960s and 1970s in response to Israel's presumed capabilities. However, Cairo then ratified the NPT in 1981 and abandoned its program.²⁸ Libya, Iraq and Iran all pursued nuclear weapons capabilities, but only Iran's program persists and none of these states initiated their efforts primarily as a defensive response to Israel's presumed arsenal.²⁹ Sometime in the 2000s, Syria also appears to have initiated nuclear activities with possible military dimensions, including construction of a covert nuclear reactor near al-Kibar, likely enabled by North Korean assistance.³⁰ (An Israeli airstrike destroyed the facility in 2007.³¹) The motivations for Syria's activities remain murky, but the nearly 40-year lag between Israel's alleged development of the bomb and Syria's actions suggests that reactive proliferation was not the most likely cause.

Finally, even countries that start on the nuclear path have found it very difficult, and exceedingly time consuming, to reach the end. Of the 10 countries that launched nuclear weapons projects after 1970, only three (Pakistan, North Korea and South Africa) succeeded; one (Iran) remains in progress, and the rest failed or were reversed.³² The successful projects have also generally needed much more time than expected to finish. According to Jacques Hymans, the average time required to complete a nuclear weapons program has increased from seven years prior to 1970 to about 17 years after 1970, even as the hardware, knowledge and industrial base required for proliferation has expanded to more and more countries.33

Yet throughout the nuclear age, many states with potential security incentives to develop nuclear weapons have nevertheless abstained from doing so.³⁴ Moreover, contrary to common expectations, recent statistical research shows that states with an enduring rival that possesses or is pursuing nuclear weapons are *not* more likely than other states to launch nuclear weapons programs or go all the way to acquiring the bomb, although they do seem more likely to *explore* nuclear weapons options.³⁵ This suggests that a rival's acquisition of nuclear weapons does not inevitably drive proliferation decisions.

One reason that reactive proliferation is not an automatic response to a rival's acquisition of nuclear arms is the fact that security calculations can cut in both directions. Nuclear weapons might deter outside threats, but leaders have to weigh these potential gains against the possibility that seeking nuclear weapons would make the country or regime *less* secure by triggering a regional arms race or a preventive attack by outside powers. Countries also have to consider the possibility that pursuing nuclear weapons will produce strains in strategic relationships with key allies and security patrons. If a state's leaders conclude that their overall security would decrease by building a bomb, they are not likely to do so.³⁶

Moreover, although security considerations are often central, they are rarely sufficient to motivate states to develop nuclear weapons. Scholars have noted the importance of other factors, most notably the perceived effects of nuclear weapons on a country's relative status and influence.³⁷ Empirically, the most highly motivated states seem to be those with leaders that *simultaneously* believe a nuclear deterrent is essential to counter an existential threat *and* view nuclear weapons as crucial for maintaining or enhancing their international status and influence. Leaders that see their country as naturally at odds with, and naturally equal or superior to, a threatening external foe appear to be especially prone to pursuing nuclear weapons.³⁸ Thus, as Jacques Hymans argues, extreme levels of fear and pride often "combine to produce a very strong tendency to reach for the bomb."³⁹

Yet here too, leaders contemplating acquiring nuclear weapons have to balance the possible increase to their prestige and influence against the normative and reputational costs associated with violating the Nuclear Non-Proliferation Treaty (NPT). If a country's leaders fully embrace the principles and norms embodied in the NPT, highly value positive diplomatic relations with Western countries and see membership in the "community of nations" as central to their national interests and identity, they are likely to worry that developing nuclear weapons would damage (rather than bolster) their reputation and influence, and thus they will be less likely to go for the bomb.⁴⁰ In contrast, countries with regimes or ruling coalitions that embrace an ideology that rejects the Westerndominated international order and prioritizes national self-reliance and autonomy from outside interference seem more inclined toward proliferation regardless of whether they are signatories to the NPT.⁴¹ Most countries appear to fall in the former category, whereas only a small number of "rogue" states fit the latter. According to one count, before the NPT went into effect, more than 40 percent of states with the economic resources to pursue nuclear programs with potential military applications did so, and very few renounced those programs. Since the inception of the nonproliferation norm in 1970, however, only 15 percent of economically capable states have started such programs, and nearly 70 percent of all states that had engaged in such activities gave them up.42

The prospect of being targeted with economic sanctions by powerful states is also likely to factor into the decisions of would-be proliferators. Although sanctions alone proved insufficient to dissuade Iraq, North Korea and (thus far) Iran from violating their nonproliferation obligations under the NPT, this does not necessarily indicate that sanctions are irrelevant. A potential proliferator's vulnerability to sanctions must be considered. All else being equal, the more vulnerable a state's economy is to external pressure, the less likely it is to pursue nuclear weapons. A comparison of states in East Asia and the Middle East that have pursued nuclear weapons with those that have not done so suggests that countries with economies that are highly integrated into the international economic system – especially those dominated by ruling coalitions that seek further integration – have historically been less inclined to pursue nuclear weapons than those with inward-oriented economies and ruling coalitions.⁴³

Although security considerations are often central, they are rarely sufficient to motivate states to develop nuclear weapons.

A state's vulnerability to sanctions matters, but so too does the leadership's assessment regarding the *probability* that outside powers would actually be willing to impose sanctions. Some would-be proliferators can be easily sanctioned because their exclusion from international economic transactions creates few downsides for sanctioning states. In other instances, however, a state may be so vital to outside powers – economically or geopolitically – that it is unlikely to be sanctioned regardless of NPT violations.

Technical and Bureaucratic Constraints

In addition to motivation to pursue the bomb, a state must have the technical and bureaucratic wherewithal to do so. This capability is partly a function of wealth. Richer and more industrialized states can develop nuclear weapons more easily than poorer and less industrial ones can; although as Pakistan and North Korea demonstrate, cash-strapped states can sometimes succeed in developing nuclear weapons if they are willing to make enormous sacrifices.⁴⁴ A country's technical know-how and the sophistication of its civilian nuclear program also help determine the ease and speed with which it can potentially pursue the bomb. The existence of uranium deposits and related mining activity, civilian nuclear power plants, nuclear research reactors and laboratories and a large cadre of scientists and engineers trained in relevant areas of chemistry and nuclear physics may give a country some "latent" capability to eventually produce nuclear weapons. Mastery of the fuel-cycle - the ability to enrich uranium or produce, separate and reprocess plutonium - is particularly important because this is the essential pathway whereby states can indigenously produce the fissile material required to make a nuclear explosive device.45

States must also possess the bureaucratic capacity and managerial culture to successfully complete a nuclear weapons program. Hymans convincingly argues that many recent would-be proliferators have weak state institutions that permit, or even encourage, rulers to take a coercive, authoritarian management approach to their nuclear programs. This approach, in turn, politicizes and ultimately undermines nuclear projects by gutting the autonomy and professionalism of the very scientists, experts and organizations needed to successfully build the bomb.⁴⁶

Alternative Sources of Nuclear Deterrence

Historically, the availability of credible security guarantees by outside nuclear powers has provided a potential alternative means for acquiring a nuclear deterrent without many of the risks and costs associated with developing an indigenous nuclear weapons capability. As Bruno Tertrais argues, nearly all the states that developed nuclear weapons since 1949 either lacked a strong

guarantee from a superpower (India, Pakistan and South Africa) or did not consider the superpower's protection to be credible (China, France, Israel and North Korea). Many other countries known to have pursued nuclear weapons programs also lacked security guarantees (e.g., Argentina, Brazil, Egypt, Indonesia, Iraq, Libya, Switzerland and Yugoslavia) or thought they were unreliable at the time they embarked on their programs (e.g., Taiwan). In contrast, several potential proliferation candidates appear to have abstained from developing the bomb at least partly because of formal or informal extended deterrence guarantees from the United States (e.g., Australia, Germany, Japan, Norway, South Korea and Sweden).⁴⁷ All told, a recent quantitative assessment by Bleek finds that security assurances have empirically significantly reduced proliferation proclivity among recipient countries.48

Therefore, if a country perceives that a security guarantee by the United States or another nuclear power is both available and credible, it is less likely to pursue nuclear weapons in reaction to a rival developing them. This option is likely to be particularly attractive to states that lack the indigenous capability to develop nuclear weapons, as well as states that are primarily motivated to acquire a nuclear deterrent by security factors (as opposed to status-related motivations) but are wary of the negative consequences of proliferation.

IV. PROSPECTS FOR SAUDI PROLIFERATION

If Iran joins the nuclear club, Saudi Arabia would likely be motivated to explore some form of nuclear deterrent in response. But the prediction that Riyadh will rapidly acquire nuclear weapons – either by developing them indigenously or acquiring them in an illicit transfer from Pakistan – is probably wrong. Instead, the Kingdom would be more likely to respond by developing more robust conventional defenses and civilian nuclear capabilities. The Kingdom is also likely to pursue a near-term nuclear security guarantee from either Pakistan or the United States, with Washington ultimately proving to be the more attractive alternative.

Incentives for Saudi Proliferation

Saudi leaders have long viewed Iran as a regional rival, and Tehran has become increasingly central to Riyadh's strategic considerations since the 1979 Iranian revolution. Today, the Kingdom views the Islamic Republic as its principal geopolitical foe. Saudi leaders are deeply concerned about Iran's nuclear ambitions and aspirations for leadership in the region and the wider Muslim world, and they are convinced that the former will facilitate the latter. Of all the Arab states, Saudi Arabia probably faces the greatest security and prestige-based incentives to acquire some form of nuclear deterrent if Iran develops nuclear weapons.⁴⁹

SECURITY INCENTIVES

Saudi security concerns vis-à-vis Iran stem in part from the Kingdom's relative military weakness. Since Iraq's invasion of Kuwait in 1990, Saudi leaders have worried about the potential for foreign invasion.⁵⁰ In this regard, the conventional threat to Saudi Arabia posed by Iran is somewhat limited. Iran's air force is woefully outdated, its ground forces lack power projection capabilities and the two countries do not share a common land border. Nevertheless, in recent years, Iran has significantly If Iran joins the nuclear club, Saudi Arabia would likely be motivated to explore some form of nuclear deterrent in response. But the prediction that Riyadh will rapidly acquire nuclear weapons – either by developing them indigenously or acquiring them in an illicit transfer from Pakistan – is probably wrong.

expanded its ballistic missile arsenal, steadily improved its ability to conduct irregular warfare and enhanced the capabilities of the Islamic Revolutionary Guard Corps Navy operating in the Persian Gulf and Strait of Hormuz - all of which represent potential threats to Saudi Arabia's critical infrastructure and oil trade.⁵¹ Excluding the capital city of Riyadh, Saudi Arabia's major cities and oil facilities are located near its borders and coastline, making them vulnerable.52 An Iranian missile and seaborne attack (perhaps combined with a coordinated campaign of terrorism and sabotage) could potentially damage or destroy Saudi Arabia's petroleum facilities, the lifeblood of the Kingdom's economy. In addition, Saudi Arabia's desalination plants, which provide at least 70 percent of the country's drinking water, could be destroyed by an Iranian assault.53 In an effort to deter and defend against these threats, Saudi Arabia has maintained a close strategic partnership with the United States. Riyadh has also spent tens of billions of dollars in recent years to upgrade Saudi air defense and strike capabilities and has plans to significantly modernize its ballistic missile defenses and navy.⁵⁴

Despite these military upgrades, Saudi leaders fear that nuclear weapons would provide Iran with cover for conventional – or, even more likely, unconventional - aggression against the Kingdom.55 The primary Saudi concern is not a direct Iranian assault but rather the possibility that nuclear weapons would provide a shield behind which Iran's revolutionary leadership could promote Shia subversion and militancy in the Kingdom and across the region with impunity.56 Riyadh views the growing political restlessness of Shia populations in the country's Eastern Province, as well as in surrounding Bahrain, Iraq, Kuwait and Lebanon, as a threat that could eventually metastasize into an existential challenge to the House of Saud.⁵⁷ The political turmoil associated with the Arab Spring has heightened these concerns. Indeed, in the current environment, Saudi leaders have tended to exaggerate Tehran's hidden hand, ascribing any and all forms of instability and Shia activism in the Middle East to a conscious Iranian strategy to destabilize the Kingdom and other Gulf monarchies.58 But even if Saudi concerns sometimes border on paranoia, history suggests that new nuclear-armed states tend to be emboldened, at least for a time, to pursue more aggressive foreign policies by the belief that nuclear weapons protect them from devastating retaliation. It is therefore not completely unreasonable for Saudi leaders to fear that Iranian adventurism would be empowered by nuclear weapons.59

PRESTIGE-BASED INCENTIVES

More broadly, Saudi leaders believe that Iranian nuclear weapons would facilitate the Islamic Republic's aspirations for regional and global leadership.⁶⁰ For three decades, Saudi Arabia and Iran have competed for regional influence and status across the wider Islamic world, with the House of Saud serving as the self-appointed capital of Sunni Islam and a conservative defender of the status quo and the revolutionary Iranian regime serving as the advocate for Shia interests and the champion of regional "resistance" against Israel and the West. The Saudi-Iranian cold war has been fought in myriad ways and on numerous fronts. During the 1980s, the Kingdom backed Saddam Hussein in the Iran-Iraq war in an effort to strangle Iran's revolutionary state in its crib. More recently, Riyadh and Tehran have competed for influence by funneling support to warring factions in the fractured polities of Iraq, Lebanon, the Palestinian territories, Syria and Yemen. In the Gulf, Iran has sought to make political inroads and pressure the smaller members of the Gulf Cooperation Council (GCC) to curtail or eliminate their military ties with the West, while Saudi Arabia has attempted to rally them to contain Iran's influence.⁶¹

The Saudis fear that Iran's acquisition of nuclear weapons would tip the balance of regional leadership decisively in Tehran's favor. After all, the Islamic Republic's revolutionary "resistance" model would seemingly be validated if Iran succeeded in building the bomb despite extraordinary pressure from the West and Israel. Saudi leaders also worry that a nuclear deterrent would enable Iran's coercive diplomacy, allowing Tehran to run higher risks and more effectively push Arab states to accommodate Iranian interests.⁶² The net effect would be a significant increase in Iran's stature and influence at the expense of the Kingdom.

OMINOUS WARNINGS

For both realpolitik and status-based reasons, a good case can therefore be made that the Kingdom would be highly motivated to counterbalance the threat posed by a nuclear-armed Iran, potentially driving the Saudis to acquire their own nuclear deterrent. Indeed, as early as 2003, *The Guardian* reported that Saudi leaders had embarked on an internal strategic review focused on whether to pursue an indigenous nuclear weapons capability, seek an extended deterrent pact with an outside nuclear power or focus on achieving a Middle East nuclear-free zone.63 Although the existence of such a strategy paper has never been corroborated by official sources and the Saudi government denies that such a document exists,64 other media reports and statements suggest that Saudi officials have contemplated the possible need for a nuclear deterrent should Iran acquire one. According to former senior U.S. diplomat Dennis Ross, Saudi Arabia's King Abdullah bin Abdulaziz al Saud explicitly warned the United States in 2009 that if Iran obtained nuclear weapons, Saudi Arabia would follow suit.65 In 2011, Prince Turki al-Faisal, the former head of the Saudi intelligence service and former ambassador to the United States, noted that "Saudi Arabia might feel pressure to acquire a nuclear deterrent of its own" if Iran joined the nuclear club.66 He reiterated this line of argument in January 2012, saying that Saudi Arabia and the other Gulf states "must study carefully all the options, including the option of acquiring weapons of mass destruction" if Iran gets the bomb.67 And an unnamed "senior Saudi source" told The Times of London in February 2012 that "there is no intention currently to pursue a unilateral military nuclear program but the dynamics will change immediately if the Iranians develop their own nuclear capability." In an apparent reference to the Saudi-Iranian competition for regional influence, the source concluded that "politically, it would be completely unacceptable to have Iran with a nuclear capability and not the Kingdom."68

Nevertheless, these warnings should be taken with a grain of salt. After all, if Saudi leaders were committed to building nuclear weapons, it is not clear why they would tip off the world to their plans, thereby making it more likely that their illicit activities would be detected. Saudi proliferation threats may simply be a bluff designed to further motivate the United States and other members of the international community to take decisive action to prevent Iranian nuclearization and otherwise tighten the American commitment to defending the Kingdom.

Disincentives for Saudi Proliferation

This is normally where the story ends: with the conclusion that Saudi Arabia would face overwhelming incentives to pursue nuclear weapons should Iran become a nuclear-armed state.⁶⁹ Yet this standard narrative ignores powerful pressures pushing in the opposite direction.

SECURITY DISINCENTIVES

The conservative Saudi leadership strongly prefers stability - both at home and abroad - and there is no doubt that Saudi rulers fear that a nuclearempowered Iran would threaten the Kingdom and the wider Middle East. But Saudi Arabia acquiring its own nuclear weapons could, on net, make the threat to stability worse, not better.⁷⁰ Domestically, the Saudis would have to consider the prospect that nuclear weapons could fall into the hands of violent jihadist extremists opposed to the regime.⁷¹ Regionally, the Kingdom would face the possibility that Israel would strike Saudi facilities to prevent the emergence of another nuclear state in the region, just as Israel did in Iraq in 1981 and in Syria in 2007. (Indeed, the concern over triggering an Israeli attack may have been the primary reason the Kingdom did not respond in kind to Israel's nuclear program.⁷²) Even if Saudi Arabia could avoid being the target of a preventive strike, Riyadh would have to consider the risks associated with engaging in a nuclear arms race with Jerusalem and Tehran, including the possibility of nuclear crises that could pose a direct and immediate existential threat to the regime.

It is unclear how seriously Saudi leaders would take these risks, but one additional possibility could not escape their calculations: the prospect that pursuing nuclear weapons could lead to a rupture in the vital security relationship with the United States. If the past is prologue, then the American reaction to any Saudi proliferation decision would be swift and punitive. In 1986, for example, Riyadh purchased dozens of intermediate-range CSS-2 ballistic missiles capable of

carrying nuclear warheads from China. When Washington learned of the missile deal in 1988, there was a crisis in the relationship.⁷³ Congress threatened to block the sale of equipment needed to sustain Saudi Airborne Warning and Control System aircraft and put other elements of the security assistance relationship in jeopardy. The Israelis also warned that they might strike the missile sites. In response to pressure from the George H. W. Bush administration, Riyadh signed the NPT, and King Fahd provided personal assurances to Washington that Saudi Arabia would not pursue nuclear or chemical warheads for the missiles.⁷⁴ This episode is often portrayed as a clear example of Saudi desires to acquire nuclear weapons capabilities - but it also suggests that the House of Saud would have to consider the prospect of a punitive U.S. response if the Kingdom were to pursue nuclear weapons in reaction to Iranian nuclearization.

Saudi dependence on American security assistance provides a powerful disincentive to Saudi nuclearization. The United States Military Training Mission (USMTM) in Saudi Arabia, founded in 1953, is the largest U.S. foreign security assistance mission in the world. Its core functions include training, advising and assisting the Saudi Arabian Armed Forces to develop strategic plans and policy; conducting joint and coalition operations and exercises; maintaining interoperability among U.S., Saudi and regional partner forces; managing professional military education programs; and assisting in sustainment and modernization of Saudi forces.⁷⁵ The Saudis particularly rely on the United States for access to cutting-edge military technology, as evidenced most recently by the \$30 billion arms deal to Saudi Arabia announced in December 2011 that will provide Riyadh with an advanced variant of U.S. F-15 fighter aircraft, as well as the logistics and maintenance packages required to keep these systems operating.76

Saudi leaders know that U.S. law requires economic and military sanctions against nuclear proliferators, and they also know that the Kingdom lacks the sympathy on Capitol Hill required to reliably block punitive measures.⁷⁷ Thus, if Riyadh were to seek nuclear weapons, Saudi leaders would have to expect that U.S. security assistance would be dramatically curtailed. Many of USMTM's activities would likely stop. Because the Kingdom relies heavily on U.S. contracts for maintenance and spare parts, this would severely undermine the Saudi military's ability to function and protect the Kingdom from internal and external threats. The effect on core Saudi security interests would be immediate and severe.

REPUTATIONAL CONCERNS

Potential reputational damage to the Kingdom would weigh against status-based motivations to acquire nuclear weapons in response to an Iranian bomb. A Saudi drive for the bomb would fly in the face of Riyadh's commitments to nonproliferation norms. Saudi Arabia joined the NPT in 1988,78 signed a comprehensive safeguards agreement with the International Atomic Energy Agency (IAEA) in 200579 and has consistently voiced its support for a nuclear-free zone in the Middle East.⁸⁰ Moreover, according to Thomas Lippman, now-deceased Crown Prince Sultan bin Abdulaziz, declared that nuclear weapons contravened the tenets of Islam.⁸¹ Because King Abdullah and other Saudi leaders highly value their standing with the international community and their status as the "Custodians of the Two Holy Mosques," they cannot easily cast aside reputational concerns or religious objections to nuclear weapons. Thus, although the Saudis might calculate that nuclear weapons would help to check Iranian aggression and prevent a tilt in the regional balance of power against the Kingdom, they would also likely worry that violations of their commitments would mark them as international outlaws and jeopardize their credibility as champions of Islamic law.

Even if Saudi leaders believe they would not be hit with significant oil penalties, they are likely to fear other negative economic ramifications from a proliferation decision.

ECONOMIC SANCTIONS

The possibility of being targeted with economic sanctions would also factor into Saudi decisionmaking. Saudi Arabia's economy depends almost entirely on its oil sector, which in 2011 accounted for nearly 80 percent of budget revenues, 45 percent of gross domestic product (in real terms) and 90 percent of export earnings.⁸² Consequently, the Kingdom could be highly vulnerable to energy sanctions.⁸³ Riyadh has seen the effects of economic sanctions on other nuclear offenders, including the U.S. reaction to Pakistan's nuclear tests in 1998 and the harsh sanctions imposed on North Korea. Perhaps more relevant for Saudi leaders' calculations, they have witnessed the willingness of the international community to impose crippling energy sanctions on Iraq and Iran - two major oil exporters - for their violations of the NPT. Furthermore, Saudi Arabia is much less economically self-sufficient than contemporary Iran, suggesting that the Kingdom would be far more vulnerable to potential sanctions.⁸⁴

Saudi Arabia's very centrality to the global oil market, however, means that Saudi leaders are likely to doubt the international community's willingness to target the Kingdom with crippling energy sanctions should they pursue nuclear weapons.⁸⁵ In contrast to the unprecedented international support that has existed for sanctions on Iran, the United States and other Western governments would have considerable difficulty encouraging other states to adopt sanctions against Saudi oil. The Kingdom supplies about three times more oil to the world market than Iran, giving it considerable leverage in shaping global oil prices.⁸⁶ Moreover, there is currently no country or set of countries with sufficient spare production capacity to compensate for an embargo against Saudi oil. Indeed, Iranian sanctions have been effective because global oil prices have remained steady, which is partly a consequence of Riyadh expanding its oil production to supply Iran's customers.87 Furthermore, despite recent energy forecasts that predict significant increases in oil production from countries like the United States (which is expected to overtake the Kingdom as the world's largest oil producer by the end of the decade), Saudi Arabia will continue to play a major role in shaping the global oil market.88 Energy analysts argue that most of the additional volume of oil produced by the United States and other nations that are not members of the Organization of the Petroleum Exporting Counties will likely be consumed by rising demand from China, India and other emerging economic powers, instead of adding to a surplus in global oil supply that would help buffer the market from price spikes.⁸⁹ Moreover, declining production in conventional oilfields - including those in Nigeria, Brazil and elsewhere - is expected to contribute to tightening in the global oil market.⁹⁰ Therefore, a disruption in Saudi oil supply - as a result of sanctions or other events - would still have global ramifications for oil consumers, including the United States. This seems to take the threat of oil sanctions as a dissuasion tool off the table for the foreseeable future.

Yet even if Saudi leaders believe they would not be hit with significant oil penalties, they are likely to fear other negative economic ramifications from a proliferation decision, including possible financial sanctions and limits on foreign investment. Population growth rates in the Kingdom remain high, and about 29 percent of the country's population is under the age of 14.91 This produces significant structural challenges for the Saudi economy, including high unemployment rates and low per capita income, despite high oil prices on the international market.92 Partially to address these issues, the Saudi government would like to increase the levels of foreign direct investment in the Kingdom and better integrate into the global economy, a desire that was evident in the 14-year Saudi bid for membership in the World Trade Organization, which resulted in Riyadh joining the organization in December 2005.93 Ongoing needs to reform the Saudi economy, attract foreign direct investment and better integrate into international markets act as a disincentive to building a nuclear arsenal because potential investors might shy away from a potentially unstable and unfavorable market - a risk that would be compounded by the effects of economic sanctions.94 Furthermore, the growing danger of domestic unrest in the wake of the Arab Spring will inevitably enhance Saudi sensitivity to taking any provocative steps that could lead to investor concerns or economic disruption.

The gravity that Saudi leaders attach to these risks hinges on their calculation regarding both the likelihood and possible duration of sanctions. The House of Saud might judge that the Saudi position in the oil market provides retaliatory options that would deter other states from targeting the nation with overly harsh financial measures. And Saudi leaders might conclude that they could ride out short-term dislocations, betting that the international community would eventually accept their nuclear program, much as global powers eventually accommodated themselves to the Indian and Pakistani programs. Still, given the severe structural challenges to the Saudi economy and the acute concerns among Saudi leaders regarding political stability, they could not completely discount the possibility of being targeted with punitive financial sanctions.

REASONS FOR RESTRAINT

All told, the combined risks that Saudi nuclearization would worsen threats to domestic and regional stability, threaten critical security ties with the United States, produce significant reputational costs and trigger damaging sanctions would leave the Kingdom's strategic position "precarious to the point of untenability."⁹⁵ These are extremely powerful disincentives.

Moreover, Saudi nuclear restraint would be consistent with the country's historical pattern of behavior when confronted with significant regional challenges. After Israel allegedly developed nuclear weapons in the late 1960s, for example, the Kingdom did not rush to build the bomb. For decades, Riyadh viewed Israeli occupation of Arab land as the major source of instability in the region, and to this day, Saudi Arabia demands that Israel withdraw from Arab territories seized during the 1967 war, including East Jerusalem, the location of Islam's third-holiest site.96 Yet the Kingdom did not seek nuclear weapons in an attempt to counter the threat or to generate more stature or coercive influence to push Israel toward concessions on the Palestinian issue. Nor did the Kingdom pursue nuclear weapons in the 1990s, despite being attacked by Iraqi ballistic missiles during the 1991 Gulf War and worrying that Iran and Syria were on the verge of becoming the dominant powers in the region. The Saudis chose instead to continue to rely on Washington for protection and diplomatically engaged Syria and, temporarily, Iran based on their common interest in containing Iraq.97

Saudi Technical and Bureaucratic Constraints

Even if Riyadh wanted to move decisively to produce nuclear weapons in response to a nuclear-armed Iran, the technical and bureaucratic hurdles for developing a successful, indigenous nuclear weapons program would be monumental. As the world's largest oil exporter and a country with enormous foreign currency reserves, Saudi Arabia has sufficient economic resources to eventually develop a robust nuclear program should its leaders decide to do so.⁹⁸ However,

Saudi Arabia's Nuclear Infrastructure

Saudi Arabia lacks sufficient domestic sources of uranium to support a large-scale nuclear program. At present, the Kingdom has no uranium mining or milling industry, and developing one would be costly and take years. Low-level amounts of uranium and thorium have been discovered near the country's Tabuk Basin, but these areas have not been mined. The Kingdom could potentially extract uranium from its large deposits of phosphates, although it has yet to attempt to do so.¹⁰⁰

Riyadh's other nuclear activities are also modest, focusing on radiation monitoring and the limited development of civilian nuclear energy for industrial, agricultural and medical purposes. Nonproliferation experts agree that the Kingdom's known facilities and capabilities are insufficient for military nuclear purposes.¹⁰¹ In 1977, Saudi Arabia created the King Abdulaziz City for Science and Technology, within which the Atomic Energy Research Institute was established in 1988 to coordinate nuclear research.¹⁰² Several laboratories work under the Institute's supervision, and Saudi scientists have conducted experiments and research in uranium analysis, isotope production, radiation protection, waste management and reactor operations. Saudi academic research institutions have also cooperated with scientists in Africa and Europe, as well as Iraq, Pakistan, Syria, the United States and other nations.¹⁰³ However, little of this work has direct military applications.

Producing indigenous nuclear weapons requires mastering the fuel cycle. Countries need either a modest-sized nuclear research reactor and the reprocessing capability to create fissile materials for nuclear weapons or the capability to produce enriched uranium. Saudi Arabia possesses neither. The Kingdom has no nuclear research reactors or nuclear power facilities, no known reprocessing capability and no known uranium conversion, enrichment or fuel fabrication facilities.¹⁰⁴ Saudi scientists do have some experience producing uranium isotopes and managing spent fuel. For example, the Saudis operate a Tangetron accelerator at the King Fadh University of Petroleum and Minerals that is used in nuclear physics experiments, as well as a cyclotron at the King Faisal Specialist Hospital in Riyadh that is used for the production of medical isotopes. However, these activities do not directly train Saudi scientists in areas relevant to designing and building nuclear weapons.¹⁰⁵ Although some activities conducted by Saudi laboratories – including physical and chemical separation, radiochemistry and work with radioactive isotopes – could potentially be suitable for small-scale reprocessing of fissionable plutonium, it is not at a level assessed to represent a proliferation risk.¹⁰⁶

such a project would take more than a decade and may not be able to succeed even if the Saudi government devoted considerable resources to the endeavor. Saudi Arabia currently lacks the natural resources, technical expertise and practical experience required for uranium mining, uranium conversion, uranium enrichment, reprocessing, fuel fabrication and nuclear power production – that is, nearly every essential civilian building block required to eventually develop a nuclear bomb (see Saudi Arabia's Nuclear Infrastructure text box).⁹⁹ Developing the technology and expertise necessary to support an indigenous nuclear weapons program would require dramatically expanding Saudi Arabia's civilian nuclear energy sector. Such expansion could arguably be justified to meet a number of pressing domestic needs. Nuclear energy could help power vitally important desalination efforts. It could also address a fundamental fiscal dilemma – created by a combination of Saudi population growth, government fuel subsidies and increased domestic oil consumption for electricity – that could make Saudi Arabia a major oil importer as early as 2030.¹⁰⁷ By that date, according to some estimates, the Kingdom would require oil to be \$320 a barrel for the country to simultaneously meet rising domestic energy needs and maintain adequate revenues from oil exports to meet anticipated budget requirements.¹⁰⁸

At least partly for these reasons, Riyadh announced an extraordinarily ambitious plan in June 2011 to spend \$100 billion on 16 nuclear reactors over the next 20 years, with the hope of completing the first pair of reactors between 2019 and 2021.¹⁰⁹ The Kingdom has also been actively engaged with several countries to strengthen civilian nuclear cooperation. In December 2006, the Saudis and other GCC states announced a joint research initiative to expand civilian nuclear power and cooperation.¹¹⁰ In 2008, the Kingdom signed a Memorandum of Understanding on Civil Nuclear Energy Cooperation with the United States to expand Saudi nuclear capabilities in the areas of medicine, industry and power generation.¹¹¹ In early 2011, Saudi Arabia signed an agreement with France, a leading producer of civilian nuclear power plants, to expand Saudi access to French nuclear expertise.¹¹² Later that same year, Saudi Arabia reached nuclear cooperation agreements with Argentina and South Korea to facilitate research and development, including building nuclear power plants and research reactors, as well as associated training, safety and waste management.¹¹³ And, in January 2012, the Kingdom inked a deal with China to cooperate in areas such as maintaining and developing nuclear power plants and research reactors, as well as the manufacturing and supply of nuclear fuel elements.¹¹⁴

Despite Riyadh's clear desire to expand its civilian nuclear activities, however, it remains highly uncertain whether any of these arrangements and plans will bear much fruit or how long they might take to significantly expand Saudi Arabia's indigenous nuclear capabilities. Indeed, most nuclear experts see Saudi plans as highly unrealistic.¹¹⁵ Furthermore, even if the Kingdom has a legitimate domestic requirement for nuclear power, it has "no basis ... to claim that it has any legitimate civilian need to acquire nuclear fuel production capability, including equipment and facilities to enrich uranium or reprocess spent fuel."116 Any Saudi attempt to develop indigenous fuel-cycle capabilities would therefore raise significant suspicions within the international community regarding the intentions of the program. Perhaps for this reason, Saudi officials have repeatedly stressed the exclusively peaceful nature of their nuclear activities. Following the announcement of the 2006 GCC joint research initiative, for example, Prince Saud al-Faisal, the Saudi foreign minister, told reporters, "Our aim is to obtain the technology for peaceful purposes, no more no less. ... We want no bombs. ... Our policy is to have a region free of nuclear weapons."117 Even though the GCC agreement was clearly meant to signal to Tehran that the Gulf states would seek to compete in the area of nuclear expertise, the Saudis and their GCC partners also declared that their efforts would be fully transparent and under IAEA safeguards.¹¹⁸ Through in its 2008 Memorandum of Understanding with the United States, Riyadh similarly signaled its intent to forego domestic uranium enrichment or spent-fuel reprocessing in favor of procuring nuclear fuel from market sources, although it has not yet made any firm commitments in this regard.¹¹⁹ Whether Saudi Arabia will ultimately follow through with these pledges remains to be seen; official statements could be aimed at masking more malign intentions. However, the commitments themselves create leverage points for the international community to limit the potential proliferation dangers emanating from the Saudi program (see Section V).

Last but not least, even if the Kingdom's technical prowess grows over time, any Saudi attempt to develop nuclear weapons would be complicated by significant bureaucratic and managerial challenges. Put bluntly, the Saudi bureaucracy lacks the human capital, managerial expertise, safety culture and regulatory, technical and legal structures necessary to nurture and sustain a robust domestic nuclear program, and the country has no national authority capable of coordinating all the required activities.¹²⁰ The country may be able to eventually overcome these constraints, but they suggest that the prospect of Saudi Arabia moving decisively toward an indigenous nuclear weapons program in response to an Iranian bomb, let alone succeeding in this endeavor, is remote.

A Pakistani Option?

Consequently, if Saudi Arabia decides to proliferate in reaction to Iran's nuclear program, many analysts contend that it is more likely to develop the technical capability with substantial foreign assistance or seek to acquire a nuclear weapon from another country, with Pakistan being the most likely source. Islamabad could provide Riyadh with fuel-cycle technology, fissile materials or other sensitive assistance that might enable the Kingdom to develop weapons in a matter of years, rather than the decade or longer that it would take Saudi Arabia on its own. It is also possible, and some believe probable, that Pakistan could provide Saudi Arabia with operational nuclear weapons and delivery systems.¹²¹ These claims have been buttressed by longstanding allegations that Saudi Arabia bankrolled the Pakistani nuclear program and engaged in other forms of sensitive nuclear cooperation in exchange for a commitment from Islamabad to provide nuclear weapons to the Kingdom in extremis (see Alleged Saudi-Pakistani Nuclear Cooperation text box). This decades-long nuclear relationship has contributed to persistent claims by (usually unnamed) Saudi and Western sources that Pakistan would provide Saudi Arabia with a nuclear bomb "the next day" after Iran becomes a nucleararmed state.¹²² Some reports even suggest that the Saudi Air Force has a small number of aircraft permanently stationed in Pakistan to deliver nuclear weapons to the Kingdom on short notice.123

Allegations of a Riyadh-Islamabad nuclear arrangement remain unconfirmed by publicly

available information. But even if such a deal exists, there are good reasons to believe that neither side would follow through with the arrangement. For the Saudis, the same disincentives influencing a possible decision to indigenously develop nuclear weapons would discourage the illicit acquisition of a Pakistani bomb or other sensitive technologies at odds with the Kingdom's NPT commitments.

Nor is Islamabad likely to provide a weapon or sensitive assistance aimed at rapidly accelerating Saudi nuclear efforts. Indeed, although considerable attention has been placed on the motivations underlying the Saudi "demand side" of a possible nuclear transfer deal with Pakistan, the Pakistani "supply side" of the equation is often taken for granted. Yet it is precisely here that claims of a grand Saudi-Pakistani nuclear conspiracy become particularly tenuous.

The rhetoric of an "Islamic bomb" notwithstanding, Pakistan did not develop its nuclear arsenal to help defend Saudi Arabia or the wider Muslim world. To be sure, Pakistanis take great pride in being the first Muslim nation to develop nuclear weapons, and the country has long had a special relationship with the Kingdom, rooted in common strategic interests, Wahhabi religious ties to Pakistan's Sunni population and mountains of Saudi cash. In February 2012, after fresh rumors surfaced of a possible nuclear arrangement between Islamabad and Riyadh, the Pakistani Ambassador to Saudi Arabia even declared that "each Pakistani considers [the] security of Saudi Arabia as his personal matter," adding that the Saudi leadership also considered Pakistan and Saudi Arabia to be one country.¹²⁴ Yet none of this changes the fact that Islamabad's nuclear arsenal serves the very specific purpose of countering archrival India's nuclear and conventional capabilities, and therefore, Gawdat Bahghat argues, "Pakistan ... is not likely to 'sell' [the bomb] to any other country" in order to advance another objective.¹²⁵ Or, put somewhat less definitively, Pakistan is unlikely to provide or sell nuclear weapons or other

Alleged Saudi-Pakistani Nuclear Cooperation

Since the 1970s, there have been persistent rumors of Saudi arrangements to acquire nuclear weapons from other states. In 1994, Muhammad Khilewi, the first secretary of the Saudi mission to the United Nations and a nuclear physicist, defected to the United States and disclosed numerous documents alleging the Kingdom's concerted efforts to acquire nuclear weapons.¹²⁶ Khilewi claimed that, following the 1973 Arab-Israeli war, the Kingdom established a clandestine nuclear weapons program under the command of Prince Sultan at the Al-Kharj nuclear research center in the desert military complex at Al-Sulayyil. The program allegedly recruited foreign nuclear experts to compile a library of scientific literature on the nuclear programs developed by other countries, and Saudi technicians reportedly spent months receiving nuclear weapons-related training in Iraq and Pakistan. According to

Khilewi, the Saudis also provided Saddam Hussein with billions of dollars in the 1980s to reconstruct the Osirak nuclear plant destroyed by the 1981 Israeli raid and to finance Iraq's clandestine nuclear weapons program. The payments were supposedly made on the condition that some of the bombs would eventually be transferred to Saudi custody. Khilewi claimed the relationship persisted until the Iraqi invasion of Kuwait in 1990.¹²⁷

The role that Riyadh played in bankrolling Pakistan's nuclear efforts – and the possible conditions attached to this assistance – has also been the subject of considerable speculation, originating from claims made by Khilewi and numerous others. In the early 1970s, in reaction to India's nuclear program, Pakistani Prime Minister Zulfikar Bhutto reportedly turned to the Kingdom for help. In response, the Saudis allegedly provided \$1 billion in aid beginning in the mid-1970s to help Pakistan develop an "Islamic bomb" and another \$1 billion in the 1980s to enable Islamabad's U.S.-purchased F-16 aircraft to deliver nuclear weapons.¹²⁸ Moreover, after Pakistan's first nuclear tests in 1998, the Saudis apparently provided Pakistan with a considerable supply of undocumented oil to compensate for the economic damage produced by U.S. and European sanctions. Some argue that this was a subsidy intended to enable Pakistan to continue its nuclear efforts.¹²⁹ Indeed, according to Bruce Riedel, a former Clinton and **Obama administration National** Security Council official, the Saudi oil commitment was made prior to Pakistan's nuclear tests in anticipation of likely international repercussions and was an important factor in Prime Minister Nawaz Sharif's decision to go forward with the testing.¹³⁰ All told, accord-

Continued on next page

sensitive technologies to any other country *unless* the strategic imperatives for doing so – especially with regard to balancing India and maintaining relationships with key states – clearly outweigh the expected costs. With regard to a potential transfer of operational weapons to Saudi Arabia, they do not.

There is no Iran-centric strategic rationale for Pakistani leaders to transfer nuclear weapons to the Kingdom. Islamabad competes with Tehran for influence in Afghanistan, and Sunni-majority Pakistan shares the view of its longtime Saudi ally that a nuclear-armed Iran would be more assertive in promoting radical Shia ideology and militancy throughout the Middle East and Central Asia. Pakistan also worries that India intends to forge a closer strategic relationship with Iran, contributing to Pakistan's encirclement. For all these reasons, Islamabad has cooperated with Riyadh to minimize Iranian influence in the region.¹³⁸ However, despite a shared land border with Iran, Pakistani leaders do not view Tehran as a direct or existential security threat. Moreover, if Iran crosses the nuclear threshold, Islamabad already possesses a nuclear deterrent to neutralize the threat;

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ing to Western intelligence sources cited by media reports, the Saudis may have paid for as much as 60 percent of Pakistan's nuclear program with the understanding that Riyadh would receive Pakistani nuclear weapons if conditions in the Middle East deteriorated.¹³¹

Other interactions have raised further suspicions of a nuclear quid pro quo between Saudi Arabia and Pakistan. In May 1999, a year after Pakistan's nuclear tests, Saudi **Defense Minister Prince Sultan** toured the highly sensitive Kahuta uranium enrichment plant outside Islamabad, as well as an adjacent ballistic missile factory, with Prime Minister Sharif. Abdul Qader (A.Q.) Khan, the father of Pakistan's nuclear weapons program (and an alleged source of sensitive nuclear assistance, or offers of assistance, to Iran, Iraq, Libya and North Korea), reportedly briefed Sultan during these unprecedented tours. Sultan denied viewing secret sites within the Kahuta plant and insisted that Saudi Arabia, as an NPT signatory, remained committed to a region free of nuclear weapons. At the time, U.S. officials expressed concern that the Pakistanis might be providing nuclear weapons to the Saudis.¹³² These suspicions were deepened when A.Q. Khan visited the Kingdom in late 1999 to attend an academic symposium, although there is no evidence that he attempted to provide the Kingdom with nuclear technology.¹³³ In 2002, Sultan reportedly visited Kahuta again,¹³⁴ and that same year, a son of then Crown Prince Abdullah attended Pakistan's test firing of the Ghauri nuclear-capable ballistic missile.¹³⁵ Other concerns emerged when Abdullah visited Pakistan in October 2003, a trip that some observers dubbed a "nuclear summit." Following the trip, Israel's head of military intelligence Maj. Gen. Aharon Zeevi Farkash reportedly told the Israeli Knesset's Foreign Affairs and Defense Committee that a secret agreement was concluded that would provide Saudi Arabia with Pakistani nuclear technology and a bomb if Saudi Arabia felt threatened by a third-party nuclear program in the future, although both Riyadh and Islamabad denied these accounts.¹³⁶

Over the past decade, as the Iranian nuclear issue has increasingly dominated the front pages, speculation of a possible Riyadh-Islamabad pact has only grown, with every interaction and decision scrutinized for possible evidence of a nuclear conspiracy. In one recent example, King Abdullah's June 2011 appointment of Prince Bandar bin Sultan, the former Saudi ambassador to the United States, as the Kingdom's intelligence chief has been interpreted as a possible sign of deepening clandestine nuclear ties with Pakistan. This stems from Bandar's longstanding secret dealings with Pakistan, including his role as a key broker for Riyadh's acquisition of nuclear-capable CSS-2 ballistic missiles from China (which occurred with Pakistan's assistance).¹³⁷

providing nuclear weapons to the Kingdom would not make the Pakistani homeland more secure.

Given the estimated size of Pakistan's current nuclear arsenal, it is also not clear whether Islamabad has sufficient weapons to spare, at least in the near future. The country is estimated to possess approximately 100 nuclear warheads, which it likely can deliver via F-16 and Mirage V aircraft, and solid- and liquid-fuelled ballistic missiles. Pakistan is also in the process of significantly expanding its nuclear and ballistic missile arsenal, shifting from highly enriched uranium-based weapons to plutonium-based weapons, and Islamabad has refused to sign the Fissile Material Cutoff Treaty for this reason.¹³⁹ Some suggest that this will easily provide "spare" weapons, including older uranium devices, which would enable a Pakistani sale or transfer to Saudi Arabia.¹⁴⁰ Although conceivable, this should not be taken as a given. Pakistan's race to acquire more nuclear weapons is a result of the Pakistani leadership's deep anxiety over maintaining even a "minimal deterrent" in the face of Indian plans to increase their stock of nuclear materials

and weapons. Islamabad also sees a larger nuclear arsenal as essential to check India's conventional modernization efforts - including New Delhi's growing air, sea and missile capabilities; emerging space-based systems; and ballistic missile defenses - as well as the emergence of India's "Cold Start" doctrine, which envisions the rapid defeat of Pakistani forces. In this context, giving the Saudis a portion of the Pakistani nuclear stockpile anytime soon would probably aggravate, not alleviate, Islamabad's perceived strategic dilemma vis-à-vis India.141 Of course, much would depend on how many weapons the Saudis required. If Riyadh only asked for a handful of symbolic weapons, the net risk to India-related equities might be small, especially as Islamabad's stockpile grows. However, if the Kingdom requested sufficient nuclear weapons to ensure a viable second-strike capability against a nuclear-armed Iran - which seems more likely than being satisfied with a symbolic force - the potential trade-off of a transfer with Islamabad's quest to attain a minimal deterrent against New Delhi would be more acute.

Additionally, Pakistani leaders would have to factor in the likely international response. A transfer of nuclear weapons or other sensitive nuclear technology to Saudi Arabia would undoubtedly produce a very harsh response from the United States and other Western countries. Although Pakistan is not an NPT signatory, the transfer of operational nuclear weapons to the Kingdom would likely be seen as one of the most provocative transactions in history. If the arrangement included the transfer of weapons into the sole control of the Saudis, it would represent a gross violation of Riyadh's NPT commitments. Irrespective of legal technicalities, the United States, European nations and Israel would see any transfer as an extraordinarily dangerous proliferation precedent for the future, not to mention a potential trigger for an immediate nuclear crisis in the world's most volatile region. Western countries, and perhaps other members of

the international community, would likely target Pakistan with sweeping economic and military sanctions - and the Pakistanis have a lot to lose. In Washington, the debate regarding Pakistan's ambiguous status as a "friendly" vs. "enemy" state would likely be definitively settled in favor of the latter interpretation, and the United States would probably terminate over \$2 billion in annual U.S. economic and security assistance to Pakistan.¹⁴² Moreover, as Christopher Clary and Mara Karlin note, "if the United States used its leverage at the World Bank or International Monetary Fund to attenuate the support of those institutions [to Pakistan], Pakistan would be thrown into a major fiscal crisis."¹⁴³ To be sure, previous U.S. attempts to condition Islamabad's aid have fallen flat.144 However, as U.S. forces complete their drawdown from Afghanistan, Washington's willingness to come down hard on Islamabad may increase. Given acute European concerns over Middle Eastern proliferation and European reactions to Pakistan's 1998 nuclear tests, European states would likely to join in whatever harsh measures the United States imposed.

The ongoing domestic instability in Pakistan and the potential impact of sanctions on the country's fragile economy¹⁴⁵ make it difficult to imagine Pakistani leaders risking an international economic backlash by giving nuclear weapons to Saudi Arabia.¹⁴⁶ The broader geopolitical implications for Islamabad could also be significant. In particular, Pakistani leaders would have to factor in the very real prospect of growing diplomatic isolation and pushing Washington into an even closer economic and military embrace of India.¹⁴⁷

Pakistan's history of shady nuclear dealings would, paradoxically, make Islamabad *more* sensitive to a potential Western backlash. Pakistan acquired its own nuclear weapons capabilities on the grey market and then allowed those technologies to proliferate to some of the world's most dangerous regimes via the A.Q. Khan network. As Feroz Hassan Khan, a former director in the Pakistani Strategic Plans Division,¹⁴⁸ notes, this legacy "is a scarlet letter that Pakistan has been unable to overcome."149 However, it is precisely because of this past behavior - and lingering concerns in the West - that the Pakistani government has become more concerned about the likely negative international consequences of further illicit nuclear transfers. Pakistani leaders know that any additional proliferation in the Muslim world will immediately generate speculation about Islamabad's involvement. The Pakistani government has therefore gone out of its way in recent years to demonstrate its commitment to nonproliferation and countersmuggling. Not only has Pakistan taken aggressive steps to shut down the A.Q. Khan network, but it has also reorganized its security bureaucracy to tighten control over its nuclear weapons and has placed stringent export controls on technology, material and equipment that might contribute to designing, developing, stockpiling or using nuclear weapons.¹⁵⁰ As a result, there have been no known deliberate Pakistani transfers of sensitive nuclear technology to other states or foreign actors in recent years, and "there is little risk of a sudden radical change in Pakistani policy."151

Finally, if Pakistan provided Saudi Arabia with a nuclear warhead (or help in developing one) without accompanying aircraft or missiles, Riyadh would probably require China's assistance to upgrade or replace the Kingdom's aging CSS-2s as potential delivery systems. China has close relations with Islamabad, seeing Pakistan as a useful counterweight to India, and China is a major customer for Saudi oil, potentially providing an incentive to cooperate.¹⁵² Allegations have also surfaced that the Saudis have approached China (perhaps with Pakistani mediation) to provide more advanced nuclear-capable missiles.¹⁵³ Nevertheless, Beijing is highly unlikely to provide the required assistance. Abetting a proliferation deal between Saudi Arabia and Pakistan could

jeopardize China's highly valued bilateral nuclear cooperation agreement with the United States and potentially make China the target of Western sanctions. Furthermore, although China was willing to aid Pakistan's nuclear program in the past and provide Saudi Arabia with its existing CSS-2 missiles,¹⁵⁴ Beijing would have no compelling strategic imperative to facilitate Saudi efforts to balance a nuclear-armed Iran. Indeed, given China's dependence on Middle Eastern oil supplies and interest in stability, it seems highly unlikely that Chinese leaders would want to help accelerate a destabilizing nuclear arms race in the region.¹⁵⁵

Alternatives: Pakistani and U.S. Security Guarantees

For all these reasons, it is unlikely that Saudi Arabia would (or could) respond to Iranian nuclearization by rapidly developing its own nuclear weapons or reliably acquiring them from Pakistan. Yet because Saudi concerns over Iran's nuclear ambitions are real and acute, Riyadh *would* likely try to deter the threat by seeking a nuclear security guarantee from an existing nuclear power. This was reportedly one of the alternatives considered in the rumored 2003 Saudi strategic review of nuclear options.¹⁵⁶ Such an arrangement would shield the Kingdom while allowing the Saudis to remain compliant with the NPT.¹⁵⁷

A PAKISTANI UMBRELLA?

Given longstanding security ties between Saudi Arabia and Pakistan and rumors of an existing nuclear deal, many analysts see Islamabad (rather than Washington) as the most likely provider of a security guarantee. According to some accounts, the existing *quid pro quo* for Saudi aid to Pakistan's nuclear program is not for Islamabad to provide operational weapons to the Kingdom but rather for Pakistan to provide Saudi Arabia with a "security umbrella."¹⁵⁸ Reports differ as to whether this arrangement, which has never been verified, is explicit or implicit. In either case, a Pakistani guarantee could involve a simple declaration that Islamabad would retaliate against any nuclear attack on the Kingdom, or it could include deploying nuclear-capable Pakistani aircraft or ballistic missiles to Saudi soil (under Pakistani or shared "dual-key" control similar to the arrangement that the United States has with some allies).

The plausibility of Pakistan extending its nuclear umbrella over the Kingdom is buttressed by the decades-long relationship between the Pakistani and Saudi militaries. In the 1960s, Pakistani pilots flew Saudi Arabia's first fighter jets; in the 1980s, perhaps as many as 15,000 to 20,000 Pakistani troops were stationed on Saudi soil; and during the 1991 Gulf War, a Pakistani brigade operated in the Kingdom.¹⁵⁹ Today, Riyadh and Islamabad continue to conduct joint military exercises and training,¹⁶⁰ and reports suggest that Pakistan may be mobilizing forces to come to Saudi Arabia's defense in the event of Iranian aggression.¹⁶¹

A Pakistani guarantee would potentially be attractive to the Saudis on a number of fronts. Accepting a nuclear guarantee from Pakistan, and potentially stationing Muslim forces in the "Land of the Two Holy Mosques," would be less likely to trigger popular Saudi opposition than an equivalent arrangement from American "infidels."¹⁶² Given strategic and cultural ties between Saudi Arabia and Pakistan - and the House of Saud's growing doubts regarding Washington's continued commitment to defending the Kingdom - Riyadh might also see a Pakistani commitment as more credible than one offered by the United States. In particular, Saudi leaders seem to be questioning Washington's continued commitment to the region for various reasons, including the withdrawal of U.S. forces from Iraq and (soon) Afghanistan, looming fiscal constraints, the Obama administration's highly publicized desire to strategically pivot to Asia and burgeoning U.S. energy resources.¹⁶³ The Saudis have also been highly critical of the U.S. response to the Arab Spring, especially the

Obama administration's willingness to support the Egyptian revolution against Hosni Mubarak, seeing it as evidence that Washington cannot be relied on to ensure the survival of allied regimes. Saudi officials likewise believe that the Obama administration has done too little to counter Iran's nefarious activities in the region, particularly in Bahrain.¹⁶⁴ And if the United States were to "allow" the Islamic Republic to become a nuclear-armed state, Riyadh's doubts about U.S. resolve to defend the Kingdom against Iran would be supercharged. After all, if the United States proved unwilling or unable to successfully use all of its instruments of national power, including military force, to stop Iran before it acquired nuclear weapons, Saudi leaders might conclude that Washington could not be counted on to risk war to defend the Kingdom once Tehran actually possessed such weapons.

Pakistani leaders could conceivably see value in such an arrangement as well, believing that it would meet their obligations to the Kingdom without producing the same international ire that would accompany an illicit transfer of nuclear weapons or sensitive technology to the Saudis. Islamabad might also view it as a means to acquire strategic depth vis-à-vis India.¹⁶⁵ In particular, so long as the nuclear weapons deployed to Saudi soil remained under Pakistani control, it could theoretically bolster Pakistan's second-strike capabilities by providing a strategic reserve of nuclear weapons outside the country for use in the (unlikely) event of India attempting a disarming nuclear first strike against the Pakistani homeland.¹⁶⁶

SECOND THOUGHTS IN ISLAMABAD

Still, rumors notwithstanding, there are reasons to doubt whether Riyadh and Islamabad have actually reached an ironclad agreement for a Pakistani nuclear umbrella. According to the most authoritative history of the Pakistani nuclear program to date, "there is no concrete evidence of any nuclear-related agreement between Pakistan and Saudi Arabia." Despite agitation by some right wing religious political parties in Pakistan to provide a nuclear guarantee to fellow Muslim countries, "there has been no plan to provide extended deterrence to any other country or sell nuclear technology."¹⁶⁷

Moreover, even if such an arrangement does exist, Pakistani leaders are likely to conclude that following through with it is not in their interest. Although it would be less controversial than transferring operational nuclear weapons or other sensitive technology, a Pakistani nuclear umbrella would still spark some international outrage. Western powers would see the deal as an incredibly provocative act that could further destabilize the Middle East (and potentially South Asia) regardless of whether it technically violated the NPT. Alarm bells would be especially loud in Israel and in the halls of the U.S. Congress. Under such circumstances, Washington would likely impose sanctions on Islamabad, especially if the Pakistanis deployed nuclear weapons to Saudi soil. Pakistani military leaders are under no illusions about the controversy that would ensue. Indeed, one former official in the Pakistani Strategic Plans Division argued in 2005 that the deployment of Pakistani warheads to Saudi Arabia would be "worse than the Cuban missile crisis."168

An extended deterrence commitment to the Kingdom would also run counter to what is known about Pakistani nuclear doctrine, which envisions using nuclear weapons *only* if the very existence of the Pakistani state is threatened.¹⁶⁹ The most likely scenario for such a threat is a massive conventional attack by India, and if anything, Pakistani leaders are likely to conclude that an extended deterrence guarantee to Saudi Arabia would perilously distract from this threat. It would deeply invest the Pakistanis in the Saudi-Iranian rivalry, making every dust-up and crisis in the Gulf a potential path to Islamabad's involvement in a Middle East nuclear war. This would create an enormous strategic diversion, pulling precious Pakistani diplomatic and military resources and attention westward and away from India. And although an Iranian attack on Saudi Arabia would not threaten the survival of the Pakistani state, the prospect of becoming involved in a Saudi-Iranian war and risking nuclear retaliation by Iran against the Pakistani homeland *would* represent a potential existential threat. So, given the dominance of India-related concerns to Pakistani strategy and doctrine, it is difficult to see why Pakistan would make such a promise.

The claim that stationing Pakistani weapons in Saudi Arabia would enhance strategic depth, especially Islamabad's second-strike capabilities, is also less plausible than it first appears. Pakistan's nuclear doctrine seeks to avoid a preemptive Indian nuclear strike by threatening nuclear retaliation and protecting its existing nuclear forces. Pakistan reportedly accomplishes the latter through a mix of dispersal of weapons, diversification of sites, hardening of storage and launch facilities, concealment and mobility.¹⁷⁰ Even if Islamabad saw the stationing of Pakistanicontrolled nuclear weapons in the Kingdom as providing an additional hedge against a possible Indian first strike, it is implausible that Riyadh would risk devastating Indian retaliation by acquiescing to Pakistan actually using Saudi-based weapons in a South Asian war. Furthermore, given Islamabad's concern that its existing arsenal is insufficient to counter current and future Indian nuclear and conventional capabilities, the Pakistanis would likely be disinclined to devote some of their arsenal to an exclusively non-Indian contingency. Although the Pakistanis intend to significantly expand and modernize their nuclear forces in the years ahead, once they do, they will have a more reliable second-strike capability against India without having to station weapons overseas for this purpose.

U.S. Commitments to Saudi and Gulf Security

In 1969, President Richard Nixon declared the U.S. commitment to protect allies and "provide a shield if a nuclear power threatens the freedom of a nation allied with us or of a nation whose survival we consider vital to our security." The so-called Nixon Doctrine also stated Washington's intent to provide military and economic assistance to allied states threatened by other forms of aggression, justifying substantial military aid to Saudi Arabia and other Gulf States (including, at the time, the Shah's Iran). In 1980, in the aftermath of the Soviet invasion of Afghanistan, the "Carter Doctrine" went a step further, declaring that "an attempt by any outside force to gain control of the Persian Gulf region will be regarded as an assault on the vital interests of the United States of America, and such an assault

will be repelled by any means necessary, including military force."¹⁷¹

The security commitment embodied in the Carter Doctrine set the stage for a significant increase in direct U.S. involvement in the region. During the Iran-Iraq war, the United States reflagged tankers and, in 1988, engaged in a short but sharp naval conflict with Iran to protect the transit of oil through the Gulf. When Saddam Hussein's 1990 invasion of Kuwait directly threatened Saudi Arabia, the United States sent hundreds of thousands of forces to protect the Kingdom and dislodge Iraq's army. For the remainder of the 1990s, the United States maintained a robust forward military presence in the region to enforce a "dual containment" policy aimed at Iraq and Iran, Saudi Arabia's primary foes. Then, in 2003, the United

States toppled Hussein's regime. The Saudis did not support the war, but they were also nervous about the eventual U.S. departure. Consequently, despite the Iraq withdrawal, Washington continues to maintain approximately 50,000 naval, air and ground forces in the region to reassure the Saudis and other GCC states and to deter Iranian aggression. The United States also provides the Saudis with state-of-the-art armaments and has worked with GCC countries to construct an emerging "regional security architecture" aimed at strengthening and better integrating air, missile and maritime defenses.¹⁷² In July 2009, U.S. Secretary of State Hillary Clinton suggested that this "defense umbrella" would continue to expand in response to Iranian nuclear intransigence.173

CHOOSING WASHINGTON

For decades, Riyadh has looked to Washington for protection in a dangerous neighborhood, and the United States has repeatedly demonstrated – though word and deed – its intent to defend Saudi Arabia in order to ensure the free flow of oil to global markets (see U.S. Commitments to Saudi and Gulf Security text box). Regardless of the Pakistani position and Saudi complaints about current U.S. policies, the House of Saud is ultimately likely to turn to Washington once again if Iran gets the bomb.

If the United States offers to shield Saudi Arabia from a nuclear-armed Iran, this guarantee is likely to prove preferable to a possible Pakistani option for several reasons. First, Washington has a longstanding national interest in the security of the Kingdom because Saudi oil is so central to the prosperity of the U.S. and global economies. This makes a potential American extended deterrence commitment inherently more credible than a Pakistani deal rooted in cultural bonds, cash and secondary and tertiary strategic interests. Extended deterrence always faces a key challenge: the inherent implausibility of risking massive retaliation from a nuclear-armed adversary to defend someone else's territory. The country providing the nuclear umbrella invariably values its own homeland more than the security of the state it is protecting. Nuclear guarantees become more credible, however, if the recipient of the guarantee is intrinsically important to the country providing the assurance. In this instance, the United States has, and will continue to have, a vital interest in defending the Kingdom.

Regardless of the Pakistani position and Saudi complaints about current U.S. policies, the House of Saud is ultimately likely to turn to Washington once again if Iran gets the bomb.

To be sure, Saudi confidence in the United States would be shaken if Washington failed to prevent Iran from crossing the nuclear threshold. However, it would not change the essential U.S. interest in preventing major disruptions in the flow of oil - which underpins the American commitment to protect the Kingdom from external threats such as Iran. Nor does the discovery of new sources of oil and gas in North America and growing talk of U.S. "energy independence" dramatically alter the U.S. calculus, as the U.S. economy will still be affected by fluctuations in the global price and thus vulnerable to events in the Gulf.¹⁷⁴ This crucial common interest has endured through significant past disagreements on the Israel-Palestinian issue, the role of Saudi hijackers in 9/11, the 2003 Iraq war and the American reaction to the Arab Spring.¹⁷⁵ The relationship would likely survive the emergence of a nuclear-armed Iran as well. The Saudis would certainly grumble and flirt with alternatives, but they would most likely conclude that sticking with the United States remained the Kingdom's best bet.

Second, Pakistan has no history of offering extended deterrence arrangements, whereas Washington has 60 years of experience in providing nuclear umbrellas to Europe and Asia. In the Saudi context, a future U.S. nuclear guarantee could conceivably take several forms. It could restate the Carter Doctrine's blanket promise to defend the Gulf against external aggression and explicitly promise nuclear retaliation in the event that Iran uses nuclear weapons or transfers nuclear devices for use by non-state actors. It could also bolster America's existing forward presence in the Gulf by positioning a modest number of additional conventional "trip wire" forces in the Kingdom (on top of the hundreds of U.S. trainers already in Saudi Arabia) to convey to both Tehran and Riyadh that U.S. troops would automatically be involved in any attack on Saudi Arabia. Washington might also consider stationing nuclear weapons on Saudi soil or on the Kingdom's perimeter elsewhere in the Gulf. Such moves would not be operationally necessary, but they could have powerful political and symbolic effects. They could prove extraordinarily controversial, however. In the likely event that such measures were politically infeasible, Washington might explore other creative options such as rotating "dual-capable" fighter-bomber aircraft through Saudi Arabia or the Gulf on near constant exercises. Regardless of the precise form of the arrangement, the ability of the United States to leverage its past experience to design a reliable extended deterrence architecture is vastly greater than Pakistan's. Washington should therefore be able to "out compete" a nuclear umbrella offered by Islamabad.

Third, America's overwhelming conventional and nuclear superiority makes Washington a much more attractive provider of assurances to the Saudis than Pakistan, a country with little ability to project and sustain military power in the Gulf. Unlike Pakistan, the U.S. military enjoys considerable conventional overmatch vis-à-vis the Iranians. Because the U.S. military has many more options for escalation below the nuclear threshold, Washington would not have to rely on non-credible nuclear threats to back down a nuclear-armed Iran and defend the Kingdom. Moreover, although a nuclear-armed Iran could potentially hold the Pakistani homeland at risk, it would be difficult for Iran to directly threaten the continental United States until it developed sufficient intercontinental ballistic missile capability to overwhelm U.S. ballistic missile defense systems. Compared with Pakistan, the United States would thus have more escalatory latitude and be able to run much greater risks to defend the Kingdom against Iranian threats and aggression.¹⁷⁶ And because the Iranian regime values its survival above achieving expansionist objectives, Tehran would face overwhelming incentives to "blink" in any confrontation with the United States that risks a nuclear war.¹⁷⁷ Thus, a U.S. extended deterrence commitment to Saudi Arabia would be more effective and inherently more reassuring than any guarantee provided by Pakistan.

Finally, the United States is better positioned than Pakistan to assist the Saudis in countering Iranianbacked subversion through intelligence sharing, counterterrorism operations, assistance in protecting critical infrastructure and the considerable diplomatic influence Washington can bring to bear in the region. So, if the House of Saud is forced to choose between deepening its security relationship with Pakistan or maintaining its strategic ties with the United States, sticking with Washington provides a much better assurance against irregular threats from a nuclear-emboldened Iran.

Net Assessment

Iran's entry into the nuclear club would be a major source of concern in Riyadh. Saudi leaders believe that nuclear weapons would empower Tehran to escalate its campaign to subvert the Kingdom and its allies with impunity, more effectively engage in coercive diplomacy and more aggressively pursue its hegemonic ambitions. In response, Saudi Arabia is likely to pursue some form of nuclear deterrent.

However, the Saudis are not likely to engage in a crash program to indigenously develop nuclear weapons. Doing so would risk worsening the Kingdom's strategic position by producing new threats to domestic and regional stability, creating a huge strategic rift in the relationship with Washington, doing great damage to Saudi Arabia's standing in the international community and making Riyadh the target of international sanctions. These are very strong disincentives. The technical and bureaucratic hurdles would also be very difficult to overcome. Saudi Arabia could not build the bomb on its own in the near term; they are at least a decade, and probably considerably longer, away from having the indigenous capability to produce nuclear weapons.

For this reason, many analysts believe the Saudis are likely to acquire nuclear weapons from Pakistan. Yet both Riyadh and Islamabad face compelling reasons not to go down this road. Instead, Saudi Arabia is more likely to react to the emergence of a nuclear-armed Iran by seeking out a nuclear security umbrella. Although Pakistan could potentially provide a nuclear security guarantee to the Kingdom – and some believe they have already promised such an arrangement if Iran gets the bomb – Islamabad would probably be reluctant to offer or follow through with such a deal. In any event, the Kingdom is likely to conclude that a U.S. nuclear umbrella would be more effective and more credible.

At the same time, Saudi Arabia would probably reinforce any U.S. extended deterrence arrangement with two additional policies. First, even with an external security guarantee, the Saudis are likely to accelerate their purchases of sophisticated early warning, air defense and ballistic missile defense systems, as well as advanced strike aircraft and modernized naval capabilities. Riyadh would also likely take steps to improve the protection of critical infrastructure (e.g., oil facilities, desalinization plants and cybersystems). The primary Saudi concern regarding a nuclear-armed Iran is not a direct nuclear attack but rather nuclear-enabled Iranian adventurism. Modernizing and improving Saudi defenses would therefore aim to deter and defend against possible conventional or unconventional Iranian attacks on Saudi soil or in the Gulf and to limit Tehran's ability to engage in coercive diplomacy.

Second, Riyadh would probably pursue a longterm nuclear hedging strategy, devoting significant resources to meeting the Kingdom's ambitious plan to expand its civilian nuclear infrastructure. The goal would be to create a civilian nuclear capability that, at some point, could be theoretically transformed into a "threshold" or fully militarized capability, all the while taking care not to trigger international sanctions or a strategic rupture with the United States. Like accelerated improvements to conventional defense, a nuclear hedging strategy would be consistent with current Saudi activities. It would also be consistent with the approach taken by other U.S. allies, such as Japan and South Korea, covered by Washington's nuclear umbrella.¹⁷⁸ In Saudi Arabia's case, a hedging strategy would aim to deny Iran some of the prestige-related benefits derived from its own nuclear program while also incentivizing Tehran "not to bully [the Saudis] into exercising this [latent nuclear] potential."179 Moreover, should a U.S. (or Pakistani) security guarantee not materialize, or eventually prove insufficient, a hedging strategy would better position Saudi Arabia to develop its own nuclear deterrent - albeit many years from now.

Although this represents the most probable set of Saudi responses to the emergence of a nucleararmed Iran, a number of wild cards could alter the assessment. One is dramatic political change in Saudi Arabia. Ultimately, Riyadh's reaction to a nuclear-armed Iran would depend on the decision of the King in consultation with a handful of senior princes.¹⁸⁰ King Abdullah is thought to be 89, and other members of the generation of men who have run the country for 60 years, all sons of modern Saudi Arabia's founder King Abdulaziz, are leaving the scene at an accelerating rate.¹⁸¹ If Iran succeeds in crossing the nuclear threshold, the Saudi leadership could be significantly different than it is today. Although the broad incentives, disincentives, constraints and alternatives that factor into a nuclear decision are likely to remain similar under a new king, it is impossible to know this for sure. Moreover, as previously noted, Saudi Arabia faces profound demographic and structural economic challenges, as well as a rapidly changing international energy market. In this context, and in light of the popular uprisings sweeping other Middle Eastern nations, political upheaval in the Kingdom is conceivable and could potentially produce a regime with very different preferences.¹⁸²

Other events could also alter the assessment, including a U.S.-Pakistani strategic "divorce." Such an outcome would make Islamabad desperate to secure Saudi political and financial support to fill the void, making a nuclear pact more likely. Deepening U.S. economic malaise and fiscal constraints could also produce much deeper cuts in the U.S. defense budget and a sharp turn toward American military retrenchment. Some combination of these events would likely alter Saudi calculations regarding available alternatives and make a nuclear arrangement with Pakistan significantly more probable.

V. POLICY IMPLICATIONS

Our overall assessment has a good news/bad news quality. The good news is that, contrary to conventional wisdom, the most destabilizing Saudi responses to the emergence of a nuclear-armed Iran – rapid development of a Saudi bomb or the acquisition of nuclear weapons from Pakistan – are also the least likely to occur. Other possible Saudi reactions – acquiring an external security guarantee from Pakistan, or more likely, Washington, combined with pursuing a conventional defense and long-term hedging strategy – are more probable and clearly preferable (see Figure 1).

The bad news is that low probability is not the same as no probability, and *all* of the possible Saudi responses entail significant risks and costs. In the near term, it is technically impossible for Saudi Arabia to indigenously develop nuclear weapons; the risk of Pakistan transferring nuclear weapons to the Kingdom is also overstated. Nevertheless, the risk of the latter scenario is not zero. Moreover, even if Riyadh fails to acquire its own nuclear weapons shortly after Iran does, a Saudi hedging strategy could still produce such a capability over the long run. Either the low-probability Pakistani option or the higher-probability hedging path could lead to the emergence of a poly-nuclear Middle East, with profound consequences for the region. The basic principles of nuclear deterrence that held during the Cold War, and that continue to hold in South and East Asia today, would likely hold if there were multiple nuclear powers in the Middle East. However, tensions and crises would probably increase. And even if all the relevant actors were assumed to be rational, various factors - the absence of secure second-strike capabilities (at least for some period of time), unreliable early warning and command-and-control systems, close geographic proximity and deep mutual distrust could still inadvertently produce a regional nuclear war via miscalculations, accidents or unauthorized use.183

It is also good news that the Saudis are less likely to be attracted to a Pakistani extended deterrence guarantee (and Islamabad is less likely to offer one) than is commonly assumed. But should this moderate-probability scenario emerge, it would extend the South Asian geopolitical competition directly into the Middle East, thereby connecting two of the world's most crisis- and conflict-prone regions into a nuclear daisy chain.

The best and most likely mechanism to avoid Saudi proliferation or a nuclear deal between Saudi Arabia and Pakistan would entail a credible extension of the U.S. nuclear umbrella over the Kingdom. Yet even if it would be preferable to the emergence of a Middle East with multiple nuclear powers and it proved politically feasible in both Riyadh and Washington, this policy is still highly unattractive compared to a world in which the United States did not have to provide such a guarantee. At a time of shrinking defense budgets and a desire to shift greater attention to Asia, providing a U.S. nuclear extended deterrent to the Kingdom or other regional states would invest the United States even more deeply in Middle Eastern conflicts and bog down U.S. military assets in the Gulf for decades to come. It would also force Washington to double-down on security commitments to the least democratic states in a democratizing region, complicating efforts to promote political reform in the context of the Arab Spring.¹⁸⁴

Several recommendations flow from this analysis. Washington should address the Saudi motivation to pursue *any* form of nuclear deterrent by continuing to emphasize the importance of preventing Iran from developing nuclear weapons. If prevention fails, however, the United States must be ready with a comprehensive plan for mitigating and managing the consequences, including providing a viable security guarantee to Saudi Arabia and other regional states. Meanwhile, Washington should make civilian nuclear cooperation with Riyadh conditional on improved safeguards and
FIGURE 1: POSSIBLE SAUDI RESPONSES TO A NUCLEAR-ARMED IRAN



Source: Center for a New American Security

transparency, thereby limiting the prospects that a long-term Saudi hedging strategy could eventually morph into a militarized capability. Lastly, the United States should also seek to maintain maximum leverage over Islamabad to lower the prospects of a destabilizing nuclear deal with the Kingdom.

1. Emphasize Prevention, While Planning for the Worst

The dangers of a nuclear-armed Iran, which include but are not limited to Saudi Arabia's pursuit of some form of nuclear deterrent, argue for maintaining the Obama administration's emphasis on using all instruments of national power to prevent Iran from acquiring nuclear weapons in the first place. Shifting prematurely toward a policy of deterrence and containment before exhausting preventative options would paradoxically make deterrence and containment more difficult to execute by contributing to the view in Riyadh and elsewhere that Washington was willing to tolerate a nuclear-armed Iran. Employing all instruments of national power toward the goal of prevention, in contrast, would enhance the credibility of security guarantees when and if they might be required down the line by concretely demonstrating the lengths to which Washington is willing to go to defend the Kingdom against its principal regional adversary.

At the same time, if prevention efforts fail, the United States may still have to pursue a policy aimed at managing and mitigating the consequences of a nuclear-armed Iran. This is true even if military force is ultimately used to degrade Iran's

nuclear infrastructure, as Tehran might prove capable of rapidly reconstituting its program.¹⁸⁵ As a fallback measure, the Pentagon should therefore be directed to conduct quiet planning to flesh out what a regional deterrence and containment architecture would look like.¹⁸⁶ Such planning is absolutely essential to give Washington a menu of fully developed options that could be rapidly discussed with the Saudis (and others) to dissuade them from pursuing their own nuclear capabilities and to clearly demonstrate the value of accepting a U.S. nuclear guarantee over any of the possible Pakistani options. If prevention fails and Iran crosses the nuclear threshold, time will be of the essence. In the absence of a robust contingency plan, the odds of a rash decision by the Saudis to pursue a nuclear deal with Islamabad would increase appreciably.

Part of any "day after" planning should also include a strategy for holding together an international coalition to continue to punish and eventually "denuclearize" the Islamic Republic. Maintaining economic sanctions and continuing to diplomatically isolate Iran would convey that the United States and the international community were not acquiescing to Iranian nuclearization. This would help to mitigate some of the inevitable U.S. credibility problems associated with failing to prevent Iran from getting nuclear weapons in the first place. It would also help to maintain the integrity of the nonproliferation regime, signaling to potential proliferators - including Saudi Arabia that they too would face punitive measures if they violated their NPT commitments and would not receive a "get out of jail free" card if they somehow managed to cross the nuclear threshold.

2. Make Saudi Proliferation More Difficult

Senior U.S. officials should continue to affirm the American commitment to the Kingdom's defense. At the same time, they should make clear that any Saudi move toward building or acquiring nuclear weapons would risk a major rupture in the relationship. This policy should be complimented with strict conditions on U.S. civilian nuclear cooperation with Riyadh aimed at making Saudi proliferation more difficult. In particular, in exchange for offers of enhanced civilian nuclear cooperation, the United States should push for certain limitations on Saudi activities and much greater transparency.

The Kingdom's strong desire to expand its civilian nuclear energy sector provides the United States and other Western countries with considerable leverage to deter Saudi nuclear proliferation or nuclear arrangements with Pakistan and to insist on improved safeguards. As noted above, Saudi Arabia's desire to develop a civilian nuclear program is intended in part to help the Kingdom address the country's inefficient use of energy and its rapidly growing population, domestic trends that threaten its ability to raise oil revenue. Riyadh's goals for nuclear power, though ambitious, are thus central to the country's plan to find alternatives to burning oil domestically for electricity and would allow the government to continue to raise oil revenue through exports. Consequently, the promise of additional nuclear cooperation could be a powerful inducement for enhanced nonproliferation safeguards. Moreover, the threat that Washington and other Western governments would take the opposite approach - impeding Riyadh's ability to develop a civilian nuclear energy program through sanctions - if the Kingdom violated its NPT commitments or reached a destabilizing nuclear accord with Pakistan could be used as a powerful dissuasion tool. Indeed, unlike the non-credible threat of direct oil sanctions, curtailing Saudi Arabia's plan to expand nuclear energy would provide a means of holding Saudi oil export revenue at risk (by forcing Riyadh to continue to rely on oil for domestic electricity consumption) without producing a rapid increase in global oil prices.

Given the Kingdom's commitment to expanding

The Kingdom's strong desire to expand its civilian nuclear energy sector provides the United States and other Western countries with considerable leverage to deter Saudi nuclear proliferation or nuclear arrangements with Pakistan and to insist on improved safeguards.

its civilian nuclear sector and Riyadh's strong desire to work with U.S. nuclear firms, Washington should be willing to significantly expand civilian nuclear cooperation with Saudi Arabia, including working with other countries to facilitate nuclear fuel procurement for the Kingdom. This should be done under the condition that Riyadh signs a "123" agreement (under Section 123 of the U.S. Atomic Energy Act) that significantly restricts sensitive fuel-cycle activities conducted on Saudi soil. According to press reports, the Obama administration is discussing a possible 123 deal with the Saudis. It is imperative that any deal with the Saudis follows the standard established by the 123 agreement between the United States and the United Arab Emirates in 2009. Under such an arrangement, Saudi Arabia would have to agree not to pursue uranium enrichment and spent-fuel reprocessing, thereby fulfilling the Kingdom's pledges under the 2008 U.S.-Saudi nuclear Memorandum of Understanding. Although some members of Congress may react negatively to any policy seen as enhancing Riyadh's nuclear efforts, a U.S.-Saudi 123 agreement that significantly limits domestic fuel-cycle activities would constrain the proliferation potential of the Saudi program.¹⁸⁷

Greater transparency into the Saudi nuclear program is also required to ensure that the Kingdom's activities remain peaceful over the long term. Although the Saudis signed a comprehensive safeguards agreement with the IAEA in 2005, Riyadh qualified its safeguards agreement with a Small Quantities Protocol (SQP). This exempts the Kingdom from inspections as long as it does not possess more than one kilogram of "special fissionable material," which consists of one kilogram of plutonium or progressively larger amounts of enriched, natural or depleted uranium. Under the SQP, Saudi Arabia cannot have any such material in a nuclear "facility," such as a reactor, nuclear fuel production plant or any other "location where nuclear material in amounts greater than one effective kilogram is customarily used." The existence of the SQP thus limits the IAEA's ability to verify that the Kingdom has no undeclared nuclear activities or does not possess more nuclear material than the protocol permits.¹⁸⁸ Obviously, the assumptions underlying the SQP will eventually come into conflict with the Kingdom's stated intention to expand its civilian nuclear program.

The United States should strongly encourage the Saudis to provide greater nuclear transparency by accepting the modified version of the IAEA SQP (which requires more stringent reporting on all relevant nuclear material and allows IAEA inspections to verify these reports and monitor all nuclear facilities) and by signing the IAEA Additional Protocol outlining enhanced safeguards. The first of these measures would reduce the number of IAEA safeguard measures held in abeyance even if the quantity of Saudi nuclear material remains small. The second measure, which has been accepted by the large majority of states with nuclear programs, would facilitate expanded IAEA access to the Kingdom's nuclear sites and information. This would be consistent with Riyadh's stated desire to ensure full transparency for its evolving nuclear program, as well as its joint efforts with GCC states.

3. Maintain Leverage Over Pakistan

Finally, as U.S. forces withdraw from Afghanistan, there will be a growing temptation in Washington, especially on Capitol Hill, to reduce American financial and military support for Pakistan.¹⁸⁹ In the years ahead, tensions are inevitable over Pakistan's activities in Afghanistan, its relationship with Islamic extremists and its competition with India. In light of possible Saudi and Pakistani reactions to Iranian nuclearization, however, it would be a mistake for the United States to prematurely assume a more distant or combative posture toward Pakistan. If Islamabad is isolated and financially cut adrift from the United States, it is likely to search for an alternative patron - and Saudi Arabia would be the obvious candidate. This, in turn, would make a nuclear pact between the Kingdom and Pakistan more likely.¹⁹⁰

From the perspective of limiting nuclear proliferation in the Middle East and reducing the odds of Pakistan extending its nuclear umbrella over Saudi Arabia, it would therefore be better for the United States to maintain as much leverage with Pakistan as possible. That means maintaining a robust financial and security relationship, so that Pakistani leaders have something to lose if they pursue deeper sensitive nuclear cooperation with Saudi Arabia.

VI. CONCLUSION

Conventional wisdom holds that the emergence of a nuclear-armed Iran would spark an inevitable proliferation cascade across the Middle East, with Saudi Arabia the prime candidate to follow Iran into the nuclear club. It is widely believed that the Kingdom would be hell-bent on getting nuclear weapons; if Saudi Arabia proved unable to build the bomb itself, it would acquire nuclear weapons or a nuclear umbrella from Pakistan.

On all these counts, the conventional wisdom is probably wrong. Throughout the nuclear age, nuclear restraint has been the norm not the exception, and the Kingdom is not likely to buck this historical pattern. The Saudis would be highly motivated to acquire some form of nuclear deterrent to counter an Iranian bomb, but significant disincentives would weigh against a mad rush by Riyadh to develop nuclear weapons. In any case, they lack the technological and bureaucratic wherewithal to do so any time in the foreseeable future. Nor is Saudi Arabia likely to illicitly acquire operational nuclear weapons from Pakistan. Despite rumors of a clandestine nuclear deal, there are profound disincentives for Riyadh to acquire a bomb from Islamabad - and considerable, though typically ignored, reasons for Pakistan to avoid an illicit transfer. Instead, Saudi Arabia would likely pursue a more aggressive version of its current conventional defense and civilian nuclear hedging strategy while seeking out an external nuclear security guarantee from either Pakistan or the United States. And ultimately, a potential U.S. nuclear guarantee would likely prove more feasible and attractive to the Saudis than a Pakistani alternative.

Although this is the most likely outcome, it is neither inevitable nor a reason to be complacent about the regional consequences of a nuclear-armed Iran. The risks of the worst-case Saudi proliferation scenarios are lower than many contend, but they are Washington should continue to prioritize preventing Iran from acquiring nuclear weapons, even while taking steps to mitigate the worst outcomes if prevention fails.

not zero. Even a small risk of a poly-nuclear Middle East should be avoided. Moreover, the most likely means of preventing a future Saudi bomb involve external nuclear guarantees that are themselves costly and undesirable in many respects. For these reasons, Washington should continue to prioritize preventing Iran from acquiring nuclear weapons, even while taking steps to mitigate the worst outcomes if prevention fails.

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186. This subject will be explored in greater depth in a forthcoming CNAS report. Some will inevitably argue that initiating such planning is counterproductive because it risks creating the false impression that the United States has decided to acquiesce to a nuclear Iran – an impression that could spook allies and potentially complicate diplomacy with Iran. These concerns are real, but they can be mitigated by conducting the planning in a highly compartmentalized manner and by continuing to vigorously pursue prevention. If allies become aware of such planning and raise concerns, Washington should point out that the primary purpose of all contingency planning is to be prepared for events that one hopes will never materialize and to identify options that one does not want to pursue.

The prospect that such planning might complicate diplomacy with Iran is less of a concern. Planning for deterrence and containment would not represent a decision to accept an Iranian bomb. On the contrary, it would be a mechanism to ensure that Iran would continue to face increased costs even if they crossed the nuclear threshold. Iran's leaders seek nuclear weapons capability to provide regime security, tilt the regional balance of power decisively in their favor and bolster international prestige. A properly constructed deterrence and containment architecture would deny the Iranian regime these objectives. Instead of enhanced regime security and regional influence, a nuclear-armed Iran would find itself encircled by a U.S.-led coalition and constantly on the brink of nuclear confrontation – a threat to the survival of the Iranian regime that is far greater than the one they face today. Instead of enhancing Tehran's international prestige, a properly constructed deterrence and containment framework would make Iran an increasingly isolated pariah state, much like North Korea is today.

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