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Implications of a U.S.-Saudi Arabia Nuclear Cooperation Agreement for the Middle East

Status of Saudi Arabia's plans for nuclear power

According to the World Nuclear Association, the Kingdom of Saudi Arabia envisions building 16 nuclear reactors over the next quarter century, each generating about a gigawatt of electricity, as well as smaller reactors for desalination. These plans, however, may well be subject to delays or deferment. The Saudis at one point also planned to install 24 gigawatts of nuclear powered generating capacity by 2020, a goal that proved wholly infeasible. No reactors are now operating or under construction in the Kingdom. Building 16 reactors in 25 years, starting from scratch, would be extremely ambitious. In a largely successful analogous project, the United Arab Emirates (UAE) will likely take about twelve years to build four reactors, from contract signature to full operational capacity. Still, momentum in Saudi Arabia is building with political commitments, organizational and regulatory infrastructure, international cooperation agreements, and a request for information from potential suppliers. The Saudi Energy minister said last December that he hopes to sign construction contracts for the first two reactors by the end of 2018.

On March 15, 2018, the Saudi Ministry of Culture and Information pledged in a statement announcing a new national policy for nuclear energy that, "all nuclear activities will be restricted to peaceful purposes, within the framework defined by international legislation, treaties, and conventions."

What the United States and Saudi Arabia hope to gain from cooperating on nuclear energy

Saudi Arabia's announced intentions are to shift from fossil-fuel generated electricity to solar and nuclear energy, to reduce carbon emissions and to husband oil and gas resources for continued exports. Saudi Arabia would benefit from cooperating with the United States by gaining access to American nuclear energy technology, which has a justifiable reputation of unsurpassed safety and reliability. Despite its technical excellence, this technology is controlled by firms facing straitened finances.

By cooperating with Saudi Arabia, the United States could benefit from sales of technology, equipment, and services (e.g. the 2009 UAE deal reportedly went for up to \$40 billion for construction and operations). The United States could also extend influence over Saudi nuclear energy policy through such engagement. Nonetheless, the Emirates contract, which was won by

a Korean-led consortium including Westinghouse Electric, demonstrates that U.S. firms would face stiff competition—not only from Korea, but also from France, Russia, and China.

The potential impact on nonproliferation

The nuclear proliferation effects from the spread of light water power reactors are modest and manageable. Saudi Arabia has a Safeguards Agreement with the International Atomic Energy Agency, but should subscribe to the Additional Protocol. Assured fuel supply and spent fuel takeback arrangements could also reduce proliferation risks. International cooperation itself, if structured correctly, can be a source of nonproliferation reassurance. (This is not to say that construction of nuclear power plants in a region subject to political instability, terrorism, and regular ballistic missile flights is manifestly sensible; that is a separate question.)

While a nuclear power program will necessarily build some proliferation-sensitive expertise within a country, the most important firebreak is *whether or not a nation state possesses the capacity to produce weapons-usable nuclear material*—highly enriched uranium and plutonium. These can only be produced with additional technologies and facilities for enrichment and reprocessing. For this reason, limiting the spread of these technologies has been a priority for American policy in both Democratic and Republican Administrations supported by a bipartisan consensus in both houses of Congress.

The UAE committed in its nuclear cooperation agreement with the United States not to possess enrichment or reprocessing facilities, and thereby set the so-called nonproliferation gold standard. Although the Obama Administration touted its improvement of a document initially drafted during the Bush Administration, it also said that it would decide about such provisions in future agreements on a case-by-case basis.

Saudi Prince Turki bin Faisal, a former intelligence chief for the Kingdom who reportedly continues to wield influence, has recently argued that Saudi Arabia should not adopt the gold standard to preserve its sovereign rights and because it must be treated on equal terms with Iran, which enriches uranium under the Joint Comprehensive Plan of Action (JCPOA). Indeed, referring to nuclear capabilities, Prince Turki said publicly in 2015, “Whatever the Iranians have, we will have too.” There are also published reports that Saudi negotiators have insisted on retaining freedom to enrich uranium. Given the proposed size of the Saudi nuclear program—even at its most optimistic projections—there is no economic justification for indigenous enrichment and reprocessing capabilities; both could be provided more cheaply in the international market.

Prince Turki is justifiably concerned about the Iranian nuclear program. The JCPOA has serious flaws. The duration of its key restrictions is too short and it failed to require of Tehran a complete and correct declaration of all its relevant nuclear activities—the bed rock of any effective verification regime. Even if the deal endures, and I hope it does despite its flaws, our 46th president will likely face an Iran technically capable of producing enough fissile material for a nuclear weapon within weeks or months, a condition Secretary of State John Kerry testified

was unacceptable. Nonetheless, the *further* spread of enrichment technology would only compound these dangers, and should be resisted vigorously by U.S. policy.

Some now say that we cannot seek restrictions on Saudi enrichment and reprocessing because we permit it under the JCPOA. As noted above however, the deficiencies of the Iran agreement do not justify making more flawed ones. A plutonium production race in the Middle East would be an international security nightmare, and we should do all we can to prevent it.

A second argument sometimes made against seeking restrictions on enrichment and reprocessing is that if the United States resists the spread of such technology, it will open the door to less scrupulous providers of nuclear technology. This argument is incorrect in two respects. First, on principle the United States should not join in a race to the bottom leading to a more dangerous world. Second, and more practically, the United States has considerable leverage in the situation. Russian and Chinese reactors do not enjoy the same record of proven safety and reliability as U.S. technology. Saudi Arabia might not want to rely on the same company that supplies its self-described enemy—Iran. Korean suppliers depend on U.S. technology, which requires American approval. France has evinced strong interest in nonproliferation. Moreover, the ties between the United States and Saudi Arabia are broad and deep, spanning political, economic, security, and technology realms, and are a source of considerable influence, should we choose to use them.

A third argument often invoked is that it is unrealistic to expect nation states to divest themselves of sovereign rights. This is a straw man. Clever diplomats can formulate ways to record agreement that a state voluntarily chooses not to exercise a right that would be economically irrational, and that U.S. cooperation is premised on an understanding of that choice.

Recommendations for Congressional action

Having been asked for recommendations for Congressional action, I would offer the following thoughts:

- First, nuclear cooperation agreements cover technologies invoking vital national security interests, plant and equipment with lifespans longer than many governments, and commercial agreements larger than many trade deals. They therefore should be accorded equal procedural standards to those that apply to security and trade agreements.
- Second, Congress should make clear to the executive branch and to our potential partners that it will not approve additional agreements under Section 123 of the Atomic Energy Act which do not in some way discourage the spread of enrichment and reprocessing.
- Third, Congress should provide incentives for agreements to include the so-called gold standard such as H.R.3766.
- Fourth, in Federalist No. 75, Hamilton recognizes that creation of international agreements necessarily spans the separate and equal powers of the executive and

legislative branches, requiring their joint action. I would encourage both branches to consult regularly and deeply in advance of agreements, perhaps reviving something akin to the Arms Control Observer Group, which operated in the 1980s and 90s. The requirement for Congressional assent can be a source of leverage for the executive branch in international negotiations, which it should welcome as advancing American interests.

Finally, I would like to address a development that has unfolded over the last several days. According to media reports, Saudi Crown Prince Mohammed bin Salman recently warned that, “without a doubt, if Iran developed a nuclear bomb, we will follow suit as soon as possible.” While as I noted earlier, there are good reasons for Saudi Arabia to be concerned about Iran’s nuclear programs, we should have no truck with nations threatening to bolt from the Nonproliferation Treaty, especially not nuclear truck. The United States should refrain from concluding a 123 Agreement with Saudi Arabia until it is convinced that Riyadh’s commitment to the Nonproliferation Treaty is unconditional. Were Iran to produce nuclear weapons, the situation would not be improved, and could be made much worse, by a Saudi decision to follow suit. U.S. political, military, and diplomatic capabilities are appropriate to address the threat of an Iranian nuclear breakout; Saudi nuclear weapons are not.