

Saudi Arabia's role in global energy markets is changing, paper finds

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A group of big fuel tanks at the Ras Tanura oil terminal in Saudi Arabia. Credit: [thinkstockphotos.com/Rice University](http://thinkstockphotos.com/Rice)

Saudi Arabia's role in global energy markets is changing, according to a new paper from an energy expert at Rice University's Baker Institute for Public Policy. The researcher found that the kingdom is reshaping itself as a supplier of refined petroleum products while moving beyond its long-held role as a simple exporter of crude oil.

"A Refined Approach: Saudi Arabia Moves Beyond Crude" examines the growth of Saudi refining, the country's increased domestic demand for crude oil and the geopolitical effects of this development. The paper was published in *Energy Policy* and authored by Jim Krane, the Wallace

S. Wilson Fellow for Energy Studies at the Baker Institute, who specializes in energy geopolitics.

"This is the type of change we expect to see as a state moves to a more advanced stage of development," Krane said. "There are plenty of upsides from investing in refining, including reducing the kingdom's reliance on fuel imports and capturing margins now lost to the competition. Refining also allows the Saudis to export their heavy crude oil to a wider array of customers, beyond the select few importers who have invested in configurations that can handle heavy crudes."

However, there are also downsides, starting with an erosion of Saudi Arabia's traditional role as the global "swing supplier" of crude oil. With more [oil production](#) diverted into refining, the kingdom will have reduced flexibility to "swing" oil production alongside fluctuations in global price and demand. It will be less able to influence prices and balance global oil markets, which has provided some protection against volatility.

The catalyst for this shift is the ongoing development by Saudi Aramco and two joint venture partners of an additional 1.2 million barrels per day (mb/d) in refinery capacity within the kingdom (marking a nearly 60 percent expansion of domestic refining capacity from 2.1 mb/d in 2013 to 3.3 mb/d by 2018). The new refining capacity comes atop Saudi Aramco's pre-existing equity interest in 4.5 mb/d in domestic and international refining capacity. Saudi Aramco owns 50 percent of the three Motiva refineries in Texas and Louisiana.

The paper focuses on the effects of the increase in refining capacity on the accumulating pull of Saudi Arabia's domestic demand for [crude oil](#), which has grown by an average of 6 percent per year for the past decade. In 2013, domestic consumption, including refinery intake that is exported in the form of products, reached 3.1 mb/d, roughly 27 percent

of Saudi Arabia's total oil production. At that rate of growth and with all else constant, Saudi domestic oil consumption would double by 2025.

Saudi Arabia's move also risks undermining its long-held geostrategic role, Krane said. "The world's 'swing supplier' of oil may grow less willing or able to adjust supply to suit market demands," he said. "In the process, Saudi Arabia may have to update the old 'oil for security' relationship that links it with Washington. It may instead turn to a more diverse set of economic and investment ties with individual companies and countries, including China."

That said, the Saudis appear to be cautiously calibrating their transition so as not to lose the U.S. security umbrella, Krane said. "The kingdom's strategy involves supplying Saudi-owned refineries abroad with Saudi crude to maintain economic integration with powerful countries like the United States," he said. "They appear to be succeeding by controlling the crude supply to refineries owned by Saudi Aramco, providing discounts when competition demands it."

More information: *Energy Policy*, [www.sciencedirect.com/science/ ... ii/S0301421515001147](https://www.sciencedirect.com/science/article/pii/S0301421515001147)

Provided by Rice University

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