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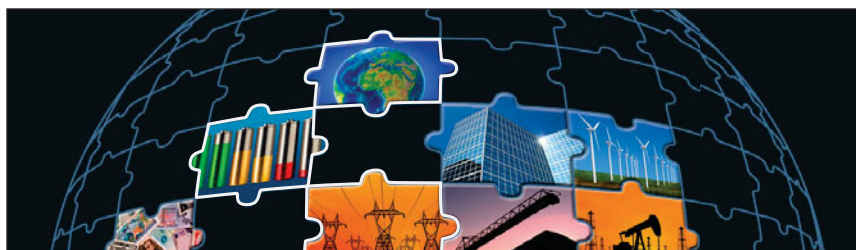
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## The geopolitics of energy: Will a boom follow today's bust in energy prices?

Energy prices are cyclical—history is replete with examples. Booms follow busts, rinse and repeat. The high prices of 2014, around USD\$100/barrel, dipped to less than USD\$30/barrel in late 2015 and are now beginning to recover. But the boom–bust cycle of oil prices has found a new normal, driven by materials breakthroughs in horizontal drilling and fracking.

To say that few saw today's bust coming after the high prices of recent years is an understatement. For sure, the benefits of horizontal drilling and fracking drew attention to innovations happening in the United States and elsewhere. I remember watching the Saudis experimenting with horizontal drilling in 2006, from a visitor's perch at Saudi Aramco, a Saudi state oil and gas company. Saudi engineers were already talking about innovations in the United States and wondering what increased US energy production would mean for US–Saudi relations, in particular, and US–Middle Eastern relations, in general.

Although there was some concern in Riyadh and Dhahran, no one attached much urgency to these worries because while supply would likely increase among some energy producers, all other indicators suggested that demand would far outstrip it. Growth in developing economies, especially China, was expected to absorb all new sources of supply. Some key Saudis actually hoped American supply would increase because excess Saudi capacity is the key to the Kingdom's power, as it allows Riyadh to influence price directly. The concern then was that global demand might suck up all of Saudi Arabia's reserves, thereby turning it into just another country producing at full capacity—like Russia or the United States. Riyadh's goal was to protect its excess capacity so that it could pull oil off the market when prices were low and put it back on when they were too high, or when they wanted to drive prices down to hurt their rivals, as they are doing today.

Few anticipated, however, that fracking and horizontal drilling in the United States would become so effective and efficient that it would add a new ceiling to how high energy prices would rise. When prices eventually rebound (which they will—rinse and repeat), they are unlikely to reach anywhere near the USD\$100 per barrel that we saw just a few years ago. Fracking can come online so quickly and flexibly now that supply can much more quickly flow into the market to respond to growing demand.

Geopolitically, this new reality will weaken traditional oil producers, Saudi Arabia in particular. Riyadh can still flood the market to hurt rivals (like Iran and Russia), but it will be harder for Riyadh to recover once leaders there have made their political point, as prices are unlikely to soar to past heights. Advancements in renewables and efficiencies further underscore this new reality.

Technology is evolving in fascinating ways. Materials breakthroughs in renewables and especially fracking are having an enormous effect on the global energy landscape. The impact on geopolitics is just beginning to be understood.

**Rachel Bronson**