Our View: Time for Low-Cost Middle Eastern Producers to Abandon OPEC?[1]

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> *The phenomenon of disruption occurs when successful firms fail because they continue to make the same choices that drove their success.*[2]

This quote comes from a 2016 volume by Joshua Gans, professor of strategic management at the University of Toronto's Rodman School of Business. Gans has taken the pioneering work of Clayton Christensen's *The Innovator's Dilemma* to a higher, much more satisfactory (and useful) level.

Substitute the words "oil producer" for "firms" and you arrive immediately at the situation confronting major oil companies and oil-exporting nations today. Sadly, these seem destined to make the same mistakes as the firms Gans discusses, which include Kodak, Polaroid, Encyclopedia Britannica, and Blockbuster.

Of course, oil ministers and executives of companies such as Saudi Aramco, BP, Chevron, ExxonMobil, Rosneft, Shell, and Statoil will protest that they are far larger than the ones examined by Gans and other management theorists. My response to that is "Yes, but so what?" Bigger organizations just make a larger splat when they fall.

My point here is that oil producers "made the same choices" in the last year that they made in the past because those choices "drove their success."

The first choice was to cut production to raise prices. The second was to let prices fall to extinguish competitors. These worked previously. They will not work today.

Cutting production will only incentivize output from higher-cost principals, particularly the frackers. The US Energy Information Administration forecasts for domestic production have been revised. Year-end 2018 output was projected to be 9.4 million barrels per day in January. In the agency's most recent short-term forecast, the figure was raised to 10.3 million barrels per day, an increase of ten percent. As various industry reports have noted, US producers have leaped forward as prices increase.

Allowing prices to fall today will probably not slow the expansion of US production. This conclusion may surprise because, historically, oil exploration and production have been driven by cash on hand. However, today US investors understand that oil-exporting nations need higher prices. Thus, falling prices provide opportunities to acquire assets at lower prices and boost investment when costs are low. The money will flow into oil because investors are certain that low prices will force leading OPEC members to organize further production cuts in their ongoing effort to boost prices.

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[1] Except from "Market Disruption: Consequences," *Notes at the Margin*, June 19, 2017.

[2] Joshua Gans, *The Disruption Dilemma* (Cambridge, MA: MIT Press, 2016) [https://goo.gl/W4NswL].

What investors are doing is called free riding in economics. Professor Schumpeter had another phrase for it: "creative destruction." The decision by oil exporters to cut output ("making the same choices that drove their past success") signaled investors that there would be little risk involved in investing in oil and gas production. The money has flowed freely and will continue to flow freely because OPEC and the other "Vienna Group" signatories have written a "put" to domestic producers.

Listening to the Wrong Advice

Consulting is a big business. Companies and governments spend billions on it. The large oil firms and oil-exporting countries are no exception. In general, the same firms get hired. Often, their advice gets ignored. Failure can still occur, however, even when it is heeded. Kodak provides a classic example.

Kodak's downfall is well known. The company kept selling film and pushing the business lines that made it a success even though it had invested heavily in digital photography. In fact, in 1975 Kodak produced the first digital camera. As Gans writes,

> if there was ever a company in a position to defy demand-side disruption it was Kodak—***it was even one of the first companies to consult with Clayton Christensen himself.*** Managers in Kodak read the *Innovators Dilemma* upon its publication and used its messages to direct Kodak's product strategy.[3]

After its bankruptcy in 2012, Kodak sold off digital patents worth over $500 million. Gans explains that the firm's leaders had been aware of the shift to digital but had not anticipated the need to add "a mobile phone to its portfolio of technological improvements." He adds that the firm failed despite efforts to change. It ultimately could not adjust to a world where it was just one of many competitors rather than a market leader.

To their credit, Kodak executives hired consultants attuned to the threat of disruption and the changing world. In this respect, their firm was light years ahead of the oil industry, where consultants continue to tell producers to stay with the old script. For example, Daniel Yergin just told *The New York Times* that OPEC did not do enough when it cut output:

> "For both sides, there has been one twist in the road after another," said Daniel Yergin, the energy historian and vice chairman of IHS Markit, an energy research consultancy. For prices to rise again, "inventories have to be seen as coming down, and there needs to be a tempering in the growth of U.S. shale production," he said. "Those are the two things that are defining the market right now."[4]

Yergin and others quoted in the *Times* story explain that the output cuts were intended to slow the development of US production. In a separate commentary in *The Wall Street Journal*, Yergin details his view, explaining that operating costs will rise with the increase in activity, implying that an equilibrium may be reached in time but at a slower rate. He then adds that

> as oil producers get back to business all over the world, some of the big cost savings will be given back, which will support rebalancing—so oil prices will rise. But the entire business has been recalibrated to a lower price level. An industry that had become accustomed a few years ago to

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[3] Gans, p. 58.

[4] Clifford Krauss, "OPEC took aim at U.S. oil producers, but hurt itself, too," *The New York Times*, June 15, 2017 [https://goo.gl/vi4RMZ].

> $100 oil now regards that as an aberration that will not recur absent an international crisis or a major disruption.[5]

Yergin may be correct. The industry may muddle on as before. The failure of prices to rise may have only occurred because the Vienna Group's cuts were insufficient. Larger cutbacks might solve the problem.

There is a possibility, though, that the disruptive influence of the fracking revolution has permanently changed the oil landscape. Fracking might be having the same effect on oil as mobile phone cameras have had on the photography business.

This threat can be seen in two separate Reuters dispatches. First, John Kemp, Reuter's oil analyst, writes that low oil prices will depress drilling activities:

> Shale producers and OPEC are now on a collision course, with OPEC curbing production to try to raise prices and shale drillers adding rigs to boost output.
>
> The contradiction will likely be resolved through a drop in oil prices to rein in shale growth.
>
> Oil prices have already declined significantly to curb the drilling boom and put output on a more sustainable trajectory.
>
> Past experience shows changes in the U.S. oil rig count typically lag 15-20 weeks behind changes in WTI oil prices.[6]

Julia Simon reported that investment firms were reducing their support of the US shale industry because "cash and people were pouring into the prolific Permian basin."7 She added that

> eight prominent hedge funds have reduced the size of their positions in ten of the top shale firms by over $400 million, concerned producers are pumping oil so fast they will undo the nascent recovery in the industry after OPEC and some non-OPEC producers agreed to cut supply in November.

One fund manager observed that "We'll have to see if these US producers have the discipline to not go crazy and keep prices where they keep making money." Simon then noted there has been no indication that "shale producers will restrain production."

Gans and this author would explain to the hedge fund manager and anyone else who might listen that shale producers *will not restrain production*. These firms know they are in a very competitive business. They earn profits by boosting output to the point where the last incremental unit just covers incremental costs. The shale producers are thus driven to improve technology, drive costs down, and raise output.

These producers, as well as investors, also operate knowing the real pain is being suffered by large oil companies and oil-exporting countries. Ironically, Saudi oil minister Khalid Al-Falih's promise "to do whatever it takes" is likely emboldening private investors to pour more cash into drilling despite falling prices because they believe the exporters will eventually act. Meanwhile, the dropping prices will be used to drive productivity increases and lower costs and thus stimulate even more output.

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[5] Daniel Yergin, "The Struggle Behind Oil's Ups and downs," *The Wall Street Journal*, May 16, 2017 [https://goo.gl/bXATCN].

[6] "Lower oil prices set to test U.S. shale drillers: Kemp," Reuters, June 15, 2017 [https://goo.gl/eB69jk].

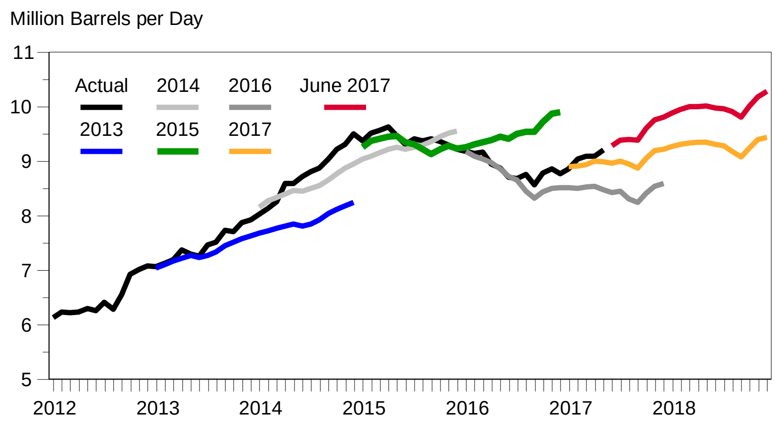
[7] Julia Simon, "Funds pull back from Permian as U.S. shale oil firms go into overdrive," Reuters, June 16, 2016 [https://goo.gl/TC4VgK].

The cash flow from investors into firms drilling in the Permian may also explain the decline in hedging activity by independent oil companies. Falling costs reduce the need to hedge. As mentioned above, the Vienna Group has also written explorers a free put by making it clear it will take further action. Given this background, there is every reason for investors to pour more and more cash into drilling for oil in shale fields.

The EIA's forecasts of US oil production seem to reflect this conclusion. Figure 1 shows the January projections published in the EIA's Short-Term Energy Outlook from 2013 to 2017 and the June 2017 forecast. The graph also shows the monthly history of US production from 2012.

Notice that the forecasts reflect actual production. Only the 2014 and 2015 projections overestimated output. Also of note is the upward revision to the 2017 forecast. In January, the EIA put December 2017 output at 9.22 million barrels per day. Five months later, the agency raised this to 9.96 million barrels per day. Given present trends, US production could hit ten million barrels per day by the end of the year.

Figure 1
Actual US Oil Production vs. Projections by EIA STOs Published in January 2013 to 2017 and in June 2017



Source: US EIA Short-Term Energy Outlooks (STOs).

For the Vienna Group members, this is a "disruption dilemma" of enormous magnitude. Historians may conclude that their decision to cut production was one of the greatest strategic blunders of all time.

At this juncture, it appears we can expect accelerating increases in US output fueled by investments from those undeterred by lower prices. The rise will force further cuts by the Vienna Group.

The incomes of oil-exporting countries will decline over time. The sequence of moves intended to raise prices and revenue will have the opposite effect.

Is it too late to address this issue? Can producers reverse what looks to be an inevitable decline in income? Possibly.

The former Saudi oil minister Ali Naimi recognized that low prices would slow or even stop the shale disruption. Drilling activity and US output did decline following the November 2014 decision to raise output. If Saudi Arabia reverted to the Naimi policy now and made convincing public statements about the decision, this would likely slow the increase in US oil production. Of course, the producers would have to make good on their words. Six months or one year of producing at maximum rates would take oil prices to levels low enough (possibly single digits) to close enough production permanently to achieve the higher prices by 2020.

These output losses would not occur in the United States. As many have noted, US shale production is resilient. The losses would occur in more economically fragile areas. Sustained low prices would have long-lasting impacts on some North Sea production and would slow expansion in Brazil.

The most significant losers, though, would be other OPEC members, particularly Venezuela, Libya, and Nigeria. All three could become failed states and potential havens for new or existing terrorist organizations.

The question for oil-exporting countries with the lowest production costs and cash reserves sufficient to weather persistent low prices is this: Are they willing to sacrifice free riders to increase the likelihood of their own economic survival? It is that simple. Recently, several Middle Eastern nations imposed a blockade on Qatar. Their action has had little effect on energy markets. To achieve their price goals, they might need to adopt the same hard stance toward the OPEC members now barely surviving. The conditions brought on by the shale disruption, in other words, seem to require harsher triage.

The success of Vision 2030, the far-reaching economic plan put forward by Muhammed bin Salman, Saudi Arabia's deputy crown prince, may depend on the actions taken in coming months. The plan calls for diversification away from oil that, to work, requires significant cash flow from oil sales in the next few years. To raise the necessary funds, Saudi Arabia may need to aggressively implement the Naimi strategy. Perhaps it is time for the Saudis to withdraw from OPEC. By flooding the market and driving its high-cost competitors to the ground, the Kingdom could lay a foundation for raising the money needed to finance Vision 2030.

In doing so, Saudi Arabia or Saudi Arabia and other low-cost producers would create another disruption. Should this happen, they would be breaking with the Joshua Gans quote at the start of this paper. Specifically, a successful country *would not* "be making the same choice that drove its success" in the past.