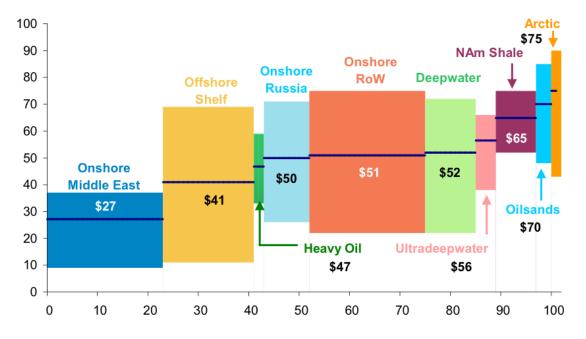
# Saudi Arabia Won't Win This Oil-Price Standoff. By SHANE FERRO & GUS LUBIN

There's a standoff happening between the old oil powers and the booming US shale industry, as the OPEC oil cartel is thought to be pushing down prices to drive new production offline.

But the investment bank Citi says it's not a fight that OPEC leader Saudi Arabia is going to win.

Although no one is sure what is causing the plunge in oil prices from above \$105 a barrel this summer to below \$80, Saudi Arabia, which helps control oil prices through the amount its vast oil reserves it releases to the market, would reportedly "<u>be comfortable with lower oil prices</u>." Meanwhile, there's a risk that <u>low prices will make it unfeasible to</u> <u>continue expensive unconventional drilling projects</u> that are spreading through US shale basins.

### Crude Cost of Production Rises as Demand Grows



(x-axis: total liquids production; y-axis: avg Brent-equivalent breakeven price\*, \$/bbl)

Source: Rystad Energy, Morgan Stanley Commodity Research estimates

Middle East oil production is super cheap. North American Shale is expensive.

But a <u>massive new report</u>, "The Rapid Rise of the United States as a Global Energy Superpower," from Citi's macro analysts suggests the price

of oil would have to dip to the vicinity of \$50 a barrel to flatten US production growth completely.

From the report: "[I]ndications have emerged that suggest Saudi Arabia could look to allow prices to fall enough until US shale production is reined in. However, should such a circumstance arise, it looks like US shale/tight oil production growth could remain robust even in an environment of sustained lower oil prices, lower capex, and lower rig counts."

The breakeven price for a well depends on a variety of factors. In places where the drilling infrastructure is mature and there's not a lot of upfront capital costs to bring on a new well, breakeven prices are going to be a lot lower than in newer developing areas.

Here's a key passage:

## At what price might US shale production growth be meaningfully reined in?

Full-cycle capex for shale production includes land, infrastructure, and well costs (of which some 40-50% is from pumps, ~10-15% for drilling rigs) and operating costs. In mature plays where the land grab is over and infrastructure is available, the remaining capex required ("half-cycle costs") to bring on an additional well is far lower than areas requiring "full-cycle" costs. Full-cycle costs might be as high as \$70-80/bbl WTI, but half-cycle costs could be as low as the high \$30s-range. Thus, those fringe and emerging areas requiring full-cycle capex could now face a reassessment, while established areas should continue drilling and growing output.

And here's a group of charts showing the breakeven prices for a well in various areas of the US shale production region:

Figure 44. Eagle Ford well breakeven prices (\$/bbl, y-axis) for various IPs (b/d, x-axis), at various well costs (\$MM)

Figure 45. Permian Basin well breakeven prices (\$/bbl, y-axis) for various IPs (b/d, x-axis), at various well costs (\$MM)

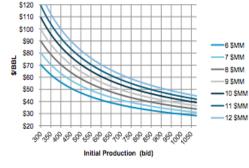


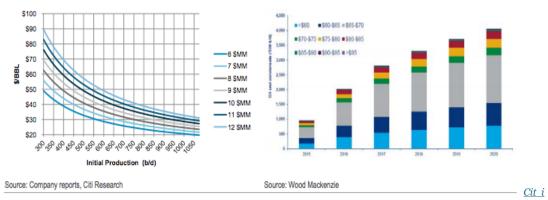
Figure 47. Other estimates of Brent breakevens and reserve estimates

Source: Company reports, Citi Research

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for US tight oil sub-plays

Figure 46. Bakken well breakeven prices (\$/bbl, y-axis) for various IPs (b/d, x-axis), at various well costs (\$MM)



Citi's estimation of shale breakeven prices for various well scenarios.

What if WTI prices go below \$70 a barrel (it was below \$78 at last check)? Citi predicts a slowdown (about a 25% reduction in growth in 2015 and 50% in 2016) but not a halt to US shale production.

## What happens to the US economy if production does take a hit because of falling prices?

A recent Goldman Sachs note looked at that. Here's what we <u>wrote</u> <u>previously</u>:

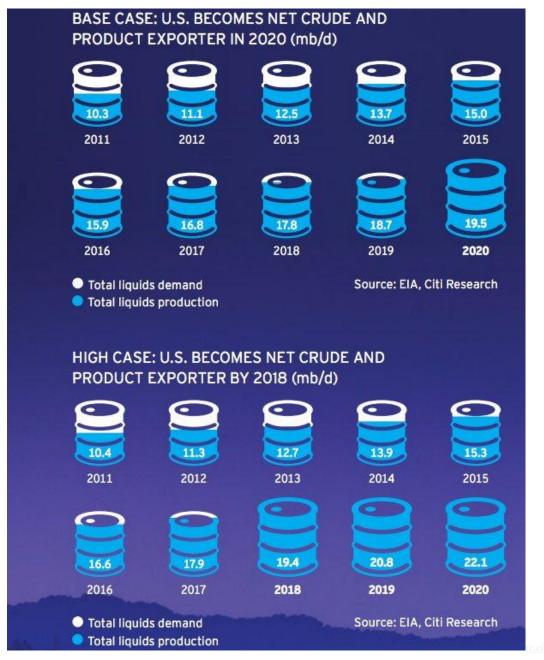
On the one hand, falling crude prices mean falling gas prices, which means a boost to consumer spending in other parts of the economy. On the other, shale production in the US will most likely fall, reducing exports and reducing business spending in that area of the economy.

Goldman thinks the two would roughly cancel each other out, predicting that GDP would decline just 0.1% as a result of this turn of events. In 2013, capital investment by the oil and gas industry was \$167 billion. That's 11% of business fixed investment and 1% of GDP, according to Goldman. The note says that at the height of shale investment, in 2010 and 2011, this sector added as much as 0.2% to annualized real GDP growth. But it has since "declined to an unremarkable pace."

Even with falling prices, investment in the oil sector in the US isn't necessarily going to fall off a cliff. From Goldman's Alec Phillips:

It is important to note that a good deal of capital investment in the energy sector is used to maintain rather than increase production, since the production from existing wells is constantly declining, so even if US production were expected to remain flat over the coming year — we still expect it to grow substantially — significant investment would still be necessary.

All told, it plays into Citi's bull case for US oil. Here's how the bank sees America becoming an oil exporter:



#### Saudi Arabia can't keep prices low forever.

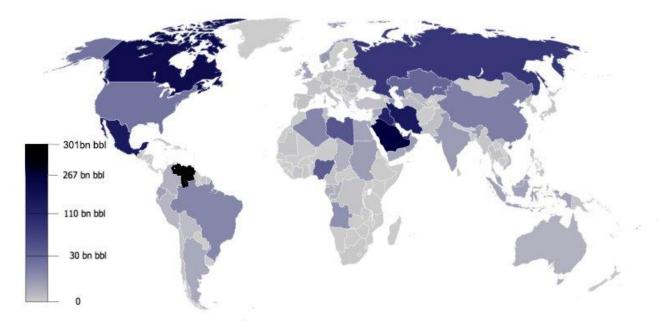
The Kingdom may tolerate low oil prices in the short run, but the oil power wants prices at about \$100 a barrel. As <u>RBC Capital Markets'</u> <u>Helima Croft</u> noted recently:

Due to a surge in post Arab Spring spending, we believe that the Saudi government actually needs oil prices north of \$100 a barrel in order to balance its budget, and if Brent prices remain in the \$80s, it will be forced to run a deficit ... A significant portion of the new social spending has also been aimed at keeping Saudi's large youth cohort occupied and away from extremist groups ... In the wake of the 2003 terrorist attacks in Riyadh carried out by nationals, King Abdullah identified youth unemployment as the country's number one national security challenge ... We maintain that the King would not sacrifice domestic and regional stability in order to punish Iran and Russia or bankrupt US shale producers.

¢	Country \$	Production (bbl/day) \$	Share of World %	Date of Information
	World	84,820,000 <sup>[6]</sup>	100%	-
1	💼 Russia	10,900,000	13.28%	2013 est. <sup>[7][8]</sup>
2	Saudi Arabia	9,900,000	12.65%	2013 est. <sup>[7][9]</sup>
3	United States	8,453,000	<mark>9.97%</mark>	2013 est.
4	💳 Iran	4,231,000	4.77%	2013 est.
5	China China	4,073,000	<mark>4.56%</mark>	2013 est.
6	∎•∎ Canada	3,592,000	3.90%	2013 est.
7	🚾 Iraq	3,400,000	3.75%	2013 est.
8	C United Arab Emirates	3,087,000	3.32%	2013 est.
9	Venezuela	3,023,000	<mark>3.56%</mark>	2013 est.
10	Mexico	2,934,000	3.56%	2013 est.
11	Kuwait	2,682,000	<mark>2.96%</mark>	2013 est.
12	👄 Brazil	2,633,000	3.05%	2013 est.
13	Nigeria Nigeria	2,525,000	<mark>2.62%</mark>	2013 est.
14	He Norway	1,998,000	2.79%	2013 est.
15	Algeria	1,885,000	2.52%	2013 est.

Here's the latest oil production table from Wikipedia:

And here's a look at <u>countries by proven oil reserves</u>:



<u>en.wikipedia.org</u>

#### Source: Business Insider, November 6, 2014

http://www.businessinsider.com/citi-saudi-arabia-wont-win-this-oilstandoff-2014-11