

## 2015 Outlook on oil and gas: My take: By John England



The North American energy renaissance, driven by the shale revolution, is facing its first major challenge. Since July 2014, West Texas Intermediate and Brent prices have fallen more than 40 percent, potentially postponing higher cost new shale and deepwater projects in North America.

During the global recession that began in 2008, the United States benefitted substantially from the North American energy renaissance, which has lowered the overall cost of production for US-based manufacturers, boosted employment during a period of otherwise high unemployment, attracted substantial investment to the US economy, and provided value to the American consumer. According to a report from the American Petroleum Institute, from 2009 to 2011 the energy industry added more than 600,000 new jobs and contributed 6.3 percent of the total US labor income in 2011.<sup>1</sup> Prior to the recent decline in prices, the impact of the shale revolution on US gross domestic product (GDP) was estimated to double over the next decade, rising from \$284 billion in 2012 to an estimated \$533 billion in 2025.<sup>2</sup>

John England, Vice Chairman, US Oil & Gas Leader, Deloitte LLP and Audit & Enterprise Risk Services (Advisory) Energy & Resources Leader for Deloitte & Touche LLP, is optimistic about the ability of US producers to weather the current storm.

**Q: Similar to the events in 1985, when Saudi Arabia doubled its oil production—rendering many US onshore wells uneconomic—do you think the 40 percent decline in the price of oil since July 2014 will hurt the shale revolution in North America?**

**John England:** The North American energy renaissance and US shale revolution are more resilient to price pressures than commonly understood. Over the past two years—during which the United States experienced the largest increase in crude production in its history—the industry has continued to benefit from innovative technologies and better economics associated with shale extraction. New wells are being drilled faster, completion times have decreased, and completed wells are more productive. The current price environment may postpone some new projects on the horizon, but this will also allow companies to focus on increasing production efficiencies, further reducing costs, and increasing capital returns. Some companies that came late to the game and paid a premium for shale assets may experience some difficulties. However, there is still a lot of production that is coming online now and will continue through the first half of 2015. Looking at the largest producers in the major shale plays, many are forecasting a 20–30 percent increase in production in 2015 even as they trim their drilling budgets. US crude production is set to reach 9 million barrels per day (MMbbl/d) in December 2014—the highest level since 1985—and the major shale producers are set to push this even higher in 2015 despite the price environment.<sup>3</sup>

**Q: Given shale-derived energy has been beneficial in transforming the competitiveness of the US economy, do you believe that low energy prices, long viewed as essential to US energy security, could now be considered a threat to US energy security?**

**John England:** It is an interesting paradox that the US economy was less affected by the 2008 recession than other Organization for Economic Cooperation and Development (OECD) countries largely as a result of the shale revolution, which could now be imperiled by a lower price environment. In terms of the US economy, it's as if we are in a "heads: I win; tails: I win" situation.

Lower oil prices are helping Americans at the pump, where prices have dropped nearly 90 cents per gallon since July 2014.<sup>4</sup> The drop in prices at the pump puts more money in the consumer's pocket—an important factor for US retailers, especially during the holiday season. To put this in perspective, Moody's estimates that for every one cent per gallon decline in gasoline prices, there is a \$1.2 billion increase in additional spending, or more than \$100 billion in additional spending at current pump prices.<sup>5</sup> A reduction in the oil price drives a reduction in commodities prices across all sectors. This helps reduce operating costs for companies, which puts more money to invest in their hands. For major energy producers and users, energy feedstock costs and power production costs are reduced. In addition, lower prices reduce the cost of commercial transportation, which helps to moderate prices. These cost reductions can be passed on to consumers. Consumers have more money at their disposal as well, which increases their purchasing power and company profits, stimulating employment. Lower energy and commodity prices can push down the inflation rate as well. Citigroup estimates that at current prices, reduced oil costs will provide a \$1.1 trillion stimulus to the global economy.<sup>6</sup>

If we look at the reasons behind the current decline in prices, we see an interesting mix of demand-side and supply-side factors. On the supply side, North American production continues to boom as a result of the shale revolution. In addition, approximately 2.5 MMbbl/d of offline production in Organization of Petroleum Exporting Countries (OPEC) member countries such as Iran, Iraq, and Libya are being offset by a rise in production of more than 2 MMbbl/d from major OPEC producers such as Saudi Arabia, Kuwait, Qatar, and the United Arab Emirates.<sup>7</sup> Rising production combined with the return to market of some of the offline production has created a need to compete for market share through lower prices.

On the demand side, although the United States became the world's largest producer of oil last month, it remains both the largest consumer and importer of oil as well. Most OECD economies are post-peak demand economies with total OECD demand peaking at 50 MMbbl/d in 2005 and declining ever since.<sup>8</sup> The Energy Information Administration projects US liquids consumption will remain a little more than 18.5 MMbbl/d through 2040 while European and OECD Asian demand remains at 14 MMbbl/d and 7 MMbbl/d, respectively, during the same period.<sup>9</sup> However, the current price cycle disproportionately benefits the US economy given the value of the dollar has risen over 8 percent since May 2014.<sup>10</sup> This makes dollar-denominated crude more expensive for other oil-importing economies.

---

A reduction in the oil price drives a reduction in commodities prices across all sectors. This helps reduce operating costs for companies, which puts more money to invest in their hands. Consumers have more money at their disposal as well, which increases their purchasing power and company profits, stimulating employment.

If we see oil prices stay low for a prolonged period, there is a risk that US production will fall even as demand is increasing, which would put at risk the gains we have achieved in terms of energy security. Mitigating this risk will be dependent on the industry's ability to lower its cost structure and weather this price downturn.

**Q: Do you believe the current low oil price environment strengthens or weakens the case for US crude exports?**

**John England:** It strengthens the case being made by producers—that their production should be able to find the most optimally priced market. However, US refiners will remain opposed to lifting the ban on crude exports. Although refiners are struggling to find an export scenario with overall benefits, over the long run they may not find it as disadvantageous as currently feared.

Over the past two years we have seen the Brent/WTI spread narrow from more than \$20 per barrel to \$3–\$5 per barrel currently, so there is less of a differential between the two benchmarks to apply upward pressure on WTI prices. The price differential narrows further when you consider the two major water-borne crudes, Brent and Louisiana Light, where the spread is just around 50 centers per barrel. Ultimately, Congress and the President will need to decide the issue, but the antipathy between the two sectors of the industry on exports may be overstated.



**Q: Given that over the last 10 years, employment in the oil and gas sector has nearly doubled, do you see the current low-price environment as helpful for overall US unemployment or as potentially threatening to the ongoing recovery in US employment?**

**John England:** During the global recession, we saw states with significant shale resources experienced lower unemployment rates than the US average. The shale boom has created more than two million jobs in the United States.<sup>11</sup> Half of these jobs have been in Texas—home to the Eagle Ford, Permian, Barnett, and Haynesville shale plays—resulting in 2013 unemployment rates below the state average for many oil and gas producing counties.<sup>12</sup> In September of this year, North Dakota, home of the Bakken shale, had the lowest unemployment level in the nation at 2.2 percent.<sup>13</sup> Shale development has also fostered economic growth as North Dakota's GDP grew at a compound annual growth rate of 10 percent since 2007.<sup>14</sup> All major shale developing states grew faster than US average.

With oil prices falling, oil and gas company profits will take a short-term hit that may postpone future drilling plans. Given the amount of investment oil and gas companies have poured into North America in recent years, there's no question that a reduction in that investment will have a negative effect on the US economy. However, this negative impact will likely be offset by growth in employment in the broader US economy.

**Q: Do you think the current price environment will be negative for supermajors?**

**John England:** The supermajors have the ability to take a longer view than the current price cycle. Over the short term, both supermajors and independents are going to be exposed to lower commodity prices in their upstream operations, but supermajors will benefit from their vertical integration in downstream. Over the long term, the price reverts to the mean and having been through boom and bust price cycles before, they are able to plan beyond price fluctuations and invest today to bring tomorrow's production to market. With that in mind, the current price cycle should not significantly impact their long-term plans.

**Q: What are some of the challenges the industry faces in terms of public perception?**

**John England:** One of the other challenges the industry faces is the public perception of the industry. There is a fascination with the technologies that are improving our everyday lives all around us. People see Silicon Valley making these technologies that have an immediate effect and largely view the oil and gas industry as one that is either not innovative or stuck in the past. One of the important things that is missed is that the industry is incredibly high-tech and constantly innovating. We have seen the type of transformation the industry can bring with the complete turnaround in US oil production over the past few years. We've moved from talking about how the US was experiencing "peak-oil" in the first decade of the century to understanding that the US was really at "peak-demand" during that time. Houston is the Silicon Valley of petroleum engineering. As the industry moves to higher-cost, higher-risk frontier regions, new technologies are being developed that will transform the industry further. This creates a fascinating and challenging opportunity for scientists, engineers, and software engineers as they join our industry.

Also, people are more interested than ever in making all industries more environmentally friendly. I think the oil and gas industry is most frequently viewed as an impediment to an environmentally friendly future, when in fact it is a major enabler of a greener future as it makes possible the transition to lower-carbon fuels like natural gas. It is also working to reduce its environmental impact by downsizing its footprint and bringing modern water management techniques to the industry.

## About the author



### John England

Vice Chairman, US Oil & Gas Leader

+1 713 982 2556

jengland@deloitte.com

@JohnWEngland

John serves as the Vice Chairman, US Oil & Gas leader, Deloitte LLP and Audit & Enterprise Risk Services (Advisory) Energy & Resources leader for Deloitte & Touche LLP. John works closely with our oil and gas clients to bring the deep capabilities of the firm to solve problems and enhance value. John brings a unique mix of commercial, risk management, operational, and financial knowledge and the experience of 25 years serving the industry. He holds a BBA in accounting from Stephen F. Austin University and is a CPA in the state of Texas.



## Endnotes

- <sup>1</sup> "Energy Works for America", American Petroleum Institute, October 2014. <http://www.api.org/policy-and-issues/policy-items/american-energy/~media/Files/Policy/American-Energy/EnergyWorks-Primer-Low.pdf>
- <sup>2</sup> "America's New Energy Future: The Unconventional Oil and Gas Revolution and the Economy—Volume 3 A Manufacturing Renaissance report", IHS, September 2013. <http://www.nam.org/Newsroom/Press-Releases/2013/09/Manufacturers--Shale-Production-Driving-Manufacturing-Renaissance/>
- <sup>3</sup> "Short-Term Energy Outlook", Energy Information Administration, November 12, 2014. <http://www.eia.gov/forecasts/steo/>
- <sup>4</sup> Weekly US Regular All Formulations Retail Gasoline Prices, Petroleum & Other Liquids, US Energy Information Administration, U.S Department of Energy, accessed November 24, 2014. [http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=EMM\\_EPMPR\\_PTE\\_NUS\\_DPG&f=W](http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=EMM_EPMPR_PTE_NUS_DPG&f=W)
- <sup>5</sup> Nin-Hai Tseng, "The downside of cheap oil", Fortune, June 5, 2012. [www.fortune.com/2012/06/05/the-downside-of-cheap-oil/](http://www.fortune.com/2012/06/05/the-downside-of-cheap-oil/)
- <sup>6</sup> Grant Smith and Lananh Nguyen, "Citigroup Sees \$1.1 Trillion Stimulus From Oil Plunge", Bloomberg, October 16, 2014. <http://www.bloomberg.com/news/2014-10-15/citigroup-sees-1-1-trillion-stimulus-from-oil-plunge.html>
- <sup>7</sup> Total Oil Supply (Thousand Barrels Per Day), Energy Information Administration, Accessed November 20, 2014. <http://www.eia.gov/cfapps/ipdbproject/IEDIndex3.cfm?tid=50&pid=53&aid=1>
- <sup>8</sup> "International Energy Outlook 2014", US Energy Information Administration, US Department of Energy, September 2014. [http://www.eia.gov/forecasts/ieo/pdf/0484\(2014\).pdf](http://www.eia.gov/forecasts/ieo/pdf/0484(2014).pdf)
- <sup>9</sup> Ibid.
- <sup>10</sup> Kathy A. Jones, "A Strong US Dollar Changes Everything", Charles Schwab, November 20, 2014. <http://insights.schwab.com/international/strong-us-dollar-changes-everything1111>
- <sup>11</sup> Rebecca Maitland, "Shale industry staying busy with activity", Houston Chronicle, November 21, 2014. <http://www.chron.com/jobs/article/Shale-industry-staying-busy-with-activity-5908985.php>
- <sup>12</sup> Texas Counties: Unemployment Rate, The County Information Program, Texas Association of Counties, accessed November 25, 2014. <http://www.txcip.org/tac/census/morecountyinfo.php?MORE=1042>
- <sup>13</sup> Metropolitan Area Employment and Unemployment - September 2014", Bureau of Labor Statistics, US Department of Labor, October 29, 2014. <http://www.bls.gov/news.release/pdf/metro.pdf>
- <sup>14</sup> GDP & Personal Income, Regional Data, Bureau of Economic Analysis, US Department of Commerce, accessed November 25, 2014. [http://www.bea.gov/iTable/index\\_regional.cfm](http://www.bea.gov/iTable/index_regional.cfm)

This publication contains general information only and is based on the experiences and research of Deloitte practitioners. Deloitte is not, by means of this publication, rendering business, financial, investment, or other professional advice or services. This publication is not a substitute for such professional advice or services, nor should it be used as a basis for any decision or action that may affect your business. Before making any decision or taking any action that may affect your business, you should consult a qualified professional advisor. Deloitte, its affiliates, and related entities shall not be responsible for any loss sustained by any person who relies on this publication.

## About the Deloitte Center for Energy Solutions

The Deloitte Center for Energy Solutions (the "Center") provides a forum for innovation, thought leadership, groundbreaking research, and industry collaboration to help companies solve the most complex energy challenges.

Through the Center, Deloitte's Energy & Resources Group leads the debate on critical topics on the minds of executives – from the impact of legislative and regulatory policy, to operational efficiency, to sustainable and profitable growth. We provide comprehensive solutions through a global network of specialists and thought leaders.

With locations in Houston and Washington, DC, the Deloitte Center for Energy Solutions offers interaction through seminars, roundtables, and other forms of engagement, where established and growing companies can come together to learn, discuss, and debate.

[www.deloitte.com/us/energysolutions](http://www.deloitte.com/us/energysolutions)

Follow the Center on Twitter  @Deloitte4Energy