

## **Why Energy Now?**

### **The opportunity for private equity in energy has never looked better**

By Richard Aube, Co-President

The other day, I was talking to one of my friends and he asked me for my view of the investment opportunity in today's energy markets. Not knowing how much time he had, I asked him whether he wanted my elevator pitch or the Pine Brook full monty (as we are prone to want to provide to anyone who will listen).

When he said "the elevator pitch," I asked him how tall his building was.

I was only half-joking about the size of his building, as I was really making a different point: In my opinion, one's outlook on the energy investment opportunity depends entirely on one's perspective.

An investor who works on the third floor, and therefore has limited time to understand the environment, tends to look in the rearview mirror (and perhaps the side-view) and make a snap judgment about the business. What that investor sees is an industry that has been awash in supply for three years, creating a very volatile commodity price environment that few can understand. In addition, he probably has a public stock portfolio that has been weighed down by energy stock underperformance (-14% in total over the last three years versus an S&P that has returned 30% during the same period). Moreover, in some cases, he may also have stakeholders or other constituencies that are pushing him to go green and divest any fossil fuels. In other words, the investor who works on the third floor finds it easy to pass on energy investments in search of returns in "less risky" segments of the economy.

The investor who works on the 50th floor, however, has a longer elevator ride and time for the real story. And despite requiring 50 floors, the story is really pretty simple, comprising just three parts.

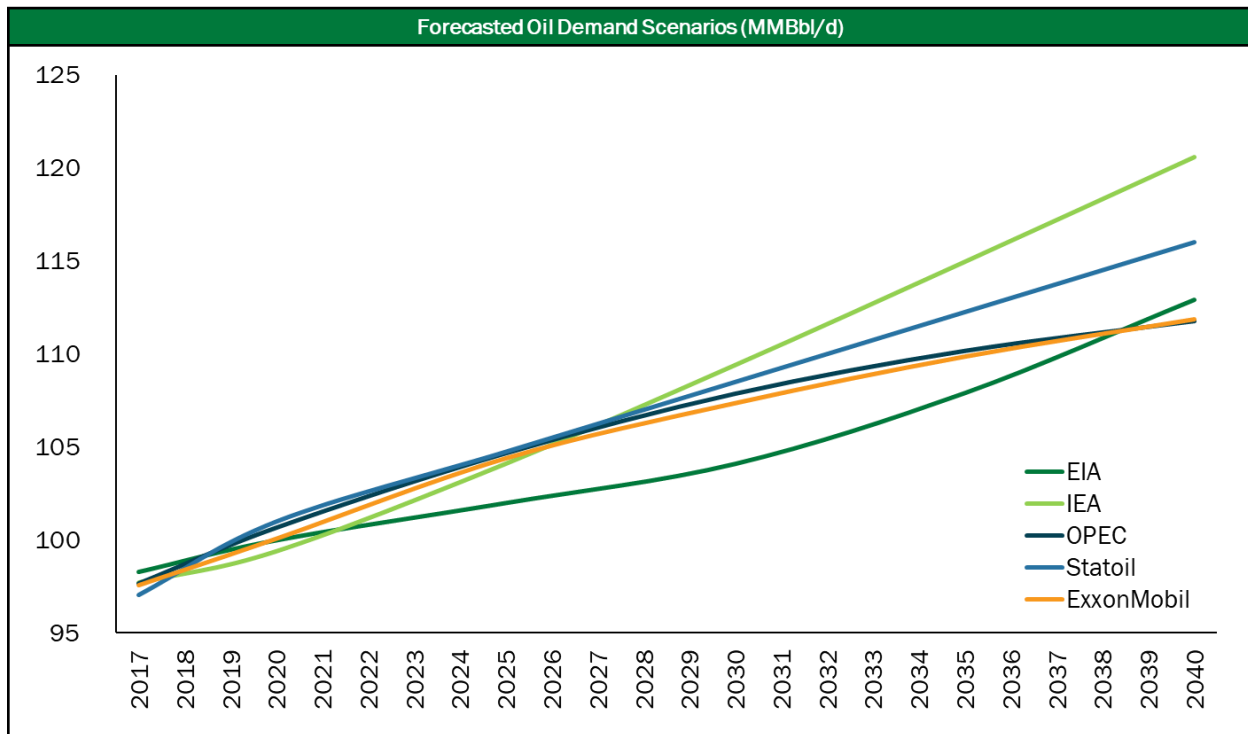
#### **Part 1: The Macro Environment**

Let's start with the macro environment, and focus for a minute on the law of supply and demand.

Despite what the third floor investor might be reading in the popular press, oil demand is not on the wane and certainly is not facing "peak demand" anytime soon. Global oil demand has grown at an average of 1.7 MMBbl/d since 2010, and will likely continue on this trajectory for many years to come. This growth will be driven primarily by the developing world, as incomes rise, the middle class grows, and economies mature—since we haven't yet found a way to grow the global economy without needing more hydrocarbons. As Exhibit 1 illustrates, third-party agencies and companies with teams of expert economists to track and forecast this data largely agree that there will be consistent long-term oil demand growth well past the current decade. It's important to note that these demand forecasts do not ignore the important and constructive impacts being created by energy conservation, the penetration in world markets of electric vehicles, and the meaningful advances in efficiencies of internal combustion engines. On the contrary, these impacts are an integral part of the forecasts and at some point will cause the demand for oil to "roll over" and begin to decline—just not during our current investment horizon.

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Exhibit 1



Now, on to the supply side. In order to understand the supply side, a little recent history is in order. Rewind the tape to Thanksgiving of 2014, when it became clear that oil was in for a steep slide. What had happened leading up to that point? Well, to start with, driven by high oil prices, too much capital had flowed into the business, and too much capital produces irrational behavior. The irrational behavior in this context was a powerful combination of too much exploring for oil, too many wells being drilled, and too many large capital projects that required high prices in order to be economic. To put it simply, investors and companies had been so focused on the attractive microeconomics that they had ignored the unattractive macroeconomics.

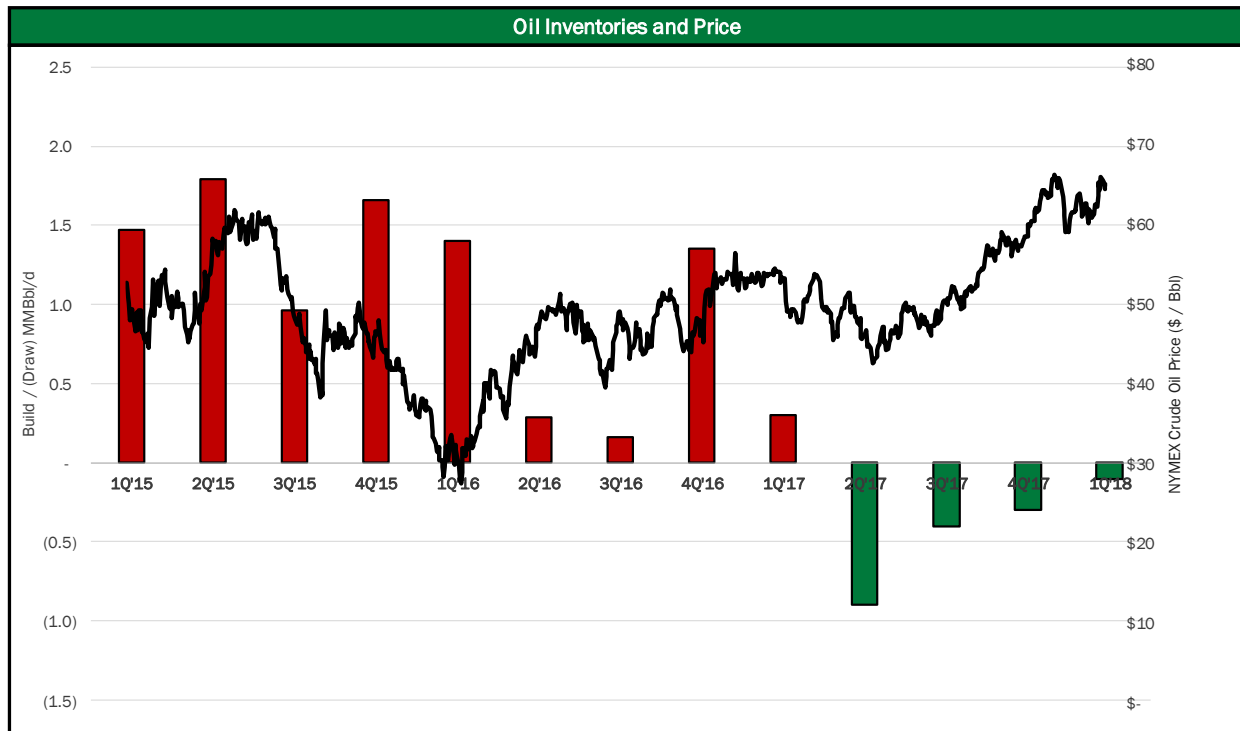
Enter OPEC and Saudi Arabia. Until this point, OPEC and Saudi Arabia had been quietly enjoying the high oil prices while begrudgingly accepting the growth of U.S. unconventional production. But their acceptance of the growth of U.S. production had its limits, and at a November 2014 meeting, OPEC decided enough was enough, agreeing to keep production ceilings unchanged in the face of global oversupply. This marked a major shift away from the group's long-standing policy of defending prices. In my opinion, their primary goal was to drive large capital projects and capital spending that required high prices out of the system. In commodity trader terms, this decision would be described as a desire to turn the oil market from contango (where future prices are higher than spot prices) to backwardation (where future prices are lower than spot prices).

The result was the three-year downturn in oil prices, and if my inclination regarding OPEC's primary goal was correct, they clearly were successful in that endeavor: More than 60 major projects were cancelled during 2014-2015, at a total estimated cost of \$380 billion. More importantly, the very large, but very high-cost potential additions to supply—the Arctic, ultra-deepwater, more oil sands—are no longer on the drawing board, and they will stay off as long as the industry has the taste of \$50 oil in its mouth.

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But that was then and this is now, and as they say in the oil patch, the solution to low oil prices is low oil prices. Today, supply and demand are largely in balance, inventories are being drawn down (Exhibit 2), and oil prices are reflecting a market that has to incent growth. And importantly for OPEC and Saudi Arabia, the futures market is back in backwardation, thereby reducing the incentive for long-term (and high-price) large projects.

Exhibit 2



Source: IEA Oil Market Report and CapitalIQ.

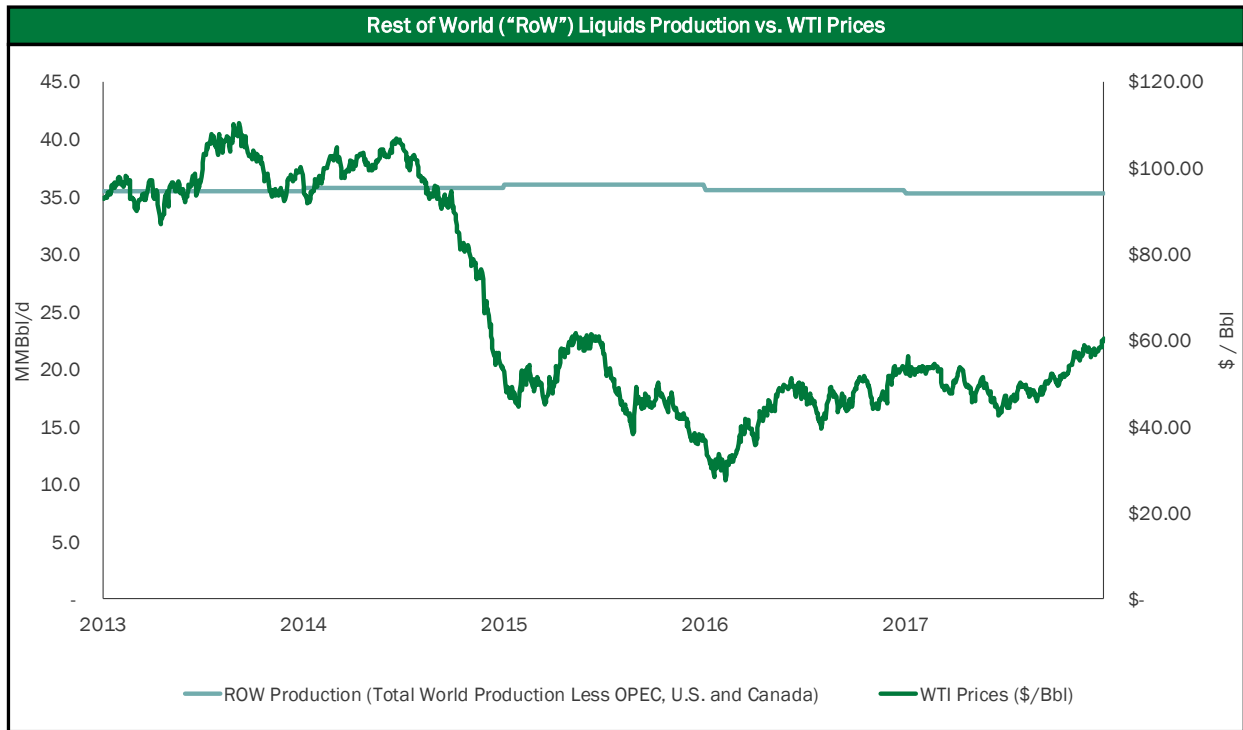
## Part 2: Where's the Growth?

So where is the growth going to come from? BLUF (Bottom Line Up Front, as they say in the military) is that it's going to come from the U.S. Why is that?

As Exhibit 3 illustrates, the rest of the world (RoW) was not able to grow production in a \$100+/Bbl world so there is little likelihood that RoW has meaningful additional capacity in a \$55-\$65/Bbl world. Exhibit 4 shows that even Saudi Arabia and certain OPEC nations have limited ability to bring on production in the near term, all apart from the question of who is going to make up for sanction-constrained Iran and Venezuela, which are essentially out of the market.

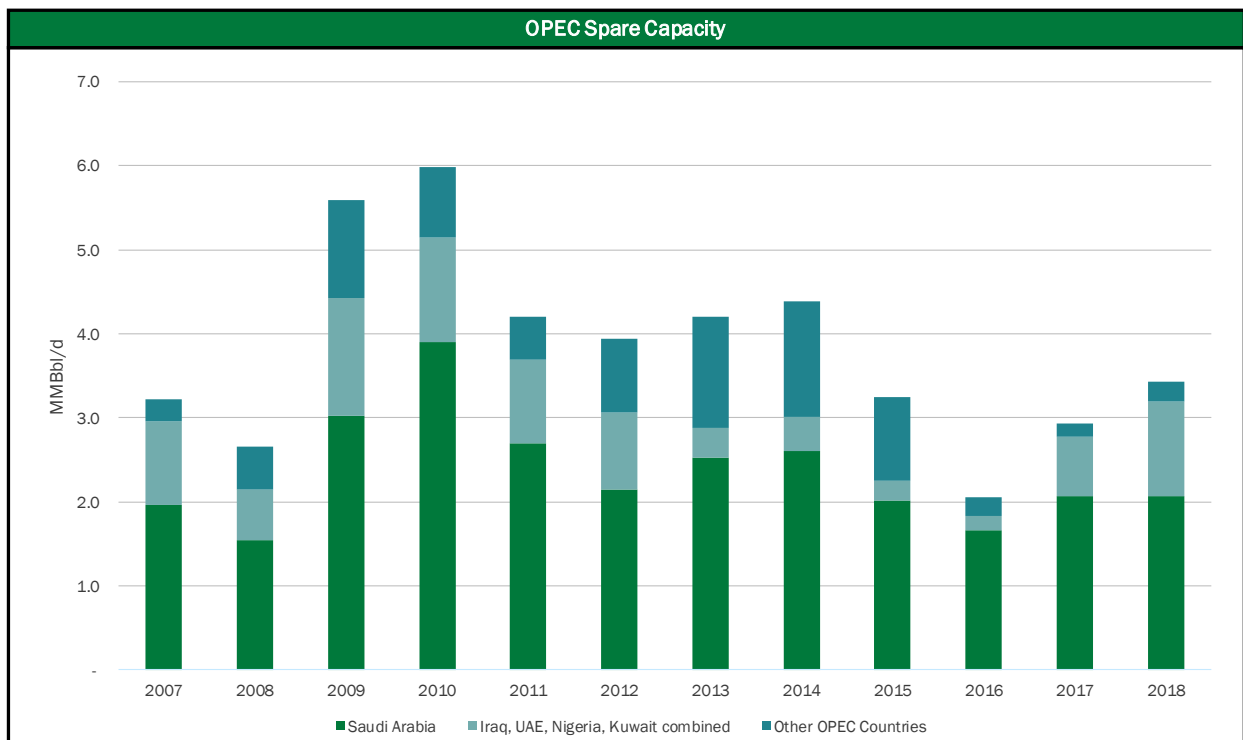
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Exhibit 3



Source: BP Statistical Review (2017) and CapitalIQ.

Exhibit 4



Source: IEA.

Note: Figures for 2018 are based on average April-May production.

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The U.S. markets are the clear winners in this recently balanced market. The downturn in the oil industry over the last several years, while difficult, has created an industry in the U.S. that is stronger, smarter, and more capital efficient than ever before. As an example, let's look at a commonly quoted metric in the oil patch, the rig count. At its peak prior to the downturn, the oil rig count hit a high of 1,600 in October 2014. Today, rig count is 860, with oil production per rig increasing more than twofold during the interim. As a result, the U.S. has the ability to grow (i.e., increase production) efficiently to meet the growth in worldwide demand like never before.

## **Part 3: Show Me the Money**

The final component of the 50<sup>th</sup> floor elevator pitch relates to the capital markets. Growth in production requires capital and when an oil company, or the industry in general, is shrinking (as it did from 2014 to 2016), it is a net provider of capital. When a company or the industry is growing, it is a net consumer of capital, as first depletion (the natural run-off of reserves) needs to be replaced and then new production added. And when low-cost reserves are being replaced with higher-cost ones, the capital need is even greater.

To illustrate this, let's look at a big picture example of a scenario where the U.S. market grows by 1MMBbl/d. For simplicity, let's assume that each new well drilled costs \$7.5 MM to drill and complete and adds 250 Bbl/d of production in the first year. In order to grow U.S. production by 1MMBbl/d, we first need to offset depletion. If we assume a 10% depletion rate, that's an additional 1 MMBbl/d, so the math tells you that the U.S. would need 4,000 new wells.

4,000 wells X 250 Bbl/d per well = 1 MMBbl/d new production at a total cost of \$30 B

Then we need to grow by a million barrels, so again

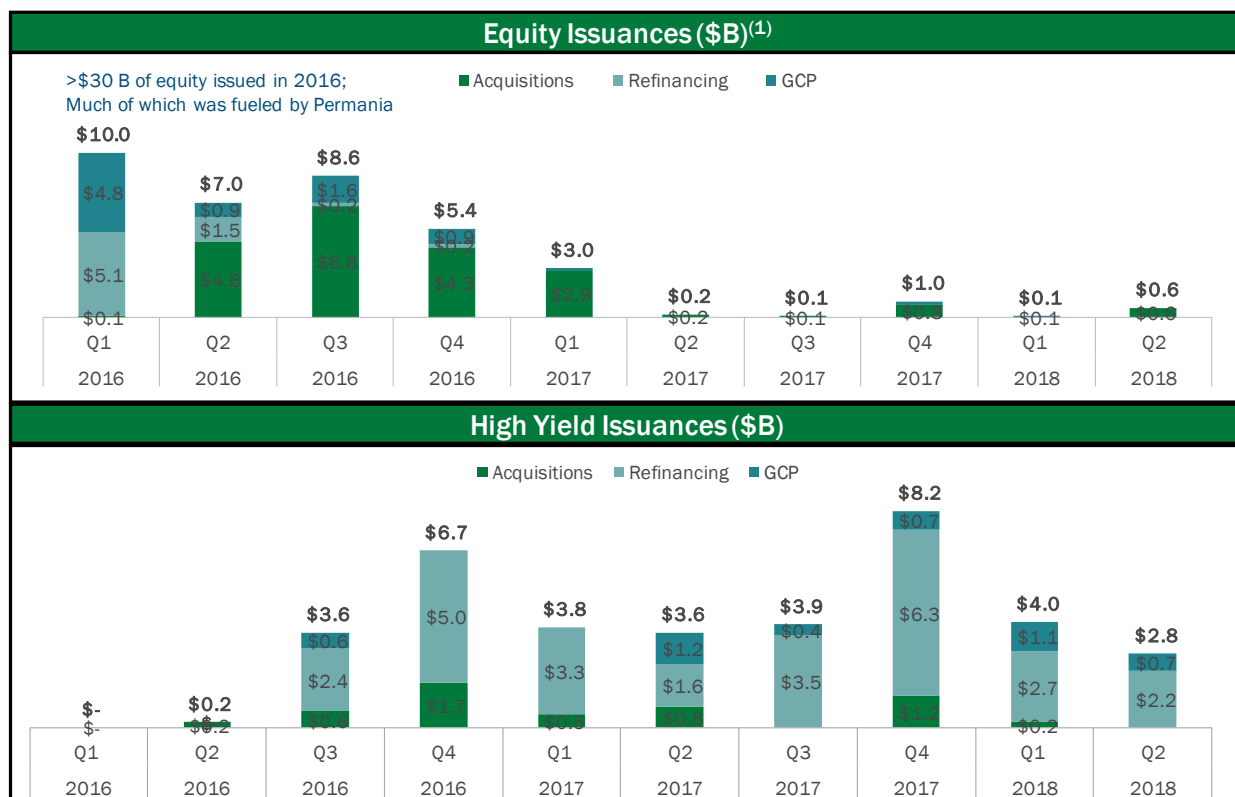
4,000 wells X 250 Bbl/d per well = 1 MMBbl/d at a total cost of \$30 B

In this example, the total cost of that operation is \$60 B. That's a lot of capital.

Historically, the vast majority of this funding has come from the public equity and debt capital markets. But today, these markets are not cooperating. In fact, the equity and debt markets, and the resulting capital available to energy companies, has been shrinking (see Exhibit 5).

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Exhibit 5



(1) Based on follow-on offerings' primary proceeds.  
Source: RBC Capital Markets. Reflects financing activity for US upstream companies.

So, at exactly the time when the public capital markets need to be funding the growth in production required by the global markets, capital is nowhere to be found.

To be fair, the equity capital markets for energy have not disappeared, but they have become a lot more disciplined in what they are looking for than in the past. Today, public market investors appear focused not on production growth (as in years past), but rather on traditional KPIs like earnings and margins, capital efficiency ratios, and the ability to dividend profits back to shareholders. Did someone say dividends in the oil market?

As an investor in energy generally, my reaction to this new discipline in the capital markets is “it’s about time.” I am asked all the time whether I fear that too much dry powder in the energy private equity industry will drive down returns. Not really. In our markets, it’s actually the public equity markets, and their inextricable link to the M&A and A&D markets, that drive asset prices to unattractive levels for the private markets.

## The 50th Floor

So for the avoidance of doubt, the elevator pitch is that just when the world oil markets are calling for production growth (Part 1) and the world is looking to U.S. companies to provide it (Part 2), the capital markets are not there to fund it (Part 3). *The opportunity for private equity in energy has never looked better.*

In fairness, I probably could have just said that and the investor on the third floor wouldn’t have missed the most attractive sector-level investment in today’s market. Oh well.

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## About Pine Brook

Pine Brook is an investment firm that manages more than \$6.0 billion of limited partner commitments. Pine Brook focuses on making "business building" investments, primarily in energy and financial services businesses. Pine Brook's team of investment professionals collectively has over 300 years of experience financing the growth of businesses with equity, working alongside talented entrepreneurs and experienced management teams to build businesses of scale without relying on acquisition leverage. For more information about Pine Brook, please visit the company's web site at [www.pinebrookpartners.com](http://www.pinebrookpartners.com).

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