National Oilwell Varco (NOV), the King of the Sea

Demand for NOV's highest dollar products is likely years away

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For information, please contact:

Erik Kobayashi-Solomon

+1 646 801.2464

Research by Brent Farler and Erik Kobayashi-Solomon

Key Takeaways

- This note analyzing NOV's competitive position in the present demand environment.
- **NOV's competitive position in offshore drilling equipment is unparalleled.** It's not known as "No Other Vendor" for nothing.
- **While offshore rig count is down 30% overall, demand for deep and ultra deepwater equipment has fallen more steeply and will likely take years to recover.**
- **Demand for consumables is likely near its nadir.** Strong bounce-back demand is possible for its onshore business with a rise in oil prices to the $50 / bbl. range but a rebound will not occur until rig counts stabilize. Every rig stacked becomes another source of spare parts for cash flow pressured drillers.
- **NOV is competitive in the unconventional drilling technology space, but this is a relatively smaller portion of its business and a very competitive marketspace.**

Introduction

Over the past few weeks, the IOI team has been digging into an analysis of oilfield equipment giant National Oilwell Varco (NOV). Rather than just saying "NOV's business will recover if and when oil prices rise again," we are attempting to sort out what capacity NOV will have to generate value for its owners even if oil prices continue to languish for an extended period. In essence, we are trying to find a "floor" for the value of the firm.

This has proven to be an elephantine task, due to the complexity of NOV's business and the fact that a substantial portion of its revenue growth over the last 10 years has come from its acquisition-fueled business model.

As we reiterate in IOI training courses, the most crucial part of the valuation analysis rests upon an assessment of the demand environment and how that environment translates into near-term revenue growth. This article discusses what we have learned in our analysis of the demand environment for NOV.

We look primarily at three factors:

1. Offshore Exposure
2. Strength in Consumables
3. Unconventional Drilling Technologies

National Oilwell Varco's Demand Environment

Born through a private-equity backed merger of National and Varco, National Oilwell Varco (NOV) kicked off a long series of tuck-in acquisitions that have made it the number one powerhouse in offshore oil drilling equipment. The last two years saw the firm increasing its acquisition of firms related to the North American Energy Boom, but its position in that business is not as dominant as its position in offshore drilling.

Offshore Exposure

NOV's management has stated that roughly 75% of its Rig Systems business is related to offshore drilling, and our own detailed study of equipment orders for offshore rigs presently under construction reveals that clients have specified NOV equipment to be installed in fully two-thirds or more of the rigs under construction.[1]

With an oversupply of 100+ rigs and a strong backlog of rigs expected to be delivered in 2016 demand for offshore rigs is collapsing. Offshore rig counts are likely to continue to fall further pressuring drillers.

Offshore drilling of deepwater fields has very high development costs, mainly due to the capital expenditures required to build, equip, and operate the sophisticated rigs used to explore and drill. Capital expenditures made by offshore drilling companies like Seadrill (SDRL) or Transocean (RIG) represent revenues for National Oilwell Varco, so the collapse of demand for new deepwater exploration projects and the attendant cuts in drillers' capital expenditures mean that an important demand driver for NOV's products will be soft. Note that deepwater rig equipment is some of NOV's most expensive products and carry the highest profit margins.

In the end, we don't expect a quick or robust recovery for this, the most lucrative portion of NOV's business, until oil prices recover sufficiently to provide positive returns on new projects. Our research indicates that many new deepwater projects require oil prices in the $60-$90+ / barrel (bbl.) range to start generating positive returns, and these prices would have to be sustained for some time before drillers would likely feel comfortable making the capital commitments to exploit them.

Shallow-water rig demand is strong in the Middle East, but represents only 30% of the market.

Offshore drilling in shallower depths using jackup rigs has remained robust in the Middle East. For example, the number of jackup rigs drilling in the Persian Gulf are at near all-time highs as Saudi Arabia moves offshore to pull up extra oil with which it is flooding the market. We think that NOV will continue to compete well in this segment, assuming that robust demand in key markets in the Middle East and Africa continues. Demand for jackup rigs overseas may provide some floor for demand for NOV's Rig Systems and Rig Aftermarket segments, but this represents only 30% of the current depressed market[2], revenue growth and profits at NOV are likely to continue to suffer.

Strength in Consumables

One of NOV's key advantages is the large installed base of 'rotating' and other consumable rig equipment, which wears out in proportion to the number of feet drilled by a rig. Demand for these consumable items should provide some floor for NOV's revenues, but only once short-term imbalances work through the system. These short-term imbalances relate to the present oversupply of drilling rigs.

The number of active rigs has fallen by more than half since the 2012 peak of 3,900 and presently hovers below 1,900. Fewer rigs drilling obviously means that less rotating equipment is being consumed. In addition, field reports suggest that drilling operators have been cannibalizing the 2,000 or so idled rigs for parts in order to conserve cash – especially in the case of land-based equipment. Every part that is cannibalized from an idled rig represents the short-term loss of an opportunity for revenue at NOV.

As the number of active rigs reaches equilibrium and as drilling operators run out of equipment to cannibalize from idled rigs, we can expect that NOV's maintenance and

[1] This figure may actually be somewhat understated as it does not include another 15% of rigs in which the drilling equipment supplier has not been released or specified. Little wonder that the industry nickname for NOV is "No Other Vendor."

[2] Baker Hughes rig count information excludes rigs operating in Iranian waters (Persian Gulf and Caspian Sea). We have adjusted these numbers based on maritime data that indicates 26 jackup/deepwater rigs are currently operating there.

repair driven business will improve. Note that this improvement is not contingent on an increase in rig count or oil prices, only that drillers continue to drill for oil and gas.

We see the potential for strong bounce-back demand as drillers are forced to buy equipment for cannibalized rigs.

When oil prices do recover, the rig cannibalization effect should reverse. Idled rigs will need new equipment in order to be brought back online, at which point NOV should see a strong surge in demand for its consumable and other equipment. The oil price recovery needed for a bounce-back in domestic land-based drilling is likely more modest (circa $50-$60 / bbl) than that required for a recovery of demand for deepwater rigs, thanks to technology-based gains in drilling efficiency.

Unconventional Drilling Technology

Low oil prices have also taken their toll on land-based shale drilling, but the industry has responded with cost-cutting and higher productivity.

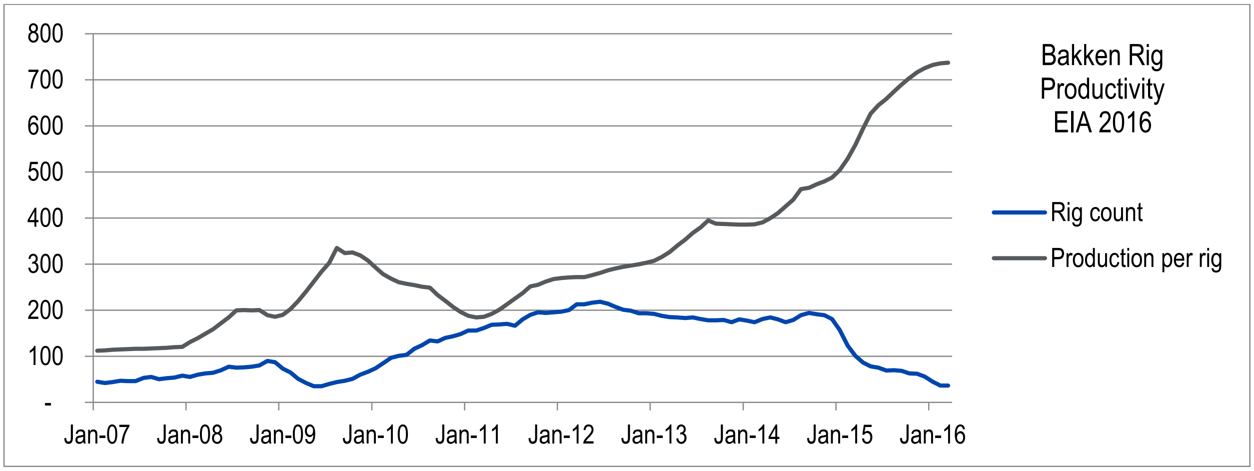

Figure 1. Source: EIA

Drilling efficiency improvements are especially critical to exploiting "unconventional" deposits such as those that have led to a resurgence in North American oil production.

Pad drilling, AC Motors, [Smart drilling technology](#) using sophisticated sensors in the way holes are drilled, and the like give operators real-time speed and directional control and increase rig productivity. NOV boasts they have drilled a 10,000-foot lateral[3] in 4.5 days at their test site in Texas. Flexible pipe and sophisticated downhole technology increase the control and effectiveness of completion operations increasing yield and initial production rates. These improvements bode well for suppliers who are able to provide integrated solutions that reduce well cost and boost initial production rates.

NOV needs to beef up its well completion offerings.

While NOV offers competitive products and services for shale drilling, this portion of the firm's business is smaller compared to its offshore offering, and the shale industry is very competitive. As such, a revenue boost from this segment will have proportionally less effect on the firm's overall revenue growth, and profitability tends to be lower as well.

Overall Position

National Oilwell Varco's position in deepwater offshore equipment served its shareholders well in an era of sustained high oil prices, but this specialty is likely the last part of the value chain that will recover. Deepwater wells that are already producing oil will continue to require equipment servicing and new consumable equipment; this demand will provide some base levels of revenue to NOV, as will demand for shallow-water equipment.

Its business in consumables offers a fairly dependable annuity once supply / demand imbalances in rigs stabilize, and the potential for a strong rebound if and when oil prices

[3] "Lateral" is a well that runs parallel to the land surface, rather than perpendicular to it. Laterals are used extensively in fracking production.

climb. NOV's expertise in land based unconventional drilling equipment offers potential revenue growth in the future – especially assuming somewhat higher oil prices – but this is a smaller part of the company's business and we think it may need to beef up its offerings and / or acquire competitors before this segment becomes a significant force in the marketplace.

We have finished a lot of the hard work in analyzing National Oilwell Varco's demand environment. The next step for IOI is to translate these insights into short-term best- and worst-case revenue growth scenarios, understand the firm's leverage dynamics to get a sense for likely profitability, and make assumptions regarding medium-term growth rates. We will publish this research shortly.