November 2017

ENERCOM®

Energy Industry Data & Trends

OIL & GAS STEADIES CAPEX HAND

For the first time in several years, the oil and gas industry is messaging strength and positivity as the year comes to a close. WTI and Brent are stabilizing in a range in which companies can generate modest returns and operators are discussing ways to return capital to shareholders in their quarterly conference calls.

As margins improve, management teams focusing on returning capital to shareholders as margins improve is a sign that that they are not looking to chase production growth if they cannot do so in a fiscally responsible manner. Announced and estimated capital expenditure budgets for next year indicate that companies are beginning to let off the gas in terms of production growth, but on average E&P companies are still projecting average production growth in 2018 similar to what they have reported so far this year.

For 2017, the average estimated production growth for companies in our database is 24%, while 2018 guidance and analyst predictions place average production growth for next year at 23%. This growth is coming with an associated increase in spending, too. Guidance and analyst predictions put the median E&P CapEx budget at $530 million for 2018, 6% more than last year.

Markets appear to be rewarding companies for increased capital discipline, and management teams are addressing concerns of responsible growth in their conference calls. While the absolute numbers associated with CapEx and production guidance for next year indicate there is a disconnect between words and actions, most E&P companies are focusing on continued efficiency and growth at a slower rate based on our analysis in this report.

In this Report – KEY SUMMARY POINTS:

- E&P company CapEx spending will continue to grow in 2018, but at a slower pace with approximately half of the companies in our analysis increasing CapEx, but by a smaller percentage than they did from 2016 to 2017.
- Approximately 28% of E&P companies are both lowering CapEx and increasing production from 2017 levels next year as the sector continues to reap the benefits of greater efficiencies.
- Spending in the Permian is accelerating year-over-year to a greater degree than elsewhere in the U.S., but even in the “hottest” play in the country E&P companies are pulling back on the throttle.
- Canadian companies are more likely to increase production and lower CapEx in 2018 than their U.S. peers.
- E&P return on invested capital dropped with oil prices, but is quickly rebounding toward metrics last seen at $100 oil.
- Oilfield service spending is expected to decrease globally, but the U.S. continues to generate increased demand with U.S. onshore majors anticipating an approximate 23% increase in CapEx in 2018.
- Companies have heeded investors’ call for greater capital discipline, but approximately 10% of E&P companies continue to be incentivized to grow without restraint - and do so - despite a trend toward greater capital discipline.

CAPEX BUDGET GROWTH IS SLOWING

Looking at 2018 CapEx, large budgets such as ConocoPhillips', Pioneer Natural Resources' and Canadian Natural Resources' skew the average slightly higher to 6%, but the median also indicates companies plan to spend 4% more next year than they did in 2017. The median budget for 2018 is expected to reach $529.9 million, up from $512.0 million in 2017, and while this represents another year of higher CapEx spending, the rate at which budgets are growing is slowing as oil prices normalize.

Oil prices maintained a slow slog upward during 2016 from a low of $26.21 in February that continued into the second half of the year when companies announced 2017 budgets. Median CapEx spending increased 71% year-over-year from 2016 to 2017 as companies reaped the rewards of greater efficiencies and higher prices. WTI prices increased 30% over the course of 2016 and was expected to go higher giving companies confidence that they could spend more and see returns. As of writing this report, WTI is trading between $50 and $60 and there is less expectation of future upsides for companies to capture through increased spending.

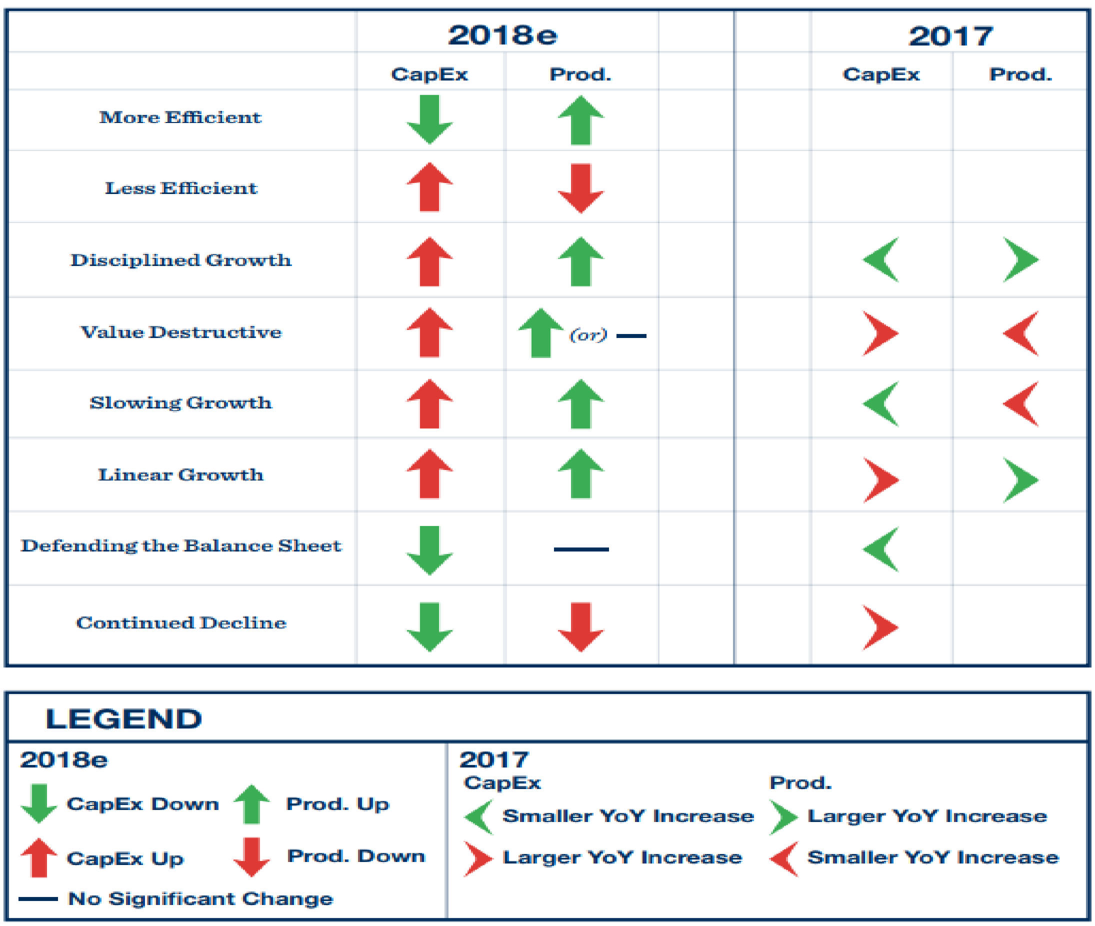
Companies also expect production growth in 2018, with median predicted growth of 17%. This represents accelerating production growth, growing 6% more than from 2016 to 2017. This acceleration will be achieved despite slowing CapEx growth. As we discuss below, this will put an increasing strain on oilfield service companies to complete deferred maintenance and build new fleets and create upward pricing pressure.

COMPANIES ARE BECOMING MORE DICIPLINED WITH THEIR CAPEX BUDGETS

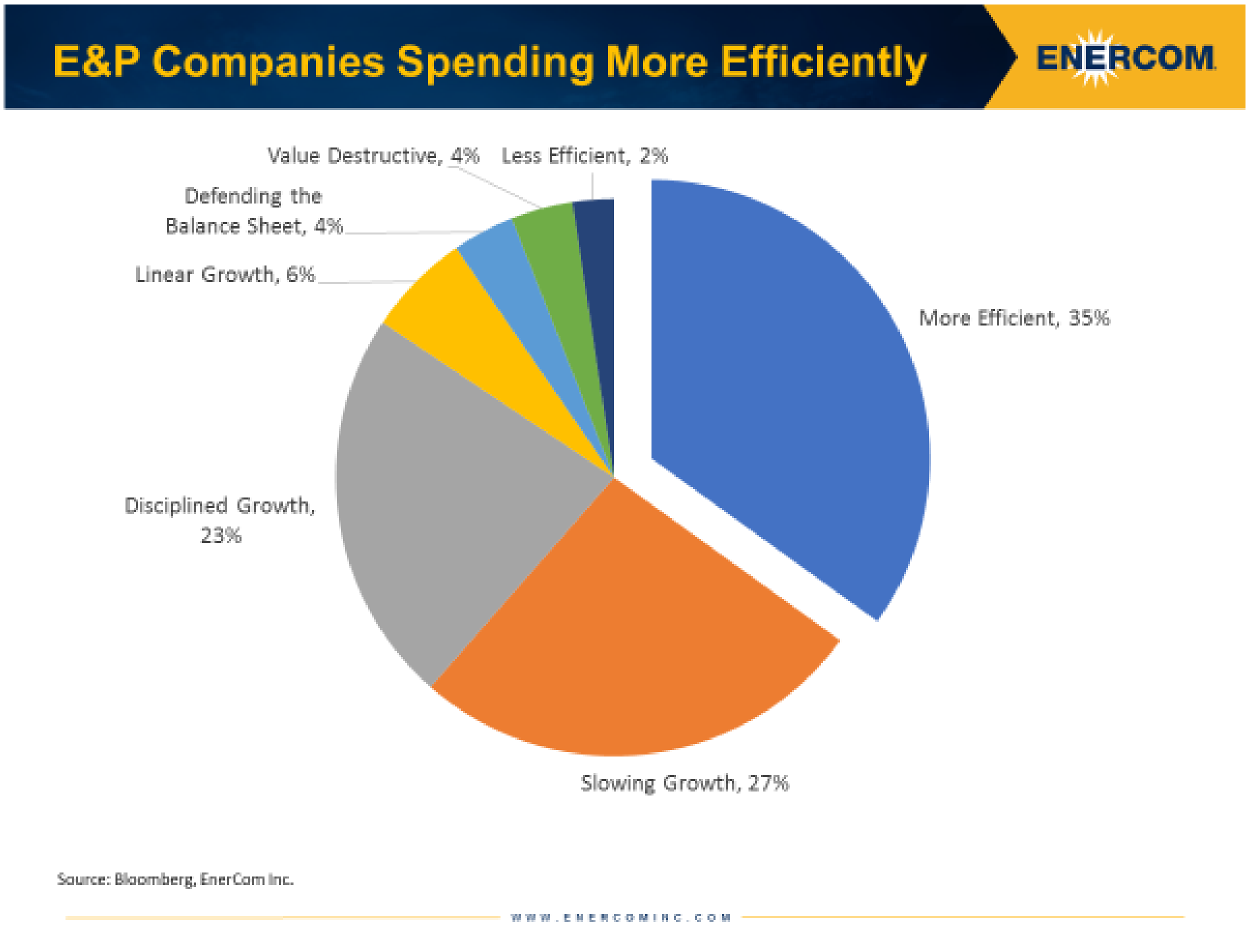
Efficiencies have been the primary focus of the oil and gas industry amid lower oil prices and companies' efforts are bearing fruit. In 2017, the median capital budget was $512.0 million which in turn translated into median production growth of 11% for an E&P company. Said differently, for every hundred-million dollars spent companies increased production 2.1%. Based on 2018 guidance, companies anticipate spending a median of $529.9 million for production growth of 17% or 3.2% growth per hundred-million dollars spent.

Every dollar put to work by companies next year is expected to result in more relative production than it did in 2017 based on the median CapEx and production growth estimates, but for this analysis we sought out a way to better understand the strategy behind how companies plan to deploy that capital. We examined 2017 CapEx and production against 2018 estimates for 97 U.S. and Canadian E&P companies in EnerCom's database and placed companies into one of eight groups depending on how their CapEx and production are changing year-over-year. Companies that are spending less and expecting more production year-over-year fell into a "more efficient" category, while those that were increasing spending and production year-over-year were categorized into various groups depending on whether the percentage of their spending and production increased, decreased or remained flat (plus or minus 2%) from 2017.

EnerCom Analysis Groupings
Based on 2018e CapEx



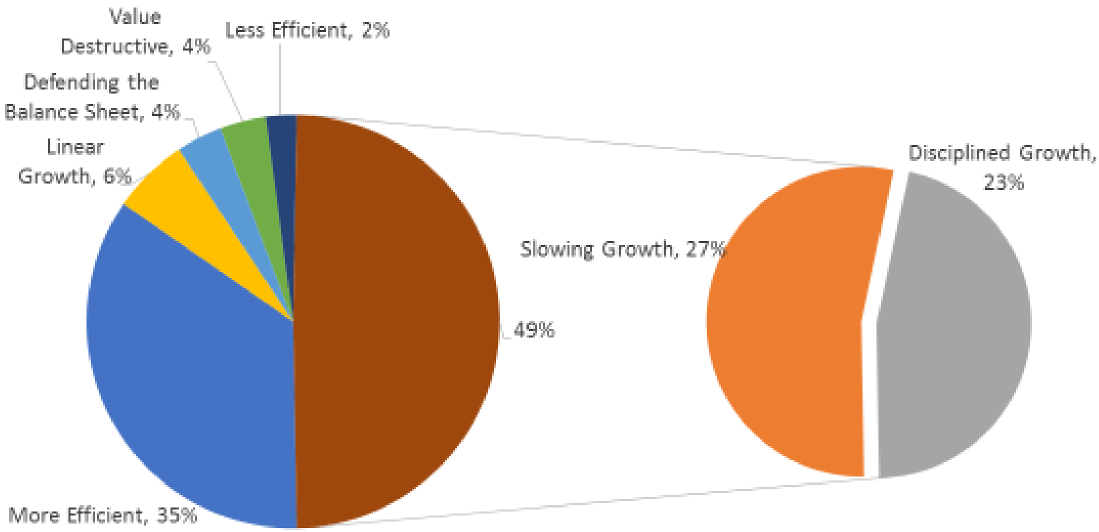
Of the 97 companies in our analysis, 27 of them plan to decrease CapEx from 2017 and increase production year-over-year. These companies are finding ways to do more with less and benefiting from improvements in drilling and completions.



These high-efficiency companies made up 35% of the overall total, but the largest group was made up of companies which are slowing the overall growth of capital spending. Forty-one companies (49%) expect to increase their CapEx budget and production from 2017 to 2018, but the percent increase in spending is smaller than it was from 2016 to 2017. This group is made up of companies in both the disciplined growth and slowing growth groups.

E&P Companies Slowing Capital Growth in 2018

ENERCOM



Source: Bloomberg, EnerCom Inc.

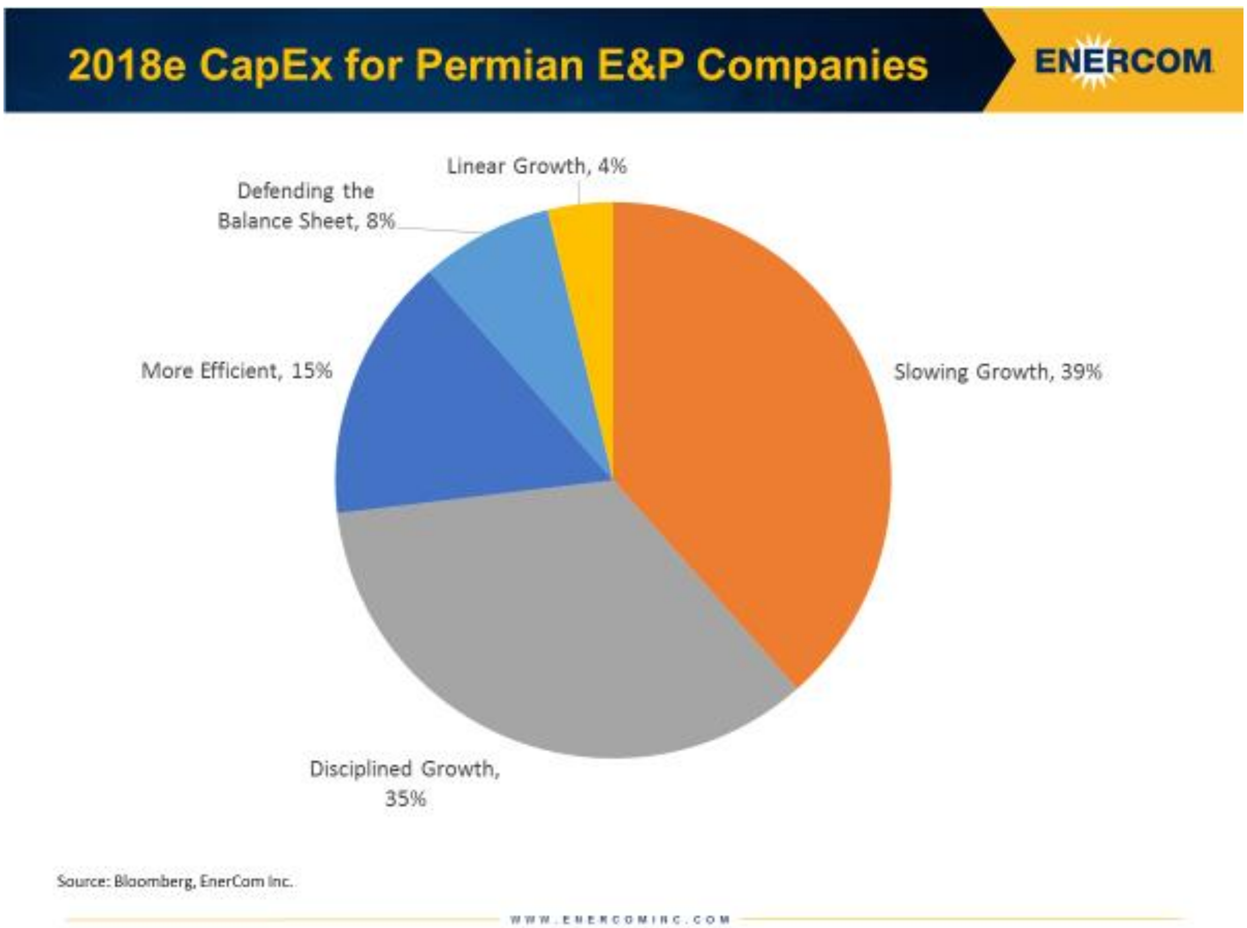
WWW.ENERCOMINC.COM

The remaining companies fell into a variety of buckets including those which are defending the balance sheet by reducing spending and keeping production flat, those that are less efficient year-over-year with greater CapEx spending and declining production, and a handful of companies which were increasing spending by a larger percentage year-over-year to fund a smaller percentage of growth.

PERMIAN PLAYERS STARTING TO SLOW DOWN

The Permian has been the primary target for most of the capital deployed in the last year as capital markets put dollars to work in plays showing the strongest returns. Permian players such as Jagged Peak Energy, RSP Permian, WPX Energy, Resolute Energy, and Diamondback Energy averaged CapEx increases from 2016 to 2017 of 119% compared to an E&P group average of 102% as companies looked to ramp up activity in the hottest basin in the country.

That same group is expected to increase CapEx by 45% in 2018, still higher than the average of 6%, but significantly less than the year before. Of the Permian names included in our analysis, 73% were either slowing growth (expected to increase CapEx and production in 2018, but by a smaller percentage than they did in 2017) or were expected to grow with more capital discipline (increases to both CapEx and production anticipated for 2018, but a smaller percentage increase in CapEx compared to 2017 with a larger percentage increase in production for the year). The next largest group of Permian players after those slowing growth and those spending with more discipline, which made up 39% and 35% of the total respectively, were those with more efficient operations (lowering CapEx from 2017 to 2018 with an expected increase in production), which accounted for 15% of the total.

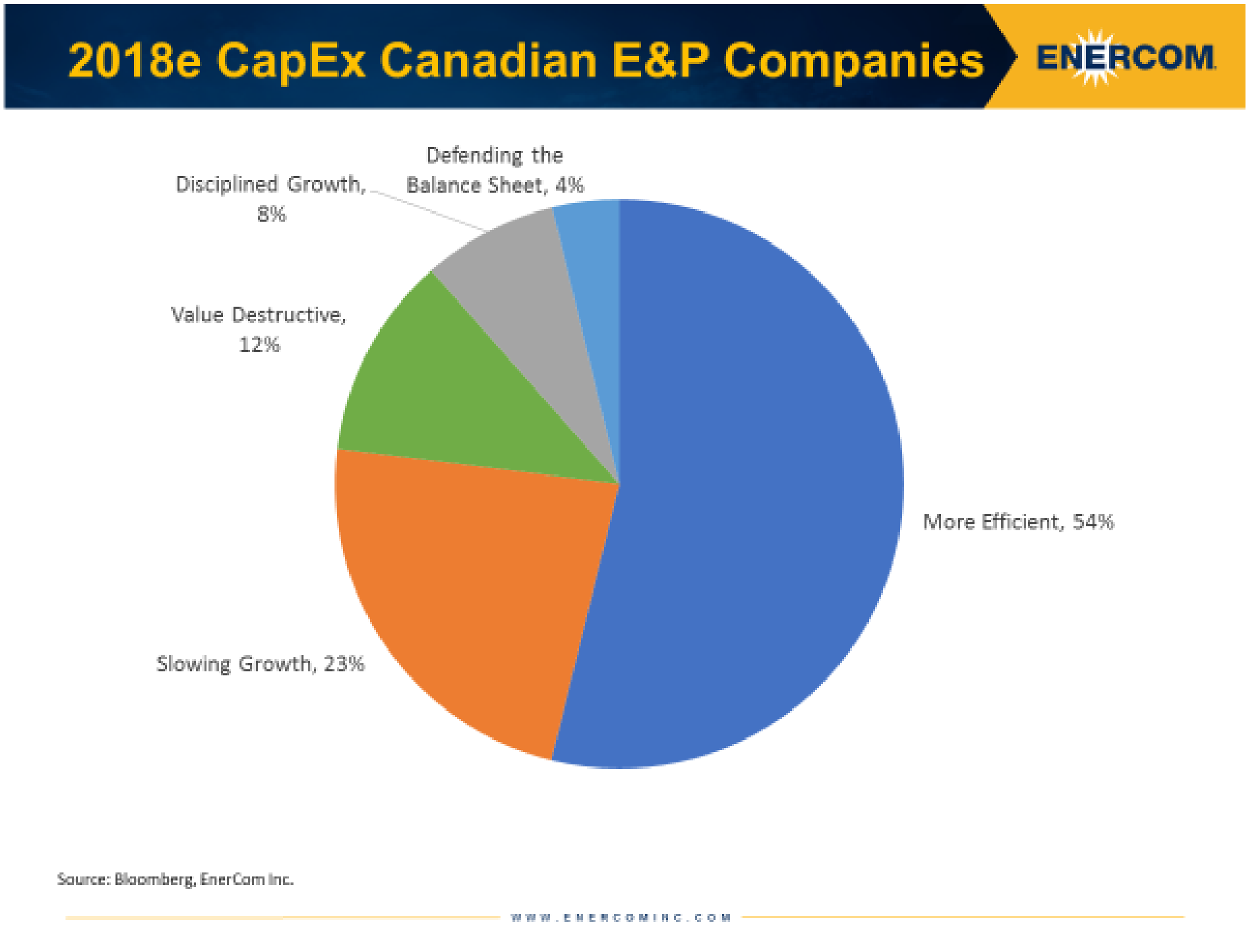


Companies in the Permian are slowing down production growth in greater numbers than companies in the wider E&P dataset as well. Looking at the full group, just 27% are increasing year-over-year CapEx and production in 2018, but at a slower rate for both than they did from 2016 to 2017. Interestingly, 35% of the total E&P group was improving efficiencies to the point that they could lower CapEx year-over-year and still increase production, more than twice as many as the Permian group in terms of percentage.

The strong preference in the market for Permian names helps to explain why relatively few of the companies in the play are lowering CapEx spending. Investors put 38% of all IPO and follow-on deal dollars into the play as the industry looked for places it could still realize economic returns in a low oil price environment and the Permian delivered. Now that prices are improving and companies explore new zones in the play such as the Woodford and 2nd Bone Spring, operators continue to increase spending, albeit at a slower pace than they did moving from 2016 to 2017.

CANADIAN COMPANIES REALIZING EFFICIENCES

Our North American E&P database is made up approximately of two-thirds U.S. companies and one-third Canadian, but our analysis found that a disproportionately large amount of Canadian companies fall into the group of higher-efficiency producers which are lowering CapEx and increasing production year-over-year. Despite making up just one-third of our total E&P database, 48% of the companies lowering CapEx and increasing production are Canadian.

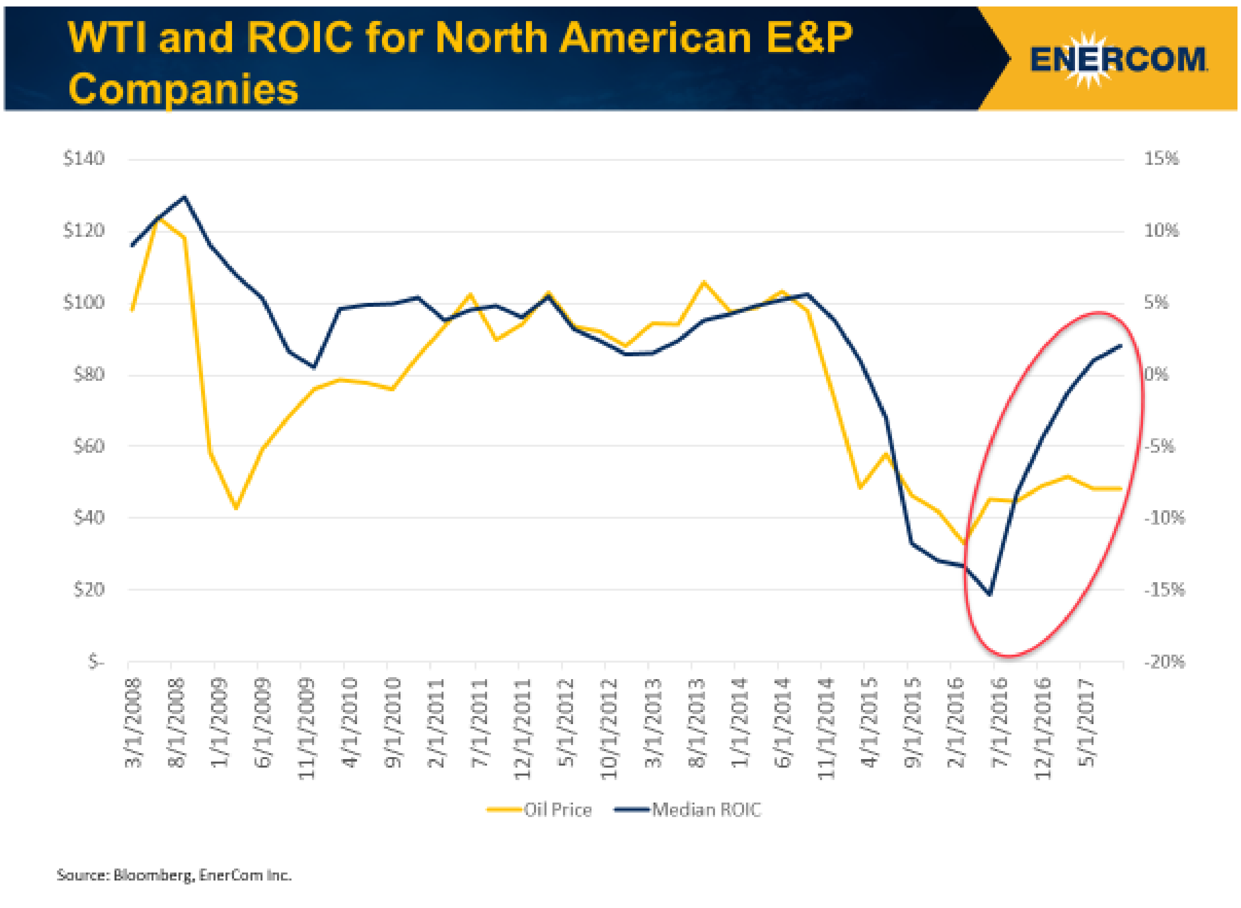


We heard from the buy-side following our August 2017 conference that Canadian investors were faster to place expectations of capital disciplines on Canadian E&P companies, and it seems this is beginning to show itself in CapEx budgets. Examining just the Canadian companies, 54% of them are reducing CapEx in 2018 while increasing production year-over-year. The next-largest group of Canadian companies are those that plan to grow through a larger CapEx budget, but are growing more slowly and increasing their budget by a smaller percentage year-over-year which made up 23% of Canadian companies.

ROIC METRICS DROPPED BUT ARE RETURNING TO LEVELS LAST SEEN AT $100 OIL

Operators have pointed to improved efficiencies throughout the downturn as they look to thrive in a lower price environment. EnerCom analyzed return on invested capital (ROIC) for the third quarter of 2017 compared to the third quarter of 2014 and found the median ROIC is down 72% from three years ago. In the third quarter of 2014, the median E&P ROIC was 6%. Fast-forward three years and that number dropped to 2%.

It is unsurprising that ROIC's dropped in that timeframe, given the fall in commodity prices. WTI averaged $97.24 per barrel in the three months ended September 30, 2014, and $48.03 for the same quarter of 2017. The fall in commodity prices compressed margins and made it difficult for companies to operate as profitably as they had three years ago.



ROIC has historically followed oil prices closely, but there has been a significant disconnect since mid-2016. Oil prices have risen somewhat since then, but ROIC has jumped from -15% to 2%, reflecting improved efficiencies, as companies' adaptations to low commodity prices bear fruit. E&P companies have not returned to the 5% ROICs seen at $100 oil, but returns appear to have decoupled from oil prices as companies strive to improve.

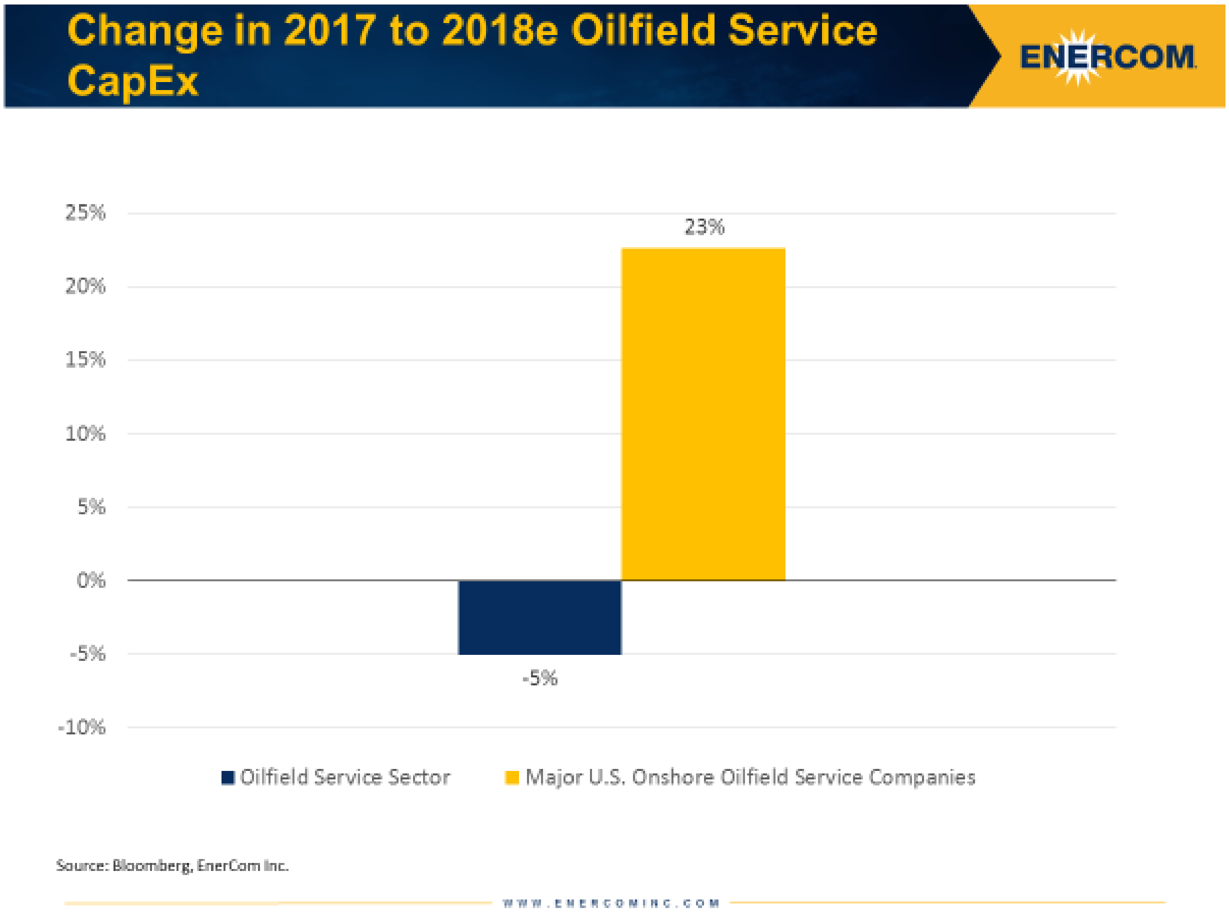
OILFIELD SERVICE SPENDING EXPECTED TO DECLINE BUT US ONSHORE CONTINUES TO GROW

On the oilfield service side of the equation, spending is expected to decline overall. CapEx spending for the service sector is projected to decline 5% from about $25.2 billion to $23.9 billion year-over-year. The story of the overall oilfield service sector is misleading, however.

Companies with major U.S. onshore oilfield operations are planning to increase spending to the tune of 23% year-over-year in 2018. Schlumberger, Halliburton, Baker Hughes, Weatherford International and National Oilwell Varco collectively spent $4.6 billion in CapEx during 2017, and are expected to increase their spend to $5.6 billion next year. Baker Hughes alone is expected to increase CapEx 40% year-over-year.

During Haliburton's third-quarter call, company CEO and Director Jeffery Allen Miller indicated that maintenance costs are on the rise as completion intensity increases and oilfield service companies continue to put off refurbishing fleets. Higher-intensity completions are also increasing the overall maintenance cost associated with active equipment, he said.

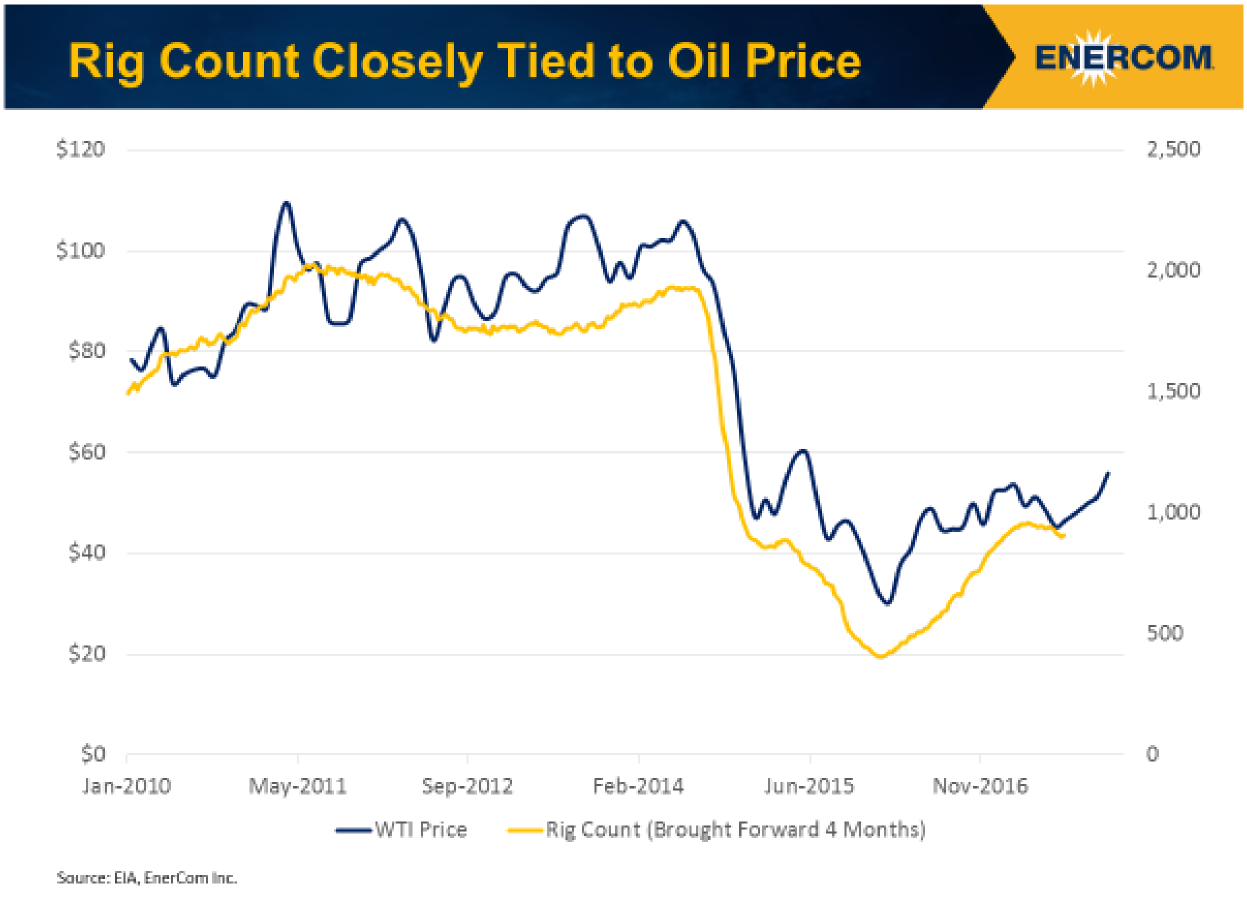
"I believe deferred maintenance is happening throughout the industry," said Miller. "A proxy for deferred maintenance and the simplest place to see it is in the industry horsepower creeping crew size. And while Halliburton continues to operate with an average fleet size of 36,000 horsepower per crew and have for the last several years, the rest of the industry is now averaging closer to 45,000 horsepower per crew. Deferred maintenance is creating this equipment redundancy on location."



Miller also explained that the market is currently undersupplied and will need new completions equipment. “As a result, there will be a greater call for new equipment just to replace the active equipment that’s being worn out more quickly,” he said.

The need for new equipment and the increasing speed at which active equipment needs maintenance will require more capital from the oilfield service sector. The E&P sector leaned heavily on the service side throughout the downturn and service companies will need to increase spending to match the industry’s needs. To generate the new capital needed to keep pace with E&P companies the service industry will need to increase pricing so it can afford to build new fleets and conduct deferred maintenance on its existing equipment.

The EIA estimates rig counts follow oil prices on a four-month delay based off the information it collects. WTI prices dropped from the beginning of the year until June when the price averaged $45.18, but they have increased every month since mid-year. This indicates that rig counts will likely climb higher through the end of this year and into the first quarter of next year.



Larger CapEx budgets for the major U.S. onshore oilfield service companies points to an expectation of more activity on their end to match production growth expectations from the E&P sector. Already operators are running into issues getting experienced completion crews to their wellsites, with companies such as Jagged Peak indicating during its Q3 call that its contracted crews are being completely utilized. Jagged Peak said it believes turning to less-experienced spot crews could increase costs by $1 million per well, which has prompted the company to add a third contracted crew next year.

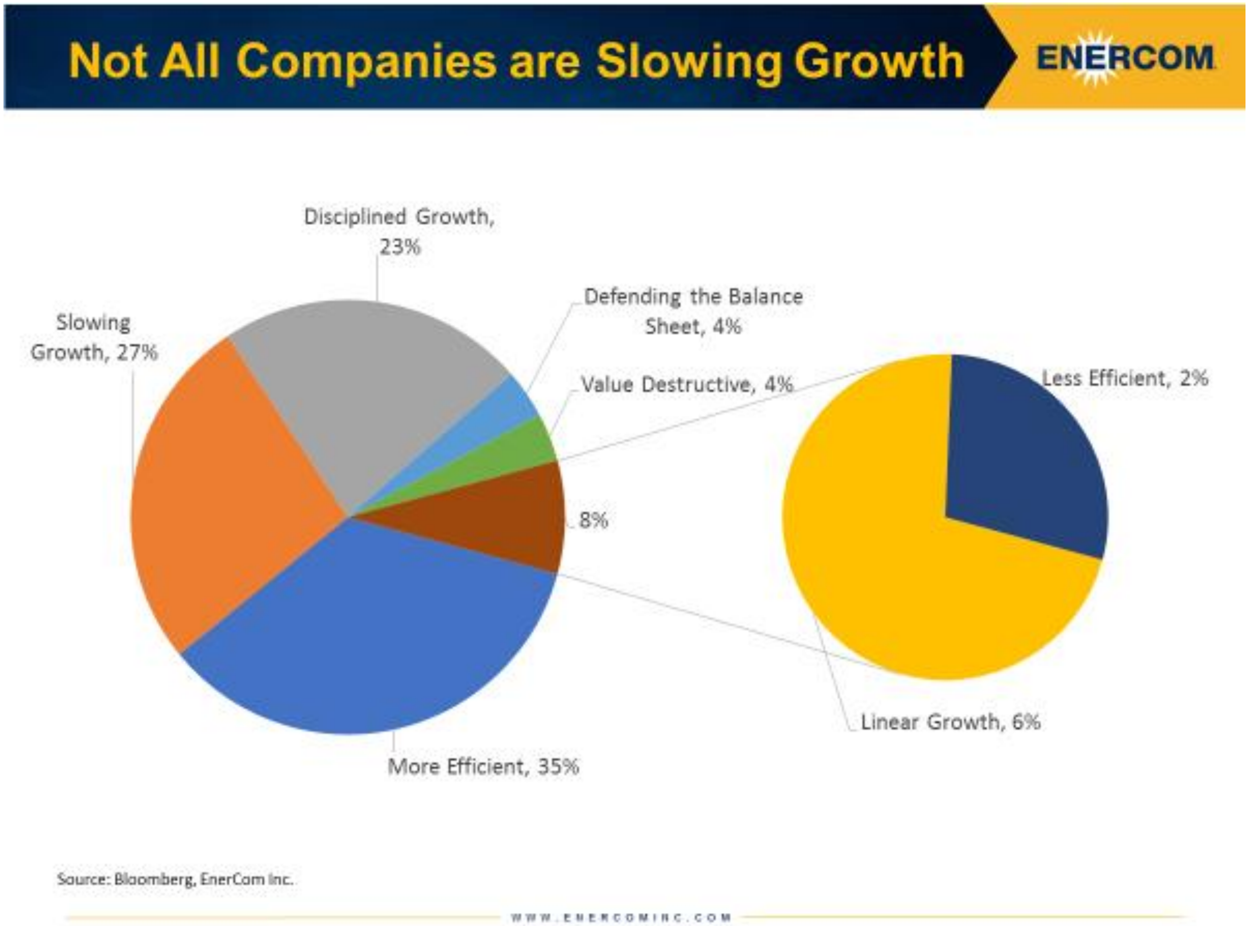
Less-experienced crews will translate into longer completions and reduce some of the efficiencies companies have generated in the last three years. Service industry executives have indicated to us that they are already beginning to increase costs to E&P companies, and the increased need for more crews along with upward price pressure from the oilfield service sector could see E&P margins thinned next year.

Some service companies are finding creative ways to help their clients keep costs low and still meet their need for more completions horsepower. An oilfield service company told us one of their E&P partners agreed to help pay for the construction of a new fleet in exchange for exclusive use of the new equipment.

MONEY TALKS AND THE INDUSTRY LISTENED (MOSTLY)

Investors continue to put a premium on companies that can grow, but as we saw in our January report, there has been an increasing focus on debt-adjusted numbers. This analysis has been validated by conversations we have with the buy-side, which is looking at companies on a full-cycle basis more frequently. Growth for the sake of growth will not attract investors in the current oil price environment, and the industry appears to be listening to voices asking for responsible growth.

Of the companies included in our analysis of 2018 CapEx, 61% plan to spend more than they did in 2017, but most of them are increasing spending by a smaller percentage of the previous year's CapEx budget than they did in 2017. Companies planning to accelerate CapEx growth from 2017 made up 10% of the total group which means 51% of the total E&P group does plan to increase spending, but at a slower pace than before.



That begs a question about the 10% increasing CapEx spending by a larger percentage than in 2017 though: why? Investors are asking for a steadier hand in production growth with lower leverage metrics, and companies are taking note with executives at major E&P companies such as Cabot Oil & Gas saying they will not pursue production if it becomes “value destructive,” and yet there is still a group that appears to be doing just that.

In the case of those ramping up CapEx spending further in 2018 despite smaller expected increases in production year-over-year, it appears the answer is project type. The companies we examined were primarily large oilsands producers which incur heavy costs for long-life assets similar to a mining company.

The rest of that 10% slice of the pie were companies which are projecting linear growth in both CapEx and production year-over-year. In most cases, those companies had either recently completed restructuring after coming out of bankruptcy or had management teams which are being incentivized to grow production. The proxy statements for companies in this group often included bonus structures for senior management which rewarded absolute production and reserves growth.

Even as a tenth of the industry continues to grow without the same level of concern for spending and efficiencies as the rest of the industry, most E&P companies have heeded investors and started focusing on responsible growth. An impressive 35% of E&P companies in our analysis plan to increase production from 2017 while spending less than they did last year, and many other companies are working toward a similar goal by driving efficiencies further. These efficiencies have already seen returns on invested capital approach levels not seen since $100 oil even as WTI remains between $50 and $60 per barrel.

Greater demand for oilfield services will create upward pressure on pricing and stymie some of those improving returns metrics, but this is not a negative in our view. A strong service sector is necessary for the overall health of the industry and companies will continue to look for innovative ways to improve returns.

OIL AND GAS COMPANIES ARE FINDING A SWEET SPOT

E&P companies seem to feel they are beginning to find their CapEx sweet spot. From 2016 to 2017 budgets increased at a median rate of 71% compared to 4% in 2018. Production is expected to increase by a larger percentage year-over-year, but companies are acting with a more measured hand based on the analysis in this report.

Had companies decided to increase CapEx at a similar rate in 2018 as they did in 2017, they could have realized an even larger increase in production and touted the benefits of the efficiencies the industry has worked so hard to achieve over the last three years. Instead, they have pulled back the throttle on spending and are deploying their capital more carefully. This marks a meaningful change in mindset inside the industry as growth takes a back seat to capital discipline.

During ConocoPhillips' third quarter earnings call, the company was asked why it does not plan to return more capital to shareholders. "Why wouldn't you grow less, buy back more, and sell assets that may not be optimized at your current pace and really maintain that complete differentiation versus E&P peers," an analyst asked during the call.

Conoco EVP of Strategy, Exploration and Technology Matt Fox replied that there are always voices on either side of the fence calling for more production or more capital distributed back to investors, but that the company felt it had found the right balance and planned to maintain it.

“I think that, for everybody that asks us that question, suggesting [that we] keep [our] production flat and distribute everything to shareholders, somebody [else] is saying well you guys have got a great portfolio, you should be putting more in the ground,” explained Fox. “Our view of that is that we think we found the right balance between those two things. We've tested a whole lot of alternatives, what we think we found here is a sweet spot that balances those two things.”

EnerCom believe this mindset will add a degree of certainty to markets and help to stabilize prices. There are always unknowns that could create new volatility in oil prices, but 2018 CapEx estimates are an indication that companies do not plan spend and grow as much as possible. Companies are being more mindful about how they put their capital to work and companies such as ConocoPhillips believe they are finding the right balance of growth and returns. If these trends on spending and returns remain consistent, it will lend more certainty to markets and help remove volatility from oil prices.

Increasing service costs may put a damper on improving E&P margins, but oilfield service companies will need to put new equipment to work, and service active equipment, in to continue providing the improved completions that have allowed the E&P sector to thrive in a sub-$100 oil price environment. We expect that the conversation around increasing service costs will become more prominent by the end of Q1 2018 as rig counts play catch-up with prices, but ultimately the industry will find ways to continue increasing returns on capital much the way it has since Q3 2016 when ROIC metrics disconnected from oil price.

A WORD OF THANKS

Thank you again for putting your trust in **ENERCOM**. Please do not hesitate to contact us with questions or additional needs. And, remember that you can get frequent updates and analysis on **Oil & Gas 360®** at **www.OAG360.com**