2017 oil and gas industry executive survey
Trends show a pause in industry confidence
The overall industry has become more cautious once again.

Cautious optimism continues, but the pendulum is swinging back toward more caution than optimism. This is reflected across the whole industry.

How will oil and gas executives steer a course through continuing uncertainty?
Prices
Since last year, oil and gas price expectations have softened.

Oil
The anticipated price recovery is turning out to be a longer wait than expected.

Last year, 55% thought 2017 oil prices would top $60. This year? Only 2%.

A clear majority see oil prices staying between $40 and $50 in 2017 (64%) and 2018.

65% say WTI could top $60 in 2020, although 39% see that falling in the $60-70 range.

Gas
Are low and stable US gas prices here to stay? Executives seem to believe so.

Almost half of respondents see Henry Hub prices remaining range-bound between $2.50 and $3.00 in 2017 compared to less than 40% last year.

By 2020, a similar number in both the 2016 and 2017 surveys see gas prices topping $3.
Capex
Capital spend across the industry is expected to slow.

<table>
<thead>
<tr>
<th></th>
<th>Upstream</th>
<th>Midstream</th>
<th>Downstream</th>
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<tbody>
<tr>
<td>2016 survey</td>
<td>43% expected a boost</td>
<td>41% expected a boost</td>
<td>33% expected a boost</td>
</tr>
<tr>
<td>2017 survey</td>
<td>51% expect a decline</td>
<td>56% expect a decline</td>
<td>45% expect a decline</td>
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Could this be the beginning of a new world of capital discipline?
Industry caution still leaves M&A activity in a holding pattern.

Energy sector with most M&A potential

- Oilfield services: 24%
- Upstream E&P: 19%
- IOCs: 17%
- Midstream: 13%
- Downstream: 7%
- Don't know: 20%

Oilfield services has been the sector hardest hit by the extended downturn. Perhaps that’s why it is still seen as the leading sector for ongoing M&A.

Downstream has been the best-performing sector—so it is seen as the least likely to bring a wave of new deals. Higher performing companies have less incentive to pursue consolidation.
Perhaps unusually, broader economic expectations seem to be a lesser factor in current industry confidence.

Just under 50% of respondents think US and global economic growth is anchored in the 1-2% range. The next highest group of respondents expect 3-4% growth, in both the US and globally.

While there has not been much change, this confirms a widespread view that economic growth has stalled, relative to past periods of expansion.

If this is the new normal, where will companies look for growth opportunities?

<table>
<thead>
<tr>
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<th>US</th>
<th>Global</th>
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<tbody>
<tr>
<td>Average annual GDP growth since 1960</td>
<td>3.1%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Best decade (1960s)</td>
<td>4.5%</td>
<td>5.4%</td>
</tr>
<tr>
<td>GDP growth expectation of 1-2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016 survey</td>
<td>45%</td>
<td>42%</td>
</tr>
<tr>
<td>2017 survey</td>
<td>49%</td>
<td>47%</td>
</tr>
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Which sector appears the most confident?
Capital spending might be the strongest clue.

Based on capital expenditure expectations, the **downstream** sector still has the least negative outlook. **Midstream** seems the most pessimistic this year with upstream not far behind.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Confidence score*</th>
<th>2016 survey</th>
<th>2017 survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream</td>
<td></td>
<td>+20</td>
<td>-33</td>
</tr>
<tr>
<td>Midstream</td>
<td></td>
<td>+10</td>
<td>-42</td>
</tr>
<tr>
<td>Downstream</td>
<td></td>
<td>+3</td>
<td>-23</td>
</tr>
</tbody>
</table>

*Confidence score: Percent of respondents who expect an increase in capital expenditure minus percent who expect a reduction.

**What will it take** to get the industry moving again?
Upstream
Headcount

2015 and early 2016 saw sharp declines in employment. After recent stability, is headcount attrition over?

Job losses in the upstream sector have been severe since the downturn began in mid-2014.

The strongest response indicates another year of layoffs.

As the sector becomes digitally mature, sophisticated technology could help fill in some of the talent gap.

Expected changes in headcount in 2018

- Expect increase: 20%
- Expect no change: 36%
- Expect reduction: 41%
Costs

With more uncertainty, cost control is still critical.

What factors are mostly likely to influence upstream cost structures in 2018?

- **Supply chain**
  - Service and supply costs – 44%
  - Supply chain innovation – 28%

- **Headcount**
  - Reduction – 17%

- **Debt service and finance costs** – 25%

- **Strategic moves**
  - Elimination of activities – 29%
  - Portfolio actions – 25%

- **Performance enhancement**
  - Increased well productivity – 42%
  - Digital technology – 31%

Producers have already gone a long way to secure lower cost service agreements.

Layoffs have already achieved cost reduction benefits.
Rigs

Rig deployment expectations are another indicator of caution.

The mood of uncertainty shows up again in views of rig deployment in 2018. Over half expect the number of rigs to decline.

However, 60% expect this reduction to keep the US rig count within the range of 750-1000 rigs.

This is consistent with the 2018 outlook on capital expenditure.

Expected changes in rig deployment in 2018

- Expect increase: 58%
- Expect no change: 24%
- Expect reduction: 15%
The upstream sector is more likely to be exposed to business environment risks.

Issues that will most likely affect upstream companies

- **44%** Changes in US tax policy and regulation
- **42%** OPEC production decisions
- **40%** Environmental and/or local stakeholder issues
- **34%** Opening of access to new US federal lands, offshore or onshore
- **34%** Supply disruptions in the Middle East and North Africa
- **25%** Mexico opening to investment
- **17%** Continued Russian economic sanctions

Is uncertainty about their direction, either positive or negative, contributing to the slow pace of the recovery?

When will OPEC’s production cuts help rebalance the market?

Can new digital technology substantially improve environmental performance and the footprint of the industry?
Near-term strategic priorities are all responding to the slow pace of the recovery.

Top upstream priorities for strategic focus in 2017 and 2018

- **42%** Maintaining or increasing current production levels
- **29%** Reducing or streamlining G&A costs
- **26%** Reducing total capital expenditures
- **24%** Reaching or maintaining cash flow neutrality
- **24%** Reducing per barrel F&D costs
- **23%** Acquiring acreage, infrastructure, or companies
- **21%** Accessing new markets or regions
- **20%** Maintaining dividend distribution
- **17%** Divesting acreage, infrastructure, or companies
- **16%** Decreasing regional footprint to focus on core areas

*Raising production to maintain cash flow in a low price environment is a clear leader in strategic focus this year.*
Midstream
Growth drivers
The midstream sector is well positioned for growth after the downturn.

North American midstream opportunity areas in 2018

- **Surprising!** Likely to serve the growing LNG export and petrochemical markets.
  - **Region:**
    - **49%** US Gulf Coast
    - **42%** US Midwest and Appalachia
    - **35%** US Interior and Rocky Mountains
    - **31%** US East Coast
    - **19%** Canadian Pacific Coast
  - **Sub-sectors:**
    - **49%** Natural gas pipelines
    - **36%** Crude oil pipelines
    - **36%** Natural gas gathering and processing
    - **35%** Refined oil products pipelines
    - **34%** Terminals and storage

Huge gas resources, but region still needs better connections to the market.
Controlling costs remains critical as the pace of the recovery has slowed.

Three biggest midstream challenges

Digitalization of risk monitoring equipment to enhance safety, reliability, and integrity may help mitigate cost concerns and environmental exposure.
Opportunities

New infrastructure needs will provide opportunities when the recovery accelerates.

Growing supply, new markets for natural gas, and a more accommodative regulatory framework could provide favorable conditions for the upturn.

- **Building out infrastructure** is the biggest opportunity as production growth from new and emerging basins continues to drive new pipeline and processing needs.
- **Opportunity to serve new markets**, such as LNG facilities and industrial users.
- **Recovering upstream sector** will require infrastructure needs from growing supply basins.
Downstream
Refined product exports
The downstream sector is expecting a slow down of exports to global markets.

Refined product exports from the US have been rising for the past few years. The future may be less bright.

Less than 10% expect refined products exports to increase either this year or next (even after 10 years of sustained product export growth).
Demand
A number of factors contribute to demand uncertainty.

Demand expectations are dominated by perceptions of the fuels outlook. Several factors are expected to impact refined products demand in the next five years.

- 53% Increased fuel efficiency in gasoline and diesel engines
- 41% Broader adoption of electric vehicles
- 30% Ride-sharing technologies
- 47% Increased use of CNG or LNG in the trucking and shipping industries
- 39% Increased consumer interest in bio or other alternatively-sourced fuels
- 23% Autonomous or self-driving vehicles

US products demand is key for downstream activity.
Controlling costs remains critical as the pace of the recovery has slowed.

Top challenges this year are similar to midstream

- Digitalization of risk monitoring equipment to enhance safety, reliability, and integrity may help mitigate cost concerns and environmental exposure.
Opportunities

Demand factors still dominate identified opportunities.

Less than 10% of respondents expect refined product exports to increase in 2017 and 2018. But, a substantial majority (58%) identified this as the biggest opportunity for the downstream sector.

The second most cited opportunity is low oil prices stimulating demand (53%).

How do we explain this paradox?
Reflecting longer-term confidence?
Recognition of the importance of world markets?
Key takeaways

There is currently more caution than optimism across the industry.

The downstream sector has the most positive outlook.

Throughout the value chain, growth and opportunity are tempered by significant challenges.

Digital technology adoption might offer a way forward.

Can digitalization help swing the pendulum back in 2018?
About the survey

Deloitte, together with the research firm Harrison Group, a YouGov company, undertook the 2017 US oil and gas industry survey (the “2017 survey” or “survey”) in the summer of 2017. The survey explores the near-term outlook of oil and gas professionals across all sectors of the industry. The findings cover survey respondents’ expectations for the remainder of 2017 and 2018, including: key areas of business and market environment, strategic priorities, and challenges and opportunities down the oil and gas value chain.

The survey consisted of over 250 structured interviews with industry professionals with experience ranging from five to more than thirty-one years, and from all four oil and gas industry subsectors: upstream, oilfield equipment and services, midstream, and downstream.

Read survey findings from past years:

- [2016 oil and gas industry survey](#)
- [2014 oil and gas industry survey](#)
Let’s talk

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