

Decline & Fail or Innovate & Thrive: The Future of Oil & Gas

In January 2016 we asked our alumni, friends and fellow oil and gas professionals – an audience of some 6,000* - for their views on the oil industry's future. In the first of two papers on the results, we cover their views on the oil price, and more importantly, on the mood and future state of the industry, looking also at how the industry is, and should be, responding to the “new order”, and comparing their comments with those of other commentators.

Executive Summary:

December 2016 oil price will be in the low \$40s, lower than that predicted by the banks but just ahead of the Futures market

- Geo-politics will be more influential than any actions taken by the industry
- Short term outlook for the industry very pessimistic
- Long term more confident, though most see a reduced role for the industry and lower profitability
- Significant minority see return to “normality” – high profitability - within 3 years
- Calls for change of attitude and business models amidst standard cost cutting and consolidation – innovation is key
- Need for improved leadership and strategic planning skills

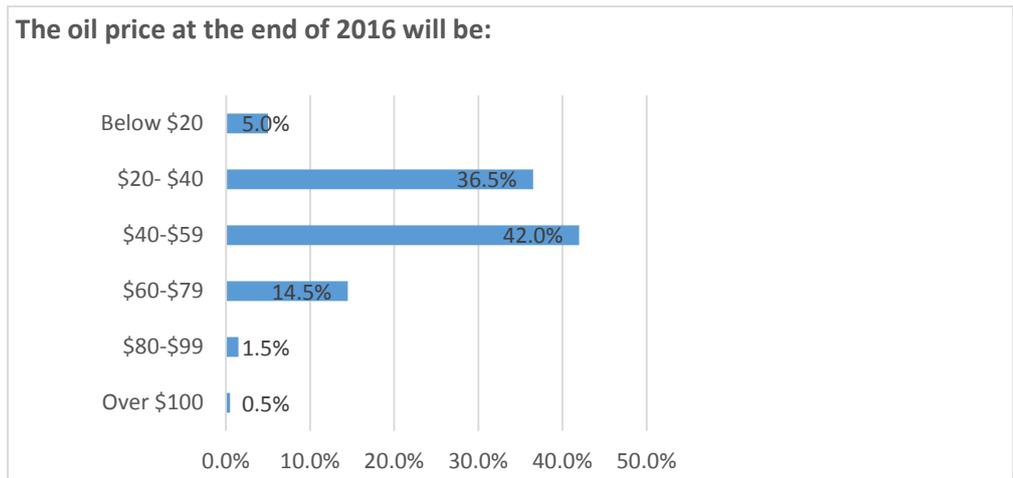
“The combination of changes that the industry now faces requires epic rather than incremental responses”

“the industry will recover to higher profitability again but will (or should) shed historic wasteful practices and focus more on efficient investment and efficient resource management”

*Survey conducted online January 2016. Results based on 202 Responses. See last page for respondent profile

The Oil Price at the end of 2016

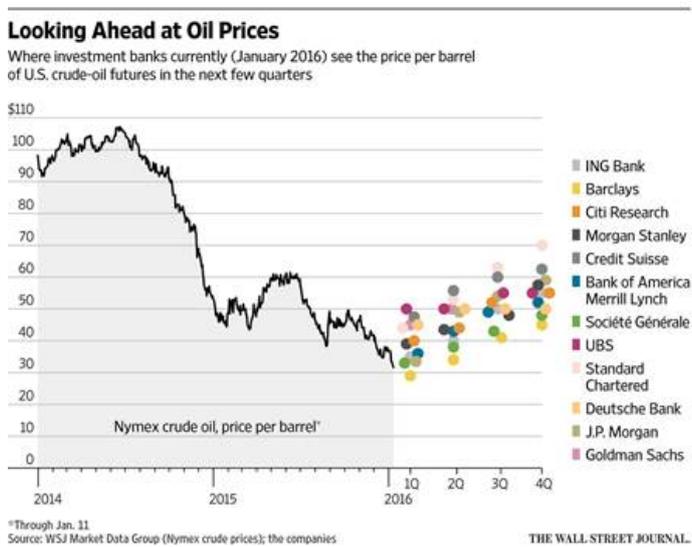
Last year, our respondents - in keeping with the rest of the world – failed to get close to the actual price in December 2015, with only one individual predicting a price below \$40 and most predicting something around \$65. This year they are more cautious, with the consensus just above the \$40 mark (with some sceptical of the value of any predictions):



“Most commentators make predictions which seem to me to be nonsense”

Source: WBC Industry Survey January 2016

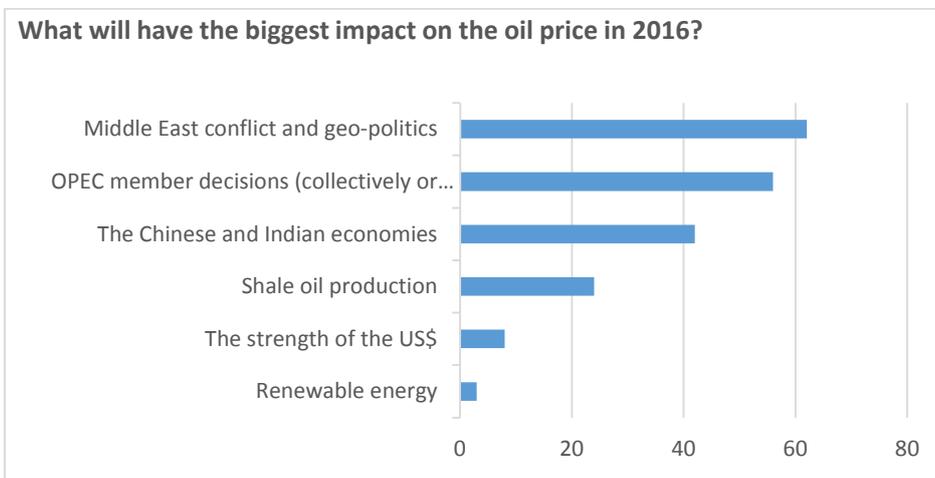
The world is awash not just with oil, but also with oil price predictions and we will not pretend our responses can add much to the wealth of analysis already done, nor spend much time on this point. By way of comparison, banks see a hockey stick effect, with the price ending up in the mid-50s; the WSJ’s January forecasting panel was in line with our own respondents, but the Futures market is less optimistic and is currently at the lower end of the ranges:



Oil Price at December 2016	
WSJ Real Time Economics January 2016	\$43
Brent Crude Futures: Date: ICE 17/2/16	\$40

Factors Affecting the Oil Price

The consensus is that equilibrium between supply and demand will return by the end of 2016. In 2015, 96.3m b/d were produced, but only 94.5m consumed – sending 1.8m b/d into storage. Will this surplus really have been used up, and ongoing supply curtailed, within 12 months? We asked our respondents what they thought would be the main factors driving supply and demand and thus the oil price:



“Geopolitics are going to have the biggest impact - and not just on our industry...”

“A new larger version of OPEC needs to be created to quota supplies and create more balanced sustainable production”.

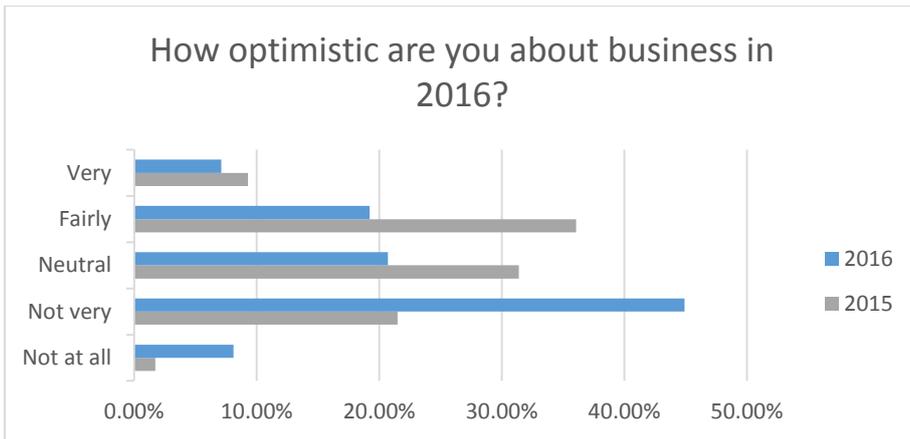
“Ultimately non OPEC country declines will stimulate the oil price but the demand may be weak if China economy shows limited growth”

Source: WBC Industry Survey January 2016, No. of respondents listing issue as biggest impact

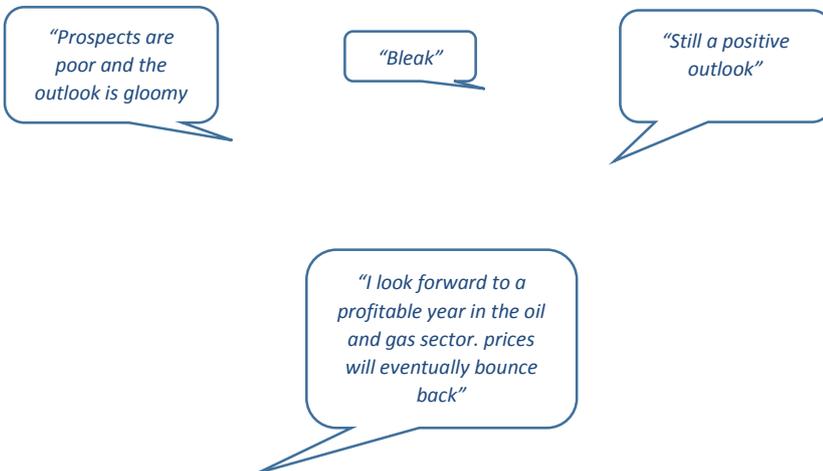
It’s clear that in the short term (and this question focused simply on 2016), respondents felt that macro-economic and geo-political issues, rather than developments within the industry itself, would drive prices. Middle East Geo-Politics took first place, closely followed by OPEC decisions, and then the Chinese and Indian Economies. In contrast to last year, Shale Oil Production dropped from 2nd place (ahead of Middle East Geo-Politics, and just behind OPEC Member decisions) to fourth. Renewable Energy continued to trail.

The Mood of the Industry

Compared to last year the mood is overwhelmingly pessimistic. This isn't surprising – but is it an over-reaction to the misplaced optimism of last year, when nearly half the respondents were very or fairly optimistic, and fewer than a quarter were not optimistic?



Source: WBC Industry survey 2016



Under Threat

As we move through 2016, we are truly in another oil shock-which in the short term feels brutal and an existential threat, not just to the North Sea but even in the US, where the shale boom started. As a close associate of WBC, a former US and international oil executive, said:

"Who would want to be in the oil business right now? The job and budget hacking and slashing that is yet to come in Houston will be the stuff of legends. Money for outside training will not be spared. Unlike many prior booms, operators borrowed massive amounts of cheap money in order to ramp up shale oil/gas drilling programs to add reserves and production. It is going to take a matter of years for the industry to steady itself and go forward. I hope we do not lose our technical superiority in drilling and completing these complex wells. This technology represents a huge competitive advantage for the US in securing both production and reserves".

The Future Shape of the Industry

Beyond 2016, though, it will be a different story and we asked for thoughts on the future shape of the industry over the next 20 years. Of course there are many organisations that take a longer term (and more comprehensive) look at energy supply and demand. Most of these emphasise the effect of greater energy consumption efficiency on **demand**. To take one example, BP has recently published its Energy Outlook to 2035, and also a Technology Outlook (Full report: <http://www.bp.com/>):

They make some important observations:

- In the base case, world GDP more than doubles, but unprecedented gains in energy efficiency mean that the energy required to fuel the higher level of activity grows by only around a third over the Outlook.
- Fossil fuels remain the dominant form of energy powering the global expansion: providing around 60% of the additional energy and accounting for almost 80% of total energy supplies in 2035, with gas being the fastest growing fossil fuel. Shale oil and gas will continue to grow.
- China's GDP growth will average around 5% (down from 10% in the past 15 years), leading to "energy demand growth falling by a factor of four"

There is also the effect of technology in driving efficiencies in production, and thus affecting **supply**, not just consumption. In his blog last September, WBC Chairman David Finlayson wrote "After a period of recession, the price collapse in 1986 put extreme pressure on the industry to reduce costs. The response was an extraordinary flowering of niche technologies which revolutionised exploration and production." We should not underestimate the potential for this to be repeated. An FT report on the North Sea – widely being written off as a source of future E&P profits – pointed out that new technologies enabled Enquest to increase production from the Kittiwake platform from 2,000 b/d two years ago to 10,000 today. As BP said in the Technology Outlook:

- Technology has extraordinary potential to increase accessible primary energy resources, both fossil and non-fossil, while reducing their costs. Projected global energy demand at 2050 could be met many times over. The key question for policy makers and businesses becomes one of choice - which resources make sense to pursue given their relative costs and characteristics?
- Digital technologies have more widespread potential than any other technology area to transform energy production, supply and end use. They offer a real opportunity to improve safety and reliability, reduce costs and contribute to more efficient operations.

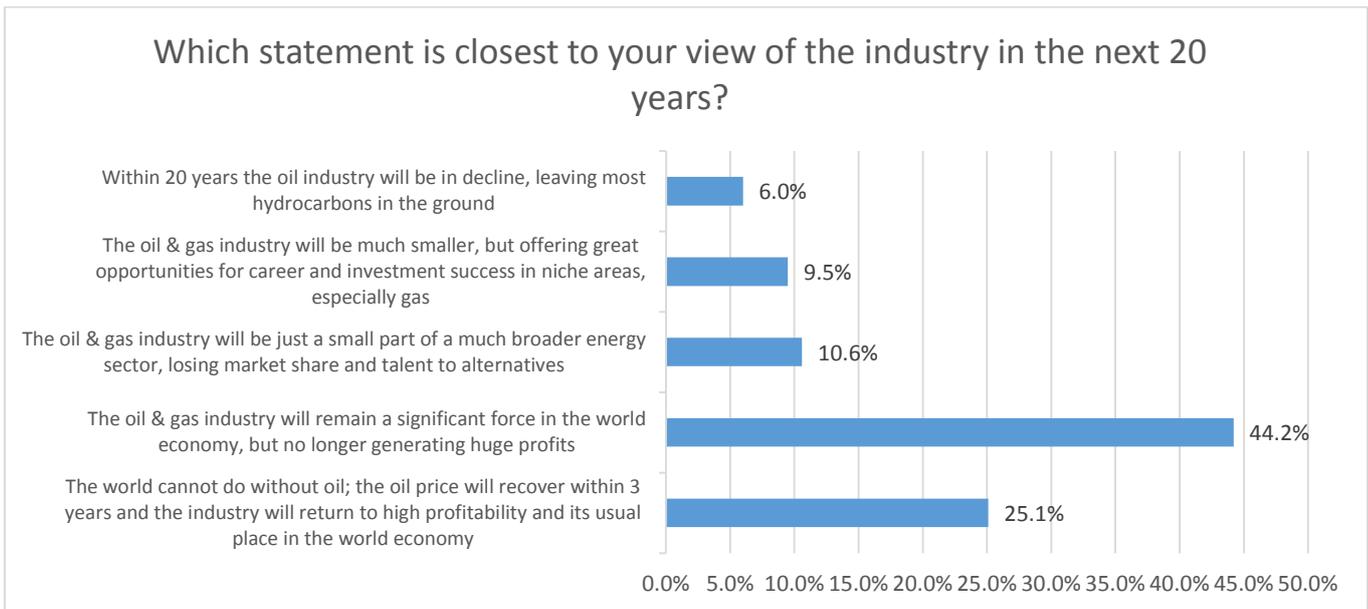
Few of our respondents mentioned this technology theme but many commented on the need for innovation and a different way of doing things.

20 Year Outlook

Among our respondents, the 20-year outlook was more positive, though the optimistic views were tempered by some critical comments about the industry. The challenge – and the opportunity - seems to be to use the current crisis to affect real change. Conventional wisdom says businesses – particularly well-established ones - need a “burning platform” to bring about change. Respondents had mixed views as to whether this crisis really is a burning platform, or just a blip after which things will return to normal...



A significant minority (25%) were confident to the point of arrogance, seeing a return to high prices, a dominant role in the world economy and high profitability within 3 years. But most saw a diminished, albeit important role, with reduced opportunities for profits, and a focus on niche markets. As Anyad Bseisu, CEO of Enquest said in the FT of the North Sea business, “We will still be here in 20 years, but it will be half the size then.”



Source: WBC Industry survey 2016

Managing for the Future

Respondents made several suggestions on how the industry should react to the crisis. A common theme among respondents was the need to change both attitudes and working practices. There were negative comments about the “speed of reaction” and “historic wasteful practices”, “the industry has grown fat” - “industry cannot continue to bury its head in the sand”.

“The industry needs an attitude change, away from its boom and bust, hire and fire mentality”.

“The oil industry needs to become leaner with a significantly lower cost base as drilling costs were too high”

Inevitably, cost reduction is seen as the primary way to manage for the future state: “the offshore rig industry will be far leaner” – “our costs ballooned and this must be fixed” – and many respondents forecast further cuts to come, in line with public announcements from the major firms - BP is planning to reduce annual running costs by some \$6bn, according to a report in The Economist, while Shell reduced its operating costs in 2015 by \$4bn. Wood Mackenzie estimates an industry-wide drop of \$62bn in expenditure so far in 2016 – 22% below 2015.

Amidst the gloom, respondents also saw some opportunities. M&A was one possibility: “chance for merging”, “Big M&A deals to be expected”, and this is supported by other experts such as Wood Mackenzie who see an uptick in M&A in 2016, but point out there’s a mismatch in valuations between buyers and sellers, based on the Implied Long Term Oil Price. Others took a brave, contrarian view, “with costs so low, it is an ideal time to go ahead with exploration projects” - “the industry will favour the bold...”, and some saw the current market as the burning platform that would drive through change for the better: “Crisis brings opportunity to do things and create change”

“we could have our Kodak moment”

But respondents are less clear on how these opportunities will be exploited, other than via cost-cutting (a short term solution) and consolidation. There are some references to innovation, risk management, and collaboration across the supply chain, but these are far outweighed by the calls for cost control as the solution.

This idea - doing the same things at a lower cost - suggests that those recommending a wholesale change in attitude are right: true – disruptive - innovation will have to come from outside the industry. Some respondents referred to the industry having its “Kodak” moment, blind to the idea that things might be done differently. Others outside the industry have made the same point – Chris Wheaton, at Allianz Global Investors, in the FT, suggested the oil industry must learn from the automobile sector, adopting a lean manufacturing model.

“INOC's and private oil and gas producers will have to become more flexible”

“Liquidate or innovate? That's my question for IOC's”

Technology

We have touched on the transformative power of technology. However, it is noticeable that very few respondents mentioned it as a force for change. There is already evidence of technology companies ramping up research activities which could transform oil and gas production, and radically alter the cost of production, so enabling the oil business to be sustainable with lower oil prices and continue to be part of the energy mix that will power economic growth.

As our US associate notes, “The US shale industry has been a unique laboratory for industrial innovation. It was unique in building and sustaining an 1800 land rig drilling program through development of a service company infrastructure, new and unique drilling tools and the ability to deal with the many complex regulations. This required adaptive thinking and close understanding of technology and economics”. Will the next stage of innovation come from within the industry, or outside it?

Standardisation

Several respondents referred to waste and inefficiencies. At Warren Business Consulting we often hear anecdotal evidence of this from course participants – such as the vessel manufacturer whose well-head equipment had the same basic function and operating parameters for any given region. Yet every one of the 100s of RFPs they received from many companies needlessly insisted on different specifications. This added unnecessary costs and complications to what could be standardised equipment. Similarly, Ian Silk, at Shell, was quoted in the FT referring to the 28 different shades of yellow paint used in subsea equipment. At one level these may seem trivial, but taken together right across the industry and thousands of items they add up to huge amounts of unnecessary waste. The answer to this must be an improvement in standardisation across the industry, to save time and money with equipment, projects, and processes.

Collaboration

“More trust based collaboration between Operators, Supply chain, Governments and Investors will be key”

We also share the view of some respondents that increased collaboration between different stakeholders is vital. Every project involves multiple partners but often negotiations are handled in silos that mean agreements end up in conflict with each other or being unsuited for all parties: for example, a government might agree terms and regulations with an IOC, but these may be inappropriate or difficult for the service company the IOC subcontracts to for the actual work, and who was not part of the negotiation – leading to delays and inefficiencies.

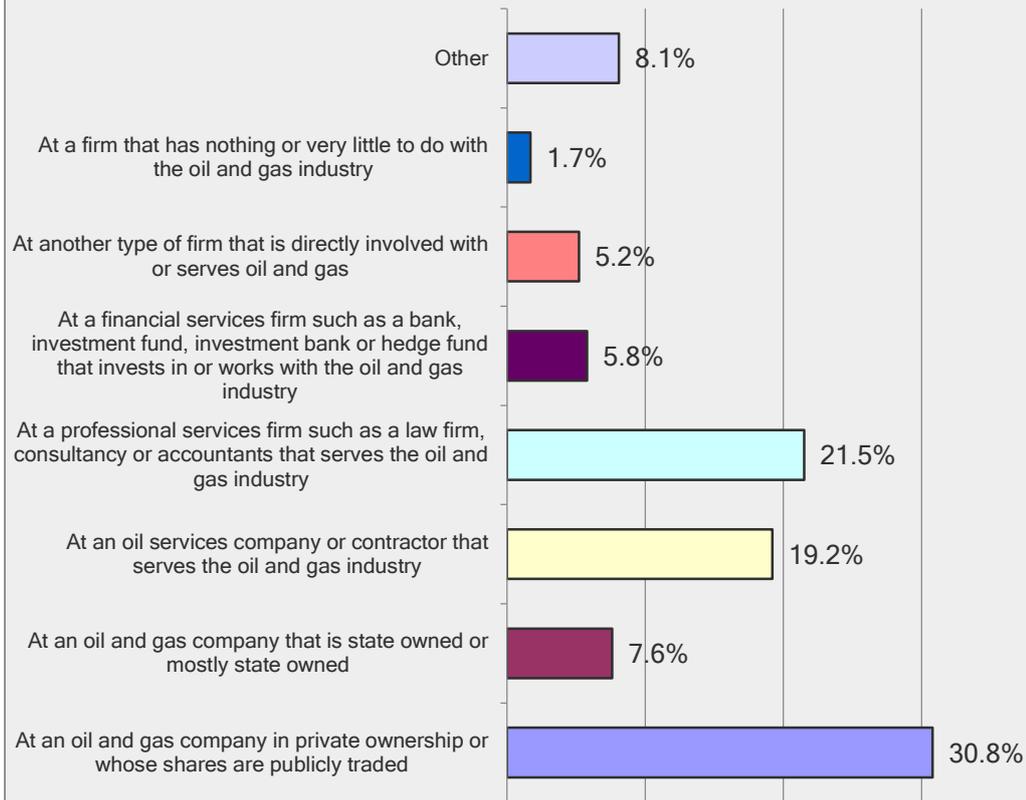
Managing Careers

Cost cutting means job cuts and skill shortages. The impact of job losses and under-investment in staff development was picked up by many respondents as a major threat to the industry’s future, commenting on the poor treatment of staff, the Great Crew Change and the challenge major firms will face in attracting and motivating staff. In the second part of our report, in March, we will look at these issues: what respondents saw as the key skills needed for a successful career in oil and gas, and what skills they would like to develop; how this compares with other industries and what it means for management.

“The challenge will be to motivate people while activity is very low.”

“Beyond 2018 there will be skill gaps in major disciplines”

Profile of Respondents



WBC Industry survey January 2016

Upcoming Courses

- March 21-22: 2 Day Risk Management, London
- April 11-13: 3 Day MBA in Oil & Gas, London
- April 25-27: 3 Day International Oil & Gas Contracts, Lagos
- May 9-11: 3 Day MBA in Oil & Gas, Houston
- May 16-17: 2 Day Risk Management, Jakarta
- June 6-7: 2 Day Risk Management, Houston

For our other programmes or to discuss in-house courses, please contact us at training@warrenbusinessconsulting.com or visit our website www.warrenbusinessconsulting.com