



2019 oil, gas, and chemicals industry outlook

My take: Duane Dickson

2018: Where are we in the cycle?

As 2018 ends, it is a good time to take stock of the recovery for oil and gas, the status of the chemicals sector, and their prospects in 2019.

If there is one constant in energy markets, it is change, as prices shift and companies adapt. Separately, the chemicals sector has enjoyed positive growth and margins for the past few years, so we will be watching to see if signs of a slowdown emerge. Although no one can truly claim to know what will happen in the next 12 months, it is useful to try to understand how the business environment might evolve.

In oil markets, the depths of the post-2014 downturn seem to be behind us. Oil prices have recovered from the \$40 2016 annual average WTI price low. It breached \$50 in 2017, and through September 2018 it averaged just shy of \$67, though many producers in Canada and the Permian saw lower prices due to widening differentials. This recovery has been a result of various factors, including sustained success of the production restraint agreement between OPEC and non-OPEC countries in force since the beginning of 2017, less oil coming to market from challenged producers, and continued strong global oil demand growth estimated by the Energy Information Administration at about 1.6 million b/d in 2018. These forces together have brought global oil inventory levels down by more than 175 million barrels since 2016 and buoyed prices.¹

These more positive signals have helped US crude oil and natural gas liquids (NGL) production enjoy another impressive growth year, adding an estimated 2 million b/d in 2018, led by the prolific Permian Basin. Natural gas is a different story, as 2018 prices in the United States remained anchored around \$3, as plentiful, low-cost US supply continued to meet growing demand in domestic and export markets.²

Indeed, across oil, natural gas, and chemicals, increasing US exports are helping to bolster activity, with all showing continued growth in shipping to international markets. The United States has been a major producer, but now it is consolidating its position as a leading exporter of crude oil, refined products, and natural gas, thereby becoming a big influence in global market trends.

Upstream capital expenditures have not yet recovered commensurately with prices in 2018 as companies remain cautious, at least for the time being. At the moment, their focus seems to be more on demonstrating returns rather than investing for new growth.

In the chemicals sector, at this stage of the capital cycle, major new capacity in base chemicals is expected to be commissioned now or in the near future. An area of risk may be whether this might lead to lower margins by getting ahead of demand trends. However, the sector could well avoid anything more than a mild downturn by phasing in ramp-ups in the new capacity, selling to the North American market, which is still quite robust, and taking advantage of improved US port facilities to export more efficiently to international markets. So, even with a possible slowing of emerging market growth, and a shift to more reuse of plastics, the chemicals sector in the United States looks reasonably well-shielded from significant downside risk.

2019 Prospects: Positive signals are there, but some concerns are gaining strength

As we move into 2019, what should we watch for? Does the recovery in oil markets have legs, or are emerging risks coming into play?

When we asked that question to oil, gas, and chemicals executives as part of [Deloitte's recent annual survey](#),³ we found that confidence in a recovery is indeed returning with expectations for increased economic growth, commodity prices, and investment—all of which were more positive than the previous year's survey. And indeed, market indicators seem to support this view, with the US and global economy showing strong growth, energy demand increasing at above-average levels, and, in the oil sector particularly, risks to supply persisting from a few key exporting countries. So, are the good times returning?

With respect to the overall economic picture, the situation at present appears healthy—unemployment is low, business investment has picked up, and prices are stable. These positive fundamentals, combined with the additional stimulus from the recent tax cuts and higher government spending, could continue to support growth in the near term of around 2.5 to 3 percent, even with the tariffs currently in place. But what happens when the impact from the stimulus begins to wane over the next couple years—and if interest rates continue to rise, dampening both investment and consumer demand? What if the current tariffs remain in place or are even expanded? In this case, a period of readjustment is possible as consumers face higher prices for traded goods and companies see higher costs of doing business due to tariffs on key materials such as steel, and also disrupted supply chains. The energy sector seems particularly vulnerable here, with its ongoing needs for specialized steel for pipelines, refineries, and chemical plants.

Irrespective of near-term uncertainty, the 2019 energy conversation is expected to increasingly include long-term issues. Sustainability is no longer a niche issue for energy companies. It is moving to the center of strategy and investment decisions. Major oil companies are investing in renewable energy; natural gas producers, shippers, and consumers are increasing their focus on mitigating methane emissions; and chemicals producers are ramping up their efforts to find solutions to plastic waste, through recycling and use of new materials and processes. Some countries are also stepping up efforts to reduce the environmental and carbon footprints of their energy and industrial sectors, with China, in particular, taking major steps to close down polluting factories and shift towards cleaner energy. Moreover, technology is not standing still—the scope and pace of growth for low-carbon energy, autonomous and electric vehicles, energy efficiency, and distributed energy is becoming not just a topic for futurologists, but a focus of decision-making throughout the energy and chemicals value chains.



In this world of uncertainty, we are watching five key trends

1

Don't forget the numbers—can returns and profitability demonstrate value to investors?

The 2018 recovery in commodity prices and cash flows has been good news for the sector. The challenge now will likely be to translate that into sustainable profitability and returns. The downturn saw tremendous gains in cost containment, capital high-grading, and operating efficiency. Will this discipline be maintained? Some costs will inevitably rise, not only to restore margins in the service sector, but also due to rising materials costs. The question is whether acceptable returns can be generated through the commodity price cycle. Learnings from the downturn should not be forgotten, and continuous improvement in technologies and operating practices will go on, as they always have. Industry players could focus on two key lessons: adopting a disciplined approach to capital investment decisions and leveraging digital technologies to achieve higher capital productivity.

2

It's not just about supply or markets—infrastructure matters

Building and expanding pipelines, processing facilities, import and export terminals, storage facilities, and LNG plants is a vital but often underappreciated part of the value chain. Crude oil price discounts have at times topped \$20 in the Permian Basin⁴ and \$50 in Western Canada because pipeline build-out lagged wellhead activity.⁵ The phenomenal growth in natural gas production in the Marcellus Basin has often outstripped pipeline capacity, depressing prices for producers. Planning, permitting, and constructing infrastructure seems to be getting longer and more complex and is more often litigated by opposing groups. There are major infrastructure projects moving forward, but delay can be costly. No one in oil, gas or chemicals development can afford to ignore how this plays out, impacting price spreads and physical capacity to move products.



3

Natural gas—here and not forgotten

The abundance of moderately priced natural gas in North America, like that from the Marcellus and Permian Basins, does not get as much attention as the oil sector. And yet it is enabling very material long-term change in US and global energy markets. Natural gas continues to grow as a source of lower-carbon power generation here and abroad. The wave of new investment in petrochemical facilities would not be possible without the growing US natural gas and NGL supply. Moreover, the United States is now a major player in global LNG markets, with two facilities in operation, at Sabine Pass and Cove Point, and four more due to start up in 2019. This is expected to shape global prices, trade flows, and business models. Although uncertainty exists, the recent decision to take final investment decision (FID) on another major North American LNG project (LNG Canada in Western Canada) is a strong vote of confidence in the viability of North American gas supply.

4

The sustainability imperative—moving from the periphery to the core

Energy and chemicals companies are not newcomers to the sustainability agenda. They have been reporting and communicating on environmental footprints, impact mitigation, and sustainability for some years now. However, increasing consumer awareness of environmental and climate impacts and societal expectations are driving more and more companies to embrace sustainability as a core part of business strategy, rather than a niche add-on activity. And it's not just about plans and communications. Major oil, gas, and chemicals companies are making increasingly sizable investments in companies and technologies that bring renewable, low-carbon energy to consumers and to reduce their own environmental and carbon footprints.

5

Digital technologies are increasingly intertwined with the entire oil, gas, and chemicals value chain

As alluded to in the 2018 Outlook,⁶ opportunities from digital technologies are becoming increasingly apparent and have the potential to unlock new value. More and more companies are looking hard at deployment of artificial intelligence, analytics, robotics, and blockchain to increase efficiency, productivity, reliability, and predictability of operations. However, implementation at scale can be complex in the capital-intensive oil, gas, and chemicals environment where the challenges of legacy equipment and the large number of suppliers should be addressed. Refining and petrochemicals have been in the vanguard of process automation for many years, but we are now seeing signs that the other sectors are turning their attention to digital opportunities. Those that succeed could be well-equipped to thrive through business cycles and be responsive to customer and societal expectations.



360-degree vision required...

What does this mean for the oil, gas, and chemicals business in 2019? The world is becoming increasingly complex, and 360-degree vision is required. Companies should embrace many indicators, trends, drivers, and signals:



Operational awareness and capital discipline tend to be core to success across the oil, gas, and chemicals value chains. It is expected to remain critical as the market shifts. Most investors want to see sustained returns and capital discipline, not just volume growth.



Companies will likely increasingly see the need to drive external dynamics deeper into the heart of decision making at all levels. Addressing consumer, regulatory, and community concerns could be key.



The oil, gas, and chemicals sector is renowned for technology and innovations. Now, opportunities include the whole suite of digital technologies and could touch all aspects of the supply chain. Tomorrow's leading companies should adapt today.



And as always, uncertainty is the only real certainty.

Let's talk



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Duane Dickson is a vice chairman and principal in Deloitte Consulting LLP's Energy, Resources & Industrials industry group, as well as the US Oil, Gas & Chemicals sector leader and the Global Chemicals & Specialty Materials Consulting leader. Duane served as a World Economic Forum's (Forum) project advisor and the forum's chemical community lead, chemistry and advanced materials. He focuses on providing services in corporate and growth strategies; acquisitions, divestitures, and carve-outs; and general management, working primarily with chemicals, materials, industrial products, consumer packaged goods, medical devices, and safety equipment industries.

Duane has more than 38 years of business and consulting experience in senior leadership positions in major industrial and healthcare products companies. Duane also has extensive experience serving as a senior executive focusing on operations and transactions. Duane holds a bachelor's degree in Business Administration from Southern Methodist University. He also completed the Advanced Management Program at London Business School.

Endnotes

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