



FEATURE

Portfolio transformation in oil, gas, and chemicals

Balancing scale, scope, and growth

Amy Chronis, Kate Hardin, and Thomas Shattuck

Transforming their asset portfolio is no longer a choice for oil, gas, and chemical companies looking to weather the pace of change in the next 10 years. It's a necessity.

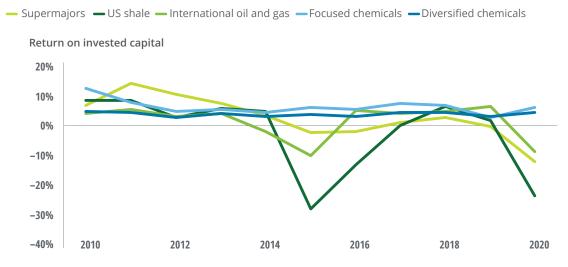
Finding the next normal after a volatile decade

The swings in commodity prices have translated to large shifts in spending over the last decade. Oil and gas capital expenditures peaked at \$750 billion in 2014 and declined to less than \$500 billion up until 2020, and then they dropped even further to \$285 billion.¹ The chemical industry, although less volatile, still saw its capital expenditures fall from \$88 billion in 2014 to \$82 billion in 2016 before rebounding.² More broadly, overall financial performance in the sector has lagged the larger market for much of the past 10 years, indicative of how many oil, gas, and chemicals companies have struggled to tack against industry headwinds—and how their portfolios have not always been fit for purpose.

These portfolio challenges have been evident over the last decade. The return on invested capital (ROIC) for oil and gas has proven volatile, with it dropping below zero twice in 10 years for most companies. US shale proved particularly volatile, with deeply negative ROIC in 2015 and 2020. While chemical and specialty materials companies' ROIC was more stable, performance has been flat to declining for many companies. Perhaps more important than ROIC in any particular year, across the entire sector, performance has been trending downward rather than upward (figure 1).

FIGURE 1

Chemical ROIC has held mostly flat since 2010, but oil and gas ROIC proved more volatile



Source: Deloitte analysis of S&P Capital IQ.

The oil, gas, and chemicals sector must be prepared to tackle new challenges after deteriorating market conditions in 2020. The pandemic led to divergent demand for transport fuels, plastics, and specialty materials, testing the resilience of companies' business strategy and asset portfolios. Commodity prices have already begun to rebound following the 2020 declines in US oil production, freezing Texas temperatures, and production cuts by the Organization of Petroleum Exporting Countries (popularly known as OPEC), indicative of the sector's volatility.³

The next decade could prove even more challenging as the energy transition accelerates and the oil, gas, and chemicals sector will need to adapt. While the widespread adoption of lower-carbon technologies could create uncertainty and may be perceived as a threat to the sector, it opens new opportunities for investment. Companies should decide today how to best position themselves for growth,

despite continued volatility and uncertainty. To do so, they will need to reassess their current business strategy as well as their existing assets, products, and services.

Deloitte analyzed the financial and strategic performance of over 500 publicly traded, global oil, gas, and chemical companies over the last decade to identify how companies can best position their asset portfolios and balance tradeoffs between different strategic options. Considerations included companies' scale, scope of products, and growth opportunities. We drilled down into oil and gas company performance in *Portfolio transformation in oil and gas: Capture hydrocarbon value or embrace green energy?* and looked more extensively at chemicals and specialty

materials performance in *Portfolio transformation in chemicals: Creating value and sustainable long-term growth.* Looking across the sector, company performance indicates that portfolio optimization can deliver improved operational and financial performance if they are aligned to broader business strategy, but that it is not a panacea for all market headwinds.

The portfolio transformation imperative

Portfolio optimization is easier said than done. Performance of many oil, gas, and chemical companies lagged that of their peers in other industries, despite significant capital investment in new high-impact projects as well as mergers and acquisitions (M&A).⁴ Expanding investments into new products and services is critical to adapting to changing markets, and making deals that complement the existing business's growth strategy are an important part of asset portfolio management. However, execution is key for both organic and inorganic growth.

Portfolio optimization can deliver improved operational and financial performance if they are aligned to broader business strategy, but that it is not a panacea for all market headwinds.

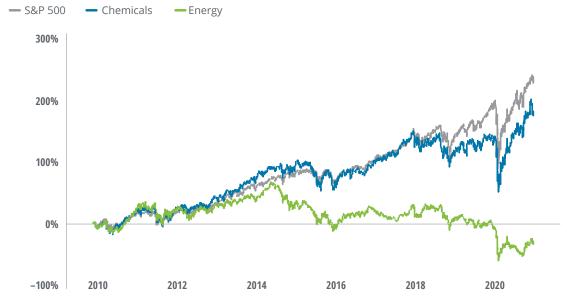
Over the past several decades, M&A has yielded mixed results across industries and sectors, with roughly half of deals not having any positive impact on the acquiring companies' performance.⁵ The same has been generally true in oil, gas, and chemicals where increased dealmaking has not translated into outsized shareholder returns.⁶ For example, while some chemical companies, such as Sika, leveraged their acquisitions to boost ROIC and stake a strong position in key end markets,⁷ many acquisitive shale companies did not outperform their oil and gas peers.⁸ That lack of outperformance has tended to be driven in part by cyclical factors, and lower commodity prices have undermined the strategic rationale supporting many transactions. But even during periods of more rapid demand growth for oil, gas, and chemicals services and products, many companies did not successfully capitalize on inorganic growth. Deloitte's 2021 oil and gas M&A outlook showed that despite successive waves of consolidation and divestitures, financial performance did not necessarily improve.

Increasing organic investment has not always translated to improved performance either. In the case of oil and gas, many companies spent significantly to build more-agile shale portfolios, but despite success in reducing costs, the industry's debt grew because capital expenditures often eclipsed revenues.⁹ Those negative cash flows led to lower share-price performance with substantial divergence of performance between oil and gas and chemical and specialty materials companies, as well as the broader market (figure 2). Due to financial challenges, many oil, gas, and chemicals companies may need to rethink how they approach their portfolios. Based on our analysis of 500 companies across the sector, we found what worked in oil and gas did not necessarily work for chemical and specialty companies. While there were commonalities, the differences loomed large:

- Chemical and specialty materials companies that had a focused portfolio outperformed those that were more broadly diversified. That was not necessarily true for oil and gas. While larger, more integrated companies did not outperform the broader sector, neither did many smaller, more focused companies. For example, no shalefocused companies had top quartile financial performance.
- Being focused but agile proved beneficial for many chemical and specialty material companies. While diversified companies could benefit from multiple growth avenues, their complex

FIGURE 2

Lower commodity prices translated to lower financial performance for many oil and gas companies, though chemical companies proved more resilient



Source: Deloitte analysis of S&P Capital IQ.

portfolios often led to slower growth and higher costs. Those who effectively pivoted from one end market to another to pursue new opportunities outperformed their peers. The same was not true for oil and gas, where companies that shifted their portfolio strategy actually underperformed their peers on average, with only 16% of those companies having top-quartile performance.

- 3. Low cost did not consistently translate to better returns for chemical companies. Natural owners—chemical companies that have an advantaged feedstock position—generated shareholder returns almost 50% higher than other chemical companies. But their financial performance also proved much more volatile, with distinct underperformance during economic recessions.
- 4. For oil and gas, however, access to low-cost sources of supply led to significantly better performance—80% of companies with larger conventional asset portfolios, which are typically much lower cost than shale or deepwater, had above-average financial performance. Only 5% were in the bottom quartile.
- 5. Greener oil and gas companies tended to underperform their peers, with only 9% having top-quartile financial performance. However, that may change over the next decade as their lower-carbon investments mature. In the case of chemicals and specialty materials, companies with higher environmental, social, and governance (ESG) scores did not have meaningfully different performance than other companies. For oil and gas as well as chemicals and specialty materials, early investment in lower-environmental footprint assets, products, and services has not vet translated into better performance-though that may change as ESG investors more closely scrutinize companies' emissions and expect faster performance improvements.

How to build a better portfolio

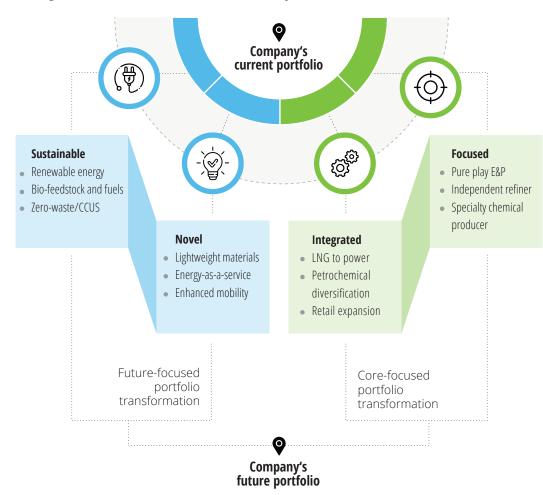
Oil and gas as well as chemical and specialty materials companies need to deliver a stronger growth story. Crafting a compelling narrative will likely require further honing of portfolios to improve financial performance and accelerate growth. That includes not just divesting noncore assets, but also investing in higher value-added opportunities. For chemical companies, that may mean drilling down into key end markets and products where technical and market know-how can be combined with economies of scale to drive margins higher. For many oil and gas companies, asset differentiation may prove more difficult, but lower-carbon technologies, such as carbon capture and renewable power generation, can complement their investments in more traditional fossil fuel projects, such as shale, liquefied natural gas, and refining.

While each company faces its own idiosyncratic challenges, taking a well-structured approach to optimization will be critical for many. Oil, gas, and chemical companies should focus on balancing the scope, scale, and growth opportunities. There can be tradeoffs between the three because as companies broaden their product and services portfolio and end markets they target, their ability to scale becomes increasingly difficult, and potentially costly. To balance those tradeoffs, each company must decide how its portfolio drives its overarching strategy.

Companies have already begun to adapt, with many rebalancing their portfolio to incorporate more future-focused assets to support a stronger growth narrative. However, as we found, neither bigger nor greener companies consistently delivered higher financial performance. The key is balancing futurefocused portfolio opportunities and core-focused ones (figure 3). Investing in new areas requires a tradeoff, though, and increased scope may mean decreased scale. For example, more spending on renewable power generation could lead to reduced spending on, and increased divestments of, traditional oil and gas assets. Similarly, if a company invests in recycling or zero-waste products and services, it will likely need to reduce spending in other parts of its business. The success of the pace and degree of the shift from core- to future-oriented assets will depend on a company's current market positioning and operational flexibility.

Technology has been an enabler for first movers. Until recently even some of the most ambitious international oil and gas companies only invested a fraction of their capital budget on low-carbon assets due to limited opportunities and concerns about financial returns.¹⁰ However, as the low-carbon space has evolved, companies have expanded their ambitions, with BP looking to increase its green spend tenfold by 2030.¹¹ The company has divested some of its legacy upstream and chemicals assets to support reinvestment in new energies and lowcarbon technologies. Other oil and gas companies have taken a different approach to prepare for the energy transition by acquiring lower-carbon upstream assets, converting some refineries to biofuels, and focusing on reducing methane leaks and flaring.

FIGURE 3



Balancing future-focused and core-focused portfolio transformation

Source: Deloitte analysis of S&P Capital IQ.

We have also seen a similar shift in the chemicals sector where investments in traditional products and services have been paired back to free up capital for more future-oriented projects. In the case of Sasol, it reduced its petrochemical exposure with its energy business spend declining from 42% of its budget in 2013 to only 32% in 2020.¹² That shift included shifting investments from gas to liquids and refining projects to develop differentiated applications for its performance chemicals business. Lotte Chemicals took a different tack, preparing for potential plastic demand decline by increasing investment in higher value-added materials targeting key growth areas, such as automotive light weighting and biodegradable resins.¹³

The industry's outlook has shifted substantially over the last 10 years as commodity prices, geopolitics, and investor sentiment have changed (see sidebar, "How has the oil, gas, and chemicals sector outlook changed over the decade?"). To some degree, management teams may not be able to influence the broader market sentiment, but companies should continue to adapt their business strategy, as well as product and service lines to changing conditions.

HOW HAS THE OIL, GAS, AND CHEMICALS SECTOR OUTLOOK CHANGED OVER THE DECADE?

Deloitte analyzed almost 60,000 quarterly earnings call transcripts between 2010 and 2020 of 1,000 oil, gas, and chemical companies. The analysis revealed the impact that volatility has had on those companies' outlook (figure 4). Interestingly, sustainability was viewed negatively up until 2014, but sentiment about technologies, such as wind, solar, and biofuels, has improved markedly since then. High oil prices did not translate into positive sentiment in the early 2010s because high feedstock costs for chemical and specialty materials companies outweighed the revenue benefits for many oil and gas producers. Subsequent lower prices led to more positive outlook for the sector.

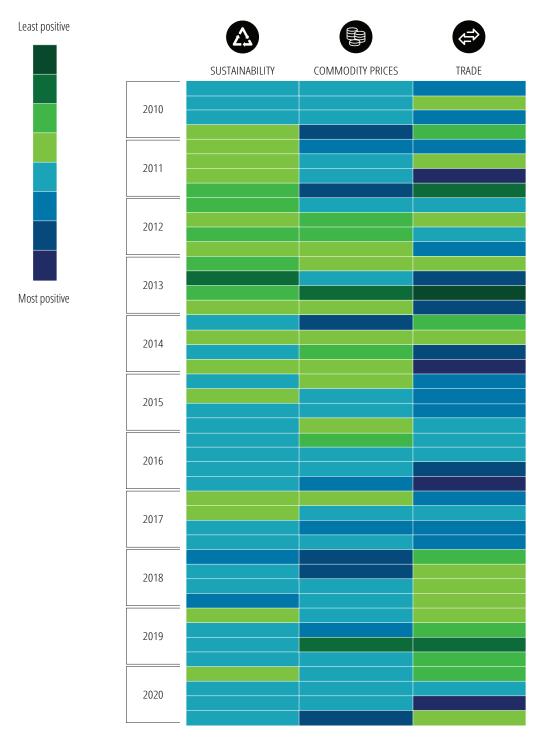
Although the data shows that many companies within the sector face similar challenges, these companies also face idiosyncratic risks. For example, commodity price shocks negatively impact producers and consumers differently, with some facing lower revenue and others encountering squeezed margins. Unsurprisingly, those with more leveraged assets benefited from rising commodity prices and subsequent stronger margins. But lower prices were not uniformly negative, even for oil and gas producers, many of whom adapted to lower prices. While oil traded at prices that were half of what they were in early-2014, 2017 and 2018 were a relative bright spot for commodity-price sentiment across the entire sector.

Unlike sustainability or commodity prices, companies' views on trade were mixed for much of the last decade, reflecting taxes, supply chain disruptions, and trade barriers. Trade sentiment dropped substantially starting in early 2017 following the Trump administration's escalation of trade disputes with countries ranging from China to Canada. The impacts of trade restrictions appear to be uniform across the sector with higher levels of trade disputes coinciding with negative sentiment. While many oil, gas, and chemical companies appear to have adapted to volatile commodity prices and increased environmental scrutiny, executives continued to voice significant concerns about tariffs and nontariff trade barriers on earnings calls. If those barriers to trade decline, companies will likely tap into new consumers and end markets to drive growth.

The shift in the sector's outlook over time shows that a one-size-fits-all approach to portfolio management will not work. The challenges and risks facing the sector have shifted over time, impacting companies differently. Oil, gas, and chemicals companies' approaches to transforming their portfolio should also be differentiated.

FIGURE 4

The sector's outlook on sustainability and prices has improved over the last decade, but its outlook on trade is mixed



Source: Deloitte text analysis of 1,000 oil, gas, and chemical companies' quarterly earnings calls transcripts from 2010 to 2020.

Preparing for the future

The oil, gas, and chemicals sector has faced a challenging decade that weighed on the sector's financial performance with flat to declining ROIC. The pace of change will only accelerate over the next 10 years. To overcome potential headwinds, companies should identify how they can strengthen their portfolios through M&A and organic investment by balancing the tradeoffs between scale, scope, and growth.

While there is no one-size-fits-all approach, our analysis revealed that while focused portfolios work for many chemicals companies, the same was not true for oil and gas companies. We also found that lower costs (through advantaged feedstocks) could be a mixed blessing for chemicals manufacturers but enabled better performance for oil and gas producers across the board. Lastly, we discovered that despite the accelerating energy transition, many first movers did not outperform their peers in financial performance.

Based on our analysis, neither organic investment nor M&A can deliver stronger financial performance on its own. To truly transform their asset portfolios to deliver sustainable growth, companies will need to find the fine balance between strengthening their existing products and services and expanding into new, potentially high-growth areas, be it in new regions, end-markets, or technologies. Companies that better leverage their existing competitive positioning and opportunities to innovate can build a more fit-for-purpose portfolio to overcome future volatility and uncertainty.

Endnotes

- 1. Deloitte analysis of upstream cash flow data from Rystad Energy, accessed March 4, 2021.
- 2. Deloitte analysis of capital expenditure data from S&P Market Intelligence, accessed March 4, 2021.
- 3. U.S. Energy Information Administration, "Europe Brent spot price FOB," March 3, 2021.
- 4. Reinhard Meckl and Falk Röhrle, "Do M&A deals create or destroy value? A meta-analysis," *European Journal of Business and Economics* 11, no. 2 (2016).
- 5. Ibid.
- 6. Amy Chronis, David Yankovitz, and Aijaz Hussain, *Portfolio transformation in chemicals: Creating value and sustainable long-term growth*, Deloitte Insights, May 11, 2021.
- 7. Sika Group, Sika business year 2020, 2020.
- 8. Kate Hardin and Anshu Mittal, From risk to reward: Realizing value in the shale M&A market, Deloitte, 2020.
- 9. Deloitte analysis of upstream cash flow data, Rystad Energy, accessed March 4, 2021.
- 10. Wood Mackenzie, "The Majors' energy transition," December 14, 2020.
- 11. Sarah McFarlane, "BP bets future on green energy, but investors remain wary," *Wall Street Journal*, September 29, 2020.
- 12. Deloitte analysis of Sasol Limited's 2018, 2019, and 2020 annual reports.
- 13. Lotte Chemical, "Company introduction: Vision," accessed April 7, 2021.

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