



US MIDSTREAM COMPANIES NEED A NEW PLAYBOOK

By Matthew Abel, Riccardo Bertocco, and Joseph Halverson

RECENT CHANGES IN THEIR financial and operating circumstances are forcing US midstream oil and gas companies to rethink how they do business. Market and basin dynamics have shifted significantly, altering the contours of competitive advantage. Simultaneously, the political and regulatory environments, especially at the local level, have become more complex, posing new hurdles to growth. Worrisomely, many players have yet to define strategies for addressing these challenges, inaction that may expose the companies' earnings and share prices to considerable volatility.

Fortunately, US midstream companies can mitigate many of the looming risks. But in order to effectively achieve this result, they must build or enhance their capabilities on multiple fronts, including strategy and business development, operational efficiency, and the management of external stakeholders. High on their to-do list will be developing a more agile approach to strategy formulation, retooling their organizations with digital capabilities, working relentlessly

ly to simplify operations, and designing a cost-effective operating model.

A Confluence of Challenges

US midstream companies find themselves facing a mix of evolving challenges. Among the greatest are shifts in the relative economic attractiveness of many oil and gas basins. On the gas front, recent surges in production in the Denver-Julesburg, Niobrara, and Permian basins have exerted considerable pressure on producers with assets in the Northeast—including the Marcellus and Utica basins—to increase output. This development has also helped shift the market's center of attention back toward the Gulf of Mexico region.

The changing dynamic has spawned significant opportunities for some midstream players, but it has also created challenges for many, including the need to develop scenario-based modeling of future investment opportunities. In parallel, midstream players are wrestling with the effects of shortages of export pipelines and gas-

processing plants, deficits that have created bottlenecks and significant price differentials across specific geographies. Midstream companies also face the specter of a long-term flattening of gas demand, driven by the substitution of renewable energy sources for gas in power generation and by an increasingly competitive international gas market (including more-competitive prices for liquefied natural gas). These developments could significantly reduce the attractiveness of US-produced gas in global markets, even at current prices.

On the oil side, similar dynamics, driven by major discoveries in the Permian, SCOOP (South Central Oklahoma Oil Province), and STACK (Sooner Trend, Anadarko, Canadian, and Kingfisher) basins, have put pressure on Bakken and Canadian production, increasing the urgency for many midstream companies' to develop plans for new infrastructure builds. A counterweight to the effects of these forces on midstream companies' businesses is the recent construction of export lines from the Midland and Delaware basins to the Gulf Coast and to export terminals in the region. This has been a bright spot and a source of growth for many players.

Midstream companies have also felt the effects of underwhelming financial returns on their M&A. Their M&A activities in recent years have generated some economies of scale, to be sure. However, a recent BCG study found that, on balance, midstream companies are struggling to reap hoped-for cost synergies. Expectations of such synergies have encouraged the substantial volume of M&A that companies have undertaken (more than 900 deals, representing over \$800 billion in transaction value) over the past nine years. But the sought-after efficiency gains have proven elusive. The ratio of general and administrative costs to sales has trended steadily higher at the same time that production per full-time employee has trended downward. All told, announced cost synergies as a percentage of total deal costs for midstream M&A have typically been approximately 1% to 2%. This trails the results for the broader oil and gas arena (where the ratio has been,

on average, 2% to 5%) as well as the results for utilities (1% to 4%) and industrial goods (2% to 4%). It is also substantially lower than the 2% to 7% percentage that BCG has calculated for best-practice companies across industries.

Growing political and regulatory uncertainty has been another major hurdle for midstream players. Environmental activists, local communities, landowners, and other stakeholders have pushed back with increasing vigor (and success) in recent years against proposed oil- and gas-transport infrastructure. Meanwhile, a more complex regulatory environment, especially at the state and local levels, has presented new logistical hurdles for midstream businesses and raised the cost of proposed projects. These forces have had a material impact on the industry. In the past five years, more than \$60 billion in planned pipeline investment in North America has been delayed or canceled, including several proposed crude-oil pipelines that collectively represent capacity of more than 4 million barrels of oil equivalent per day, and more than ten natural-gas pipelines that collectively represent capacity of more than 11 billion cubic feet per day.

Finally, midstream players have had to contend with rising skittishness among equity investors, who increasingly view the industry as risk laden and hampered by constrained growth opportunities. This caution is reflected in the high dividend yields that stocks of midstream companies currently offer (an average of 7.6%) versus both traditional high-yielding equity investments, such as real estate investment trusts (3.8%) and utilities (3.5%), and ten-year US Treasury bonds (2.7%).

In an attempt to limit their risk, investors in the sector have been exerting pressure on management teams to generate growth through self-funding. They have also applied rigorous valuation standards to companies (especially those whose businesses center on resource gathering and processing) that they consider particularly vulnerable to changes in commodity prices and basin dynamics.

Investors have also been reluctant to subscribe to midstream players' debt offerings sized beyond certain levels of coverage (with 4 to 4.5 times cash flow considered the upper limit) and have pushed equity multiples down for companies that have consistently exceeded this limit. The resulting effective cap on debt poses a significant hindrance to many midstream players' growth prospects. It also means that these companies must demonstrate to shareholders that they can generate above-cost-of-capital returns on capital projects, which puts a premium on maximizing cash flows through cost reduction and improvements in operating efficiency.

How Midstream Players Can Thrive Amid the Challenges

Despite the number and size of the hurdles they face, midstream companies can adopt various tools and approaches to navigate the challenges and maximize their odds of success. These options fall into four categories: strategy and business development, operational efficiency, use of digital tools, and management of external stakeholders.

Strategy and Business Development. In view of the rapid pace of industry change, midstream players must develop a faster, more flexible approach to scenario modeling. This will involve supplementing long-term modeling by developing medium-term modeling capabilities through the use of agile principles and digital tools. Companies must supplement analysis at the basin level with ongoing data updates at the sub-basin and even asset levels. They can complement this effort with an equally granular view of domestic and international end-use markets and customers, to understand the likely evolution of asset flows. To ensure effective optimization across this system, they can deploy agile sprints designed to accelerate the review and feedback processes and drive enhancements to models.

This rigorous approach will improve companies' ability to respond to market nuances and will accelerate decision making. Indeed, given that markets are in continu-

ous flux and face unique localized pressures, bottlenecks, and supply dynamics, the only way for midstream companies to ensure success is by adopting a granular view across different strategic scenarios.

Midstream companies must also reexamine the value of their portfolios and endeavor to actively shape portfolio composition. As pressures from investors and markets increase, embracing a robust, TSR-driven approach is critical for midstream players because it can provide them with a more holistic view and alert them to early indications of changes that may be necessary to maximize returns.

Such efforts to understand and optimize the management of their portfolios can also help midstream companies maximize the effectiveness of their deployment of cash in the face of often-dueling internal-growth requirements and investor demands. In conjunction with an emphasis on more-granular scenario modeling, this can also help midstream players position their asset portfolios and financial strategies to align better with the companies' individual needs and with the demands of the market.

Operational Efficiency. The increases in the complexity and scale of their operations and organizations create an opportunity for midstream companies to streamline, simplify, and improve the efficiency and effectiveness of their operating model. To accomplish this, they can use many levers, including process improvements, organizational redesign, changes in governance, and technology enhancements. These moves can ultimately yield enhanced productivity, more-advantageous employee behaviors, and other organization-wide benefits.

Many industrial clients have netted meaningful results by effectively deploying BCG's Smart Simplicity approach to such optimization. One large company, for example, used it to increase the company's cooperation with its suppliers, leading to substantial cost reduction (including savings of over \$400 million for the company) and reduced time to market.

Use of Digital Tools. With an optimized operating model in place, companies can fully embrace digital tools, with an eye toward improving operating efficiencies and boosting asset performance. Such tools, coupled with advanced analytics, can identify means to improve asset operation and uptime, reduce operating costs, identify maintenance opportunities, and much more. The task of developing and deploying these tools and advanced analytics isn't easy and often requires organic or inorganic development of people skills and capabilities, clearly defined data-governance processes and procedures, an effective approach to implementation, and a sound prioritization process.

Besides embracing digital tools to improve core operations, midstream companies should take steps to reduce overhead costs. One potentially valuable aid that they can employ here is zero-based budgeting (ZBB), a proven tool for boosting transparency, creating accountability, and adding rigor to cost management for many businesses. Companies can enhance the effectiveness of ZBB through the use of artificial-intelligence-based tools. Such tools permit deep scrutiny of transactions data, creating new insights that can ultimately lead to lower costs and greater efficiency.

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Management of External Stakeholders.

Like many others in the broader energy sector, midstream companies will face increasing numbers and a greater breadth of stakeholders, as well as a potentially more stringent legislative and regulatory environment, going forward. These challenges are likely to complicate both new projects and products and ongoing operations. To manage the environment successfully, midstream companies will need to adopt new technologies, including ones based on artificial intelligence and machine learning, that enhance the companies' ability to surface and address potential issues and identify and mollify current and future stakeholders and critics.

MIDSTREAM COMPANIES FACE a difficult business environment in the near to medium term. But they have the means to mitigate most of the risks and shield themselves from the worst of the turbulence. Executing on all of the fronts involved will undoubtedly be challenging and require some investment. For the companies that get it right, however, the rewards could be substantial.

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