



2010 Deloitte Oil & Gas Conference Summary Report



November 18, 2010
Houston, Texas

Deloitte hosted its 2010 Oil & Gas Conference on November 18 in Houston, Texas. With the theme, *The Road Ahead for Energy*, the conference attracted more than 400 industry executives and other stakeholders who came to hear oil and gas leaders, eminent analysts, and academics discuss the challenges and opportunities that lie ahead for oil and gas companies. Topics addressed were comprehensive, discussing whether or not the recession is behind us; the global economic outlook for oil and gas; the implications of China's insatiable appetite for fossil fuels, natural gas and alternative energy; the future for downstream; the boom in unconventional resources, which "keeps going and going"; the favorable environment for investment and mergers and acquisitions; and capital investment barriers faced by oil and gas companies.



Our objective for the conference is to provide a comprehensive forum to provide attendees with a better understanding of important issues shaping the oil and gas industry. We are grateful to the speakers for sharing their views and to the attendees for their active participation in the conference.

This brochure highlights the major themes and provides a synopsis of the speakers' views and comments organized by industry sector.

We look forward to seeing you at Deloitte's 2011 Oil & Gas Conference next fall in Houston. The date will be announced soon.

A handwritten signature in black ink that reads "Gary A. Adams". The signature is written in a cursive, flowing style.

Gary Adams
Vice Chairman, Oil & Gas
Deloitte LLP

Our Featured Guest Speakers

John Abbott, Senior Independent Advisor, Deloitte Canada

Oscar Brown, Managing Director and Head of Houston Energy Investment Banking, Bank of America Merrill Lynch

Bryan Burrough, Best-selling Author of *The Big Rich* and Special Correspondent for *Vanity Fair*

Janet F. Clark, Executive Vice President & Chief Financial Officer, Marathon Oil Corporation

Lynn Elsenhans, Chairman and CEO, Sunoco, Inc.

Steve Fulgham, President, OFS North America, Schlumberger

Christian Havrehed, General Manager, Wallem Shipping (China) Ltd.

Steve Kirchhoff, Americas Vice President for Natural Gas, ExxonMobil

Mark Little, Senior Vice President, International & Offshore, Suncor Energy Inc.

Kevin O. Meyers, Senior Vice President, Exploration & Production–Americas, ConocoPhillips (now retired)

Chris Ortega, Director, First Reserve Corporation

Peter J. Robertson, Independent Senior Advisor, Oil & Gas, Deloitte LLP

Adam Sieminski, Chief Energy Economist, Deutsche Bank/Global Markets Commodities Research

Conference Overview

The 2010 Deloitte Oil & Gas Conference explored the road ahead for energy. Many speakers predicted that the road ahead will be steep due to rising energy demand. This demand is being driven by a variety of factors, such as world population growth; the need to deliver the basics to large populations (i.e., nearly two-thirds of the people in the world have either inadequate electricity service or none at all); and upward mobility in Brazil, Russia, India and China (the “BRIC” nations) as hundreds of millions of people move into the middle class over the next decade. Meanwhile, challenges related to economic conditions, resource access, risk management, regulatory uncertainty, and global competition are poised to make this road as rocky as it is steep. What will be needed to make the way passable? We offer the following top-line observations and insights, upon which the remainder of this report expands:

Going steady. Oil prices remained stable in 2010, hovering around \$80/bbl. With the wake from the turbulence of 2008/09 finally starting to fade, people are now wondering, “Is it finally okay to remove our seat belts and walk about the cabin?” Some believe so, with the caveat that it’s still probably not a good idea to stray too far from one’s seat. As Adam Sieminski, Chief Energy Economist, Deutsche Bank/Global Markets Commodities Research, pointed out, his company’s analysts are currently expecting WTI crude oil to average circa \$80/bbl in 2011 and \$85/bbl in 2012. Yet, several factors have the potential to undermine this stability, including weak physical fundamentals, the risk of a double-dip recession in the U.S., and world economic growth that fails to meet expectations. Although proceeding with caution is generally advised, Sieminski and others stressed that there are a number of positive trends that generally bode well for the industry. These include recovering world demand, the vast potential of shale gas as an option for lowering CO₂ emissions, and the ability to boost recovery rates by transferring shale gas production techniques to oil fields.

China goes big on energy consumption. China has a population of about 1.3 billion people, more than four times that of the United States, and its GDP is expected to grow at the dizzying pace of approximately 8.5 percent per year through 2014.¹ Speakers emphasized that the nation’s extraordinary mass and momentum naturally translates into an insatiable appetite for energy and infrastructure. Indeed, China’s energy companies have been mandated by the government to secure long-term energy supplies — a task that they are pursuing aggressively through acquisitions, joint ventures, production-sharing agreements and supply contracts. While it might be tempting to take a protectionist stance against China’s quest for commodities, speakers argued that the country’s precarious balance between growth and meeting the basic needs of its people is making it more receptive to input from the rest of the world. This situation is already creating economic opportunities for foreign suppliers of exploration and production technologies. It is also accelerating the development of green energy technologies, as China invests unrivaled sums in an effort to reduce its CO₂ emissions and improve the overall sustainability of its environment.

Redefining refining. Intense global competition, a weak economy, and a shifting domestic regulatory environment are buffeting the downstream sector in the U.S., leading some to conclude that the golden age of refining may be ending. But is it possible for savvy refiners to find a silver lining in the concluding chapters of an abundant era? Speakers asserted that the answer is yes for those that are able to become low-cost producers or to develop a special niche. Some also contend that the diesel crack spread will underpin refining margins in the U.S., and to the extent that U.S. refiners have excess diesel capacity, they will have opportunities to export the fuel to other parts of the world. Amid a highly uncertain environment, speakers concurred that the future of downstream appears to lie in flexibility — both in terms of being able to refine various types of crude as well as to adjust strategically to provide a diversity of energy supply and bring it to a growing market.

¹ U.S. Energy Information Administration; Economist Intelligence Unit; and World Bank.

Unconventionals become commonplace. As recently as two years ago, some analysts were predicting that the United States was entering an era of long-term decline in natural gas production. But by the end of 2009, the widespread use of horizontal drilling and hydraulic fracturing techniques had catapulted the nation into a largely unforeseen position as the biggest producer of natural gas in the world.² Speakers pointed to this rapid reversal to underscore how the pervasive availability of unconventional natural gas in North America — mainly shale gas, tight gas and coalbed methane — is affecting world LNG markets as well as influencing domestic energy choices. Emitting about half the CO₂ of coal, natural gas is becoming an increasingly attractive option for power producers who wish to rapidly reduce their carbon footprints. Speakers also emphasized the growing importance of unconventional oil, particularly supplies from the Canadian oil sands, in shoring up energy security for the U.S. As one speaker noted, “Canada is not only the largest oil supplier to the U.S. but also the most reliable.”

Make me a match. Oil and gas companies are increasingly looking for rewarding relationships. Speakers explained that improving economic conditions, open debt markets, and low interest rates have combined to create a positive environment for mergers and acquisitions in the oil and gas industry. Plus, companies have plenty of motivation to act now: Faced with slowing organic earnings growth, M&A provides a means to further expansion as well as to diversify, acquire technology and enter new geographies for strategic reasons. On the private equity front, speakers asserted that the investment environment is also favorable. Private equity firms are responding to producers’ desires to raise capital and reduce debt, especially related to unconventional resource plays. This is resulting in a new spate of joint ventures and farm-out agreements with private investors. These types of arrangements offer the advantage of allowing producers to share control and upside while mitigating the risk and burden of large capital requirements.

Mind-bending challenges require flexible solutions.

In order to counter depletion and provide growth, the industry needs to replace the equivalent of Saudi Arabia’s oil and gas production every year. Against this backdrop, speakers stressed the necessity of continued capital investment, even though uncertainty around carbon regulations, heightened political risk, market volatility, and the increasing need to drill deeper, all pose challenges to it. Another potential challenge, which some described as a true barrier, is the prospect of a continuing “permitorium” in the Gulf of Mexico, as speakers noted that no wells for deepwater hydrocarbon searching have been permitted since the Macondo spill. Nonetheless, speakers stressed that the oil and gas industry is very resilient and resourceful by nature, which has allowed it to negotiate most obstacles thus far. In the future, however, they emphasized the importance of making investments that provide not only a strategic advantage but also the flexibility to adjust to whatever may be coming down the pike.

² BP Statistical Review 2010

Oil & Gas Economic Outlook

Oil prices maintained a modicum of stability in 2010, hovering around \$80/bl for most of the year. After vacillating between “the bottom of the barrel” and “the top of the charts” in 2008/09, the moderate prices of 2010 offered welcome relief for weary executives who could finally switch from survival to planning mode. But will the calmness remain or is it the prelude to another storm? Adam Sieminski, Chief Energy Economist, Deutsche Bank, Global Markets/Commodities Research, reported that world oil demand is recovering, buoyed by solid improvement in the world economy during 2010. Sieminski further contends that a mixed bag of economic factors suggests that this recovery might not have the force or the linear trajectory needed to propel oil prices far off their current marks moving into 2011. For those satisfied with the status quo, this is good news; for those hoping for more, it’s the reverse.

Rising fears of a double-dip recession and the risk of deflation in the U.S. are the discouraging parts of the mixed bag. Sieminski noted that while his firm’s baseline forecast does not foresee a double-dip, he believes that the downside risks have increased. These risks are heightened by two policy factors: 1) the Fed is running very low on available policy stimulus measures, and 2) the Fed is likely to embark on a monetary tightening cycle in 2011. On the other hand, financial factors such as a weaker U.S. dollar and a stronger equity market, both of which tend to support oil prices, are more promising components of the mixed bag. These factors, thus far, have been strong enough to outweigh poor physical fundamentals, such as high inventories, excess refining capacity, plenty of OPEC spare production capacity, and non-OPEC supplies that have been surprisingly on the upside. These assorted conditions have led Deutsche Bank analysts to predict a relatively steady course for oil prices in 2011, which they anticipate will remain at circa \$80/bl for both WTI and Brent crudes.

Sieminski painted a similarly steady picture for natural gas prices. While some analysts are speculating that shale gas production might hit a plateau soon, others such as Wood Mackenzie predict that it could grow from nearly 10bcf/d in 2010 to over 30bcf/d by 2030. According to Sieminski, there are five key reasons “why shale gas keep growing like the Energizer Bunny™.” These include the need to

keep drilling to fulfill “held by production” leasing clauses; high natural gas liquids (NGL) prices that are providing significant incremental cash flow; joint ventures with majors, which offer another source of cash; forward sales (hedging), which adds to revenue; and the desire among some exploration and production companies to maintain volumetric growth profiles as a key factor in supporting share prices.

Despite its abundance, demand for natural gas remains weak in the U.S. With copious supply and tepid demand, Sieminski expects gas prices to remain low in 2011, hovering around \$4.50/mmBtu. He and other speakers throughout the day contended that the shale gas boom offers the U.S. an enormous opportunity to shore up energy supply security if it can find more ways to take advantage of this vast domestic resource. Other nations are also starting to examine the potential for leveraging the techniques and technologies developed in the U.S. to exploit the shale gas basins in their own backyards. Noting that shale gas is a global phenomenon, Sieminski asserted that development of just a small proportion of this resource could dramatically change local gas markets with implications for global gas dynamics. Specifically, it could reduce import requirements, provide additional export sources and impact global gas pricing.

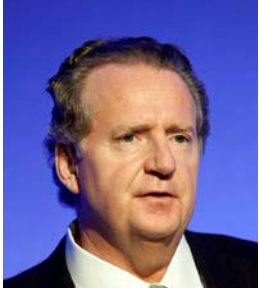
Sieminski concluded by noting that while the U.S. economy is starting to pick up again, many hard choices will need to be made in order to continue this momentum and to meet the accompanying energy demand in a sustainable manner. In the U.S., green jobs are still largely aspirational, deficit reduction measures will likely choke subsidies for alternative energies, and progress on climate change legislation has stalled. Sieminski asserted that the U.S. is now being challenged to find a politically palatable way forward for reducing CO₂ emissions, possibly by using natural gas as a bridge. At the same time, the U.S. government will be challenged to balance protectionism versus global economic development amid a shifting geopolitical landscape that features China as the largest consumer of energy and base metals in the world. The ultimate choice for the U.S. Congress, Sieminski surmises, comes down to confrontation versus compromise, noting that gridlock in the U.S. political system in itself can be a significant barrier to economic progress.



“Can oil prices be too high or too low? Yes. At one end of the spectrum, you’re not leaving enough money on the table for reinvestment. At the other, you’re not leaving enough for consumers to pay for housing, food and other necessities.”

Adam Sieminski, Chief Energy Economist, Deutsche Bank/Global Markets Commodities Research

China – An Insatiable Appetite for Fossil Fuel, Natural Gas and Alternative Energy



“Meeting the demand for energy is probably the biggest single risk to the growth of China’s economy over the next 40 years.”

John Abbott, Senior Independent Advisor, Deloitte Canada



“China is moving at a speed that we really can’t comprehend.”

Christian Havrehed, General Manager, Wallem Shipping (China) Ltd.

Over the next 20 years, China plans to move over 300 million people from rural areas to urban centers in an effort to provide better social services to its citizenry. As John Abbott, senior independent advisor, Deloitte Canada, explained, “That is like relocating everybody in Texas every 15 months into some other place that doesn’t even exist today.” This shift implies an almost unfathomable demand for infrastructure, ranging from roads to housing to hospitals. And, it is only one example of the extraordinary growth that is fueling China’s voracious appetite for energy as well as for base metals and food.

Across the board, China’s economic engine is racing at a breakneck pace, with GDP anticipated to expand at an average rate of 8.5 percent per year through 2014.³ Retail automotive sales alone have grown an average of 45 percent over the past ten years to a total of \$1.15 trillion in 2009.⁴ This trend follows the booming economy and is indicative of the nation’s growing wealth and its burgeoning middle class. It is not surprising then that China has recently become the world’s largest energy consumer, with crude oil accounting for about 20 percent of its extraordinary demand.⁵

To meet these needs, China’s government has mandated its energy companies to secure long-term energy supplies. This has led to a global search for reserves, with deals being done in Africa, Asia, Russia, South America, the Middle East, and Canada. It has also led to a change in approach. Chinese companies are now much more open to collaborative arrangements such as joint ventures, production sharing agreements and supply contracts as opposed to taking 100 percent control through acquisitions. Speakers explained that this change in mindset is due to China’s growing sensitivity about how the rest of

the world perceives its activities in foreign lands, as well as by the basic reality that the physical hydrocarbons must ultimately end up in China, either by direct import or swap. The nation’s enormous demand for energy is also creating opportunities for foreign companies that can supply exploration and production technologies as well as the know-how to develop relatively untapped domestic resources such as shale gas.

Developing an economy at a record-setting pace, however, does not come without consequences. Each Chinese emits only 27 percent of the CO₂ that an American emits, but its huge population makes China’s total CO₂ emissions more than 16 percent higher than those of the U.S.⁶

Recognizing that issues related to environmental sustainability could undermine social stability, China is doing its best to go green. In 2005, China passed a renewable energy law, and in 2009 President Hu Jintao restated the nation’s commitment to “vigorously develop renewable energy.” Today, China’s investments in renewable energy dwarf those made by any other nation.⁷ As a result, Chinese enterprises are fast becoming technology leaders in green energy generation and will likely outperform many western companies. Already, China has over 400 photovoltaic (PV) companies⁸ and it is home to three of the top 10 wind turbine manufacturers in the world.⁹ Havrehed concluded by underscoring one of China’s many paradoxes that make it so intriguing: China may not be the greenest place on earth, but it will have the greenest technology, which will increasingly be in global demand as fossil fuels deplete.

³ U.S. Energy Information Administration; Economist Intelligence Unit; and World Bank

⁴ Ibid

⁵ International Energy Agency

⁶ United Nations Statistics Division, CO₂ Emissions from Fuel Combustion (2010 Edition), IEA, Paris, 2008.

⁷ “Who’s Winning the Clean Energy Race?” The PEW Charitable Trust

⁸ Photon International, Wikipedia

⁹ BTM Consult, *The Dallas Morning News*, 26 May 2010

What is the Future for Downstream?

If world oil consumption is growing, then why is the U.S. refining industry suffering from a glut of capacity and a dearth of margins? Speakers explained that a number of factors have coalesced to alter the course of the downstream business in the United States, quickly sweeping many refiners from an age of plenty into an era of austerity. Among them is declining demand for gasoline in the U.S., which can be largely attributed to the sluggish economy, tougher Corporate Average Fuel Economy (CAFE) standards, changing consumer habits, and higher renewable fuel requirements. Simultaneously, big additions in refining capacity are coming on line to serve the world's fastest growing markets, resulting in a sector-wide shift: The major refining centers are shifting away from the U.S. and Europe and to the rapidly growing economies of Asia-Pacific, the Middle East and parts of Latin America.

As demand wanes, U.S. refiners are finding that they have few options for eliminating the challenge of excess capacity. Many refiners have already reduced their throughput and idled underperforming units, but few have been willing to take on the arduous environmental and financial burdens associated with permanent shutdowns — although some contend that the cost of complying with a new round of regulations related to sulfur, particulates, and potentially carbon will finally force some refiners to go this difficult route.

Despite this bleak picture, speaker Lynn Elsenhans, Chairman and CEO of Sunoco, stressed that while opportunities in the downstream sector are no longer plentiful, they do still exist. One of those is related to the capacity that is being utilized in the U.S. Diesel consumption is growing in the U.S. and elsewhere, with diesel crack spreads remaining robust. This is creating an opportunity for refiners to shift their focus to diesel production and to export this in-demand fuel to areas of the world that are coming up short. Some refiners are moving aggressively to “make the most of diesel” by adding capacity to produce ultra-low-sulfur versions of the fuel as well as configuring some of these additions to process heavier and less desirable types of crude oil to capitalize on their lower costs.¹⁰

Elsenhans further explained that the rapid growth in world energy demand will put pressure on all refiners, even if the over-capacity situation in the U.S. does improve. In response, U.S. refiners will likely need to become low-cost producers or develop a niche. Many will also need to revise their strategies to focus on ancillary areas of the downstream sector that offer greater growth and profit potential, such as retail or logistics.

Notably, Elsenhans and others anticipate little cross-investment between the refining and biofuels industries. Speakers concurred that it is hard to make ethanol production economic even with mandates and incentives. While the amount of “gas” in gasoline could shrink further in the U.S. due to higher ethanol mandates, liquid fossil fuels will remain the main ingredient in the world's transportation fuel cocktail for the foreseeable future because they are cheaper to produce. Accordingly, the future of downstream appears to lie largely in processing a diverse supply of crudes and in delivering select products to markets that are thirsty for expansion.



“World energy demand is growing fast, mainly in places like Asia-Pacific, the Middle East and parts of Latin America. That is going to put pressure on the cost of energy for all of us, and that’s going to be there despite the fact that we’re likely to see substantial over-capacity in U.S. refining.”

Lynn Elsenhans, Chairman and CEO, Sunoco, Inc.

¹⁰ U.S. Energy Information Administration, *Annual Energy Outlook with Projections to 2035*

Oil Sands, Shale and Conventionals in a Changing Global Marketplace

Living up to its national symbol, Russia was largely viewed as “the bear” in natural gas production for most of the last decade. The U.S., on the other hand, was also a leading producer, but depletion was starting to set in. Far from being a major exporter, the U.S. was being challenged to keep pace with its own domestic demand for natural gas, with many analysts predicting a long-term, and likely irreversible, decline in domestic production. This prediction, however, did not materialize. Instead, due to the recent boom in shale gas production, the U.S. has become the world’s largest producer of natural gas, surpassing Russia in 2009. Furthermore, U.S. reserves are now largely estimated to be sufficient to meet the nation’s needs for the next 100 years, and an abundance of Canadian resources are also coming on line. Speakers asserted that this upsurge in unconventional production, mainly from shale gas, tight gas and coal bed methane, is a “game-changer” for the industry, in the U.S. and elsewhere.

The game-changing implications of the unconventional gas boom are many. Domestically, the profusion of natural gas resources provides a competitive advantage to the U.S. economy. Low-cost natural gas can be used for electricity generation as well as industrial processes, thus helping to drive economic recovery and job creation. Globally, an abundance of unconventional supplies in North America implies little need for LNG imports, with the U.S. Department of Energy forecasting that the U.S. will be essentially self-sufficient.¹¹ It also suggests that North American producers, who have largely been victims of their own success in terms of excess supplies and depressed market prices, are now well-positioned to become LNG exporters should market demand in the Middle East, Asia, and other rapidly growing non-OECD nations warrant the infrastructure investment.

As the global demand for hydrocarbons continues to grow, natural gas also offers the world a compelling option for reducing CO₂ emissions. Several speakers noted that natural gas is clean-burning, producing about half the CO₂ as coal and emitting little SOX, NOX, particulate matter or volatile organic chemicals. Even more, switching from coal to gas in existing power plants can often be done quickly and economically. These characteristics, when combined with the fact that many nations have yet to exploit their own shale gas potentials, led many speakers to postulate that natural gas will be a major contributor to the energy picture throughout the world in the coming decades.

In addition to highlighting the game-changing characteristics of shale gas, speakers also emphasized the importance of another unconventional resource, the Canadian oil sands. Representing 170 billion barrels of reserves, speakers explained that few outside the industry recognize or fully understand the vast potential of the oil sands and the critical role it plays in U.S. energy security.¹² For instance, Canada is the largest supplier of crude and refined products to the U.S. while Mexico, Venezuela, and some other key suppliers are in decline.

Characterized by both geographic proximity and geopolitical stability, the oil sands are well-positioned to be a long-term, secure energy source for U.S. markets. However, producers face a number of challenges in making this unconventional resource mainstream. Among them are high costs, labor shortages, and a host of environmental concerns related to greenhouse gas emissions, land disruption, waste management and water use. Speakers stressed that over the last two decades, new technologies such as co-generation and horizontal drilling have improved both cost and environmental performance. They further noted that industry-wide emissions intensity has decreased 40 percent since 1990 and water use has been reduced more than one-third since 2002.

¹¹ U.S. Department of Energy, EIA Annual Energy Outlooks

¹² *Oil and Gas Journal*, December 2008

Today, oil and gas companies are investing vast amounts in R&D toward reducing the environmental footprint of the industry. Speakers explained, however, that this is only one-half of the sustainability equation: The other half is stakeholder perception and community relations. Speakers acknowledged that the industry has not done a good job in the past of educating the public about what it is doing and the safety measures it takes. They further observed that misunderstandings and inflexibility on both sides are fueling a grassroots backlash against what is perceived to be “dirty oil” from the oil sands, as well as against unconventional gas from shale formations due to concerns that hydraulic fracturing techniques could potentially contaminate water supplies. To mitigate these challenges, speakers called for oil and gas companies to be more proactive in listening to people’s concerns and in communicating the economic benefits that are generated and the environmental safeguards that are employed when “drilling in someone’s backyard.”



“Shale gas represents a potential dual solution—it enhances energy supply security and offers a path to climate stewardship.”

Kevin O. Meyers, Senior Vice President, Exploration & Production – Americas
ConocoPhillips (now retired)



“The oil sands are uniquely positioned to be a long-term, secure energy source for U.S. markets.”

Mark Little, Senior Vice President,
International & Offshore, Suncor
Energy Inc.



“In order for natural gas to reach its full potential, we need to let free markets work through stable and sensible policies that allow the resource to compete on a level playing field.”

Steve Kirchhoff, Americas Vice
President for Natural Gas,
ExxonMobil

Investment and Mergers and Acquisitions Climate in the Oil and Gas Industry



"What drives M&A? The number one thing from our perspective is CEO confidence."

Oscar Brown, Managing Director and Head of Houston Energy Investment Banking, Bank of America Merrill Lynch

Improving economic conditions, low interest rates, and wide open debt markets are combining to create a positive environment for M&A. Transaction volumes have been trending upward after dwindling to virtually nothing during the last quarter of 2008. As one speaker noted, "This is a good year to discuss M&A because if we had done it during the previous two years, there wouldn't be much to talk about." Speakers also observed that the market remains receptive to M&A, with buyers' equities often going up in value upon announcement of a deal. The market appears to be rewarding industry consolidation and scale efficiencies, in recognition that breadth and depth are becoming increasingly necessary to survive in a global competitive landscape.

The favorable macroeconomic conditions today are collectively bolstering what some see as the most important driver of M&A: CEO confidence. While a good deal of uncertainty remains in the industry, speakers asserted that CEOs have finally found the traction to move ahead with their strategies — and for many, M&A will be an important lever for executing them. Faced with slowing organic earnings growth, some companies will look to M&A as a catalyst for expanding into new markets or gaining greater shares of existing ones. Others may seek out deals as a means of redeploying capital: Instead of expanding capacity, they will buy companies in an effort to diversify operations, gain new technologies or enter new geographies.

These motivating factors apply across industry sectors, although speakers noted that a few sector-specific trends are emerging. In the upstream, some anticipate a migration of ownership to the Majors and National Oil Companies in the Gulf of Mexico because the risks and costs of operating there have become prohibitive for smaller enterprises in the aftermath of the Macondo spill.

Consolidation is also anticipated in the oilfield services sector as larger players seek to gain additional foothold in the shale gas business as well as to obtain the scale and diversification needed to manage escalating risks. In the midstream business, master limited partnerships (MLPs) have returned as aggressive acquirers in the U.S., leading some to conclude that the category is here to stay. Speakers also noted that persistently poor fundamentals still plague the downstream sector, which are depressing the market valuations on refining assets to the lowest levels in over a decade. This situation is providing opportunities for private equity investors to pick up assets rather cheaply, with the goal of holding them until margins recover.

Beyond bargain hunting in the downstream sector, private equity investors are also focusing on exploration and production (E&P) opportunities, spurred largely by the growth in unconventional resource plays. Potential private equity strategies in E&P include startups, acreage/asset acquisitions, joint ventures, and private investments in public equity (PIPES). Among them, speakers mentioned that joint ventures and farm-out arrangements probably provide the most actionable approach for responding to producers' intense desire to raise capital and reduce debt. Through partial monetization strategies such as these, producers can share in the control and upside while mitigating the risk and burden of large capital requirements.

Regardless of the type of strategy involved, speakers stressed that the success of any M&A transaction or private equity investment hinges upon picking the right partner. In an era where operational excellence and risk management have become paramount, a company should not enter into an agreement with any organization whose technical capability or financial integrity is suspect. When pursuing a rewarding relationship of any kind, it appears that both sides must know with whom they are dancing.

Barriers to Investing in Oil and Gas

World demand for oil and gas is expected to grow at roughly two percent per year through 2035.¹³ Meanwhile, oil and gas production naturally declines at approximately 4-6 percent per year due to depletion. In putting these two facts together, simple math suggests that the industry needs to add around 6-8 percent in production every year just to keep pace. Speakers pointed out that this equates to about 5-7 million barrels of oil and 3-4 million barrels in natural gas equivalent — or roughly the annual production of Saudi Arabia. Replacing that much oil and natural gas each year is an astronomical undertaking that requires enormous capital investments. Accordingly, it behooves the industry to understand the barriers to making those investments and to explore collectively what can be done to surmount them.

Speakers explained that the industry is being assailed by many challenges, a number of which can be grouped under the category of “uncertainty.” This includes uncertainty about prices, carbon regulations, subsidies and incentives for alternative energies, political risks, and the long-term repercussions of the Gulf of Mexico spill, among others. They also stressed that the industry is facing unprecedented upstream challenges since “the easy oil” has largely been found. This implies a need to probe farther into technically challenging environments such as deepwater and harsh Arctic locales, as well as to find ways to economically produce unconventional resources such as oil sands. Downstream, too, has its share of obstacles to investment, including biofuel mandates and a collapse in profit margins attributed to the recession and to intense global competition.

Regardless of the operating sector, speakers stressed that there are two fundamental keys to rising above these challenges — and indeed, they have been the main reasons that the industry has been able to meet production targets year after year. The first is the ability to make capital investments that give a company the flexibility to adjust to ever shifting market dynamics. As an example, one speaker pointed to a recent refinery expansion that now gives the company the ability to process any type of crude as well as the option to export its products when the market conditions are favorable. The second key is continual technology development. Seen by some as the “single, most mitigating factor” in overcoming barriers, speakers pointed out that it was technology that spawned the shale gas boom as well as made deepwater operations feasible and cost-effective.

Despite its track record of overcoming obstacles through ingenuity, the industry does have one challenge that neither technology development nor strategic finesse can address: regulatory barriers to deepwater access. Speakers expressed concern the industry may be facing a “permitorium” in the Gulf of Mexico. No deepwater wells have been permitted since the Macondo spill, and the long-term regulatory response to this tragic event is yet to be known. This situation is making it difficult for companies to determine how much capital should be allocated to Gulf of Mexico projects. It is also exerting pressure on smaller companies, many of which will likely elect to leave the region because of the untenable combination of uncertainty and rising costs.



"Linear projections do not work in the oil and gas industry. Our history clearly indicates that we proceed in discontinuities."

Steve Fulgham, President, OFS North America, Schlumberger



"I don't think the American public has a full appreciation for how expensive and challenging it is to find oil."

Janet F. Clark, Executive Vice President & Chief Financial Officer, Marathon Oil Corporation

¹³ International Energy Outlook 2010, U.S. Energy Information Administration



"Uncertainty in itself is often a barrier to investing in oil and gas, and it seems that recently there's been a lot more uncertainty added to the business."

Peter J. Robertson, Independent
Senior Advisor, Deloitte LLP

Considering that more than half of the new oil and gas reserves discovered worldwide in the last ten years have been offshore, the potential for a regulatory backlash elsewhere in the world is also casting a disconcerting pall over the industry. Speakers emphasized, however, that there has been little adverse reaction to date. Whether this will remain the case is unknown, but in the interim, the industry has an excellent opportunity to proactively enhance operational safety and effectiveness by transferring the learnings from the Gulf of Mexico to other deepwater basins.

While obviously tragic from both human and environmental perspectives, speakers explained that the accident also did great damage to the industry's reputation, which will take time to repair. To help accelerate this process, they called upon the industry to do a better job of educating consumers and legislators about what the energy industry is about, the jobs it creates and what it gives back to communities. Speakers also noted that the general public has little understanding of how much the industry invests in safety and environmental protection and the great lengths to which companies go to operate responsibly. Since the world will be using fossil fuels for a long time, they concurred that there is no time like the present to engage in open dialogue about the challenges and trade-offs involved in providing a secure and affordable energy supply.



Center for Energy Solutions

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