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REPORT/**

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A Recap of Thought Leadership from Energy Game Change 2014



With Insights From:

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Management | First Reserve | OMERS | KKR | Fermaca | Mexico Energy Fund | Pemex

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About Privcap Media

Privcap is a digital media company that produces events and thought-leadership content for the global private capital markets. Privcap Media offers communications services to market participants.

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A collection of quotes from energy experts featured in our *Energy Insider* newsletter in 2014.



Editor's Letter

Private Equity's Energy Moment

North American oil and gas enjoyed a blockbuster year in 2014, and private equity took notice, with the number of energy funds in the market at the highest since 2005.

By year's end, the asset class had momentarily slammed the brakes on putting money into the sector, as oil prices plummeted amid higher production, and private equity had to figure out how to assure investors that this was simply a cyclical event. This too would pass, many GPs in the sector told me.

In the midst of the plunge in oil prices, Privcap held its first conference: *Energy Game Change 2014*. The event, held last December, brought together many of the best minds in private equity to talk about the opportunities in energy investing, what Mexico's energy reforms mean for U.S. private capital, and how oil and gas can fit into an institutional investor's portfolio.

We are happy to tell you that *Energy Game Change 2015* is in the works and will be held on Dec. 10, once again at The Houstonian Hotel in Houston. We hope you'll consider joining us for what will be another great event highlighting the opportunities for private capital to invest in North America's booming energy market. Stay tuned to Privcap and our *Energy Insider* newsletter for updates on the conference agenda and speakers.

Andrea Heisinger
Associate Editor,
Privcap

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Energy Insider Newsletter



On Dec. 11, 2014, Privcap Media entered a new era, holding its first conference, *Energy Game Change*, at The Houstonian Hotel in Houston. The event highlighted some of the best minds in private equity speaking to the great opportunity for the asset class to invest in the oil and natural gas boom in North America. It also offered an opportunity for networking among all of the private equity players in the space. We hope you enjoy this visual recap of the event.

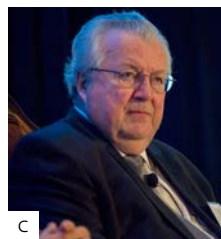




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Impacts of the U.S. Energy Boom

Panelists John Hofmeister, former president of Shell Oil Company, and Jason Bordoff of Columbia University discuss how global demand for energy is fueling U.S. oil and natural gas production

THE PANELISTS

MODERATOR



Claire Farley joined KKR in 2013 and is a member of the general partners. She previously co-founded RPM Energy LLC and partnered with KKR, as well as holding several positions at other companies that were related to the energy sector.



John Hofmeister is a former president of Shell Oil Company, and founder and CEO of Citizens for Affordable Energy. He currently serves as the chairman of the National Urban League and is a member of the U.S. Department of Energy's Hydrogen and Fuel Cell Technical Advisory Committee.



Jason Bordoff joined Columbia University in 2013 as professor of professional practice in international and public affairs and founding director at the Center of Global Energy Policy. He previously was a special assistant to the President and senior director for energy and climate change on the staff of the National Security Council.

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In a keynote panel, KKR's Claire Farley interviewed two experts on energy production and the geopolitical landscape on what impacts the increased production of oil in the U.S. will have globally. The panelists discuss why oil prices will even out, global oil demand is only increasing, and the geopolitical benefits for the U.S.

Claire Farley, KKR: We were going to talk to you about how to unlock value in a high-priced world, but now everything has changed. We've all seen this many times before, unfortunately; welcome to the commodity business over 30 to 40 years. John, with this very changed landscape, you still see a long-term opportunity, but what do you think the near-term holds?

John Hofmeister, former Shell Oil President: We have to remind ourselves that global demand is headed towards 100M barrels a day of consumption. And if we lose sight of that, all is lost. There will be a restructuring of the oil and gas industry at some future point, when natural gas becomes the preferred fuel of choice over oil, but that's at best 10, 15 years or longer in the future. But in the current environment, we should really tip our hats to the Saudis, who have done the world a couple of favors. They've knocked the struts out from under the artificially positioned cartel of OPEC and have basically said to the parasitic members: "Life's changed. We're reverting to the market."

The global economy has really been stymied by energy costs that are out of reach for everyday people, including Americans. Once we get through the perturbations of traders finding the bottom, no way is oil to be valued at \$60 for any lengthy period of time, in my view, because there is still this underlying demand.

Jason, you do a lot of thoughtful work on what this new abundance in North America means to energy policy. Could you tell us what you think the White House or Capitol Hill is thinking these days about the opportunity we have before us?

Jason Bordoff, Columbia University: This is a tremendous opportunity for the country, and I think that's recognized on both sides of Pennsylvania Avenue. Less than a decade ago, there were projections for rapidly increasing amounts of gas we were going to import, all in the form of costly liquefied natural gas, and U.S. oil production is up 4M barrels a day over the last four years. That's a staggering number. Import dependence is down from 60 percent to 25 percent. This has been one of the brightest spots in the U.S. economy.

Geopolitically, the benefits have been important for the U.S. as well, in terms of making it easier to implement sanctions against Iran and changing our diplomatic relations with some key producer countries in important ways.

The drop in oil prices doesn't dramatically change the policy landscape. You can imagine, if you were a member of Congress looking to tighten sanctions against Iran, it's a little easier to do that in a low-oil-price environment. If you're thinking about oil export policy and you're concerned about potential impacts of a price discount on U.S. production, if we start

“The global economy has really been stymied by energy costs that are out of reach for everyday people, including Americans. Once we get through the perturbations of traders finding the bottom, no way is oil to be valued at \$60 for any lengthy period of time.”

—John Hofmeister,
former Shell Oil president



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“The drop in oil prices doesn’t dramatically change the policy landscape. You can imagine, if you were a member of Congress looking to tighten sanctions against Iran, it’s a little easier to do that in a low-oil-price environment.”

–Jason Bordoff, Columbia University

to see a little less discount of brand because of the quality differential, that concern might be more acute when oil’s at \$60 than when it’s at \$110.

John, you have a great perch from which you can see how Big Oil handles investing in large projects, shale projects; how independent small companies might approach it; how private-equity-backed companies might approach it. Talk to us about the advantages or constraints that any one of those would have.

Hofmeister: Time is the big factor that has to be considered. Take Exxon or Shell or Chevron or BP or any of the big, integrated majors in particular: Time is decades, not just five years, not 10 years, but they are positioning for 2030, 2040, 2050 in what they’re doing today. Whereas the independent operators provide the near-term opportunistic play, the near-term responsiveness to the market—and if we lose 500 drilling sets next year, which is what some analysts are predicting, they’ll be the first to fall. They tend to be more leveraged.

And private equity provides the boost that many young upstarts, many new technology companies [need]. And let’s keep in mind that while the oil and gas industry is often seen as the producer of oil, the underlying strength of the oil and gas industry is technology. Because what we did in the last seven, eight years, other than express a huge new set of technologies into the shale fields, is unlock an incredible natural resource, which we couldn’t have done a decade ago.

Jason, you just published a study about the effects on the U.S. market of exporting LNG [liquid natural gas]. Give us some headlines from that.

Bordoff: The Department of Energy made some important changes to its process recently, which basically now says, rather than come to the department for conditional approvals, if you complete the first process, you will get your final authorizations. And most people who are in the process of putting these LNG projects together think it’s working pretty well right now. So I don’t see regulatory barriers as a reason why we won’t see more LNG projects built. The question will be the economics of these projects and the global demand for LNG.

Everyone thought we were going to have a lot of the supply that otherwise

would have come here from places like Qatar flowing into the global market, markets like Europe. We’re seeing a lot of downward pressure on prices there for that reason, plus others.

Russia’s still the low-cost supplier, and that’s a really important thing for Europe to keep in mind as they think about their energy security, what they need to do to make sure that they have the internal-pipeline capacity, the reverse-flow capability, the storage to weather a disruption in Russian supply.

John, you have a strong view about the future of natural gas as an important transportation fuel.

Hofmeister: I spend most of my time now working with a group called Fuel Freedom Foundation, which is focused on competition at the pump.

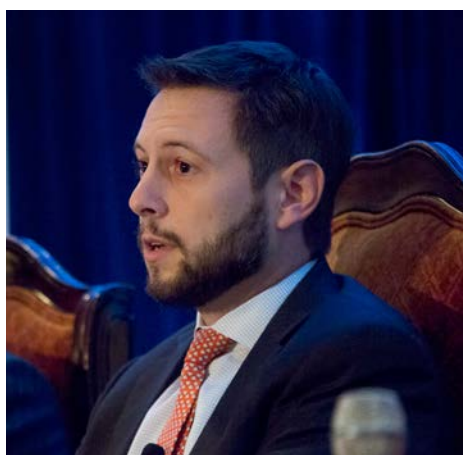
We know there are five different forms of fuel from natural gas: compressed natural gas, liquefied natural gas, ethanol, methanol, and gas-to-liquids diesel. We could make two regulatory changes—making methanol a legal fuel and enabling companies to shift today’s automotive products to using flex fuel software that’s already in the fueling system in the car. But only individuals are allowed to tamper with their own cars, not service companies.

Those two regulatory changes—along with private investment money to build the ethanol infrastructure, the methanol infrastructure; more CNG, more LNG, and more GTL; the opportunity to displace oil—that would be the path to U.S. energy independence, and also price leverage. The price leverage on natural gas versus oil is such a benefit to the economy, and to the consumer, and to the environment. Let’s remember that it would be an amazing opportunity to transform America’s mobility system. ■

Private Equity's Competitive Edge in Energy

The large amount of capital needed to take advantage of the energy opportunities within North America is staggering. But energy-focused PE firms have the upper hand over more generalist competition, say three experts

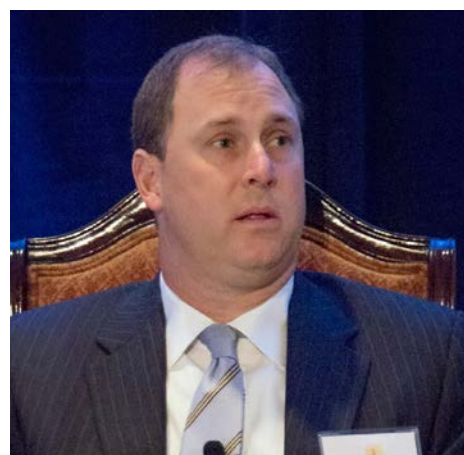
THE PANELISTS



Gary Reaves is a managing director at First Reserve, which he joined in 2006. He was previously an analyst in the Global Energy Group at UBS Investment Bank.



Carl Tricoli is a founder, managing partner and co-president at Denham Capital, where he heads the firm's oil and gas and mining teams. He joined Denham in 2004 after holding several executive positions at corporations.



Jason DeLorenzo joined EnCap Investments as a partner in 1999. He previously was at ING Barings's and was an associate in the Energy Group at Wells Fargo Bank.

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Privcap's Andrea Heisinger asked three leading GPs what gives them an advantage in the energy space. The experts argued that private equity can offer transformational agility. As oil prices have fallen, this flexibility has been put to the test.

Andrea Heisinger, Privcap Media: The energy sector in North America has been a huge investment opportunity for both public and private capital in the past five years, and while there's enough room for everyone to invest, private equity has some advantages. What does a private equity firm bring to the table?

Gary Reaves, First Reserve: It's really about transformational or change capital, and so we look for opportunities where we're either building businesses or fundamentally transforming businesses. And that can be in the upstream space, whether we're significantly de-risking a given acreage position or spending significant development dollars once an acreage position has been de-risked to move it into mature production mode.

Or it can be on the more midstream and downstream side of the business. It's really about looking for opportunities for significant growth.

Carl Tricoli, Denham Capital: There are a couple of things that are unique about the private equity industry as a funding vehicle. The way we run our companies is very different than what you would see in a public context. Today's environment is a perfect example of a time when we can operate our businesses and we can look for opportunities. The public markets may be reacting to an environment that's actually an opportunity-rich environment, whereas we don't have to worry about that.

“Private equity has a real advantage when it comes to the environment we’re entering into now. We’re somewhat excited about 2015 because we hope opportunity arises.”

—Jason DeLorenzo, Denham Capital

It's an opportunity for us to fund our companies, to take advantage of opportunities, because we have the capital. And also for the companies to make longer-term decisions that look past the current environment. The other unique thing about private equity is that we operate with our management teams on much more of a partnership basis than what you would traditionally see in a management-board relationship. We're the investment professionals in the private equity firm who are very experienced in the industry—actually have a closer working relationship, more like two partners working together, than you would see in the traditional board framework.

Jason DeLorenzo, EnCap Investments: We really feel like it all starts with the team, that if we can line up with really experienced, successful entrepreneurs, a deep team that has a sophisticated group of individuals from every discipline, we can operate in any environment and react quickly.

Private equity has a real advantage when it comes to the environment we're entering into now. We're somewhat excited about 2015 because we hope opportunity arises. And when you have dry powder and a very good management team with access to capital, being able to react quickly, help problem companies solve problems—whether they need to sell an asset quickly or whether they need someone to come in and drill up leases that might be expiring—that ability to react quickly and make decisions in a week or a day, if we needed to, differentiates private equity from large public companies that might have a lot of levels of bureaucracy and meetings, just a lot of things that aren't focused on value creation.

Carl, would you say that the partnership between the private equity firm and the management provides more agility than a public company dealing with shareholders?

Tricoli: It certainly provides more agility. You have a flat and efficient decision-making framework, which is the management team and the investment professional. But more importantly, you're making decisions out of the public eye.

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“It’s the same conversation every time something like this happens. The first thing that our management teams want to know is whether we are we retrenching or is this going to last, to which we respond that we’re not sure yet.”

–Gary Reaves, First Reserve

We’re in the business of creating intrinsic value in these assets over a longer period of time. So our focus is on making sure that we’re in low-cost assets, that we’re conservative with leverage, and that we’re in long-life properties, so we’re making investments that transcend the short-term movement and prices.

How are you as GPs dealing with the increasing competition in the energy space?

DeLorenzo: We can talk about indirect and direct competition. EnCap, First Reserve, [and] Denham have been in

the space forever. This is our primary space. In our case, our fund is very narrow. Our core fund is an upstream fund only, and that’s all we do. We back management teams with a commitment, with no assets.

A lot of the new money that comes into the space really isn’t geared towards start-up type opportunities. So the direct competition from management teams may have changed a little bit over the last few years, but not a lot. A lot of the larger mega funds that come into this space are looking for more mature opportunities where they can perhaps take part in a buyout, or a mature development program where they can put \$1B-plus into a deal. So there’s competition—always has been, always will be.

Tricoli: Energy’s the most capital-consumptive industry in the world. And because of the shale revolution and the advent of drilling horizontally and more and more expensive onshore and offshore wells, it’s getting more capital-consumptive.

And what that means is a lot of the capital that we’re investing is primary or growth capital, versus secondary capital and buyouts of investments that other people have made. And so, especially from a North American standpoint, it’s a big opportunity set that just keeps getting bigger.

With the increase in crude oil production that we’ve seen over the past couple of years, the plumbing has to be completed, flipped on its head. We need to re-plumb North America to move hydrocarbons around within regions in the country, and ultimately less imports and exports at some point in the future. And so there’s a lot of investment opportunity out there.

DeLorenzo: In today’s specific environment, when you have public markets

shut, the need for private capital is even greater. There is plenty to go around for all of us.

You’re all from energy-specialist firms. Are there any important differences between yourselves and a more generalist firm that’s dealing with energy?

DeLorenzo: The real A-plus management teams want to be with people who are going to be here in this space through thick and thin, and know how to operate through the cycles and try to thrive in times like this.

Reaves: I agree. We’ve been in this business for 30 years; we’ll be in this business for another 30 years. All we do is energy, so we spend a lot of time making sure that we know and understand the markets and the sectors in which all of our teams operate. We understand the language that the management teams speak, and for a lot of the teams, that resonates with them.

We try to go in early and understand an area, and a lot of the generalist firms are focused on later-stage, development-type opportunities.

Tricoli: Firms like ours are looking at creating intrinsic value through the assets. With the generalist firms, there’s a little more tendency to create value through the balance sheet and through the use of leverage or engineering.

But what you would find with us is that we’re much more focused on the actual intrinsic value of the assets. And the other thing I would say is there’s a lot of money that comes into this industry when prices go up. This is the environment where one being a specialist firm really shows through, when you have firms with individuals with a long-term history of a lot of different commodity cycles and what works and what doesn’t work in those cycles.



Andrea Heisinger, Privcap; Jason DeLorenzo, EnCap Investments; Gary Reaves, First Reserve; Carl Tricoli, Denham Capital

“This is the environment where one being a specialist firm really shows through, when you have firms with individuals with a long-term history of a lot of different commodity cycles and what works and what doesn’t work in those cycles.”

–Carl Tricoli, Denham Capital

Have you had conversations lately with any energy entrepreneurs? What did you talk about?

Tricoli: In today’s environment, most of the managers who we work with are thankful to be in a private market and to be able to focus on the long-term opportunity set.

When prices do come back, we can focus on activity levels-versus now, where we’re focusing on explaining to investors what our leveraged metrics are, what our liquidity position is next year. That’s become 20 percent of the conversations we’re having. And the other 80 percent are about what we’re going to do to capture what’s a pretty interesting opportunity set. They’re normally happy to be in a private market context. In this environment, they’re probably particularly happy.

In these uncertain times, have these conversations with the energy entrepreneurs changed at all?

Reaves: It’s the same conversation every time something like this happens. The first thing that our management

teams want to know is whether we are retrenching or is this going to last, to which we respond that we’re not sure yet. But they first want to know what our general stance is, and want to have a strategic discussion about what we ought to be doing with each of our companies in this environment: identify any weaknesses or threats, shore those up, and then figure out how you capture the opportunity. It’s a lot of the same conversations that we had with folks in ’08 and early ’09.

DeLorenzo: The conversations we’re having right now are around capital allocation. And the commonality among the three of us is building businesses that are anticipated to survive in a wide array of commodity price environments. We’re in the context of building long-term, and so we maintain that perspective of lower leverage and the things you need to do to do that.

Generally, the conversations are not so much around panicking because the price is going down. It’s more around what projects we would fund in this environment. ■

How Oil Price Volatility Can Benefit PE

Mergers and acquisitions has been a hot topic in the energy sector since Halliburton announced a planned merger with Baker Hughes in November of 2014. Deborah Byers, managing partner in EY's Houston office and the firm's oil and gas tax leader, says the news has created opportunity for consolidation and divestiture.



Deborah Byers

EY

What are some of the M&A opportunities PE firms are seeing in oil and gas right now, particularly since the prices have dropped?

Byers: M&A has been happening in oil and gas ever since they produced the first drop of oil. But certainly during this interim period where prices are low, there'll be some consolidation, for example, in the oilfield service sector, just because of the merger announcement with Halliburton and Baker Hughes that came out in late 2014. That's creating momentum for the whole industry to say, "Look, we need to be competitive." There is going to be divestiture. There's going to be a lot of M&A that comes out of that as other competitors look at their strategic positioning.

How fast should companies act if they want to divest or consolidate?

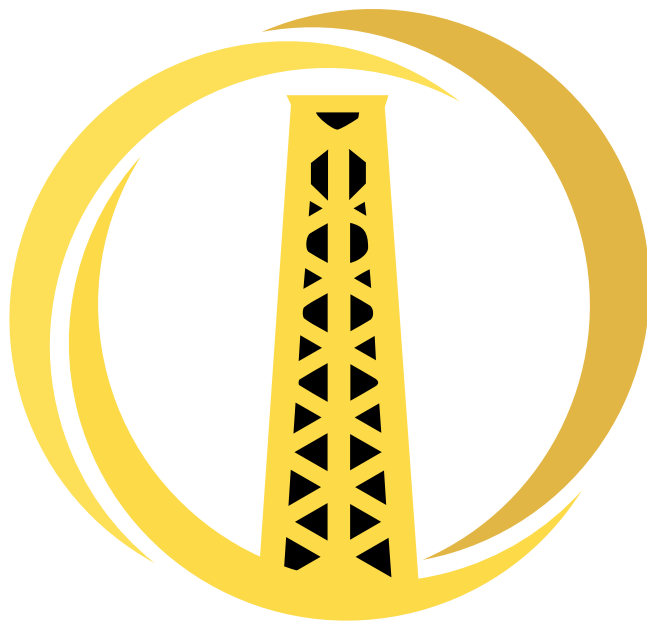
Byers: This is a great opportunity for the smart buyer. The next two years could be a great window of opportunity, but it's important to be aware that you need to price in—that

you are entering a commodity-based market that's subject to shocks that you really can't predict, because of a number of factors; it could be a geopolitical issue, a policy issue, or there could be a regulatory change, and suddenly it's game over for someone wanting to produce in a certain area. So you'll see some shakeout of marginal producers, and maybe some investors will leave, which would create more opportunities for the core group that are veterans of the industry.

There are really two subsectors in oil and gas that have the best opportunity right now for M&A. The first is upstream. It's a great opportunity for private equity to provide transition capital to companies that are distressed, hitting the cash wall, or can't get bank liquidity or equity liquidity. The second one is going to be in the oilfield services sector, where there's going to be more consolidation. And interestingly, while the strategics consolidate, some of them may be divesting of assets in order to buy. And then, post-consolidation, they may be rationalizing assets, and that creates a great opportunity for private equity.

What do companies looking to acquire others have to do to be competitive?

Byers: They probably need a strong management team that can immediately step in and convince the seller that they can take this off their hands quickly, close quickly, operate without a long lead time and transition-services agreements, and things like that. So doing a little homework and setting up their own infrastructure even before they go in to bid on assets could put companies or private equity investors in a competitive advantage. ■



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In Tough Times, Collaborate & Innovate

Pine Brook's Mike McMahon says that sticking to a plan with the right management team can trump uncertain markets



Mike McMahon
Pine Brook

BY DECEMBER OF 2014, Mike McMahon, managing director at Pine Brook, was acutely aware that commodity prices had changed the energy market and upended the sector's business-model expectations that earlier in the year had seemed so solid.

And yet, in his keynote speech at Energy Game Change 2014, he was convivial and positive. The source of his confidence? Human talent. Having seen experienced management teams solve technical and business problems endemic to an ever-shifting oil and gas business, McMahon said he was sure that the smart people tasked with navigating Pine Brook's upstream and oil-field services portfolio companies through uncertain times would succeed by dint of innovation and collaboration.

To drive home his point, McMahon started with the example of Houston-based Stonegate Production Company, which Pine Brook backed in 2007 with \$227M in equity. The venture was led by Mike Harvey, an energy entrepreneur well known to Pine Brook because he had worked with the firm's president and CEO, Howard Newman, while growing an energy platform for private equity giant Warburg Pincus.

The Stonegate plan was to use new drilling technologies to extract oil from mature fields in Texas. "Mike decided he wanted to get back in the business," said McMahon. "He was going to use horizontal, underbalanced drilling to go after tight rocks...in the oil window of the Eagle Ford."

There were skeptics. Regarding Stonegate, a trusted adviser to Pine Brook said to McMahon: "It won't work."

"Well, what happened?" continued McMahon during his speech. "We had some problems initially. We looked at what was going on around us. [Fellow Eagle Ford drilling company] EOG [Resources] looked like they were having some success. Chesapeake [Energy] looked like they were having some success. So we collaborated with them. And Stonegate, even in today's market, is our single most successful investment. So what does that say? Stick with it. Collaborate and good things will happen."

Innovation and collaboration have also long existed in the oil-field services sector, said McMahon. "Much of the technology that evolved into making a difference in shale wealth really came from the service companies," he said. "They worked with their own research organizations, they worked with universities, they worked with clients. People who figured out how to make something work were comfortable—once they had established their acreage positions—in sharing."

And in the oil-field services business, "in the current environment, collaboration is at its peak," said McMahon.

But progress only occurs where talented management is encouraged to solve problems collaboratively, as opposed to taking orders from a financial sponsor. "We don't tell our management teams what to do—we have a dialogue," said McMahon. ■

Mexico's Moment for Energy

As Mexico's energy sector opens up to private capital from outside the country, there is a mix of optimism and caution, say experts from Pemex, Fermaca, and Mexico Energy Fund

THE PANELISTS



Jaime Alatorre was appointed president of the newly created Mexico Energy Fund in 2014. He was previously chairman and CEO of Enron de Mexico, president of the Mexican Investment Board, and president of Westinghouse de Mexico.



David Ocañas has been in investor relations at Pemex since 2014. Previously he held various top-level positions in internal audit at Pemex and was director of finance for Grupo Riveras.



Octavio Berrón has been CFO at Fermaca Group since 2010. He has more than 17 years of experience in corporate finance and banking at companies in Mexico.

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Jacobo Mekler of Mexico's hydroelectric association interviewed three people on the inside of that country's energy revolution. They outline the opportunities available to outside Investors, and why they're excited to partner with them.

Jacobo Mekler, Asociación Mexicana de Energía Hidroeléctrica: It's a Mexico moment. We have macroeconomic stability. We have the energy reforms that allow for private participation in the sector. And we now have a possibility to invest in Mexico—according to the government, around \$550B—in the next four years. Half of that will come from the government budget, but we're going to need around \$275B from private equity. So what do the reforms represent for the private and the public sectors in Mexico?

David Ocañas, Pemex: We are very excited about the opportunities opening in Mexico. It's been about 76 years that the energy sector has been relatively unchanged. And certain studies placed Mexico as one of the most restrictive areas to do business in the world in terms of the energy sector. Right now, that changes. There are opportunities for investment all along the value chain. Just to give you just a brief perspective of the potential in the upstream market, the historical production of Mexico has been around 50B barrels. The current reserves in Mexico are around 42B, with about 120B barrels in prospective resources.

Octavio Berrón, Fermaca: All of the opportunities that he's mentioned are for all types of companies, all sizes. There will be big names coming down to do the exploration and production. It will be midsize firms providing

services. What we expect to happen is something like what happened with the automotive industry. There are big names and a few players that will come to anchor what is going on there. But in order for them to do their business, it would require a lot of support and a lot of help from other companies. And the whole industry will be developed around their activity.

Jaime Alatorre, Mexico Energy Fund: I'll give you a few examples of what we're seeing on the different types of businesses. I was at a dinner with a CEO of a large company, and he was telling us that they have reserved about \$20B to deploy into Mexico as soon as they could. They said that they were tired of dealing with Russia and the Ukraine and the Middle East, and if they could get their new projects right next door, they will do it.

And that's exactly what they're positioning to do. Now if you go through shallow waters, you're going to see some Mexican companies that will be partnering with some American companies, mainly to keep developing the shallow waters, which is big. And then you come to the new area that is pretty much unexplored on the shale side.

In the near future, what we will see is a lot of transportation of gas from Texas. In order to lower the cost of power generation, we have to substitute fuel oil, so there are going to be a lot of opportunities in transportation, in pipelines.

Ocañas: One of the bigger projects in midstream that Pemex is undertaking right now is the Los Ramones Pipeline Project that will bring this natural gas from Texas. And it's planned to go all the way to Mexico. But there are also plans for an LNG plant in the Pacific. So at the end of the day, what this energy reform will allow Pemex to do is to take advantage of the arbitrage opportunities in other areas of the world, like helping export this LNG to Asia, taking advantage of the current infrastructure that Pemex has.

“So at the end of the day, what this energy reform will allow Pemex to do is to take advantage of the arbitrage opportunities in other areas of the world.”

—David Ocañas, Pemex

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Shale gas doesn't observe borders, so we have a big potential in Mexico that's never been exploited. Pemex will have enormous market power. David, how will you be partnering with private capital?

Ocañas: There is an important distinction in how we will be conducting our JVs [joint ventures]. In the upstream, there have been areas that Pemex has been assigned that will be migrating. These farm-outs of the upstream areas, we will have to JV under a public bidding process. So we cannot choose who our partner will be. The midstream to downstream area is different. We have a lot of flexibility on who we can partner with, what structure will be set up, whether it's contributing fixed assets or cash or raw-material supply.

Jaime, what type of teams or project fund-of-funds are you looking to invest with or to partner with?

Alatorre: We're talking to whoever comes and presents us with a good idea. We've been talking to teams that

“We’ve been talking to teams that want to do a pipeline. We’re talking to some management teams about a spin-off company they want to do; they want to acquire three shallow-water rigs, and they think that there is a lot of value in there.”

—Jaime Alatorre, Mexico Energy Fund

want to do a pipeline. We're talking to some management teams about a spin-off company they want to do; they want to acquire three shallow-water rigs, and they think that there is a lot of value in there. And we're also talking to people who want to do a large windmill farm.

The only limitation we have is that we're a fund-of-funds. So we can invest 80 percent with energy funds and 20 percent direct as a co-investment with another fund. There are not too many energy funds in Mexico, so you're going to see me around Houston quite often, because this is where most of the energy funds are.

So having the right partner is really important. Pro Mexico has an office here, and can help you to come to Mexico and invest. Octavio, you've been very successful in Mexico. Can you tell us a little bit about your story and your partners?

Berrón: This story of energy reform, many attempts have happened in the past in Mexico. One of those was back in 1994, when President Zedillo de-



Jacobo Mekler, Jaime Alatorre, David Ocañas, and Octavio Berrón

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“What we expect to happen is something like what happened with the automotive industry. There are big names and a few players that will come to anchor what is going on there. But it would require a lot of support...”

—Octavio Berrón, Fermaca Group

cided to open the natural gas industry for private companies to invest there. So at that moment Fermaca made the decision to take a look and try to find a way in that business. By 2007, Fermaca was a small company that used to own a part of a small natural gas transportation system. But we had a huge potential in a country with a lot of needs in terms of gas infrastructure. At that time, a private equity firm came to us. We received their support, and seven years after, Fermaca is the leading Mexican company for natural gas transportation.

Mexico also has renewable resources: wind, water, lots of sun in the deserts in the north. And we have upstream; we have unconventional, deep water, conventional, shallow waters. We have shale gas. In midstream, we have 16 or 18 gas pipelines. We also have downstream. So where do you see the opportunity for the private participants to invest in the short term?

Ocañas: Yesterday the CNH announced the first blocks that will go under public tender. These 14 blocks are shallow water. So obviously the cost of development is lower than deep water or shale. The amount that is calculated for the development of these shallow waters is under \$20 a barrel. So there are opportunities for private equity—not only, I guess, the majors, which would be concentrated in deep water, and then not solely on the upstream.

Alatorre: In order for the country to be more competitive, we need to have a lower price of energy—basically, power. In order to do that, CFE [Comisión Federal de Electricidad] has drawn two main lines of action. One is to try to improve the cost of the mix of the energy they produce. They do some hydro. They do some combined cycle. They do some renewables. But the clear bet is to build those facilities for combined cycles. And a lot of the existing facilities that run on fuel oil or diesel will be converted into natural gas.

For that, they figure out that they are a very large consumer of gas, and they draw a complete strategy to become self-sufficient on the procurement of the gas and the transportation of the gas down to the facilities. So for that reason, they are building some pieces of infrastructure on this side of the border.

Just to give you an idea of how important it is for Mexico to bring the cost of electricity down, in the year 2000 we were really worried about what was going to happen with the future of manufacturing regarding the competition from China. So it's a must for us, as a country, to bring it down. If we keep the tendency of the last few years—of our cost of electricity going up and yours starting to come down—obviously much more manufacturing will start taking place within the U.S.

Jaime, you have a lot of experience bringing in equity to Mexico from

other parts of the world. What would you like to share with the audience?

Alatorre: Well, how secure is a foreign investor coming down into Mexico? The best examples of that are two areas where manufacturing is going extremely well, which are aeronautics and automotive.

You form a Mexican company, and it's your subsidiary, and if you're thinking of doing anything in the energy sector, you would do it on the same scheme. And I have seen foreign investment grow in Mexico substantially over the last number of years. Today we are in the neighborhood of receiving \$22B dollars a year. And I know this well, because during the 1990s I used to head a group called the Mexican Investment Board.

Octavio, what was the biggest challenge you faced bringing private equity into your company?

Berrón: Let me tell you, the challenges in bringing in money are a lot. What private equity companies look for is a real opportunity, a stable framework. But also, management teams play a very important role, and openness and continued communication are crucial. In many aspects, this is like a marriage. If you make the right decision, it could be the best decision of your life. If you make the wrong one, it could get nasty.

This is a historic moment to invest in this sector in Mexico. As a Mexican, I thought that energy reform was going to arrive someday, but to be honest, I am very pleased to see the scope and the possibilities that this structural reform has for the future of the country. Mexico has been waiting for this opportunity for many years. And the message that I would convey is “Come in and give it a try.” I am sure that not only in energy but in many other places, you will find very pleasant surprises on how things can be done in Mexico, and with a positive profit. ■

New Shale Economics

Smaller, independent companies backed by private equity are coming out the winners in the shale revolution, says NGP's Bob Edwards. The key is finding good management teams familiar with new technology.



Bob Edwards

Managing Director,
NGP

David Snow, Privcap: We find ourselves in interesting times, at least from a commodity price perspective. Why don't we start with a brief history lesson about how energy operators and their private equity backers used to assess the viability of a project in the old era of shale economics.

Bob Edwards, NGP: Historically, to invest and do well in North American oil and gas, the one consistent element is good, focused management teams that have an edge in a particular area. In the old days before shale horizontal drilling and fracking, it was still a game about finding a management team that had an edge, that had good technology, that understood the land issues. That's always been the case, and it always will be the case.

The shale revolution was pioneered by independents, and it's being driven

today by smaller independents. The majors, with few exceptions, have had their heads handed to them in trying to race into North America and catch up with the smaller, fleeter players that are pursuing the shale opportunities. So it's a game of constant innovation. It's a game of local knowledge and niche. Historically, it's always been about management teams.

We've moved from full-cycle economics in North America—exploration, delineation, development, exploitation—and now we know where the resource is. Exploration, at least onshore, is hardly necessary. That phase is gone. So we're in an execution mode where it's efficiency driving down costs and enabling the horizontal plays to be done.

Let's fast-forward to the post-horizontal drilling, fracking era. Talk about the importance of these new technologies in the oilfield and how they have fundamentally changed the economics of the energy business.

Edwards: In oil right now we're about 50 percent dependent on unconventional oil production. It's a higher proportion, probably 60 percent, for natural gas. Of course, the technology breakthrough six years ago was long lateral horizontal drilling and fracture stimulation, which, by the way, has been around since the '40s. There's nothing particularly new to the ideas or to the basic technology, but a constant refinement about the drilling fluid.

We will continue to drive down costs in terms of drilling. Trust me when I say that 10 years from now, we'll be drilling wells for probably 20 or 30 percent less.

What questions are you getting from your investors right now, and how does that contrast with the information you're getting from your portfolio companies?

Edwards: We just closed on our eleventh fund. We're still managing investments in NGP-9 and NGP-10, and so our LPs who are investors in NGP-9 are asking very different questions than our new fund, where we're about to make investments. The commodity price drop has certainly nicked the value of current investments. And I would assert most of the private equity firms that are here use a very modest amount of leverage.

So our companies and I would guess most other private equity portfolio companies will not be in significant distress, because we don't use much leverage. We will be working harder to find those elements of upside. The capital markets were wide open in 2014. We listed five companies. That's not going to happen in 2015. We returned \$5B to our LPs in 2014. We probably will have a very thin year in terms of distributions in 2015.

But it will be an extraordinary environment for investing. So you have these big rotations of assets that in 2015 will create an enormous opportunity for private equity with dry powder. ■

Oil and Gas in Their DNA

Entrepreneurs who have found success in the oil and gas sector continue to invest in the space because they understand the process, says McGladrey tax partner Charles Clines. But they have had to adapt to shifting capital structures.



Charles Clines
McGladrey

Those who successfully invested in the oil and gas sectors early on are using their personal capital to fund new opportunities.

This is according to Charles Clines, a tax partner in McGladrey LLP's Houston office with 30 years of experience in the investment services industry. "The longer the family history is in oil and gas, the more they believe in the industry," he says. "They understand oil and gas. It's part of their DNA."

Clines says that McGladrey has worked with clients on deals where an E&P company will approach the client to negotiate a drilling program on their land. In the past, the landowner would take only a royalty interest, and now more clients are willing to participate with the E&P company on a working interest basis. The third-party capital will be used for the first portion of exploration and production activity, for example, and then the landowner will "put his capital to work on a side-by-side basis."

The capital structures used for these sorts of investments have shifted in recent years. In the past, Clines says,

if a company was coming in to work a deal, the promoter or operator received the financial benefits along with the owner of the property where the minerals were produced. There weren't a lot of management fees, and if the play on the property did well, everyone did well on a side-by-side basis.

Now, Clines says, those structures are more private-equity-like, with participation on the upside along with management fees and other financial benefits to the promoter.

The main questions he fields in discussions with oil and gas entrepreneurs concern management teams. "That is what investors are really looking for," Clines says. "Entrepreneurs are asking, time and time again, 'Who is the management? Who is driving the show?' They want to know if the team has a track record."

Generally, in a private equity deal, a firm will invest in a business and bring in a management team they have worked with in the past, but Clines says this traditionally hasn't happened in the exploration side of oil and gas investment. Now, in areas such as the Eagle Ford shale formation in south Texas, the size of the opportunity, and therefore the amount of capital committed there, means "we are seeing a lot of people focus on the quality of management."

The deal market has become incredibly competitive, he says, and there's increasingly significant capital at work. In addition to this, dealing with landowners has become trickier for those management teams.

"Small missteps can have big consequences," Clines says. "Landowners are a lot more savvy about the deals they're entering into. They're not as quick to cede all control to the driller." ■

Energy's Role in the Institutional Portfolio

Three institutional investors offer insight into how they figure out energy allocations, investing with generalist versus specialist GPs, and co-investing

THE PANELISTS



Dan Chilton is the senior portfolio manager of alternative investments at the Public Employees' Retirement Association of Colorado. He was previously a financial analyst with Qwest Communications.



Joann Rich is the director of private markets at Washington University Investment Management Company, overseeing the investment management of the endowment and operating funds. She was previously with Commerce Bank's Investment Management Group.



Paul Manias joined in OMERS Strategic Investments in 2013 as a managing director, and is a member of the leadership team and investment committee. Previously he was a vice president at Borealis Infrastructure, an arm of OMERS focused on infrastructure investments.

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Caledon Capital's Jeff DeBlock discusses energy's place in the institutional investor portfolio with three LPs. While there may not be a set allocation to energy, they say the sector has started playing a larger role their investment strategy.

Jeff DeBlock, Caledon Capital:
How do you all think about energy in your portfolios? What role does it play?

Dan Chilton, PERA of Colorado:
It certainly plays an important role in our PE portfolio. We don't have a set allocation to energy. We don't have a separate infrastructure or real assets allocation. So the question that we asked ourselves when we're looking at a fund opportunity is: Will this fund help us beat our private equity benchmark? We're looking for private-equity-like returns. It means the fund has to stack up against the overall PE universe. We're held to the overall global Burgess private equity benchmark, and our team actually has a great degree of flexibility in terms of deciding which funds we pick.

We want to be well diversified across the spectrum. But energy is an asset class that lends itself well to private capital, so that lends itself to having a significant portion of our overall PE allocation being committed to energy.

DeBlock: Joann, how do you feel about energy as a subsector within the real asset component?

Joann Rich, Washington University: We also use the Burgess benchmark for our real assets portfolio. And energy is the largest component of the Burgess real asset benchmark. Anything we do on the illiquid side has to generate returns, because we have an illiquidity premium that we're trying to achieve.

So that's usually the first thing we're looking for when we invest in anything private, including real assets and within that, energy. It also provides some diversification, and a source of returns that maybe we can't get in other parts of the investable universe, including energy on the public side.

DeBlock: Paul, you're in the strategic investments group within OMERS. How does energy play a role in that?

Paul Manias, OMERS: We have a large infrastructure group that follows a core infrastructure strategy. So we target a low double-digit or a high single-digit return on core assets. And that portfolio is about \$12B of equity, so we feel we're relatively full on the low-risk, low-return side of the spectrum on private assets. On our E&P side, we look to capture what we think are higher, more private-equity-like returns.

And our absolute-returns benchmark for energy, E&P businesses, is very similar to our absolute-return benchmark for our traditional mid-market private equity business. We like E&P, upstream assets, because they make up a large part of the Canadian economy. We're a 100-percent-indexed pension plan, and so some parallels to the economy that produces your inflation benchmark are obviously necessary. Our private equity group came to energy as part of strategic investments, in part because that group is generalist in nature and tends not to look at resource-based businesses.

DeBlock: People have seen an increased exposure to energy in their portfolios and through the alternatives platform. I want to get a little insight into how this has evolved over the years. Have you increased your allocations, or have you made more commitments?

“Over the last few years, we've actually come up with a couple of ways to attack co-investments. We have third-party help on that front, so that's one of the ways that you can attack it when you do have that small-team situation.”

—Dan Chilton, PERA of Colorado

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Chilton: Our allocation to energy has increased in the last few years. So the next question would be, how did that come about? About three years ago, about 10.5 percent of our private equity portfolio overall was allocated to energy in the broadest sense. Most recently, as of June 30, about 15.5 percent of our total PE portfolio was allocated to energy.

That's a significant change in three years. When I looked below the surface to determine what was driving that, it was less of a proactive move by us in terms of adding new names than it was driven by our generalist relationships. The large buyout funds that have energy teams and energy industry verticals have deployed more capital into energy over that period of time. So it really wasn't a proactive move by us, it was the GPs making relative-value decisions that this is where they wanted to deploy the fund's capital. We're economically aligned with our GPs, assuming the LPAs are well-crafted documents, which we believe that they are.

Let's talk about the generalist versus specialist approach of getting exposure to the energy sector. What do you look at, and how do you go about doing due diligence on your funds?

Chilton: Part of the logic behind making a commitment to a large generalist buyout fund is realizing who you are from an institutional perspective—the amount of capital that you have to put to work, the size of the team that you have. With a six-person team with \$3.5B of AUM, there is a certain minimum check size that you have to write. Realities being what they are, you almost have to make commitments to the large buyout funds of the world.

And the reality is that most of the large buyout funds have energy teams.

Some of them have 20 to 30 dedicated investment professionals focused on the global energy sector, with long track records in this space. So if you have a 15-to-20-year track record that you can look at for a firm that's specific to energy, maybe you can get comfortable making that commitment.

Joann, are you seeing different investment opportunities come from the two different types of GPs out there?

Rich: Yes, you do see differences. One clear one is size. The generalists tend to have larger funds when they're going to be doing larger deals. And there are different sources of return that can come from larger deals versus smaller deals. The specialist firms maybe have particular expertise and can add value that way, whereas the generalist funds tend to be a little more financial in the way they approach deals and can add value more from that angle, as opposed to a particular way of operating a well or operating a power plant.

Paul, you've grown with these assets and learned from the investments you have in the ground. You build contacts and connections within the sector. How have you seen your team and your thinking evolve over time?

Manias: We started in Alberta, where we had a core team that we'd been investing with for a number of years, since the late '80s. And when we established the OMERS energy business, we chose to prudently allocate capital there first, to ensure that they really had their feet wet. And they maximized on their relative strengths, which were connections within that Alberta market. We've since moved within Canada across provinces into Saskatchewan and are looking at assets in British Columbia. And we're

“We like E&P, upstream assets, because they make up a large part of the Canadian economy. We're a 100-percent-indexed pension plan, and so some parallels to the economy that produces your inflation benchmark are obviously necessary.”

—Paul Manias, OMERS

also now looking to move into the U.S.

Joann, have you seen the number of specialist GPs and the breadth of subsectors increasing? What have you been seeing on the fundraising and GP side of things?

Rich: A lot of the generalist private equity funds have decided that they have enough deal flow to raise a dedicated fund, either just to energy or to natural resources more broadly. So that's been a trend over the last couple years. We've also seen a lot of new startup groups, because there

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is so much demand to put capital to work in the energy space. They feel like they can go out and do it on their own, so you've seen a lot of startup groups decide to raise first-time funds also coming from the operator side—geologists and engineers who can spin out of some of the public companies. On the investment banking side, there are some financial people with special expertise in the energy sector who see an opportunity to raise capital to feed the beast coming from LPs desperate to find good sources of return.

Dan, are there certain attributes and themes you're looking to get out of your investments, like yield or real return exposure, or do you more or less look at things on a total-return basis?

Chilton: At the end of the day, it all comes back to what I talked about at the beginning—so, our benchmark. We're on a 10-year rolling benchmark, so yield may help in the early years. And it may help avoid that J curve. If a midstream specialist fund comes to us and says, "We can get you mid-teens net consistently, year after year," and they can show us they've been able to do it with a long track record, that's potentially compelling to us.

Back to the diversified concept: Even within an energy fund, you would probably feel better served, from our perspective, with a larger fund that can play across E&P services, midstream, maybe even power in some instances, depending on where the opportunities lie.

Paul, I wanted to pick your mind, given you're more of a direct investor. Is there a role for a niche generalist that has some sort of proprietary deal flow or theme that the direct team might not have the insights into? How do such opportunities fit into your broader portfolio?

“Anything we do on the illiquid side has to generate returns, because we have an illiquidity premium that we're trying to achieve. So that's usually the first thing we're looking for when we invest in anything private, including real assets and within that, energy.”

—Joann Rich, Washington University

Manias: The answer thus far has been that we've tended to avoid those opportunities. Again, it's a consequence of the model we've chosen. As we evolve our thinking more across the entire OMERS portfolio, not just energy and infrastructure, we're becoming more aware that the disadvantage of the Canadian model of being very direct and having large teams is that you tend to invest where

your teams are, where your expertise lies. And that's hugely positive, because we think we can get outsized returns where we do have that comparative advantage with teams on the ground.

To the fund investors, is there an appetite to pick up the co-investments? Is this something that you would look at to build out and augment your plans?

Rich: We've been watching the increase in co-investment that's been going on in the market for a while now. Our staff is not at the point where somebody like an OMERS is, where you can build out a full team and really dedicate the resources necessary to be successful at co-investing. It's something that we'll continue to watch, and think about starting to dip our toe in the water.

Dan, you mentioned your team was about six people. Is co-investing something you could see yourself venturing into?

Chilton: Over the last few years, we've actually come up with a couple of ways to attack co-investments. We have third-party help on that front, so that's one of the ways that you can attack it when you do have that small-team situation. Depending on size and whether it's an in-state or out-of-state opportunity, we determine where we send it to get looked at.

Manias: Dan, I assume when you talk about using others to vet co-investments, they're other managers or consultants or the like. What's the receptivity from GPs there?

Chilton: We were a little concerned about that going into it, and we asked around to our existing GP stable. And what we heard back was, that's okay. And we haven't found it to be a problem. ■



“They were saying, ‘We’re here, but we’re still thinking.’ Now the noise is, ‘We’re here, [and] we want to get in.’”

- Alfredo Alvarez of EY on PE interest in Mexico’s energy market after the country’s energy reforms

“What we do is try to marry a very talented management team with some aspect of our macro thinking. We spend a lot of time thinking about where the industry’s going, the implications of where we’re seeing in the business.”

- Andre Burba, Pine Brook Partners

Energy Insider Recap

Privcap debuted its *Energy Insider* newsletter in 2014. Here’s what some of the energy-focused players in private equity who were featured in it had to say.

“The trend going forward is going younger on management teams. The advantage with [people in] their 30s is they’ve been drilling horizontal wells their entire careers.”

- Tomas Ackerman, NGP

“It’s the most profound move down in prices for several years. Obviously, energy is a cyclical business. Investors learn to embrace the cycle. You have to be in it for the long run.”

- Jeff Eaton, Eaton Partners

“The longer the family history is in oil and gas, the more they believe in the industry... It’s part of their DNA.”

- Charlie Clines, McGladrey



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