

LIVE from Columbia: Bethany McLean & Joe Nocera

SEASON 1
episode nine

Joe Nocera

So in New York, when you talk about fracking, which is mostly here is the environmental concerns. I, in fact, was once accosted in a grocery store on the Upper West Side for defending fracking in a column.

But that's why we're not going to talk about the environmental concerns here. As Nick Lemann notes in his preface to this book, Bethany's story is a different kind of fracking story, a combination of business story and, I think a geopolitical story also.

And that's what we're going to discuss. She has a very provocative thesis, which is that for all the talk about how fracking has been good for the country geopolitically, in terms of energy prices, in terms of wiping out the coal industry, it's never made any money. And so I guess I'd like to start by asking you how you developed that thesis and what got you interested in that thesis and how did that, you know, drive the book.

Bethany McLean

So I was fascinated with a guy named Aubrey McClellon for years, and Aubrey McClellon in many ways was the personification of the fracking revolution in the US. Not because he was the technological pioneer – that credit, most people agree, goes to a guy named George Mitchell – but because Aubrey was the guy who pioneered capital raising for fracking. He was a master salesman. And as an aside, I'm fascinated by these characters in business who are these incredible salesmen and can do the proverbial, you know, selling snow to Eskimos. And Aubrey was one of those, and we can come back to that.

But I found him a fascinating character. And a source of mine used to say with some degree of hyperbole, that Aubrey was the most important man in America. And he used to say this going back to 2010. And the reason he said that was because if McClellon was right about natural gas and the US could produce vast amounts of natural gas at low prices, then we were one of the world's lowest cost places for all sorts of manufacturing.

And that changed our future going forward. That changed what the United States

looked like. If MccLendon was wrong, then it painted a very different picture. Obviously, some hyperbole in that. But the same guy, a hedge fund manager in Australia, he and his partner used to have a debate. His partner would say, “Well, the oil and gas are real.” And John would say, “But the economics don’t work.”

And so that’s been the story dating back to 2010. It was the story with MccLendon’s company, Chesapeake, and it’s the story writ large for the entire industry. The economics don’t work, or at least they haven’t worked yet.

Joe Nocera

What does that mean? “The economics don’t work.”

Bethany McLean

So the companies don’t produce free cash flow. Chesapeake, for instance, over its years of life from – let me see if I’m going to get this right – from 2001 through 2012, never once produced free cash flow before sales of assets.

And for those of you who aren’t finance types, you can think of free cash flow as sort of what a business can fund on its own without needing to go out and borrow money. What you can fund from your own business without needing to raise external funds.

And that’s actually continued. The most recent analysis I saw was from 2012 to 2017, the 60 biggest fracking companies in the US lost a combined \$9 billion a quarter on a cash flow basis. And the Wall Street Journal just reported that in the first quarter of 2018, only five companies produced free cash flow.

And so if it weren’t for mammoth amounts of capital that’s available to fund these companies, there’s a real question about what the size of the fracking revolution would be. There was just a note put out today from the EIA, the Energy Information Administration, saying that the US this year is going to produce more oil than Saudi Arabia and Russia, that we’re going to be the world’s largest oil producer. But that wouldn’t be true if not for the availability of capital to fund this.

Joe Nocera

But okay, so where does the availability of capital come from, and why would you capitalize? Why would you spend money, give money, to companies that lose money on a consistent basis?

Bethany McLean

That's a, it's a good question, right? And it goes back to so many other things from the dot-com boom. A professor here at the Columbia Energy Policy Institute actually wrote a paper directly linking the financial crisis and fracking, which I thought was fascinating. But his argument was if it weren't for the Federal Reserve's policy of ultra-low interest rates in the wake of the financial crisis, we never would have had the fracking boom, because it was this availability of capital at a really cheap rate that helped provide the funds for drilling.

And thus far, there's been a couple of reasons why it's worked thus far. One is that like any industry that's losing money, people think, believe, or say it's going to be profitable, eventually. That there is a corner that will be turned and the profits will be there.

Another reason why it's worked is that the public markets have been willing to value companies engaged in fracking not on their profits, but rather as a multiple of the acreage they hold, and they've been valued for production growth.

So it's been nothing to do with profits. It's been like the old days when we valued dot-com companies based on the number of eyeballs they were getting as a proxy for profits, as a belief that this great gusher of profits is right around the corner. But thus far, it has yet to materialize.

Joe Nocera

And yet they keep drilling, and yet they keep capitalizing. And yet, America, I mean, it seems unquestionable to me that the oil and gas are there, is there.

Bethany McLean

It is.

Joe Nocera

And I mean, is it just a function of price, if the price was high enough? Or is it more – there's a point in your book where you kind of talk, and then sort of leave it, where you basically talk about how quickly a fracking well drains compared to a traditional oil well. And that although there's a lot of oil down there, they can only grab a little bit at a time.

Bethany McLean

Right. So there are a bunch of questions there. So the big reason that fracking is so capital intensive is that the decline rates on the wells are really, really steep.

So I guess the way to think about this is kind of like once you get on a treadmill, you have to keep running. So if you produce, if you drill a well, but then the next year that well only produces 20% of the oil that it did before, then if you're a public company and you need to keep producing, you need to keep your production growing, you have to keep investing more and more money in order to keep producing more and more oil. So you have to be able to raise more and more capital in order to keep your production numbers growing.

It's not like you invest and drill a well and then that well spits out a gusher of oil for the next 20 years. It's you have to keep investing in order to keep that production up. And that need for continual reinvestment is at the heart of the skeptical argument about fracking.

But that said, so getting back to the question, well, how much is there? It's always is a question of economically recoverable. What can we get out of the ground at what price? And there's a real question how much oil we can actually get out of the ground at anything approaching a reasonable price. The question is different for natural gas. And I think that it's one of the, I hope, insights in my book, which is that oil and natural gas are actually pretty different. Fracked natural gas may make much more sense as an economic model than fracked oil does.

Joe Nocera

Okay. So there's two other sort of insights that I want to talk to you about. And the first is about geopolitics. So one of the things that you say more than once in the book, and I've certainly heard you say it on the radio as you've talked about the book, is that the idea of economic independence is a fraud. So I kind of want to argue with you a little bit about this. But before I do, why don't you tell people why you think energy independence is a fraud?

Bethany McLean

So I think for a few reasons...

Joe Nocera

And how this also relates to the book and what you're writing about.

Bethany McLean

So that's, I mean, that's part of what got me interested in it. This notion of energy independence has been a goal of every president since the 1970s. And the more presidents have talked about this grand goal of energy independence, the further we've slipped away from it, and the more we seem to rely on imported oil from primarily the Middle East. So the advent of fracking has dramatically changed all of that.

Joe Nocera

Hold on one second. Is there a way to turn her mic up a little? Is there a way to turn her mic up? No? Alright.

Bethany McLean

I'll just try to – sorry, I have a really soft voice. The advent of fracking has really dramatically changed that picture, and now people are talking about energy independence. Meaning that America, North America might be able to produce enough energy to satisfy its own needs.

That's real, but here's why it's a little bit of a fraudulent concept. One is that the price of a barrel of oil is set, but it's a global price. And so the price we pay for a barrel of oil will continue to be set by events around the globe. America can't isolate itself from the rest of the world the way we could in the 1970s. So we will still be victim to events around the world shaping what we pay for a barrel of oil.

Secondly, I came across some really interesting analysis about the percentage of components for our high-tech industry that are made in Asia. Asia gets most of its energy from the Middle East. Under no scenario are we ever going to be able to supply our own needs and Asia. So the idea that we can say we supply enough energy for the United States, therefore forget about all those problems in the Middle East, is just, it's an illusion. We're in a global economy. You can't. That not the way it's going to work.

And then I guess the last reason is this financial underbelly to shale, which is that it is heavily dependent on the capital markets' continued willingness to finance businesses that as yet don't produce a return. I try not to be in the business of predicting, because when I do, I'm usually wrong. And so I'm not going to say that this is going to end tomorrow or even that it's going to end in ten years. But I think it's a weakness to the shale revolution that is not widely understood.

Joe Nocera

But one thing that has happened, although obviously things that happen in the Middle East will affect the price of our energy, is that fracking has in fact had an effect on price, and it has really weakened OPEC. They don't have the ability to control the price the way they used to. And to me that may not be energy independence, but it's something. It's energy, something.

Bethany McLean

It's energy, something, right? That's a good phrase. But I'm skeptical of the broader notion of energy independence. But you could actually even ask if that's as good for us as we'd like to believe.

I mean, in a narrow way, that sounds really appealing, right? But it has sparked total instability. Total instability; that's overstating it. It's sparked some degree of instability in Saudi Arabia.

You look at the rise of Mohammed bin Salman and the weakness in Saudi Arabia's economy, because Saudi Arabia can't survive, given the extent of welfare state, Saudi Arabia can't survive. I think the break-even price when all the public spending is taken into account is around \$80 to \$90 a barrel. And on some level, you think, woo-hoo, go America, but then you think, well, wait, is weakness in Saudi Arabia and potential instability in the Middle East really good for us? I would argue not.

Joe Nocera

A third thing that you talk about in the book is you kind of raise the question of whether the rise of natural gas, the proliferation of natural gas in America is ultimately even good environmentally. Because while it may be wiping out the coal industry, which it certainly is, it's also, it puts less pressure on the need for renewables. So talk about that.

Bethany McLean

So there's a little bit in here. This book is explicitly not an environmental book, in part because well, mainly because it's a 30,000-word book or whatever it is, and it's meant to be a narrow take on an important topic. And you could not possibly cover the financial aspects of this and the environmental aspects in one book. It's not because I don't think the environment is important.

I also think it is a little bit of a mixed picture, and people who have tackled it in

books have come away with a pretty nuanced picture of it. In part, because natural gas does have much less carbon emissions than coal does, and so in some ways it's made things cleaner, although there's also a debate about methane.

But the biggest thing that struck me, one of my biggest surprises in working on this book was talking to private equity investors, who I thought would – I guess I thought they would be more cynical about the notion of renewables than they actually were. I thought there was more of a divide between the money people and the renewable people than it actually turns out that there are.

And some of the smartest private equity people are no longer putting money into oil and gas, they're putting all their money into renewables. Because their argument is we can't see when the day is, but the day is coming. And as soon as we see the end of the oil era, the price goes into a secular decline from which it never recovers.

And so we're putting all our money – and people are spending immense amounts of intellectual energy trying to figure out when that day is that we'll be able to see the end of oil. And no smart person I talked to can answer it. Maybe somebody out there has an answer. But it is going to happen. And at that point, oil and gas will become more and more irrelevant.

And so if beating our chest about energy independence means that we under-invest in renewables, then my view is we're celebrating – we're sort of like buggy whip manufacturers, right, back in the day, saying "Look at how great we are," for the world that is, when we're totally failing to be leaders in the world as it's going to be.

Joe Nocera

When you say they're investing a lot in renewables, are you primarily talking about solar? I mean, is that the main...

Bethany McLean

Solar. Wind. Yeah. Lots of battery technologies. I mean, there's lots and lots of work going on to figure out what it's going to be.

Joe Nocera

And then you get the sense that this is sooner rather than later?

Bethany McLean

I mean, there are arguments it could be within the next 15 years. I think that's aggressive, but it's coming.

Joe Nocera

So one of the things you talk about in the book is the boom – oil has historically had a boom-and-bust cycle, that's just the way the oil industry has always been. And then now it looks like natural gas is also having boom-and-bust cycles around fracking. Is there any rational reason that these cycles have taken place? Or is it just supply and demand? Is it just the price? What happens here? Because you point out in the book that we were in a boom, and then we had a bust, and now we're booming again.

Bethany McLean

Right.

Joe Nocera

What's going on?

Bethany McLean

So one thing I came away with from the book is that I looked at kind of the history of oil price predicting. And I decided that everybody who has ever predicted the price of oil has been wrong. And I think it's mysterious. I think even ExxonMobil, Rex Tillerson has said "We don't even try to predict the price of oil. It's not doable." Maybe in retrospect, people come up with plausible explanations for why it did what it did. But the people who try to forecast what it's going to do are almost always wrong.

Even through last spring, as I was finishing up this book, the mantra was lower for longer. That oil prices were going to stay around \$50 a barrel because of US shale. And so we were going to stay in the \$50 to \$55 range for the foreseeable future. And here we are. Oil prices are, what, 70? And so even in the short term, people have been wrong.

It really is, it's supply and demand around the globe, which moves in ways people can't predict. It's conflict in places right now. People are worried, for example, that the terrible situation in Libya is going to take supply off the market and that will

cause the price to go higher. It's geopolitics, like sanctions on Iranian oil. But it's really difficult. It's I think it's a very complicated calculus rather than algebra to figure out how all these pieces are going to fit together. And even in retrospect, explanations as to why it happened are usually part guesswork.

Joe Nocera

You open your book with a scene of a tanker being loaded up with, I guess, liquefied natural gas.

Bethany McLean

No, it was oil.

Joe Nocera

With oil. And it being exported.

Bethany McLean

Yeah.

Joe Nocera

And that was the first time oil was exported since...

Bethany McLean

1970s.

Joe Nocera

1970s. And then after the original oil embargo, Congress passed a law that you could no longer export oil because we had to hoard what we have. And the proliferation of fracking of natural gas and oil has caused Congress to change that law so that now you can, on a limited basis, export. I guess my question for you is whether you think that's a good thing or not.

Bethany McLean

So I'll come back to that. I want to just tell the little story of how the export ban was lifted, because I think it's really interesting.

So the export ban was actually lifted in year-end 2015 omnibus spending legislation. It was kind of tucked as a couple of lines into the big \$1.1 trillion bill that President Obama signed at the year-end 2015. And literally no one was paying much attention when this happened because – and we can come back to this – the industry was in a bust period. And so people kind of thought, no big deal, this this doesn't really matter.

In fact, I kind of argue that if it weren't for the bust, I'm not sure the export ban ever would have been lifted because there would have been such ferocious pressure around it. And that the lobbyist, I tracked down the lobbyist who helped get it passed, and he said that it passed the House before noon, it passed the Senate, Barack Obama signed it into legislation, everybody left town for the holidays, nobody even noticed. He went by himself to have a Manhattan at a steakhouse because there was nobody even to celebrate with him. It just passed by sort of unnoticed. But it came after years of lobbying from the oil industry to overturn the ban.

So I'm mixed on this. I guess I have a different view for oil than I do for natural gas. I think we really are a low-cost producer of natural gas, and I think we really do have huge supplies of natural gas. And the export of LNG – liquefied natural gas – has the potential to give us geopolitical leverage in interesting ways.

For instance, Europe historically has relied on Russia for a great deal of its natural gas, and the fact that Europe could have an option in the form of imported American gas gives it – even though that is still far more expensive than Russian gas transmitted by pipeline – that gives Europe an option. And it gives them leverage in negotiations with Rosneft that they have never had in the past. So there are ways in which it is a really powerful thing.

Oil, I'm you know, I am a little more skeptical about it. Do you guys know Charlie Munger? He's Warren Buffett's famous sidekick. And so it turns out Charlie Munger, of all people, has a view on this. And it was pretty convincing to me. And Munger's view is that part of a nation's security is its ability to feed its people. And part of our ability to feed our people is the use of hydrocarbons in products like fertilizers and pesticides. And that there is still no replacement for that. And while people talk about a replacement, there actually isn't one.

And his argument is, until we know there's a replacement for this, what are we doing shipping our oil overseas? Why are we not hanging on to this? The imported oil isn't that expensive. And if this notion of energy independence is somewhat illusory anyway, why are we not conserving what we have in case we actually really end up

needing it? Instead of frantically drilling every last drop out of the ground at prices that don't even make money for investors in order to chase some illusory notion. And that's convincing to me. That's convincing to me.

Joe Nocera

You know, I keep coming back to this because it drives me crazy. You say that natural gas is a low cost, you can produce it with low cost.

Bethany McLean

Yeah.

Joe Nocera

And the cost has been relatively high right now.

Bethany McLean

Yep.

Joe Nocera

And they still don't make any money.

Bethany McLean

Natural gas fracking is closer to being profitable than oil is, and the decline rates on the wells are less huge because fracking started with natural gas and for a long time there was a belief that you couldn't even use it for oil. People only switched to oil when it was clear that the immense amounts of natural gas unleashed by fracking, by Aubrey McClendon in particular, were crushing the price of natural gas, and so that you better have another business if you weren't going to get absolutely crushed by the plunging price of natural gas.

And so people started fracking for oil in sort of 2007, 2008, and a company called EOG was, along with a company called Continental Resources, really the first to prove that you could actually do this, that it was feasible. But there's an argument, and even the most skeptical people about the financial aspects of fracking think that it is closer to working economically for natural gas than it is for oil, because natural gas is just easier to get out of the ground and the decline rates aren't as severe.

Joe Nocera

So Aubrey McClendon is the person that you decide to focus on. And one can certainly understand why. He is absurdly charismatic and an amazing salesman, and he lived a larger-than-life life. But he also, you know, wound up indicted, wound up broke. He then, I mean, maybe he, he's not, he may be prototypical, but he's not typical. And so I guess my question is, you know, why him as your central character as opposed to somebody a little more staid and somebody trying to make...

Bethany McLean

Staid? As a character in a book? Come on. [laughs] Well, because he is such a character, it makes him – but that also because, a banker said this to me, that because he was this larger-than-life character who embraced risk, both with other people's money, and it should be said, with his own money, which is why he ended up dying essentially bankrupt. That he really sort of shows the duality of the fracking revolution. Kind of the good side, the daring, the entrepreneurship, the creativity. But also the bad side, which is this unbridled appetite for risk and this destruction of capital.

And Jim Chanos, who unfortunately couldn't be here, said to me about the industry, he said Chesapeake was just the rest of the industry on steroids. It was a more exaggerated version of what happened in the rest of the industry. But it wasn't as if the rest of the industry, you know, was lean and mean and produced profits, and, you know, everybody lived these quiet lives, and then there was Aubrey. There are a lot of larger-than-life characters in this industry. Look at the number of sports teams owned by fracking billionaires. It's kind of fascinating. There's one guy who owns two.

Joe Nocera

Who's that?

Bethany McLean

I'm blanking on his name, but he owns the Buffalo Bills and the Sabers.

Joe Nocera

Oh, yeah.

Bethany McLean

Yeah. Oh, why can't I remember his name. Terry... Anyway. But so oil and gas has always been larger than life characters. So that's part of why I thought Aubrey was representative of a certain aspect of this. I tried to balance him with a staid company, which is a company called EOG Resources, that most people regarded as the Apple of shale. The best run, most technologically superior, very lean company.

I went to visit the current CEO in their headquarters in Houston, and there is nothing ostentatious. There's barely even a sign. They've got a couple of floors for their headquarters in a building that's barely even marked with their name. And it is obviously run on a very tight lead. It's run by engineers and they're very focused on returns to investors, and on only drilling where it makes sense, and on their technological savvy. And so there is this other side to the industry, too, that I tried to use as a counterpoint.

Joe Nocera

How has Wall Street treated the fracking companies? I'm assuming there has been a fair amount of short selling. But is Wall Street enthusiastic about it? Is it skeptical? Is there a way to, I mean, can Wall Street be characterized one way or the other?

Bethany McLean

I think like with many things, I think fracking is a bit of a battleground, and there are probably people in this room who know this better than I do. I think fracking is a battleground. It's one of those areas where there's a war between the believers and the skeptics.

And there has been, over time, that's come and gone. Over time, that's shifted. For a while there was just this willingness to reward any company that could show big numbers and production growth with a huge increase, with huge stock price returns. And so in that sense, it worked for investors, even if there weren't bottom line profits. That had shifted a little bit.

And I'd say in the last couple of years, the skeptical view has become in some ways more mainstream. There's this whole movement of investors, a group of investors really starting to demand returns from the companies they invest in, and saying "We're not private equity firms. We're not going to buy your company you're taking public if it's not producing profits as well. We're out. We're not funding this any longer." And saying to the companies that they invest in, "You had better show us capital discipline and better show us profits or we're out." And so that's starting as well.

Joe Nocera

Sort of like internet 2.0.

Bethany McLean

It's sort of like internet 2.0 in a way. Yeah. People have even called it fracking 2.0. And it'll be interesting to see how it shakes out.

Joe Nocera

You know, It also reminds me a little bit of the cable industry, which in its early days was as wild and wooly as anything imaginable, and didn't make any money, and filled with entrepreneurs, and eventually made gobs of money. But who knows if that will happen in this case?

Bethany McLean

I think if there's a failing of this book, it was – well there are probably many – but there's one failing, for sure it was my arrogance when I set out to do this in thinking that I could come to an answer and that I could say, "Was Aubrey McCLENDON representative of the industry or was he not?"

And I think part of looking at this industry was this realization I alluded to earlier, that everybody who's ever tried to forecast the price of oil has been wrong. And everybody who's ever tried to forecast the future of fracking has been wrong. And so I came away thinking about it is a very complicated set of factors as to whether this does actually work in the end.

And so I leave, I think I leave that question open as to whether a company like EOG is more indicative of where fracking in this country is headed or whether Chesapeake actually is. As a source of mine said in the book, "Is this the model for the industry? It changes the world, but it ends in tears," when Aubrey McCLENDON died in the spring of 2016. And to be honest, I'm not sure of the answer for that.

Joe Nocera

So how was Midland?

Bethany McLean

Midland was really fun. It's one of the more interesting places I've been. It still looks

probably like it did in the 1980s. A few of the big fracking companies have built sort of big glossy headquarters, but for the most part, it's kind of low-slung old offices where oil billionaires kind of camp out. Buildings that most Wall Street CEOs would never set foot in.

And you kind of have to admire these guys for their pluck. I met one guy who has subsequently passed away, but he was worth two or three billion dollars, conservatively. And we met in his dingy old office. And then, I was flying Southwest back to Houston from Midland, and lo and behold, who is in the waiting area for the Southwest flight from Midland to Houston, but this guy.

So it was fascinating. The Midland Country Club is one of the wealthiest country clubs in the United States because it's got oil and gas underneath it. [laughs] And so, I mean, it was fascinating. When you fly into Midland, the juxtaposition is also pretty shocking because all you see everywhere as far as the eye can see are windmills and drilling rigs. And that's it. I mean, there's an old saying that God gave Texas oil because there wasn't anything else there. And that part of the world, that that seems so true.

Joe Nocera

Well, listen, Bethany, thank you for doing this. And Saudi America is really a terrific book. I really enjoyed reading it and talking to you about it. And we'll do it again soon.

Bethany McLean

Thank you so much for doing this.