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## Podcast Transcripts: Rory Johnston – Oil & Gas Industry Crash Course

### Transcript

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**Brandon Beylo:** All right, Rory, we're obviously bringing you on the podcast today because oil is the new oil. At least that's the way it seems. And the bet that people are making is that this you know transitory inflationary trend in an oil prices and this rise and oils and energy stocks he's gonna last longer than people think profits are going to be higher than people think and I wanted to get to the source of all of this which is The commodity space and understanding the supply demand mechanisms of the space understanding, you know, productions inventories, all of that from first principles and you know, you are one of the kind of leaders in the space at least, you know the person I follow on Twitter. That produces a lot of great content. So who are you? And how did you wind up covering the oil and gas space?

**Rory Johnston:** Well, so I started actually at. So my first job out of grad school was working, as an international economist at ScotiaBank in Toronto where I'm based. And after a very short time doing that, I ended up transitioning into the commodity role. And I would always have an interest in commodities going in, but I was gonna be hired in, you know, international space. So, I was very excited when I got to transition, I had to cover and manage the bank's kind of economic research. So, I did that for about six years and then I left at the beginning of 2020 to join a family office not knowing full well. Well that the pandemic was just about to bear down on us. My wife and I were having her first child. I was traveling a lot at that stage.

So I wanted to kind of like a slightly different change of pace. Also, very frankly, commodities and oil in particular, were a slog for the decade prior to covid and virtually everyone. I saw, I mean, the bank continue to kind of clamp down and wind down, come up, you know, commodity center business

I saw a lot of people that I had historically worked with kind of transitioning out of the space and very frankly. It kind of seemed like the writing was on the wall and I think we'll kind of chat more about how that sentiment and that kind of echo, I think is still reverberating in the market today. But, you know, regardless, I left and I had actually kind of planned to kind of transition away from kind of wrote commodities and, and even oil and kind of focused broader, equities and macro stuff. So,

**Rory Johnston:** You know, pandemic hit. We had a lot of time on our hands because we took most of our strategy off, why at that stage just kind of saying what the heck was happening. So at the same time as I was doing less and less active work, my phone kept getting off the hook with media, my old media contacts when I was at Scotia and they were like, You know, what the heck is happening? Why is oil prep where oil prices are negative? You know, is this like literally the end of the industry and I was just shocked that there were more people kind of filling that kind of commentary space. Very frankly publicly brilliant in Canada, which is like a very oil centric country at the end of the day. And I think very frankly that reflects that decade of winnowing that we had seen was that everyone that knew anything with oil either didn't talk to me. Yeah. Or has left the space, very frankly, at least up here so you know, that was my opportunity. So I just kind of kept it. I kept talking to myself and I kept doing research because I didn't want to be an idiot to the media. And I was like, Why don't I start writing this down and then I started writing it down and then I was like why I publish this so then I started publishing commodity context on Substack, initially as like, a proof of concept, like will people read this and then people read it.

So I was like, Okay, well people pay for it, people paying for it. So this is now my full-time, my whole full-time game, I've transferred entirely to doing commodity context as my kind of, as my, my job and it's been really exciting. So I've been really, I mean I've been blessed. I think I had a moment in time where I got kind of right place right time right general vibe of focus and that's what brings me to today. So I come, you know, most of the people in this space that are still around are really heavily equity focused like they come like they're long only equity managers or they're kind of they're interested in the investable side of the space I come from. Very much from a bank Econ perspective, which you know, is less investable. But I think like, I really do lean on that idea of like, commodity context. Like, my goal is, there's so much misinformation and kind of narrative in this space, but I see, I see a huge opportunity just to kind of dispel myths and kind of like set people straight.

So like I think that currently I'm planning on doing more forecasting in the future. But right now my focus is just like, Where are we actually standing today, like, based on all the information we have today. What can we actually say with this market? Because they're like versus the decade prior to covid. When I was starting in this industry, you know? Things are changing wildly. And I kind of say like last year like normally we would debate 500,000 barrels a day like from people's perspective, that aren't familiar with the sector as a random rule of thumb at this stage, you can kind of say like roughly a hundred million. Barrels are the market today, hundred million barrels, applied in demand, it obviously fluctuates and that's the whole point but as a proportion that's what we're talking about. So like we were talking about 500,000 but that was like that wheels were big numbers and people have big debates about this kind of stuff now. And, you know, 2020, We were talking like millions and millions of barrels of day across, multiple different, kind of line items and these global supply balance models from laggard shale and the US to Russia's invasion and the subsequent sanctions and then Chinese covid zero these massive massive shifts and I think that it allows people very frankly to latch on whatever narrative they want.

Because right now you have such a wide range of possible, acceptable and very frankly, reasonable forecasts that you can really plug together whatever forecast you want and you can make it sound pretty reasonable. So, I think as we're gonna talk about, I can see a situation where we do end up

deeply under supplied and prices, you know, Moon. But I think that I can as easily cease to that situation where we kind of muddle through and have kind of much more meager pricing, I think because as we'll talk about a little bit later that, like, I think the number one mistake people make in the sector is overconfidence like the oil market is designed to humble you ...I mean, as maybe not quite as acutely as the natural gas market. But oil I think has a very very long history of confounding consensus expectations and I believe that it will continue to do so. For me that's the only kind of truism in the space.

**Brandon Beylo:** The natural gas market just for anybody that wants to look at it. How crazy prices can go, I don't know. And I, I commented on this on Twitter, I don't know how anyone makes any money trading natural gas. I don't know.

Like everything, like you buy a breakout it gaps down, nine ten percent. You try to short it gaps up. It is. I mean, they call it the widowmaker for a reason.

**Rory Johnston:** And again I mean, like I tweeted a chart yesterday about like, I think so. Beginning of December or end of November, we were talking like seven, eight dollar gas. If you know yesterday by the end of trading, we're we're flirting with a two handle, so like we're sub three dollar million BTU gas, which is actually like, that would be low, even

**Rory Johnston:** Prior to covid in these latest kind of breakouts. But like, particularly low, given the fact that we were like this multiple times this past year, flirting with ten bucks a million BTU in North America and it obviously while North American gas has been crazy like global and European gas has been an entirely different ballgame of just absolutely historic. You know, mooning and then collapse of these prices and I think that, you know, say what you will about like the traders. Like I couldn't do it. That's absolutely wild. But like the effect it's having on the global economy is I'm like pretty regional economies is quite dire and and this volatility I think you know, as we progress towards this future of this hopeful energy transition, you know, I expect this volatility will only get worse and worse and worse and worse because you have less and less kind of tender care if you will, for the space. And we, we're expecting, in many ways, more, and more from it. We have to be cleaner, we have to be more efficient. We should be more available at all times and I think all of this together like I think those expectations are going to be kind of confounded constantly because that's what this market does. If you don't treat it with a lot of respect, it's going to bite you.

**Brandon Beylo:** Hmm. Well you brought up a good point too where there's some you know there's so many embedded expectations or maybe not even even embedded but there's this you know transition to clean energy. And all of this effort is put on these current energy sources. You know, you guys have to clean up, you have to do these things to make your plants greenery. You have to do all this and all that. But me, and while there's no money going into the space to help with any of the transitions. So you're stuck between your rock and hard place. You're like, okay, like I get the energy transition but, you know, Capex is so low. No supplies coming online. Nobody wants to build these things. It takes years to build new, you know, clean air quotes, you know, like oil refineries or natural gas, you know, production facilities. So it's, I mean, you're almost asking for the impossible at that point.

**Rory Johnston:** Absolutely. And I initially came to this space. Not frankly via Econ, my background is actually not economics. My background is more global affairs and security policy. So I came with an energy security focus initially the space. I like to say, like I learned economics on the job, working in the Econ department. I like to say, like I played an economist on TV, but I think that my background, like, first and foremost, was policy analyst and security analyst. Like I came to initially with this idea of energy security, I think what we've seen was like that decade prior to covid again, I think I'll keep talking and referring to that like many cases, like the lost decade. And I think during that period of exuberant over abundance and over supply of these materials. And these commodities people just kind of forgot about the security element. He will stop talking about energy security, but all of a sudden like last year Energy security was, you know, top of the agenda, again, you see like even progressive governments around the world, you know, the Liberal government here in Ottawa, you know, they're talking about security. Again, they're talking about the role.

But Canada, as an example here, can like to play in allies energy security, kind of securing the global energy supply and that's language and rhetoric that we just frankly haven't seen for the better part of the decade. And I think that is one of the things that has changed is kind of a renewal of that. Because that was, that was what everyone talked about. When I first entered, the space, you know, when I first entered the space, you know, 20 11 2012, people were talking about like, you know, like by like 2013 and 14 like Isis was taking over swallows of a rock and into Syria and they were taking [sec] and who are worried about like them getting as far as like that, the southeastern oil fields and a rock and like, the people were talking like, Oh my gosh, we're like we need, we have like huge security problems and then literally fast forward six months from June 2014 and prices were in free fall and eventually kind of called a culminating following from a hundred and ten hundred and twenty bucks WTI back down to twenty six dollars, WTI by Feb, 26, by 2016.

So like all that together like these are again, one thing I will return to is how frequently consensus shifts and I think it's wild in the space because people believe something so fervently and then it just disappears and then maybe people move on to the next kind of consensus view. And I think that happens, you know, I was, you know even in preparation for this podcast I was just thinking about this question and like, you know, there's probably like a half dozen in the past 10 years moments that the consensus is materially shifted in what the expectation is going to be. So I think, you know, when we talk about things like the futures curve or everything else like when people expect the market to show them the future and any tangible way, they're fooling themselves, no one knows. I think that's the important thing here. This is a massively complex, the largest commodity market by a Landslide.

**Rory Johnston:** Trillions and trillions of dollars traded annually. Like, this is the big one, right? I think like nothing else. No other commodity market compares and scales and scope to the oil market and You know with something that big and you have like even small changes and small countries can materially distort global balances. Like right now, One of the largest sources of global incremental supply growth is Guyana in South Africa, in South America, one of the smallest poorest countries in the hemisphere up until recently produced zero oil. And in the next couple years will become the largest per capita producer on the planet and...

**Brandon Beylo:** Why is that?

**Rory Johnston:** So they have, they've had massive discoveries. I wrote a piece on it in commodity context a month and a half ago or so, but they have this massive, massive offshore discovery, they're right beside Venezuela and...

**Brandon Beylo:** Okay.

**Rory Johnston:** they actually in some ways, share some of that kind of geology, but no one had really explored. And now, Exxon and Hess are the two major members of this consortium and they've had absolutely gangbusters success. Quite frankly, you know, I wrote in the piece by many metrics. The most successful offshore exploration program in history, they're going from zero to upwards of like a million barrels a day in like, five years with multiple projects and I think the cycle for this kind of investment is accelerating rapidly. Historically, we take way more time to scope and build out offshore in particular. But now, there's these new technologies that people are really adapting to. You know, writ large with these, you know, basically floating offshore they call them, floating production supply, and offloading vessels. And they basically connect to subsurface rather than building these big monstrous kinds of offshore platforms.

**Brandon Beylo:** Yeah.

**Rory Johnston:** They just make them much more flexible and much more kind of incremental and modular. And I think This is the whole name of the game. It's made it faster, it's made, it's cheaper. And I think that side evolved through the necessity of like, I remember, back again, in the, in the Lost decade, you know, doing risk reports for the credit committee at Scotia about the offshore sector and it looks, do you know costs were wildly expensive?

**Brandon Beylo:** Yeah.

**Rory Johnston:** Like the like the classic examples here were things like

**Rory Johnston:** You know they would fly custom bolts out at the cost of like twenty thousand dollars a bolt. Now it's like now they wait like now things move a little slower but in the process actually, things are moving faster because everything is standardized and everything is so kind of regimented now in comparison to like the custom bespoke, you know, prices no option attitude. Oh, producers back in the 2010s or early. 2010s in particular, when prices seemed high, everyone was thinking crazy. We're gonna keep going higher. So the name of the game was volume at all costs. Now people know it's like, you know, volume matters, but really profitable barrels matter above all else. And I think that's also been a massive shift in the industry.

**Brandon Beylo:** Oh yeah. There's so much to unpack and I actually kind of want to hone in on this guy on the development because I think I think it'll help explain a lot of the concepts for people that may not know the oil and gas space or maybe this is their first time. And again, like I saw, I think it was mayhem for markets yesterday. Tweeted the top 10 industries by relative strength.

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**Brandon Beylo:** To start the year and it's like literally oil and gas energy services natural gas, coal financials and it's you know so you're gonna have a lot of eyeballs on the space and I think what people are seeing is you know if you read anything going back to like you said the lost decade you

know call it 20, You know, 2010 ish, 2014 ish where there was just so much supply flooded into the market at these high prices right? At the moment when prices rolled over and crashed and and so you know investors are thinking is this gonna be exactly the same or have management teams actually learned that you know Hey maybe we should actually focus on the supply side and make sure that we're, you know, selling and are and and and we're supplying that profitable levels but going back to Guiana

**Brandon Beylo:** You mentioned. It's kind of all it's near Venezuela. You know Venezuela in this country kind of shares some sea water. How do they determine like you know Hey this is ours or like how is Venezuela not like Oh you know this is on our side actually like this is our oil.

**Rory Johnston:** So actually they are so they're actually there's actually a major ongoing border dispute with Venezuela that has been a major source of concern. Kind of, historically, people are a little less concerned about it now like there's enough interest, I think what you've seen very strategically is the guy in his government has actually partnered very explicitly with like US and Chinese companies largely and I think it's not lost on everyone that like this is at least in part, kind of a geopolitical hedge against interference from Caracas but I think like when you when you look at the capacity so they share a border. Essentially, if you look at Venezuela's claim like these, like these borders are established by international convention and kind of all these rules, how do you establish a kind of territory or waters? When you look at Venezuela's claim, and actually have a map in the, in my post about this, and it basically is like they claim 85% of Guyana's, territorial waters and shockingly, all of the sections of the water that have proven oil. And so like it's a major

**Rory Johnston:** So, I think, you know, this is one of these things in this sector. And one thing I love about and I got I came from kind of more of a global affairs, geopolitics background. So that was the, my initial kind of way I came into this industry, but what's fascinating is like every one of these industries has a bit of something for everyone. Like, I remember early days, like I had to learn a bunch of finance and accounting that I had. Frankly, no, I have no idea about forehand any more than that. I took a class in organic chemistry to improve. Understand how hydrocarbons work and like, what the heck are we actually talking about? We're talking about these different hydrocarbons and cracking, you know, hydrocarbon chains, and refining. So I just wanted like, understand. I feel like it's

**Rory Johnston:** Like, there's a little bit of every, you know, it's the definition of multidisciplinary like, there's a bit of everything for everyone, which is why you have such divergent opinions and personalities in this space. Like, I was like the classic example of an analyst in this space. Historically was an engineer. So someone that kind of started in the space that is either a petroleum engineer explicitly, or a chemical engineer, and they go get an MBA and that's actually like, there's a shocking number of people in this industry on operational as well as kind of strategy side that have that pedigree. But I think I think it speaks quite well of the sector that someone like myself who does not have anywhere at all that background, kind of can come in and have a different perspective and that I think thankfully people find interesting and I think it's like, so I think, you know whatever background you come from like they're there is something for everyone an oil.

**Brandon Beylo:** And when you go, well, that's, that's a good point because this space can be so intimidating. Like, when you go in and you and you and you read Daniel report. There's so many

terms that you just don't know. And again it's one of those things where if you take kind of the Peter Lynch approach, you know, buy what you own by what you use. Like the only interaction that a lot of people have to the oil and gas space is maybe like their propane tank for their grill or filling up their cars and then they see the prices, you know, rise and fall. But that's it. So there's no like, Oh, I kind of, you know, I understand this, I use it blah blah. Like, I understand the supply dynamics, I understand the customer value prop. It's a totally different ball game that can really get you, you know, feeling like you're drinking out of a fire hose, which, you know, the point of this podcast is to kind of turn the nozzle back a little bit to digest it all.

**Rory Johnston:** Yeah, and that's what's funny. I think what you hit the nail on the head, like 80% of it is terminology very frankly. Like I think, you know, because it is quite a technical sector and there's a lot going on and you do need jargon, you know, unfortunately, so otherwise you're like, explain a paragraphs for everything you're describing so like jargon does come in handy obviously but the same time like it's not actually that hard to learn particularly if you kind of, you know, know where to look and I. So I think terminology is the first thing to just dispel that but like you're saying at the same time, it's hugely complicated. Most people do not understand almost anything about the oil sector, but at the same time, it's actually the commodity, the people in some ways are the most aware of, because no other commodity has literal signs with the prices up wherever you're driving and you're doing it most times a week, like, like you'll buy like in the States right now. There's a massive egg crisis, right? But like people talk about it. But like, no, there aren't egg prices up by the side of the highway.

**Rory Johnston:** Still, I haven't seen it recently. Maybe it has...

**Brandon Beylo:** There are none. There are none.

**Rory Johnston:** I think that's like, so, like everyone has an opinion. So, like, it's, that's what's funny about oil is like, it's, it's deeply misunderstood, but virtually everyone has an opinion and that's true of lay people generally. But I also think like other people in the markets like every macro guy, or every macro person has a view on oil. Equity people have you on the commodity but they spend all the time in equities. So I think there's all of this like which is why I think again there's so much fascinating debate in this phase is like everyone feels that they can kind of lean in with a little bit of a take.

And I think some of it is sometimes really useful because I think like when you have the same group of people kind of talking back and forth all the time, like you get group thinking, you get like, like the kind of imagination ossifies a little bit. So I think it's hand. It's handy. Like I think wow, on some level like the endless kind of, you know, overconfident reply, guys on twitter or deeply annoying. But on the flip side, like one in a hundred, you're like, Oh, that's actually really interesting. Kind of like, slanted, take, I don't agree with your conclusion but like, it'll inspire like a post to look at. Like, I'm like, that's really interesting even if it's misunderstood. It's a really interesting misunderstanding. I think that's really valuable.

**Brandon Beylo:** Right.

**Rory Johnston:** I think, again, I benefit from the fact that everyone is kind of interested in oil because it is fascinating. Up.

**Brandon Beylo:** Well, the other the other interesting part about oil and, you know, like you you spent so much time reading in markets over the last two years about like, you know, these high-tech growth companies that you know are really just onshore tons of stuff, I didn't know, but when I finished reading I just kind of sat back and I thought, " Oh my gosh, like this stuff is incredibly high-tech. Like this is like what they're doing offshore and drilling underneath they've got these floating rigs, they've got subsea, you know, scrubbers and diggers. And then not even that even if you go on shore and you know, you're looking at, you know, some some like just regular onshore oil rigs, What they used to do is they would like send guns down into these wells and then shoot the guns into the concrete, to create these little circle perforations to help with the flow of oil back up the well, and it's like that stuff to me. Like, that's incredibly high tech.

**Rory Johnston:** Absolutely, absolutely. I think the industries have always been high tech, but I think particularly in the last couple decades you've seen that explode. In terms of, you know, like and like some like the most advanced uses of machine learning and stuff are like really advanced targeting of like payoff zones in these petroleum bearing plays. And I think what's interesting is like, historically you would like to drill down into a kind of a pool of oil.

**Brandon Beylo:** Right.

**Rory Johnston:** This is like, the kind of old school like Saudi or like that Beverly Hillbillies kind of like gushers spindle, you know, back in Texas's Old Days, etc, But more and more now you're looking at like, again, You know, Sub Sub, see kind of infrastructure for these offshore production or like you were saying like the like the guns and the kind of perversions, that's all the fracking, right? So the combination of horizontal drilling paired with fracking opened up massive, massive previously on economic kind of reserves. I think what's interesting here is that , like most oil, virtually all oil actually forms in things like shale. So like, you know, it is a sedimentary layer. It actually causes oil to kind of form over millions and millions millions of years, like, old sea life and plankton and all that stuff that kind of, you know, gets compressed and turned into hydrocarbons. And then, typically, what happens is that leaks gradually geologically naturally out of those reserves into those pools and then gets trapped under something like a tap rocker or kind of like a caprock. Um, and I think what you're doing now is instead of trying to wait around for it to conveniently gather itself in these kinds of formations, they are actually going to like the source rock itself and actually extracting it.

So you're kind of accelerating, millions of years of geology is what fracking is essentially doing. And in some ways, the oil sands are similar up in Canada like, you know, the oil has been commingled with sand and clay. And the goal is basically to take it and refine all of the bit and in the oil out of the clay and these are massive massive facilities like things that think this is what often actually alienates the sector to some degree. A lot of people are like it's so big it actually seems otherworldly. Like it seems kind of like a lunar project if you look at the oil sands or even even some like large refineries or things like it looks very intimidating but I think again it is It is, you know, these are like highly highly, highly sophisticated advanced, you know, you know, sectors and the people in these sectors are hugely hugely well, educated in this space. And that's why you can continue. Like, people always talk about



peak supply, you know, that was always the kind of worry, historically, like, back when I got first, I interested in, I remember watching a documentary when I was like, late elementary school or early high school, and it was like we're gonna run out of oil. We're basically, it's basically like the walking dead out there or like Mad Max, and it's gonna be crazy and you're like, okay, Well, it makes sense because like oil is limited kind of definitionally.

**Brandon Beylo:** Yep.

**Rory Johnston:** And we kind of have this, like, we pump out more and more of it every year. So yeah, of course we're gonna eventually, you know, run out but it's this massive kind of, you know, competitive race between declines and geology and increases in human ingenuity. So really, if you're short of oil supply, in some ways you're all. So actually, like short human innovation. And that's why I think one of the mistakes that people make is they, they assume that. Like, what we see right now is what will happen. That's the way it's going to be forever and high prices breed innovation and bring on more supply. It's happened. Every single cycle for like 150 years and we've thought we're going to run out, like, you can go back and like other books, I'll mention later. But like you know, that goes through these cycles of mania and hysteria and like, you know, the oil industry has almost died, quote, unquote, like a dozen times. And that's a lot of times for like the biggest, the world.

**Brandon Beylo:** Why do you think the oil industry? above kind of every other massive Market per se, Why do you think that's had so many dances with death?

**Rory Johnston:** I mean I think the volatility is in many cases unparalleled and I think what you've seen historically is the only moments where you have a reasonably stable oil market is when the markets are actually highly non-competitive like when you lean on like an oligopolistic system. So like historically, like when you look at it like this is one of the things when people look at historical oil prices there really aren't great historical oil prices in many cases because like for like you know there's actually a great book. So Bob McNally did a book called Crude Volatility and they had a really interesting long term history like yet. I think it was a weekly data set and he's the CEO of a company consultancy called Rapadan and a DC really, really great, really great analyst. He got a constructed historical data set that went back, you know, to the early days like the ladies and hundreds. When the industry started and you can see massive bouts of volatility at the beginning and then, you know, you know, Rockefeller takes over the industry and settles things down like a monopoly.

**Brandon Beylo:** Yeah.

**Rory Johnston:** Like the initial kind of trust, right? Like this. This is, you know, that the guy that actually brought about and he trusts regulation in many cases in the States and like a retaliation to what he was doing. So you saw that and that kind of busted and then you had more volatility, but eventually you had like this long, you know, era of what you call like the Seven Sisters Arrow. Where you had these massive oil companies, many of which you still recognize the names of today, Exxon and Mobile, and Chevron, etc, etc, where the prices that you see. Historically, when you see, like, 15 bucks a barrel or 10 bucks a barrel for like those massive swaths of time, between like the 40s to like the early seventies was really this moment of like this was an accounting gimmick in many ways. Like it was that, you know, they, they sold, they, they produced abroad and they sold to their own refineries

and the price. The posted price was essentially de facto agreed between them all and was used for internal accounting transfers.

**Brandon Beylo:** Wow.

**Rory Johnston:** And that was like, why you? And you during that period, you saw really, really stable oil prices because no one had an interest in volatility, it wasn't until you started to see, you know, OPEC pushed back and start to like, bring out these, you know, an initial labargos and then eventually you had like spot markets emerge and like this is like the like the heyday of like early like Mark Rich and like that the birth of commodity traders. That's when you started seeing real modern spot markets merge and eventually like the WTI as a price started in 1983, like it's actually not that old and the scheme of market. And I think before that these prices were kind of like You know, you know fugazi right. Like it's like this. It's really like that. That wasn't real pricing. Now it's a very, very different market and you have spot markets, you have futures curves, you have this hugely developed system and people are always complaining like you have, you know, you know, old hands in the market are complaining that now the market's too financialized, that, you know, futures have too much of an influence on the physical market.

We're on the flip side, I think, historically, you could very recently say, like, you know, physical traders had way too much opaque control over this market at all times. And now, in some ways futures have like, democratized a way of like expressing a view or having information about this market on a higher frequency basis but I think like again this market is just you know you can tell the history of the world through this market and like that is like you know, more books suggestions like my initial book that I read in this industry. You know, before going into grad school and...

**Brandon Beylo:** Right. Okay.

**Rory Johnston:** I think many oil analysts like the first book in this space, is the prize by Dan You're again. It's like, you know, refer to as like, the Bible of this and it kind of goes through this massive history from the founding of like a niche, like the initial Drake. Well, in Pennsylvania, kind of a rate up through to kind of, I think the book you know, probably ends in the you know, mid 90s and he's had subsequent books and stuff as well but like so this is like a broad spot of history and you can tell, you know, a really interesting story so well, you know, World War Two through purely the lens of oil. And that's again, that's initially how I came to. It was what this idea of like energy security and Winston Churchill's decision to, to change over the Royal Navy from cold from Welsh, coal to Iranian oil and you basically traded, you know, operational superiority of oil-powered ships may faster, way more maneuverable etc, but you had these massive extended supply chains that you then had to defend. And I think that was why? Initially came to it?

**Brandon Beylo:** All right. Yeah it's You mentioned the supply chains. And I think now, like, basically what you said earlier, where there's this huge focus on energy security and a lot of d globalization happening and a lot of, you know, hey, like we got to make sure that we take care of, you know, what we have whether it's defense, energy food supply and so at the same time like you're seeing this D globalization. And now all these supply chains that everyone thought were, you know, normal and fine, and humming along that we're very intricate throughout the world are now starting to kind of

break away. And it's creating some interesting dislocations, but I wanted to go back to something. You said about peak supply and, you know, basically Or, you know, if you kind of believe the peak supply and narrative, then you're also kind of short innovation.

**Brandon Beylo:** Sticking points for this oil and gas thesis. At least from the bulls is the supply like you've got right now. You can kind of pencil out a pretty stable supply base and you can make a reasonable guess that there's not going to be a ton of supply coming online. However, As technology increases and as the cost of bringing supply online may decrease over time like how strong is that narrative if people keep innovating and the cost to try to find new oil or try to find new energy sources just, you know, kind of declines.

**Rory Johnston:** Yeah so I think one thing I'll differentiate is also how wildly a historically disruptive shale was in the industry. And I think for some people if that is their main kind of point of reference for something like a supply rebound. it's highly abnormal, like to put in perspective and again, this decade prior to covid,

**Brandon Beylo:** Also, what is shale first?

**Rory Johnston:** Yeah.

**Brandon Beylo:** Like let's start there, right? Like what is shale? How is it different?

**Rory Johnston:** Exactly. And I think, and and shale it doesn't actually need to be shale. I should say, we really were talking about things like, you know, tight, light tight oil. So this is what we're talking about. You know, us Toyota oil production and or type gas production, for that matter. This is going through to that source rock, rather than kind of drilling vertically into a pool of oil, you're drilling vertically, and then horizontally through a kind of a load, you know, like petroleum bearing rock. And that's when you're fracking, and you're bringing it to the surface, there's a fascinating, like, a really great graphic for this, a photo of desert actually that I saw years ago.

And it basically, you know, old school old drilling was like drilling down into a jelly donut. So you drill down into the center and you suck the jelly. Yeah, right. Whereas, you light oil and and horizontal, drilling and fracking as much more like, you're drilling into a low, you know, a creamy layer of tiramisu and, you know, it's like it's like layered and you kind of go down through and you kind of go side with you suck at all of that. But it's a very different process. And so, when I talk about shale or the US shale patch is kind of a catch-all, really, what? I'm referring to these major basins. So you look at the Permian Basin and West Texas, and New Mexico, you look at, you know, the big ones, the Permian Balkan and in North Dakota, which was, I think in many cases, the first big kind of boom and the shale, with Harold Ham and then down into the Eagle Ford and kind of Central and East Texas. There are more there like there's like the Marcellus, which is mostly gas up in the northeast etc. But I think, you know, really what we're talking about in shale now, it's most of the Permian Basin.

And Permian is like the reason it is so important is those layers descend. So deep, it's such a big kind of formation, there's so much potential and area for this kind of production, and that's why you've just seen massive massive growth. And again, to put in perspective here, you know, at the peak kind of like, you know, peak kind of shale growth and this is, you even before is even after the price crash.

But like, in 2018, when Brent was trading at around, kind of like 60, 65 bucks, a barrel kind of like very middling prices but not as bad as they were a couple years earlier, you a shale was growing at something like, or us total liquids production was growing at something like two million barrels a day, which was about 500,000 barrels a day or more faster than global demand grew in that year.

**Brandon Beylo:** Wow.

**Rory Johnston:** It was an insurmountable tidal wave of oil in the decade prior to covid roughly two thirds

**Rory Johnston:** Every barrel of oil added in the world was added from the US shale patch. Nothing has ever happened like that before.

**Brandon Beylo:** That's the thing.

**Rory Johnston:** I think that is the important thing when people are talking about, like I think when people think, when people like mega bearish in this phase, I think in some cases, they expect a full reversion to that type of growth and I think that is probably a misplaced concern at the stage. You would need a lot to change to re-- recapture that pace of growth because really, I think for even again, that that decade is part of covid. We analysts, You know, we're breathless, like blue in the face saying This is unsustainable. They're not making enough money. They're going, You know, this isn't, this isn't kind of, this isn't can't persist indefinitely, but it kept going and kept going. It wasn't until Covid kind of had this sharp sudden stop to the industry that everyone used that as the moment basically like, Oh wait, maybe this didn't actually make any sense to begin with, and we all almost died. So, like, let's try and be a little more conservative here. So now You know, I think the other thing that's important to note here is that we will remain even at this dramatically slow rate of growth and I would say growth is probably halved or even even more. Like, I mean it last year, you know, growth with or this year we're looking at growth of maybe shy of a million barrels a day and that's total liquid. So that's crude and natural gas liquids, which we can talk about the differentiation a little bit later.

More fun chemistry, but I think, and that's at prices twice as high as 2018 in many cases. So, you know, dramatically slower pace of growth but we'll still be the largest source of growth in the world. I think that's also hard for people to wrap their heads around because like, oh well like sales done like yeah, it's done. But it'll still grow faster than literally every country on the phone.

Like beyond that there's and I think so what you're looking at now. I think it's less likely that you see a massive renewed boom, and us shale because I think beyond this cost discipline and kind of investment discipline that's imposed by equity holders. Because again, the other thing I didn't note for that decade was that they were investing in growth overall else they roughly depending on the estimates, you're looking at whether you're including privates and everything else, you know, between 300 and 500 billion dollars of investor capital was set on fire with zero return. So that's why the sector was terrible from an equity returns perspective for so long. I think most investors in the space are still scared by that. So the worry is now like not returning to that old pace of growth. You're making literally record profits right now. Don't, stop what you're doing, keep doing that.

**Rory Johnston:** So I think beyond that, then you have like the oilfield service sector, then you mentioned that is another kind of top performer. Also has this same kind of psychology. Where, like in 2014 when prices collapsed, the main reason that you could see, you know, US-based Emps, reduce their cost space. So dramatically was more or less by arm wrestling oil field service companies into massive discounts on their services. Like, Basically, you give it to us for like, you know, 50-80% off or we're going to business and then we both die. So, like the oilfield, service companies had to bear a huge amount of this brand. So in the process they cut investment. They cut back, they started cannibalizing all of their rigs and kind of pressure pumpers etc. In order to kind of keep their sector alive. So they haven't been investing. So you've had this. So even if you do get a return of Kind of desire for US-based. Emps to grow again.

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**Rory Johnston:** Then you basically need this other cycle of a massive boom in oilfield service rates until they can finally get the signal to invest in their stuff. Because right now we have a massive ball. Next we don't have, you know, rigs and drilling rigs, probably mostly fine-ish. The bigger problem is what we call the completion side. So basically to your point that the gun side essentially,...

**Brandon Beylo:** Yeah.

**Rory Johnston:** So when you drill it, then you need to complete it. And that's the kind of horizontal, drilling a stage one, and then fracking is stage 2, the bigger challenge. Right now, on the fracking side, there's not enough pressure pumping capacity, and then you also have bottlenecks and steel pipe and labor. And, you know, frac sand. That's used as those prophets to hold those cracks in the rock open. So, that all also basically needs this massive bull market and pricing in order to incentivize them to invest again. So I think even if you do get a boom in desire and us and peace to grow, I think the first stage is massive oil field, service inflation. Before you actually see a return to anywhere near the pace of possible.

**Rory Johnston:** With that, we saw historically which is why I think that US shale will struggle to double its pace of growth to the Pre-covid. Level, we're likely to see more growth. Now it is in countries like Guyana and Brazil. I think frankly like incrementally in Canada where you know slower you know, not millions of barrels a day each year but a couple hundred thousand barrels a day across a bunch of countries that I think it's wherever much more well-balanced and kind of diversified supply mix. Hopefully going forward here.

**Brandon Beylo:** Okay, if you look at the, you know, we'll call it the value chain, right? Where you've got, you know, the drilling aspect fracking then you've, you know, you mentioned the piping, the frac sands all of the inputs that need to go in, you know, like the mud to, you know, slap on to the well and then the completion process where is the kind of profit pinch point, where you think the most value will be extracted from, you know, let's say the current supply demand imbalance. I mean, a lot of the badges on these oil fields, you know, services companies like you said, where there's no supply coming online, day rates are gonna have to inflect and as long as day rates stay elevated and Oil prices don't collapse. Like, they're gonna make a ton of profits, but is there anywhere else along this value chain? Where you think outside profits might be a consequence of some of these bottlenecks.

**Rory Johnston:** So I think it, I think you need two steps and I think you first you need a true renewal. I think, even at this kind of level of activity in the patch right now, you probably will see some pricing power, kind of gradually shift to the oil field service, but I don't think it's gonna be like, you know, definitive and kind of gangbusters. I think that you need, you would need a mat, you would need high oil prices and, and it kind of a rerating of kind of equity, appetite, EMP, equity appetite, EMP. Investor appetite to grow again. And I think so. That's why I think even at this stage, I think if you're an oil field service company right now and you were thinking, You're looking at your lips, you're like, you know, back in June, the 120 Dollar brand. Oh, this is looking good. Now they're gonna invest and we're gonna like, thank goodness. You probably didn't invest at that stage because all of a sudden prices fell by almost 50% and then you kind of end it back in the cycle of people talking about cost discipline again. So, I think, you know, the volatility here does not help because it makes you ... the durability of any kind of rally and I think, with good reason because this is proven to be like, you know, you know fleeting.

So I do think, you know, but to your question, what segments of the market I think are gonna be most kind of primed in a kind of a bull market. I think very frankly pressure pumping because we just need to invest in a huge amount more horsepower and second is labor. I think that this sector has also and you talk to the very beginning about how like in my decade and I think that's both true and like the operational side, the production side. But also the analyst side, I think the analyst space in this sector has been, you know, vacuumed out for a decade. I think you've seen a god like a ground swell of people reentering the space but very frankly, a lot of them were not the same people from a decade ago. They're brand new and they're kind of a cycle experience in many cases starting in 2020 which is very unique if you started in 2020. Of course you're an oil bowl like prices went from negative to 120 dollars in two years. Like that doesn't happen in the industry. Typically like volatility is like the truism in the space, but that's something that's a level that's like, historically unparalleled again. Negative prices are historically unparalleled, I think, you know, there's, I think it's gonna take a while to like, repopulate the sector.

And I think the challenge here as well is like, all of this is happening under the kind of context and and with the backdrop of energy transition and governments around the world, trying to kind of reduce our dependence on fossil fuels because of obvious kinds of emissions concerns at the same time here. Like so you everyone saying We're gonna consume less oil. All these are, you know, international forecasters are predicting, you know, plateau relatively early, plateaus and demand and then fall off which for most people will like, you look at I think, okay, well pricing is gonna be crap then and I think so like Why would you enter the sector as like a new grad right now? Like when I entered very frankly it was because that's like a great way to make money you know. And you know mid 2010s it's like all of my friends you know, at you in undergrad that we're like, you know, in engineering we're all going out west to Calgary and making like, six figure salaries to start with their, You know, food and car paid for like, Oh my gosh, I'm like a, I'm like a political science graduate. I really need to figure out how to get into this oil space.

**Rory Johnston:** Thinking about it as like a payoff. Like very frankly, it seemed very lucrative then basically, my first, you know, six months working I started working in the industry at Scotia Bank in 2014. And then, literally, by the end of that year, the entire narrative shifted in the market.

**Brandon Beylo:** Yeah.

**Rory Johnston:** And I, for most people now, like, Gen Z. They've only known, they've only really known a kind of bearish market sentiment around oil, not to mention.

**Brandon Beylo:** You know.

**Rory Johnston:** And that's beyond, like, that's beyond. Like that's the market in the country.

**Brandon Beylo:** Yeah.

**Rory Johnston:** Obvious kind of political and environmental concerns with the oil industry. Like no one wants to get into space. There's an obvious challenge with labor and expertise that is made more difficult by the fact that the future doesn't look at all secure or certain. It actually looks volatile and uncertain. That is for me someone that has a decade plus of experience now. It's kind of exciting because I think there's lots of stuff to talk about, but if you're coming in one overwhelming is hack two.

**Rory Johnston:** Are you really gonna plan your entire career around? Maybe like a solid decade run? Like it's like, you know, that could be, that could be a different kind of calculation.

**Brandon Beylo:** Hmm. Yeah. That's You all of these things greatly influence and impact the supply side, which I think is kind of the most important thing. I'm, I I just finished and, you know, I feel so late to the party in, in reading these books, you know, but I'm gonna say it anyways, but I just finished competition demystified by Bruce Greenwald and then the capital cycle or Yeah, capital returns or something. Basically, you know that popular book based on the capital cycle and you know, it's just everything that's happening. The oil space right now is affecting supply but what's fascinating is gasoline. And,...you know, to help refine gasoline, Basically, the government created, I think, like, this this regulation that said, Hey, you know, like we're gonna ban these over time and, you know, we're gonna start kind of phasing these out. And intuitively what you think is like, Oh, these companies are done like these, like they're, they're gonna go broke.

But what happened is all supply exited the market and then you had kind of these two larger competitors that just basically said, Okay? Like this is what we have and why don't we cooperate on price and just mint money up until the very end and they did that. And these companies in dying industries generated, like North of 20 to 30 percent EBIT margins. Tons of free cash flow bought back stock and like, you know, their shareholders were well rewarded in an industry that everyone knew was dying. And so it's just this, it's this, it's this, you know, something that you have to keep in mind when you've just spent the last two years. And, you know, I'm speaking to myself, you spent the last two years obsessing over big markets, fast revenue growth, you know growing at all costs trying to find, you know, markets with big Tams and you know there's many ways to kind of skin the cat here.

**Rory Johnston:** And I think it to the point and we can talk extensively about demand as well, because I think, I think one of the mistakes that people in the sector often make is over focusing on

supply. Because I do think like, it is the sexy part, right? People like to talk about rigs and I talk about oil production, like, talk about tankers and all this other stuff. Like That's what's really cool about the sector. We haven't even talked to tankers yet, but I think, you know, the biggest thing that's changed in my time since I started is, when I started Peak Oil meant peak supply. Now, peak oil means peak demand and I think that is a fascinating change and I think you're the classic, the classic, you know, quote in this in this area is like one of the old Saudi oil ministers said. You know, the Stone Age did not end for lack of stones. and I think the idea,

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**Brandon Beylo:** I love that quote.

**Rory Johnston:** It's a great one. That's why it is. His name was a Yamani and you know the the reason I think everyone repeats it so much is like it's a great quote and I think the idea here is like we are not the oil age is not going to end because we physically run out of oil and prices go to 500 a thousand dollars, a barrel over. That's not how the oil markets are going to end. The oil markets, going to end. Because gradually we find other ways less emitting ways to, you know, power locomotion globally. Like, right now, everyone thinks that's going to be electricity of some variety. And I think that this next stage is gradually moving away from oil, but I think the challenge here as well is that oil is used in so many different ways, um, across so many different industries?

**Brandon Beylo:** Right.

**Rory Johnston:** And it is, you know, the reason it's used so much as the utility is massive. It's like a liquid shelf, a stable battery, that has huge energy density and the only downside really is the fact that it admits a lot of, you know, CO2 and the production produces a lot of methane and I think these are problems. And we recognize that from like, in again, externality perspective, but it is really hard on a case by case basis like overcome

**Rory Johnston:** Massive mass of utility of oil.

**Brandon Beylo:** Yeah. Well and that also brings up another point where, if we like to step back and put yourself in your shoes when you kind of first started into this space, and if you want to become a master, At knowing this.

**Rory Johnston:** Yep.

**Brandon Beylo:** And you could only choose, let's say, two to three factors or metrics to gauge the health of the space. Whether, you know, that's the supply and demand balance inventory balance, like what, two to three metrics, do you choose? And then how do you track them and follow them and then make judgments based off of, you know the changes in each of those metrics.

**Rory Johnston:** Yeah. And I'm gonna differentiate here between kind of like a broader kind of thematic thing that you should focus on from the beginning. And I think later actually talk about specific data that we can through a week,...

**Brandon Beylo:** Yep. Yeah, perfect.



**Rory Johnston:** You know, week to week and month to month. So I think you know the number one thing to understand in this space is supply and demand. You now understand where this plan demand growth is going globally. You know, are we in the pair? Are we in a period of chronic under supply? And I think you know, there are a variety of estimates out there of supply and demand at the same time, you know, the best way in many ways to kind of understand this very granularly as inventories. So like watching inventories and inventories fall really, really quickly. You're pretty, you've got a pretty good bet that, you know, you know, markets are under supplied. The second thing to focus on is the futures curve. I think about the futures curve here again. Historically, this wasn't wasn't as big a deal, but now you have a huge amount of information, containing the future's. Curve, obviously gives you the spot price, the kind of what we call the flat price of crude. But then also the shape of the futures curve matters a lot and I think I think you know

**Rory Johnston:** Based on what we would chat out earlier. I think we're gonna talk more extensively about the futures curve a little bit later in the podcast, but I think that is an understanding like the shape of the futures curve. In many cases matters more for the outlook of the industry or the, or the kind of current status of the industry, than the flat price itself. And I think that's another thing. So we can talk about like, you know, whether or not just the shape of the curve is visible, or you talk about calendar spreads. This idea of like, you know, Are you in Backwardation or contango? Then finally, the thing that I think that people need to understand, is the policy and politics in this space is hugely important, whether or not that is looking at, you know, the late, you know, in this latest round and this, you know, pasty or has been one of the most policy active years in the market. I think this isn't a market that everyone already considers to be one of those political and five policy driven in the world. But last year you had, you know, literal war, and peace policy driving, massive shifts. And expectations of Russian supply you had the US administer, the Biden administration and the White House embarking on the largest SPR release in the history of the market that materially changed balances.

I mean, again people talk about how like, you know, 180 million barrels or like at the peak was about a million million and a half, barrels a day of supply from the SPR feel like, Oh, that's nothing, you know, it's, you know, the market's a hundred million barrels, you know, that's gonna, you know, it's it's like a tiny amount but it's important to remember for people, but like the market always clears on the margin. So, when you're talking about like an extra million million half barrels, that's like adding another OPEC member briefly temporarily to the market, and that would absolutely push you from, let's say, mild under supply to material over supply. I think that that actually large, you know, goes a large way to explaining why fundamentally the market went from 120 down to 75 and I think like the SPR was a material component of that so whether it's us policy or Russia or opacity understanding how you know, Saudi and and its allies kind of, you know view acceptable pricing because obviously OPEC policy intermittently comes in and kind of takes a sledgehammer to the market, what, you know, Walmart or the other. So you understanding all those things and kind of having a bit of framework for how I think there's another thing.

It's important to have a framework for how to blend those things together. You know, there's a market that has so many disparate kinds of signals. I think the art is in kind of figuring out how you interpret them between each other. Because I think each of them provides a partial view of this market. I think

again a mistake you will make is over fixating on any one thing and kind of ignoring contrary data and evidence.

**Brandon Beylo:** So that begs the question like What model do you use? And then maybe how is that model of how you view these interconnecting parts? How has that changed since you started in space?

**Rory Johnston:** Yeah, so I think like, actually, I think this is actually a good moment. We can talk about some of the actual specific data points.

**Brandon Beylo:** Yeah.

**Rory Johnston:** So like, so for supply and demand, there are three big organizations that publish kind of regular supply, demand estimates globally. Now, the first I think, is that what many consider? The industry kind of standard is the International Energy Agency or the IEA publishers. It's an oil market report every month that said, It is a paid report, so it's not free. You can get historical copies of it, but they are lagged. And for that reason I actually think it's probably not the best place for people to start with. I think it's useful for reading reports. I think there's a lot of really, really good data there but I think it's like if you want a more current view and you don't have the kind of couple thousand dollars it cost for subscription, then you can honestly I think leave that one off the other ones that are free.

**Brandon Beylo:** Right.

**Rory Johnston:** So OPAC produces its own and a monthly report called the Monthly Oil Market Report for the moment. So there's the Omer, the Momer and the Steel and then that the studio is is the EIA is short-term energy outlook and

**Rory Johnston:** Both the Opex MoMA and the and Eia's steel are both free resources and particularly for anyone that is data savvy. The EIA has a really, really, and this is the Energy Information Administration. Part of the US Department of Energy has a really, really great API and they have really, really great data. So you can actually see it like that. You can see a global demand balance. You can now see that all of these agencies differ slightly in how they view both the future and the current. And I think that's important is that people understand, like there is no real truth in there are a variety of estimates and good analysts take all these estimates into consideration And figure. Okay.

**Rory Johnston:** What makes sense with the pricing that we're seeing like, if if someone if someone's saying a market is like, I think what's very frequent in this market is people were saying, You know, my then data I'm looking at says that the market is deeply and deficit but the oil price just fell by half. I would probably say the market's probably not deeply in deficit. I think, right? I think the other challenges, like all of this stuff, are generally backward looking . So, you know, you've got historicals which don't always agree with each other. So first you can harmonize and figure out what you believe, historically, where we actually did stand then where we stand right now. It's like a nowcast.

**Rory Johnston:** And then a forecast and I think each of those pieces takes a lot of kind of work and effort to kind of iron out of you again that it will never be perfect. But you want something that is at

least internally consistent with what you are seeing in market pricing and market-based signals because at the end of the day frankly that's all that really matters.

We're really talking about where our oil prices are going now and in the future and I think many times you will people will obsess about the forecast without trying to actually get themselves on firmer footing for what we're standing today.

I think that's a big mistake that I think people they're entering the sector now. I think you should have a better appreciation for it because I think it gives you a lot of information because you know actuals and the way we have been I think are much more certain than where we're going. In two months, let alone two years.

**Brandon Beylo:** The way I'm kind of picturing this in my head is you've got basically like this decision tree and there's kind of these inputs into the model. And really, what's important is determining what You know, percentage to put more emphasis on like, with each specific part. So like, you know, when you've got demand supply, you've got inventories, you've got the futures curve, and it's like at different points in time. One of those things matters more than the other and then it's trying to determine which one of those things matters and correctly, adjusting, you know, that that relative importance to that one, simple metric versus the rest.

**Rory Johnston:** Exactly. And I think there's also like even if you let's say we can just let's just say we kind of go with a supply demand, you know, estimates inventory and then pricing or like a future curve. That is also like each of those has different levels of like, Fidel fidelity or assumed accuracy out. The gate, like the least certain, is supply and demand because those are very much global estimates. And let me tell you about all of the different ways that I know my own numbers could be wrong because we're talking about every country on the planet, which is, it's hard to get all of that, right? So we know that there's going to be some errors there and corrections. Historically, it always always happens. Inventories are more certain because you're actually, you know, surveying, you know, people in the market. Like, How much do you have in your tanks? Now, the challenge with inventory is that there's a differentiated kind of level of certainty as you go across that across the globe. US inventories, great data.

You know, the weekly petroleum status report from the EIA is another thing that all kind of investors and kind of analysts in this space should watch and every Wednesday at about 10:30, you have a report that's released by the EIA that gives you kind of weekly data on this space. Now, the inventory data is really really good and history and generally when you get monthly updates, it's more or less just a, You know, a monthly restatement of that inventory data. The hard part is that if you look globally, inventory data comes out much less frequently. If at all, when you look at like one of the major themes of this past year has been massive stock building in China

But we don't generally have great public accessible data about China.

**Brandon Beylo:** Right.

**Rory Johnston:** So, generally investors ignore that because they look at, you know, a lot of what people focus on is visible commercial OECD, inventory data, that's what's reported by these

agencies. But if you have stock buildings going on elsewhere in the world, that's gonna look kind of weird and orthogonal to you. Let's, Let's say, you know, I, my own numbers. You actually see, you know, great, you know, mild surpluses in global supply, demand, balances for most of the second half of last year, which a lot of people. That's crazy. You know, we've seen inventory draws and the sprue down everything else, but like if you're just looking at one segment of the world at the market, it does look weird, but if you look at other segments of the market where inventories are, you know, estimated to be building, this is based on more proprietary data. People, you know, have satellites, you know, views of tank farms they try to interpret.

Like, we generally know that inventory isn't building trying to both crude and products and then finally, so like you've got like as you know, supply and demand estimates which are Lucy goosey and kind of again, an art form in many ways. Then you've got, you know, inventory for sure more certain but, but patchy around the world and if you only have a patchy view, they don't provide a great confirmation one way, or the other of the market. And finally, with pricing, which at the end of the day is how all this stuff clears. So if you, if you are in deep kind of oversupply, the market flips, into contango and kind of incentivizes stock building. And if you're deeply in deficit, you know, the market flips in the backward direction and kind of advises those inventories to draw down. So I think Good analysts. Try and figure it out.

**Rory Johnston:** How that narrative makes sense across those pieces and there are other things you can talk about particular data and stuff. I think the other, like another thing that you can watch is I watch a lot of the, what's called the Commitment, Commitments of Traders report, which CFTC and then Ice publishes both for kind of US WTI. And then Brent and this gives me a view of pro and I look at specifically the managed money component of the disaggregated data. And this gives you a sense of where speculators or what I view is, the marginal kind of buyers of crude futures and options contracts are in the market. And I think you can adjust your view slightly for that as well, because I think a lot of people and when I, this is one thing that I learned, right? First join the industry completely backwards, which is where I learned initially hedge funds, manage money. They're the smart money. You know, you should probably go where they're going and now I view it as more of a contraindication, that's it. Now it's kind of like a crowded trade kind of estimate that when as a proportion and relative to history Spec, Participants are really long on a net basis.

**Brandon Beylo:** Yeah.

**Rory Johnston:** The more likely scenario is they mean reverse whether they trim long positions, they establish new shorts or whatever. So I see it as like when we're really, really, net short. I see those bullies because there's a lot of dry powder historically moved with oil comes back in and goes up. So I think also your interpretation of even pricing signals, which are normally the most solid estimate you have of what the market stands for. Also needs to be moderated and kind of contextualized with where, you know, speculators are in the market. So I think it's again, each one of these things is viewed best in the context of all the other things, I think it's only when you have all these pieces together that things start to make some sense or very frankly. Sometimes they don't make sense. I think that's also another story. Like I think that's an important, conclusion. Like Wow, None of this stuff

is actually lining up. Like something is going to move one way or the other to reestablish harmony between all of these data points. But you don't always know which way it's going to go.

**Brandon Beylo:** If you had, and this is the, this kind of following this line of thought about, you know, starting from scratch trying to master this space. Again, if you just start from scratch with zero knowledge, right? So, take all the info you have. Now throw it out the window, how would you go about it? Leveling up and getting to where you are now. Like, what books would you read there, would you read like annual reports of whether it's Emps offshore you know you know services energy equipment, drilling companies on shore? Like how would you go about getting to where you are now?

01:05:00

**Rory Johnston:** Yeah, so if we're talking like you know what, I would read the gate, I think there's a lot of good books. We talked about, I think everyone should start with the prize because it gets a great kind of injection. It's a massive thing. It's like 800 pages or something like that.

**Brandon Beylo:** Yeah.

**Rory Johnston:** It's a very very large book but it is but it is. It's a massive historical sector as well. There are a bunch of other great books. I've got, you know, there's a book called The King of Oil which is a biography of Mark Rich which is kind of for people that are unfamiliar like Mark Rich, he was one of the major first, you know, was like the major first oil trader. Essentially many cases established the spot marketing crude and the 70s and into the 80s and his company eventually broke up because of politics and internal disagreements and actually formed Glen Core and traffic era. So like the two.

**Brandon Beylo:** Well, oh no way.

**Rory Johnston:** Yeah so like the the companies that remain some of the largest in the world are the Are Like the direct descendants of Mark, Mark Rochenko, which brings you to the other book which is there's a really great book by journalists at Bloomberg Javier Bloss and Jack Farley, which is World for Sale, which is more. It also covers a kind of mark, rich history but is a bit more broad and kind of brings you a bit more modern and current. So like these like, you know, the modern incarnations etc etc. And also covers more than just oil covers grains and kind of like the ABCs of like the grain trade and everything else as well. So that's really interesting.

**Rory Johnston:** I think also you've got books on like there's a book called Oil 101 which is just a great kind of primer. I think it's a Morgan Downey great primer on all some of the technical aspects of the market.

**Brandon Beylo:** Yeah.

**Rory Johnston:** You also have, I had mentioned crude volatility by Bob McNally, which is another kind of great book that just gives you a broader history. So I think history is important. I think that like anyone that assumes that this market moves in one direction needs to read more history because we have been here time and time and time and time again. And people are always so confident that this is the time that oil is going to 200 or This is the time that you know that peak oil happened, that it's just to run away profit trainers, whatever and every single time something goes wrong. Now, you

know, the past is not always prologue. Maybe. This time is actually different but like every time someone says this time is actually different, you know, Alarm Bell should go off and say Like, is it? There's also a really good book recently. It was actually one of the ft book of the year kind of finalists called Dead in the Water and there's a really interesting book about an oil anchor that had been hijacked and it was this kind of like murder story but it provided this really interesting background on the tanker market and how you know, the insurance market works and and the reinsurance market works and Lloyds of London and how intimately this industry is connected there as well. And particularly what we're seeing right now is a lot more interested in tanker tracking. This is something that people are doing a lot more work on. You've got a lot of really great companies that emerged in the past couple years to do this kind of work and there's a lot of interest in it because of sanctions and tracking in a very high frequency. Why, what's coming out of Russian ports? And where is it going? What's coming out of the Iranian Venezuelan ports? Where are they hiding their oil? and you can see this in real time, which is fascinating because you know, while it's all very murky at the same time, it's really hard to hide a tanker that's holding two million barrels of crude. That's a very large item, and it's visible from space. So, but beyond books, I think like and this is, you know, stuff that's much more freely accessible to most investors.

I read a tremendous amount of Financial Times. Bloomberg Wall Street Journal, you've got really, really great seasoned journalists in this space that have seen. You know. Many of them have been in this sector for decades and they have seen it all before and they are bigger, very, very good at kind of like calling bullshit on. What some of the more, you know, outrageous claims are. And I think that's a really, really valuable thing. And then beyond, you know, Ft Walter Journal and and I forgot Reuters, which is always one of the best sources in this space. Generally, you also have more industry specific publications like Argus and S&P Commodity Insights which is formally known as Platts also. Really, really great sources. You also have companies like there's a tanker tracking company called Vortexa that publishes regular insights or blog posts are also really great. And there's a lot of great content right there. The other thing I would say is like, just play with the data, like, Go to the EIS website. Go, go to go to the short marriage. You look, it's got a great data browser, and you start downloading data, and

I think it is really great. Like I think everyone that really wants to do this industry. Seriously should try building a global supply and demand model. I don't think he is perfect, but just to give you a rough Proportional sense of what matters in the industry and where things are going. Nothing, no written notes read, not reading anything. Very frankly is gonna give you the same. Appreciation is playing with the data in this spreadsheet. And then finally, just an entire huge, really self-serving self plug, subscribe to commodity context where I am where I'm continuing to learn this sector daily. And I think my method is very much trying to publish an annotated journal of my exploration, digging deeper and deeper into different elements of the sector. I think there's a huge amount of great continent there. And I think that if you really want to, you can find fantastic, fantastic stuff.

**Brandon Beylo:** What are you digging into now in commodity context? That has you super interested, it could be a recent development. It could be something that you think in terms of forecasting might happen like what is occupying most of your time now.

**Rory Johnston:** Yeah, so the two pieces I'm there next on my docket are a piece on the global air travel recovery. So jet fuel. Particularly in China, is this major question like is trying to reopen? How can we track that on a higher frequency basis? As I was mentioning before, a lot of the supply demand data is very lagged.

**Rory Johnston:** Typically like so I published a monthly report that I've called the Global Oil Data Deck. It provides it's like a You Know, 50 Plus Page document that provides updated charts of all of the thematic work that I've done historically, but as an example, so that I just published the January Report and that the focus month of that report is November and it's always kind of going back and trying to reconstruct the best data. We have for the most recent month, we have good data available and I think that is one of I think that is, is something that kind of, is just a good thing to know in the sector, whereas with some of the more recent, you know, flight tracking data, you can get an actual almost a real time, you know, estimate of where, you know, jet fuel demands going by looking at the number of planes, they're taking off across different countries. So I think that's something that I'm really looking forward to kind of parsing out and probably providing a bit more context if you will. And then finally, you know, the other thing I'm looking at is so I wrote a piece recently on Guyana. I wanted a major kind of source of growth going forward.

And big expected gains on the supply side is Brazil. I think another country I'll be digging into. Yeah, I do these deep dives there once in a while until like a particular country or particular sector of the space. So the next two things I'm going to be doing on that thematic basis are, you know, air traffic, and jet fuel and then Brazil. But going forward, I am looking at, you know, doing more on the equity side. Again, I'm not an equity analyst by background, so my focus won't be taking the macro and applying it to something like an equity call or a price valuation or whatever a price target. My view is more like taking a broader aggregate swath of let's say Canadian or US-based Emps and how they're you know how they're balance sheets are changing. What that tells us is that the broader sector, how they're cost base is changing and how that tells us about where things are going to be going, but those are kind of, some of the big things that I'm looking at going forward. And then every week on Friday, I've also got a regular rapport. I do called Oil Context weekly which I just, you know, beyond this thematic deep diving stuff. There's also all the stuff that's going on literally week to week to week right now.

I think you've got the beginning of this week. We started by finally, the entirety of the futures curve for Brent flipped into Backwardation. And then, yesterday, or the day before, it collapsed back down to Contango. So you like, you know, this, it's constantly shifting like, ah, it's happened. Ah, okay, it's gone.

**Brandon Beylo:** Yeah, when you look at a country like Brazil and you say Okay, I'm gonna go do a deep dive on Brazil. Like What is that process look like, How do you start research or You know, I've maybe maybe haven't even thought about it yet.

**Rory Johnston:** No. So, I mean, I have and it's and it's, it's Each of these countries is different. They have different levels of transparency. One of the challenges with Brazil, is it exclusively publishes its data in Portuguese, which it. So I've I've learned very quickly like and like you know I do a lot of work with like trying to scrape through OPEC and OPEC plus members for like again because you're

looking for, you know, unbiased or kind of, you know, primary source data both, because one I can then use it freely and, you know, sell the data at one point. But beyond that, I think it gives you like, otherwise, everyone has their estimates. We never think it's all a black box, they don't know how they comfort the rest.

So I like to know where I'm getting my data from and quite frankly, like a lot of this, like like stands data, I was recently doing a bunch of work on and like you I have to like literally translate Excel sheets that are written exclusively in Kazak that's like to try and get this data out and then parse into something that's useful. And so, in Brazil, there's that, you know, their main oil and gas regular, it's called the ANP. So you go through an E&P website and figure out what day they publish? What day are they collecting? And, he's actually really great. They actually get a lot of really really good data.

**Rory Johnston:** That said, they do not make it an all easy to access and download. So, it's a little bit, like one figure out a bit of a bit of a mind map of what data they collect and what they is useful. So like it's very, very, you know, high level, like you're breaking down like by province or region within within Brazil, you're looking at. You can actually break it down like individual project levels in, in many cases figuring out where like this one particular offshore platform is going. You know, there is one region falling in one region kind of going up. And my main focus is always decomposition. I think so frequently people will just say, Brazilian production is here. You know, four million barrels a day or whatever, but I want to know like what segment of that is growing, what segment is shrinking, because I think only knowing that and again this goes back to this historical kind of context only knowing what we're standing Now, will you have a better sense of where where you're going in the future because that because the headline number could be flat.

**Brandon Beylo:** Yep.

**Rory Johnston:** But you could have a legacy area like actually a great example of this is is Mexico where you have the major legacy fields that have supported Mexican production for decades have been in, chronic decline and you see all of these other segments trying to pick it up but like it's so you have like one section declining and one section growing but like it kind of looks much more stable on the headline level. But it's important. I know what's going where because eventually, like the declines will stop, or the growth will stop and you can see where it and at which point

**Brandon Beylo:** That's fascinating. And I just think. I've learned so much from this, like an hour and a half. I'm buying those books that you recommended today, for sure.

**Rory Johnston:** Fantastic.

**Brandon Beylo:** Yeah, so and and, you know, hopefully I could do it. Deep dive, and kind of some book reviews on all those as I go. But we're, you know, we're coming up on the hour and a half mark, and I know, I know you've got another, you've got another commitment around 9:30. So, there's a couple clothes and questions that I ask everybody. And the first one is, Where can people go to find out more about you? I know we connected on Twitter, so, you know, shout out your Twitter account and your website.



**Rory Johnston:** Yeah. So on Twitter, which I spend way too much time on and I kind of live a live journal. My research process in real time as well as share photos of my adorable children. I think he is. So I'm on Twitter at Rory Underscore Johnston. And then most of my work is now being channeled through. My research product commodity context is calm on the sub stack and I kind of have three verticals that I view with that product. I have my thematic research which we've been talking about. I usually try to publish twice a week either, you know, one Friday Weekly report. So the oil context, weekly reports and then one other piece and it's either a thematic piece, or I also have two monthly data reports.

**Rory Johnston:** The Global Oil Data Deck and the North American Oil Data Deck, the kind of dig down and all of the stuff I'm talking about week to, you know, in those thematic reports are week to week, they'll get aggregated into those data reports because I find one of the things that I find a lot of sectors and particularly in the oil sector is that people will like, do a deep dive thematic.

**Rory Johnston:** And then it'll become stale and you have no idea where those pieces went. I would love to see an update of that chart or whatever. So my goal is to automate all of this so I can actually update it and keep it updated so that people can kind of go back and see. Oh okay that went here and oh well you know, that that was right or that was wrong or whatever else.