# SM123 | 5.27.2023 Days of Futures Past | Episode 3 Dave Howson and Jos Schmitt, Cboe

This week on our *Days of Futures Past* series, we welcome Dave Howson and Jos Schmitt into the SmarterMarkets<sup>™</sup> studio. Dave Howson is EVP & Global President at Cboe Global Markets and Jos Schmitt is President & CEO of Cboe Canada and SVP & Global Head of Listings for Cboe Global Markets.

SmarterMarkets™ host David Greely sits down with Dave and Jos to discuss the history of – and lessons from – the Chicago Board Options Exchange as it celebrates its 50th anniversary.

# Jos Schmitt (00s):

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That spirit of innovation, that spirit of disruption, that spirit also of making things happen, flawless execution. That is the spirit that characterizes an organization with a stock option history and that is today still the mantra of Cboe. That is today what still differentiates Cboe from many of the other global exchange groups.

# Announcer (25s):

Welcome to SmarterMarkets. A weekly podcast featuring the icons and entrepreneurs of technology, commodities and finance ranting on the inadequacies of our systems and riffing on ideas for how to solve them. Together, we examine the questions: are we facing a crisis of information or a crisis of trust, and will building Smarter Markets be the antidote?

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# **David Greely** (01m 06s):

Welcome back to Days of Futures Past on SmarterMarkets. I'm Dave Greely, Chief Economist at Abaxx Technologies. We have two guests with us today from Cboe. They are Dave Howson, EVP Global President at Cboe Global Markets, and Jos Schmitt, President and CEO of Cboe Canada, and Senior Vice President Global Head of Listings for Cboe Global Markets. We'll be discussing the history of and lessons from the Chicago Board Options Exchange as it celebrates its 50<sup>th</sup> anniversary. Hello, Dave and Jos, welcome to SmarterMarkets.

Dave Howson (01m 41s):

Thanks for having us.

# David Greely (01m 42s):

Absolutely. Thank you both for joining us and first congratulations on Cboe's 50<sup>th</sup> anniversary, which you're in the midst of celebrating now. And I wanted to start off, I think this will be a good question for you, Dave, when you look back over the past 50 years, what do you see as some of the most innovative financial products to come from Cboe?

# Dave Howson (02m 03s):

Yeah, it's a fantastic time to take a look back as we also think forward looking back on those 50 years, starting really with the creation of listed options trading all the way through a fantastic arc that includes the creation of volatility as a tradable asset class Cboe's founders are starting really there with a creation of the listed options market Cboe's founders wanted to standardize, democratize the trading of puts and calls to eliminate counterparty risk, to really put that effective risk management tool in the hands of individuals, a broader base of individuals in an efficient way. Previously, of course, as you know no two options contracts were likely the same or had the same terms, were only available OTC. So bringing that onto a standardized cleared market was a, was a real game changer and change the financial landscape to bring this risk management tool to everybody.

# Dave Howson (02m 59s):

Another first day, 911 on options contracts changed hands across 16 stocks and then you fast forward to Q1 this year, and Cboe saw on average over 14 million options contracts traded across indexes, single stocks and ETPs on average every day in Q1 and then thinking through time, there was that tradable volatility product that index the VIX index in 1993 and created a way to measure volatility, which

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in itself was the second one of the second key game changes. Moreover, the creation then of a tradable capability, VIX Futures in 2004, VIX Options 2006, gave people a way to express their views in in the marketplace and then with a tradable asset class in place, it really accentuated those S&P 500 options, which came in, in the early 80S based on the S&P 500 index itself it was an innovative way to be able to green leverage, manage exposure, manage risk to the broader US marketplace.

# Dave Howson (04m 03s):

And then thinking through time again, we expanded the access of SPX options across today, 24x5 trading, global trading hours. We added a range of exposures of sizes, so different size contracts, the one 10 size contract, and then thinking in the last year, that explosion of the same day options training that was enabled by the final edition of a Tuesday and Thursday expiration for our weekly contract and really that was a huge amount of product innovation there. There's many more others in between, but outside of product innovation itself, thinking about those innovations that really enabled and fostered the environment to make it all possible, including hybrid and electronic trading capability and also all of this underpinned by a real true belief that education is a great, is the way to create sustainable investors to really broaden the utility of this asset class and for us, that was 1985, the Institution of the Options Institute to teach end users about options and so then finally today, 26 markets around the world, equities, options, futures FX, digital currencies, North America, Europe, and Asia Pacific so it's been a great journey.

# David Greely (05m 20s):

It's been a heck of a ride and it's amazing to think of, as you said, like these deep liquid markets, 14 million contracts a day now versus 911 the first day. I mean, it's amazing from the little seed, the big tree. I wanted to ask you, getting back to the creation of Cboe I was always curious, you know, it was established by the Chicago Board of Trade, and I was curious as to why a separate exchange was established rather than listing options, contracts on the board of trade itself those 50 years ago.

# Dave Howson (05m 53s):

Yeah, absolutely and digging through the, the memoirs and the memorabilia, and we look to Joseph Sullivan, the Cboe's Founding President, the Board of Trade and the answer is as in many cases, somewhat quite straightforward in that the Board of Trade operated a commodities exchange and the list is of options contract will be subjected the CBOT to the SEC Regulation rather than CFTC And so with that there was a decision to actually instantiate a separate exchange And really the big players in CBOT were really only interested in commodities at that point in time, and were not fully convinced about the probability of success of launching an options exchange. So as a result, we had the Chicago Board of Options Exchange today, Cboe and Joe really describes the process in his memoir. It's really worth, worth a bit of a luck. But what we found eventually is that the CBOT members that were interested in, in trading options could also do so by joining the exchange and so what you found is users trading futures in the morning and options in the afternoons.

# David Greely (07m 01s):

It's a busy day. Jos, I'd love to bring you into the conversation here. I would imagine that this origin of using derivatives to facilitate risk management creates a different culture and mindset than exists at other exchanges. You know, for example, commodities futures exchanges often arise out of the underlying physical commodity industry with its own ecosystem and own culture. Stock exchanges are part of an entire financial ecosystem supporting capital formation and the building of companies that has its own distinct culture. I'm curious if you agree with that observation first and then how would you describe the culture and the mindset at CBOE?

# Jos Schmitt (07m 44s):

Totally agree with that analysis, and it also makes sense when you think about it, because if you look at the origins of those different types of exchanges you will see that they have some characteristics that explain why they're different. You take commodity exchanges, they are typically driven by producers and processes of those commodities and what are they interested in. They want to be able to trade, they want to have access to futures for hedging purposes. That's what it's about and they have no real interest in anything else. Like think about what they've just said earlier about the why of, of the CBOE, the old name of the organization. That is because there was no interest in that type of, of innovation stock exchanges you know, I would even say with a smile, it goes a little bit further.

# Jos Schmitt (08m 32s):

Like stock exchanges have been around for centuries. I think it was in the 17<sup>th</sup> century that the first one was created in, in Amsterdam and what happened with those exchanges is over the years, they became members, clubs and members clubs with little aspiration for, for change. You may remember around the 2000s there was a big wave of stock exchanges moving from that membership structure to for-profit organizations and one of the reasons that was driving that was an acknowledgement that they became stale and that they needed to be reinvigorated but it's not that easy because it's, it's hard to change old, old habits. So think about those, those two types

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of organizations and you will see a culture that is far less focused on, on change, on innovation on disruption. And the stock options exchanges are very different.

#### Jos Schmitt (09m 26s):

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And when the idea of stock options germinated at Cboe in the late 60s, it, it was driven by innovators. It was driven by people seeking new ways to manage risks. It was driven by people who wanted to grow their business and there was a lot of skepticism around there were lots of hurdles that need to be overcome, but it all happened and, and they delivered and I think that that spirit of innovation, that spirit of disruption, that the spirit also of making things happen, a flawless execution that is the spirit that characterizes an organization with, with a stock option history and that is today still the mantra of Cboe that is today what still differentiates Cboe for many of the other global exchange groups and the last thought that I would maybe add to this is in those 70s, 80s there were a lot of initiatives that followed the example of Cboe that across the world came up, new derivatives, exchanges, new options exchanges, and that that same spirit of innovation of disruption was there and I remember it because I was part of one of those, but most of us got acquired by the incumbent stock exchanges and with that, somewhere, those organizations lost that innovation and that disruption.

#### David Greely (10m 53s):

Yeah, that culture of innovation is always very hard to maintain and I'd love to come back to that in some of the later conversation and I hear you, Dave, that much of the establishing Cboe is separate from the board of trade, was driven by regulatory jurisdictions but I can't help think there's a little bit of a skunk work aspect to it too, of put the innovative entrepreneurial people in a, a separate building and let them, you know, figure it out but that brings me to a question I have for you, Dave. As I said in the previous question, all exchanges operate as part of an ecosystem and how would you describe Cboe's ecosystem of market participants and stakeholders? Jos has referred to producers and processors being a big part of the commodity ecosystem. I was curious, in what ways is Cboe's ecosystem similar or different from that of other exchanges?

#### Dave Howson (11m 42s):

Yeah, certainly in as part of the 50<sup>th</sup> we looked at a, a brand refresh and a fresh tagline. The, the exchange for the world stage and really that epitomizes how, how we see ourselves and think about ourselves and the differential being that we do see ourselves a truly global exchange with global footprint characterized and differentiated by true innovation destruction that Jos just talked about and actual clinical execution driven by our customers and led and informed by our customers. So what does that all mean. It means a diverse mix of truly global customers. We have global customers, we talk to about every asset class, every jurisdiction, every new policy change. We have a number of highly connected and distributed partners that we work with, those customers use our markets and our products and services and offerings across the trading lifecycle. So that's across pre-trade, app, trade and post-trade.

# Dave Howson (12m 42s):

We offer services of trading, of clearing, of portfolio risk management and a variety of data and data products. So we have multiple touch points at different places within those global customers. However, we don't forget that markets are also local and we optimize locally, and we have local experts on the ground across every market, open to competition in equities because we acknowledge that jurisdictions need their own nuances, peculiarities and requirements to be catered for. We're not a square peg, round hole, big hammer company. We actually work with technology and customers to define what, what we do. So we think that's a real differentiator. So what does that attract that attracts customers who are interested also in really driving according to those core values of innovation, disruption, clinical execution and helping us think about how we can move into adjacencies other asset classes, services, think about equity trading clearing and the innovations that come from being part of the, the full value and life cycle there. So we innovate with those customers in partnership and really that's a simple, yeah, key differentiator for us and the feedback we get from our customers is that they appreciate the subject matters that we have spread around the world to help inform how we can solve for challenges, regulatory change, and macroeconomic dislocations and changes with the end investor, the end user in mind to enhance that experience.

# David Greely (14m 13s):

Hey, you brought up two things I'd love to ask you a little bit more about. One is technology and the other is the focus on managing risk, which seems to be what ties together this diverse ecosystem of market participants that you have and the ability to manage risk develops with our technology and our need to manage risk has often pushed that technology forward. Computer technology, of course, but not just computers. It's probably not a coincidence that the black Sholes option pricing formula was published in the same year that Cboe was established, but I want to ask you, what has the relationship been between technology and the evolution and development of Cboe?

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# Dave Howson (14m 55s):

Certainly and again, when you look back at Cboe's now, some of its parts, it was the, the original set of innovators who found ways to get options, prices on physical screens to trade from a pit all the way through to the innovations today, to manage the billions and billions of messages received in order to create those 14 million or so executions per day that we see on the platforms but really when you look at it, and also the companies that have been acquired by Cboe, whichever part of that value chain they address, they've been technology driven companies, technology markets, companies. Our technology platform underpins all that we do and a big part of our global expansion prospects and plan has been based around that technology platform. We get to bring uniformity, reliability to those trusted markets that we build through that common technology platform that Cboe experience when you engage in our markets, in terms of how the technology respond and operates, the reliability of managing risk in real time the reliability of the data.

# Dave Howson (16m 00s):

So when you look at those Cboe first, spanning from that original options exchange it's really been that driving force with the innovation disruption, customer-led solutions. And the only way being really to use technology to bring, to bring that to life. So with that capability, that technological edge comes that responsibility to make sure that we, as we push the boundaries, we continue to operate trusted, reliable markets. And that's also been a differentiator for Cboe, is the exemplary track record of integrations of new companies, but also the reliable rollout of new products features and indeed, actually for the whole financial industry through the volatility in turmoil over the last few years, the industry has been able to leverage technology to continue to produce stable capital markets for, for the end users.

# David Greely (16m 53s):

And Jos, I wanted to ask you, because one of the interesting trends in the, the exchange industry in recent decades has been consolidation and Cboe has bucked this trend by not being purchased by another exchange group over the past 50 years and why do you think Cboe has kept its independence and has that independence to help preserve the culture, the ecosystem, and its ability to innovate?

# Jos Schmitt (17m 18s):

Yeah I think it's a great point and a great question and I think what you have with Cboe is an organization that is built and has been created for stock options and stock options for me is the foundation of that, that culture of innovation and disruption that we have today and that is what make us different. That is what makes us I truly believe stronger and I mentioned it earlier Cboe was not unique with that Cboe was the first one. But we saw as I said, over the seventies and over the 80s, multiple stock option exchanges, derivatives exchanges being rolled out across the globe and think about the lives, the Think about you know, the second one, which was the EOE in in Amsterdam. I think they were in 77 or something like that.

# Jos Schmitt (18m 14s):

And we did it in, in Brussels in the early 80s and there was an incredible culture of working together, even though, you know, we were all different organizations of sharing ideas of being creative of coming with new concepts of being very focused on clients and that culture was a culture that this was very unique to the to the stock option world. Well, because we were at the forefront of innovation. We were at the forefront of new ways of managing risk. We were the forefront of new models of how investors can hedge their risk or speculate because, you know, both options are out there, but sadly enough, I don't know if it's a setting thing or positive thing, most of those entities think about Eurex. They all got acquired by the incumbent stock exchange.

# Jos Schmitt (19m 07s):

And, and that's the Deutsche Buzzer, that was the Euronext that you know, can continue and mention them and that led a bit to a loss of that culture. It was reintegrating, you know, those, those innovators, those different people into the establishment and I think that that was, was a loss for, for many countries for many organizations. Cboe managed to continue. Cboe managed to maintain it. They were the first ones, and they are still there today and I think that, you know, there's been, I'm sure reasons in the leadership to maintain that in the independence. I'm also sure that you know, you have now an organization that is global in nature that has no fundamental reasons to look at these types of transactions. So I think it creates a very unique global exchange group that is truly different from where all the other exchange groups are.

# Jos Schmitt (20m 04s):

And as we discussed earlier, as Dave mentioned, Cboe in fact even took the opposite approach. Cboe became the acquirer. Cboe started acquire exchanges. Cboe started to acquire platforms across other asset classes in other geographies and one element that,

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that has been important in that, and I've seen that, you know, when of course we went through our transaction with Cboe, but also looking at the other ones that, that happened before or, or happened afterwards, Cboe always put a lot of attention on making sure that the organizations that they acquired had that similar DNA, had a real culture compatibility with the modern organization and I think that that makes us a very strong organization and Dave, maybe ask you to add a few words on this because you have been through this of course, much longer than I have.

# Dave Howson (21m 01s):

Absolutely. What you say there really resonates well with the kind of the approach, the master plan, if you like. We've been very selective in our approach to M&A, and that's enabled us to continue to build the business organically alongside that M&A and we see the two as complimentary and executing on the strategy. But as we use that lens for M&A we always look to stay true to who we are and what we do well, and really to focus on building those ecosystems we've been talking about. The result is that our culture today, and you know, when we think about integrations, in fact that we always say, and it's because we believe it is that integration starts and ends with people. It's all about the people, those innovators, those disruptors that are typically the founders of the, and the key assets of the firms we, we acquire creates and it contributes to this long history from Cboe's inception to create a real rich tapestry where the company is a reflection of its employees over time and those companies that we've acquired over time really seamlessly, and at the end of it integrated and we love the diversity cause we believe it makes us stronger and able to appreciate those local nuances, but from a global perspective that we were talking about earlier. So the key common denominator has been that relentless desire for innovation disruption, entrepreneurial spirit and customer service with a focus on excellence.

#### David Greely (22m 31s):

Jos, you mentioned that you joined Cboe relatively recently through an acquisition, and that gives you a unique perspective as in a way, both an insider and an outsider. And I'm curious what struck you as the biggest difference on joining Cboe compared to the other exchanges where you've been?

#### Jos Schmitt (22m 47s):

Thanks for the question, David. Interesting question. Indeed, but I have to add a little bit of additional color to that. When you look at the exchanges I was part of in the past, it, it was in fact, you know, exchanges that, that started ground up. So startups, new initiatives where I was founder CEO of the organization, co-founder, I should probably say. So I've never really had the experience of another large exchange group like Cboe. There's maybe one that I was temporarily part of because they acquired a previous venue I was involved with I only stayed for three months and that may say a lot. All of that being said, what for me is, is more the question, you know, having been true to my career, an entrepreneur, someone who has built companies, you know, gets excited about it, gets excited about you know, the challenges that come with it, but the ability also to really execute, focus on the vision and mission, and then make that that strategy become real.

# Jos Schmitt (23m 47s):

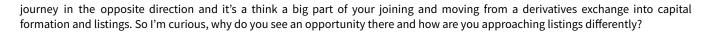
The big question that I had of course was, is that something that is possible at Cboe. You are now in a large organization and, you know, how do the processes work? What's the structure, what is the, the governance and so on and I got to say, what has really been very enjoyable and great in the experience so far is that it is an organization that enables entrepreneurship and I would probably call it, you know, to use a, an old word that was used a lot couple of decades, it's a, it's an organization that enables entrepreneurship. So it gives people the opportunity, people with IDs, people with, with a vision and, and desire to execute upon it. It gives them the means, the, the, the flexibility and the framework in which they can do that.

#### Jos Schmitt (24m 32s):

And, and that for me is, is a very exciting experience to go through and something that I think is in fact quite unique in this in this space. You know, talking with, with some senior people in, in other large exchange groups, that is not what you hear. So Cboe has something very special over here, and I, I think it's, again, something that makes it unique and it's something that will enable innovation and will enable the disruption that is so important in the industry. And that you know, in all our previous discussions, we have identified as a key characteristic. So that would probably be my one key component.

# David Greely (25m 10s):

And, and another unique thing that you brought up was the fact that traditionally most exchanges have begun in the capital formation, stock exchange business, and then moved into derivatives later on in their life. Now with Cboe global listing, Cboe is making that



#### Jos Schmitt (25m 44s):

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Well it always takes you back to those same comments that, that we made earlier, the fact of Cboe being in score, a stock option exchange, having that unique DNA that focuses on innovation and disruptions. I think that that is in fact a big advantage that we have because that is also the way that we are approaching our entry 2D capital formation business. It's all about customer driven, innovation, disruption, and excellence and starting with the word customer driven, well, we talked with customers and who do you talk with when you talk about capital formation, you talk with investors and one of the messages that we receive from investors loud and clear, that is that there's a very strong desire out there to be able to invest and have access to companies with purpose.

#### Jos Schmitt (26m 42s):

What is purpose, what are companies with purpose, it's companies that are addressing some of the big societal issues that we face today. Think about climate change, think about well disparity, think about privacy issues, think about health challenges, mental health, of course, being one, that that is very much at the forefront for the, for the moment. That is a message that that came from them and what they also realize, and I think that that reinforced that desire for those companies, that is, that companies that do things that are best for society also deliver significant value. There has been studies, numerous studies demonstrating that purposeful companies see higher market share gain, grow faster than competitors and achieve higher customer satisfaction rates. So that is one element that we took into consideration when developing our, our offering. If you don't take the other side of the equation, again, you listen to, to the issuers, now what we have from them or what we see with, with them is probably the first thing to say is that it's often emerging companies, emerging companies of the innovation economy who come with new business models, new solutions, and who are challenged to find the capital that will enable their growth.

#### **Jos Schmitt** (27m 51s):

They are keen to access global liquidity, they are keen to access global capital, and often they do not fit in the tick the box approach of, of other exchanges. So you have investors who are clear about what they want. You have the companies that, that can provide those answers and those solutions who are struggling and challenged by the existing ecosystem around capital formation and that is where we say that is the area that we are gonna focus on. That is where we're gonna focus our capital formation offering, seeking to provide those companies with more capital, more visibility, more support, and more connections. Now, how will we do that by leveraging, in fact assets that we already have and the core asset that I'm talking about here is a network of listing exchanges that we have across the globe, starting with the United States, Canada, United Kingdom, European Union, through our Dutch Exchange and Australia.

#### Jos Schmitt (28m 49s):

So in those five countries or regions I should say, we have already today a stock exchange that is the foundation that we are leveraging and what we are doing is now turning them into full-fledged stock exchanges that can list corporates and exchange traded product or exchanged traded funds. Because when you look at those five, only the Canadian one was able to list both ETFs and, and corporates. All the other ones only listed ETFs. So we started a big program to enable them all to do that and then we are also working on complimenting that that entire network with a set of mechanisms and tools that will make a go public experience seamless and that is information that is around market data, that is around content, that is around onboarding portals, that is around liquidity provision models with, with market makers and, and so on.

#### Jos Schmitt (29m 49s):

So what we are building, if I would summarize it in a couple of words, a global network of listing venues for the purpose-driven innovation economy and by the way, this is more than an aspiration. This is something that is happening. We achieved our first milestones with now both Canada and the us being fully operational. So the US is now also totally ready to accept corporate listings on top of the ETPs exchange rated products that they accepted before. And we are also able to trade our Canadian and US listed issuers in our European venues. So not only did we take the step of making the US fully ready now to bliss corporates, we can also offer those companies listed ad in the US or Canada, access to additional secondary liquidity by trading their stocks on our venues in, in Europe. Very unique, very comprehensive, very global, very focused, and very difficult to replicate because you need to have that foundation that I mentioned earlier to be able to execute upon this.



# David Greely (30m 58s):

And Dave, this is a great opportunity as we wrap up for me to get your perspective on this. As Jos said, Cboe is continuing to expand across asset classes, across geographies, and there's a real vision with purpose-driven companies and so I wanted to get your perspective on what is the vision at Cboe that's driving this expansion in your opinion and what is your vision for Cboe over the next 50 years?

# Dave Howson (31m 23s):

So what you can expect from Cboe over the next fifties is very much more of the same. The vision is to really continue to build out the largest derivatives and securities exchange network on the planet. We've got a great foundation. We've got an unrivaled growth trajectory that that foundation provides for h how we're gonna execute on that. It's with customers, technology and innovation. We remember what sets us apart and has driven our success in the past and that is our unrelenting focus on listening to our customers and delivering innovative products and services that we've been talking about today around the clock with the focus on the end user, the end investor experience, how to make that better, the how includes the technology piece, leveraging the, the latest fit for purpose technologies and research to fuel the innovation that surrounds us as we build that fully fledged market infrastructure offering that largest global securities and derivatives network.

# Dave Howson (32m 28s):

So what's the outcome of all this, It's the vision is to provide a full range of tradable products, functionality, and marketplaces that allow users, investors, issuers to maximize their, their outcomes in the most efficient way possible and to do that across a range of market conditions we've seen a huge variation of conditions over the last year and a range of economic environments and all that with this vision to build the trusted markets and enable end users to define a sustainable financial future and through that all, we talked about it with the m and a approach, the integration approach, the selective approach of choosing those targets and combining it with organic growth initiatives as well. We're gonna remain true to our DNA and continue to explore those new frontiers and remain at the forefront of capital markets as we do that in partnership with our customers.

# David Greely (33m 28s):

Thanks again to Dave Howson and Jos Schmitt from Cboe. We hope you enjoyed the episode. Join us next week with our guest, Michael Marks, Former Chairman of the New York Mercantile Exchange, the NYMEX. We'll be discussing the creation of the modern energy futures markets. We hope you'll join us.

# Announcer (33m 47s):

This episode was brought to you in part by Abaxx Exchange. Market participants need the confidence and ability to secure funding for resource development, production, processing, refining, and transportation of commodities across the globe. With markets for LNG, battery metals, and emissions offsets at the core of the transition to sustainability, Abaxx Exchange is building solutions to manage risk in these rapidly changing global markets. Facilitating futures and options contracts designed to offer market participants clear price signals and hedging capabilities in those markets is essential to our sustainable energy transition. Abaxx Exchange: bringing you better benchmarks, better technology, and better tools for risk management.

# Announcer (34m 36s):

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