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Carbon Frontiers 2024 | Episode 9

Alasdair Were, Head of Environmental Markets, Abaxx Exchange and Clearinghouse

On this week's installment of Carbon Frontiers 2024, we welcome Alasdair Were, Head of Environmental Markets at Abaxx Exchange and Clearinghouse, back into the SmarterMarkets™ studio. David Greely sits down with Alasdair to discuss the new futures contracts and technologies that the carbon markets need in order to develop faster, become more liquid, and scale.

Alasdair Were (00s):

Particularly in carbon markets, clearing is important. The counterparty risks that firms face in carbon markets is probably unlike most other commodity markets and I think we have seen clearing and counterparty risk as being a big barrier to scaling the market and so hopefully with better clearing solutions, we're gonna see an acceleration of the scale of capital and an increasingly liquid secondary market.

Announcer (24s):

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 04s):

Welcome back to Carbon Frontiers 2024 on SmarterMarkets. I'm Dave Greely, Chief Economist at Abaxx Technologies. Our guest today is Alasdair Were, Head of Environmental Markets at Abaxx Exchange and Clearinghouse. We will be discussing the new futures contracts and technologies that the carbon markets need in order to develop faster, become more liquid, and scale. Hello, Alasdair, welcome back to SmarterMarkets.

Alasdair Were (01m 30s):

Thanks Dave for having back on. It's great to be here again.

David Greely (01m 32s):

You and I sat down briefly for a SmarterMarkets interview at the FT Commodities Global Summit in Lausanne last month and you know, there were so many more things I wanted to talk with you about. So I am glad we could have you back now for a full podcast episode and I want to take some of our extra time together today to dig in some to some of those topics we discussed in Lausanne including the state of the voluntary carbon markets and the tools and the new carbon futures contracts that the markets needs to develop in order to become more liquid and scale but first I would like to give our listeners a little more insight into your background and how it may shape your perspective on the carbon markets. Your colleague of mine, you are the Head of Environmental Markets at Abaxx Exchange and you started your career as a commodities trader and I think became involved in the carbon and environmental markets as director of digital climate markets at a IETA, the International Emissions Trading Association. So I was hoping we could start there, you know, what led you to become involved in the carbon and environmental markets and to work at IETA?

Alasdair Were (02m 35s):

So as you mentioned, I started my career as a commodity trader, spent the better part of a decade trading things like rice sugar and, and some energy products. Largely with a focus on, on South America Sub-Saharan Africa and Southeast Asia. And I think one of the, the trends that I noticed increasingly was the impact of extreme weather conditions. And you would see that increasingly regularly, whether that's kind of moving cargo down the Paraná River in South America, trying to get rice or soy meal exported out of Paraguay, Argentina, et cetera, or floods in Thailand impacting crops or extreme heat conditions in kind of sub-Saharan Africa affecting crop conditions and, and it just con struck me as somewhat odd how you'd have these kind of once every 10,000 year scenarios happening time and time again and you see maybe multiple 10,000 year scenarios happening in a single year.

Alasdair Were (03m 29s):

And so you've kind of extrapolated that out. It became having increasingly clear to me that climate change was really starting to have a material impact on business and as I got to kind of the end of my twenties, I looked to my career ahead and I thought, where, where do I really want to spend my time and I kind of took a proposition that carbon and kind of carbon markets was gonna be one of the big commodities the world was gonna have to deal with and so took a transition from being a physical commodity trader into environmental markets kind of about two, three years ago and at that point in time, I think like many, I didn't particularly understand a great deal about environmental markets. Obviously had a fairly good understanding of commodities markets and financial markets and, and thought, okay, what's the best place to really get a deep understanding of carbon markets.

Alasdair Were (04m 12s):

And having spoken to a lot of my friends that were in the industry and, and people that I deeply trusted, they kind of pointed to IETA as this industry voice, almost like a think tank on all things carbon markets. So at the beginning I kind of embedded myself in a IETA cross product trying to understand all the policy goings on and get an understanding for the legacy of carbon markets where we started 25 years ago, the origins of CDM, the rise of voluntary markets, the role of kind of cap and trade systems like the UETS and take it from there and very early on in my time at IETA digital climate markets and tokenization became increasingly a topic that people wanted to talk about. Much like any other financial market tokenization of real world assets was becoming irrelevant and I kind of very much went down the rabbit hole of looking at market infrastructure and tokenization that led me to, to joining Abaxx with and the likes yourself of just over a year ago.

David Greely (05m 07s):

And I wanted to ask you, Alasdair first what are digital climate markets you mentioned tokenization, I was curious of how that is working in the climate markets and when you think about digital climate markets, is it more than that and more broadly, I was curious, what did your work at IETA involve?

Alasdair Were (05m 24s):

That's a very good question. Largely because climate markets and kind of carbon markets and carbon credits are the original digital asset by my reckoning, it exists purely as a digital record within historically some MySQL database. What my work entailed was really looking at how do you leverage digital innovation. So what are the technologies that the world is developing that could be adopted and embraced by carbon markets and really just the aim of trying to address some of the challenges that we face, largely with the aim of scaling the market, but looking at things like the role of fragmentation. As this market continues to grow and scale, things like fragmentation are becoming increasingly a problem. If you look at the way that the Paris Agreement is structured, we have gone from this kind of top down approach under the Kyoto protocol to a much more decentralized bottom up approach under Paris.

Alasdair Were (06m 17s):

And by its very nature, it creates this sort of fragmentation where you have got voluntary standards, you are beginning to see national standards, you've had a concentration of let's say three or four dominant voluntary registries, but increasingly we're seeing issuance take place at national and subnational registries. All of that creates challenges for the market as a whole. What would have been a relatively easy process as a merchant trader to kind of connect and understand what's going on in a handful of registries becomes a real challenge when you are looking at tens or potentially hundreds of registries years down the road and so a lot of the work that I did was trying to look, okay, how, how do you solve for these structural challenges and address them ahead of time so they don't become increasing bottlenecks and so one of the, the projects I was likely enough to be involved in was the development of climate Action Data trust, which was a partnership between the World Bank, the government of Singapore, and a IETA really creating this data layer or kind of aggregation harmonization of data from both voluntary registries and national standards to give that all encompassing picture of the market so that you can understand, okay, what is the supply demand balance in the market?

Alasdair Were (07m 29s):

What's being issued, what's being retired, where are credits flowing to and from, which is increasingly relevant when we're talking about NDCs and corresponding adjustments and this kind of plus minus on a ledger. And, and I think the feeling was at the time that this would have been the perfect application of things like Blockchain. So looking at the role of decentralized immutable ledger technology and piloting that in, in the real world. So I think it was a great exposure for, for myself and I think for the industry as we look to new tools and technologies to help reach the kind of one and a half degree goals of the Paris Agreement.

David Greely (08m 05s):

And when thinking about how the industry is dealing with the fragmentation and some of these other issues I was curious, in your time at IETA what did you learn about the commercial needs of, the carbon market participants. What did the companies and traders need that they didn't have available to them in the carbon markets and maybe even did they know what they needed?

Alasdair Were (08m 26s):

So that's an interesting one. I mean, carbon markets have been around for more than 20 years and so I think there is a fair level of sophistication, but if you compare to other commodity markets maybe there are lessons that we can learn and special tools and techniques that we can transfer across. One of the first, and I guess most notable one is, is the role of standardized contracts. If you look at kind of the agricultural markets of today and even of the past, you had things like GAFTA that created standardized contracts for the trading of, of grain and feed stocks. In carbon markets what we saw was a real discrepancy between the quality of contracting and I think that doesn't necessarily matter in certain markets, but in a market as diverse and nascent to as carbon market, it seemed like it was a logical place where you would be able to create this kind of standardization, reduce a little bit of the friction, reduce a lot of the counterparty risk in a world where most participants aren't eligible for coverage under an ISTA.

Alasdair Were (09m 25s):

So that was, I think one of the most logical kind of starting points in terms of, okay, best practices from other commodities markets and applying it to carbon markets. But beyond that, looking at the role of derivatives and, and obviously our work at Abaxx goes towards developing some of those tools that the market may need, particularly from a kind of price discovery perspective. I think over the last few years we have heard a number of criticisms of the market in terms of its opacity, particularly around pricing, whether project developers, whether the communities are getting fair market price for their hard work and without that sort of transparent price discovery that you have through spot on futures contracts, it's difficult to really assess for any market participant as well intentioned as they may be to what that fair market price is. So I mean, I think these are just a handful of some of the more logical evolutions that may have existed and I think if you look at EUA market there is a very well established futures market. Price discovery is very, very transparent, but that's not the case in the voluntary market where I think by best estimates approximately 70% of the market trades on an OTC basis and then beyond that you have got 500 plus methodologies, you have got a variety of geographies. So to really assess a project on a per project basis, what the price is really a challenge for anybody no matter their level of sophistication.

David Greely (10m 48s):

Yeah, and I wanted to ask you about that because of course, you know, two, three years ago there was a lot of enthusiasm in the, the voluntary carbon markets. You know, you had the mark Carney's commission, a lot of people looking, seeing these are going to be markets that needed to grow, needed to scale and develop and I think there was enthusiasm that they could do so quickly. Then of course over the last year there was a lot of turbulence in those markets and I am curious from your perspective as you were, you're working in these markets and observing them as well, did you see some of that, like in the context of these tools that weren't available contributing to some of the problems that the market was having with its development and maturity?

Alasdair Were (11m 27s):

Yeah, I mean, I would say there's a number of reasons why we haven't necessarily hit the trajectory that the likes of McKinsey gave a couple of years ago. Some of them are technological in nature, but for the most part I would say they're more policy driven. I mean, I think if we look at the biggest setbacks the market's faced over the last 12 to 24 months, it's really been driven by criticisms around the quality of the underlying projects and the claims that corporates can make and I think we have seen a variety of new language and we have seen a, a number of industry initiatives to try and solve for these challenges and most notably the ICVCM and the VCM1 trying to create a threshold standard for projects and the other trying to create guidance for corporates around claims. I think we have seen phenomenal progress over the last year or two in terms of bringing those to market.

Alasdair Were (12m 18s):

We have seen the first standards being marked as eligible for CCPs by the ICVCM and we have seen initial guidance from VCM1 around the claims that corporates have made. Beyond that, I think the other big kind of evolution we've seen over the last few months is SBTI guidance around the use of offsets for, for scope three emissions and so I think yes, we have seen kind of great optimism kind of around 2020 with, with this kind of \$150 billion target by 2030 and obviously we are not quite there yet, but I think as a whole, the market's moving in the right direction. Obviously technology will play a role in helping meet those goals largely around transparency, making data more accessible. I know we have seen criticisms around transparency as a whole in the market and for the most part I would say that this is a phenomenally transparent market more so than most commodities markets. But we could be perhaps doing a better job

in terms of making some of those data points more accessible. For the time being remain kind of hidden away within the, the independent standards websites. But I think what we're seeing a wave of kind of API connectivity and making data more accessible to corporates that hopefully will, will drive the kind of increase in in transparency and, and consequently help us meet those kind of massive targets that the likes of McKinsey have made a few years ago.

David Greely (13m 41s):

Could you expand on that point because think it's a really important one. You said that carbon markets are you know, have the potential to offer more transparency than many other commodity markets that people are accustomed to dealing with. Could you elaborate on that a little bit because I think many people would take that as surprising.?

Alasdair Were (13m 57s):

Sure. If you look at the amount of work that a project developer is required to do and the amount of reporting that he is required to make that there is a phenomenal degree of transparency. If someone was willing to put in the hard work and, and go through all the pages of documentation that they provide to the standard, the work of the VBS independently assessing the information they're providing, I would like to say that the majority, if not all the data points you would need are there, it's just a matter of making it easier to access that information and so I think that's going to be one of the next big evolutions of the market is really providing connectivity to the information. Whether that's putting a kind of live data stream from an IOT sensor or leveraging kind of geospatial data on a more real time basis and making that accessible to the market. These are the kind of natural evolutions I think the industry is going to undergo just to make information as transparent and accessible as possible.

David Greely (14m 53s):

And I think that brings us nicely to your, your work now at Abaxx and I am curious, how are you taking some of those lessons you've learned over the last few years and what you're observing in markets and how are you trying to build benchmark features, contracts, tools and technology to meet some of those needs in your work at Abaxx Exchange?

Alasdair Were (15m 13s):

So I think the crux of what we are trying to achieve is really understand the needs of the market and deliver the tools that they request and the way that you do that is really by kind of keeping your ear to the ground. So it's constant engagement with the trading community, the financial community, the project developers, the standard bodies to understand where is the market moving to, where is it today, where are those pools of liquidity perhaps going to develop and where are the more logical areas of the market to create futures contracts that would lend themselves well to price discovery and so we are currently working on a variety of different projects. The first two contracts that we are going to be launching one is a jurisdictional red contract and so we look at that as a kind of a natural evolution of a project based red.

Alasdair Were (16m 02s):

So we have seen historical contract futures contracts built around project based red and what we believe and I think what we are starting to see is one of the big kind of asset classes is gonna be jurisdictional red and the reason that I personally think that's important is if we look at the climate crisis, you, you've got these kind of two clear camps, you've got avoidance and you have got removals and I would say they are both equally as important as each other but I would look at let's say nature-based avoidances, the low hanging fruit, it's the kind of really easy thing to be doing that's very scalable from an economics point of view. It's probably the kind of most logical place to go to and we are starting there and then I think we'll move towards removals with time because obviously it's going to be increasingly difficult for corporates to kind of reduce their emissions internally and they are going to be stuck with these residual emissions that are already only going to be able to be removed via removals, at least in the near term and I think SBTi points to that over the next decades where removals really come into play for a large percentage if the economy particularly this kind of heavy industry's hard to abate sectors. So that's, I think the way that we approach the market. It's really you listen to what people are asking for, you try and build some sort of consensus and deliver tools that people are gonna be able to use and find value in it.

David Greely (17m 30s):

And I wanted to ask you a little bit more about that you know, in some of these lessons you are learning about building markets because it's challenging to get consensus and get traders, brokers clearing members to buy into a new carbon futures contract or a new tool. Are there any lessons you have learned about how to build that type of consensus to get usable products into the market?

Alasdair Were (17m 51s):

I would say the key to this is really kind of twofold. One is the diversity of data points. You need to be talking to a breadth of the market because everybody approaches it from a slightly different angle and has a slightly different nuance on it. The other challenge is the pace at which this market evolves, the contracts that were relevant to 5 to 10 years ago are not necessarily the contracts that are going to be relevant to 5, 10 years from now and so trying to kind of look at the magic ball and assess where the market's moving to I think that's probably the biggest challenge but I think we are very privileged in that this market has a wealth of experience. There are some incredibly smart people that you can rely on to provide kind of insights and if you can aggregate those data points, it should lend itself well to designing contracts that the market needs and hopefully will benefit from.

Alasdair Were (18m 43s):

And one of the really important pieces of the puzzle and something that's really helpful in the kind of conversations we are having is the ability to control our own clearinghouse and what I mean by that is, as you speak to a trader, you are constantly getting new ideas for new contracts and as we move to a world of energy transition, the kind of contracts and products that are getting traded tomorrow are not gonna be the same as today and so having the ability to roll out new contracts on a regular basis in a, in a timely fashion, I think that that's a real benefit to us and to the market. When I look at some of the transition fuels, whether that's sustainable aviation fuel, whether that's renewable diesel, some of the, these other areas of the market that kind of nominally fall under the energy transition, environmental markets that aren't necessarily covered today by incumbent benchmarks or if they are, it's really kind of spot price assessments that don't give banks and traders the tools they are used to having in other commodities markets.

Alasdair Were (19m 47s):

And so I think that that in itself is also something that we shouldn't really forget in terms of trying to get this bird in the air clearing piece is incredibly important and I think particularly in carbon markets, clearing is important. The counterparty risks that that firms face in carbon markets is probably unlike most other commodity markets. And I think we have seen clearing and, and counterparty risk as being a big barrier to scaling the market and so hopefully with better clearing solutions we're gonna see an acceleration of the scale of capital and an increasingly liquid secondary market.

David Greely (20m 24s):

And there are big benefits to having a clearing house as you have said, but it is also a big effort to get one off the ground. There's, you know, as you say, get the bird in the air. I was curious what are some of the challenges you've seen and lessons you may have learned in getting a clearing house built and up and running?

Alasdair Were (20m 41s):

Absolutely. I mean I think I certainly underestimated what a herculean task it would be in terms of launching. What I understand is, is the first new global clearing house for commodities in the better part of kind of two decades. It's really no easy task to convince the world's major banks and non-bank clearing firms to dedicate the time, effort and resources that are required upon them to, to connect to this new unproven platform and so I think it, it speaks volumes to, to the experience of, of the broader team and, and the vision and the solutions that we are providing that so much of the market has kind of proactively leaned in to support this initiative because I think they see the value in it from their perspective, from the perspective of their clients and the market as a whole.

David Greely (21m 27s):

Hey, you know, it is great in the carbon markets that there are people and you know, we have had many on the podcast who have been involved in this for 20, 30 years in some, in some cases. What do you make of the challenges that the voluntary carbon markets have faced over the past years and you know, the lessons that have been learned and do we have the pieces of the puzzle in place that we can start in your opinion, work through some of those challenges and really make meaningful progress in the coming years?

Alasdair Were (21m 55s):

I would say absolutely. I mean I think that if you look at some of the criticism that the market has faced over the year or last year or two, they haven't necessarily been founded in reality. We do have, I believe the majority of tools that the market needs to hit the, the kind of Paris Agreement goals. What we are seeing is governments being more proactive compliance markets and ETS schemes are developing on a global basis, whether that's in Brazil, Indonesia, or elsewhere and I would like to think that's somewhat driven by the European union's rollout of CBAM somewhat kind of kicking off an arms race of compliance schemes but separately we are seeing corporates being increasingly thoughtful and engaged in voluntary markets or what I would like to define as kind of pre-compliance markets and obviously we have seen corporate somewhat sitting on the sidelines. I mean, I think you, you coined a great phrase around page one

risk in, in a prior episode, and I think we have seen corporates really sitting on the sideline because the risk of doing something perhaps outweighs the risk of doing nothing, but with increasing clarity around the kind of claims that corporates can make, the kind of credits they should be using, I would hope and expect to see increased corporate engagement.

Alasdair Were (23m 14s):

But beyond that, I think we are getting to a point in time where data transparency and embedded carbon is increasingly something that's viable for the world to tackle and what I mean by that is the ability to ingest the embedded carbon in a specific product and obviously you need that to kind of meet reporting for CA but I think we are moving to a world where the embedded carbon and to a certain extent the embedded negative externalities of any product will be kind of part of the metadata attached to a trade and will likely see the world moving to a scenario where you are kind of really actively pricing the embedded carbon or the negative externalities because obviously that's the foundation of, of kind of pricing a green premium, which I think a lot of the world would like to see.

David Greely (23:59):

Yeah, it's a really interesting thing you brought up in, in terms of CBAM playing a role in getting people to learn how to put the systems in place to assess the carbon contained in, in the products they are producing in their supply chains. Now we heard something similar in a prior episode in a different context, which was about how it's so important to drive down the cost of doing these things by doing them. And this was in the context of course, when there was a lot of investment in solar, solar initially was very expensive. You drive down the cost and it's costly to gather all this information to make it accessible, to make it reliable. Do you see some of these policies like CBAM is kind of forcing us off that learning by doing curve in terms of getting systems in place to be able to provide this information and gather it and make it accessible? Is that, is that a strong role for policies like that?

Alasdair Were (24m 54s):

Absolutely. You, you need a first mover, but you, I think as a species we learn by failing, we learn by doing and if we don't try we will never succeed. So yes, I mean, the urgency is upon us, the time is now to be acting and we really shouldn't let the perfect be the enemy of the good. So I think yes, the European Union is driving policy change on a global basis, but it I think someone has to do it and in the absence of a strong policy mandate coming out of the US it falls on the likes of the European Union and China to, to drive climate policy forwards.

David Greely (25m 31s):

And you brought up another interesting phrase earlier, you referred to I believe voluntary carbon markets as pre-compliance markets and I wanted to ask you about that because as, as corporates, you know, look to move ahead and avoid that page one risk, it seems like there is a lot of movement into things that are more Paris aligned offsets. So whether it's using corresponding adjustments or eligible carbon offsets, it seems like there is a little bit of more movement in that direction. Is that where you see some of the bigger opportunities in voluntary carbon markets right now?

Alasdair Were (26m 05s):

Yeah I think we are certainly seeing a transition from pure voluntary markets to increasingly Paris aligned markets and so what I mean by that is looking at projects that may already be issuing and trying to get a corresponding adjustment for it or, or specifically deploying capital into projects with a view to the role of kind of six four of the Paris agreement or relevance to foresee and other compliance markets that would require that corresponding adjustment but going back to my statement around kind of pre-compliance, I think as we see the, the scope of coverage of some of these compliance markets expand certain sectors that aren't necessarily covered today expect that they will be at some point in the relatively near future. So it's about positioning yourself today to prepare for the inevitable five years down the road.

Alasdair Were (26m 59s):

And what that means is having an appropriate price of carbon internally, if you're not currently covered under a compliance scheme, but you expect you will be, maybe you have a higher internal price of carbon that's close or more closely referencing the compliance price that you're gonna find yourself under in the near term and so I think a lot of the world and a lot of corporates are starting to look at pending obligations that they face and start to be a little bit more proactive in the way that they think through their, their carbon balance sheet.

David Greely (27m 29s):

And we are seeing in real time more and more of these local compliance markets coming into being, you know, whether it's country level or regional, there seems to be a lot of growth yeah, it seems like people have shifted from thinking there would be kind of one overarching system globally to, it's very country specific in many points and I am curious, when you look at some of these country level compliance markets that are coming in and coming in over the next few years, where are you seeing some of the opportunities there for markets?

Alasdair Were (28m 00s):

That's a very good question. I think if we look at kind of the geographic distribution of, of compliance markets versus voluntary and we kind of look at the Paris agreement, the original intention is that funding flows from the global north to the global south i.e., the heavy polluters and, and big emitters fit in, in the global north, whether that's in Germany, the us, China, but the global carbon sinks fit in the South, whether that's Brazil, democratic Republic of Congo or Indonesia and so I think what we are seeing is that the, the big emitters developing compliance schemes, particularly cap and trade schemes and those that sit in the global south, are really leaning into voluntary markets because they are the ones that have the most to benefit from a, a robust and liquid voluntary market.

David Greely (28m 51s):

And I thank you for coming in today and talking with us, you at more length about a lot of these issues and one of the things I really enjoy talking with you about is you are kind of at this confluence, you know, when I when I listen to your career of markets and the technology that's needed to make them smarter, which obviously is near and dear to our hearts here and I wanted to ask you, in your vision for the future of the carbon markets and environmental markets more broadly, how are you thinking about how new markets and new technology come together to develop the environmental markets into large liquid markets that will one day rival today's biggest commodity markets?

Alasdair Were (29m 33s):

So, and I think if we look at the singular goal it's really about that global price on carbon and I'm not necessarily suggesting that there will be a singular price on carbon. I think there will be a multitude of carbon prices, but the aim clearly is to put an appropriate price on carbon on a global basis and that's going to be maybe very different in the Democratic Republic of Congo versus the United States. But the tools that we need to achieve that I think are the same on a global basis. And so really that's creating this kind of harmonized data platform that allows for the sharing of information for people to objectively assess units credits by their merits in a relatively seamless way that will instill trust in the market, that will allow for the deployment of capital at the kind of size and the kind of speed that we need over the next decade or so. I mean, if we look at 2030, that's really just around the corner. If we look at the time it takes to get an a RR project off the ground and issuing, we are already bumping up at the limits already for, for 2030 commitment. So we've really got to accelerate the adoption of these technologies, the dispersal of these technologies to make sure that we, we meet these 2030 goals as soon as possible.

David Greely (30m 50s):

Thanks again to Alasdair Were, Head of Environmental Markets at Abaxx Exchange and Clearinghouse. We hope you enjoyed the episode. We will be back next week with another episode of Carbon Frontiers 2024. We hope you will join us.

Announcer (31m 04s):

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