SM250 | 9.27.2025
Catching Up On Climate | Episode 4
Hannah Hauman, Global Head of Carbon Trading, Trafigura

This week on *Catching Up On Climate*, we're celebrating our 250th episode of SmarterMarkets™ with Hannah Hauman, Global Head of Carbon Trading at Trafigura. David Greely sat down with Hannah at the IETA North America Climate Summit in New York this week to catch up on how Article 6 and CORSIA are reshaping the global carbon markets. They discuss how countries are now framing their environmental goals, setting their climate ambitions, and building new compliance carbon emissions markets in a multipolar world.

Hannah Hauman (00s):
When we look at the next five years, I don't think the goal is full of harmonization. I think it's interoperability and that's really the key piece here is how can nations move within their own timelines, within their own steps, within their own means, but still in a coordinated and cohesive way forward, even if it's not identical to their peers.

Announcer (21s):
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?
This episode is presented by Base Carbon, sensible carbon investing. For more information, visit basecarbon.com.

David Greely (01m 00s):
Welcome back to Catching Up On Climate on SmarterMarkets. I'm Dave Greely, Chief Economist at Abaxx Technologies. Our guest today is Hannah Hauman, Global Head of Carbon Trading at Trafigura. We will be catching up on how Article 6 and CORSIA are reshaping the global carbon markets and how countries are now framing their environmental goals, setting their climate ambitions, and building new compliance carbon emissions markets in a multipolar world. Hello Hannah. Welcome back to SmarterMarkets.

Hannah Hauman (01m 30s):
Great to be here. Thanks Dave.

David Greely (01m 31s):
It's great to have you here. This happens to be our 250th episode of the podcast and also a first because we are sitting here today recording in person at the IETA North America Climate Summit 2025 in New York City And so thank you for taking the time to be with us in the studio, Hannah.

Hannah Hauman (01m 48s):
Absolutely.

David Greely (01m 49s):
We are calling this series Catching Up On Climate and I always look forward to catching up with you to get your perspective and your insights on what's happening and where we're going next in the carbon markets and so far at the conference, it seems like a pretty good buzz and you know, I, we had Dirk Forrister, the president of IETA on the podcast last week and he noted that we are in a world where the rules of Article 6 were largely settled at COP 29 in Baku last year and that while there is a lot of noise in Washington on the other side of the globe, markets are starting to blossom. And I think you have a panel at the conference a little bit on that theme tomorrow. And so if it's okay with you, I would like to kind of start where I left off with Dirk last week, which is how do you think about carbon markets in this kind of post Article 6 CORSIA world? Whether it's the demand, the supply, or even just this eternal notion of quality, like what's a quality investment grade credit in an Article 6 CORSIA world today?

Hannah Hauman (02m 24s):
Big question to start out with. So as we are really looking at the landscape going forward within Article 6 and actually something you and I have talked about before is this concept of we are creating kind of the first real global carbon market, not in the form of everything is homogenous and everything is the same, but that everything's standardized and that you actually have the ability to have differentiated preferences on top of a standardized framework. So that Article 6 rule book that's now being developed means that we now actually have centralized registries. We have defined methodologies or project types that are eligible compliance grade for international trade and then also kind of the rule book for what countries need to do in terms of participating either on the buy side or on the export side. So when we think about quality and how we kind of define that new definition of investment grade, we see a lot of the same homeworks as we did before.

Hannah Hauman (03m 42s):
So things like what is the actual operational quality? Does it deliver when it should, how much it should and on the timing that it should. So all of those things still exist is these are still underlying physical assets behind the credits. But the new, let's say variable that we have put into play is now export grade or export quality, which within an Article 6 context just means the exporting country has not only given approvals for the project but has also issued a corresponding adjustment or export approval for that credit to now be traded and now be legal tender within Paris agreement balances. So that is an entirely new paradigm that the market is now grappling with. It is less infrastructure based, so not so much reliant on digital tools or methodologies, but very much policy-based as now you are needing countries to decide from an exporting basis what types of activities do they want to export, what are the appropriate export fees, how does that change over time? Do they want to have a subset which is whitelisted for domestic, a subset for international, so on and so forth. And all we are kind of doing is putting additional policy layers on top to enable this global trade. But in truth, it's not that dissimilar to what we see on every other commodity. So we have some playbooks to pull from, but that's I think really how we are changing the definition of what investment grade is, is we have now added this additional criteria on does it have export approvals and is it now legal tender under Article 6?

David Greely (05m 10s):
And it does seem like we are moving much more towards a more typical commodity market structure. For years when people were working through the issues and the voluntary carbon markets, it was always what's creating the demand wasn't policy, it was net zero commitments and lots of debate that we don't need to revisit about that. When you look at it from the buyer side or the demand that's being created now in this post Article 6 compliance world, what is the demand side like what are the buyers like in this market?

Hannah Hauman (05m 40s):
Article 6 is an interesting beast because on one hand it is a standardized market standardized framework. On the other hand, your buy-side set and your use cases are actually highly differentiated. So I will kind of pick apart three different examples and we can kind of tease that out. The simplest one let's say is CORSIA. So that would be the airlines, the global compliance market for aviation and where they are buying CORSIA eligible credits that is using Article 6 infrastructure or has that export approvals and the airlines are primarily concerned about the same things. They're concerned about jet. So is it on time, is it at the price? I agreed the quantity, the specification, so on and so forth and their real focus is, yeah, timing, specification delivery. So I would say much more generic specifications in that if it is CORSIA specification, it now fits.

Hannah Hauman (06m 30s):
The second class of buyer is a little bit different. This is also a private sector buyer even though it's under Article 6 because what we are now seeing is governments really engaging in Article 6 via their domestic compliance markets by enabling the import of international credits. So here you see a little bit more nuance and where some companies are really falling on, okay, I just want the guaranteed specification give me what I need when I need it and we will move on. Others are maybe having certain preferences for subsets and that could be because of their own climate goals of, for example, if they now want the optionality to use that also for net zero offsetting. So all of a sudden they might change specifications a bit or alternatively if they are an obligated party in multiple schemes and now they want that subset to now be able to fulfill multiple use cases for them.

Hannah Hauman (07m 19s):
So that is, I would say the, the most varied group by a long shot and kind of covers in between. And then on the far side of things is the sovereign. So these are countries that are engaging directly on direct procurement and you see a lot of diverse preferences where ironically, despite it being an international compliance market, it has the behavioral aspects. Very much of the voluntary market in terms of individual countries want to see different things for example, Singapore has just issued a nature based sovereign procurement

tender. Whereas if we look at Switzerland, they actually don't allow for nature based at all. So there is a lot of, I would say individuality in terms of how countries are progressing. That applies to project type in terms of if they are really passionate about specific technology. So you see a lot of policy around engineered carbon removal at the moment because countries want to be a part of spurring that on.

Hannah Hauman (08m 14s):
But then equally countries of origin. So that's quite standard where you will see, I would say a gating of where projects are originating from as countries are really focused on who those trading partners and what are those trade lanes that they are establishing and is it supporting their wider goals. So I think that's probably the, I would say most commoditized to perhaps the least commoditized. But I would say in every instance the buyer is, is again the one effectively setting the specifications even within that regulation. But those specifications are quite clear and therefore clear market fundamentals.

David Greely (08m 49s):
I remember coming for this conference for years, obviously the International Emissions Trading Association, the, the ask for years of governments was just tell us what the rules are, tell us what counts as quality. It sounds like we are moving in that direction, but countries are being more experimental in what they want to see as quality. Is that right?

Hannah Hauman (09m 06s):
Yeah. So again, I would call back to this concept of standardized framework and standardized rule book, but still with this ability to exercise different preferences. So this isn't so dissimilar from the traditional commodity markets. If we look at the global diesel market, this is one of the most commoditized products on the planet. And yet you actually see highly different specifications if you go country by country based on physical properties they require. So things like sulfur, like flash, like pork, these are a little bit nuanced. So I would kind of liken it in the same space of we have a shared definition of the accounting and the qualities of what is eligible, but countries still have this space to say, alright, this is who I want to trade with and equally these are the types of activities I would really like to support.

David Greely (09m 52s):
And when you turn to the supply side in the current market is this now this shared framework creating more commercial opportunities and more investment flowing into carbon reduction and removal projects for the exporting countries.

Hannah Hauman (10m 06s):
So what we generally see is pre reregulation, which Article 6 was agreed last year in Baku. In reality you have only seen kind of the first transactions this year under the bespoke arrangement with 62. Next year is the standardized registry, which will allow a lot more capital to flow. But broadly what we see is in a generally pre regulatory world, investors are a little bit more shy. So this is now venture capital realm, right? So do you have the risk tolerance? Can you understand not only your asset operations but the technical architecture, the policy architecture that can be challenging for some investors. That said, you do see a lot of specialized investors in the space that are going deeper than ever before, ourselves included frankly, because we do see direction of travel and we see the opportunity. But what I would expect is as we migrate into the next 12 to 24 months with much more concrete and easily understandable rules, we are now in a post regulatory world and you are now investing in a known versus a supposition of what will occur.

David Greely (11m 09s):
And do you see more companies coming into that space, moving up the ladder and kind of educating themselves that they will be ready to be investors? Or do you think that will become a bottleneck in the investment pipeline?

Hannah Hauman (11m 21s):
I think right now the very common approach that we see, and this is true not just for investors but also for commercial banking for example, where another part of the financial architecture that's really developed has been around project finance offerings that have really come a long way in every instance. Broadly speaking, most of these transactions are first, second, or potentially third of their kind. So we are still doing the first of large scale pilots under Article 6. What you typically see is that you will have a lead investor or lead financier that is really taking the time and capacity to learn and then ultimately syndicating to others in the space to bring them along. So in truth, I think you see headlines that have very few names, but if you were to kind of peel the layers, I actually think you would see a much wider assortment of players that are now engaging and investing in this space. But it's kind of who's taking that lead role, who is the first mover and then those second movers are benefiting from those shared learnings.

David Greely (12m 17s):
Well, I would like to turn now towards something you have been referring to and you are speaking to this on your panel tomorrow, which is that we are seeing many national and regional compliance schemes, compliance markets developing and ramping up around the world and what do you believe are the most important developments that people should be watching? Like what are the big macro themes that you are following?

Hannah Hauman (12m 38s):
It's pretty incredible at the moment. And I am sure I have said this in the past, but I think the headlines are almost a challenge to keep up with frankly because of this, the pace and the frequency of iteration that we see. And it's not really any one single market. It's kind of everywhere all at once at the moment. So to kind of boil that up to the macro themes that we are seeing, I think one is a general growth for the first time in the last few years of true compliance demand. So we are all used to seeing these charts that say X amount of GHG emissions under carbon pricing and nominally that looks like it increases every year. The reality has been that actually free allocations under the schemes means that your net demand or your real compliance coverage has actually been pretty stagnant for really the last four years.

Hannah Hauman (13m 26s):
And I think this was a bit of the, the whiplash that the market had when we are preparing for all this growth and actually governments weren't necessarily tightening the schemes in the way that everyone intended that is now changing. So as we look into next year, what we are now seeing is for the first time a very real lift in things like reduction of those free allocations, which is overall increasing the total compliance demand. That's a big trend in in markets like Europe in particular, which is going into its next stage of the EUETS, but also in new markets like China, which is adding new industries and also rejigging that free allocation to change the market structure. The second piece of this I would say is beyond, I would say just existing markets that are now having kind of new levers and tightening. We are seeing on a widespread scale the incorporation of credits within the regulatory design

.
Hannah Hauman (14m 18s):
So in some instances that is domestic only. So again, I will use Europe as an example. Historically, Europe has been against credits within the compliance scheme but is now unveiling the EUCRCF, which is now deeming removal specifications with the intention to bring it in from post 2030. Other jurisdictions are incorporating it into the regulatory markets for imports. So markets like Korea, markets like Japan that are actually leveraging Article 6 to be able to pull in those article six credits via the domestic regulatory scheme. So I think those two things we see as kind of the big trajectories coming, one being just a generally larger market in the terms of net demand and governments getting more comfortable going up those next layers and the second is the concept of credits and specifically domestic or internationally traded credits really at the core of each of these designs.

David Greely (15m 13s):
I would love to dig into that a little bit more with you because we have talked a lot about Europe and its leadership in the space. Clearly the US has kind of stepped away leaving Europe in the leadership seat. And I was curious, you do have the issue now where the net credits are starting to bite for the first time you have got CBAM and trying to export some of that abroad. How important is Europe's leadership in the compliance markets and is it looked to as kind of a template by other countries for how to set up their own emission trading schemes?

Hannah Hauman (15m 49s):
It's an interesting question. So I think a few years ago I absolutely would have said Europe is leading categorically and everyone else is quite a distant second or third. That feels a lot more balanced these days. Part of that is, frankly, I think because of the US absence, the more that the US retreats, the greater the space is for others to occupy. So for example, we have seen China come out very loudly asserting that this is a core construct for them and this is a core part of their national strategy. Europe, of course, has asserted again and again, this is a core part of our strategy and we're now seeing them export policy in the form of things like CBAM, CSRD, so on and so forth but in truth, we are seeing a lot of countries step forward. So players like Japan is getting extremely active in, I would say funding more of the technology side and the equity side elsewhere, but also developing their own domestic markets.

Hannah Hauman (16m 43s):
Players like Singapore are leading the way in terms of these bilateral agreements under Article 6. So again, it, it's not necessarily just one factor or one nation that's necessarily leading. We really do see this, I would say disaggregated, but coordinated effort in terms of how countries are really coming to pull together, even though all of their ambitions and kind of motivations differ kind of slightly here.

That said, governments absolutely do love to borrow best practices. So a lot of what our team does, we trade in the global regulatory markets, we are very active in in every single one and as much as these are isolated markets that in theory do not touch one another, in some respects the team is constantly watching what's happening elsewhere in the world because it's well known that governments like to try to borrow the mouse trap to kind of improve their own when they see a policy that's working

David Greely (17m 35s):
Now need to reinvent the wheel. And when you look at this multipolar world that you are describing, do you see the frameworks, the ambitions, the quality measures being similar enough that these could converge or be compatible with each other over time? I guess China would be the big question, right? Is, is what's happening in China close enough to what's happening outside of China at some level that it could integrate?

Hannah Hauman (18m 03s):
So I think the answer is no. But then yes. So in the short term really to 2030, absolutely not and that's mostly because you just have vastly different geographies, different economic situations, different geographic availabilities. Are you relying on land use. Are you relying on geologic storage, a plan in the Middle East for decarbonization just looks vastly different to a plan in Singapore, for example, just based on your kind of natural environment. However, I would caveat that with a then yes. So in 2040, once we have all kind of climbed the curve, and I've probably said before, but I always kind of think about net zero as the shared finish line, but people on very different starting points. So in the beginning it looks quite chaotic, fragmented, very difficult I think to kind of compare apples to apples. But as that curve progresses, you really see people kind of getting on the same page.

Hannah Hauman (18m 58s):
What that really means in the short term is things like CBAM are not a bug, they are a feature as that's ultimately going to account for the differences in terms of regional ambition, which again, I think is highly appropriate. But equally, I don't think we see that as a concern for the market. When we look at kind of the next five years, I don't think the goal is full harmonization. I think it's interoperability and, and that's really the key piece here is how can nations move within their own timelines, within their own steps, within their own means, but still in a coordinated and cohesive way forward, even if it's not identical to their peers.

David Greely (19m 36s):
And so as we move into this world where the emphasis and the focus seems to be much more about the climate action that countries are taking rather than corporations, I kind of wanted to get your sense of how countries are thinking about their climate action and in particular when we think about framing of environmental goals, like what are the main factors shaping different countries ambitions and their NDCs?

Hannah Hauman (20m 01s):
So this is one of the, I think previously it was a misconception and now it's just completely been about base, but in 2020, 2021, there was a lot of hype, a lot of excitement, and I think people were playing offense with climate, even countries, right? We started a lot with companies, but especially countries on what does this do reputationally, how am I making a name for myself? How am I stepping forward? So again, much more offensive and framed a little bit more within the frame of philanthropy that has changed really substantially to be one that is now much more about energy security or energy independence, much more about trade relations. There is a little bit going on in the world right now about cross-border trade in particular, for example. So if you actually look, each country is slightly different in terms of their focus, but it, it's not about necessarily doing good things, it's about how they are protecting their long-term competitiveness of their countries and their economies.

Hannah Hauman (20m 58s):
So for example, yesterday I was listening to the state legislature of California talking primarily about air quality. And yes, CO2 reductions is obviously also a core pillar of this, but what their citizens experience every single day is actually the air quality difference of when they are able to reduce emissions. If you speak to other players in Europe for example, it's very much about energy independence and how are they building out renewable capacity so that they are not reliant on foreign fossil fuel imports. If you travel elsewhere in the world in New Zealand, they will talk a lot about erosion. So a lot of their carbon practicing and carbon scheme relies on actually afforestation and creation of new forest to really just protect the island from desertification and erosion of the natural environment. So again, every government has slightly different kind of views of how they are pursuing this, but pretty much every single one is focused on self-interest on how do I ensure affordability for my citizens? How do I reduce things like insurance damage, which is becoming an increasingly hot topic. And then on the international side of things, how do I improve those trading relationships

in a multipolar world? How am I strengthening those key corridors with those nations I am already working with in order to reduce my overall mitigation cost? So again, I would say highly varied but with some very core centralized themes there.

David Greely (22m 20s):
And I want to come back to talk about country level NDCs, but I wanted to ask you first so much of before stepping away from the voluntary carbon market topic, one thing that was always a strength of the voluntary carbon markets was getting investment dollars into projects. So I wanted to ask you like what is the outlook for carbon reduction and removal projects in more of a compliance world? Do they find a home in the compliance markets?

Hannah Hauman (22m 48s):
Yeah, of course. So, and I might actually split that in two if you don't mind. So I think first as much as it looks like the voluntary market has quieted and equally we've been very vocal advocates for voluntary actually becoming quasi regulated. In truth, you are seeing actually more dollars flowing into that space now than you ever have. And I think the real difference there is the difference between spot retirements or immediate use of credits versus forward commitments in transactions. If you were to actually take into account forward transactions on a voluntary basis, you've had a market that's grown five to six times just in the last two years, kind of kind of belies the data that you see on a day-to-day. But again, it's because most companies are thinking 2030, 2040, so on and so forth. These are 15, 20 year terms often and most of them are in the public domain in terms of analysis.

Hannah Hauman (23m 39s):
But I do want to qualify this first with the voluntary market, we actually see growing quite substantially. It's, it's just the flavor of that has changed and that's very much focused on removals. Now, as part of that netting exercise or that offsetting exercise, we would expect to see that continue to grow as we see an increased number of regulated claims legislation coming through. We are seeing that in Europe, but also in other places like the VCMI coalition led by the UK, Singapore, and Kenya. I think there is more to come in that space, but we will park it there on the broader global markets in terms of project-based credits, that's really, I think at the crux of where a lot of this new compliance or regulatory market growth is going. And to kind of paint a picture in the last five years, say if the global carbon credit market has been about 250 million tons, call it 80 to 90% of that has been voluntary, as we look forward to the end of the decade, that number gets much closer to about 800 million tons and with 80 to 90% of that number being regulatory.

Hannah Hauman (24m 43s):
So these are huge shifts in terms of the actual underpinning demand of regulation that's really pushing this forward. And I think what we see is very meaningful both for, I would say the general project based credit space, but as well as the voluntary space is the paradigm of how we are creating these credits are changing. So this is no longer international registries that people are struggling to kind of harmonize. This is now all getting roped within this regulatory paradigm in terms of what that means for the infrastructure, what that means for the assurances behind it and the ultimate guarantor. So I think huge steps forward in terms of what we can and what we have already seen frankly, and also what is ahead in terms of underlying quality of project credits and then something equally that the voluntary market can borrow from in the future.

David Greely (25m 32s):
And when you think ahead to the world through, say the end of the decade to 2030, when you think about what shaping and what countries are putting out as their nationally determined contributions, their NDCs, is there kind of an overall theme to what you are seeing?

Hannah Hauman (25m 46s):
We are now going into stock take world, which is kind of the 20, 30, 20, 40 goals for countries. You're seeing a number of things. I think number one, you are seeing a lot more granularity in terms of how countries are reporting on sectors, on their targets, on their goals. Not that dissimilar to what we see on a company level, frankly, just as we are kind of progressing later in time. And then the second piece of course is engagement within Article 6. So we have now seen over 90 countries commit within their NDCs to say we intend to engage with Article 6 either on the buy side or the sell side. Again, everyone has slightly different reasons, but even parties like Europe, which historically have said, we will not engage with Article 6, we will be 100% domestically, is now actually changing their tune quite substantially. So post 2030, their goals and their ambitions now distinctly include Article 6, and I think for very different reasons than others, is their main concern now is how do they start to fill those residual balances now that they have really decarbonized so much domestically.

Hannah Hauman (26m 50s):
So that's another, I think, key feature of the general shape of the NDCs that we are seeing. And we are due to see many more out over the next two months, which should be landing fast and furious leading up to the cop. But I think we are going to see a lot more hints and clues in terms of what is the firm demand and firm commitments that are already coming through. For example, we have already seen 90 million tons and current NDCs just up to 2030 from sovereigns alone, and that's when all of these are still kind of new and still coming out. So as we look into 2040, we will get a general arc of where the world is headed in terms of its general goals against Paris, and then a bit of a proliferation in terms of, okay, how much of that translates into domestic ETS balances, how much of that translates into international trading, so on and so forth.

David Greely (27m 36s):
And it's so great to be able to talk about things that are actually happening as opposed to may happen. But I do want to kind of take a little bit of a forward look. If you think of the world as we wrap up post 2030, you know, if it's continually driven, more compliance, more regulatory, obviously policy legislation is gonna shape the post 2030 world, how are you thinking about that and is there certain legislation that you think the markets either need or a legislation that's in place that's gonna give us a sense of what that post 2030 world looks like?

Hannah Hauman (28m 07s):
So I think between now and the end of the decade, it still feels like we are getting a bit on the starting blocks on some domestic markets, absolutely on the international trading front and then I think a wider bucket of disclosure legislation. So it really feels like we are creating just the very strong foundations for what lies ahead, where we need these markets desperately from 2030, frankly, as you are already hitting the wall on some hard to abate sectors and we now need kind of all, all the sources that we can get. So what we are keeping an eye on is, as I mentioned previously, the NDCs in terms of where are they stretching and how much of that is going to translate into domestic market growth and can they translate into domestic market growth for the surplus or residual of what that trade deficit or surplus is.

Hannah Hauman (28m 56s):
What does that then translate into international trade and that total article six market, especially again as you are now creating those foundations, and frankly now your problem is actually more a lag in supply versus the creation of demand. But the point that I would really kind of hit home on and what we really see is the most exciting development at the moment. Again, I think we talked about this last year, I am a disclosures nerd, but is around emissions reporting frameworks and disclosures. This is ultimately the bedrock of global carbon accounting and is how the world will trade and how we will ultimately measure kind of achievement of targets. So what we see happening, and I am hearing it a lot in New York this week, is so many in fact that that I can't count in terms of the new coalitions, but what is a very big agenda item for COP 30 is around establishment of things like product carbon, footprints that are sectorally cohesive.

Hannah Hauman (29m 48s):
So how do we move from a world that right now looks at scope one, scope two, scope three, and really starts to look at scope one and two and carbon intensity of products. I think that is going to completely change the game in terms of right now we think about carbon as a installation based as a registry based thing and very much within borders. That concept will completely flip it to now actually being primarily focused on cross border trade and specifically will influence how we talk about and how we quantify net zero as net zero actually is scope three inclusive. So that completely changes the framework going forward where again, CBAM will become the norm, not just in EU, but also in places like the UK and Australia that are already talking about their own CBAM designs and then beyond. But I think the moment that we start extending carbon footprints and carbon pricing into everyday traded materials and goods, that is just a vastly different world that we're looking at and that's really what we're knocking on the door for 2030.

David Greely (30m 48s):
Thanks again to Hannah Hauman, global Head of Carbon Trading at Trafigura. We hope you enjoyed the episode. We will be back next week with another episode of Catching Up on Climate. We hope you will join us.

Announcer (31m 01s):
This episode is presented by Base Carbon, a financier of projects involved primarily in the global voluntary carbon markets. Base Carbon endeavors to be the preferred carbon project partner in providing capital and management resources to carbon removal and abatement projects globally, and where appropriate will utilize technologies within the evolving environmental industries to enhance

efficiencies, commercial credibility, and trading transparency. For more information, visit basecarbon.com. Base Carbon, sensible carbon investing.

That concludes this week's episode of SmarterMarkets by Abaxx. For episode transcripts and additional episode information, including research, editorial and video content, please visit smartermarkets.media. Please help more people discover the podcast by leaving a review on Apple Podcast, Spotify, YouTube, or your favorite podcast platform. SmarterMarkets is presented for informational and entertainment purposes only. The information presented on SmarterMarkets should not be construed as investment advice. Always consult a licensed investment professional before making investment decisions. The views and opinions expressed on SmarterMarkets are those of the participants and do not necessarily reflect those of the show's hosts or producer. SmarterMarkets, its hosts, guests, employees, and producer, Abaxx Technologies, shall not be held liable for losses resulting from investment decisions based on informational viewpoints presented on SmarterMarkets. Thank you for listening and please join us again next week.