diffuse tap
Virtual Event Series

What About Crypto Is Very TradFi?

Guest Speaker:



Matt Scharpf Director, Business Development Cboe Digital

Hosts:



Kenny Estes CEO & Founder Diffuse



Ayla Kremb COO & Co-Founder Diffuse



DiffuseTap: What About Crypto Is Very TradFi?

Last time on DiffuseTap, Matt Scharpf, Director of Business Development at Cboe Digital, talked to us about how the integration of TradFi and crypto is crucial for global adoption, how it could enhance the security and stability of crypto markets, and how blockchain still lacks the risk management mechanisms available in TradFi.

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DiffuseTap: Where Crypto and Technology Shape Finance

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Meet the Speaker



MATT SCHARPF is Director of Business Development at <u>Cboe</u> <u>Digital</u>, where he drives the growth of exchange-traded crypto products. Applying TradFi principles to DeFi. Matthew also plays a key role in attracting top U.S. firms and contributing to strategic initiatives across Cboe. Prior to this, he was Deputy Director of Americas at <u>Eurex</u>, a leading European derivatives exchange.

LinkedIn: @matthewscharpf

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KENNY ESTES: Mr. Scharpf, thank you so much for joining us today. Do you want to give the folks a little bit of your background and what you're up to over at Cboe Digital?

MATT: Hi, my name is Matt Scharpf. I work at Cboe in Chicago. I currently represent the clearing arm of Cboe, having worked at Eurex for 10 years prior to joining Cboe and <u>COG</u> for two years before that, which is a platform that deals with data and trade execution.

Before that, I was a fixed income and commodities prop trader, always on the screen but never on the floor, for about eight years. So, give or take a couple of years, I've been in this business for around 20 years after having careers as a teacher, musician, and engineer. I'm excited to be here.

What brought me to Cboe was representing their recent <u>digital ErisX acquisition</u>. We still have futures on Bitcoin and ETH that are moving to the Cboe Futures Exchange. It's a long story that I won't bore you with, but I'm excited to be here Kenny. Thank you.

KENNY: All right. Thank you very much. Well, I think the topic of the day, or at least what we billed it as, is: why is crypto very TradFi? So, maybe we can start with that. Where is the overlap between traditional finance and crypto? Are they really the same thing in different guises? What's your take?

MATT: Well, I think it's like lanes merging. I believe the retail trader has pushed the traditional finance space to understand and learn about crypto. Ten years ago, it was something only computer geeks traded in. But with the advent of retail trading access, it's become more mainstream for institutions like Cboe, custodians, and <u>futures clearing merchants (FCMs)</u>.

These are terms that the crypto crowd may not be as familiar with, but they represent the friction and intermediation that cryptocurrency often seeks to eliminate. However, if crypto wants to become globally accepted and have its potential realized, this merging has to happen.

Crypto is an asset regulated by the SEC and the CFTC, with derivatives that have become well-known in terms of ETFs, futures, and options. The U.S. might be slow to the game, but crypto is not the Wild West it once was, and I think that has benefited crypto.

There are moats in traditional finance that I think crypto could benefit from, and digital assets will likely get tamed into these structures for them to grow into a six-figure value. This merging, if you will, is a critical step towards the original cryptocurrency's dream becoming a reality, alongside widespread use and regulation that keeps in mind crypto's original intentions while also letting grandma feel comfortable trading it.





KENNY: Okay, you mentioned "merge" a couple of times there. Let's unpack that. What do you mean by "merge"? Are all the traditional financial exchanges and institutions going to buy out the players right now? Is it a merging of regulation? How do you see this playing out?

MATT: You're right. It's really broad. Both TradFi and DeFi encompass very broad areas. We could talk about coins, NFTs, or various subtopics within crypto. Then, in banking, you have clearing, trading, reporting, and regulatory aspects—there are so many subsections in traditional finance.

When I say "merge," I don't mean a complete merging of all these areas. I mean a process where the SEC and the CFTC feel that certain assets are being traded so extensively that they require some form of oversight due to their widespread adoption.

For instance, blockchain technology, which originated in crypto, is being leveraged within a lot of <u>traditional finance</u>, independent of Bitcoin. It has shown its utility as a ledger that is irrefutable, creates transparency, and cannot be altered. Traditional finance has poached ideas from crypto and integrated them. When it comes to the assets themselves, traditional finance has created moats.

Remember the <u>G20 in 2008</u>, after the great financial crisis? Central clearing became a critical piece of resolving what was a web of OTC trading, especially in swaps. They turned it into what I like to call concentric moats, where the center is the <u>central counterparty</u> (CCP), and trades go through it.

Kenny, if you and I make a trade, we agree to a price. You're short, I'm long. We instantly agree that the trade will go to a third party—the CCP—that will face each of us, so we no longer face each other. This stops or greatly decreases the likelihood of defaults. If you disappear, the CCP guarantees both of us that they will cover the default. This system allowed the government to regulate and oversee trading while creating comfort for traders, knowing that risks were mitigated.

A CCP is essentially the hub that we both face after making a trade. One of the moats surrounding this CCP is the FCM in the derivative space. FCMs not only put up money into the CCP to cover defaults as part of a mutual risk arrangement among all the FCMs but also ensure that their clients have the necessary margin to participate in the market. FCMs act as a buffer, ensuring that anyone trading has the capital to back their trades, providing a layer of security before the CCP has to step in.

Now, the crypto crowd might see this as friction, something that gets in the way. But these are the trade-offs I'm talking about in this "merge." Sure, you could meet someone at a coffee house and exchange cash for Bitcoin, but there's a lot of risk in that.

What allows the value of Bitcoin to grow is reducing that risk and making people feel comfortable—not just those who want to do back-alley trades, but also grandma and grandpa who want to invest in Bitcoin. This is how you bring in millions more people, and I think it's a trade-off that crypto will likely accept, whether everyone likes it or not.



KENNY: So, let's unpack that. The way you described it, by the way, was one of the more succinct explanations of CCPs and FCMs I've heard, so thank you for that. CCPs are effectively the central party that ensures everything clears and takes on counterparty risk, while FCMs are the gatekeepers, ensuring that participants are properly attired for the market.

MATT: Exactly. FCMs are often referred to as <u>clearing brokers</u> in the equity space.

KENNY: Okay, so in some sense, a lot of what the CCP does can be done on-chain—the actual clearing, the settlement piece of it. But I guess in an ideal world, the counterparty risk wouldn't be there either, right? Because these things clear and settle effectively immediately. So, in a future merge, say, we would expect that blockchain can take on more of that CCP functionality, but less of the FCM. Is that the argument?

MATT: That is the idea. Except the blockchain is really, again, just a ledger. It's not an insurance policy against other people going over their margin. In other words, certainly, I have to have the coin to make the blockchain work, but the CCP feels more comfortable delegating these tasks out rather than being directly exposed.

So, they would prefer what is called a <u>waterfall</u>, which is essentially a sequence of events in the case of a default. Everyone will have a blockchain at each level of the waterfall where they are measuring what's happening.

The first link in the waterfall, when someone defaults, would be the FCM. The FCM then has to cover what was lost if someone dies or runs off with the money, or any number of things that can happen in the human experience.

And then if the FCM goes bust, the other FCMs are on the hook for their share of that customer's problem. And then, if those FCMs go down—let's say the FCM is JPMorgan Chase or Marex, or another FCM, whose default is unlikely—then you start going to the CCP and saying, 'Now you have to put up a certain amount of capital to cover this loss.'

If the CCP goes defunct—and there are about 20 to 25 CCPs in the world: CME is a CCP, Eurex is a CCP, OCC is a CCP, DTCC is a CCP, and they all have their own worlds of what they clear—if they go defunct, then the government is the last line of defense.

And the government feels good about this because they don't want to do another 2008 where they bail out or have to write checks to keep this thing afloat. The idea is you have multiple links that have to fail before we get to the taxpayer paying for any kind of default.





So, while, like you said, the blockchain could take care of this and make it smooth, the point is that you do not want traders having direct access to a point where the government then has to step in immediately because this took place. So you have these kinds of barriers that have to be broken through in a significant way, and it's in the FCM's interest to keep their traders in line and stay in business.

KENNY: That makes sense. So, blockchain in a simple spot trading format, like buying and selling a coin, could be decreased—unless someone is giving the margin, and that's going to be a bilateral agreement anyway, no matter how you do that. It's relatively straightforward.

But when you get into more exotic products, you absolutely have to have some central party handling the risk or you fall apart. Because one of the knocks on DeFi is that everything has to be over-collateralized right now, right? That's the only way you can use smart contracts to manage this stuff, which is, compared to traditional finance, wildly, wildly inefficient.

Right now, a question from Alexander in the chat here, which I think you kind of alluded to, and this has a bit of a flavor of Nassim Taleb's "antifragile" argument: right now we have a CCP that deals with most of the shocks in the system when individual firms go, but when a big enough shock hits and takes out a CCP—which, as far as I know, has never happened, but if and when it does—it's potentially catastrophic to the entire capital market system, right? Which maybe is where blockchain comes in. What do you think about that intrinsic risk here?

MATT: That is a good question. So, <u>Maple Bank</u> was a bank that went down in Germany. I'm sorry, I'm confusing two things from Eurex here. Maple Bank was a bank that went down in crypto, and then there's another bank in Germany—I can't remember the name of it—that went down, and that concentric moat system deflated the risk.

And the reason is the people on the outside moat are the most sensitive to ensuring that nothing gets up to that CCP. In other words, if Lehman had happened with this structure, it would have stopped pretty immediately with risk tools that are very sensitive to leveraged risk. So, the idea that a CCP can fail certainly exists, but the design of the system is to shut down and ensure that everyone is so on edge about losing their shirt that nobody does.

And so we can talk about how something could happen, but the layers of risks in those concentric moats—whether it's the... let's put another moat out there: an IB or a broker. So, for instance, if I'm a retail guy and I'm going through <u>Fidelity</u>, Fidelity then has an FCM, FCM then goes to the CCP—these four layers are all thinking about how much I can risk, and should it get out of hand, oftentimes the exchange itself has a risk tool where it shuts the market down like a wheel getting wobbly on a car.



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It just pulls over to the side; it doesn't keep driving until the wheels fall off. These are all because of 2009 and the discussions with the government, where the CCP design and these concentric moats deaden the potential for any kind of risk getting even past the FCM level. So, anything's possible, it's true. But, and when I say 'merge,' the tools that blockchain brings and crypto brings are a nice augmentation to these ideas that reduce the possibility of a Lehman happening.

Lehman was OTC swaps that were leveraged to the point where—if you can think of a spider web versus a hub and spoke—when one node on the spider web went down, they all went down, instead of the hub and spoke with the moat circling, or like a dartboard if you want to think of the triples and the doubles. Those moats deaden that effect because everyone wants to remain in business. So, they definitely tap people on the shoulder, if you would like. As they did on the floor.

When a margin call comes, they do it immediately. Electronically. They know the sequence of events. They know it by the nanosecond of what you're doing and what's happening, to the point where they can shut it down like a computer getting too hot. Your iPhone left in the sun shuts down before it melts down.

This is the idea behind this: multiple moats, concentric circles, intertwined risk, mutualized between FCMs. JPMorgan does not want to spend money on Goldman Sachs's inability to control their customers, and the feeling is mutual. So these guys are very incentivized to keep things from getting red hot and falling apart, even though it's possible.

KENNY: I guess that makes sense. And even in crypto land, right? We already see this a lot. You know, there have been... I can think of probably five, six days over the last few months where Bitcoin prices dropped by 3–4% because people are automatically liquidated, which is... it's a downside of smart contracts, right?

Because in traditional finance, there are actual people looking at the positions, monitoring it. It's not just automatic; there are 24-hour margin calls, and they have mechanisms to dampen the overall market effect, which you just cannot do with a smart contract now.

MATT: I think that's one of the criticisms from the traditional finance world, that you just liquidate someone out of nowhere. Yeah. I mean, that is a Lehman. Traditional finance has been around for, I would say, at least a couple of hundred years in some form or fashion, since the Medicis and Rothschilds. They've all been worried about risk.

We've learned a lot. To think that crypto can just reinvent the wheel is kind of absurd, as much as it's innovative and amazing. And I really do think it's mind-blowing. I think something that has to grow will merge with ideas that have been tested and failed and tested and rebuilt over and over again in a way that will keep everyone safe and still able to participate.



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