

[Transcript] FYI - For Your Innovation / ARK Crypto Brainstorm #01: The Aftermath of FTX

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Hello, everyone. Welcome to the first edition of Arc's Crypto Brainstorm. Super excited for what's in store for this next hour and a half. So the idea with this session was to bring a group of Bitcoin and crypto enthusiasts who we've had the pleasure of getting to learn from over the last few years, who I've come to deeply admire and respect and who also share different views and opinions from each other, which I think makes this all the more valuable. It's unfortunate, but it's become increasingly difficult, especially in a crypto bear market, to foster healthy debate and discussion without resorting to these personal attacks or to these Twitter replies that get lost in translation. I think during a time like this, cross dialogue is critical. At the end of the day, we're all on the same team. We're all aligned with the fundamental principles of sovereignty and transparency and decentralization. So this feels like the perfect, handpicked group of people to continue moving the conversation forward, discuss the current crypto landscape, and the opportunities that lie ahead in light of this rough year that we've had. So without further ado, we can dive right in. Gentlemen, thank you all for your time today. For those who are native to the crypto ecosystem, none of these guests really need an introduction, and for those who aren't, we'll leave more detailed bios in the session notes.

So with that, I think it makes sense to start with where we're at today. Post-FTX collapse, it's certainly shaken the industry. And now I think the questions are, where are, if any, the final sources of fallout? Which ones might perhaps be exaggerated? Which ones might be under discussed? To name a few, and then I'll hand it off to you guys. There are questions around digital currency group and its subsidiary and lending provider, Genesis, that had to halt withdrawals and loan originations. You have miners that are under stress. And I think one of the ones that's most top of mind is really Binance, which in the last few weeks has dominated headlines. And there is uncertainty there, whether or not it's warranted. So perhaps, let's start with that. What do we think the final sources of fallout here are?

Well, I guess I take a more optimistic view in that I think that the biggest washouts are behind us. I view the lack of news on DCG and Genesis to be good news. Or at least no news means nothing. And I don't read into it further than that. In that we've, I mean, ARC has known DCG and Barrie for a long time. I remember when we were first meeting with them, I think in 2014. And Barrie has always found a way to end up on top out of many crises that he's gone through. And he's gone through a lot of bear markets. And so I view lack of information there as like, they're working something out. I don't think the grayscale trusts unwind. For example, I don't think that Bitcoin gets markets sold in the trust or ETH or any of that. In terms of Binance, you know, Binance going down would be more shocking than FTX going down. I also don't believe that they are insolvent or abusing their users in the way that FTX was. I think CZ is a very different

personality than Sam was. I agree. Like there are at the margin things that would raise some eyebrows

around Binance. But I don't have a reason to think that Binance is going under. You know, there's also like forever tether fud. And I would prefer to see like tether become less market share of stablecoins within crypto over time. So kind of like slowly sunset it rather than like a big implosion. And I don't think there's going to be a big implosion there. I mean, they've gone through a number of runs this year. So color me an optimist, I guess, in that like, I think the worst is behind us. That's not to say that there's not a few remaining things to drop. But I'm not sure that they're going to be worse than what we've gone through. And so that's where I fall on the side of like, okay, the bottom could be in here.

I think it's fundamentally unknowable in that part. Like you can't say we're past it in that like kind of reveals some of the call it challenge for crypto currency should be transparent and auditable. And, you know, it's clearly these institutions are neither transparent nor auditable, particularly Binance and tether. And so then because of that, you can understand like what is for instance, tether's risk management playbook. Sure, there's a liquidity playbook. There's also, Hey, we're suddenly subject to arrest playbook. And then what does that playbook look like? Because if I were running tether, my subject to arrest playbook would probably be take some of the assets in some way and get to a spot where I can't be arrested. And so within certain operating domains, these entities should continue. And I don't think you can tell if if you tip into an operating domain where suddenly they can't, they won't continue. But if you do, there could be an unwind. I mean, I think. And so I don't know if we can say.

Well, if I could chime in on Binance, actually, I mean, they're clearly not perfectly transparent. But I would say they're actually rather transparent, certainly relative to like a legacy finance institution. I would say they're actually pretty transparent and inaudible, to be honest. So they did a proof reserve recently. It certainly wasn't perfect.

It only covered Bitcoin. So that's about 16% of the assets on the platform. And that proof reserve itself had issues. Their auditor subsequently quit being a crypto auditor. Why do you think they quit? I think that that's been something that we've been trying to deal with. Is it more the risk aversion or is it they saw something in Binance that they didn't like and are like, you know what, we don't want to be liable for that? I think it's the former. I've talked to a lot of friends in the audit space recently. And I'm hearing the same thing after Arminino audited FTXUS and got a ton of flak from that. Every boutique auditor that covered crypto businesses, especially the offshore ones, is getting the signal from the mothership to stop doing that. So Mazers, I don't know how to pronounce it exactly. It was the South African branch of a much larger multinational auditor. It was clearly like the crypto specialist, but they were also clearly a bit of a rogue branch in that they were the ones doing a lot of these proofs of reserve agreed upon procedures. And it doesn't surprise me that they've been sort of told now by the mothership stop doing that, you're bringing too much heat to the broader organization. They curtailed their whole crypto practice. It wasn't just Binance that they cut off. It's not like they kept doing crypto.com and gate.io and they cut off Binance. They cut everyone off. So that's a shame, actually, I would say, because it means that there's, they were one of two specialists that did proof reserves. So I think it's a shame, but I understand it. Auditors themselves are regulated. They have to buy insurance and they have PR and media issues

to deal with their own. So I think it's a risk management thing. The Binance audit or the proof reserve also included the Merkle approach whereby clients of Binance could themselves verify their inclusion in the liability set. So there's two layers of protection there. So I haven't seen anything in that that leads me to believe that they was faked or anything. So I actually think it's like a reasonable degree of confidence you can have there. And do you think the claims that the big four just don't want to touch crypto are those legitimate? I think that CZ received some lack for that, saying that that felt like an excuse. They know how to audit crypto firms because Coinbase is audited by Deloitte, for instance, but they certainly don't want to touch an offshore exchange. They would never do that. They would absolutely never do a proof reserve. The big four would not because it's not a established procedure. It's only been around for a few years. So first of all, they're risk averse when it comes to crypto and they'll only touch the most credible. I mean, even Gemini, I was looking, is not big four audited. USDC is not big four audited. Paxos is not big four audited. It's not a trivial thing to get a big four firm to audit you. So it doesn't surprise me. Obviously, the Binance has had no luck getting a big four auditor. That makes sense. Chris, Nick, you guys seem more optimistic on Binance. I think I'm in that same camp where after the FTX, people are traumatized in many ways. Then there are others that are looking for that next scam. It seems like it's easy to point fingers immediately at Binance and CZ. Is there anyone, Alex, Eric, or Drew, that what are your thoughts on the Binance situation specifically? Think over exaggerated or under discussed? Yeah, maybe I would let others chime in on likelihood of something bad happening. But I just got back from a week in West Africa and I've been talking in preparation for a chat with a lot of friends from Latin America. And if something does happen to Binance, it's going to be very, very bad for a lot of small retail people who are already pretty vulnerable. If you look at a place like Latin America, there's a new report that just came out the other day. Basically said that 79% of crypto trade is on centralized exchanges and 21% is P2P. I feel like it's probably closer to 50-50. But just let's take that stat for now. Binance really dominates in both areas in places like Latin America. So their P2P platform is super dominant and their centralized exchange platform is very dominant. So you have a lot of people who are relying on, even the P2P folks, obviously, they use a function where the coins get sent into the system. So you've got a huge number, we're talking probably tens of millions of people in emerging markets developing world countries that are totally reliant on either the platform itself or the BUSD, the token, the stablecoin, which is really, really incentivized within the Binance ecosystem. So I'm not a hugest fan of Binance, but I certainly hope nothing bad happens. I guess that's the little angle I wanted to add. Just as a general commentary, I think that the game theory on calling out scams

has become significantly warped in the sense that I'm catching a lot of flak on social media because I didn't call out FTX before it happened. But you're not going to see, for example, the people that call out Binance now, they're not going to get called out if nothing bad happens to Binance. So there's an incentive for everyone to go out and try to call out as many things as they possibly can, as long as there's some level of risk that something bad might happen there. Because you're never going to have to be eating dirt just because you said, look, Binance looks worrisome, but you are going to have to eat a lot of dirt if Binance collapses and you said nothing. So the winning strategy of this year has been to call out everything, and now everyone is sort of jumping on the back wagon of calling out everything and

logic and reason has sort of left the room here, and everyone is just trying to get their call outs in on everything. I want to try to change the game there a little bit so that we can... I think that the voices that we have some sort of signal are the ones that have some track record that it's not like they called out everything. Some of the people that called out the FTX also called out Ethereum, for instance, and said Ethereum was a scam. So there has to be some track record where you have a percentage of hit rates that speaks to your favor, not just that you have a list of tweets that you can link to after the fact. I would say I want to second that overarching point in that I became pretty vocal in the midst of the FTX fallout that that could be the capitulation we're waiting for, and the pushback, the blowback I got was massive, and it really just struck me as like a point of hysteria in the marketplace of ideas and sentiment, where I saw what I think to be reasonable, rational people doing what Eric just said of just jumping on every single thing they could find, because there's emotional momentum in that direction. And it's very similar to the behavior you see near the top, where people are like, oh, well, this is, you know, ETH was at 5k, so of course it's going to go to 10k, and that's just around the corner, as opposed to the level of mania, say, at the end of last year being a sign that the top was near. I would say the level of hysteria right now does not tell me, oh, there's way more big boots to drop. It tells me that there's way too much emotional and idea momentum that this will continue. Certainly, there are structural things, and what we're dealing with with the Fed environment is different than what crypto has ever had to deal with, and so I don't want to under-appreciate that change in set and setting, but just broadly, I would say I see hysteria. That's not, there's very few voices grounded in rationality still. Does anyone have, I mean, just throwing it out there, I mean, this is a company that is under a very long criminal investigation by the United States government, so I mean, that's certainly, I've got my eye on that. I tend to think that given the history of the US government's track record and enforcing cryptocurrency stuff, that it would probably not be anything terminal, probably be a slap on the wrist, but I feel like that's worth mentioning that the US government is worked up right now, is seeking to met out punishment to people, and they have this long running criminal investigation into Binance, so I guess we'll see what happens. Yeah, that's my grace wand here. I'm not trying to say nothing bad will happen to Tether or Binance. What I am saying is the things that I'm seeing said about Tether and Binance don't appear to be the things that I think will actually take down Tether and Binance. I actually think, I happen to think Tether has the reserves. I've said that for years. That hasn't made me particularly popular with the Tether truth or crowd. I also happen to think the Binance has the reserves. I was looking at their cold wallets just now. There have been outflows. It's on the order of 15 to 20% of their major assets, but they certainly have a fair amount of reserves back there. It doesn't look like the FTX situation at all. The grace wand is that the DOJ just has an enormously long reach. If there's enough political will, they can take down any organization anywhere on earth. They were able to take down BitMEX even though BitMEX was a Bitcoin settled institution that didn't really have US clients or endeavored not to. BitMEX didn't touch the US banking sector in any way. The DOJ was able to get them. We know there's an SDNY investigation at Tether, and we know that there's a long-running investigation into Binance. That, to me, is the big grace wand here. That's unforeseeable though. We can't necessarily predict that. If we play that out, what does that look like? What does a Tether dissolution look like? How

does that potentially impact the industry? Is this something that's bigger than what we've seen this year in terms of market contagion? I think there's a way for it to happen in somewhat of an orderly manner. Not pleasant for the people that currently hold Tether because I think a lot of those folks are people that can't access or are unwilling to access the US banking system directly. I think it's a lot of Chinese nationals, Chinese elites that want to offshore funds from China and want to hold a dollar asset that's outside of the oversight of the local authorities. I think what actually happens is basically there's a settlement where you can redeem your Tethers for the underlying assets, treasuries, which would then be liquidated into cash. But there's a lot of people that are unwilling to do that settlement because it'd be the KYC situation. Then I think Tether does actually trade at a discount for a period of time as the Tether holders exit to US-based arbitrageurs that are the ones that then engage in the settlement. Of course, a lot of stuff breaks. I mean, Tether is the main liquidity between exchanges and lots of contracts are denominated in Tether and things like that. But even that is somewhat more orderly than a lot of the apocalyptic scenarios that people think around it, kind of Tether dissolution. Well, also, Nick, you were saying, Nick, that I think you were pointing out recently in a conversation, we had how much money Tether's going to print from just holding treasuries in this environment. And my sense is that even if they did screw up, I mean, they're going to be able to paper over some holes with the just massive amount of income they're going to get from what very clearly seems to be shifting more and more and more of whatever they have into US debt securities, which are going to be paying 3, 4, 5, whatever percent over the next year. I mean, I think it's a very rosy point of view, Nick, in some ways, in that I think it assumes that Tether as an institution remains if the people who are running Tether are subject to criminal arrest. And that's what I was getting at originally. Same with Binance. It's kind of like, I think it would be insane for Tether to not be fully reserved because it's a license to print money. Why would you take risk? And so they should be fully reserved to accommodate any flows.

The problem is if DOJ comes in, like it's not as if I can point to a corporate charter for Tether to know that it will continue to exist. And I think the thing that shocked me about FTX was, you know, well, yeah, the finances were messed and just the lack of any corporate governance structuring or oversight. And so if you're in a situation where somebody has control of the assets and there's like weak governance structures preventing them from trying to protect themselves, and suddenly they are personally being put at risk, forget the institution, they no longer will have access to the institution. And so then their own kind of internal game theory would be like, well, I'm going to do what I can to protect myself. And that could cause a much more chaotic kind of unwind than what you've described. Yeah, I didn't mention this in my, like, Tether dissolution hypothesis. But I think the way it's actually instrumentalized would be the US law enforcement seizes the treasury assets at whatever the custodian is, I think some people think at Citibank, I don't know. And that kind of kicks off this whole thing, because then, you know, the redemption process is frozen. So at that point, assuming they have the treasuries, I'm going to assume that for now. Then it's kind of a sort of safer outcome, I guess, because the assets are immobilized, as opposed to the FTX style dissolution was the messiest thing ever because they still had access to the crypto assets for like two weeks after things went wrong. One sort of counterintuitive thing here that I don't know if it's going to play out the same way this time, but in 2017, when Bitcoin was trading around \$1,200, \$1,300, there was significant

Tether fund, so worries around Tether depegging. But what happens in those situations is that a lot of Bitcoin USD price feeds are aggregated from Tether pairs. So on a lot of websites, it will look like Bitcoin is mooning when Tether is collapsing. And in my opinion, like, that's one of the things that may have contributed to the 2017 bull run. Bitcoin just went super strong because as Tether was getting flooded, more capital got drawn into buying Bitcoin because they thought that Bitcoin was moving. So we don't necessarily know what Tether fund looks like in practice. It might be people escaping Tether into Bitcoin and also people just seeing that the Bitcoin price is on a run again. So the overall impact on the industry, I think it's worse in this case because Tether is much more intermingled with DeFi and other parts of the ecosystem that it might be worse, but there's a multivariate situation where a lot of things can happen. Yeah, and I don't want to dominate this conversation, but that is another thing to note is if you are a Chinese national that holds Tether because you want to hold funds outside of your local regulated financial system and you want to liquidate the Tether, I suppose you could go back the way you came, like with these OTC markets back to Yuan or something like that. Those markets have been shut off these days. The other thing I would do would just be go to Bitcoin. So if there's \$80 billion or \$60 billion of Tether and it's trying to unwind quickly and there are some people that want to channel out of Tether that's not maybe whatever the settlement process is, some of that is into Bitcoin, I presume. So that's kind of one of the weird possible upsides for that thing. It's like what's happening with Unchanged, right, Drew? I've been very quiet because I actually have no idea what you guys were talking about at the time. It feels like I'm in a completely different industry where I want to say we're isolated, but we're distanced somewhat from this kind of mania and contagion. I do think, I hope, that to Alex's point that this would be a disaster if huge institutions like Binance and projects like Tether or whatever unwind. I'm hopeful, like it sounds like Nick is, that the consequence of that could actually be positive for Bitcoin and that's where a lot of those positions would want to exit too. I do see anecdotally in our own business a great time of growth. Unchanged is very focused on Bitcoin and security and collaborative custody, again reasons why I feel somewhat distanced from this stuff, but it's definitely causing people to reevaluate their prior risk positions, like take a step towards custody that maybe they weren't making before. I feel some positive outcomes from it too. Like all businesses in our industry were also affected. It would be better if the price were up instead of down or hanging out at 15, 16K, but I'm actually in a very positive mood, to be honest. I think there are collapses in the past that have been harder for us to deal with. This one has been, and I think it casts a lot of the work that we've done in a good light and it makes it clear why collaborative custody companies like I should also include CASA for sure, CASA and Unchained are, in fact these days, not even a small part of the ecosystem. There's a huge amount of Bitcoin in collaborative custody and I think it's underappreciated that that volume exists and how much there is. I think it's comparable to probably what's in exchanges, but it's the coin of sappers. It's not the coin of aggregated trading accounts that moves very quickly. It's a very different part of the ecosystem. While obviously I have my own biases and I think collaborative custody is a superior model for both individuals and businesses, I think exchanges should be in collaborative custody with each other, etc. I also recognize the reality of needing to service

hundreds

of millions of retail accounts that want to engage in small value transactions and need me to bundle that up in some way. I think it's a journey. Hopefully what emerges is a greater understanding of why keys matter and why things like collaborative custody can replace, I think, a large part of the conversation around proof of reserves and quell some of the urge to rehypothecate

wantonly that causes these kinds of manias. I'm not going to say there aren't other things also going on at the same time, obviously there are, but I feel like you guys are much more expert in that than I am. Yeah, I mean, this feels like a good setup to maybe discuss how the market structure changes or evolves in light of some of the contagion that we've seen. I think a lot of the top of mind questions is, can we leverage some of the native rails that these public blockchain networks are providing by default to create maybe a more transparent and aligned model, whether that be lending or custody, be curious to get your thoughts even how regulation plays a role here. But is this in the long term, if you are a long term believer, a net positive for how the market structure evolves? I often speak with folks who talk about like, well, ideally it shouldn't work this way that folks sign up for Coinbase accounts and don't have keys and there's massive rehypothecation and a rebuilding of all the sort of usurious and sort of perverse structures of the traditional financial system. Everyone agrees that that's not what we should be doing and yet a huge part of the industry is engaged in exactly that activity. It feels like it takes some collective will to decide to just ignore all that stuff and not even look at it and then focus in on things that are perhaps slower growing but more sustainable. Like I think from my own perspective, my business has grown reliably for many, many years. We have our own struggles as I've tried to articulate but I'm in no danger. I have no worry that we'll go away. We're important and we've been conservative and we're safe. I've now watched huge businesses rise and fall in the many years that we've been at Unchained. For me, it's a lesson. I think it is for some other people but I also know that people are like the neat sort of the especially since so much of our business is driven by people coming from traditional financial services, the idea that you would not want to rehypothecate client assets in some way feels crazy and to constrain yourself or to try to build a financial business that doesn't do that at its core feels like what's the point of doing that. I think there is a point. I think it's valuable and I'm trying to show that but it is easier to not do it this way. I sometimes worry that no matter what we have these waves of whether

they're hacks like Bitfinex or Mt. Gox or massive overexposure to risk and rehypothecation, the pattern

will just keep happening. The pattern will keep happening until perhaps enough individuals see the pattern for what it is and choose to exit it by not chasing that I don't know whatever 10.5% yield or whatever was offered and realizing that maybe in Bitcoin they're sitting on an asset that grows at 100% plus a year annually over historical time periods. What's cool about our industry though is how open and free it is and you can build these things or mostly seem to build them and they mostly work. I also feel like it's hard to get innovation without waves of speculative manias and stuff like this. It's maybe an inherent disease in our industry that we just have to I mean that's maybe why we use the word contagion. It's something we just have to learn to inoculate ourselves against that and now I'm in vaccination analogies. I really lost the thread now oh man. Well and I think the protocols are inoculated the true protocols right like

Bitcoin hasn't stopped doing its thing, Ethereum hasn't stopped doing its thing.

If we look at Ethereum DeFi those got repaid a lot of those lenders got repaid first over the only lenders that were repaid. I don't think of Luna as a true protocol or perhaps it was a truly badly designed protocol and it did exactly what it said it was going to do right and it spun up and spun down and that didn't protect consumers but if you studied it I think it was clear that that was inevitable. So in terms of does this improve market structure I see it as there will be increasing shift towards decentralized protocols over time as they sustain and then from there like the reliable centralized providers will continue to increase their market share if I look at Coinbase and Kraken you know like they've been around for a long time they've proved themselves through many cycles. I think you see Fidelity stepping in here and recognizing some opportunity and Abby's a true believer in crypto. I don't think she's a day tripper and so I think Fidelity or some more traditional finance centralized names will come in and so we'll have a coexistence of the two but on a relative basis to the existing system we will have more people in permissionless open source structures than prior. I want to ask a follow-up question to you Chris. I see some of that vision too. Do you think when Fidelity is a larger player in the Bitcoin market that they'll inevitably turn to rehypothecating the Bitcoin assets that they help custody or do you think they'll avoid doing that somehow? I think they would do it if the consumer asks it of them and they can do it safely right so I think that businesses like product-driven businesses will generally stay closely in touch with their consumers and there will be consumers who will want yield off of their BTC. I don't think that Fidelity is going to provide YOLO yield like what Celsius provided right but do I see a world where clients might get 1 to 3% yield off of their BTC from Fidelity through taking limited risk? I think that's a possibility if the consumers ask it of Fidelity. I mean conceptually like collateralized lending against Bitcoin should be easier than against other assets right like as in it seems like you should be able to design like a safe way to collateralize the lend assuming a deep enough market. Maybe that's the difficult assumption but you know I don't think rehypothecation is itself the the the ill it's the it's the kind of doing it under the covers without letting people know that's the ill. Yeah I mean actually a good portion of Fidelity's business is securities lending they don't actually expose clients to the returns from that they internalize those. I couldn't tell you the precise breakout but that's actually a material revenue line item from them. I think you know the difference between Fidelity and FTX is just Fidelity's an enormous asset manager I think they're they have 7 trillion AUM you know so they have the balance you to stand behind any product that they create if there is a shortfall they're also you know just much more accountable and obviously like 100 years old like serious institution and so anything they did would be contractually straightforward. I don't know if they plan to get into that into any any kind of rehypothecation. I think it would probably be unlikely because they tend to understand the ethos of the crypto community pretty well. You see an answer your question though one thing specifically I think that's going to happen would be the you know crypto exchange environment will look more like the legacy exchange environment with the particular disintermediation or rather like decoupling of key features so custodians I see as potentially becoming independent of actual exchanges or marketplaces I don't think they have to be vertically integrated anymore in the you know traditional sense so like B&Y Mellon for instance they're a custodian they're the largest asset custodian in the world they're not

an exchange they don't plan to operate an exchange as far as I know you have other dedicated custodians like Anchorage and I think you'll actually see those two functions get teased apart a little bit. There's a lot of entities that would not be comfortable collateralizing their funds on an exchange like Binance for instance but they want to trade there and so you'll see prime brokers emerge for the first time they are now and you'll see models where you're collateralizing with an institution that you trust and you're able to get access to a venue that maybe you would never care to you know leave your funds on that venue so it's just much more similar to the traditional finance model I think that's kind of where we're going.

From a regulatory perspective or you think that that's an operational efficiency perspective or as in like that's the way you have to match the desire of the market given the risk. Yeah I think it's just a market driven phenomenon. I do also think that you know as we see as we enter this new legislative session here we'll finally for the first time get some some regulation which which covers spot markets and I think that effectively raises the barriers to entry for the big income for well crypto exchanges that are onshore and so it entrenches the advantage of the coin bases, the Gemini's and of course you know any of the legacy asset managers that come into crypto and it makes it much harder to start a new exchange and so I do see concentration probably in the onshore market but it also makes it more palatable to you know traditional asset managers or hedge funds that we're just not able or not willing to touch the crypto markets in the first place. And sort of to answer the question whether or not DeFi is going to rise from the ashes out of this I think you know temporarily the DeFi industry is also weakened by what has happened. I mean everything that's a bit more flashy and fancy or you know we're taking a few steps back with the industry there's no way to go about it differently. This is going to hit the DeFi industry as well even though that Ave didn't fail, Compound didn't fail. I think most of the general public when they think about what's been going on in crypto is that all the centralized entities fail that most of the smart contracts exploded. It's hard for them to sort of make a distinction and say that oh but actually the high quality DeFi products they were okay and right now there's I think everyone is trying to avoid risk. People are recalibrating their calculations when you think about yield. Everyone was chasing you know four percent, five percent, six percent yield. Now I think there's going to be probably less demand for yield and that does impact also DeFi. In the long run I mean I hope that when you think about Compound and Ave if something were to happen like

if the situation for them got more pernicious and it would have been more transparent in the protocol

I mean their entire lending book is on chain. You can see what's going on there. You can see which sort of collateral types they have with BlockFi and with Genesis. We didn't know whether or not they had taken on like given out loans to three hours capital that were undercollateralized or overcollateralized. That sort of policy changed over time and there was no clear way for us to monitor that. So DeFi does have like a strong case for itself here but I think it's going to take time until the market sort of recovers out of this immense trauma that it's currently in.

What do you think needs to happen to regain that trust and build momentum? Do you think it's really just a function of time or are you looking for some specific triggers that effectively corrects the mess that we've been in? Interesting to see what people think here. I mean obviously we're a step down from where we were in October but I mean obviously a huge part of this is just the issuer of the World Reserve currency just like tightening the crap out of the markets and

squeezing anything that's remotely speculative away from being able to function and they appear to continue to want to do that. So I mean it seems like it'd be surprising if there were any sort of big comeback especially in like the tokens until the Fed is I think forced to pivot. One thing I'm looking for would be the emergence of DeFi lending that's able to lend uncollateralized in a more credible way in a way that's more aligned so you avoid the principal agent problems that plagued the CFI lending model where basically you had at all of these lenders you had folks that were incentivized to originate a huge amount and risk management was not prioritized as part of those business models. There are hybrid structures now which look which you know there's legal wrappers so lending is occurring on an uncollateralized or under collateralized basis but it's the mechanics of that lending the infrastructure is all on chain so the counterparties the interest payments alone is all being done on chain so that's all transparent. So it's a hybrid structure in that you get some of the laudable transparency of conventional DeFi lending plus the capital efficiency of CFI lending. That is a sector that I think should replace the black box CFI lenders. I mean there will always be CFI lending but I would like to see that emerge. There's clearly going to be a demand for capital that's not going to go away. People aren't going to stop wanting credit but we can't move forward with the same Genesis BlockFi style approach to lending that we had historically. No one will trust those kinds of institutions. How are you approaching lending on unchain? It's an interesting time. I think everyone is just afraid of providing lending capital to crypto anything right now like I think Eric was making the point that it's hard to distinguish successful DeFi projects from unsuccessful ones or from failed centralized companies in the general public's mind. I think a lot of times institutional capital is not very educated on the nuances of what's different between Bitcoin and let's say a model like Unchains or DeFi or something that's just essentially centralized and based on trust like what we saw at BlockFi. There's just a major chilling period right now. It's difficult to get capital. It's our hope that things will turn around again and that hopefully as it begins to thaw it's the models that have survived that have continued to post reasonable returns with either transparent or clear and quantified risk management. I think those hopefully can then start to attract serious investment again. It's clear that credit is really a valuable tool to build ecosystems and economies here in crypto land and we have to learn to leverage USD credit. A huge part of the history of the next 20 years is wealth moving from dollars into Bitcoin and cryptocurrencies and credit is a major vehicle through which that happens. So we need those capital providers to help us build products that incentivize and enable all of this. They're just really scared right now because they can't distinguish between the class of protections that they thought they had when they were making investments in FTX and the slightly differently provided class of protections that they get when they're working with an Unchained or with a DeFi lender or someone else that focuses on keys which I think is also part of the underlying story here is keys and photography and collaboration and being able to do it through a blockchain and therefore publicly. I hope it turns around very quickly. I guess my response to Yasin's question is it's great that this happened. No, as in if FTX had skated this cycle somehow, right? Like if they had gotten by and maybe you could argue that if there's rot in the books at Binance we should be rooting for it to collapse as well because the industry is still small enough that the underlying assets, the decentralized assets actually have a really nice bid here given the

scale of the unwind. As in Bitcoin has been remarkably unvolatile and as has Ethereum and it's because it's like peanuts relative to the global financial system. Like the whatever the whole in FTX's books ends up being \$10 billion, Bleemann was \$1.2 trillion. And so you don't need a lender of last resort because you have like much bigger institutions that can be like, oh, this is a strategic area we were thinking of getting into. This is our opportunity. Or you can have a sovereign who's like, this is a strategic asset for us that we understand is going to become geopolitically useful. And we just have a bid at a price. And so I think that for people that have been touched by it and lost money, it sucks. And I know a lot of people, I think part of the anxiety and angst around it and the looking for the next shoe to drop is a lot of people that were really passionate about the space have been set back to zero effectively here. And that does not feel good. And it's like better now than next cycle when these entities could have been 10x larger. And the unwind would have been that much messier. Brett, I think you bring up a good point, particularly around both the volatility and the fact that better that it happens now also in the depths of the bear market, like this wasn't at the top. We saw the Terra Luna collapse. We saw the Celsius contagion. And this was obviously connected to it. But I've been pleasantly surprised at how the broader price action has responded to not just the FTX collapse, but the broader uncertainty. Maybe we can touch on that a little bit. You guys are actively monitoring these markets to varying degrees. What do you make of the low volatility on Bitcoin? And the fact that it really hasn't broken any major market structure or trend. And you can argue that the FTX collapse is the most damaging, at least reputationally event in crypto history. This feels like a good sign. Or am I missing something here? I think around six months ago, someone asked me about my bearish case for crypto, like what's the worst thing that can happen. And we talked about what does it look like in a max contagion scenario. And I said, well, in that case, obviously prices can be pressured way down even more. But I think at some level, and I threw out to me like a random number at the time where I think that the floor would sort of be, and I said at 15K below the blue ribbon. Yeah, right below the rainbow. The reason that I thought that there was going to be some type of floor is that I think that there are, like you said, there are institutions that are watching the cryptocurrency space that when they look at the valuation, how cheap it is to enter Bitcoin and build out a sizable position, they aren't necessarily driven by the same hysteria or nervousness as other market participants are. And if there comes an opportunity to just go in and Bitcoin and build out a big position, that is going to be able to absorb a lot of the nervous capital they're trying to exit. So I think that regardless, I mean, of course, things can get way, way worse. But I think that there are entities that have been sitting on the sidelines waiting for exactly something like this to happen. And they are showing their strength here. Yeah, I've been really impressed actually by Bitcoin's support, so to speak. I mean, FTX was a third largest exchange worldwide and completely collapsed, one of the largest financial frauds ever. Congress is bringing fire and brimstone regulators worldwide are going crazy about it. There will undoubtedly be some hostile government actions against crypto as a response. That is, the market's internalizing that information and yet we're still here at wherever we are at 17K. The miners are all bankrupt basically out of business. They preemptively sold their coins to try and pay their bills. Another thing that also I've been thinking about is FTX basically took client deposits of Bitcoin and ETH and other things

and just went on a shopping spree with that. So those coins were spent.

They were recycled back into the market. Yeah, can you unpack that a little bit? I think that's a widely sort of misunderstood reality of the market that FTX was just basically selling Bitcoin and claiming that they had Bitcoin that they didn't end up having, which may in one way or another have been artificially deflating the price.

Yeah, I mean, they took real Bitcoins from clients, depositors, and gave them a paper IOU for the Bitcoin and then took those Bitcoins and spent them on real estate in the Bahamas, political donations, and \$5 billion of venture capital. And so then those Bitcoins ended up back on corporate balance sheets and were presumably liquidated to fiat. When you take investment, you take venture capital investment, typically you just hold dollars. So it's my kind of mental model here that those Bitcoins ended up through that circuitous route back on the open market. But meanwhile, they have a Bitcoin-flavored liability that they owe their clients. So I think that is kind of an artificial additional sell pressure. I mean, I'm curious for others' views on that. Yeah, I think that would have been an extra X-many billion dollars worth liquidated that wouldn't have been sold otherwise. I remember having this conversation with you, Nick, I think 2019 where we sort of identified that the exchanges are going to run fractional reserve under the hood in many cases and there's going to be like the M2 Bitcoin supply is going to expand. And we discussed then that the largest contribution that we as individuals could potentially

have on society would be to shame Bitcoin institutions to apply proof of reserve schemes.

So that's when we sort of started this campaign to use, Nick set up the website that's on this personal website for the proof of reserves Hall of Fame. So I mean, this has always been like a huge risk to the industry that a bunch of Bitcoin IOUs are going to flood the system and keep the price pressure down, even though we have a fixed cap in the protocol that has to be respected

in the layers above. And one way we can do that is sort of through proof of reserve schemes, I think. And also what Nick mentioned, I think is absolutely true that we are probably going to see a consolidation of custodianship in the industry where it's going to look more like traditional space where matching engines can be of different flavors, but custodianship is more standardized and more scrutinized. And for that reason, it can be both a good and a bad thing. Like if you centralized everything in specific custodians now, those are potentially more well guarded and highly scrutinized. But if they explode, then that could be an even bigger damage. It's the same type of problem that you have in traditional finance with central clearinghouses where there are some people that consider them to be good and others consider them to be even more centralized in terms of the damage that they can create. I guess I have a question for this group. Is there an on-chain indicator for Bitcoin that is not in deep value? Like I don't know of one. Like when I look across and I don't study Bitcoin as closely as a lot of the people on this call, but like when I do my reviews of BTC, I just see deep value basically everywhere. And so then I ask myself, okay, I'm like, this is the bottom or the situation is materially different and we will sit like a new level of deep value. And so if anyone knows of on-chain metrics for BTC that are not in deep value, I think that would be interesting to hear. Yeah. Longer term, whether it's the market cost basis of Bitcoin or you're looking at like the realized profits and losses, all of them are in extremely oversold conditions. I think one thing might not be necessarily deep value, but broader activity is still muted. So if you look at active entities or transaction volumes

or active addresses or net new growth and addresses, those are still in quite sort of bear market territory. So I mean, that's what we're sort of looking at is I think we need a breakout there of people actually using Bitcoin in the same way that they did in a bull market before we see recovery. So while from a sort of relative price standpoint to cost basis, we are in deep value. We are in deep bear market when it comes to actual usage. That makes sense because, yeah, when I just, I guess, reflect on where we are in terms of pricing and within, say, intuition and more gut as opposed to trying to overthink it all, it reminds me a lot of just the sentiment around 3K more than the sentiment around 6K. I don't know if you remember this dinner, Nick, but I was at a dinner with you, I think in New York in December of 18 that Fidelity brought together. We're in a really dark room and there are a bunch of heads of state. There's this one guy who had a very compelling case for why BTC was going to 1500. Sorry, and I shouldn't not heads of state of the traditional system, I only think in crypto terms. So heads of state of crypto institutions. But there's this guy there who was like, Bitcoin's going to 1500. And he was like, so fired up about it and had every single reason why. You already spoiled it now, Chris. We know that you and Nick went together with the World Bank, CEOs, and decided that the price of Bitcoin is going to be in the future. Right, exactly. This is how the whole system works. Anyway, it's good people know. But no, like, I look back on that and it reminds me of where we are now where like, you know, relatively muted cheerleaders, you know, majority of people saying we're going 50% lower, and I'll start buying there. And across the board metrics are in deep value. I think the only, my like, basic expectation is that we get off the floor here. And then if, you know, equities take us down again at some point next year, we would retest the lows for BTC. And I would have to be really bad for ETH to go back to its mid 800s low from June of this year. And so like, I'm more set up for that reality. If the world gets really bad, then sure, I can see BTC 10 to 14k. But like, the only thing that I'm seeing like data wise that makes me concerned about that is a technical indicator. And that would be how long BTC has been beneath its 200 week, and it's just getting rejected on the weeklies. And like, I don't love that. And so that's new territory, right, where I have to ask like, okay, historically, we've just bounced through the 200 week pretty quickly. Now, that's just a technical indicator that is very reflexive. And so I don't put a ton into it. But it's there as like a reliable bottom in bear markets past that is not working right now. But Chris, your portfolio is not just exposed to these, we've mostly talked about like, decentralized, like truly, like, we all understand they're decentralized assets. But, you know, in the, in the, the selling of Bitcoin and replacing with IOUs, FTX was buying some set of things with a less float. And so it introduced like a lot more leverage on that by pressure, including everything that's, if this is decentralized, like more centralized, including kind of the Solana stuff, and associated ecosystem coins. Are you, do you feel, yeah, just so it seems like, well, maybe that was like artificially inflated. What's the, what do you think? So I agree that Sol went higher last bowl because of FTX, but I disagree that Sol is cooked because FTX is gone. Like, Sol's drawn down 95% here. Like, you can argue that like the phenomenon that ETH went through in 2017 of a bunch of people buying ETH and locking it up in ICOs and that leverage machine sent ETH way higher than it should have gone. And that didn't get to happen again in 2021. And so there was a different leverage machine, which sent Sol sky high. And then now Sol's basically where ETH was in, in the bear of 1819. And then I, you know, I spent a lot of time with the entrepreneur side of things. And what I like about Solana is like, people nerd out on that network. Like there's a lot of people who hate it, just like I saw a lot of people hate Ethereum

in 18 and 19. But there's a lot of people who love it and who nerd out on it and want to optimize it and are building new things or like these teams of like two to three Uber nerds who are just like bootstrapping everything they can. One I just talked to recently would be tensor.trade. Like it's built by two people. It's one of the better NFT exchanges I've seen all built on Solana. And they just nerd out on the system. And so like, I see a lot of examples of that within Solana. And I think that actually after BTC and ETH, Sol is most used in an internal economy of any crypto asset out there. And so like, I think it's a ways from being able to make money-ness claims. But like, I see ingredients where like, I think that Sol could have a large economy running on top of it. And I think that Sol could be a widely used native asset within that economy that's not just speculative. I've been going around asking people, so do you think that Solana is like, do you think it's reputationally bankrupt? Like is Solana dead now? Or is it still cool? Does it still have something? And the overall sentiment seems to be that there are some people who think, you know, Solana had a bunch of outages. There was one guy that built like nine different Solana DeFi protocols and just funneled capital between his own protocols. But there are also a lot of people that think that Solana is starting to look like a good buy. And it's going to make a comeback in the next bull market or even may like still plow through this bear market. So the jury is sort of out on the future of Solana. I'd say it hasn't been like the, what do you call it, the judge hasn't called the bell yet or how you say that phrase. I think what matters most for me is the core set of believers haven't been shaken out. Like, and this is where I go back and I look at what happened after the Dow hack. After the Dow hack in 2016, that was crisis in Ethereum. Like a lot of people came out of the woodwork and were like, look, nothing on Ethereum will ever work. The smart contract surface area is too vast. Like, haha, like told you so. Oh, there's like this new Ethereum fork, Ethereum classic, that's going to eat Ethereum's lunch. There were a whole bunch of accusations. ETH sold off horribly, end of 16 sucked. But like what I saw coming out of that was like doubling down of conviction by the people who really cared, reformed policies, I would say, amongst a bunch of the builders that ultimately led to better things being built. And I think that like the Solana ecosystem took an absolute shellacking this year, like the worst of any ecosystem. And the fact that you have like the community there taking it in stride and being like, how can we learn from this? And actually, a lot of people relieved that the cancer of FTX is out. Like what we were just saying about FTX for crypto at large is even more so the case, I think for Solana, where I see FTX in Alameda as having been cancerous. Like it grew really quickly, it metastasized quickly, but then it became dangerous to actually like the future legitimacy of that network. And so that now being pulled out, I think sets a foundation for Solana to be a lot more legitimate. And then I see the things of like Aptos and Sui as actually being derivative of Solana. And so like I see Solana as having been an original in what it did in its like set of trade-offs. And like there's a lot of people who disagree with that set of trade-offs and say like, oh, it's not quite a blockchain or like they don't quite get the principles of crypto here. And I get that and I went through that whole arc, right? Like I studied Solana for one, two, three, four, five years before establishing a position. And I went through the whole arc with it. And I think what changed my mind is that there's like a core set of developers and users who actually prefer that ecosystem to Ethereum. And it's more natural and native to them. And so unless you think that like Solana itself in its architectural design will not be able to

scale. And I think that's like a worthy conversation to have. Like then I think the other normative arguments, they have to be discounted because there's a pretty big set of people who actually will take the other side of the normative argument or the ways in which Solana speaks to them that Ethereum doesn't or Bitcoin doesn't. Yeah, I suppose, you know, there's always been a market domain for the minimally decentralized blockchain that does smart contracts. It's always been, it used to be EOS that didn't really happen. And then Solana came and took that position. And so the question is like next cycle, is there going to be something else that takes over that position or is it still going to be Solana? And I think that I agree with you that it might still be Solana, at least for a part. But I mean, the evaluation of Sol itself has been, that's always been sort of a weird thing because if the value proposition of Solana is that on this blockchain, you don't have to pay a lot of gas for transactions like \$20 and it'll give you a lifetime of transaction capacity in the system. Then like, what's the value proposition of Solana if it is like a gas token? Do you then have to think about Solana? Like, is this also sound money? Should it have a monetary premium in the way that Ethereum does? I think that all these things have sort of become relatively valued to each other. It starts with Bitcoin and then Ethereum trades as a valuation factor on Bitcoin and then Solana trades as an valuation factor on top of Ethereum and it goes through this whole chain. I don't want to make an assessment on the Solana price necessarily moving because there might be an overall recalibration of those monetary premiums that have been misallocated in the market potentially. But that's sort of me assuming that the market is going to be smarter than it usually is also. Yeah. Well, and I think there's interconnection. I've looked a lot historically at ETH BTC and I increasingly look at Sol ETH as like an interesting indicator of that type of risk appetite. Specific to like Sol as money, I would look to the NFT ecosystem and actually if you look at like the NFT ecosystem within Solana, it's not that far off of the highs of last year. Not in dollar terms, but in Sol terms and users and transactions. And it's the second most active NFT ecosystem out of Ethereum. And in that environment like Sol is your purchasing unit of power. And so whether that unit of account grows to be big enough to be like globally relevant, I think is TBD. But I think that's a pathway for Sol to accrue value. And while Sol DeFi got hit, even like the hardest of anything, I also don't see people giving up on Sol DeFi. We work with Orca, which is basically like a uniswap of Solana. It's an extremely good user experience. And then there's others that are continuing like Marinade for liquid staking of Sol or Solen, which is like a combination architecturally of Compound and Aave. Those things are continuing. Solen probably went through the rockiest road, but they're not winding down. But you guys missed out on trump cards. You missed this. Polygon got the trump cards. And I think the method of Instagram and FTX also went to Polygon. So Polygon is still like doing some insane business development there. That seems like the biggest enemy. So I think that Polygon is the most credible competitor to Solana. And this is where I'm definitely a pluralist in my approach to blockchains. And it's funny for me to be here arguing for Solana. But I go bear to bear market and I try to support the most credible underdogs. And for me, last bear, that was Ethereum. And I still am very long BTC and ETH. That hasn't changed. Those are there. But for me, those are established. And I work with a lot of Ethereum teams across our portfolios. But then it's more interesting for me to support the rising stars of Cosmos and Solana. Because there's a lot more tension and disagreement. And actually, my effort in those

ecosystems, I think, means more than my effort with something that is already agreed upon winner. But that's more of a disposition thing for me personally.

Do you think that whatever happens under the regulatory front, this is for anybody, but is more likely to maybe unintentionally, but totally impair the NFT side of the whole ecosystem? Or is it going to be so focused on currency as a monopoly of government that it'll lead to? It'll leave that stuff alone.

I think NFTs are too far out on the curve. And they're too weird.

First issue is the fungible securities and violating OFAC.

A golf membership can be a security contract. It seems like if you're going to start defining, there's going to be some definition that's more strictly drawn between these are securities and these are not. And I suspect that the definition of securities is going to rope in everything, certainly Apecoin, but everything suddenly like a concert ticket that has an NFT attached is going to be a security. Isn't the SEC still investigating Yuga? That hasn't ended, right?

So they're still looking at that. So obviously, if that proceeds, that would cause a chill, at least for people building in that space in America. So I would be following that pretty closely, I imagine. Apecoin, I think, is nakedly a security or at least ought to be regulated as such. Abort Ape, though. You may have an expectation of profit, but I don't know how you would characterize

the efforts of the third party to make it be worth something. I suppose you could say this promotional work there. Generally, the conversations I've had with policymakers is they are very focused on DeFi, very focused on the large cap liquid crypto assets, super focused on the exchanges themselves, and NFTs are an afterthought for now. Also, NFTs, this is the possibility to actually build, it's a cliché, but build quote-unquote utility into them that you can potentially tease out and extract the speculative element from the actual useful element. NFT is just a serial code that exists on a blockchain, and it can attach any type of claim or property to it. And certainly, we're seeing actual uptake, like Fidgetles is a very popular thing where you have a physical, collectible, handbag, whatever, and there's a chip inside of it and it links to an NFT. And so now you have a digital physical linkage and you can flex your handbag in the metaverse or whatever. Or you can go to the stadium with your shoes, with your little chip in them, and prove that you went to the game, get some additional little rebater incentive or something like that. So, NFTs, I find it plausible that in the years to come, you could attach meaningful utility to them such that you can ward off to a certain degree the negative regulatory attention. For me, it seems like it's much more focused on sort of logcap liquid crypto.

Yeah, I guess I'm wondering if because the focus is there, the rules will be written in such a way that suddenly there's all digital assets get bucketed under a set of rules that's designed really for the currency side. And so because Apecoin is a security, then it's like, well, is board it really, I'm counting on them to make a game that my board it can play in. A lot of it, like the end state is we're having to get social security numbers in order to buy concert tickets because it has like a digital asset attached to it. Like I don't think it's like a happy end state, but I do wonder if that's like potential regulatory damage.

So just people and other jurisdictions will build this stuff. Like if the US does that, like I think it's particularly noteworthy looking at what's happening in Nigeria. I mean, this is a huge country. It's going to be the third largest country in the world in like 30 years. They have a massive crypto native population and the government banned banks from dealing with

crypto exchanges. So essentially, the government tried to like kill Bitcoin and cryptocurrency. Didn't work at all. They're completely unable to control that. And you've seen companies pivot and innovate and it's kind of staggering. So I do think if the US has these like comes down with these harsh policies, people are just going to move elsewhere. So I'm a little I guess I'm a little more bullish on that. I mean, obviously not bullish. If you're like a US company, you can't move that sucks. But for the developers themselves, I think there's there's some upside there. Yeah, the regulatory arbitrage is huge. And maybe I'm too casual about it. But I just kind of look at the regulatory position right now as shooting an elephant gun at a swarm of locusts. Like you take out specific locusts, but like the swarm just continues. And like, okay, you might drive the swarm off of like one continent, but it's going to go to like all the other continents. And then also just the rate at which the the policy system moves is so much slower than the rate at which crypto moves. And I think that like every inconvenience or like every ill thought through policy will be innovated around Chris does does that what happens to between the US government and tornado cash? Like does that reinforce your optimism here? Or what's your take on that? Well, I mean, that's one of the single most concerning things I think that happened this year. But I don't think that like, I like, I think what'll happen as a result of that is like, you'll get a bunch of a non launches of that type of tech. And like, it'll be by by people who are extremely savvy about their identity and privacy. And we might go back to more launches like Bitcoin. But like, the more authoritarian the state becomes, I think the more you'll have rebels who are like, Well, screw that, we need alternatives. It's like, people sometimes think, Oh, these things arise coincidentally. But actually, like the rise of one thing, let's say more authoritarianism will accelerate the rise of dissident tech. And so even though crypto has been like a lot about speculation and say, disappointing for a lot of like true believers, ideals of late, it's still brought in a lot of capital, a lot of talent, and I think people are more capable of shipping like truly dissident tech, something like and not that tornado cash is dissident tech, but like tech that preserves the privacy of the user regardless of what some state says, I think that will become more common if it needs to and the deliveries will be more anonymous. And what's your read on how the Ethereum community is going to like diffuse these risks? I mean, obviously, there's a bunch of people who are trying to figure out how to make the base chain less compliant. I mean, what's your favorite team or group of people that that have sketched out a blueprint of maybe how to how to fix that? Is there something following there that's interesting? So I think the specific of this question is around the the validator compliance, right, and how blocks are being submitted, and whether they're getting censored in line with compliance or not. I don't have a good answer for you there, unfortunately. I don't, I would be shocked if Ethereum fell into wholehearted compliance with say the United States. I think if it did that that would be bad for Ethereum. I would expect though, and this is where like the competition and rate of change within crypto is so rapid. If Ethereum did that that's such a dire mistake, it opens up the opportunity for a more dissident smart contract chain to be like, okay, everyone who disagrees with that, you know, come and build on us and come and use us. Eric, do you have a take there on that? It's of course, not a great thing to see that 70%, 80% of blocks are being created with OFAC compliance in mind. But it's also a testament to that there's some level of decentralization in the architecture of Ethereum, even though they put our developers in jail, even though that DeFi protocols are running over themselves to comply with OFAC, like even though all of that has happened, that even though currently in the

current construction of Ethereum, MEV has created centralization in the block building process so that there's like one big actor that's responsible for creating most of the most of the blocks and that actor also happened to be one that very quickly or even before this happened fell over to complying with the US regulation. Even though all those things happen, tornado cash transactions still make it into the Ethereum blockchain faster than Bitcoin blocks happen. And that's, you know, if the arguments that Bitcoin Maximus were saying about Ethereum were true, that it's all controlled by Vitalik or a centralized actor, Ethereum wouldn't still be processing tornado cash transactions at the rate that it does. So I think that while we can definitely point fingers at what's gone wrong with Ethereum and that there's inherent risks with proof of stake in terms of centralization and the potential that it might be co-opted by governments, you know, we also have to respect or admit that there is also a level of decentralization there that hasn't collapsed onto itself. Drift would Unchained ever use Ethereum? No, we wouldn't. That's an easy question to answer. But just to build on that point around dissident software, I think it's something I think about a lot in terms of Satoshi, I think, gave something about a masterclass in how to launch something anonymously and successfully. And I'd argue that a big part of the success of

Bitcoin was that it wasn't just software that was launched. It was a marketplace like for hash rate exchange for Bitcoin. It spawned an entire ecosystem of people who could make money they felt if they supported it. And so it grew much beyond what Satoshi originally designed. I think about like so much of how that mission has to continue. Like I think Eric, to your point, it's actually really admirable that despite certain OFAC weightiness that we're still seeing tornado cash transactions come through that's encouraging. But obviously, you probably know as to others in the call that there's many layers to any such transaction. It's not just the blockchain, it's the very internet that chain communicates through. I think about what does it take for us to write software that motivates people to build that stack all the way from scratch? You know, the mesh networking, like the putting themselves at risk in the physical world by advertising their presence through a mesh network that allows dissident communication. To me, it always comes back to in order to incentivize them effectively, the money has to be really good. And it's part of why I struggle with generations of chains that try to optimize. I like how you put it, Eric, where it's like they sort of act as a follow on to the project that came before or a sort of refinement of it or a subset almost of it. Affinity scam is another word. Sure. Here, I wasn't sure how hard to lay on that one. But I can see in the next iteration, you know, things that take from Solana, all the things that were interesting, and just apply it to whatever is very sexy at that moment in time three years from now. Maybe it's, you know, it's not, it might not be NFTs or ICOs, it could be a new interesting social behavior that is crazy, something related to AI or SIMPDOWs or whatever. You know, I think there's, I worry about optimizing and creating more and more,

you know, minimally decentralized projects to maximally achieve some very concrete and narrow use case when it feels like the more productive approach for the whole ecosystem is to force focus on wide broad-scale Bitcoin adoption because that really drives, I think, it seeds the world with the ability to put out truly disruptive incentives. I also just, I just to throw some optimism here. I don't even know if people need the monetary incentive. I met this incredible young entrepreneur from South Africa who has figured out a way for people to use Bitcoin over USSD, which is basically like a text message little pop-up that can work on a candy bar phone. You

don't need internet. Obviously, there's, there's initial risks in what he's doing. He's working with it. He basically a license from a telecom and he's custodian. He's custodian the Bitcoin, but it works at scale for thousands of his clients and they're just using, they're just trading Bitcoin over, over, without internet. And it is just incredible to see this stuff happen all over the African continent. Honestly, the stuff I saw was jaw-dropping. I mean, I saw people who were working in Mogadishu in countries that most people haven't even heard of like Somaliland. I mean, people building communities in Cameroon. This woman I met, Muslim woman from Nigeria who's got like dozens of schools where they're doing Bitcoin education at the ground level. I just think so much of that is just not known in the West especially, like we don't know what's happening because it's such a numerically small percentage of volume of transactions. It doesn't even appear on any metrics. Like we don't, we don't see this at all, but it's like unbelievable. It is just staggering and it's happening. And I'm sure it's happening in some of these other communities too, but at least in the Bitcoin community. It is, it was a huge jolt, very energizing. I mean, people are, it is, it's very exciting, honestly. Love the optimism. I know we're closing in on just about an hour and a half. Maybe we can finish on another positive note and just go around the room and ask everyone, you know, what, what you're most optimistic about and all of this uncertainty. And is there anything that you anchor yourself to that helps you block out so much of the noise that we're seeing? Chris, maybe we can start with you. I'm anchored to the fact that these open data structures are the right thing to build digital society upon. And that's never going to change. And we're going to mess it up in a whole bunch of ways, including centralized and opaque institutions that are built on top of the open data structures. But the open data structures are going to stay open regardless. And we can go back and try again. And so within that, I would say going back to the basics, like was just being said, is, is going to be like a repeating theme that we go back to, of like, even just getting everyone in the world to be able to save in a reliable asset and maybe earn some yield, that will change how people think about their lives and their future if they go from spending, you know, daily income to saving a part of it for a better future. And I think that these systems have the ability to put a very powerful bank in every single person's pocket. And so those would be a few of the things that I remain super excited about. But the case for Bitcoin and Ethereum remains the same. If those things aren't exciting enough for you, you have trump cards and stable diffusion. I was just going to say the rise of proof reserves in the industry post FTX is incredibly impressive. I was just tallying it up today and it's like over a dozen exchanges have now done it last month. So we'll continue to refine that and then we'll get to a level of auditability, which is far superior to the legacy financial system. The other thing would just be the actual genuine institutionalization of crypto. So Fidelity launching retail right now, it's just Bitcoin, but who knows where they'll go. B&Y, Mellon, largest financial asset custodian in the world, finally getting into it. BlackRock now finally interested in crypto. And these are genuine developments throughout a bear market situation. So I would say all that's actually very encouraging. Yeah. And on Nick and Eric's point, I think the case for Bitcoin and Ethereum, it's not the same. It's actually quite a bit stronger than it's ever been. And that they are truly good, get rich, slow schemes that you can particularly Bitcoin. I think I have more faith that Bitcoin as an institution will be around 50 years from now than any other kind of, I think, political or economic institution that exists. And that's been solidified by this not diminished.

And so it really, in some ways, like I said, it's good that this happened now. It may not feel like it for a lot of people, but this is a good time for this to happen.

I can go next. I would echo that. I feel like I'm really excited about what Bitcoin's doing. I think we just went through one of the largest downward difficulty adjustments this past year, and we're still cooking along and the market is working. I do think it's also going to be a period if we do see government pushback coming soon, based off of an overreaction perhaps to FTX. I kind of think it could be interesting to kind of end up in the spirit that Brett was describing that we'll get to see how difficult it is to actually stop something that people are incentivized and free and open to do easily themselves. It's going to be really hard. And I think even making some failed attempts could be really educational for US lawmakers to see that this is not something that you can... This is a war you don't want to fight. This is going to embroil you for decades if you try to do this and just don't. I think that could be an interesting sort of detent that is reached between sides here. Yeah, I just... I think in some ways Bitcoin emerged because of government policy, because of the deficiencies in structural imbalances in countries and in the world. And those are only getting worse. And it's just driving more people into this technology, especially in the global south, but of course everywhere. And as those imbalances and inequalities get worse and you're going to see some really rough things happen, you've already seen a lot of rough things happen in the coming year or two, people are just going to seek solace in this thing. They're going to learn about it. I'm just seeing that. So it's very exciting that we have at least this plan B. So I continue to be very inspired and energized what I'm seeing out there. But yeah, I think it's going to be a big year. Incredible. Well, thank you guys so much for your time. I really enjoyed this conversation. I'm really grateful that we all had just a little bit of time just to speak about the broader market structure and the opportunities that lie ahead. So with that, until next time, take everybody. Thanks for having us.

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