

[Transcript] FYI - For Your Innovation / Crypto has been Thriving Amidst A Regional Banking Crisis and Regulatory Uncertainty: A Deep Dive

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Hello, everyone. Welcome to Arc's second crypto brainstorm. My name is Yusin Al-Mondra, I lead crypto at Arc. Alongside me is Arc CEO, Cathie Wood, and we are thrilled to be joined by quite the special group of guests today. There's never a dull moment in crypto, but I think the last month has been unprecedented in many ways. After a year of contagion, bankruptcies, and collapses, crypto appears to be positively responding to a global banking crisis. At the same time, US regulators are escalating their negative stance on crypto and what appears to be an outright coordinated attack. I think we're really living in quite the historic time now in crypto. We thought it would be great to bring together a group of some of the most respected operators and investors in the space for an open conversation about the current state of the market. I think this is particularly exciting because each of these panelists comes with a very unique lens. Lyn Alden, as a macro investor with a deep understanding of Bitcoin, has been really leading the conversation on this regional banking crisis and the Fed's decision making in the context of Bitcoin. Jeremy Allaire, as the CEO of the largest regulated stablecoin issuer in the world circle, has been successfully navigating this banking crisis and showing a continued commitment to openness and transparency. Paul Graywall, as the chief legal officer at Coinbase, has been at the forefront, pushing for greater regulatory clarity in the US and emphasizing the importance of fostering an environment for crypto to flourish in the US. Caitlin Long, as the CEO of the founder and founder of Custodia Bank, continues to fight to build a regulatory compliant bridge between the traditional US financial system and crypto assets. Angie Dalton, as the CEO of Sygnum Capital, has built a really strong relationship with US regulators working with startups and protocols to outline a regulatory compliant path to operating the US. Chris Berniske, partner at Placeholder Ventures and longtime crypto investors, has done an awesome job just highlighting the resilience of crypto fundamentals and why, despite this uncertainty, it's quite the compelling time to be an investor. And finally, Michael Sonenschein, as CEO of Grayscale, the manager of the largest OTC product, tracking Bitcoin's price and GBTC, has been trailblazing the path to a US Bitcoin ETF approval and rightfully questioning some of the assumptions the SEC has made in its decision making. So this should be a fun one. This is hopefully the most talking I'm going to do through this entire conversation. But thank you, everyone, for being here. And without further ado, let's dive right in. I think it probably makes sense to start with what's top in mind for everyone. And that's really the regulatory climate and the US's evolving stance on crypto. There really appears to be this growing dark cloud on regulation in the US after FTX's collapse. And now that really appears to be accelerating with the collapse of Signature Bank, of Silvergate.

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We got a Wells notice from Coinbase, rejection in Custodia Bank. So what do we make of all this? Perhaps we can start with you, Paul. How is this regulatory landscape shifting? What do you make of the current state of regulation in the US? Well, thank you, Yesenia. Thank you, Kathy. What I make of it is that the United States is in a very precarious position as we look out across the regulatory landscape, not just here in the United States, but around the world. And I think to understand that, it's important to understand not only what's happening with the SEC, what's happening with the Treasury Department, and what's happening at the state level, but also to compare and contrast that with what we're seeing in jurisdictions outside the United States and all over the world. The reality is that even as we continue to struggle to have basic rules here in the United States governing crypto, a basic framework that, for example, defines what is a security, what is a commodity, what is a currency, other nations, other jurisdictions are pushing ahead and doing so in a very productive way without sacrificing their own commitments to investor protection, consumer protection, and the like. But in a way that is also focused on promoting innovation, promoting capital formation, and creating a climate of certainty and stability that will naturally attract capital and attract developer interest. Just to give you a sense of how different the situation is here in the United States from other countries all over the world. Right now, we're seeing just in the last few years, the US's global share of Web 3 developers plummeting. It's now down to less than 30%, and there's no signs that it's slowing down.

We're also seeing jurisdictions like Hong Kong and the UK and Australia, and I could go down a long list, all adopting reasonable frameworks for regulation. And just as importantly, signalling clearly to the rest of the world, including two developers and innovators here in the United States, that we want you. We want to help you build. We want to provide that clarity and certainty that you need in order to be able to build. And we're going to work with you in a way that you're not experiencing in the United States, either at the federal or in many cases at the state level. So I do think that it is a pivotal moment for us here in the US. I think as a country, we're going to have to decide, is this an industry? Is this an innovation that we want to continue to lead? Or are we going to simply seed that ground out of some misguided attempt to address abuses in crypto with tools that actually have far more consequential impacts than I think anyone fully appreciates? So Paul, I'd love to know from you and from the other panelists, do you think there is sort of a higher level reason for all of this regulatory pushback? Is this coming from on high? The US is the reserve currency of the world. And could there be a fear of losing that status or even a fear of capital flight in some sense? Well, there's no question that the consequences, I think, could be as dire, Cathy, as you're suggesting. As for where it's coming from, I do think it's important to be thoughtful and selective in understanding the different types of regulatory pressure that we're facing here in the United States. For example, I would distinguish between the clear coordination that we're seeing in denying basic banking services to crypto firms, big and small, established and innovative here in the United States. That is, I think, all but operating in plain sight, if you look at the statements coming from the White House and elsewhere on that very specific issue. I think, separate apart from the banking question, we're seeing the SEC and others undertake their own efforts to assert jurisdiction and grab control of the primary role in regulating crypto in the US. I don't know that that's as much a reflection of deep coordination as it is jurisdictional primacy and a fight to establish one agency

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as the primary regulator over all others. I think one thing I can add from my historical perspective is that if you look back at the war era from World War I and World War II, there was a lot of increased capital controls and increased kind of national security interest in preventing the easy flow of capital across borders and things like that.

As we see geopolitics obviously heat up, we see the unipolar world we've been in for the past 30 years divide into two or more poles in the world. There's obviously a lot more focus on blocking those borders. I think that's one way to look at it from a strategic perspective. When you look back also at periods of time where large developed countries have very, very high debt burdens, they're often stuck in a position where they're running large physical deficits, they have very large debts. If they have positive real interest rates, then they have trouble servicing those debts over the long course. A lot of capital flight wants to go out into harder assets and then they end up trying to slow that flow in various ways. I think that's one kind of very long-term macro strategic thing to be aware of. Then, of course, you have on top of that the more securities investor protection focused thing, which I think is it's obviously overlapping in many ways, but it is somewhat of a different focus. The same invention that allows for peer-to-peer money now allows for peer-to-peer securities in a way. It used to be that to launch something like a security, it was an expensive process and now the technology makes it easier and it's kind of budding up against those existing securities laws. It reopens questions like, what is the security? How can we protect investors while maybe streamlining the process and updating, realizing that technology is different now, things can come to market faster, things are more automated, less overhead. I kind of put this whole thing in almost two separate buckets even though they do obviously have some degree of overlap

in the middle. I would jump into just laddering off of what Lynn shared, which is I think it varies around the world, but certainly here in the United States. I think there's frankly just a lot of laziness in not wanting to do the work of understanding what this technology is, how it functions, and how it's different. For years and years and years, it's been the square peg round hole issue, which is everything is a security or everything is a commodity. We have this world where you have these instruments, sometimes they're financial instruments, sometimes they're technological instruments, sometimes they're providing a technical service, sometimes they're fulfilling some other purpose. It's kind of the right metaphor, the Heisenberg principle of what state is this thing in as you interact with it. It's a very real thing. The hard work is doing the work to do the statutory definitions of digital assets and to actually understand what are these, how do we think about these, how do we think about the interaction that people have with them, and then using a kind of principles-based approach, being able to say we care about financial crime over here or we care about investor protection here. I think this is not just in the United States because I think that there are other jurisdictions that are guilty of this, but I think there's just a desire to say we've got 80 years of regulations on the books and we just have to figure out how they apply. As we know with exponential technologies, that just doesn't work. Look what's happening with AI right now. There is no rule book that one can turn to or flying cars or whatever the exponential tech is. You can't do that. In my belief, you have these very large institutional structures, these deep institutional structures that are incentivized to maintain their existing frameworks

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of supervision. It's a lot of inertia. You have a political environment where the current administration is, I think, fairly anti-technology in many cases, anti-financial innovation in many cases. I think it has its priorities wrong, basically. I think a lot of those things combine to make this a really challenging environment here in the US.

Bringing together some of the things that some of the other panelists have said, there are questions about American competitiveness and a lot of the innovation here going to other jurisdictions. Whether it's laziness, as Jeremy said, or just perhaps a lack of engagement or fundamental understanding of these technologies and the ever-evolving use cases surrounding them, regardless, I think we'd all agree that the approach here in the US has largely been flawed.

I've been in the crypto space now for over nine years, and by my count, there have been over well more than 100 enforcement actions in that time against digital asset market participants. This idea of regulation through enforcement has become the norm. To the detriment of being able to create investor protections, full and fair disclosures, capital formation, the list goes on and on. When I'm sitting on a panel like this with other folks who are running regulated crypto businesses, we brought our business to life here in the US, following US rules and regulations, as did a lot of the other folks here, it becomes very difficult to scale or grow a business if the only examples you have are to not repeat those enforcement actions that have been brought about. Now, we'd all probably agree that there's tons of enforcement actions that have come about to get rid of bad actors and weed them out of the crypto space, and we'd all certainly be supportive of them. But to Jeremy's point, to rely on 80, 90 plus year old legislation that just does not account for the attributes of crypto assets or even attempts on the part of policymakers or regulators to evolve their thinking and actually develop new frameworks becomes really, really challenging. And so the extent to which the US policy doesn't catch up to the pace of innovation here, we do stand to lose dominance, whether it's developers, whether it's businesses, whether it's tax revenues to other jurisdictions where folks are building, they're building productively, and oftentimes they're doing it in a regulatory sandbox where they can actually do so without fear that as they engage with their regulator, they're not suddenly going to come back and actually take legal action or some kind of punitive action against those companies or the products and services that they're providing. So I jump in here too that if we think of this from the context of the innovator's dilemma, which is typically used more in a company context, but less in a nation state context, the US is approaching crypto as the incumbent that has been able to control the money rails for the last many decades and believes it has a lot to lose because of crypto, and also that it can control the underlying substrate. And I would argue that both are actually untrue. And so on one hand, because the US thinks it has home field advantage or it can control this movement, it's being lazy, as Jeremy mentioned. But then at the same time, these are P2P currencies, P2P commodities, P2P securities all on a substrate that is native to the digital and where the US can't actually enforce jurisdiction.

And so if they try and control it, as we're seeing the capital and the talent squeezes elsewhere, whereas what I would love to see is actually embracing it. And I think Nick Carter has made some good arguments recently for how crypto can actually, and Jeremy's perfect person for this, can actually help reinforce dollar strength around the world, which we know is a priority for the government. And I think there are other ways in which if the US were to lean into this as the

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innovator it once was, I think we probably all agree that the US would benefit. But actually, as an incumbent, it is taking the absolute worst strategy right now.

Couldn't agree more.

It is quite interesting that there's a growing realization, I think at least bottom up, that the US having a lack of clarity around regulation is really just preventing the US from participating in this innovation rather than stopping the innovation outright, especially with something like crypto being a global open and permissionless phenomena. You're seeing that the underlying protocols themselves haven't really skipped a beat. And if anything makes the case for why they're so important and what their primary value proposition is.

Anti-fragile.

There is a lot of anti-fragility to the system. So I guess my question is, is there any low hanging fruit that the US regulators can pick to just provide regulatory clarity? Are there some just glaringly obvious things that the US can do? Yeah, please, Jeremy, please.

I mean, literally, I think if you go to DC and you talk to people, everyone sort of says the lowest hanging fruit should be stablecoin legislation and rules. And I think it's sort of the most obvious, which is you're dealing with the dollar. You're dealing with a very clear activity that intersects with the banking system. There's very clear investor protection needs that are more straightforward potentially to deal with than defining new classes of instruments, which is I think part of the harder issue with digital assets. And it's been something that the government has very clearly been calling for for multiple years. I mean, like complete consensus at a global level and that at a national level, whether it's the Fed, Treasury, the White House, others, at least a clear mandate that there needs to be payment stablecoin legislation. And it was nearly two years ago, a year and a half ago, where the presidential working group made a statement that it's urgent that Congress act because you might have collapses and runs and other things. And we've seen multiple significant incidents over time. And the most recent one, which we can come back to of sort of the fractional reserve banking system, infecting the stablecoin system with its inherent risks as well. All these are indicators. And I would just say I want to sort of offer a note of optimism here, which is that we're seeing really good positive signals about this in Washington, that there is a desire to see legislation passed here. And so I think, you know, watch this space closely. I think that this is something that you are going to see progress. And it is potentially the lowest hanging fruit that has clear, you know, administration, agency and bipartisan support. Now, there's a lot of complexity in there. And it's not like, you know, exactly what you can get done. There's complexity and there's state rights and federal rights. There's a lot of complexity to the issue, clearly. But it does seem like something people want to take action on.

And you're talking specifically about stablecoin legislation?

Yeah. The term of art is payment stablecoins, to sort of say clearly something designed to be a payment system innovation that is fully reserved and can operate, you know, as a tokenized form of cash and function on the internet. That, you know, a very somewhat narrow definition, not sort of trying to accommodate algorithmic stablecoins or crypto collateralized stablecoins or other things, but a very straight fiat stablecoin model.

And Jeremy, to your point, which I think is interesting, the favorable outcome,

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or there is a positive outlook within Washington, and I think we're seeing glimpses of that where, you know, when it's actually taken to courts and there's sort of an objective assessment on whatever the situation is, that it ends up favoring crypto. And I'm thinking specifically about even the most recent news around, you know, Michael, your work with Grayscale and the SEC and sort of pushing for Bitcoin ETF. And we had our first, you know, hearings where, you know, the judge was pretty objective in her assessment. I'd be curious on, you know, your take on specifically the relationship with the SEC and relative to courts.

Sure. Yeah. Well, first of all, I've known Jeremy a long time and I have a lot of respect for him and everything that he's doing, but I am going to one up him and say that a Bitcoin ETF is even lower hanging fruit because there is no new legislation that needs to be passed in order to bring a Bitcoin ETF to market here in the US, right? There are tried and true existing rules and regs. The ETF wrapper is something that has been purpose built and battle tested. And it is simply an opportunity to give investors a safer, more secure, fuller and fairer disclosures and give them exposure to an innovative asset, which we know they want and we know that they deserve. But if I take a big step back, you see, and I'd say that, you know, this has been

core to Grayscale's DNA since day one. And I think a lot of it has come down to education. So spending an unbelievable amount of time in Washington, a lot of time with the SEC, specifically mostly rooted in education. And we've really taken them on a journey over the last you know, six, seven years, meetings with standing room only at the SEC and, you know, seeing the questions evolve from, you know, highly skeptical to questions that have actually been super well thought of and researched and, you know, evocative of kind of their interest in engaging on these issues. And, you know, ultimately, we, you know, not many folks know this, but we

worked behind the scenes for almost two years with the SEC to convert GBTC into an SEC reporting company. And that was direct engagement of definitions and accounting rules and disclosures, and ultimately resulted in it becoming the first, you know, digital asset investment vehicle to become SEC reporting. And so I think where we find ourselves now is unfortunately in a professional,

at least from our end, we hope professionally, you know, designed lawsuit where the SEC denied our application. We've been advocating for investors all along the way, and ultimately we're left with the option of having to litigate. And so to your point, we just had all arguments in the case, and we do expect a decision from the courts, hopefully by the third quarter of this year, and again, to hopefully vacate the SEC's denial and actually allow for GBTC to uplist the New York Stock Exchange and, you know, become the ETF that we all want and have been waiting for.

Michael, if I can just jump in, as a practitioner of the craft, I have to fully endorse the notion that your suit was exquisitely crafted. It was, I think, about as well argued a case, as I've seen, in 25 years. I will say that the courts, coming back to your point about their perspective, actually do, I think, offer some cause for hope. And I think the reason why that is so, certainly in Michael's case, we saw three federal circuit judges asking good, hard questions, raising concerns, maybe even expressing skepticism around certain points, but they were willing to engage with a record. They were willing to look to the law and apply it as it is actually constructed. And that same dynamic is played out in just about every single

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court case that has gone any distance. Look at the comments from the bench, for example, in the Voyager bankruptcy, where the federal bankruptcy judge was explicit that the regulators have made a mess of the situation, even as many firms, including ours and others represented on this call, have been operating in plain sight for years. We've seen the same skepticism time and again from judges who are being asked to twist and turn laws in ways that they are simply unwilling to do. And so while I do think we will see setbacks along the way, I think the courts are actually giving us a lot of reason to believe that if there is an objective assessment of the SEC's jurisdiction, if there's an objective assessment of how these statutes written by Congress decades ago could apply and must be applied to modern technologies, we're going to get a fair

hearing. I'd love to hear from Angie. I know that she has worked with the regulators in the crypto world and has had sort of a transformational experience, but also seems to, I don't know if this is, I don't want to put words in your mouth, Angie, but this idea that these regulations are 80 years old and aren't really set up to incorporate this new world. I'm not so sure you agree with that or maybe your thinking has evolved. I agree. I agree with Paul that the reality is other countries are looking a lot more attractive and a lot more welcoming to crypto companies. And Chris, your comments made me think that I'm also surprised that the SEC hasn't raised any positive examples that we can point to in terms of kind of showing us away here. But I would say that this anti-cryptotone that we're seeing from regulators is really a response to FTX, a lot of it, and retail investor protection. And I think we would have made a lot more progress if it wouldn't have happened. And I also think that there's a tendency to focus solely on the SEC, but many in Congress were lulled into the waters by FTX and they kind of have to swing the other way. Now, if what you said, Jeremy, is the case that we're seeing bipartisan support, I mean, that's a positive signal here from Congress. But outside of that, it's U.S. regulators in addition to the SEC that are really kind of coming together here. I mean, last year there was this general view that the CFTC was kind of this kinder, gentler regulator. And we can see with Ukidau and Binance that they're also flexing their regulatory muscles too. And I think that that sounds like maybe more specific to unregistered exchanges. But regardless, I think from an SEC perspective, there are certain levels of investor protection that we do need to see that we haven't seen. And so my perspective, as you mentioned, Kathy, I have worked with the SEC, but prior to crypto, and I run a broker dealer now, prior to crypto, I was in the traditional finance world and capital markets. And generally, generally, people kind of went to the SEC to go through and make sure that everything was kind of, you know, all the boxes were checked. It's like, ah, we have to go to the SEC. And I was really surprised back in the day when they said, come in and talk to us. And I thought everybody was going to rush in like, okay, we got to go and talk to the SEC. And, you know, I think that it's, you know, these are different risks than we've seen in other securities. And frankly, on the part of crypto, we, I mean, we can't be blind to the fact that we've seen different levels of compliance, you know, disclosures, conflict of interest, general communications, we've seen a lot of rug pulls, we've seen a lot of, you know, co-mingling of customer accounts and, you know, frankly fraud. So I think that there has to be some sort of a, you know, common ground to find. But I agree again with Paul that the reality is other countries are moving faster and looking a lot more attractive and a lot more welcoming.

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Can I just ask Angie on that? It seems to me that a lot of regulators and politicians used FTX, you know, if they were already biased against crypto to further their own cause. But as we've been saying here at ARC, if you look at Bitcoin and Ethereum, they did not skip a beat throughout all of this. And this contrast, even the newest member of the SEC is talking about decentralization as being critical, transparency, auditability. And of course FTX and these centralized opaque institutions are the ones who actually went down. Don't you think that now in the face of, you know, regional banks going bankrupt and different digital assets soaring that, you know, this is a very loud message to regulators.

And an inability that's been documented for legitimate crypto operators to service within the traditional banking system. So yeah, Angie, I'd love your thoughts on the, I'd say the response in the last month to the banking crisis as being, as really feeling like you're singling out crypto as an industry to participate in traditional financial services. Yeah, I agree with what you both point out. It does feel that there is a, you know, a singling out. And I think this is a moment to really separate decentralized from centralized and, you know, educate the world on like what really happened and because people outside of this call and people in the general population kind of blump it all together. And yeah, I do think that some of this will come to light. I think a lot of the issues with Signature Bank, and I'd love to hear Caitlin's views on this, will come to light because there's enough there that I've seen at least that I think we're going to get more clarity on and doesn't quite look fair. I do think though that like when you look back to decentralization generally, you know, there was a lot of, Bill Hineman came out and talked about this idea that something could more from a security to something else if a network was sufficiently decentralized. That led to a lot of decentralization theater, I would say, in crypto. And so the SEC responded with this framework for investment contract for digital assets. And I think that a lot of the decentralization concepts that have been presented by the SEC have somewhat been ignored by some of the bad actors, meaning, you know, just general control is an operational control and communications and disclosures, which all seem to be low hanging fruit by the way. And there are many good actors who are doing things right. Many of them are on this call. So I think that it's unfortunate. I think a lot of things are happening that are pretty unfortunate in terms of where we are as a country in crypto. Can I just say just one thing? Because I do want to hear Caitlin's perspective in a second. But, you know, we just finished Q1 of this year. And we've all talked about FTX and all the other recent happenings in the crypto space. But during Q1, I've spent quite a few days on the hill with my team. And I want to provide just a slightly different perspective of what I've seen and experienced. There's a lot of issues in front of politicians at the moment. And one thing that has been encouraging, and I want to do try and paint somewhat of an encouraging picture here, not as dire as some might think, is that there is bipartisan support around crypto, which is relatively unique. It's usually when you look at these types of issues, you usually do see some greater divisions amongst political parties. And the fact that we now have several bills that went to the floor of Congress in 2022 are redrafting and retooling themselves for reintroduction in this new Congress, several new bills that are coming before this new Congress as well. And the fact that we now even have a dedicated subcommittee on digital assets within the House Financial Services Committee is all progress in my view. I actually thought that being in

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Washington in the earlier part of this year, I would be having to spend a lot more time helping to get folks to understand the differentiation between regulated businesses like mine and some of the other colleagues on this call, or that of FTX. And actually, they understood it pretty quickly. And so what I've experienced is actually a propensity on the part of offices in both sides of Congress, both sides of the aisle, actually wanting to get involved and wanting to do something, the toughest challenge that they all find themselves at the moment is where do they start? And so for many of them, they do believe to Jeremy's point that stablecoin regulation may be one of the easiest places for them to get started and get some traction. But there is a generally wide held belief amongst these offices that we're engaging with that crypto is here to stay and that they simply cannot just cover their eyes and plug their ears and pretend like it's going to somehow vanish or that increasingly Americans aren't going to be owning or interacting with crypto. So I'm increasingly optimistic. It just obviously, we're all painting a picture that it's not happening as fast as we of course wish it was. So Michael, just on that, I do think that FTX did throw a wrench into the support because we felt the bipartisan support before that, and maybe before Taraluna, but especially before FTX. And then there was silence. And maybe now they're all in the back rooms, but they are not out there advocating the way they were. There is silence, and we are moving into an election year. So I just hope you're right. And during the election year, that bipartisan spirit comes back. Sure. Sure. I agree with you. FTX certainly was no doubt a setback. But for other offices, it was actually, I think a wake up call. If we're not already educated on this, if we're not already engaging on this, we should be, we need to be. And I think certainly when we look back to even the midterm elections, pre FTX, there were various politicians that were looking at their constituencies and actually running on ideas like crypto when going to get people to encourage them to go out to the polls. So it will be interesting to see, but I'm increasingly a little bit more optimistic than maybe I once was. I would add one comment there, which is on a global scale. There actually is a lot of coordination happening at like the FSB level at the G20 level to try and basically say we need normalized globally consistent crypto markets and stablecoin regulation. And I think that you're going to see a big push coming from that. And that will find its way down into every jurisdiction. And I actually also think that the US certain participants in the US government understand that other jurisdictions are moving faster. And we're going to have model law in place in enforcement in 2024, EU wide, UK wide, Singapore, Hong Kong, Japan, Korea, like it's very clear. And members in Congress are really coming up to speed on what crypto markets regulation looks like in other jurisdictions, what stablecoin regulation looks like. And so I think this sort of global normalization as well as sort of this, you know, in some ways, a desire to sort of see not widely disparate types of approaches to this, at least in major G20 markets or certain large markets, that gives me some confidence that we'll kind of see more movement here and less focused on regulation by enforcement and more policymaking and legislating, which is really what our elected leaders are meant to do. I've been listening very carefully. And I unfortunately have to disagree that there's reason for optimism coming out of Washington DC. There wasn't an ability when Congress, both sides of Congress and the presidency were in Democratic Party hands to get anything done.

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And now we've got divided government. And I agree with Jeremy that the greatest probability in terms of a bill coming through Congress is in the stablecoin area. But from my own experience, that the probability of getting something done is only 20 or 30% in the next couple of years. And the biggest issue is the elephant in the room we haven't talked about, which is what the bank regulators have done. I've always said that the bank regulators are far more important than the SEC to this industry, because they have the ability to shut off the US dollar access. And that is exactly what they're trying to do. And Lynn, you and I engaged about your piece either the day before yesterday or yesterday, I can't remember, on open networks. I think the statement that was made by the bank regulators in January, January 3rd, where the bank regulators came out against the use of open public and or decentralized networks was really important. And it does pick up on the point that Jeremy made that there is an anti-tech thread coming out of Washington DC. And I think I can help shed some light on why. But let's pause on that. They didn't say open public and or decentralized blockchain networks. They said open public and or decentralized networks. In other words, TCP, IP, HTTP, etc. write the internet. They very clearly said banks have heightened risk using open public and or decentralized networks. And at first, I thought that was a drafting error. Essentially, just lawyers writing policy without consulting with tech people. But as time has gone on, and we've seen the challenge with online banking and what happened with Silicon Valley Bank and how fast the bank run occurred, and how backwards the tech. So I've known this for you. It takes about three years to get a bank stood up in the United States because of all the little details that you have to deal with. It's not rocket science, but it just takes a tremendous amount of time. And the way you integrate with the Fed is through an approved integrator, etc. Just an enormous amount of detail. And the gist is that those systems that are operated by the Fed, the payment systems, which are controlled by the Fed. And again, ultimately, this is really an important point because the US dollar access to the extent that it matters is controlled by the Fed. And they have very antiquated technology. And I think one of the things that scared them about what happened with the bank runs, but also with crypto, is just how far ahead crypto got relative to their own technology. And if you look at what happened with the banks that had the bank runs, there certainly was an ability to step in and provide liquidity to those banks. For example, with signature, if they waited one day, the Fed's BTFP program would have been in place, signature arguably would not have been needed to be put into receivership. But they didn't wait that one day. And let me close by saying the Fed made a significant break with the president's working group. There were references earlier to the president's working group, which recommended that stablecoins only be able to be issued by insured depository institutions. That was about 18 months ago. The Fed came out very strongly opposed to any tokenized US dollar issued on a open public permissionless blockchain, even if issued by a bank. So that is a big hurdle that's going to have to be overcome. And at this point, with the divided house and the white house having come out on January 27th with its new policy statement, which also itself arguably broke with the original president's working group recommendation, there's now a real cloud over whether anything is going to get done to reverse this. And I'll close by saying what we've been told is that because Congress wasn't able to act, that is why the regulators chose in early January to make the big move against this industry. And so the punchline is, I'm afraid the likely base case is that this

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industry is just going to have to wait out the next couple of years until the next presidential election. Caitlin, I think you make some super strong points. And I think that getting over the line on the use of public blockchains for issuing and operating dollar infrastructure, that's certainly a cross that I'm trying to bear as well. But I think it gets to the heart of the matter. And we all looked at that very specific language. And I think this sort of goes all the way up to like the Bank of International Settlements and CPMI frameworks and other things. But basically, I think this is probably one of the most important issues on the table here, which is that, and this is as old as the internet, which is whether you're a telecoms regulator, a communications

and media regulator, a commerce regulator, other regulators in other industries, the use of the open internet peer-to-peer software, open source infrastructure, open source software, which basically

makes the world work. Regulators broadly and the industries that were built by oftentimes government-run national monopolies in different places, we're highly skeptical of using open internet networks to do that. And guess what? Over and over and over, it's been proven wrong. And I think the job of the industry right now is to create massive utility value as quickly as it possibly can. And if there's not clear regulation, obviously work as much as possible within the realm of the possible to achieve scale and demonstrate that you can actually deliver resilient, powerful mechanisms of value exchange and the like all around the world and put it in the hands of billions of people. And I think that can happen in 24 months. It can happen before there's a new president. It can happen before there's legislation passed. And so I think this is where technologists and entrepreneurs need to step in now. I realize it's not quite so simple because we are dealing with access to the dollar system or these sort of constraints on liquidity and other things. But if you look very carefully at all this, the door's not shut in terms of very clearly banks are able to provide services to a firm like Circle, and they're very clear about that. And the risk management requirements and the risk thresholds that banks are going to put around major firms that they work with are going to be different. We're seeing that happen now in this space. But the door's not been shut. And I think one of my biggest jobs is convincing policymakers and regulators that you can build things on the internet. The internet actually can be safe and more resilient. And in fact, that decentralized public chains are more safe, more secure, more resilient, more transparent, more auditable, and actually can build underlying primitives for security and privacy and other things that are far superior to the existing closed loop financial systems that we have. And so I think we can win on the merits is what I believe in the end.

Well, and I'd run with the merits too, even on the weekend where SVB was hanging in the balance.

I as a VC was working with a number of portfolio companies across placeholders' portfolios.

And one really interesting thing we saw is because crypto has always been, we could just say mistreated by the banking system or at least skeptical of the banking system and valuing redundancy, we didn't have a single portfolio team that had the entirety of their funds at SVB. And we heard a lot of different situations with, say, more web to focus VCs where there was real crisis at a lot of these companies where their entirety of their assets, of their payroll, or at least the significant majority was at SVB. And what was really interesting for all the crypto native companies is not only did they have redundancy and with that redundancy

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resiliency, but their banking system was open on the weekend. And so they could take action on Saturday and Sunday when anyone who was stuck within the traditional banking system was frozen and basically waiting to see what the government was going to do. And so I think one of the ironies coming out of that was, at least from my perspective as an investor in crypto natives, even though crypto was getting targeted, it was more resilient throughout that crisis and continues to be more resilient. The other thing I'd say is, Jeremy, the door can't be shut up because information is like water and these crypto assets are really just information and they just keep flowing in these different places. And the US will try and put up these dams, but then the water will just flow around or there will be a new storm of alley over and there will be water over there. And so at least from where I said it goes back to what I said earlier, it's really the US either gets on board or this just all keeps flowing around the US.

I think that's a great segue, great points, Chris, on what exactly do we make of this regional banking crisis, not just relative to crypto, but the broader economy, is this potentially an accelerant for people to realize that we do have this, as Chris likes to call it, internet financial system, and that this should be the catalyst to sort of port traditional services and financial actions into a crypto world. I mentioned crypto being a global phenomena. How does this impact the geopolitics, the broader economy? Maybe we can start with you, Cathy, and just to get your broader thoughts. In terms of the crisis?

In terms of setting up the crisis. The reason it's happened, and I'd love to hear Lynn's thoughts on this, but the banks made two major mistakes in their assumptions, and both of them actually are very understandable, because these two assumptions proved wrong, because they had either never happened or never happened in our lifetimes. So one of them was during COVID, as the Fed and everybody else was worried about depression, you look at the Fed's forecast in that year of 2020, they had interest rates out, short-term interest rates at 0.2 through the end of this year, which is where their forecast ended. So you've got these banks like Silicon Valley and others who say, okay, I'll put my money into government-backed, long-term instruments, very safe, maybe too much health and maturity in the case of Silicon Valley Bank, but very safe, right? 1.6, 1.7% yield. And then the Fed raises interest rates 20-fold in one year, which has never happened, never, never, never happened. Volcker was two-fold, 10 to 20%. And many people brushed off our concern about this because, oh, it's such a low base. That's exactly the point. It's been such a low base for so long that nobody expected this. So that was the first mistaken assumption. And even that would have been okay as long as the deposits had kept flowing in, which, of course, they didn't. We had the venture capital funding drought. That's why Silicon Valley's deposits started departing. And others were just looking for higher yields and money market funds. And if you look at, many people think the large banks have been immune from this. They have not. Their deposits are falling as well. And it is because of this search for yield and safety. I mean, the most damning thing I've heard during the past few weeks from a number of people who said, well, yeah, I lowered my risk by taking my deposits out and increase my return by putting them into money market. That's not how this works. Lowering your risk and increasing your return. So I think that's how it started. I think the Fed has made a lot of mistakes. And I think the reason is it does not respect market signals, doesn't respect credit default swaps going up. So bets on bankruptcy, doesn't respect inverted yield curves, doesn't respect commodity prices going down. And is the first Fed ever to raise interest rates

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in a crisis? And now they're thinking about doing it again. So I mean, I'll just set it up that way. And I'd love to hear Lynn and I saw Caitlin having a point of view around this as well. Yeah, I think one of the challenges is if we look at one bank, we get one opinion. But if you look at the banking system as a whole, we get another opinion. So any individual bank could have managed this better than, for example, some of the really problematic banks handled it. They chose long duration, they chose a riskier deposit base, basically very business-oriented, very industry-specific. They set up two risks on the same balance sheet, which were catastrophic. But when you look at the banking system as a whole, someone has to own those securities, and they have to own them with these funding costs, the way we set up the system as it currently is. And so the sheer level of activism from the Fed is just an extremely hard environment for those banks to operate under. Ironically, if they had shorter duration but higher credit risk instruments, they held up better than if they had long duration risk-free assets in this environment, which is normally not how it works. And back in late 2021, inflation was way above target, and the Fed was still doing QE. They basically were slow to be hawkish. But then when they finally turned hawkish, now suddenly they pull liquidity out of the banking system at a record pace, while at this point, increasing interest rates at a year-over-year basis is the highest absolute term since the 70s, but on a percentage basis from such a low base is the highest ever. And the bank system is not really designed to be able to withstand that type of turbulence. And if you look at the Federal Reserve itself, it's operating at a loss because part of its way of managing interest rates is it increases the rates on its own liabilities. And as the Federal Reserve, it's able to do that because it doesn't need to be profitable, it's not exposed to bank runs. But if you were to just take the average bank now and put their deposit rates where money markets are, they'd almost all be unprofitable, and therefore they'd be losing capital and they'd be unable to raise capital. And so on one hand, the Fed's saying, okay, all banks have to do what we did. Well, then you destroyed the entire banking system. And in the past prior few raising cycles, you saw T-bills go up in rates, you saw money markets go up in rates, and deposit rates didn't really follow because these were pretty brief changes. And eventually, those rates would come back down before people really adjusted to those new rates. But if they do try to target a higher for longer environment, and in a world where information flows around faster, you know, the ways of moving money are faster, banks are kind of stuck having to raise their rates to try to keep up with this. And then the end game scenario is if they actually get up to where the Fed is on rates, if they get up to where money markets and T-bills are, they're practically all unprofitable, and then heading towards insolvency. So they're kind of like, I think the Fed is just in some ways not understanding the gravity situation. And it's both on the upside and the downside. So they were overly aggressive on things like QE, you know, more than longer than they needed to do it. And then now they're being super hawkish. And it's like, it's just a very actively managed system, more so than it I think needs to be. And actually what we've seen, I don't know if you have done this with your own accounts personally. I didn't even know how low some of the rates were on some of my accounts. And I said, heck, let me get out of here. So I've contributed to this. They've actually advertised this and exacerbated it. Yeah, I think now there was a wake-up call. It's like a lot of people were kind of complacent. And I think, you know, when it's considered low risk, they don't really chase, you know, bank deposits have historically been pretty sticky. You don't shop around for a new

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bank just to get a couple extra basis points here or there. But when people are actually concerned with their risk, suddenly they pay a lot more attention. And when you see that, to the prior point about both higher yielding and lower risk, if they make certain choices to move, then they do it. And so we're still seeing very rapid inflows to money markets. And so all of that is pressuring the liquidity profiles of banks. And something that the Caitlyn's point out before is that as money moves faster, if anything, banks need more liquidity, but one of the Fed's, one of the Fed's tools in this environment is they're trying to constrain lending by pulling liquidity out, which is, it's just kind of an interesting way of doing things. And I think it's, if anything, it shows kind of the downsides of such a manual, old school process of trying to run a financial system.

The financial system to Lyn's point was geared towards the analog world. In a stress scenario for banks, the stress scenario was a 35% withdrawal of demand deposits in a short period of time. Well, we saw in the case of Silicon Valley, 25% withdrawal of all deposits, not just demand deposits, within hours. And that's exactly the point. A lot of folks are saying, well, the Fed is upgrading its technology. We obviously all read the Wall Street Journal story about how the Fed had to put a test trade through. And that's why the Silicon Valley bank cash couldn't end up in its master account in time. And therefore, it was closed down the next day. That, again, is how antiquated the back end systems are. One of the banks that failed spent four years building the middleware to have that Ferrari front end connected to the horse and buggy back end. So there's definitely a constraint there on really old technology. But the other reality is that if Fed now really does come out in July, which I'm not so sure it will, precisely because of what Lyn just talked about, that's going to exacerbate the liquidity issues in the banks. And the small banks had on average six cents for every dollar of deposit in cash. The large banks only had 10 cents for every dollar of deposit in cash. It was pretty obvious. And I was warning the bank regulators behind the scenes. But plus, of course, in public speeches going back a few years, that stablecoins were going to pose bank run risk on the banks that were holding the reserves. And we saw that. And of course, the depositors were bailed out. And by the way, this industry, because of stablecoin deposits, was a beneficiary of that. But the point is the banks always needed to sit with a lot more cash. The challenge is that if the banks actually are required to sit with a lot more cash to Lyn's point, how are they going to do that? They're going to have to liquidate some of these long-term assets out of loss, which is just going to expose the capital shortfall in the banking sector. So there's a real catch-22 right now with the capitalization versus the liquidity of the banking sector. And that is not going to go away without a steepening of the yield curve, a real steepening. Thinking back to the early 1990s, what Greenspan did to create a very steep yield curve to try to recapitalize the banking system. That is going to have to happen again. I want to jump in just a couple of thoughts on this. And I'll make a shameless self-promotion here, which is we just put out a podcast with Circles Chief Economist, Gordon Liao, which covers a lot of these issues and a lot of depth. I highly encourage people to listen to it because it's fascinating. But I think this comes back to first principles and crypto in some ways, which is why did I get into this 11, 12 years ago? I was interested in sound money theory and I was interested after the financial crisis and understanding what went wrong, what were the issues in the monetary system, in the fractional reserve banking system, why did banks fail? All these kinds of issues which really surfaced and drew my interest pretty

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significantly in 2009, 2010. And you have two dimensions of this. You've got sound money theory around Bitcoin and Ethereum and a thesis around non-sovereign commodity money and what that can

be. And I have high conviction on that and believe that's going to grow and grow and be really important in the world. And then you have a separate set of sound money theory as it pertains to the nature of banking and payments. And this is this issue that's come up over and over again. It goes back to the 1930s and the policy makers had a choice to make then. Promenade economists were recommending that you separate base layer government obligation money in the payment system

from lending activity. And that was I think a very sound philosophy and it was a sound money philosophy. You need the base layer of money and the payment utility to be separate from these fractional reserve lending behaviors. And that was rejected by the banks because the banks liked their risk taking and they said, let's do mutualized insurance instead. And that was why the FDIC was created. And this has been revisited in the 1980s after the savings and loan crisis. It was revisited again after the financial crisis and some of that related to money market reforms as well. And I think that it's absolutely the appropriate time to be asking that again. And so I think Caitlin and I have both been advocating for this idea of full reserve banking, full reserve payment systems that have the ability to be interoperable across the world, that have the ability to take advantage of the technological innovation of digital bearer assets on the public internet, programmable, composable. You can do credit intermediation on these units on a global basis, on blockchains, and make huge progress in the nature of risk management, of financial services delivery and all these kinds of things. But you got to separate those. And so we've been pushing for a model where we can effectively have T-bills and cash with the Fed. That's what we want. We've been pushing for that for three years. And I know

Caitlin, you've run up against challenges there and there's a lot of issues there. But I think it is a legitimate time to be asking questions about the fractional reserve banking system. And are there better models for credit intermediation, which clearly there are, and are there better models for global payment utility and how that works? And so I think crypto has a lot to offer here. But it gets to this kind of core underlying structure of risk. And the current contemporary banking crisis is just playing this out again. Lynn, you mentioned the end game scenario. I'd be curious, what is your end game scenario if the Fed continues to operate in the way that it has? Well, I mean, if it were to continue to be very hawkish and attempted this, it would, I think, increasingly result in the instability in the banking system and basically suck deposits towards the bigger banks and then towards ultimately to things like money markets and T-bills. And it kind of seizes up the whole formation of credit. And I think it really ends when securities markets go liquid. I mean, if you go back to say March 2020, why did the Fed step in at such big scale in response to the COVID crash, all that? And it's because those security markets froze up. The treasury market is supposed to be the most liquid market in the world, essentially. And it completely froze up because you had so much dollar demand in the world as cash flows dried up and all these entities around the world still had debts that they had to service. And so they would sell treasuries into the market to get dollars and it would freeze up the whole system because there's no marginal buyer of those treasuries. So the Fed had to step in and buy

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a trillion dollars worth of treasuries in three weeks and then continue for a period of time. And you saw that also back in the 2019 September repo spike. We kind of saw a similar thing here with the bank crash, basically, that they had to provide liquidity with these loans. And so I think that the more hawkish they are, the more they're going to have to intervene with liquidity to keep these kind of security markets functioning. On the other hand, if they get a point where they're unable to tighten the way that they maybe want to, while you still have very inflationary forces out there, large fiscal deficits, for example, basically that's a source of money creation, then you get potentially this uncontrollable inflation in the sense that it remains above their preferred target for longer periods of time, which becomes a political issue, becomes a credibility reputational issue for them to manage. And again, I think a lot of their models for how this works are just old. They assume if you get the labor market looser, that'll somehow help inflation, but it's not if that's not the source of inflation. If the source of inflation is things like large fiscal deficits or a changing of globalization patterns or, in some cases, energy shortages, then there's only so much demand, destruction that can really take care of that. And it's almost like you have to acknowledge that sometimes inflation is going to vary over different periods of time. And so I think really the whole models that they operate under are challenged. And the last time we saw this environment was really the 1940s and the 50s. That's the last time where debts were this high relative to the GDP. You started from the zero bound and you're trying to get, basically trying to get out of that situation. And obviously, it's a very different environment now. They're very different technology, very different geopolitics, but that kind of shows, I think, the scale of the problem. We've had 40 years of rising debt as percentage of GDP, which was offset by 40 years of declining industries, which allowed those higher and higher debt levels to be serviced. So our economy and large parts build up on this ever higher credit, but without the corresponding increases in payments to service that credit. And now we're kind of entering this new regime. And that challenges, I think, a lot of the existing financial system in ways that are more than just cyclical, more than just what's the Fed going to do this year? What are they going to do? Are they going to get inflation down to 2% in a year or two? Those are all tactical questions, but the bigger strategic thing is I think the system itself is just, it's getting long in the tooth. Can I just take, at least introduce the other side of that? I think this is, wow, back to the future. Most of you don't know Henry Kaufman and Al Wojnlar in the late 70s and the 80s. They were doctors death and doom. And Henry Kaufman in particular was focused on the crowding out of the private sector because of the public sector. And of course, it was very inflationary back then. I mean, that's what was going on. But I actually think what's going on right now is highly deflationary. If you look, we've just had a bank crisis. And typically when you go through a crisis, the velocity of money falls. Money growth itself, M2, is negative. I think for March, it will be somewhere between minus 3 and minus 4%. For the second quarter probably, they've said they're not going to change anything, minus 4%. If velocity just stabilizes here, we will have a hard landing in the second half of this year. And I think that the fixed income markets are starting to telegraph this with spreads widening out as the treasury yields fall. And there is a flight to safety, which is also associated with velocity actually coming down. So if we were to compound a declining money growth with declining velocity, we'd be in a mess of a situation. So I think we're at a very important moment

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in terms of just the recognition that Fed is ignoring signals in the marketplace.

It does not respect them because I don't think we've looked at this. Not one of the Fed members has worked as an investor in the financial markets. The closest is Neil Kashkari, who was an M&A at Goldman and probably a relationship management at PIMCO. But they're not reading the signals from the marketplace.

Yeah, I agree with that. I was just going to say, in the tactical sense, disinflation continues to be obviously the dominant factor. And we're seeing it in the yield curve. We're seeing all these different market signals. It's obviously a big threat to commercial real estate. It's a big threat to private equity valuations. And when they talk about those long and variable lags, after a year of tightening, we're very firmly into those lags now. And so even the existing tightening, as existing debts roll over at these higher rates, I think it compounds. And so when people say they want inflation down, what they really mean is they want disinflationary growth. And right now, the dial that they're operating under is either recession or inflation. That's kind of the regime they've been in now for a couple years. And I think that it's going to be a certainly challenging six months, because now they're still trying to do as much demand destruction as possible against the fact that most of the inflation we're seeing was not due to, say, excess bank lending, for example, like it was in the 70s. There are very different inflationary forces in it, and yet they're responding to it as though it was like the 70s, which is quite a different environment. It's absolutely wrong. It's more like the 19 teens. We had a war, World War One, we had Spanish flu, and we had massive innovation actually. And inflation, we're on the gold standard, but dropped from 24% in June of 1920 to minus 15% in June of 1921, because the money supply was shrinking. And we were on the gold standard. So it's much more similar to that period of time. The hopeful thing here is that all ended up in the roaring 20s. So that's my bet, but we still have a long way to go before here and there. Well, and the Fed's balance sheet is going to expand pretty substantially because of the setup that we just described. It topped \$9 trillion in the last crisis. It'll probably top \$20, \$25 trillion. You start looking at the liquidity that's going to have to be provided in order to prop up the banking system if long-term interest rates continue to stay as high as they are. And that is how they'll essentially support the banking system. But by the way, that's not necessarily inflationary because it's a swap from the existing banking system to the Fed's balance sheet, but that doesn't necessarily cause CPI to spike for sure. But all of that, by the way, is really positive for Bitcoin. And we're seeing lots of people being orange-pilled for the first time. Yeah. Well, and I would jump in there too, that if you look at Bitcoin, and I would include Ethereum in this and a number of the other more distributed layer one networks, they don't have a P&L, right? They don't have solvency risks. They finance themselves on a daily basis by issuance to a set of actors. And those actors do have P&L, but they locate geographically wherever works for them in order to run those services to support that network in a way that's profitable for them. And so one of the things you've seen, you had mentioned them in pushing the term, the internet financial system, because I think we need to grow out of the defiant stage or the DeFi stage of what a lot of this means. And I've loved DeFi as a term for where we were as an industry then. But now it's more being unapologetic about the fact that this is a superior technology on a superior substrate or architecture. And there's a lot of bad behavior, as you would expect with any new technology. But there's also a lot of promise that gives us solutions to the current

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problems that we're facing as a society. And so that's where I'm really just vocalizing it as this is the internet financial system. And FinTech has really kind of been a combination of traditional finance. It's kind of like electrification as opposed to true digitization. And this is the native digitization that we need. And so I think just the quicker people can see that, or maybe this crisis just accelerates people seeing that, as you mentioned, we're seeing with Bitcoin right now, Caitlin. Could not agree more, Chris. Can you go ahead, Angie? Yep. I was just going to say not to pile onto the Bitcoin comments, but I do think that, as Jeremy said, these digital asset kind of seeds were planted with the Bitcoin white paper and everything that came with it. And a system that doesn't need third parties, that doesn't include the need to trust intermediaries. And I think that at least we do have, at least in this country, support for Bitcoin. So I'm excited to see some of the applications that can be built on top of it.

Circling back to Caitlin's comments on people being orange-pilled, I think at least anecdotally, it has been super interesting to see some of the inbound that we've received seeing Bitcoin's reaction to this banking crisis, and perhaps sort of being the foot in the door to Chris's point, encouraging and building out a more open internet financial system.

Chris, I'd love for you to unpack further. Have you seen specific examples that you can give just around this crisis with regard to DeFi or IFS, however you want to define it? That really just shows the strength of the value proposition and why something like this is so imperative. You obviously mentioned your experience with portfolio companies and the redundancies that they've incorporated, ultimately signaling that they don't really need the traditional financial system to operate, or at least they're hedging against a single failure in the way that they have. Unpack that further for us. Sure. Well, certainly post FTX, we've seen a shift more towards on-chain, and Uniswap released a pretty surprising stat that Uniswap volumes have surpassed Coinbase volumes for the last two months. Now Coinbase, in part with their decentralized offering, does use Uniswap, and so there's a bit of a data discrepancy there. But just even the fact that we have a decentralized provider at the same scale, it doesn't really matter to me who's bigger, but at the same scale as Coinbase, which is one of the most reputable centralized exchanges out there. That, I think, if you go back to 2018, 2019, felt like a very distant future, like maybe 10 years out, and it's here in half that time. So that would be a major recent proof point. Also, just when you look at how the systems unwound, the decentralized systems, and more than decentralized, the systems that run on blockchains are auto accounting systems. And so the way that they delevered is automatic, following the FTX crisis. And what's interesting is everyone who was pinched had to pay back the auto accounting systems first. There was no negotiating. And so then those systems remain solvent, and then we see the whole messy process that happens within the traditional system. Now, that auto accounting can cut both ways as these systems continue to grow and become more systemic. And I'm not blind to that. But on the whole, I would say that when we look at the FTX meltdown and then the recent banking crisis, as has been pointed out many times in this conversation, anything that is a robust protocol built on an auto accounting system has continued to chug along. And it doesn't face solvency risks. And it's open 24-7, 365. And payments on the whole are relatively cheap. And so these are all things that we all know by heart and that we experience on a weekly basis. And so then it's just getting regulators to see it's not shadowy supercoders

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playing random games. It's real business, real commerce, operating at the speed of light around the world. And that's important for, say, innovation globally, but also within the US.

Yes. Some other just stats that I think put this in the right context. When you look at Bitcoin and Ethereum, they're settling par or they're settling value on par with MasterCard now, right? That's a giant payments network. And so that's another one that I've been using more.

And settling orders of magnitude more than MasterCard as well in terms of just broader transfer volume settling on chain. And I know the most recent stat of 2022, a lot of people don't recognize or appreciate Bitcoin settled \$33 trillion of value. That's three times that a visa's transfer volume. Of course, there is some consolidation amongst exchanges so they're not in independent entities, but that is settlement at the base layer, \$33 trillion.

Right. And so that's amazing. And so again, these things are getting to a scale that I think people don't fully recognize. And I remember in my time at ARC working under you, Kathy, you were pointing out that a lot of the economic statistics or things that people would look at were always out of date because they were looking at the traditional systems and they just can't keep up with the rate of growth of the new systems. And I think we have that very thing going on within both the internet financial system, but also crypto broadly.

I think your point on the Uniswap Coinbase flipping or however you want to call it is a really interesting signal. I'd be curious, Paul, on your take because we've heard and I think Coinbase has done a tremendous job recognizing that they want to act as that bridge and ultimately provide an on-ramp into this ecosystem, the launch of Coinbase wallet, base protocol, building out actual L2. That's quite groundbreaking as a strategy for a public company like Coinbase. What's your take on, what it's going to take on the regulatory side to act as that clean bridge into the DeFi ecosystem? Yeah, because we essentially act as a front end for a bunch of the volume that gets labeled as Uniswap. We are as excited to see that growth and that development as much as anybody. I think that the regulatory environment really offers, I think, some real challenges to that continued growth, which is one of the reasons why we're so focused on not only the baseline issues that we've been talking about in terms of regulatory jurisdiction, registration paths for central exchanges like ours, but also particularly outside the United States, making sure that new frameworks that are coming online, Mika in particular in Europe, that are respecting the potential for self-hosted wallets and other key architectural elements of the DeFi infrastructure to solve real problems for real people and create new opportunities that haven't existed before. For us, it's as much about creating regulatory clarity and certainty for the world as it exists today as much as it is looking ahead to where are things likely to go. We think that there's no question that if the regulatory rules can accommodate a very different architecture for some of these products and services, we still have a chance to realize our full potential. The US doesn't have to be left behind. I think that's the most important thing to emphasize here. We're seeing much more progress outside the United States at present, but there is still time for the US to get this right. Then I know we spent some time discussing some of the fundamentals within the DeFi ecosystem and the Internet financial system, which I do like that term, Chris. I do want to go back to Bitcoin because Bitcoin is where it all started. I think that the macro case for Bitcoin has never been more compelling. Lynn, I'd love your thoughts on, do you think that this is potentially the tipping point for people understanding that Bitcoin deserves a slice in a broader portfolio? Do you expect a potential portfolio allocation shift

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from not just individual investors, but from larger institutional investors? What do you make of how Bitcoin's responded? A number of different entities have reported very large inflows during March in response to the banking crisis. On one hand, the lower rates from say the two-year treasury, for example, lower expectations of forward rates is beneficial for those types of assets. You've seen gold broke out a little bit, but obviously Bitcoin is much higher alpha, so that received very large inflows. During this prior bull cycle, there was a decent amount of institutional interest and you saw a lot of high net worth interest, pretty sophisticated buyers getting into the market. Obviously, that took a pause for a period of time. I think that as this market keeps persisting, as we see more and more cracks in the existing system, I think it does continue to serve as an advertisement for it. I think probably the bigger story is we have to think globally. When we describe what the global financial system looks like, it's like there's 180 currencies roughly, a lot of them are pegged to the dollar or other things, but there's all these currencies and they're all these local monopolies in their own jurisdiction. All of the cross-border trade is very high friction and you see a lot of people around the world, especially because most of these currencies don't hold up as well as the dollar, as well as the euro, as well as some of these others. There's a ton of interest in Bitcoins, a ton of interest in stablecoins. Basically, they gravitate towards these harder monies. Obviously, there's different timeframes. Bitcoin is very volatile, but it's been attractive for long-term holders. Stablecoins have been very popular in these very high inflation countries because they still might lose value slowly, but it's less quickly than what's happening with their own currencies. You see Argentina, Lebanon, Turkey, all these different countries, they pour into these types of assets. When it comes to a lot of people in the world, it's more obvious to them. I think in the West broadly, we've been very complacent with the operation of our financial system. A lot of people don't see why they might need these technologies, but I think that over time, it's become more and more clear. As we've had a pretty high inflation spike and now we've had banking instability, I do think more and more people are looking into this and saying, maybe this Bitcoin thing isn't crazy, maybe it's worth having a slice. I still think advisors are very under-allocated, but we are starting to see reports that even though their clients are going to them and saying, when are you going to make it possible to have a Bitcoin slice? I want to hold some Bitcoin. I think probably the next cycle would be pretty big for advisors. I think an ETF would be helpful in that regard. That's obviously been slow. We're starting to see brokers offer more direct Bitcoin exposure, but something like an ETF, a spot ETF, I think it's been proven in other countries that it's fine. I do think that there's still a lot of obvious slow-hanging fruit for pools of capital that are either no exposure or very minimal exposure to go from zero to some. Very insightful. I think this is a great, perhaps, transition into, I want to ask each of you, we're about a fourth of the way through this year, which in crypto terms, we've gone through multiple market cycles in just a few months, but I just would love, we can maybe end on a more optimistic tone of what would you like to see happen through the end of this year? What are you most excited about? What are you most hopeful for?

Michael, maybe we can start with you. Certainly a spot Bitcoin ETF here in the US. I think Lynn just shared so articulately some of the driving motivations for why I'm now more than ever. Those who do not have a slice of Bitcoin in their portfolio may be thinking about it.

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I'll say in a less smooth and slightly less articulate way, I can't think of a better advertisement for Bitcoin than recent events that have transpired or in and around the geopolitical and economic situation that we find ourselves in. When I think about increasing on-ramps into this ecosystem, be it a spot ETF for Bitcoin here in the US or the development of greater and fuller and fair protections that bring investors into it, I am optimistic that not only is the asset class here to stay, but there are material inflows bound for crypto overall and certainly Bitcoin being one of them. Just up into the right continuing to deepen and broaden these networks and to increase their usability and the engineering around them. We haven't talked about the lightning network yet, but that is the means by which 8 billion people in the world can create and transact in US dollars by simply downloading code to their smartphone. Right now, it's very, very small, but it's just a matter of time. It's a when, not if, and it works very simply by collateralizing any fiat currency with Satoshi's, which is the division of Bitcoin. You can transact in any fiat currency anywhere in the world and people will be voting with their feet. It doesn't matter ultimately what the regulators do. The code is ultimately what controls and how fast people choose to download it and use it. I'm optimistic that for all the regulatory overreach we've seen here in the United States over the last 12 to 18 months, the US courts are ultimately going to set us free. We have the most robust legal system in the world and I think in this moment, it's going to require a robust legal response to reign in the regulators. That's the challenge. The opportunity and the thing that has me very optimistic is, I believe, our courts are up to that challenge. I'll echo that a little bit. A lot of people talk about SEC is all about regulation by enforcement and my response to that is, yes, their job is to enforce the law. They're a regulator. They're not here to make new laws. That's the job of Congress. What you said, Paula, and what you said, Jeremy, I think are pretty optimistic in terms of getting to more discourse and potentially more laws. I come at this as a technologist principally. I've never been more excited about the technological progress that's happening in blockchain infrastructure and wallet infrastructure, in Ethereum, Ethereum Layer 2s, account abstraction, which is a huge breakthrough. I don't think enough attention has been paid to it. All of that, for me, I analyze whatever the word is, compared to other evolutions in the internet. There was the dial-up to broadband moment and there was the moving from PC browsers to mobile apps and these fundamental lifts that took place in both UX and throughput. I think we're going to hit those. I think that the innovations in Layer 2s and account abstraction in particular, as a framework for usability, is going to mean that users are going to be able to download software-based wallets, transact directly, natively, without having to understand much, without having to go buy a crypto commodity in order to pay gas fees. They're going to be able to use stablecoins natively and have that be highly viral and bootstrapped with transactions that are a penny or two and with really delightful user experiences. All of that is coming in the next six to nine months. I am very optimistic that from a product-market fit perspective, we're going to go well outside of the crypto trading enthusiast crowd and into, as we already are, emerging markets are really leaving the way here, but we're going to see the network utility and network effects really start to take hold. I think we're going to be well on our way into hundreds of millions approaching a billion users by the end of 2024. I'm very optimistic about the technology right now. I think a lot of the things that we've needed are happening and they're happening

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principally in the Ethereum layer 2 community. I'm quite bullish about that.

I think I'm optimistic about the ongoing development of the space. I think it still takes more work to improve the user experience to bring it to an increasingly mainstream audience. Right now, it's currently been for a number of years where if people have frictions in the system they operate in, they are willing to go through the frictions of getting into the space. Whereas, like I say, the Chain Analysis Crypto Adoption Index, it's like 18 out of the 20 countries are developing countries because they have far more frictions in their existing system and so they're willing to learn and more rapidly get into the space. I think that as the hurdles continue to come down, while ironically some of the instability of the existing system continues to increase, then even people in these larger markets increasingly see the value of getting into the space. I'm pretty optimistic on the ongoing development ease of use of getting people in and the value proposition being here to stay. Again, we go through the cycles of it's a bubble and it's dead and then it's a bubble and it's dead. I think this last one was obviously the debt melting down, bad actors in the space. A lot of people thought it was dead. At least if they were outside of the space, a lot of them thought it was dead. I think as it bounces back yet again, it'll be a whole another wave, a whole larger wave of people coming into the space to explore.

Well, I'm going to come at it from the entrepreneurial and innovation side. I think that the banking crisis we've just gone through is an incredible advertisement for how we need to update our financial system. I expect to see an influx of talent from that. We're already seeing and have been seeing an influx of web to talent and traditional finance talent. Basically, the DeFi boom of 2020 and 2021 was a giant proof of concept of what can be done. We're seeing very senior entrepreneurs and builders come in to crypto to build better financial systems or to build a web to experience, but with a backend that respects the user and pulling from, say, some of the Silicon Valley or more polished pools of talent there. I would also say that within the internet financial system, I think we're going to see a lot of maturation in terms of integration with the traditional system, but also things like yield curves for the major assets along different durations, ability to mint stablecoins against treasuries, some things that are going to pull in significant amounts of value and make blockchain based finance more palatable or even just accessible for the really at scale players that are playing in the tens of billions, hundreds of billions, trillions of dollars. On the technological side, ETH L2s are coming together, Bitcoin L2s are coming together. Solana is going to have a second client from jump for stability. So the substrate is all improving. And I very much agree with Jeremy's comment that we're going from dial up to broadband and you needed broadband in order for there to be an explosion of users. And we're on that precipice with crypto. And then the last thing I would say is ETH on April 12th, so a week from when this is being recorded is going to go through a staking de-risking event and actually open up this idea of staking ETH as being risk minimized yield. Right now, you only have 15% of ETH staked. A lot of its peers are 50 to 70% staked. And so I think that one of the only markets that's bigger than gold is the treasuries market. And I think if Bitcoin's going after gold, then ETH might be going after the treasuries market with risk minimized yield. And we're on the cusp of say one of the final transitions we need for that to be taken seriously. Well, there you go. Perfect way to wrap it up. That concludes the second edition of the crypto brainstorm. We're honored to have you guys as guests. I thought that was an amazing conversation. I hope the viewers that are listening enjoyed the conversation.

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We will, in the show notes, make sure to reference where they can learn more about each of you. And with that, I hope to talk soon. Thank you so much. As Yasin said, we were honored to have you for this particular moment in time because it is such a poignant moment in time. And you all helped explain much more how profound it really is. So thank you.

Thank you. Thank you. Bye-bye. And of course, we couldn't have done this without all of the hard work that Yasin Almandra, our crypto lead, has put into pulling this panel together.

It took quite a lot of time, and we're just so pleased at the caliber and the diversification of this panel. I think it made for a great discussion. And finally, I'd like to thank Michael Kromer and our marketing team for helping us pull this together. And we look forward to doing this again. Thank you so much. ARK believes that the information presented is accurate and was

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