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WEBINAR

REGULATING DIGITAL ASSETS: THE PRUDENTIAL PERSPECTIVE

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PROCEEDINGS

MR. KLEIN: Good morning. I'm Aaron Klein, the Miriam K. Carliner senior fellow in Economic Studies at the Brookings Institution, and it's my pleasure to welcome you all here this morning for the second in our series of conversations on how to regulate digital assets.

There's no denying that there has been a transformative movement of people, of interest, of ideas, and of a lot of money into new categories of assets, digital assets, cryptocurrency, non-fungible tokens, a whole slew or panoply of things that are unique to this century but have many antecedents in different times in history. And these assets challenge our existing financial regulatory structure, largely predicated on a series of definitions and constructs for a set of assets and ideas that existed in the 20th century. The question is how are we to change and handle the new 21st century.

It is my great privilege and honor to share the stage and to invite up in a moment the acting chairman of the FDIC, Martin J. Gruenberg, to present his idea of how to regulate digital assets from a prudential regulatory standpoint, as one of the prudential bank regulators in America. The first in our series examined the question from the chair of the Commodities Future Trading Commission, who's a markets regulator. In America we distinguish between market regulation and prudential regulation. And don't even get me started on all the different regulators. I could bore all of us with an alphabet soup. But that doesn't change the fact that the economy is facing these same questions and having a thoughtful and innovative conversation from multiple points of view is one of the hallmarks of the Brookings Institution. And after acting chairman Gruenberg we will engage in a diverse panel of experts where we will reflect on his thoughts and share some of our own.

In introducing the acting chairman I think there are a few important things to note. He grew up in the Bronx and, you know, as part of a story only in America, made it through to Princeton University where he has followed the Princetonian mantra of serving both the country and the world. As the longest serving member of the FDIC Board in its nearly century of history, he has helped guide the deposit insurance fund through the financial crisis in 2008, through the COVID pandemic crisis, and has a plethora of experience.

In addition to helping America strengthen its financial regulatory system, Acting Chairman Gruenberg has served on a variety of global fora to help the rest of the world develop a financial system because, as everybody knows, and particularly in the case in digital assets, these are truly global markets with global money being moved.

So with that in mind, it's my distinct honor and privilege to welcome the acting chairman up, back before Brookings, where he has spoken before in the past, and let us all learn a little bit about how he's thinking about regulating digital assets. (Applause)

MR. GRUENBERG: Good morning, everybody. So nice to see you in person, I've got to say. Welcome to everybody watching virtually, but nice to have some real people to talk to. I appreciate it and particularly want to thank my friend, Aaron Klein, for inviting me here today, and thank the Brookings Center on Regulation and Markets for hosting today's program and giving me the chance to share some thoughts, as Aaron indicated, on the prudential regulation of crypto assets.

I'd like to begin this morning, to set the stage for my comments, talking a little bit about banking and innovation, since that is really so much at the center of this discussion around crypto assets. So let me start with that.

There's no doubt that innovation has played a central role in the evolution of banking and finance as we know it today. Credit cards, mobile payments, remote check deposit, online bill pay, direct deposit, automated teller machines, together they've transformed the financial landscape, generally to the benefit of both banks and consumers. Each of these innovations share an important element. Each began with a social, financial, or economic need to be addressed. Technology was then developed for the purpose of addressing that need. These innovations served to foster accessibility to the banking system, increase the convenience of consumer engagement in banking transactions, and enhance the operational efficiencies of banks and the banking industry.

At the same time, these innovations were designed to operate in a manner that is safe and sound for banks and that provides important consumer protections. These five elements: accessibility, convenience, efficiency, safety and soundness, consumer protection, among others, have

made these innovations so transformative for the banking system. And it's these five elements that in my view banks and other stakeholders should consider when assessing new innovations.

This is important to keep in mind because as I think we all know, innovation can be a double-edged sword. Sub-prime mortgages, sub-prime mortgage-backed securities, collateralized debt obligations, credit default swaps, were all considered financial innovations that would serve the interests of both consumers and banks, in the early 2000s. It didn't quite work out that way and they ended up being at the center of the global financial crisis of 2008.

One of the main reasons that these innovations resulted in such a catastrophic failure was that the risks were too often poorly understood by consumers and industry participants, frequently downplayed, and even intentionally ignored, and the market's eagerness to participate in these products. The risks associated with these products are clear today and would have been have clearer then had we stepped back and taken the time to thoroughly analyze them. Indeed, history and hindsight show that the better approach is often cautioned when confronted with conditions such as these.

And that brings me to the subject of today's program, crypto assets. For purposes of this discussion, I'll rely on the definition used in the recently published digital asset report by the Financial Stability Oversight Council, the FSOC. And very simply, crypto assets are private sector digital assets that depend primarily on the use of cryptography and distributed ledge or similar technologies.

Now, advocates of crypto assets and the distributed ledger technology on which they rely have represented that these assets and technologies will increase financial accessibility and convenience for consumers and operational efficiencies for banks. At the same time, they bring with them novel and complex risks that like the risks associated with the innovative products in the early 2000s, are difficult to fully assess, especially with the market's eagerness to move quickly into these products.

The recent Treasury Department report on crypto assets should give us pause as it articulates the risks and implications for consumers, investors, and businesses. The report states that for crypto assets — I quote from the report — "both the existing use cases and potential opportunities come with risks, including conduct and market integrity risks, operational risks, and intermediation risks. Some

are unique to the crypt asset ecosystem, while others are versions of those experienced in traditional financial markets that may be heightened when experienced in the crypto asset ecosystem."

Part of the difficulty in assessing these risks arises from the dynamic nature of crypto assets, the crypto marketplace, and the rapid pace of innovation. As soon as the risks of some crypto assets come into sharper focus, either the underlying technology shifts or the use case or business model of the crypto asset changes. New crypto assets are regularly coming on the market with differentiated risk profiles, such that superficially similar crypto assets may pose significantly different risks.

For example, one popular price tracking website for crypto assets reports 21,398 unique crypto assets trading across 526 crypto exchanges. Understanding the risk of such a large number of unique crypto assets and the integrity of so many crypto exchanges is, needless to say, a challenging task. Similarly, consumers are often finding that they have no party to turn to when a problem arises, particularly in decentralized blockchain ledgers. And, finally, many crypto assets operate on open permissionless networks that allow anyone anywhere to trade on the network, which by design makes it difficult to track individual actors. This design feature also makes it nearly impossible to ensure compliance with anti-money laundering and counterterrorism financing requirements.

So with this as the context for the conversation this morning, in my remarks today I'll focus on two topics. First, I'll provide a brief overview of the FDIC's approach to engaging with banks as they consider crypto asset related activities and, second, I'll discuss the potential benefits, risks, and policy questions related to the possibility that a stablecoin could be developed that would allow for reliable real time consumer and business payments. So that's the framework for today.

So, starting with the FDIC. It's important to recognize that almost all crypto asset activity today involves investing and trading in crypto assets. That activity and the platforms through which activity occurs fall within the first instance under the authority of the U.S. market regulators, the Securities Exchange Commission and the Commodities Futures Trading Commission. However, the recent growth in the crypto asset industry has triggered increasing interest on the part of some banks to engage in crypto asset activity.

From the perspective of a banking regulator, before banks engage in crypto asset related activities, it's important to ensure that the specific activity is permissible under applicable law and regulation, that the activity can be engaged in in a safe and sound manner, and that the bank has put in place appropriate measures and controls to identify and manage the novel risks associated with the activities, and, finally, that the bank can ensure compliance with all relevant laws, including those related to anti money laundering, countering the financing of terrorism, and consumer protection.

The FDIC had been generally aware of the interest in crypto asset related activities through its normal supervision process, but as interest accelerated, we recognized that we lacked sufficient information on the risks associated with the activities, as well as on which banks had been engaging in it or interested in engaging in crypto asset related activities.

So to address that gap, in April of this year the FDIC issued a financial institution letter, and, in that letter, we asked the banks the FDIC supervises to notify us if they are engaging in or planning to engage in crypto asset related activities. If so, we asked banks to provide us enough details to allow us to work with them to assess the risks associated with the activities and the appropriateness of their proposed governance and risk management processes associated with the activity. The other federal banking agencies have issued similar requests to their supervised institutions.

Once the FDIC develops a better understanding of activities planned or already active, we provide the institution with case specific supervisory feedback. As the FDIC and the other federal banking agencies develop a better collective understanding of the risks associated with these activities, we expect to provide broader industry guidance on an inter-agency basis.

Now, this clearly reflects a cautious and deliberate approach by the agencies to bank participation in crypto asset related activity and we're doing this for several reasons. The risk of these activities to safety and soundness, consumer protection and financial stability, the lack of history and familiarity with these assets, both in the marketplace and within regulated financial institutions, and also the dynamic nature of these assets.

Look, you need only read the news to know that these risks are real. After the

bankruptcies of crypto asset platforms earlier this year, there have been numerous stories of consumers who have been unable to access their funds or savings. In addition, this is a particular -- everything is of concern, but this particularly comes close to the FDIC -- false and misleading statements, either direct or implied, by crypto asset entities concerning the availability of federal deposit insurance for a given crypto asset produce violate the law. We have seen several instances where crypto asset companies have given customers the impression that they are protected by the government safety net when in fact they are not. Further, misrepresentations by crypto asset firms about how they are regulated have also confused consumers and investors regarding whether a given crypto asset product is regulated to the same extent as other financial produces. In other cases, customers may have fundamentally misunderstood the risks associated with investment in various types of crypto assets, calling into question whether consumer disclosures and other important consumer safeguards are appropriately implemented within the crypto asset marketplace. Insured institutions need to be aware of how FDIC insurance operates and need to assess, manage, and control risks arising from third-party relationships, including those with crypto companies.

In addition to potential consumer harm, customer confusion can lead to risks for banks if a third-party with whom they are dealing makes misrepresentations about the nature and scope of deposit insurance. The FDIC issued an advisory in July reminding insured banks of the risks that could arise related to misrepresentations of deposit insurance by crypto asset companies.

So that's an initial discussion relating to the FDIC. Now let me turn to the issues relating to stablecoins.

As I'm sure you all know, bitcoin was the first widely known crypto asset. It was designed to operate on a public distributed ledger system employing blockchain technology. The purported purpose of bitcoin was the development of an alternative currency system free of central control and free of the need for banks and governance. The validation transactions on the blockchain system operated by a decentralized public consensus process. Since the advent of bitcoin many other purported crypto assets have come online, for example, ether. Neither bitcoin nor ether are backed by physical assets,

but, rather, they purport to establish value by their scarcity or utility. As such, the value of these crypto assets at any point is driven in large part by market sentiment. This has resulted in a highly volatile marketplace where fortunes have been made and lost overnight.

As investors traded in and out of various crypto assets, a desire arose for a crypto asset with a stable value that would allow investors to transfer value from one crypto asset into another without the need for converting into and out of fiat currencies. And this gave rise to the development of the various so called stablecoins. Unlike bitcoin, ether, and similar crypto assets, most stablecoins are represented as backed by a pool of assets or utilize other methods to help maintain a stable value. Currently the most prominent stablecoins are purported to be backed by financial assets, such as currencies, U.S. treasuries, securities, or commercial paper.

Like the concept of money market mutual funds, many types of stablecoins seek to maintain a stable value of $1 or other unit of fiat currency per coin either through the backing by a pool of assets, which could include other digital assets, or through the use of an algorithmic mechanism, such as a value stabilization means. Of course, what is represented and what is true can be two different things.

Thus far, as I previously stated, stablecoins have predominantly be used as a vehicle to buy and sell crypto assets for investment and trading purposes. There has been no demonstration so far of their value in terms of the broader payment systems. So I now want to turn to the prospects of a payment stablecoin.

Even if crypto assets and stablecoins have not yet proven to be a meaningful or reliable source of payments in the real economy, the distributed ledger technology upon which they are built may prove to have meaningful applications in public utility within the payment system. We are at a pivotal policy point with this new technology and asset class, much as we were during the free banking era of the late 1800s and early 1900s as the financial system we know today came into being. As was pointed out in the FSOC digital report, and I quote, "Currency during the free banking era consisted of bank notes, that is liabilities of individual banks payable in gold or silver if presented at the issuing bank. As many as 1,500 currencies circulated at any time." This decentralized form of monetary exchange led to numerous

bank runs and cycles of bank failures.

While our financial system has advanced significantly over the past century, we would do well to keep our history in mind. It offers a valuable lesson about the risks of private money, both digital and physical, for the U.S. financial system when we consider the more than 21,000 crypto assets currently in existence.

There has been considerable discussion and public debate regarding the benefits and risks associated with the development of a payment stablecoin for both domestic and international cross border payment purposes that is subject to prudential regulation. The main benefit given for the development of a payment stablecoin is the ability to offer cost effective, real time, around the clock retail and business payments. On the domestic level, this is similar to the benefits proposed by the Federal Reserve's FedNow system and is scheduled to come online in the coming year. The extent to which a payment stablecoin would provide additive or complementary benefits to the FedNow system remains to be seen.

Nonetheless, there may be merit in continuing to examine the potential benefits associated with payment stablecoins. To be clear, I see the notion of payment stablecoins as conceptually distinct and separate from the existing broader universe of stablecoins and designed specifically as an instrument to satisfy the consumer and business need for safe, efficient, cost effective real time payments.

There are three important features that could make payment stablecoins significantly safer than the stablecoins currently in the marketplace. First, payment stablecoins would be safer if they were subject to prudential regulation. One vehicle for ensuring prudential regulation and separation from deposit taking would be the issuance of a payment stablecoin through a bank subsidiary. Second, payment stablecoins would be safer if they were required to be backed dollar for dollar by high quality short dated U.S. Treasury assets. Backing with such high-quality assets would help ensure that payment stablecoins could be quickly and efficiently redeemed for fiat currency on a dollar-for-dollar basis, limiting the potential for risks associated with these instruments to spill over to the traditional financial system.

And third, payment stablecoins would be safer if they were transacted on permissioned ledger systems with a robust governance and compliance mechanism.

The ability to know all the parties, including nodes and validators, that are engaging in payment stablecoin activities is critical to ensuring compliance with anti money laundering and countering the financing of terrorism regulations and deterring sanction evasion. The U.S. Department of the Treasury action plan to address illicit financing risks of digital assets is a helpful step in addressing those risks. While these three features would make payment stablecoins safer, there remain several important policy considerations that should be taken into account when examining the benefits and the risks associated with payment stablecoins.

The development of a payment stablecoin could fundamentally alter the landscape of banking. Economies of scale associated with payment stablecoins could lead to further consolidation in the banking system or disintermediation of traditional banks. And the network effects associated with payment stablecoins could alter the manner in which credit is extended within the banking system, for example, by facilitating greater use of fintech and non-bank lending and possibly leading to forms of credit disintermediation that could harm the viability of many U.S. banks and potentially create a foundation for a new type of shadow banking.

This in turn raises important policy questions. For example, should non-banks be allowed to offer stablecoins or should the issuance of payment stablecoins be limited to banks and prudentially regulated bank subsidiaries? It will be important to have this debate, not only in the context of regulating crypto related risks, but in the context of the future of banking, especially community banking. When we consider where payment stablecoins should fit into the regulatory landscape, we also have to consider the manner and extent to which states should charter stablecoin issuers or license them as money transmitters. Many states have invested considerable time and effort into understanding the risks associated with crypto assets and stablecoins. All payment stablecoin issuers should, just like bank, whether federal or state chartered, be subject to prudential regulation and oversight. As I mentioned, the potential for non-bank stablecoins to disintermediate community banks from their local communities is an

issue that will have to be carefully explored and considered.

Payment stablecoins, by their very design, could exhibit many of the features and potential vulnerabilities associated with money market mutual funds. As we have seen previously, in stressed market conditions, large investors could quickly exit their holdings, leading to the fire sale pricing of underlying securities and panic selling by other investors. This could result in contagion across other payment stablecoins and similar pooled asset holdings, resulting in a systemic event.

Careful attention should also be paid to disclosure and consumer protection issues. While the fundamental premise of payment stablecoins is that they may be safer and easier to understand than more complex crypto assets, the interface with retail businesses will pose new questions and challenges as both consumers and businesses adjust to a new form of payments and its associated rights and obligations. Unfortunately, some fraud related experiences with certain peer to peer payment systems have highlighted the risks associated with novel retail payment systems.

The disclosure and consumer protection issues will also need to be carefully considered, especially if custodial wallets are allowed outside of the banking system as a means for holding and conducting transactions with payment stablecoins. It is uncertain whether and to what extent such wallets would or should be subject to prudential supervision.

Consideration must be given to the ability of a payment stablecoin to foster a more inclusive and accessible banking system. A payment stablecoin and any associated hosted or custodial wallets should be designed in a manner that eliminated, not creates barriers for low- and moderate-income households to benefit from a real time payment system. Further, additional studies should be undertaken to see if there are design features that could provide incentives for greater participation by unbanked and underbanked households. At the same time, it also raises questions about those lacking appropriate technological resources, including internet connectivity and the risks of financial exclusion if the financial system moves primarily to a digital format.

As I previously indicated, another important policy consideration should be how a payment system that is based on the use of payment stablecoins would appropriately interact with the

Federal Reserve's upcoming FedNow service, as well as the potential development of a U.S. central bank digital currency.

And, finally, we are left with one of the most pressing policy questions, is legislation needed and, if so, for what issues are legislation needed most? The federal banking agencies have a significant breadth of authority when it comes to addressing the safety and soundness and financial stability risks associated with crypto asset related activities, including perhaps payment stablecoin issuance by our regulated entities. However, there are clear limits to our authority, especially in certain areas of consumer protection, as well as the provision of wallets and other related services by non-bank entities. We must consider the extent to which legislation would be necessary to provide a cohesive framework to prudentially regulate a payment stablecoin system from end to end and sure that consumers are appropriately protected in the process.

So, in conclusion, while I have sounded several notes of caution, it's important for the FDIC and the other federal banking agencies to approach crypto assets and crypto asset related activities thoughtfully. We must understand and assess the risk associated with these activities the same way we would assess the risks related to any other new activity. However, the risks associated with crypto assets are novel and complex, so the assessment of these risks will take time and a significant amount of dialogue with multiple stakeholders. We will continue to work with our supervised banks to ensure that any crypto asset related activities that they engage in are permissible banking activities that can be conducted in a safe and sound manner and in compliance with existing laws and regulations. If so, we will work with banks to ensure that they have in place appropriate measures and control to identify and manage risks and can ensure compliance with all relevant laws, including those related to anti money laundering and consumer protection. And we will do this in collaboration with our fellow banking agencies.

Finally, there may be benefits associated with a payment stablecoin, especially to the extent that it fosters an inclusive real time payment system. However, as I indicated, there are important risks and policy concerns that will need to be taken into consideration before a payment stablecoin

system is developed. And to the extent that a payment stablecoin system is developed, it should be designed in a manner that complements the Federal Reserve's FedNow system and the potential future development of a U.S. central bank digital currency.

Those are my thoughts for today. I really appreciate your attention. Thank you all very much. (Applause)

MR. KLEIN: We have time for a few questions, but time is running short and I'm anxious to get to the panel. So try and go a little bit quickly. But there were so many candids to jump on from the conversation. We only have time touch on a couple.

You mentioned the importance of safeguarding deposit insurance and you mentioned having sent some actions on false or misleading claims into the marketplace when you see folks represent deposit insurance where it doesn't exist.

What impact has the FDIC seen since issuance of a final rule on letters to crypto firms and when you've been challenging marketing practices that you've seen that have been problematic?

MR. GRUENBERG: That's an important question. And I thank you for asking it.

You know, it goes to the core of the FDIC's mission. You know, the FDIC fundamentally is about maintaining public confidence in the banking system and the financial system. And when there are serious misrepresentations made as to whether deposit insurance applies to a particular financial product, it really undermines and goes to the very credibility of our deposit insurance system, which is really critical for the stability of the system.

And as I indicated, it is against the law to misrepresent deposit insurance coverage. We've had several instances in which this has occurred with crypto asset firms, and we have sent letters to those firms demanding that they cease and desist from those activities, and if not, we have authorities that we can utilize to bring about compliance with the law. And we thought these were critically important steps to take. We released the letters that we sent publicly so that there could be broad public awareness. Both of the incidents that have occurred and that the actions that we have taken, we hope that both reassures the public and frankly sends a signal to those who would consider engaging in

misrepresentations and trying to mislead consumers. And people have been misled, they have relied on the misrepresentations, and there have been consequences. So this for us is really a critical priority to address and I appreciate you raising it.

MR. KLEIN: You talked about financial inclusion, and I know that's another core priority of yours. You used the term increase accessibility and provide value for consumers. And you mentioned automatic teller machines, which I've written about and researched previously. Talk about a robot design to eliminate a job. And there are more tank tellers today when I last looked than there were in 1990. There was another automatic machine that came into place, many of us would call this robot Kayak, and 80 percent of travel agent jobs went away. There have been rumors that bank tellers and bank branches were going to disappear for decades, but they've survived what would be called — don't know how else to call it — automation. And you point out the ATM as a good thing, right. It didn't displace workers, it provided more access, it provided more feasibility in the form of digital money or in the form of other digital services. You mentioned check truncation. A law that we worked on together in a prior life allowing pictures of your check to be deposited, originally promoted actually after 9/11, had another set of financial inclusion benefits.

With that banking background, how do you evaluate the claims and the evidence in the crypto community that digital assets will provide value to customers, particularly as you point out with the plethora — and certainly the consumer demand in that space. What's your framework for thinking about that?

MR. GRUENBERG: Well, I mean the fact is I think thus far we haven't seen much evidence of benefit from crypto asset activity. If the goal is financial inclusion and expanding access, you know, crypto activity today has largely been a function, as I indicated, of investment and trading and really has not been a vehicle for expanded access. And so I think it really remains to be demonstrated whether there's some potential there.

MR. KLEIN: Well, you know, the FDIC does a lot of research on this issue. You have kind of the gold standard of financial access in the underserved banking survey. It comes out every two

years. I hate to tell you that the 2019 survey when it came out kind of wasn't quite as valuable as it had been in the past because there was this little thing in 2020 that disrupted the whole world and actually increased the value of digital access to money when physical transactions became challenging. So we're all waiting in baited breath, when will the '21 survey come out?

MR. GRUENBERG: Well, Aaron, let me tell you (laughter) — and we didn't plan this ahead of time for what it's worth, but by coincidence, we will be releasing the results of the most recent survey next Tuesday for everybody to review. And there will be a meeting next Thursday of the FDIC's Advisory Committee on Economic Inclusion where we'll have a panel of FDIC people who actually did the survey talking about the survey results and some of the implications from the survey.

So your question is timely and relevant.

MR. KLEIN: Now, you've told me what I'm going to be doing next week in terms of educating and learning more about how people have changed and what services and what things have.

One thing that hasn't change is there is no FedNow. There are not real time payments provided by the Federal Reserve central bank, despite the fact that the rest of the world did this years — decades ago. And so, you know, I'm excited to see how consumers have changed over Covid and distraught that yet we've seen no real advancement in our central bank's movement of money.

Final question and them I'm going to turn to the audience, because we've gone over time. But you serve as a member of the Financial Stability Oversight Committee, which was charged with monitoring risks in this Dodd-Frank framework and having the ability to bring things into the system. I believe you're the longest serving member of FSOC and you've experienced during the period where entities were designated, you've seen entities be de-designated, and in the last administration a change in the FSOC theory more to focus on activities and practices. You discussed new activities and practices, such as stablecoins, you drew a parallel to money market mutual funds, which at one point the FSOC felt that it had made a major advance in helping the SEC come to a better regulatory framework, only to watch federal regulators go back to the bailout well again in Covid.

We have this now framework of designating specific entities, we have a framework of

designating broader actions and activities. You know, how do you bring this all together? Does the FSOC have the power necessary? Should there be a systemic risk to the financial system? And where do you see the FSOC going between designating entities and designating activities? And I might add a third thing, there's a payment designation function as well.

MR. GRUENBERG: So I don't want to be presumptuous here and start predicting what the FSOC may do. It's fair to say digital assets, as you know, have been a source of enormous attention by the FSOC. I referenced the thoughtful and extensive report that the FSOC issued relating to digital assets, which I thought was a real contribution in terms of describing and explaining what they were, the risks associated with them, and had some recommendations. The issues you raise in regard to utilizing the designation authorities that the FSOC has I think are issues that have been of interest to members of the FSOC and received — been the subject of some discussion. I don't want to go further than that, but I think those are issues that are certainly on the minds of FSOC members and may be under consideration.

MR. KLEIN: Great.

We have time for a question from the audience.

SPEAKER: Hi, I wanted to ask about what you — thank you. I wanted to ask about what you said about limiting stablecoin issuance to permission chains. I'm curious if you're concerned that that would replicate some of the issues with the existing banking system. I'm talking about, you know, de-risking and cutting off sort of international access, any potential stablecoins that would be backed to the U.S. dollar. I mean you mentioned that — okay.

MR. KLEIN: That's good.

No, I think that's one of the core risks associated with the technology. A public unpermissioned blockchain, as I indicated in my remarks, poses enormous challenges in terms of basic supervisory responsibility for safety and soundness, consumer protection, and anti money laundering. And the potential for a permissioned blockchain where you could address those issues, if we're going to consider the utilization of that technology within the banking system, seems to us to have much greater

potential.

MR. KLEIN: Great.

Well, thank you all for joining me and thanking the Chairman. (Applause)

And I'm going to call up the panel to save time, as I slide over. I will introduce them as they walk on stage.

Lee Reiners is a policy director at the Duke Financial Economic Sector and a lecturing fellow at Duke Law where he teaches fintech and cryptocurrency law and policy. You may have read his work in the FinReg blog, listened to his FinReg podcast. A former employee of the Federal Reserve Bank of New York and previously he served as a U.S. Army Communications Specialist in Baghdad, Iraq. Lee, thank you for your service.

Gordon Liao is chief economist for Circle, the leading provider of payment infrastructure for the internet. Prior to joining Circle, he worked at the Federal Reserve Board of Governors leading research and development in decentralized finance and at Harvard University's endowment, the same institution where Gordon received his Ph.D. in economics.

Brooke Ybarra is a senior vice president of Innovation and Strategy at the American Bankers Association where she leads the group's Office of Innovation. Prior to joining ABA, Ybarra worked as a senior director in Global Quality at Marriott International, one of the great Maryland companies, serving Maryland and the world, and as a consultant at Accenture. Earlier in her — her work — her career — I think I'm allowed to say this publicly — at the CIA. She's a graduate of Stanford and Georgetown University.

We've all listened to the acting chairman. I'd love your reaction. This is a reaction panel. We're going to go a little bit long. The chairman went a little bit long and we're going to keep that — we're going to give time and have a full conversation.

Where do you all think he broke new ground, where do you think he was spot on, where do you think he missed the mark?

Lee, do you want to kick us off and we'll walk down?

MR. REINERS: Yes. I really appreciated Chairman Gruenberg's remarks. I thought, you know, he was spot on. A couple of things stood out to me.

You know, first he started talking about the history of innovation within the banking system and he said that those previous episodes in innovation started with identifying a problem and then coming up with the technology solution. You know, the subtext kind of throughout the rest of his speech is that when you look at cryptocurrency, in most cases, it's a solution in search of a problem. And it's not actually being used for financial inclusion, for payments, things of that nature. So that really stood out to me.

The second thing that stood out to me sort of was the consistency of message amongst the prudential regulators. You know, one of the complaints you hear quite a bit from folks in the crypto industry, and even crypto skeptics, is the lack of regulatory clarity, right.

I can understand that when you look at the markets regulators, but when you look at the OCC, the FDIC, and the Fed, they've been very consistent starting with their policy announcement from last November, that they were going to develop a common understanding of what's going on with crypto, they're going to look at specific issues, they've all issued guidance now. It says essentially the same thing, that if you're a regulated bank that wants to engage in crypto activity, you need to first let us know in writing and you need to get express written permission from us. So —

MR. KLEIN: So permission system, not permissionless.

MR. REINERS: Yes, exactly, a permission system. So that really stood out to me. And I appreciate that sort of precautionary principle that Chair Gruenberg is pursuing. And I think that's the right approach when you are a prudential bank supervisor.

MR. KLEIN: Gordon?

MR. LIAO: So first of all, thank you so much for inviting me to this panel.

I think the part that stood out to me that I think the Chairman is spot on is that payment stablecoin needs to be 100 percent backed by cash and cash equivalents that has short-term government obligations as well potentially cash held directly at the Federal Reserve.

I've done research — this is public online — that showed that if we take the approach of backing 100 percent of reserves for payment stablecoins, we get a utility coverage ratio that's equivalent to at least double as much as banks have. And I think that's really important to safeguard the system in terms of the interaction between the crypto system and traditional financial systems.

Where I think the Chairman might have missed the mark a bit is the utility value of crypto that are emerging right now, as well as the bank versus non-bank issuance of payment stablecoins. So on the utility value, we are beginning to see tremendous amount of utility value in cross border payments, for instance, where today remittance cost on average is around 6 percent globally. If you can bring down that remittance cost, even by a little, that extra money has utility value for the general public. And already today we have that ability to transfer peer to peer using blockchain, sometimes at a fraction of a cent. And that demonstrates the potential utility value in terms of financial inclusion. We actually observe that for USDC, for instance, a payment stablecoin where 75 percent of USDC enabled wallets actually hold less than $100 of value. That's less than most typical bank account minimum balance requirements.

In addition, the Chairman mentioned a bit about the speculative aspect of crypto, which obviously is a large part of it, but for payment stablecoins, that is not necessarily true. Less than 10 percent of USDC that are held on chain are actually held on exchanges. The rest of it are in wallets of various sorts, are held on smart contracts. So it's not entirely clear how much payment activities are real world payment activities versus speculative.

Now, on the point about bank led versus non-bank led issuance of stablecoin, I think it is important to go back and recognize the fact that the global financial crisis was as much of a crisis that came out of innovations that were less vetted and not as responsible, as well as banks are too big to fail, partly incentivized by either explicit public guarantee or implicit public guarantee to grow to that size. I think by bundling payment functions from banking, starting with a proper way of regulating payment stablecoins and getting access to the Federal Reserve for non-banks, that could pave the way to actually reduce overall financial system risk.

Those are my main points.

MS. YBARRA: Great. Thanks.

So a couple of things stood out to me. I think largely the Acting Chair hit the mark on the comments. I was encouraged on obviously the need for prudential regulation and a prudential regulatory framework to manage the risks associated with digital assets and stablecoin specifically. Also a big focus of the EBA is on regulatory clarity, Lee, to your point. But he did seem to indicate, you know, guidance is coming. I'm encouraged by the idea that the FDIC is working with banks on a case-by-case basis today to help them move forward, because I think it's important if DOT technology and blockchain technology is going to be one of the next innovations that supports banking and financial services, banks need a way to experiment in that space and need to learn and along with other non-bank entities. And, you know, not being able to move into that market has been a hindrance to some of that and to some of that innovation.

So I was certainly encouraged by the reference to coordinated regulator activity, case by case guidance now, but the idea that something more general will be coming.

MR. KLEIN: So that leads right into the next question about what you want to see prudential bank regulators do. You were heartened by the fact that he said — I think it was broader inter-agency guidance coming. Now inter-agency guidance has also been coming on things. Some things took a very long time. What else would you like to see prudential regulators do in this space?

MS. YBARRA: So certainly the general point about supporting banks to move into this space, if it's going to be a way forward for the future, you know, they need a way to get smarter on it, quite frankly, to learn.

But also would love to see prudential regulators not through an action of other guidance, you know, limit banks' ability to participate. So where we're seeing the staff accounting bulletin that's come out of the SEC, for example, you know that is a — implicitly impacts banks' ability to provide custody service in the way that it prescribes the balance sheet treatment of asset sender custody. So would encourage — you know, would hope to see them pushing back a little bit, kind of supporting removing some of the roadblocks I think to banks' ability to engage in these activities. Of course, safely and soundly, you know, with all of the prudential risk management that the Acting Chairman described.

MR. REINERS: Can I just jump in real quick? Because I kind of respectfully disagree with Brooke.

MS. YBARRA: Sure.

MR. REINERS: I mean in taking a step back, if you look at the FSOC report, which was excellent, and Chair Gruenberg referenced it, you know, it said when you look at crypto now it trades entirely on sentiment and that it lacks fundamentals, it lacks current economic utility.

Jeremy Diamond recently has said repeatedly that cryptocurrency is a decentralized Ponzi scheme. Forbes reported that over half of bitcoin trades are fake or false trades. We know that North Korea is targeting crypto firms and crypto platforms to fund their missile program. So why would we allow this into the banking system is really beyond me.

So what I would like to see is clear guidance from the banking agencies saying that banks are not allowed to hold unbacked crypto assets on their balance sheet, full stop. This is — there's no room whatsoever in the banking system. Now, as Brooke said, the reality is that there are banks already engaging in crypto asset activities. The agencies are wrapping their head around what that looks like, including custody. A few weeks ago BNY announced that they were engaging in a custody service and there are some issues around how is that treated from a capital standpoint because of the staff accounting bulletin. But even custody, I think they've got to come out with some pretty clear guidance because custody in crypto is very different. And this is something that Acting Chair Mike Hsu said. It's very different than custody in traditional assets. You know, there's this adage in crypto, not your keys, not your coin, right. So you have to keep your private keys secure. And when you look at the BNY press release announcing they were going to do this, they mention two firms that didn't get a lot of attention. One was Fireblocks, which is a tech firm that specialized specifically in crypto custody, and the second was Chainalysis, which is blockchain analytics firm that makes sure that crypto isn't being used for money laundering, terrorist funding, things of that nature.

If banks are going to get into this, these firms are going to play a bigger role. And so one thing that FSOC might want to consider is whether or not this should be designated as systemically

important financial market utilities. Or certainly the banking agencies should, as they have the right to do, regulate or show up and examine these firms.

So I think that's one area where I'd like to see them issue guidance.

The other is deposits in terms of stablecoin and reserves. You know, we've seen a drawdown in stablecoins fiat backed stablecoins over the last couple of weeks, reflecting the fact that these are just used simply to speculate in crypto, because if crypto prices go down, you don't need as many stablecoins, right, to buy and sell them. And so these are very, very volatile. And to the extent that banks are holding deposits, I think there should be 100 percent outflow for LCR purposes. I mean these are worse than broker deposits.

MR. KLEIN: Liquidity coverage ratios.

Sorry, I'm the acronym police occasionally.

MR. REINERS: Yes, liquidity coverage — so you have to have enough high-quality liquid assets to sustain a 30-day stressed event, right. And so you attach outflow rates to your liabilities. And I think if a bank is holding stablecoin reserves in deposit, then that should be treated as 100 percent outflow.

MR. KLEIN: Gordon?

MR. LIAO: Let me go back to your first point.

First of all, I think banks would disagree with your statement that crypto are not useful. This is why — you know, Jeremy Diamond probably would disagree as well because they're experimenting with JPM coin. Why are they experimenting with JPM coin — which initially they called stablecoin, later on they call it tokenized deposit — because there's real world utility value for smoothing out the functioning of our market plumbing for for repo market, for instance. This is why the technology is important, to facilitate innovation that could actually help us to enhance monetary policy transmission, help us to deliver better financial services.

Now, you know, on your point about crypto not worth — payment stablecoin being fully tied to speculation, that's just simply not true. If you look at —

MR. REINERS: It is. Look at Etherscan right now. The largest holder of U.S. dollar circle is MakerDAO. People are depositing USDC into a DeFi protocol to get another DeFi stablecoin and die. You can go look it up right now.

MR. LIAO: But look at the data, look at the data.

MR. REINERS: I am.

MR. LIAO: Okay.

MR. REINERS: Etherscan.io.

MR. KLEIN: Hold on. Lee, hold on, hold on. Gordon?

MR. LIAO: Seventy five percent of USDC wallet holdings are in wallets that hold less than $100, right. Only 10 percent of USDCs are held on exchanges. If you look at the correlation of market cap, how it's related to crypto asset prices, there's almost zero correlation for payment stablecoin. Now, that's not true for all stablecoin. Some are very much correlated, but for payment stablecoins, it is being used for real world transactions.

And if you look at Browley (phonetic), not just in the U.S., many other countries. There are many entrepreneurs out there trying to solve the simple problem of how do they transform the $100 bills that they have in physical cash into tokenized versions of it, because that would actually help those who are in need of stability to safeguard their money. At the same time, it offers transparency. We have over $2 trillion of physical case in physical circulation that nobody could trace. If you tokenize even part of it, it gives a lot more visibility than not tokenizing it.

On this debate about permission versus permissionless, the internet is permissionless. Back in the day when people were discussing about whether to make permission version of the internet and permissionless was internet, we settled on a permissionless internet. It proved to be really valuable to not just have siloed networks where you could only say send email within your own network or communicate with only whoever is in your (inaudible) network. I think the same approach that we're evaluating right now, having safeguards such as data analytics firms, such as Chainalysis and TRM Labs, having OFAC sanction list that are implemented through smart contracts, that is a way to go for ensuring

there is safety, yet ensuring that we have democratic values in our financial system that's not just restricted to a certain set of large banks.

MR. KLEIN: So one thing that didn't come up as much in the conversation with the Chair was the different roles for regulators. You could see the desire about deposit insurance fund, right, and then you talk a little bit about FSOC. There was a little bit of talk about the central bank, right, there was a continued kind of FedNow, which doesn't exist, which hasn't existed, is going to somehow solve problems which currently exist today, right. Currently if I want to send money from my account to your account immediately, we have a problem. There's a private sector solution, right, but that requires a couple of banks, you do it, the consumer can't demand it from the bank, the Treasury Department refuses to use it, so things like Covid stimulus payment get sent out in paper checks months later while children literally go hungry.

But that's not really the goal of the central bank, right. The central bank's goal is monetary policy, right. Payments is a long-lost afterthought, witness the fact that where we are in our payment system today. We have the SEC and CFTC, we have the OCC — somebody mentioned the Comptroller Hsu, who seems to be fine allowing banks whose entire business models overdraft to year in and year out get satisfactory supervisory and regulatory reviews, even though they are unprofitable, except for overdraft fees, driven in large part by the delay in payment systems.

So there's a lot of different things that you could see the regulators do using these different perches. Now, they're all running after stablecoins, digital assets, how to different regulate. Brooke, you talked about coordinating, which always sounds great. I feel like regulators always promise coordination and then you watch ridiculous amounts of in fighting and distinguishing.

How do you see the different roles for regulators playing through this new challenge of digital assets? And where do you think our current system could do better or worse within this structure?

MS. YBARRA: Maybe I'll go take a stab at that first. It's a great question.

And maybe one of the challenges with addressing it is still — I'll start with stablecoin — some fuzziness around what the use case is going to be, right. Right now a stablecoin in many ways

feels like a deposit substitute. So should it be regulated more like a deposit, which would lead us to kind of a banking framework for that? Because as I think the Acting Chair said too, the payments use case is really not fully developed right now. We haven't seen that and that's maybe where it will head in the future. But right now it feels like more of a deposit. Market it as a deposit, right, put your dollar here, it's just like a dollar.

MR. KLEIN: So not like — because he also talked about money market mutual funds.

MS. YBARRA: Well —

MR. KLEIN: Right. Which — but you see it more like a deposit than a money market mutual fund?

MS. YBARRA: I do. I do. I think at least — but I think that it is somewhat of an open debate. And the one thing that hasn't come up is are we paying interest on stablecoin. Does that make it more like a security if it's an interest-bearing instrument? I think that what we're evidencing here is there's some ambiguity around the use case and just the what is it, is causing some of this confusion.

MR. KLEIN: Gordon?

MR. LIAO: Again, I respectfully disagree with Brooke here. I mean the — again, the reality — you know, Chair Gensler is right when he characterizes stablecoins as being akin to casino chips at the casino, right. The realty —

MR. KLEIN: Is that different than a money market mutual fund?

MR. REINERS: Well, the money market mutual fund is the casino and casino chip I guess in that analogy. But people aren't using stablecoins for payments. I mean there's plenty of data out there that supports this.

SPEAKER: Show me.

MR. REINERS: What they're using for — I told you, Etherscan.io. Go check it out. The top three holders of USDC are all DeFi protocols. It's out there for — publicly available for everyone. So the reality is people are using stablecoins to participate in the DeFi ecosystem. And to the extent that we bring stablecoins into the banking perimeter is going to fuel that growth. And I think that's something that

prudential regulators should —

MR. KLEIN: So you disagree with the Chairman that they should be prudentially regulated?

MR. REINERS: Yes, for now. I mean to the extent that they do become used for payments, then we can reconsider. But people know that — you know, people that use stablecoins know the drill here. I mean you look at Tether, the most popular used stablecoins, their problems are well known and well documented, all right. And so if you haven't seen a run-on Tether yet, what would it take to cause it, right. And you've seen stablecoins break the (inaudible) repeatedly. Not by a lot, but Tether, USDC, you name it. And it hasn't triggered this panic, right.

So I think what we could have is disclosure, similar to what we have with money market mutual funds so that people can choose whether or not to use a given stablecoin. But I don't think — you know — and if you bring them in the prudential system, it's going to fuel DeFi, right, it's going to — you know, stablecoins are a net importer of stability, right, they're not an export. It's something Steven Kelly at Yale has written about. So they're going to draw more liquid assets, right, if we impose these requirements on them. And we see the issues with the treasury market right now, where there's just not enough liquidity, but drain liquidity from the system.

So I just don't think that right now it's appropriate to bring them into the prudential fold.

MR. KLEIN: Gordon, what do you think?

MR. LIAO: How can you not import prudential regulation into a sector that's badly needing prudential regulation? After the collapse of Terra, after probably hundreds of thousands of retail users being hurt as a result of lack of regulation. Today is the day that we need to act on this sort of stuff, we need to have prudential regulation around this.

And I completely respectfully disagree with you on the emerging utility values. And, you know, look at the type of partnership that Circle has, who has partnership with Visa, Stripe, MoneyGram of the World, because everyone sees there is demonstrated utility value emerging.

Now, we need regulatory clarity to achieve full utility value, but you also have to

recognize the benchmark is not that 50 percent of transactions been all directly real-world payment related. If you look at today's payment system, if you look at Fedwire settles over $1 quadrillion a day, but only 2 percent of that is actually real-world GDP. If you look at FX transactions, $6 trillion a day by volume, only 2 percent of that volume is actually going towards goods and services.

So by that sort of standard of traditional payment, real standards, I would say payment stablecoins are already getting there. So 25 percent of transaction value are wallet to wallet, not involving exchanges or smart contracts. So we need to do more to understand the usage of payment stablecoins, which is why I think FSCO got this part right, which is we need to invest resources at every agency to have the staff, to have the data to understand how to regulate these innovations and what these innovations could do. You can't regulate something you don't understand.

So we need to invest more, not less. And having no prudential regulation, I think that would actually harm consumers at the end.

MR. KLEIN: Go ahead, Brooke.

MS. YBARRA: I guess we — I'm curious, you know, if not prudential regulation, then what? I mean disclosure? Is that sufficient? I don't think so, to manage these risks.

MR. KLEIN: So money market mutual funds are prudentially regulated and yet the policy makers don't seem to allow investors to lose money. To me that seems like the worst outcome. The worst outcome is to have an asset that is reported as being stable that when it doesn't work and there's losses, that those losses get socialized under the rubric of systemic risk and that investors — the people that own money market mutual funds are extremely wealthy, generally old, and generally white.

MR. REINERS: So I agree with you completely here, Aaron.

The reason that we the government hasn't let money market mutual funds fail is for a variety of reason. I mean the demographics are one, as you mentioned. But they hold commercial paper, right, that are issued by real companies in the real economy. And if they ever have to sell that to meet outflows, or there would be a fire sale, right, that would depress the prices, yields would go up. So it impacts the real — it would — it would still (inaudible) —

MR. KLEIN: So if I — okay.

MR. REINERS: But stablecoin, there's no analogy. But they're stablecoins. I mean so Tether is sitting on quite a bit of commercial paper, but I think they could be able to offload it right now. I mean Circle has Treasuries and deposits.

MR. KLEIN: But why — Lee — Lee, why can one entity offload commercial paper and that won't hurt the real world, but another one would and that wouldn't. By the way, maybe the real world should suffer when people lose money.

MR. REINERS: Money market mutual funds are orders of magnitude, bigger than stablecoin.

MR. KLEIN: So the question is size, not action? Not what it is, but just how big it is?

MR. REINERS: Of a disclosure regime and then maybe restrictions around the composition of the reserves, right. So Circle has dollar deposits and Treasury securities. And you disclose that. And I think that's sufficient. I don't think you necessarily need to bring them into the banking perimeter.

MR. KLEIN: Gordon, what do you think?

MR. LIAO: Well, certainly you want to have the same standard for our payment stablecoins for it to be thoroughly adopted. You can't have one payment stablecoin to be backed by 100 percent commercial paper, or whatever, and other payment stablecoins to be much safer backed by short-term government obligations. I think have 100 percent backing by short-term government obligations is really important, not only for stability, but also for interoperability. You can use payment stablecoins across each other. You're going to end up in the free banking area with hundreds of different types of stablecoins if you don't have the same standard. And having the same standard of being safe assets that are set by federal regulators, that is crucial.

And I think hold treasuries actually will solve some of the problems that you observed because currently allowed treasuries are being held at the Fed, basically through this system of narrow banking of reverse repo facility funding Treasury holdings at the Fed. Having payment stablecoin holding

part of the Treasury would actually reduce the amount of Treasury that are held at the Fed and in times of stress, if there are inflows into stablecoin, those holding inflows can be used to purchase Treasury that would actually offset the type of market events we saw in March of 2020.

MR. KLEIN: So let me turn to folks in the audience, because this has been a fun and dynamic panel, which are my favorite kinds, and start the questions there. I'm also going to take a peek to see what questions have come on online. Start and then, David, you'll be next.

MR. BLOWER: Hi, Brad Blower of the National Community Reinvestment Coalition.

I had a question, Chair Gruenberg talked about learning from the lessons of the past. And certainly during the Great Recession mortgage-backed securities, sub-prime lending were touted as closing the racial housing gap. It didn't quite work out. And now crypto is being represented as closing the racial wealth gap. But what do you see the role of regulation and making sure that low and moderate income and people of color aren't taken advantage of as part of this cycle?

MS. YBARRA: I mean I guess I'll go first.

You know, while it's been purported that cryptocurrencies can be a financial inclusion contributor, I don't know that I'm sold on that as the premise. So I'm not sure that — there's certainly a role to ensure that minorities are not taken advantage of, and standard consumer protections should apply there. But I guess I disagree on the face that cryptocurrency is going to serve that financial inclusion need.

I haven't seen it yet.

MR. REINERS: Yes, it's a great question and one that's not easy to address. Pew came out with a study a few months ago and it found that minorities are more invested in crypto than whites. And they frankly got in at the wrong time, as is generally the case, right. So it's a challenge for regulators to address. I certainly think education and some more requirements around disclosure could help, but then I mean sitting behind you is Dennis Kelleher, who has recommended that celebrities that endorse crypto be required to get paid for that endorsement in crypto. So I think that would maybe help things too — if we didn't see so many commercials with Tom Brady and Matt Damon, maybe folks wouldn't be so

inclined to go in.

MR. LIAO: If you think about the usefulness of programmability of smart contracts and programmability of money, you could expand financial inclusion quite a lot by simply opening up the data silos and the transaction silos that currently exist. So most banks still rely quite heavily on their own internal data, or sometimes called self-information, that creates red lining. Having market-based credit intermediation is a solution to also what the Acting Chair mentioned about credit disintermediation, that is we already see a trend, even without talks of stablecoin or crypto. We already see a trend of banks being disintermediated on the credit space by fintechs. They are using better technology; they're using payment data from say a square terminal or a host terminal. Using more of those data that are open unpermissionless blockchain, but proper safeguard around identity solutions, you could actually expand credit access to a greater set of people.

MR. KLEIN: David?

MR. METZNER: Thank you very much. David Metzner with ACGA Analytics herein Washington.

I think one subject that we missed here is what is the prospect for congressional legislation in this space. And I'm going to say it's very high. I look at this year as a pivotal moment where if you watch the House Financial Services Committee and the Senate Banking Committee, the first two quarters of this year they were very negative, hostile to their digital or crypto witnesses. Now, at the end of this congressional section, we have a bipartisan bill in the House –– Maxine Waters and Patrick McHenry on stablecoins, we have Pat Toomey's bill in the Senate. And it's not that complicated. They call for Basel III type of capital behind a stablecoin, they call for prudential regulation at the federal or state level. These are simple things. And I think there is a consensus in Congress to get it done.

And I sit here — Aaron and I go way back. You know, when FSOC like starts calling for congressional regulation because they can't come up with a solution themselves, we sort of chuckle. But I think this time Congress has the draft bill. Look, simple and passable and bipartisan. And I think that's what's missing from our discussion today.

Thank you.

MR. KLEIN: So what do you think? Dare to ask, prediction business. Is there going to be legislation? Would it be a good thing?

MS. YBARRA: I think legislation is going to continue to be discussed. I think if — you know, we'll see what happens in these midterms. I think it's a high on a potential Chair McHenry's wish list. And maybe even in a lame duck. I mean we're (laughter) actively engaging on that. I think there has been a proposal for prudential framework, but in our opinion not as robust as a prudential framework that applies to banks today. So I think, you know, has some work to do. I liked McHenry's comment — I think it was last week where you referred to it as we have the — you know, it's an ugly baby right now and it's going to continue to evolve. And I think that's right. I think it will. It seems like it's the priority on a bipartisan basis right now. That will be the first of these digital asset issues to be covered.

MR. REINERS: I mean I think —

MR. KLEIN: Hold on a second. Let's go down. Gordon?

MR. LIAO: I absolutely agree. I think we badly need prudential regulation that requires congressional action right now. You just can't fit today's new innovation into archaic definitions and archaic rules. We definitely need new regulation and hopefully something like a stablecoin bill gets passed, if not this year, early next year.

MR. REINERS: I think the reason we haven't seen legislation is because it's actually harder than people expect. You know, you look at stablecoins right now, there are many paths to becoming a stablecoin issuer. You can get a New York State trust charter, you can get a national bank trust charter, you can get a Wyoming or Nebraska special purpose depository institution charter, you can go the Circle route and get money transmitter licenses, right.

And so I think the questions folks on the Hill are dealing with right now is how many of those options should we preserve. And then you get into the issues around what states are doing and things of that nature. And so this, when you get into the details, it's actually not that simple, and I think that's kind of where some of the negotiations between Chair Waters and Congressman McHenry broke

down.

So I mean I'm not in the prediction business, but I — you know, if it happened yet, I'm kind of skeptical it will happen anytime soon.

MR. KLEIN: Well, it is fascinating that there is no national money transmitter ability. You have to get 50 states or become a bank. When you try to explain this to other countries, to Europe, or other places, you say well we don't have a national insurance charter, we don't have a national money transmission charter, this is the United States of America and it's been that way for a long —

MR. REINERS: I'll tell my friends at CSBS who have put out a model money transmitter.

MR. KLEIN: Conference for State Bank Supervisors.

MR. REINERS: Yeah. Sorry.

SPEAKER: Hi. Good discussion. Always good to have different views hashed out rather than monologues. So I appreciate that. And Aaron is particularly good at laying the kindling. So I appreciate that too.

First, on legislation, I think people should remember that the last time we had major bipartisan financial regulation was in the 1990s. 1998 Glass-Steagall was taken down and in 2000 the CFMA was passed. And seven years —

MR. KLEIN: Commodities Future Modernization Act.

SPEAKER: Yes. So those two major pieces of deregulation pretty directly contributed to the 2008 crash, which was catastrophic to tens of millions of Americans. So when people talk about how great bipartisan legislation is, they might want to have some humility.

I wanted to ask you to think about something. Let's assume it's October of 2021, weeks from bitcoin's peak, right. And the so-called regulation that you're asking for was in place, which is to say we have deep interconnection between the crypto markets and the banking system, we have multiple crypto activities within the baking perimeter. And then over the next six months two-thirds of the value of crypto disappears. It doesn't disappear, right, it's actual losses. So you get $2 trillion. And I know there's some debate about the actual value and the dollar equivalent and stuff, but let's just for this thought piece

say it's $2 trillion out of $3 trillion disappears.

So you're now at a circumstance where it's within the banking perimeter, right, it's on the bank's balance sheets, and you are now therefore looking at massive banking regulator intervention, taxpayer bailouts potentially, and significant other consequences as a result of the interconnections that you're advocating for and pulling it all within the banking perimeter.

Are we better off having had banks potentially collapse in the last six months or — because of the collapse of the price because it's on their balance sheets? And remember, it's not just on their balance sheets, they're going to create derivatives off of them and the derivatives are going to be the conveyor belt to spread risk throughout the entire global system.

MR. KLEIN: And the question is?

SPEAKER: So here we — where are we if we're actually not backstopping that industry and that industry is now on the balance sheets? Are we better off or worse off?

MS. YBARRA: So I think your question is really important in that it makes me rethink kind of how I was framing what do we mean by banks engaging in the digital asset market, right. Are we talking about prudential regulation for bitcoin in Ethereum? No, right. I think that's more in the land of the market regulators. When we're talking about prudential regulation, I probably should be more specific to talking about the stablecoin market, these deposit like products or potential payment use case products down the road.

So I don't know — you know, given the prudential regulation and the framework that we've been discussing here, October 2021, that we would have such interconnectedness, that highly speculative activity in the traditional crypto space, that 21,000 coins that Acting Chair Gruenberg referenced. I'm not sure that would be on banks' balance sheets.

MR. LIAO: So if we had regulation that restricted the reserves of stablecoin holdings back a year ago, we wouldn't have the Terra Luna collapse that cost many people's savings, right. Because those are strictly — you know, they're not reserved by high quality liquid assets of level one quality, right. That's a very clear restriction that one could put in place to safeguard at least some part of

the financial system and to safeguard consumer protection as well.

MR. REINERS: Well, obviously, we'd be much worse. And to Gordon's point, I mean Terra Luna absolutely would have happened. I mean, one, that was an algorithmic stablecoin that was based overseas, so U.S. regulation wouldn't have made a lick of difference. And, you know, it collapsed. Obviously, it spilled into the rest of the crypto ecosystem, which is incredibly interconnected. All these assets are tightly correlated. You know, it brought down Three Arrows Capital, it brought down Voyager, it brought down Celcius, and thank God it didn't spill into the traditional financial system. And so that should be something that frankly from a policy standpoint, we got right. I mean that's a bit of a win.

And you look at the FSOC report and the FSB report that came out a week later, it said that right now the interconnections between the traditional financial system and crypto are minimal. And I think policy makers should do everything within their power to keep it that way. Because once you sort of do one thing, then it triggers this chain reaction.

Go back to 2107, the CFCT authorizes bitcoin futures. All right. Then the SEC really is kind of forced at that point to allow in ETF, tracking bitcoin futures. They've continued to, rightfully in my opinion, not approve an ETF tracking spot bitcoin, but now they're being challenged in court and the basis for that challenge is well, you allowed an ETF on bitcoin futures, right. So what one agency does spills over into other agencies. And so I was glad that Chair Gruenberg said that he is working with all the agencies. And I'd encourage him to continue to do so and do what they can to keep crypto out of the traditional financial system.

MR. KLEIN: So —

MR. LIAO: Just to go back to one point.

I completely disagree with you. The U.S. needs to take a leading role in setting the regulatory standards. If the U.S. had set regulatory standards, are highly upheld, then also now offering the same shelf space for different type of stablecoins to be listed, even if some of them are not fully backed, we probably could have prevented quite a bit of the loss that Terra Luna have caused.

MR. KLEIN: So I'm going to use this opportunity to thank the panelists and draw the

even to a close with one observation, which is that from prior research — I have a piece coming out in the *Yale Journal of Financial Stability* shortly, and it says that all financial crises are predicated on two different things, the fundamental mispricing of an asset and leverage. And what that asset is can vary, right. It can be a securitization backed by sub-prime mortgages, it can be the price of tulips in a Dutch market, right. And we've seen throughout human history, you can have the fundamental mispricing of an asset without a financial crisis. What is a click worth on the website?

In the 1990s this was a new thing, and we didn't really know. And some folks made a lot of — fortunes were made, and fortunes were lost, as Chairman Gruenberg used that terminology, as the value of Netscape and Pets.com and this online book seller named Amazon skyrocketed and then collapsed. I think Amazon went from about 0 to over 100 and then went down to 9. At one point you were down 90 percent in Amazon. And then today it's exploded. At various points if you were deep in Pets.com or Netscape or some of the dot com other things, you were gone. We didn't know how to fundamentally value a click. Now we have a pretty good idea, right, for better or worse.

You know, there wasn't leverage in the dot com bubble, in large part because of strong margin requirements on retail investors that were not taken away during the deregulatory frenzy. And the idea of mis-pricing assets ought not to scare us so much and it ought not to be so scary when assets fall in value. There seems to be a subtext that when assets go up in value, that's good for society, and when assets go down in value, we have to stop that. And I constantly wonder, maybe we should be a little more comfortable and somewhat ironically, particularly among some of my conservative friends, in letting asset values go up and down, provided that we have the right safeguards and leverage, and not react so quick to open the public til when assets go down, except for extremely a priori, highly regulated, and clearly communicated assets like bank deposit insurances, which is provided on a limited basis to individuals for distinct purposes.

So with that, let me thank the panel, thank everybody for staying with this, and wish you a wonderful day. (Applause)

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