

**DIGITAL ASSETS AND THE FUTURE  
OF FINANCE: UNDERSTANDING THE  
CHALLENGES AND BENEFITS OF FINANCIAL  
INNOVATION IN THE UNITED STATES**

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**HYBRID HEARING**  
BEFORE THE  
**COMMITTEE ON FINANCIAL SERVICES**  
**U.S. HOUSE OF REPRESENTATIVES**  
ONE HUNDRED SEVENTEENTH CONGRESS  
FIRST SESSION

\_\_\_\_\_  
DECEMBER 8, 2021  
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Printed for the use of the Committee on Financial Services

**Serial No. 117-63**



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# **DIGITAL ASSETS AND THE FUTURE OF FINANCE: UNDERSTANDING THE CHALLENGES AND BENEFITS OF FINANCIAL INNOVATION IN THE UNITED STATES**

**Wednesday, December 8, 2021**

U.S. HOUSE OF REPRESENTATIVES,  
COMMITTEE ON FINANCIAL SERVICES,  
*Washington, D.C.*

The committee met, pursuant to notice, at 10:04 a.m., in room 2128, Rayburn House Office Building, Hon. Maxine Waters [chairwoman of the committee] presiding.

Members present: Representatives Waters, Maloney, Velazquez, Sherman, Meeks, Green, Cleaver, Perlmutter, Himes, Foster, Beatty, Vargas, Gottheimer, Gonzalez of Texas, Lawson, San Nicolas, Axne, Casten, Torres, Lynch, Adams, Tlaib, Dean, Ocasio-Cortez, Garcia of Illinois, Garcia of Texas, Williams of Georgia, Auchincloss; McHenry, Lucas, Luetkemeyer, Huizenga, Wagner, Barr, Williams of Texas, Hill, Emmer, Zeldin, Loudermilk, Mooney, Davidson, Budd, Kustoff, Hollingsworth, Gonzalez of Ohio, Rose, Steil, Gooden, Timmons, Taylor, and Sessions.

Chairwoman WATERS. The Financial Services Committee will come to order. Without objection, the Chair is authorized to declare a recess of the committee at any time.

Today's hearing is entitled, "Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of Financial Innovation in the United States."

I now recognize myself for 5 minutes to give an opening statement.

Today's hearing is part of this committee's ongoing review of digital assets. Earlier this year, I created a Digital Assets Working Group of Democratic Members to meet with leading regulators, advocates, and other experts on how these novel products and services are reshaping our financial system. This hearing, and subsequent hearings on this topic, will help this committee consider how to support responsible innovation that protects consumers and investors, safeguards our financial system from systemic risk, promotes financial inclusion, and addresses environmental content, as well as to consider a potential central bank digital currency (CBDC).

We have also held several subcommittee and task force hearings earlier this year to better understand the landscape of this industry. At today's hearing, which I worked with Ranking Member

McHenry to organize, I look forward to engaging directly with this panel of cryptocurrency CEOs, whose companies issue stablecoins and provide an exchange to buy and sell digital assets, to understand where they think their products, services, and technologies are heading.

Americans are increasingly making financial decisions using digital assets every day. Even some pension funds are beginning to invest in cryptocurrencies on behalf of retirees, despite the track record of volatility of cryptocurrencies as investments.

The pandemic has also continued to contribute to working families looking for alternatives to rebuild their nest egg by investing in cryptocurrency. The rapid growth of this industry has also become more visible, with celebrity endorsements and ATMs that exchange cash for cryptocurrency.

However, several questions remain as to how traditional rules apply and whether regulators have sufficient authority to protect investors and consumers while maintaining market integrity and encouraging innovation. Currently, cryptocurrency markets have no overarching or centralized regulatory framework, leaving investments in the digital asset space vulnerable to fraud, manipulation, and abuse.

Some cryptocurrency market exchanges and stablecoin issuers have obtained State money transmitter and sale of checks licenses from multiple States, and at least three cryptocurrency companies have obtained conditional approval for national trust bank charters from the Office of the Comptroller of the Currency.

Meanwhile, the Federal Reserve is conducting research on central bank digital currencies, and other Federal agencies, like the FDIC and NCUA, have announced requests for information from the digital assets industry. The SEC is also actively utilizing its existing authorities to carry out enforcement actions against market participants.

As the prevalence of cryptocurrency grows, it has also raised environmental concerns tied to the computing power needed to mine some of the coins, which can rival the energy needs of entire countries like Sweden or Argentina. At the same time, the promise of digital assets in providing faster payments, instantaneous settlements, and lower transaction fees for remittances are areas that our committee is exploring.

As more and more people invest in and use cryptocurrencies, the committee will continue its efforts to look at how they are affecting many aspects of our lives and our financial system.

I now recognize the ranking member of the committee, the gentleman from North Carolina, Mr. McHenry, for 5 minutes.

Mr. McHENRY. Thank you, Madam Chairwoman.

2021 was the year of the cryptocurrency. More Americans than ever are taking notice of this transformational technology. DeFi, DAOs, NFTs, and Web3—jargon that was really once just used on crypto Twitter—is quickly becoming part of the lexicon.

Technology and its adoption are moving fast. Entrepreneurs and innovators are building and deploying the next generation of the internet, and firms like the ones before us are the onramp for many Americans to participate in the digital asset ecosystem.

But this panel is only a bit of that broad ecosystem, and this is the first time Congress is having a hearing about cryptocurrencies in its fullness. But as with any new and fast-growing industry, there are questions that need to be answered.

I want to be clear, though. This technology is already regulated. Now, the regulations may be clunky. They may not be up-to-date. I ask my friends, my policymaker friends here on the Hill this question: Do you know enough about this technology to have a serious debate?

If the answer is no, then we need to first seek to understand, to build up that understanding of this new technology so we can have a serious debate on how we appropriately respond and update regulations and perhaps laws. But I should be clear: The goal today is to listen, learn, and ask questions.

This technology is new and exciting. It promises a new direction for financial economies, services, and products. I further ask this question: How do we make sure, as American policymakers, that this cryptocurrency revolution, this technology revolution, happens in the U.S. and not overseas?

There are a lot of questions we have to answer, but of course, we need reasonable rules of the road. We know that. We don't need knee-jerk reactions by lawmakers to regulate out of the fear of the unknown rather than seeking to understand. And that fear of the unknown and the move to regulate before understanding will only stifle American ingenuity and put us at a competitive disadvantage.

Throughout history, we have seen countless harmful examples of overregulation around the world by governments. In the late 1800s, England reacted to the rise of cars with laws that required three people to operate a vehicle at all times: one to drive; a second to fuel up the vehicle; and a third to stand in front of the car and wave a red flag.

Now, Congress should not be dumb enough to raise a red flag around this technology revolution. We should embrace it. We should understand it. And we should be the international leaders in this space.

A further example is Skype, the videoconferencing platform that may still be a little clunky but was vital during the COVID shutdowns that we just experienced. And it was vital for some of our kids to even go to school or even have hearings on this massive screen here.

Skype was illegal in most of the world when it was launched. There wasn't a regulatory infrastructure in place that allowed this novel technology, this new technology.

And finally, when an invention called the internet began to boom, U.S. lawmakers and regulators struggled to fully grasp the immense possibilities of this innovation out of the gate. That was in the early 1990s, and I think we are in a similar state with Web3 30 years later, for Congress first to understand before we would seek to legislate.

Today, it would be nearly impossible to go a day without using the internet to communicate. We know that. Or to move from point A to point B. We know that. Or to purchase necessities for our families. We know that.

I would argue that the nascent technology we are discussing today will have just as much impact on our daily lives, perhaps more. And that is why we must get this right.

My fear, however, is that we will have a partisan divide here. My fear is that some of my Democratic colleagues have already made up their minds, and they have regulatory bills that they are going to file in order to stifle this innovation or to kill it before it fully grows and blossoms.

I hope we can work together in a bipartisan way, and I hope this hearing is the first of many for us to understand and get clarity from innovators and entrepreneurs about what is needed. This should allow us to have these markets thrive and grow while protecting our consumers and giving clear rules of the road to prevent fraud and manipulation.

Forcing the private sector to navigate unclear public statements and regulation by enforcement is the wrong approach. So is demonizing an entire industry based off of the headlines garnered by a few bad actors.

Understandably, there are concerns with the use of cryptocurrencies for nefarious activities. Let me address that. Do you know what else is used for nefarious activities? Cash. Let us dispel the rumor now that digital asset technology is a looming threat to our financial system. Instead, we should work to fully understand the opportunities that the next generation of the internet could provide to Americans.

I look forward to hearing from our witnesses. And I look forward to having a deeper understanding as a policymaker about the ramifications for action by Congress before we understand this new technology that is now actually a decade old.

So, with that, Madam Chairwoman, thank you for having the hearing. Thank you for working with us on a bipartisan panel, and I hope Members will take the same spirit of bipartisan cooperation in their questioning.

With that, I yield back.

Chairwoman WATERS. Thank you very much, Mr. McHenry.

I believe that this hearing itself and the witnesses that we have here today have answered all of your questions about whether or not you think we are seeking information to arm ourselves with the ability to make the right decisions.

We will now turn to our witnesses: Mr. Jeremy Allaire, co-founder, chairman and CEO of Circle; Mr. Samuel Bankman-Fried, founder and CEO of FTX; Mr. Brian P. Brooks, CEO of Bitfury Group; Mr. Charles Cascarilla, CEO and co-founder of Paxos Trust Company; Ms. Denelle Dixon, CEO and executive director of Stellar Development Foundation; and Ms. Alesia Jeanne Haas, CEO of Coinbase, Inc., and CFO of Coinbase Global, Inc.

You will each have 5 minutes to summarize your testimony. You should be able to see a timer that will indicate how much time you have left. I would ask you to be mindful of the timer, and quickly wrap up your testimony when your time has expired.

And without objection, your written statements will be made a part of the record.

Mr. Allaire, you are now recognized for 5 minutes to present your oral testimony.



**STATEMENT OF JEREMY ALLAIRE, CO-FOUNDER, CHAIRMAN  
AND CEO, CIRCLE**

Mr. ALLAIRE. Good morning, Chairwoman Waters, Ranking Member McHenry, and members of the House Financial Services Committee. Thank you for the opportunity to share my testimony with you today.

My name is Jeremy Allaire, and I am the co-founder, chairman and CEO of Circle Internet Financial, a now 8-year-old company that has operated at the cutting edge of the digital assets market and digital currency technology innovation.

Today, we are at a pivotal moment in the development of the next major infrastructure layer of the internet, extending from an internet of data, content, and communications to an internet of value exchange and economic coordination. In a world where money becomes a core feature of the internet, the United States should be aggressively promoting the use of the dollar as the primary currency of the internet, and should leverage that as a source of national economic competitiveness.

Circle's mission is to raise global economic prosperity through the frictionless exchange of financial value, creating a world where financial inclusion, responsible financial services innovation, and protecting the integrity the global financial system are not conflicting objectives.

Today, I would like to address some of the key policy issues facing the United States around the rapid growth and use of dollar digital currencies, also known as stablecoins. Circle is the sole issuer of USD Coin, or USDC, an innovation that brings the benefits of digital currency—fast, inexpensive, highly secure, global, and interoperable value exchange—over the internet without the downside of the extreme volatility that has plagued most cryptocurrencies. USDC is helping to pave the way for digital dollars to be the leading currency of the internet.

While stablecoins got started as a dollar settlement layer for digital asset trading markets, their use in everyday payments is expanding rapidly. Just in the past several weeks, Circle has signed on institutional customers who are using these services for small business payments, international remittances, and efficient payments for remote workers. Soon, we believe that dollars on the internet will be as efficient and widely available as text messages and email.

As the recent President's Working Group report on stablecoins highlighted, not all of these payment instruments are created equal. But by the same token, not all of them are part of an unregulated, "Wild West," as has often been portrayed. In our case, we have prioritized building, designing, and guarding the prudential standards for USDC inside of and conforming with prevailing U.S. regulatory standards that apply to leading fintech and payments firms.

This approach has helped USDC to reach over \$40 billion in circulation and has powered more than \$1 trillion in on-chain transactions. The reserves backing USDC are held in the care, custody, and control of the U.S.-regulated banking system. These are strictly held in cash and short-duration U.S. Government Treasuries, and we have consistently reported on the status of these reserves

and their sufficiency to meet demands for USDC outstanding with third-party attestations from a leading global accounting firm.

With this growth comes an increasing responsibility to foster financial inclusion. To that end, we aim to deploy cash deposits across the country, where we will allocate a share of USDC reserves, hopefully accruing to billions of dollars over time to Minority Depository Institutions (MDIs) and community banks as a way of improving their balance sheets, but also ensuring that the future of payments and banking is more inclusive than the past.

The President's Working Group report on stablecoins has put forward a set of recommendations for establishing national regulatory supervision of firms such as Circle. We support this effort and believe there can be strong nonpartisan support for the appropriate Federal supervision of this highly strategic payments infrastructure.

Well before the President's Working Group report, we announced our plans to pursue a national banking charter from the OCC, and we continue prioritizing active engagement with all of the relevant Federal and State banking regulators. There is much work to do in defining the critical statutory requirements for stablecoins. At the same time, the technology of blockchains and digital assets is not standing still, and whatever the ultimate policy and regulatory outcomes, it is crucial that that policy embraces and enables the United States to be global leaders in the development of the internet of value.

As the committee works in earnest on these issues, we welcome active engagement and believe this to be one of the most important areas for economic infrastructure and growth in the coming decade.

Thank you again, Chairwoman Waters and Ranking Member McHenry, for the opportunity to present to you today. I look forward to the committee's questions.

[The prepared statement of Mr. Allaire can be found on page 94 of the appendix.]

Chairwoman WATERS. Thank you, Mr. Allaire.

Mr. Bankman-Fried, you are now recognized for 5 minutes to present your oral testimony.

#### **STATEMENT OF SAMUEL BANKMAN-FRIED, FOUNDER AND CEO, FTX**

Mr. BANKMAN-FRIED. Thank you, Chairwoman Waters, Ranking Member McHenry, and members of the committee, for having me here today to testify. It is an honor to be here.

A little bit about my background first. I grew up in Stanford, California; went to MIT, where I majored in physics; and I spent 3½ years as a quantitative trader after college. My goal has been to find ways to have a positive impact on the world and to maximize that and to do so by supporting some really fantastic organizations.

In 2017, I felt like it was time to try starting up my own thing. So, I left my job, and I moved out West and ultimately got involved in the burgeoning cryptocurrency ecosystem. I spent about a year trading, and in late 2018 began, with my co-founders, building out FTX.

FTX is a global cryptocurrency exchange. We are the second- or third-largest exchange globally, depending on what metric you use, processing about \$15 billion per day of trading volume on the platform. About a year-and-a-half ago, we started up FTX US, our United States-based and servicing operations.

A few points on FTX and the broader cryptocurrency industry. The first is that I think that the industry has the potential to improve a lot of people's lives. There are a lot of ways that this can happen. I think that the payment side of this gets a lot of attention, and rightfully so. Every time that a common consumer goes to a market to purchase goods, they pay multiple percent in fees to intermediaries, and that is if they are lucky.

When you look globally, trying to send money back to your loved ones at home is extremely difficult. It can cost tens of percents in fees. It can take weeks to arrive. It can get embezzled by various third-party scams in the middle. And in general, the global financial ecosystem is not one where sending assets to those who are important to you is easy to do, and this hits the people who are least off the hardest, who have the least access to the financial ecosystem as it exists today.

When you look at the number of people who are underbanked or unbanked, both in the United States and globally, it is indicative of a system that does not work for everyone, and this is a product of the intermediation involved. It is a product of how the larger institutions have evolved. And it is a product of the payments infrastructure that is difficult and clunky enough to use that it just does not work for most people.

Cryptocurrencies do provide a potential way to address a number of these issues, making it easier, cheaper, faster, and more equitable for people to do what they need to do to manage their financial lives.

A little bit about FTX. We are a cryptocurrency exchange. We have a different structure than the traditional exchanges do, as do many digital asset venues. We provide open and free market data to all of our users.

On a traditional venue, you pay tens of millions of dollars per year if you want access to the data of the market that you are expected to be placing orders in. You have minimal access to the same tools and order types that sophisticated trading firms have if you are accessing it through the normal set of intermediaries.

On FTX, all of our users have full access to the platform. They have full access to the same sets of tools that institutions do, and they have full access to all of our market data, which we make publicly available for free. This is true whether you are accessing it via an Application Programming Interface (API) as a sophisticated institution, via our website, or via our mobile app.

We have also put a lot of work into the risk controls on our platform. This is true from the financial crime side, where we conduct sophisticated Know your Customer (KYC) diligence on all of our users. In order to identify any illicit activity, we monitor via multiple solutions all blockchain transfers into and out of our exchange.

It is true of our risk engine, which is a 24/7 risk engine that is unlike the traditional financial ecosystem, where risk builds up

overnight, where there need to be separate risk models for week-ends and overnight activity and holidays, where hours or days can go by with no ability to mitigate risk to the system. We have a transparent system where all of our public market data is openly available and free, and where risk parameters are transparent.

And we are already regulated and licensed. We have many licenses globally. Here in the United States, we are regulated by States under the money services business and money transmitting regime, and we are regulated nationally by the Commodity Futures Trading Commission (CFTC), where we have a DCO, a DCM, a Swap Execution Facility, and other licensure. We strive to conduct all of our business in a transparent and regulated manner.

I think that it is coming, and I think it is important, and I think that it is healthy that the industry will be regulated. I think it is also already regulated in a number of ways. I think that there are points that need to be addressed to give oversight of various aspects of the industry that do not have sufficient oversight right now, and I also think that it is important to do so in a reasonable and common-sense way that understands the industry.

I am happy to answer any of your questions.

[The prepared statement of Mr. Bankman-Fried can be found on page 97 of the appendix.]

Chairwoman WATERS. Thank you very much, Mr. Bankman-Fried.

Mr. Brooks, you are now recognized for 5 minutes to present your oral testimony.

#### **STATEMENT OF BRIAN P. BROOKS, CEO, BITFURY GROUP**

Mr. BROOKS. Thank you, Chairwoman Waters, Ranking Member McHenry, and members of the committee. Thank you very much for having me here today to talk about digital assets and the future of finance.

The topic is an important one for anyone who cares about American competitiveness in the financial services sector, a financial ecosystem that empowers users over bank CEOs and other powerful central decision-makers, and the next iteration of the internet in which individuals are able not only to read information and write content, but also to own a piece of the networks themselves.

I am the CEO of Bitfury Group, a company that provides a suite of infrastructure products and services in support of various aspects of the cryptocurrency ecosystem, an ecosystem many of us today refer to as Web3, since crypto assets generally represent either the rewards paid to participants for maintaining a particular decentralized network or an app that operates on such a network.

Since 2011, Bitfury has designed and produced eight successive generations of ASIC chips and related equipment for conducting transaction validation activity on the Bitcoin blockchain, a process known informally as, "Bitcoin mining." Along the way, Bitfury developed a series of adjacent businesses to make crypto assets safe, sustainable, and useful. Our various businesses include LiquidStack, one of the world's largest immersion cooling systems, focused on reducing the energy used in Bitcoin mining and other high-performance data centers by as much as 90 percent; Crystal, a blockchain analytics company that provides transaction moni-

toring and related compliance tools to more than 150 law enforcement agencies, crypto exchanges, and financial services companies in Europe, Asia, and North America; Axelera, a producer of cutting-edge artificial intelligence ASIC chips; and others.

I believe the committee's topic today requires an understanding of three important threshold issues. First, a national policy agenda that takes crypto compliance seriously should assess whether it makes more sense to continue to keep crypto activities largely out of the regulated financial system or whether it makes more sense to bring them inside the system precisely so that they can be supervised and operated with appropriate levels of risk management.

For example, is it consistent to take the position that only banks should be allowed to issue stablecoins, but then fail to grant bank charters to the largest issuers of stablecoins? That would, after all, bring stablecoin activity within the ambit of an existing national bank supervision system, with which we are all familiar.

Or does it make sense to bring enforcement actions challenging certain crypto assets as unregistered securities, but then fail to allow those assets to be registered and trade on a national securities exchange, subject to supervision by FINRA and the SEC?

Second, Americans deserve to know what our national policy is for a decentralized Web3 powered by crypto assets. Treating crypto as a single unitary activity whose main feature is the need for financial regulation would be like treating the original internet in the 1990s as primarily a tax policy issue. We didn't do that then. What we had in the 1990s with respect to Web1 that we lack today with respect to crypto is a comprehensive national policy predicated first on the notion of, "do no harm," to the emerging network.

Today, instead of focusing only on micro questions, such as whether a particular token is a security or whether a particular exchange-traded fund (ETF) may be offered, it would be worthwhile for the elected branches of government to grapple with the bigger questions, such as do we believe a user-controlled, decentralized internet is better than an internet largely controlled by five big companies? Do we believe that the financial services sector is any less subject to network effects than information and commerce were in earlier iterations of the internet?

Do we trust big banks more or open source software more as a tool for maintaining ledgers of account and allocating credit and capital? Can we recognize the difference between crypto projects failing for lack of demand, just as many publicly traded companies fail, and the difference between individual crypto projects actually being scams unworthy of being presented to the fair, but sometimes harsh, judgment of markets?

Third, crypto policy should take into account not only any new risks introduced into the system, but also the risks in the present system that are solved by decentralization. Having issued almost a billion dollars in civil money penalties against banks and bank executives during my tenure leading the Office of the Comptroller of the Currency (OCC), it is clear to me that the present financial system has plenty of examples of risks and costs and safety and soundness problems that are being addressed in the current system. Shouldn't we take seriously the possibility that algorithms and open source software that take a measure of human error—

read, negligence, fraud, and bias—out of the system might actually make the system better on net, even if there are some new risks being presented that need to be understood and regulated?

Apart from those three overarching considerations, I would like to very quickly make two points specific to my current perspective on the crypto economy. One relates to the effect of U.S. crypto regulation on American competitiveness in both the technology and capital market sectors. There are a number of examples of U.S. regulatory decisions that have driven legitimate activity offshore in ways that harm U.S. investors, innovators, and workers.

Can anyone explain, for example, why Fidelity Investments, one of America's best-known investment advisers, had to go to Canada to offer a Bitcoin ETF? Or why physically settled crypto ETFs are safe and legal in Germany, Brazil, Singapore, and elsewhere, but somehow not in the United States?

Can anyone explain why crypto exchanges, stablecoin issuers, and others can receive e-money licenses to access the payment system in the United Kingdom, but in the United States are reserved exclusively for chartered banks, with the result that the GDP cost of the payment system in the United States is roughly 4 times the cost in the United Kingdom?

For that matter, why is there no clear path for crypto-focused insured depositories chartered in the State of Wyoming to access Federal Reserve payment services like other insured depositories?

These are the big questions that I hope to address today. Thank you, Madam Chairwoman, and Ranking Member McHenry.

[The prepared statement of Mr. Brooks can be found on page 123 of the appendix.]

Chairwoman WATERS. Thank you, Mr. Brooks.

Mr. Cascarilla, you are now recognized for 5 minutes to present your oral testimony.

**STATEMENT OF CHARLES CASCARILLA, CEO AND CO-FOUNDER, PAXOS TRUST COMPANY**

Mr. CASCARILLA. Chairwoman Waters, Ranking Member McHenry, and members of the committee, thank you for this opportunity.

My name is Charles Cascarilla, and I am the CEO and co-founder of Paxos. During my 22-year career in financial services as an analyst, investor, and entrepreneur, I have witnessed the shortcomings and systemic risks for our financial market infrastructure firsthand.

Paxos is a regulated financial institution and blockchain infrastructure platform. Paxos' customers include Bank of America, PayPal, Mastercard, Interactive Brokers, Credit Suisse, and many others. We help financial institutions provide their clients with reliable, regulated access to digital assets.

Paxos also offers a uniquely structured and regulated stablecoin, the Pax Dollar. Each Pax Dollar is fully backed by one U.S. dollar. As a result, it is not volatile like other types of digital assets. However, it retains the same properties that make digital assets so appealing. It can be transferred nearly instantly, overnight, and on weekends, and it is programmable, secure, and traceable.

Digital assets and blockchain technologies can create a more efficient, secure, and innovative financial system, and a more inclusive and equitable global economy. In the existing financial system, a person needs a bank account to safely store money, establish credit, earn interest, and borrow. Yet, according to the Federal Reserve, 18 percent of all Americans, 40 percent of Black adults, and 50 percent of adults without a high school degree are unbanked or underbanked.

The current system is expensive and slow. International and even domestic money transfers can take days. At any given time, there are trillions of dollars' worth of capital held up in transactions that have not yet settled.

Digital assets are vastly more accessible. Anyone with a smartphone can download a wallet app to send and receive assets. No bank account is required.

Transferring digital assets is instantaneous and convenient. They can be sent or received 24/7. There is no waiting around for wire transfers or money orders to arrive or for banks and stock exchanges to open. The transfers are often very inexpensive, in some cases costing just a penny per transfer.

Digital assets can also reduce bias in finance. At its heart, blockchain is just a math equation. It is agnostic to a user's race, gender, nationality, or income. And blockchain permanently and publicly records transactions, reducing errors, fraud, and systemic risk.

A blockchain-based financial architecture could settle trades on the same day, thus mitigating counterparty risk and eliminating the need for costly central clearinghouses. For our part, Paxos recently completed a successful pilot to offer same-day security settlements in support of SEC Chair Gensler's goal of reducing settlement times.

Paxos believes regulation is essential for increasing public trust in digital assets and ensuring adoption. That is why we sought oversight by a primary prudential regulator even though we are not required to do so.

Paxos became the first regulated trust for digital assets in the country when it was approved by the New York State Department of Financial Services in 2015. We adhere to the same Anti-Money Laundering (AML) and Know Your Customer (KYC) rules as banks. We are subject to regular examinations of our operations, procedures, and capital levels.

Our products are also regulated. Of the world's three regulated, dollar-backed stablecoins, two are issued by Paxos.

Unfortunately, the uncertain state of digital asset regulation is hampering the industry's development. The solution is not to shoe-horn digital assets into a regulatory system designed for earlier generations of financial assets. We have an opportunity to build a more efficient and effective financial system. We believe a primary prudential State or Federal regulator should regulate digital asset companies and their products.

Compliance standards need to be enforced. Regulation must ensure that customer assets are held segregated from the company's balance sheet.

For stablecoins, independent auditors should regularly attest that assets backing the token are always held in reserve. Those reserves should be held in bankruptcy remote accounts and not available to the issuer's general creditors.

If the Federal Government instead stifles the adoption of digital assets, issuers' talent and capital will flee for more welcoming jurisdictions. That would be a disaster for Americans, both consumers and workers, and our economy as a whole. Without regulated U.S. dollar-backed stablecoins, or a central bank digital currency (CBDC) and the infrastructure to support them, it will become increasingly less viable for other countries and companies to continue using the U.S. dollar as a global reserve currency.

We need the government's support to create a new, more secure, more competitive financial system. The benefits of getting this right are enormous, but so are the consequences of getting it wrong.

Thank you for the opportunity to provide my testimony, and I look forward to your questions.

[The prepared statement of Mr. Cascarilla can be found on page 131 of the appendix.]

Chairwoman WATERS. Thank you very much.

Ms. Dixon, you are now recognized for 5 minutes to present your oral testimony.

**STATEMENT OF DENELLE DIXON, CEO AND EXECUTIVE  
DIRECTOR, STELLAR DEVELOPMENT FOUNDATION**

Ms. DIXON. Good morning, Chairwoman Waters, Ranking Member McHenry, and members of the committee. Thank you for inviting me to testify today. I am honored to be here.

My name is Denelle Dixon, and I am the CEO and executive director of the Stellar Development Foundation (SDF). I took this role and joined the blockchain industry more than 2½ years ago. Prior to that, I was the chief operating officer of the Mozilla Corporation, where I spent a lot of my time advocating for, among other things, openness and interoperability in Web technologies.

It is those same policy priorities that drew me to blockchain, an industry that I believe can learn from past mistakes made in other areas of Web development. Stellar is an open, permissionless, decentralized network that is optimized for payments. There is no single entity, including SDF, that controls the code base of the network or its growth. You don't need permission to use this technology. Just like the underpinnings of the internet, it is ready and available for use to anyone.

Importantly, and especially in the context of this hearing, Stellar was designed for asset issuance, making it possible to create, send, and trade digital assets backed by nearly any form of value. And it also was designed with compliance tools built in to help those asset issuers meet their own compliance obligations.

The Stellar platform is a pioneer of tokenization, optimized for fiat-backed asset issuance before stablecoin was even a word, and over the last few years, an ecosystem of businesses and users have built use cases around Stellar-based stablecoins due to their incredible ability to solve many of the problems we see in today's payment landscape.



Despite the headlines, what is happening in the world with blockchain, with cryptocurrency, and with stablecoins is not just lending, trading, and borrowing. Other use cases are active and focused on solving real-world challenges using the technology.

Let me start with MoneyGram International. MoneyGram is building a solution on Stellar that enables seamless conversion between cash and digital assets. MoneyGram's network integrates with the Stellar blockchain to enable cash funding of digital accounts and payout in different currencies of the consumer's choice using stablecoin. It is using Circle's USDC coin.

In real terms, consumers will be able to send value in the stablecoin and easily convert to local fiat currency for instant pick-up at thousands of participating MoneyGram locations globally. This is in pilot phase right now in the U.S., and is expected to be widely available in 2022.

Another example, Leaf Global Fintech, has built a solution for refugees and cross-border goods traders who are vulnerable to theft while carrying across borders. With Leaf's wallet, these users can save their money in multiple currencies, benefit from cross-border transfers, and pay for goods and services.

That functionality is only possible because they leverage Stellar's ability to issue assets, to issue stablecoins, and to exchange value with low transaction fees and high speed. This use case is live and operational today.

The last use case I would like to touch on is one that is in development. Tala is best known for its mobile lending app, which enables its customers to apply for a loan and receive an instant decision, regardless of their credit history. Tala is now working to expand their offering by using Stellar assets and stablecoins to help their current customers with credit by allowing borrowing, spending, saving, investing, and sending and receiving.

There are many more valuable use cases in the Stellar ecosystem that I would love to be able to share with you today, but I would just briefly like to mention that in a recent report from the G20 and IFC, there were five Stellar ecosystem companies named for their innovative solutions in digital finance supporting MSMEs.

Use cases like these are in varying states of maturity, but their current and potential value is undeniable. And none of these use cases would be possible without stablecoins. Stablecoins are a core technological component, and by extension, that means stablecoins are essential in delivering on financial inclusion.

That brings me to the President's Working Group (PWG) report on stablecoins. The PWG report raises legitimate risks, but its recommended solutions go too far. Specifically, to limit stablecoin issuance to insured depository institutions is not narrowly tailored to the actual risk of stablecoin arrangements for the simple reason that although there are outliers, most stablecoins, unlike bank deposits, are fully reserved.

Instead, we advocate for a regulatory approach that focuses more on stablecoin reserves by requiring stablecoin arrangements be fully reserved by appropriate assets, requiring reserves to be held at insured depository institutions, creating clear standards for regular audit and public disclosure of stablecoin reserves and key con-

tractual terms regarding redemption, and by making it clear that payment stablecoins are not securities.

Of course, regulators must be empowered to oversee these requirements. The framework should allow oversight through State banking supervision or a narrowly tailored charter of the OCC. In our view, this would promote the safety and soundness of stablecoin arrangements.

We have started to see how innovation can be hampered in other parts of the world when regulators and lawmakers react prematurely. In Nigeria, stablecoins and blockchain technology were eliminating costly foreign exchange and transaction fees and slow processing times until the Central Bank of Nigeria abruptly ended that business model. Many innovators have consequently been stopped in their tracks.

As we walk away from this hearing, I urge you to look at the industry and technology beyond the narrow lens of applications that often dominate the news.

Thank you for having me here today, and I look forward to your questions.

[The prepared statement of Ms. Dixon can be found on page 138 of the appendix.]

Chairwoman WATERS. Thank you, Ms. Dixon.

Ms. Haas, you are now recognized for 5 minutes to present your oral testimony.

**STATEMENT OF ALESIA JEANNE HAAS, CEO, COINBASE, INC.,  
AND CFO, COINBASE GLOBAL, INC.**

Ms. HAAS. Chairwoman Waters, Ranking Member McHenry, and members of the committee, good morning, and thank you so much for this opportunity to testify on digital assets and the future of finance.

My name is Alesia Haas, and I serve as the chief financial officer of Coinbase Global. I also serve as the chief executive officer of Coinbase, Inc., our U.S. subsidiary.

I joined Coinbase in 2018. I was formerly the chief financial officer of Sculptor Capital and OneWest Bank, and I have spent 20 years in the financial services industry.

Today, I am here to introduce Coinbase, talk about the evolution of crypto, and highlight today's regulations and how they could be changed to advance bipartisan goals of protecting consumers and promoting innovation.

Coinbase's mission is to increase economic freedom in the world. We were founded in 2012 with the idea that anyone, anywhere should be able to easily and securely send and receive Bitcoin. Over the last 9 years, our products and services have expanded to meet our customers' needs in the rapidly-evolving crypto industry.

We have customers in every State except the State of Hawaii, and as a remote-first company, we have employees in 45 States and in the District of Columbia, including 24 of the 25 States represented by this committee. We now securely store 12 percent of the world's crypto on our platform. This is across over 150 asset types, and we offer customers the opportunity to learn, to sell, to send, to receive, and to buy more than 100 assets on our platform.

Additionally, we offer customers the opportunity to spend, to borrow, to earn, to stake and transact on select assets. We serve more than 73 million customers globally, including 10,000 institutions and 185,000 application developers.

Importantly, nearly 50 percent of our transacting customers are doing something other than buying and selling crypto, which indicates to us that crypto has moved past its initial investment phase, and we are now in the long-expected utility phase of this ecosystem.

Since our founding, Coinbase has strived to be the most secure, trusted, and legally-compliant bridge to the crypto economy. Coinbase is federally-registered as a money services business with the Financial Crimes Enforcement Network (FinCEN), licensed as a money transmitter in 42 States, holds a bit license and trust charter from the New York Department of Financial Services, and we are authorized to engage in consumer lending in 15 States. We have a robust Anti-Money Laundering/Bank Secrecy Act (AML/BSA) program, and we are one of only two digital asset members of the Department of the Treasury's Bank Secrecy Act Advisory Group.

In addition to the various State regulatory regimes, we are subject to Federal oversight from Treasury, the CFTC, the SEC, the FTC, and the CFPB. Much like the adoption curve of the internet in the 1990s, we are seeing dramatic advancement in crypto participation. There are more than 220 million crypto holders globally, and around 16 percent of Americans have invested in, traded, or used cryptocurrency.

Total crypto market capitalization at the end of the third quarter was over \$2 trillion, up from \$800 billion as of the end of 2020. Coinbase's platform is powering the crypto economy, a new financial system for the internet age, which we believe is a critical infrastructure layer to Web 3.0. Technologies like nonfungible tokens, which we call NFTs, and decentralized application platforms will lead the way to Web 3.0, which will revolutionize the internet, much like the industry was revolutionized when it went from static content to the dynamic engagement content we have today.

We believe sound regulation is central to fueling crypto innovation and adoption. That is why we introduced our digital asset policy proposal, which we referred to as dApp. The dApp assessed the challenges of the existing regulatory framework and proposed a four-pillar solution.

First, we believe the government should recognize digital assets under a new comprehensive framework that recognizes the unique technological innovations underpinning digital assets.

Second, the responsibility for this new framework should be assigned to a single Federal regulator. This regulator would be charged with establishing a registration process for intermediaries, which we refer to as marketplaces for digital assets.

Third, this new framework should have three goals to ensure holders of digital assets are empowered and protected: we believe in enhanced transparency through robust and appropriate disclosure requirements; we want to protect against fraud and market manipulation; and we want to promote efficiency and strengthen our market resiliency.

Our fourth and final pillar is to ensure that regulatory solutions promote interoperability and fair competition.

In conclusion, Coinbase believes crypto will drive transformational change across society in positive ways. This is why our mission is to promote economic freedom around the world. Disruption always challenges the status quo, but we believe sound policies can improve the system for everyone.

We applaud Chairwoman Waters, Ranking Member McHenry, and the members of this committee for holding this important hearing. Thank you for the opportunity to discuss these important issues, and I look forward to answering your questions.

[The prepared statement of Ms. Haas can be found on page 145 of the appendix.]

Chairwoman WATERS. Thank you very much.

I now recognize myself for 5 minutes for questions.

Mr. Cascarilla, I am a bit concerned about your company, Paxos', partnership with Facebook, which is now calling itself Meta. As you know, Facebook has attempted several times to enter the cryptocurrency market. Starting in 2019, they founded the Libra Association, based in Switzerland, with the goal of creating a stablecoin, but suspended its activities after this committee held hearings and I, along with other Members and U.S. regulators, raised significant concerns, leading to a number of Libra Association members pulling out.

Now, in partnership with Paxos and Coinbase, Facebook has launched a pilot project with its digital wallet, Novi, for a limited number of individuals in the United States and Guatemala to send and receive money using your stablecoin, known as USDP or Pax Dollars. As you know, one of the recommendations in the recent President's Working Group report focuses on mitigating systemic risk posed by stablecoins as well as concentration of economic power concerns.

The report, among other things, recommends legislation that stablecoin users must comply with activity restrictions that limit affiliation with commercial entities similar to restrictions most banks face to promote the separation of banking and commerce. While your partnership with Facebook is reportedly a pilot limited to a number of users in Guatemala and the United States, what is stopping Facebook from, in the future, allowing its nearly 3 billion monthly active users to make payments and save funds with the Pax Dollar or another previously-issued stablecoin through a Novi wallet?

If this were allowed at such a scale, how would this not undermine the U.S. dollar and the world's reserve currency?

Mr. CASCARILLA. Thank you for the question, Chairwoman Waters. I think it is important to note in the case of Novi that they are a customer of Paxos, just like any other customer of Paxos. We have an open product. They could use that product in the open market. They decided to come to Paxos. And I think they did that because we have the most regulated stablecoin product, and I think that was an important decision for them that they wanted to use a well-regulated product.

And I think another important point here is that Novi is our customer that is a subsidiary of Facebook/Meta. But Novi itself is a

regulated money services business. They are regulated to operate in almost all States in the United States, and we have done extensive due diligence on their controls and the regulatory oversight that they have, and we feel very confident that they are following those.

And so, in terms of the Novi usage of our product, it is just like anybody else, just like if they had a bank account, which they do, and they were using it. In that way, the services they are getting from us are no different than services they get from any other financial institution with which they have a relationship.

Chairwoman WATERS. And this is supposedly a pilot that is limited to a number of users in Guatemala and the United States. What is stopping Facebook from, again, in the future, allowing its nearly 3 billion monthly active users to make payments and save funds with the Pax Dollar or other privately-issued stablecoins through Novi wallet?

How long is this pilot? Can you describe it?

Mr. CASCARILLA. Yes. The pilot is limited and controlled. It is something that we worked together with our regulator on, and they have reviewed our program.

Novi would be best-positioned to talk about their plans to expand it. But right now, they are in a pilot phase. It is just the U.S. and Guatemala. It is quite limited in scope and size.

Chairwoman WATERS. I now recognize the gentleman from North Carolina, Mr. McHenry, the ranking member of the committee, for 5 minutes.

Mr. McHENRY. Thank you.

Mr. Brooks, let's step back from digital assets and blockchain for a moment. Let's talk about where the internet was, where it has come to, and where it is going. We are trying to level set here for policymakers. So, originally, the internet was a read-only format, in essence, for consuming information. And then, there are additional layers that we placed on it, and it became much more interactive.

But counterintuitively, much more interactive, but much more centralized in Web1, and Web2. What we are hearing now is Web3. Policymakers need to understand the nature of Web3. This is a hearing about a component of Web3.

Along those lines, what are the characteristics that defined Web1 and Web2?

Mr. BROOKS. Mr. McHenry, thank you very much for that question. I think that is critical to understanding what we are all trying to build here.

The characteristic of Web1, if people remember their original AOL account, was an ability to look in a curated walled garden at a set of content that was not interactive, but was presented to you on AOL the way that Time magazine used to show you the articles they wanted you to see inside of their magazine. Only you could see it on a screen.

The innovation of Web2 was that, suddenly, you could not only read content, but you could also write content. This is when the blogosphere became a big thing. People remember this from the late 1990s, the early 2000s. The reason for the centralization of the internet, of course, was that all of that activity was being mone-

tized by a very small number of companies: Facebook, as the chairwoman mentioned; Google; and two or three other companies.

What makes Web3 different is the ability to own the actual network, and that is what crypto assets themselves represent is an ownership stake in an underlying network. So, when you hear people talk about, for example, Layer 1 tokens, what they mean is this is your reward for providing the ledger maintenance services, the computing power to the network that on Web1 and 2 was done by Google.

People in my hometown of Pueblo, Colorado, can actually own the Ethereum network, but they can't own the internet. That is owned by Google and a few other companies. That is what the project of crypto was all about is allowing people to directly own the networks that have native assets which are supporting it, and that is the nature of decentralization, where the token holders are the people who control the assets, not Google.

Mr. MCHENRY. Okay. Token holders, for our language here on the Hill, those are digital assets, which are the keys to open up the ledger for you to participate, right? Describe to us how those digital assets fit into this internet revolution, Web3?

Mr. BROOKS. The concept is that you have sort of application layer tokens and you have protocol layer tokens. So, if I am an owner of Bitcoin, let's say that I am a miner of Bitcoin, somebody who actually creates Bitcoin, the Bitcoin is the reward I receive for doing the work to keep the network operational, and that allows me to own a piece of the Bitcoin blockchain.

Or take Ethereum, which is easier to understand. The Ether token represents an ownership stake in the network, but on top of that network are all kinds of apps that get built on the network, much like the apps on your phone depend on the underlying existing network that lets the phone operate. And people will make judgments about which network is likely to win, and they will invest in the tokens in that network much the same way you might invest in Google stock because you think Google is going to scale access to the original internet.

The difference is that here, you can vote on what happens in the future of a proof of stake network, for example. You can get rewarded through a proof of work token for maintaining a ledger on something like Bitcoin. But the real message here is that what happens on the decentralized internet is decided by the investors, versus what happens on the main internet is decided by Twitter, Facebook, Google, and a small number of other companies.

Mr. MCHENRY. Okay. Getting this layer on digital assets right, for Congress to understand this, everything is built upon that on-ramp to this new internet. So, it's very important for us to be sensitive to how this develops and any actions we take in terms of laws and updating laws to incorporate these new technologies?

Mr. BROOKS. Yes, Mr. McHenry, I couldn't agree more, and I think when you hear about all of the problems of different big tech companies, the importance of an owner-controlled network becomes clear.

Mr. MCHENRY. Okay. Owner-controlled network rather than a cooperative, right? And thinking in those terms, right? So if you are not a part of management, you are not making a decision in

Web2. If you are a participant in the network, you are cooperating in the making of those decisions?

Mr. BROOKS. Exactly right.

Mr. MCHENRY. I ask this not to be insulting to this panel, but to having level set here so we have an understanding of what we are talking about. This is not simply about you on this panel. It is about trillions of dollars of assets that did not exist before Satoshi Nakamoto wrote his White Paper 13 years ago. It is about \$3 trillion in notional value at this stage around the development of a whole new range, a whole new suite of technology that will be developed across the globe, whether or not the United States embraces it and wants to compete or if it is pushed offshore.

So, as policymakers, we need to understand what we are talking about here. This is a small panel—as important as you may be—in the discussion about Web3.

With that, Madam Chairwoman, thank you for having this hearing, and I hope that we can have more understanding as policymakers about these important concepts.

And thank you, Mr. Brooks.

Chairwoman WATERS. Thank you very much.

The gentlewoman from New York, Mrs. Maloney, who is also the Chair of the House Committee on Oversight and Reform, is now recognized for 5 minutes.

Mrs. MALONEY. Thank you, Chairwoman Waters, for having today's hearing.

Our financial system has been built up over time with us learning from each financial crisis, fixing and adjusting as new financial risks come forward, from the Great Depression and the creation of the FDIC and deposit insurance, to the Dodd-Frank Act reforms after the 2008 financial crisis. We may not all agree on every aspect of those laws, but they have made our financial system and our entire economy more resilient, and consumers and investors more protected when things do go wrong.

In 2018, the New York attorney general released a report from its Virtual Markets Integrity Initiative, which detailed a few key findings regarding crypto trading platforms on potential conflicts of risks interest, lack of serious efforts to stop abusive trading activity, and limited protections for customer funds.

The report stated, “Customers are highly exposed in the event of a hack or unauthorized withdrawal. While domestic or foreign deposit insurance may compensate customers for certain losses of stolen or misappropriated fiat currency, no similar compensation is available for virtual currency losses.”

This is not a theoretical concern. In fact, Coinbase was reportedly the subject of a hack earlier this year, impacting at least 6,000 Coinbase customers.

Ms. Haas, what happens today for a Coinbase customer in the event of a hack of Coinbase or a Coinbase wallet or in the event of an unauthorized withdrawal? What protections does a customer currently have? FDIC insurance, commercial insurance? Could you answer that question, please?

Thank you.

Ms. HAAS. Yes, thank you so much for the question.

Coinbase does secure 12 percent of the world's crypto, as I shared with you earlier, and we have extensive controls to protect our customer assets. We bifurcate our assets into two different storage systems. We call one the, "hot wallet," and we call the other one, "cold storage." And less than 2 percent of our assets are held in a hot wallet, which was the subject of a cyber attack.

Specifically, the incident you mentioned was not a hack of the Coinbase system. But in that event, where customers did lose funds due to other losses, we did reimburse customers for that event. We do protect our customers for any hack of the Coinbase hot wallet, and we have third-party insurance, plus we use our own balance sheet to protect our customers in the event of loss on our platform.

With regards to what losses we typically see, though, in the press, we typically see these are account takeovers at the endpoint where a customer had lost their credentials, and then has had a hack of their own phone, their own personal device. And that is unfortunate at this point in time, because that loss is not well-protected for within the broader crypto economy. That is something that Coinbase continues to study and would look to over time do more to support our users for those losses.

Mrs. MALONEY. Okay. Reclaiming my time. My time is very limited.

Is that uniform, the protections you talked about, for all crypto exchanges and wallets, or just for yours?

Ms. HAAS. I am speaking specifically about the Coinbase protections we offer.

Mrs. MALONEY. Okay. So, it is not available to others.

Do you think customers could benefit from some uniformity and standardized minimum protections if and when customers lose their funds through no fault of their own?

Ms. HAAS. I do believe there is an opportunity there.

Mrs. MALONEY. In addition to this committee, I have the honor of chairing the Oversight Committee, and we recently held a hearing on the rise of ransomware, and strategies for disrupting criminal hackers. As detailed by a recent FinCEN report, \$590 million in suspected ransomware payments were reported by financial institutions in the first 6 months of 2021, and it is getting worse. So, it is no surprise to me that these criminals frequently seek payment for ransomware attacks through cryptocurrencies, and FinCEN identified several money laundering typologies for these actors.

Mr. Allaire and Ms. Haas, our anti-money laundering requirements are paramount to prevent fraud, sanctions, invasions, and the financing of terrorism. And you and your companies have highlighted your firms' compliance programs, stating that these standards are important to protect the financial system and to drive trust and adoption. But not everyone in this industry believes that, and many have rejected or avoided compliance standards. Some actively promote themselves on not complying with Know Your Customer requirements.

This is an entire financial services ecosystem, and one weak link exposes the entire system to money laundering risk, as highlighted by the FinCEN data I just mentioned. Could you share why your



firms have taken your anti-money laundering compliance approach, and the benefits of doing so across your various products and services, and what steps can we take to bolster our anti-money laundering efforts and ensure that all crypto marketplaces comply?

Chairwoman WATERS. The gentlewoman's time has expired.

The gentlewoman from Missouri, Mrs. Wagner, is now recognized for 5 minutes.

Mrs. WAGNER. Thank you, Madam Chairwoman.

Ms. Haas, let's continue. SEC Chairman Gensler has indicated on multiple occasions that, "The test to determine whether a crypto asset is a security is clear." However, Commissioners Peirce and Roisman noted that they believe there to be an obvious lack of clarity for market participants around the application of securities laws to digital assets and their trading.

The lack of clarity is clear through the numerous requests that the SEC receives for these no-action letters. In your view, is additional guidance defining clear rules of the road for investors and market participants needed at this time?

Ms. HAAS. Thank you for the question. We believe this is a very important area of focus for the SEC and this committee.

We do agree that the laws are clear. However, existing laws, regulation, and legal precedent make it clear that blockchain tokens are not securities, that we believe that the law clearly shows that blockchain-based digital assets are one of two things, either a new form of digital property or a new way to record ownership, as Brian Brooks spoke about earlier.

We do believe that clarity is needed because these are new assets. It is a new way of transacting with these new protocols that we spoke about, and I think it would benefit all of us in the ecosystem to have agreed-upon definitions.

Mrs. WAGNER. I couldn't agree more, and I would hope that Chairman Gensler would be listening to his Commissioners and some of the feedback that you all are giving him.

We talk a lot about financial inclusion in this committee, and digital assets have the potential to provide fair access to financial services to all Americans, I believe that Mr. Bankman-Fried brought that up, and many of you did in your written testimony.

I would like to start—and I know that I have limited time—with Ms. Dixon, and then, Mr. Allaire. How would digital assets and blockchain technology facilitate financial inclusion and benefit the 1.7 billion unbanked people throughout the world, and particularly the millions here in the United States? Ms. Dixon?

Ms. DIXON. Thank you for the question. This is a really important area. Understanding that your time is limited, I will just say that blockchain allows value and money to flow just like email, so it is very simple in terms of how it can get from one point to another, and it does so very, very quickly.

The importance of that is it actually can cross borders much more simply than anything else that is out there today. So, the value of blockchain is the ability to send from the United States, for example, to another country without having to reconcile with all of the different software intermediaries that exist today. It eliminates intermediaries, it creates less friction in the marketplace, and it allows users who don't have bank accounts today, or who

choose not to get bank accounts, or have been derisked by a bank from being able to, to be able to access this technology very cleanly, because they can do so with a wallet.

Mrs. WAGNER. Thank you very, very much for that input. And Mr. Allaire?

Mr. ALLAIRE. Thank you, Congresswoman. I think financial inclusion is a critical design goal for many of us, and certainly as we think about USDC, today, USDC, as a payment technology for dollars on the internet, enables users to transfer dollars in a fraction of second with a transaction cost that can be as low as 1/20th of a penny, and with the throughput of the Visa network. That is a benefit that can be brought to individuals.

And I would like to really emphasize something for the committee, which is that one of the most powerful things about this technology is that it is the open internet. Just like anyone can have an email account or a text message or access the internet, this is an open financial system. And when you combine those kinds of access, efficiency, and that openness, it creates an opportunity for anyone with a mobile device, anywhere in the world, to seamlessly exchange value with one another.

Mrs. WAGNER. Great. Thank you.

Mr. Brooks, in your view, what should members of this committee keep in mind to avoid hampering innovation, because that is not what we want to do in this new marketplace, and to increase the financial inclusion that we talked about here?

Mr. BROOKS. Congresswoman Wagner, the answer is one word: Parity. If we treat traditional financial assets in a certain way, we should not treat internet-based financial assets in a worse way. For example, if you have a stablecoin that is functioning like a payment instrument, it should not be treated differently from a prepaid card or a traveler's check in the normal situation. The answer is parity.

Mrs. WAGNER. Great. Thank you. I appreciate this panel. Thank you very much, Chairwoman Waters, and I will yield back the couple of seconds that I have. Thank you.

Chairwoman WATERS. Thank you very much.

The gentlewoman from New York, Ms. Velazquez, who is also the Chair of the House Committee on Small Business, is now recognized for 5 minutes.

Ms. VELAZQUEZ. Thank you, Madam Chairwoman, and Ranking Member McHenry, for this important hearing.

Mr. Allaire, Mr. Cascarilla, it is my understanding that earlier this year both of your companies stated that your stablecoins are now almost entirely backed with cash reserves and U.S. Treasuries. Can both of you confirm that to be true?

Mr. ALLAIRE. Congresswoman Vazquez, thank you for the question. Yes, I can confirm that 100 percent of the reserves that back USDC are held in cash and—

Ms. VELAZQUEZ. Thank you.

Mr. ALLAIRE. —U.S. Treasuries.

Ms. VELAZQUEZ. Mr. Cascarilla?

Mr. CASCARILLA. I can confirm that as well.

Ms. VELAZQUEZ. Okay. Are both of your stablecoins fully, 100-percent backed by cash reserves and U.S. Treasuries?

Mr. ALLAIRE. Yes, that is the case.

Ms. VELAZQUEZ. Mr. Cascarilla?

Mr. CASCARILLA. Yes, that is right, and I would add one addendum. All of our U.S. Treasuries are maturing in less than 3 months. They are T-Bills, so short maturities.

Ms. VELAZQUEZ. Thank you. And can you please explain why you were offering a stablecoin that was not backed by fiat currency, and what prompted you to make this change? And please be brief.

Mr. ALLAIRE. Thank you, Congresswoman. USDC has been governed by the money transmission statutes throughout the United States, the permissible investment rules of money transmission statutes, the same statutes that govern the balances, the \$35 billion of balances with PayPal or Square or other fintechs. And so, we have always been within the statutory requirements, and I think we have reported on that every month since USDC launched in 2018.

Ms. VELAZQUEZ. Thank you. Mr. Cascarilla?

Mr. CASCARILLA. We have always only backed our stablecoin by short-term Treasuries or cash and cash equivalents, and the reason we did that is because we have a regulated stablecoin. We are overseen by the New York Department of Financial Services. We operate through our trust company. We have a primary regulator. That primary regulator also regulates our token, and importantly, that primary regulator sets the supervisory agreement with which we are able to then offer our products. And so, this was a statutory requirement for us.

Ms. VELAZQUEZ. Thank you for your answer. And can you guarantee to the global public that your product is, and will continue to be, backed fully by the U.S. dollar?

Mr. ALLAIRE. We are committed to a one-for-one backing, and we look forward to working with Congress and Federal regulators on ultimately the reserve standards that are really needed for stablecoins as a financial instrument in the financial system.

Ms. VELAZQUEZ. Thank you. Mr. Cascarilla?

Mr. CASCARILLA. Yes. We will always be 100-percent backed by U.S. dollars that are cash and cash equivalents.

Ms. VELAZQUEZ. Thank you. Mr. Allaire and Mr. Cascarilla, while I do appreciate both of your decisions to back your stablecoins with cash and U.S. Treasuries, and voluntarily sharing this with the public, unfortunately, an investigation by New York State Attorney General Letitia James earlier this year calls into question the veracity of the entire stablecoin industry and the statements made to the public. Attorney General James' investigation revealed for periods of time, the stablecoin Tether deceived clients and markets by failing to hold reserves to back their Tether in circulation, which was contrary to your representation.

My question to both of you is, do you think mandatory reporting of your reserves to Federal regulators and submitting to their regular examination is a good idea and something you will each support?

Mr. ALLAIRE. Congresswoman, I am supportive of that Federal supervision and of those reporting requirements and mandates, and I think that is critical to make this a mainstream infrastructure that can benefit the U.S. economy.

Ms. VELAZQUEZ. Thank you. And Mr. Cascarilla?

Mr. CASCARILLA. It is important to say that we are regulated as a trust company. We are a regulated financial institution. We have been since May of 2015, where we were the first one in the entire country, and we are proud of that. And so, our products already have a primary regulator that oversees our issuance. That is different from everybody else.

Ms. VELAZQUEZ. Excuse me. Maybe I need to add to my question, Federal regulators. Mr. Allaire?

Mr. ALLAIRE. Yes. We are supportive of Federal supervision.

Ms. VELAZQUEZ. Good. And Mr. Cascarilla?

Mr. CASCARILLA. I think Federal supervision can make sense, especially for firms that do not have a State regulator that oversees their activities.

Ms. VELAZQUEZ. Very good. Thank you.

Ms. Haas, and Mr. Bankman-Fried, digital asset trading platforms like yours play an important role in the current functioning of stablecoins, and therefore, also raise the broader question about digital market regulations, supervision, and enforcement. Can each of you describe the method your platforms use to determine the price for exchanging digital currency for fiat currency? I see that my time has expired.

Thank you. I yield back.

Chairwoman WATERS. One minute?

Ms. VELAZQUEZ. Okay. Ms. Haas?

Ms. HAAS. Coinbase is an agency-only platform. We do not engage in proprietary trading on our platform. All prices established in our platform are due to market makers, so we offer a platform for customers to come together to offer bids and asks on a variety of currencies that we offer on our platform. So, the market price is determined by the market participants.

Ms. VELAZQUEZ. And at what stage of the transaction do you provide an assurance of or lock-in of an execution price?

Ms. HAAS. We have two products. We have a consumer product and we have what we call our pro product for our institutions or more advanced traders. It is important that any customer can choose either platform, but we tend to see consumers choose our easy-to-use consumer platform.

The price displayed on the screen to the consumer is the price that is locked in and that we guarantee the customer.

Ms. VELAZQUEZ. Thank you.

Chairwoman WATERS. Thank you. The gentlewoman's time has expired.

The gentleman from Oklahoma, Mr. Lucas, is now recognized for 5 minutes.

Mr. LUCAS. Thank you, Madam Chairwoman.

Ms. Haas, you discussed in your written testimony how the future of blockchain might include new areas of tokenization, such as property, titles, and even people's time. Could you discuss further what trends you currently see and how new asset classes could arise through blockchain technology? Where are we going?

Ms. HAAS. Thank you for the question. I think it is important to share that anything can be tokenized, any item of value, and this is the internet of value that we are talking about with Web 3.0.

The early things that we are talking about are the protocol layer. Over the protocol layer, we see infrastructure being built, and then we see applications being built as the next layer. So, Bitcoin, Ethereum, Stellar, and Solana are all important protocol layers that we are talking about.

And on top of these, we see applications. An interesting article was published yesterday that gaming platforms, so video games that many of you may play, and your children may play, gaming, where non-fungible tokens (NFTs), which means they are different, every token is different—think about a shield or a sword or something of value—are being most actively traded. And a significant percent of the assets in D5, decentralized finance in November were traded in apps.

And so, we are seeing all types of things. We have had early conversations with real estate developers to get broader global liquidity, more liquid markets for tokens. We have seen a lot of innovation in the payment space and a lot of innovation at NFTs, with digital art.

But this is just the tip, and I think just like back in the early 1990s, when we were thinking about the internet and we couldn't envision Uber, we don't know what the future is, and there is so much ahead of us.

Mr. LUCAS. Fascinating. Mr. Brooks, it is good to see you before the committee again. Could you discuss what key fundamental differences between banks and stablecoin issuers are important for Congress and regulators to understand when looking at regulatory proposals?

Mr. BROOKS. Sure. Congressman Lucas, thank you so much, and it is nice to see you again, as well.

One of the historical differences between banks and stablecoin issuers is that banks in this country, historically, have been engaged in multiple different kinds of financial intermediation and risk-taking functions. Banks typically engage in three different things: deposit-taking; lending; and payments.

The core feature of stablecoins is they are a new payments technology, and payments are one of the core things that banks do, right? Banks historically innovated in payments by first having check clearing, then later having traveler's checks, then later having prepaid cards and things like that. Stablecoin is just the faster, most modern way of transmitting those values.

Stablecoin issuers, of course, don't present all of the risks that banking presents. They don't typically engage in lending or anything else. And this is one of the reasons why, at the OCC, we look very carefully at the possibility that payment companies, like American Express in a different generation, and Circle today, might possibly qualify for bank charters. They are engaged in a core banking function but not in the other banking functions, as to my point earlier that sometimes crypto is reducing risk, not increasing risk.

Mr. LUCAS. Ms. Dixon, could you also discuss this for a moment?

Ms. DIXON. I think that there is a really big opportunity with respect to blockchain. I think when you mentioned before about tokenized assets, there already are tokenized interests in real es-

tate that exist on Stellar, for example, or in fractionalized interest in U.S. stocks. So, there is opportunity for growth there.

With respect to what we have with blockchain and what can be accessible, the method that banks already have available out there, but when they derisk populations and they derisk individuals out of the banking infrastructure, they can actually access accounts, hold their assets in a digital framework, and then do a lot of the same things that you can do at banking institutions, but these individuals couldn't get access to it before.

I think blockchain creates that financial inclusion that we are all talking about and that we all want to get to, and it does so, I think, as Ms. Haas indicated, with the different layers, the infrastructure layer and the application layers—there is so much creativity that is happening now. So, I think we have a long road ahead of us with respect to this technology.

Mr. LUCAS. Mr. Bankman-Fried, could you respond to the criticism that stablecoins would be rife for illicit financial activity, and could you compare this risk with other payment rails?

Mr. BANKMAN-FRIED. Thank you, Congressman. We, as do most market participants in the digital asset ecosystem, have advanced surveillance techniques to prevent financial crimes for all digital assets, including stablecoins, conducting Know Your Customer policies and blockchain surveillance on all users and deposits and withdrawals through our platform. And all legitimate stablecoin issuers, in addition to that, conduct sophisticated Know Your Customer policies on all issuances and redemptions of those stablecoins.

If you compare that to, for instance, physical cash, where no transactions effectively have Know Your Customer or Anti-Money Laundering or anti-financial crimes surveillance on them, I think that the digital asset industry has already set a pretty strong standard on that front.

Mr. LUCAS. Thank you. Madam Chairwoman, I yield back.

Chairwoman WATERS. The gentleman from Texas, Mr. Green, who is also the Chair of our Subcommittee on Oversight and Investigations, is now recognized for 5 minutes.

Mr. GREEN. Thank you, Madam Chairwoman, and I thank the witnesses for appearing as well. I trust that my volume is such that I am being heard. If you can verify that, I would greatly appreciate it.

Chairwoman WATERS. We can hear you very well, Mr. Green.

Mr. GREEN. Thank you very much, Madam Chairwoman.

In the last year, the digital asset market has exploded from about \$500 billion to \$3 trillion, and there is still extreme volatility, it seems, in this marketplace. Bitcoin, for example, lost half of its value over 2 days in March, and it rebounded, of course, later on.

But there are many problems leading up to the global financial crisis that seem to be manifesting themselves in the market currently. Easy credit via margin investing, lack of transparency, the lack of transparency that I would like to see, and adequate financial disclosure is not readily available.

With the explosive growth in cryptocurrencies, at what point should we become concerned about the possibility of a bubble?

Let's start, if we may, with Mr. Brian Brooks.

Mr. BROOKS. Thank you, Congressman Green. It is terrific to see you again, and I always find your questions extremely perceptive.

What I would say about that question is that a lot of the price volatility of cryptocurrency has to do with the early stage of the market and the thinly-traded nature of the asset compared to, for example, U.S. real estate, global equities, or anything like that.

I think the message I would land with this committee in response to your question, however, is that some of the things that make U.S. equity and debt markets more stable and less volatile have to do with the fact that there is a lot more price discovery in those areas. And what I mean by that is in the U.S., we have regulated equity mutual funds. We have derivatives products and futures products that allow the free trading on a 24/7 basis that provides the market with forecasts of what is happening in the ecosystem.

In the world of crypto, the U.S. hasn't responded by developing those tools for price discovery yet, and so the result, in a relatively new, relatively thinly-traded market, is that one person unwinding their position can have a massive effect on the price.

The last point I would just make very quickly is that something like 80 percent of Bitcoin holders have never sold a Bitcoin. And so, when you hear about a day when there was a giant price drop in Bitcoin, often it turns out that there was one or two large traders who were unwinding a leveraged position, and the vast majority of holders have enough confidence in it that they have literally never sold a unit of it.

So, I would argue we need more liquidity and more price discovery to tamp down volatility, not less.

Mr. GREEN. Thank you. Let's go to Ms. Dixon, please.

Ms. DIXON. Thank you for the question. I think from the standpoint of what is available in the market today, one of the things that we need to do better in this industry, and I think we are working in that direction, is much like the early days of the Web, we need to focus on consumer-oriented products that have a lot of information about the challenges and also brings the person through from a literacy standpoint, so they understand. You look at user experience. You look at UX design. All of these things are really, really important. And as we saw in the early days of the Web, it happened. It came together. We became better at educating the audience about what is available and what is out there.

The nice thing about blockchain is you have immutability. You have records that are out there that can't be changed. This information is already leveraged by Chainalysis, for example, in Elliptic, to demonstrate the different things that are happening on chain, and I think it allows us the opportunity to create a lot more foundational efforts with respect to user experience and focus on these consumer protection issues that you are talking about.

Mr. GREEN. Mr. Samuel Bankman-Fried, if you would, please, I would like to hear from you.

Mr. BANKMAN-FRIED. Thank you for the question. One of the really innovative properties of cryptocurrency markets are 24/7 risk monitoring engines. We do not have overnight risk or weekend risk or holiday risk in the same way traditional assets do, which allows

risk monitoring and de-risking positions in real time to help mitigate volatility.

We have been operating for a number of years with billions of dollars of open interest. We have never had customer losses, clawbacks, or anything like that, even going through periods of large movements in both directions. We store collateral from our users in a way which is not always done in the traditional financial ecosystem, to backstop positions.

And the last thing I will say is if you look at what precipitated some of the 2008 financial crisis, you will see a number of bilateral, bespoke, non-reported transactions happening between financial counterparties, which then got repackaged and releveraged again and again and again, such that no one knew how much risk was in that system until it all fell apart. If you compare that to what happened on FTS or other major cryptocurrencies in use today, there is complete transparency about the full open interest. There is complete transparency about the positions that are held. There is a robust, consistent risk framework applied. And we are excited to work with the Commodity Futures Trading Commission (CFTC) on our U.S. license and regulated venue to bring a lot of this to U.S. customers as well.

Mr. GREEN. Thank you. My time has expired. Thank you, Madam Chairwoman. I yield back.

Chairwoman WATERS. You are welcome.

The gentleman from Texas, Mr. Sessions, is now recognized for 5 minutes.

Mr. SESSIONS. Madam Chairwoman, thank you very much, and to the panel, we appreciate this opportunity to hear from you. I think it is very important for us to hear from you. You are not the inventors, necessarily, but you are the people who are going to make this work.

I am tremendously impressed that, from what I see, a lot of ingenuity, a lot of entrepreneurial spirit, and lots of advice about the future about where this can grow is, I think, very important for us to listen to.

I am in favor of what you do. I am not sure I want to go as far as you do on robustness of how much oversight you really want, because I think that in your perhaps infancy, perhaps in your modeling, what makes you better is what you are, and I respect that.

The question I would ask, and I don't know which one of you to ask this, so I would just say we are always interested in a traditional financial model of identifying risk—what is a risk? We get very little into value but a lot into risk. And so, I would ask you the value of much of this could be compared to stocks. IPOs, when they first come out, they might come out and be worth this amount of money, and one year later, they are worth a lesser amount of money.

I am more concerned with the term, “fraud,” of the value that we are selling of all these different positions that could be held. What do you do to try and look at what might be fraud? I know there has been openness, a lot of discussion about how you allow information to be freely gleaned. You do these things. But is there an investigation or an understanding about what might be risky, even though you accept it, or fraud? Anyone?



Ms. HAAS. I am happy to take that one, Congressman.

Mr. SESSIONS. Thank you very much.

Ms. HAAS. I want to share a little bit, and this is specific to the Coinbase platform. On the Coinbase platform, we have various tools. One, in onboarding, as we have talked about, we do do KYC, but also, when we onboard our assets. We offer, as I mentioned, over 100 assets for trading on our platform. We have robust assessment of each of those assets. We are looking at it for legal risks. Do we think it has the contours of Federal securities? We do not list securities on our platform.

Two, we are looking at it for compliance reasons. Is this a scam? Are there real people behind it? Are there people behind them on the Office of Foreign Assets Control (OFAC) list? We do not want to list that token. So, we are doing a full compliance review of the founders of the coin, the developers on the project, and then we are looking at it from a security risk. Can we safely secure and store this on our platform, or is there underlying technology risk that would be rising to a hack? One way we look at fraud is when we list an asset, to make sure it is not a fraudulent asset.

Two, through our market rules, we do have traditional exchange rules for looking for spoofing, for wash trading, for all sorts of market manipulation on our platform, that we have third-party tools as well as employees that came from former regulators or from traditional financial services that do 24/7 monitoring. Much like Mr. Bankman-Fried responded to the risk models, we do compliance monitoring on a 24/7 basis.

We also then monitor the blockchains. One of the wonderful things about this technology is the transparency, and so we can look for transaction activity, look for patterns on a blockchain, and then partner with law enforcement, we file Suspicious Activity Reports (SARs), and we have traditional approaches, much like you would see in finance, but the transparency really changes what we can do here.

Mr. SESSIONS. I think that is a key, at least to me. If you know anything about the Medicare system, you have Medicare providers, and we have probably 18 percent fraud in that system. It is a Federal system that has been well-understood. Wherever you open up your door, whatever your storefront is, there is somebody there that is going to try and find a way to take you, to spoof you, to take advantage of this.

And it seems to me that that is something that if you have accepted this as part of the duty that you have, to make sure for the integrity of your system, it seems like to me that I have satisfied myself that what you have ongoing but where you think you want to go, we need to be supportive of you. We need to look at you less as something that we ought to get in and understand and tackle you and hold you back and more to what we believe the future should look like, for people around the world, for people in the United States.

I would simply say to you, I encourage your integrity. I encourage you to avoid the pitfalls that come from there being some fraud that was hidden for a long period of time, and the industry knew it. We have seen this happen in companies—I don't need to go

through that where fully-vetted market individuals still did something wrong.

Madam Chairwoman, I want to thank you for doing this today. I think it is good for all of our Members, and I, in particular, want to thank my ranking member for his proactive viewpoint, of Republican members, that I hope would be supportive of what you are saying today.

Thank you very much. I yield back.

Chairwoman WATERS. You are certainly welcome, and thank you.

The gentleman from New York, Mr. Meeks, who is also the Chair of the House Committee on Foreign Affairs, is now recognized for 5 minutes.

Mr. MEEKS. Thank you, Madam Chairwoman, and I also want to thank you for putting together this very, very important hearing. Look, the future is in innovation, and financial industries is just unavoidable, and to get ahead of it. So, your foresight, along with the ranking member, to do this is really important.

Let me first ask my question to Mr. Allaire. As you may be aware, communities of color often rely on minority depository institutions (MDIs) or community development financial institutions (CDFIs) to safely do business and get access to crucial banking needs. And given their important role as well as the challenges that they face, I have long been an advocate for robust partnerships whereby MDIs and CDFIs can leverage new technologies to better serve their communities, as well as our Circle, actually, for using and exploring such partnerships and creating an initiative to deploy and share United States Dollar (USD) coin reserve into these MDIs and CDFIs, enhancing financial inclusion.

My question to you is, can you provide us a status update on where Circle is in implementing this program, and what sorts of systems will be developed to ensure the long-term success of the program?

Mr. ALLAIRE. Thank you, Congressman Meeks. I appreciate the question very much. For those on the committee who are not familiar, we recently announced a new broad-based company initiative called Circle Impact. It includes several key initiatives.

First and foremost, something I did reference in my testimony as well, is an initiative to take what we hope will be billions of dollars of the deposits that are held behind USDC and actually place those with minority depository institutions and community banks throughout the United States.

I think one thing that is important to understand is that unlike a bank that wants to maybe hoard its deposits for its own lending business, as a full reserve model, we are not in the business of lending, so it is a tremendous opportunity for us to work closely with banking institutions that could benefit from strengthened balance sheets, and that could benefit from what that in turn can do to open up credit and lending and other opportunities in these underserved communities.

This particular initiative is one that we just began. We expect to have the first wave of that in place by the end of the first quarter. We are also looking to coordinate with Federal banking regulators who have their own initiatives that are focused on supporting MDIs and community banks, and we view this as a really critical

and strategic part of what we can do to foster a more inclusive financial system.

My final comment is simply that we believe that the technology of digital currency, the frictionlessness, the way in which individuals with mobile devices can actively participate, and not just domestically but interacting with family members around the world and safely exchanging value, that these can also bring significant benefits to these communities. And we will certainly keep the committee up-to-date on progress with this initiative.

Mr. MEEKS. Thank you very much for that, and let me go to Ms. Haas really quickly. You talked about technology enhancements, and I know what crypto and digital currencies can bring to our financial markets. They are really impressive. For example, I know a lot of communities rely on these new modes of payment systems to send money to their families in their home countries, and this type of activity, of course, is extremely useful to our global economy, which is really important.

But there are also bad actors out there that could use crypto or digital currencies to hide cash from illicit activity. Also, people can hide cash, to not have to pay their support payments and other things.

My question is, what is being put in place to keep the bad actors out of there? I know in your testimony, Ms. Haas, you mentioned that there is a small amount of noncompliant foreign exchanges where criminal actors benefit financially from this activity. So, what is your assessment about global coordination on stamping out such activity, and what more can U.S. policymakers do to better coordinate with regulators across shores to prevent this arbitrage to which you referred?

Ms. HAAS. Thank you so much for the question. On the Coinbase platform, we do have KYC and BSA/AML programs, and we ensure that we know who our customers are and then have clarity on those transactions. I know other U.S.-regulated exchanges that we speak to have similar controls, and everybody on this panel here today, I think shares those views.

There are players who do not follow these, and I think that is where regulation should be focused, to make sure that there is an expectation on what it is to perform as a digital asset marketplace, and that was part of our policy proposal.

Chairwoman WATERS. The gentleman's time has expired. Thank you.

The gentleman from Missouri, Mr. Luetkemeyer, is now recognized for 5 minutes.

Mr. LUETKEMEYER. Thank you, Madam Chairwoman.

In 2019, the average daily turnover value of the U.S. dollar constituted 88 percent of foreign exchange market transactions globally. This dominance by the dollar in global marketplace is a key reason why the dollar remains the reserve currency of the world.

Mr. Brooks, welcome back to the committee. It is good to see you again. I think we have actually talked about this subject before in the past. But as digital assets become more common in the global marketplace, with the total digital asset market reaching almost \$3 trillion, as Ranking Member McHenry just said, how do we ensure that the U.S. dollar remains the reserve currency?

Mr. BROOKS. Mr. Luetkemeyer, it is terrific to see you again, and I would give you a couple of thoughts on that important question.

One is, if we start with stablecoins before we talk about other crypto assets, I have said for a long time that the secular reduction in dollar holdings as a percentage of global central bank holdings is alarming, and this has been going on for more than 10 years at this point. So, dollars as a share of the European Central Bank, the Japanese Central Bank, et cetera, has shrunk from 80-plus percent to more like 60-plus percent in a short amount of time.

What that tells me is that in the future, with the rise of China and other major economies, the U.S. dollar can't take its primacy for granted, and we need to start thinking about competing on utility, and on features, not just based on a post-World War II monetary system that we could take for granted for the last 2 generations. And that is one of the reasons that I have been such a supporter of internet-enabled dollars, which allow us to compete on features, not only on history. I think that is really critically important.

The second thing I would tell you is as we enter Year 11 or 12 of a highly inflationary environment—after all, we have been printing enormous numbers of new dollars since the financial crisis—there will come a time, gradually, then suddenly, when the attractiveness of the dollar relative to other currencies could change. One of the benefits of the crypto economy is that it creates some counterincentives on the part of the Fed to do that kind of policy, because people will flee to other kinds of assets. And that sort of market competition is something that I think will ultimately shore up our monetary policy and keep the dollar where it rightfully ought to be, which is as the dominant reserve currency it has been for all of our lives.

Mr. LUETKEMEYER. Yes, it is very concerning to me that if we lose that position, our economy, our whole country, our way of life is at risk.

Mr. ALLAIRE, you made a comment in your testimony with regard to promoting the dollar as a primary currency. I assume you have a thought on this as well.

Mr. ALLAIRE. Thank you, Congressman. Absolutely. I think, as I said in my initial remarks, that we are at a really interesting moment in time. We are seeing this infrastructure layer, these blockchains, proliferate globally, at incredible speed. It seems likely to us that the ability to access and interact with these blockchain networks will reach billions of users over the next 2 to 3 years, and the question is, in that timeframe will the United States support the dollar and digital dollars in the form of stablecoins, because they are in the market, in operations today, to help the United States dollar be the competitive currency of the internet?

I think that is the opportunity. I think it is in front of us right now, and it is one of the reasons why we are so focused on this as not just a national economic priority, but a national security priority, because clearly, if this is the new economic infrastructure of the internet, we want the dollar to play a critical and strategic role. And partnering closely with private companies and using open internet technologies becomes a way for the United States to com-

pete versus states that are seeking to nationalize that infrastructure, and operate it themselves in a surveillance-oriented model.

Mr. LUETKEMEYER. It is interesting, what you were talking about a while ago. I think Ms. Velazquez asked questions about reserves. And I think you were talking about basically a one-to-one amount of backing of your coin, of your asset, with U.S. Treasuries. You are looking, I think, at the value that you are backing up your digital coin with, which is basically the full faith and trust of the United States Government. Would that be correct?

Mr. ALLAIRE. That is exactly correct, and I think, in many respects, the assets that back these dollar digital currencies are in many ways far safer than the dollars in a bank account, because dollars in a bank account, as we know, are fractionally reserved and lent out. So, this is—

Mr. LUETKEMEYER. I don't want to interrupt, but I have one quick question for Mr. Brooks. You talked about, a minute ago, how the owner controls the network. We had Mr. Zuckerberg in here when he was trying to talk about his Libra, and the control of that—the value of it was going to be with the commission. My concern is, who controls the internet? We have seen Twitter, we have seen Instagram, and we have seen Facebook control people on their platforms. How concerned are you about outside forces controlling the platform on which the digital dollar is traded?

Mr. BROOKS. Mr. Luetkemeyer, I will do you one better on your hypothetical, which is that we have now seen major banks deplatforming both industry and individual customers for not sharing the right point of view, so these are scary ideas.

The point of crypto is to have true decentralization, and the projects that succeed will be the projects that achieve that. Bitcoin succeeded because there are literally millions of participants in the node network, and so there is no CEO of Twitter to de-platform you, or there is no CEO of JPMorgan to take away your credit card. It is user-controlled.

Some of these won't achieve that. They will be consigned to the ash heap of history, I predict.

Mr. LUETKEMEYER. Thank you very much. I yield back, Madam Chairwoman.

Chairwoman WATERS. Thank you.

The gentleman from Colorado, Mr. Perlmutter, who is also the Chair of our Subcommittee on Consumer Protection and Financial Institutions, is now recognized for 5 minutes.

Mr. PERLMUTTER. Thanks, Madam Chairwoman. Mr. Brooks, it's good to see another Coloradan on the panel.

But I want to start with a couple of questions for you, Mr. Bankman-Fried. Ms. Haas mentioned knowing your customer, they avoid getting into the securities transaction business, to the best of their ability. That is one of the things they look for. I have several questions for you, and one of them will be completely from left field, so get ready for that one.

Cryptocurrency market exchanges such as yours are regulated through a patchwork of different State and Federal agencies. For instance, some exchanges register as money services business with FinCEN at the Federal level and may also receive money trans-

mitter licenses, and you have talked a little bit about that in your opening. How is your company registered in this context?

Mr. BANKMAN-FRIED. Yes. Thanks for the question, and I am looking forward to the left-field question at the end.

In addition to a bunch of international licenses, in the United States we are participating in that system you referenced, with the money transmitter and money service business licenses. In addition to that, however, we are also licensed by the CFTC. We have a DCO, a DCM, and other licensure from them through FTX US derivatives, and we look forward to continuing to work with them to build out our products. We just submitted an 800-page, I believe, proposal to them a few days ago, that I am excited to discuss, and we are also happy to talk with other regulators about potential products in the United States.

Mr. PERLMUTTER. Okay. Let's talk about another regulator that may touch on what you do. You talked a little bit about derivatives and the fact that derivatives were sort of a key component in the failure of the financial markets in 2008 and 2009. Is FTX registered with the SEC?

Mr. BANKMAN-FRIED. The core derivatives regulator is the CFTC, and FTX US derivatives is registered with the CFTC. With the SEC, we have begun discussions and are excited to continue discussions there. We do not list securities on our platform as of now, although we would be excited to explore listing digital asset securities in the future, under the guidance of the SEC.

I will also say briefly that I would be excited to see a unified joint regime with both CFTC and SEC involvement, to create sort of harmonious markets regulations between spot derivatives, contracts, a number of things.

Mr. PERLMUTTER. Okay. Now, the left-field question. Our role here—there is nothing new under the sun. The technology may change. It may speed things up. It may make it more transparent. But a deal is a deal—who is taking on the risk, who is getting rid of the risk, who is the middleman?

One of the things we hear about blockchain is that it is invulnerable, it is impenetrable, it is something that is super-secure, and our responsibility is to make sure that things are generally safe, generally honest, and that people aren't swindled.

I also sit on the Science Committee with Mr. Luetkemeyer, and the ranking member was talking about, we are at W-3. On the Science Committee, we are doing a lot on quantum computing, and so my question to you is, what threats or benefits to a blockchain system will come from quantum computing?

Mr. BANKMAN-FRIED. Thank you for the question. In terms of the threats, some cryptographic algorithms are not at least theoretically, might not be secure under quantum computing. Obviously, this is going to depend on the exact details of what comes. And it is important that, if and when that comes, that blockchain security algorithms are resistant to that.

On the same front, I think it has the potential to create basically new cryptographic algorithms that are faster, that are more secure, and that are more efficient, from a number of different perspectives. So, we will see what happens there.

Mr. PERLMUTTER. Okay. I have a million other questions, but I don't have enough time to ask them, so I will yield back.

Chairwoman WATERS. Thank you very much, Mr. Perlmutter.

The gentleman from Kentucky, Mr. Barr, is now recognized for 5 minutes.

Mr. BARR. Thank you, Madam Chairwoman, and thank you for holding this important hearing. Mr. Brooks, it's good to see you back in front of our committee, and to all of our witnesses, thank you for your testimony.

Mr. Brooks, I will start with you, and this is a bit of a follow-up to Mrs. Wagner's question. Do you think Congress needs to introduce legislation to provide more definitional clarity with respect to digital assets, and if so, do you have any specific suggestions?

Mr. BROOKS. I really appreciate that question. That is the most important issue in the short term for the industry. So let me just pick up where Mrs. Wagner left off.

If the question is, is the current test clear, it is clear in the sense that we know what it is. It is not clear in that a four-factor balancing test—I often think about what the U.S. trucking industry would be like if the truckers didn't know that the speed limit was 75-miles-an-hour. They just had a four-factor test of general safety having to do with how much sleep they got the night before, the overall size of their payload, and other factors. People need to know what the speed limit is.

In my old agency, the OCC, what would happen is a bank would come to us with a new activity proposal and we would give them an answer. We would either give them a non-objection or we would not give them a non-objection, and it was very clear whether they would be allowed to access that.

What happens in the United States is you have a new crypto project, and you walk into the SEC and you describe it in great detail and you ask for guidance, and they say, "We can't tell you," and you list it at your own peril.

Whether this comes from legislation that defines what is a security and what isn't a security, or whether it comes from Congress in the form of legislative discretion to an agency to say, what is a security, I would argue that a four-factor balancing test is no better here than it is as truckers drive down the highway and guess what safe is.

Mr. BARR. Yes, and SEC Chairman Gensler has been quoted as saying the test to determine whether a crypto asset is a security is clear. Mr. Brooks, do you agree that that test is clear? I take it from your previous answer, that the answer is no. But could you walk me through the process that exists today to determine if a digital asset is a security?

Mr. BROOKS. Yes. Thank you for that. The best test that is out there is a test that several of us on this panel actually helped to develop about 3 years ago as part of an industry organization called the Crypto Rating Council. When I came to see several of you several years ago in connection with the Crypto Rating Council, the way I described it to you was it is sort of like motion picture ratings for crypto. We don't know authoritatively what is a security and what isn't, because no authority will tell us. But what we can do, at least, is we can tell you the difference between an R-rated

asset and a PG-rated asset, and people can make their risk tolerance judgments.

The way that process works is it is an objective, quantitatively-based process that asks several dozen questions about the asset, across each of the dimensions of the Howey Test. It gives you a number and that number tells you how close you might be to danger and how far away.

Mr. BARR. Let me interrupt and just say I recognize that some rules or Federal regulation of both digital assets and cryptocurrency trading platforms might be supportive of bringing clarity, but I would never underestimate the ability of the Federal Government and regulators to stifle innovation. Can you give me an example of an overreach that would stifle innovation?

Mr. BROOKS. The idea would be to, say, let traveler's checks exist inside the banking system and not bring a stablecoin issuer inside the banking system, when they have applied.

Mr. BARR. Okay. Mr. Allaire, to you. Can you talk about the difference between a stablecoin versus a central bank digital currency and what advantages does a stablecoin offer that a digital dollar, say at the Fed, would not be able to offer?

Mr. ALLAIRE. Thank you, Congressman Barr. I am happy to. I think the first difference is that stablecoins are operational and growing in the market today, and they are built on an open internet technology model. When we think about all of the things that we have seen built on the open internet, on these open protocols and networks, whether it is ubiquitous information exchange, communications, interaction the world, that same open internet model is the foundation for stablecoins. And so, I think that is a fundamental difference.

A CBDC, which is a concept right now—it is not operational—would very likely be a very closed-loop technology that is tightly administered and run by the government, and would unlikely to be accessible in the same way that these open networks are accessible. And so, I think that is a critical difference.

But I would come back to the most important difference, which is that most payment system innovations in the world have been driven by the private sector, and I think what is taking place today with digital currency is no different.

Mr. BARR. Could stablecoin and your product, could it address some of the concerns about China's advances and the threat that China's advances pose to sanctions enforcement and protecting the dollar as the world's reserve currency?

Mr. ALLAIRE. I think so, yes. I will try and make this point concisely—the United States and the U.S. dollar is winning the digital currency space race today. Dollar stablecoins are doing trillions of dollars of transactions. The experimental beta of a Chinese yuan, which is government-controlled in China, has done \$10 billion of transactions. So, the United States is winning.

This has the potential to grow at a very significant speed around the world and benefit the U.S. dollar, and benefit American businesses and households. So, I think that is one really, really critical thing to understand, and I think the primacy of this infrastructure and the development of this infrastructure, it is a strategic national



security and national economic priority for the United States, and we need to get going on it right now.

Mr. BARR. Thank you. I have many other questions as well, but my time has expired. Thank you, Madam Chairwoman.

Chairwoman WATERS. Thank you very much.

The gentleman from California, Mr. Vargas, is now recognized for 5 minutes.

Mr. VARGAS. Thank you very much, Madam Chairwoman. I appreciate very much you bringing this to our attention. And I appreciate the ranking member, and everyone participating today, especially the witnesses.

First, one of the things that has been interesting is, I have heard a lot of very high and noble motives today. I don't want to misquote people, but I have heard that the digital asset world, the open internet model, for all people in the world, is easier, cheaper, open, free market data, it is transparent, reduces risk, not increases risk, and there is less friction in the marketplace. These things are all great, but it is interesting that most of the people I know who have invested in digital currency, it is not because of that. It is because they think they can get rich quick, and the appreciation of Bitcoin is something that they want a part of. It is not because of all of these other wonderful things that the internet can do. That is not the reason at all.

Second, it is interesting when I ask them, "Well, do you know what cryptocurrency and digital assets and Bitcoin, what it actually is?" And most of them say, "No. I just know that you make a lot of money, and I want to invest in it. I want to be part of it. I want to be able to invest because I know that it is appreciating."

We have seen this before, unfortunately, and it led to, I think, a financial crisis around the world, when you were investing in derivatives and other things, and people didn't know what they were investing in. Then, it became very problematic. So, I do see the risk in this.

Now I have to say, when this was a B problem or a B issue, a billion-dollar problem, it didn't seem like such a big deal. But now that it has become a trillion-dollar issue, and I do think it is challenging, really, the supremacy of the dollar around the world, I do think it is potentially a big problem. I do have concerns.

I want to follow up on what Mr. Barr said, the issue of the dollar being the reserve currency, it seems that this does challenge it. Does someone want to comment on that? If not, I will pick on somebody in particular.

Mr. ALLAIRE. I am happy to comment, Congressman. I want to respond to a couple of things in your comments.

I would agree with the fact that there are passersby and then there are people who are actively building and who are very, very close to the technical innovation, and I think, like investments in technology companies or in other businesses that we see in the stock market, you have people who are investing because they think it is a business or a product that might go up. They may not understand the details of a given pharmaceutical company's science but they believe that perhaps it is an area of innovation and they want to invest in it.

So, I do agree that there is that distinction. But I think it is certainly incumbent on all of the industry participants to ensure that there is a great amount of disclosure, financial literacy around these products.

But more importantly, coming back to the comment about the dollar, I think there is this growth in digital assets as a new kind of asset class, and I think what is important to note is understanding those in contrast to fiat currencies, many of the digital assets, in fact, I think the overwhelming majority of the digital assets are commodities that have utility, that are used to power some kind of technology network or protocol, thought of more like an oil or a gas than a fiat currency, so they exhibit those properties.

And I don't think those will ever rival the dollar. I think they will grow in value because they are utilized to help facilitate all kinds of activity on these Web3 applications and networks, and I do believe that with innovations like stablecoins and dollar digital currencies, we could actually see a dramatic amount of growth in the use of the dollar.

Mr. VARGAS. I am going to reclaim my time just for a second, because one of the things that I see is that we do have digital currency. We have the digital dollar already. The digital dollar can do all of the things that you guys were talking about today, with the exception that it is a fiat currency that wouldn't be as easily manipulated by some nefarious group because it would be controlled by the Fed and the United States of America.

I do have great apprehension that you have these cryptocurrencies that are used by drug traffickers or used by people trafficking other human beings, and there is no good way to control it. I am all for digital currency, but why not the dollar? Why can't the dollar be the digital currency? Why can't we, once again, not 60, 80 percent but maybe even higher with a digital dollar? That, to me, makes much more sense, and it is much more protected, and people will not have the risk.

But anyway, I yield back my time, but I did find this to be a very interesting discussion. Thank you.

Chairwoman WATERS. Thank you very much.

The gentleman from Texas, Mr. Williams, is now recognized for 5 minutes.

Mr. WILLIAMS OF TEXAS. Thank you, Madam Chairwoman, and for those of you who don't know me, I am a small business owner in Texas, and I still own those businesses. I am a car dealer, and a former professional baseball player. And when I am trying to wrap my head around a new topic, like cryptocurrencies, I try to relate it back to something I understand, like baseball or business.

Now, some of you may know this, but modern-day baseball can really be attributed to Babe Ruth. He brought in the live-ball era of the time and introduced power to the baseball diamond, and before this, teams would play small ball that was very conservative, where teams would literally play for one run a game. The entire objective was simply to get the ball in play so they could try to steal their way around the base pass. And there was nothing wrong with this whole way of playing, but when the White Sox won the World Series in 1906, the entire team had a total of 6 home runs all year.

Then, Babe Ruth came along. Babe Ruth came along and totally changed everything. In 1920, he set the American League record of home runs with 54. To put that in perspective of how fantastic this feat was at the time, the previous mark to be set was by Socks Seybold, in 1902, with just 16. This introduced an entire new generation of new baseball fans, and for the first time ever, the New York Yankees' over one million fans came to see them in a single season.

Now, with that being said, many of you are becoming the Babe Ruth in the financial services space. You are introducing a blockchain technology to the financial services industry and working to upend a tradition and a traditional way of doing business. And while many economists and so-called experts have been calling on the downfall of cryptocurrency, and discounting the future of blockchain technologies, all of you were working tirelessly to create something new in order to bring this new technology to the masses. Unfortunately, it would only take a few misguided curve balls, we will say, from Washington, to undo some of the progress you have all put into motion.

Mr. Brooks, can you talk about some of the negative consequences that could happen if we take a heavy-handed approach to regulating this developing technology?

MR. BROOKS. Mr. Williams, as a long-suffering Dodgers fan, I share a lot of the things you are talking about, and I think the era that you are talking about was an era when baseball went from focusing on not losing, to an era where it is focused on winning. And winning and not losing are not the same thing.

I come back to Mr. Vargas' question from a second ago, which I think is the right way to answer your question. Mr. Vargas asked the question of people having the potential to lose a lot of money. These things are volatile. They are risky. How do we protect them from those kinds of issues?

There are two ways of answering that. One is to prevent as many people as possible from accessing this amazing technology. For example, the way the current legal regime works is certain kinds of assets can only be purchased by accredited investors, meaning rich people. So, the only people who can get rich on this are people who are already rich. That would be one way of protecting people from losing money is to make sure that only the richest can access it.

Another way of addressing it would be to make it safer, the way that we made equity safer 40 years ago. Right? We created mutual funds, diversification, sector funds, and other things that make it easier for regular Americans from places like my hometown in Colorado to buy equities without having to be stock experts.

Strangely, in the U.S., we have refused to do that so far, so we don't allow crypto mutual funds. We don't allow people to diversify, the way that they do in Canada, Germany, Singapore, the United Arab Emirates, and a series of other regulated economies around the world.

So, I would argue the way to win is to bring more people into the system more safely, and not to keep them out at their own peril.

MR. WILLIAMS OF TEXAS. Great. Second question, we often hear that the crypto industry is the Wild, Wild West, where there is no

regulation guiding the industry. But as all of you are aware, that simply is not true. The SEC and the CFTC are the primary Federal regulators, and our States also have strict regulations that all of you must abide by.

Mr. Bankman-Fried, can you discuss the different layers of regulation that FTX must abide by as an exchange, and also in order to uphold customers' deposits in your digital wallets?

Mr. BANKMAN-FRIED. Yes. Thank you for the question, Congressman. And putting aside the 190 other regulatory jurisdictions that we take part in, and the dozens of licenses that we are acquiring each month, in all of those, in the United States, there is the sort of state-level money transmitting license regime with money services business and MTLs, which we and many others are part of. For any merchant or financed or derivatives transactions in the United States, there is a CFTC regime, where there is licensure required to offer those products.

For any products that might be security as a digital asset, there doesn't exist currently a very clear pathway forward, but that would be an SEC-registered regime for it. Obviously, there are discussions about additional registered regimes for stablecoins and other assets as well.

Mr. WILLIAMS OF TEXAS. Thank you. I think my time is up Madam Chairwoman, so I yield back.

Chairwoman WATERS. Thank you very much.

The gentleman from Illinois, Mr. Casten, who is also the Vice Chair of our Subcommittee on Investor Protection, Entrepreneurship, and Capital Markets, is now recognized for 5 minutes.

Mr. CASTEN. Thank you, Madam Chairwoman, and I came up vastly before I thought I was going to, which means that you will have to humor me for my ill-formed thoughts.

I really appreciate our witnesses coming here, and I also feel terrible for you because we could have an entire hearing on stablecoin. We could have an entire hearing on blockchain. We could have an entire hearing on, oh, CBDCs, I suppose. And we could probably have an entire hearing on whether or not things that have forced scarcity are inherent stores of value, except that I think we resolved that a hundred years ago, and, yet, we still sort of need to debate it periodically.

All that said, I want to start just focusing on stablecoins, if I could, and Mr. Allaire, I want to start with you. I am sure that you have seen the President's Working Group's report, raising all sorts of issues with stablecoins, primarily around, do they really look like money? Do they have sufficient reserve assets behind them? What are the redemption rules? Is there transparency around permission blockchains, the custody of reserve assets? You have read the report, I am sure. I see you nodding. I could go on.

The first question is just really simple. Do you support the recommendations of that report for stablecoins?

Mr. ALLAIRE. I support a number of things, but not uniformly. I think there are a number of challenges with the report. I think the first, maybe, to discuss is, really, this question of what form of Federal charter ought to be in place around a large-scale dollar stablecoin issuer.

I think the report recommends that it would be an insured depository institution. But I think one of the really critical things to discuss there is that an FDIC-insured bank, is FDIC-insured because the bank is taking risk with deposits and so—

Mr. CASTEN. If I could—and I apologize for cutting you off—but I want to just narrow sort of specially to the issue of, if I deposit something in a bank that is indexed to a dollar, and I perceive as a customer that I have eliminated the FX risk, but now, I am left saying, is it actually there when I want it, and other reservations?

Setting aside how we get it done, broadly speaking, are you supportive of the idea that if this is going to look and feel and attract investors with the expectations that this has all the risk and liquidity profiles of a dollar, that we should make sure that it actually has those features?

Mr. ALLAIRE. Absolutely, full reserve disclosures, transparency, I think definitions around what those reserves are and the liquidity mandate on it, those are all really critical features that need to come in place.

If it is full reserved, is it an FDIC-insured product or is it a statutory set of constraints around what the reserves are? Those are some of the things that I think have to be worked through.

Mr. CASTEN. Okay. And I want to get to two more questions, so I apologize if I am being quick. But in the absence of those protections being in place, it seems to me that somebody who is currently holding a stablecoin perceives that they are holding a currency, but in reality is holding something that is subject to a lot of exogenous risks beyond their control, which feels a lot more like a commodity.

So if we agree that as of right now it is not really a currency, would you also be supportive of saying, well, we should regulate it as a commodity until such time as we have the protections in place to give it the robustness of a currency that the market is expecting of it?

Mr. ALLAIRE. I don't agree with that, but I think it raises a couple of key points. The first is—and I can only really speak on behalf of Circle here—USDC, for example, operates under the same stored value electronic money and electronic money transmission statutes that govern Square and Stripe and PayPal and the balances there. So today, there are consumer protections.

There are reserve requirements around holding of those assets, one-for-one redeemability, anti-money laundering requirements, surety bonds that need to be posted to protect consumers, segregation of client funds and for benefit of customer accounts.

There is a great deal that is there—and we have operated under such statutes, really, since 2014. We were the first company to go and get all those licenses. So, there is a framework today. I think as these get larger and are operating at a global scale, I think, really, there needs to be something more, that is more bespoke to this.

Mr. CASTEN. Let me, if I could, because I am just nervous watching the time here, let me sort of get to the last question, leave it to the whole panel, and if we are out of time, I will follow up separately.

The concern I have is that a stablecoin, at some level, is an ETF, and we could imagine a stablecoin indexed to all sorts of different

currencies and some kind of baskets of currencies that are behind there, and we regulate those in certain ways with expectations of who is bearing the risk, to Mr. Perlmutter's question.

We have this emerging world of central bank digital currencies, and I am satisfied that no central bank wants to allow counterfeiting. They all want to protect the integrity of the currency and so they will put those rules in place.

On the other hand, different countries are going to have very different ideas about what kind of data they would like to track when we trade a central bank digital currency.

And so, a question for any of you who feel technically competent to answer this, if you have a stablecoin that includes some portion of central bank digital currencies that are tracking things that we, as Americans, would not like to track, can we design the stablecoin to insulate the contamination of that system so that somebody who believes that they are buying something that looks like a dollar is not actually being tracked by our adversaries?

Would anybody like to comment on that?

Mr. ALLAIRE. I will make one quick comment, which is that one of the benefits of this technology is these stablecoins, all of the code that they provide and how they interact is all public and open source, and so everything that functions inside of that is visible to everyone who interacts with it. So, there is the ability to have, I think, greater transparency into how are these things functioning, including a foreign-issued coin.

Mr. CASTEN. I am out of time, but I do have some concerns about the encryption rules as well.

Chairwoman WATERS. The gentleman's time has expired.

Mr. CASTEN. Thank you. If anyone would like to follow up, I would like to know.

Chairwoman WATERS. The gentleman from Ohio, Mr. Davidson, is now recognized for 5 minutes.

Mr. DAVIDSON. Thank you, Madam Chairwoman, and thanks to the ranking member, thanks to our witnesses, and, frankly, many people who have worked literally years to get to this point, to have a hearing.

The market has been way ahead of this and, frankly, it has been painful to watch, in 2017 and since when you see the ICO market ripe with people committing fraud or just regulatory arbitrage taking advantage of the fact that our regulators haven't paid attention to bad actors.

And it has been especially frustrating to watch some of our regulators take aim at people who are working very hard and very aggressively to be legitimate businesses, to come into compliance with every kind of licensure and regulatory regime that our country currently offers.

It has been woefully inadequate, so it is so good to get to this point for the hearing. Thank you, and thanks to my colleagues.

I have been very encouraged by the amount of preparation many colleagues have done to close the gap in any knowledge they have had, and over the past few years, the number of Members of Congress who really understand this space has certainly increased.

Three years ago, we had a hearing—not really a hearing, because as a junior Member, I can't hold those or pick them—so in exas-

peration, we just held a meeting over at the Library of Congress, and some of the folks in this room were there or representatives from your companies were there, and we came up with that the most essential thing was to establish a bright line test, not just for the players in the industry, not just for the investors, but also for the regulators. So that if somebody at the SEC, for example, says this looks like a security, it is not a form of interpretive art to say, does it really fit this test?

We came up with a four-part test that said it is already created, it exists, that it is recorded on a distributed, secure, and immutable ledger that is not controlled by a central authority, that permissionless peer-to-peer transactions can be done without an intermediary and it does not represent a financial interest in any entity.

More important than that particular test is the fact that there is, as Mr. Brooks, you highlighted, a speed limit so that there is some clear thing, not just, as I say, for the investors, not just for the participants in the market, but for the regulators themselves so that we have continuity.

If only there were such a body that could provide this clarity. My hope is that the next time we have a hearing, we will notice some bills and will be able to talk about particularly the text towards that.

Mr. Brooks, when you look at stablecoins, which is maybe the lowest-hanging fruit, some of those are well-established in long-standing things like New York trusts.

Some of those aren't traded in anything. They are just U.S. dollars stored in a vault for every token. Some have U.S. dollars in components of M2, like U.S. Treasuries. Some have other things.

When you were at the OCC, you provided some clarity there and you also dealt, importantly, with self-custody.

Mr. Allaire, you mentioned that the code is literally online. Any of us right now during the hearing could download code and could begin to self-custody a digital asset.

As you look at that, how important is it to provide this clarity, Mr. Brooks?

Mr. BROOKS. Specifically on the issue of custody and self-custody, this is a way that crypto tries to make an advance over the current systems. The issue with custodial assets, we have seen, and this committee has looked at many, many times. Think about the financial crisis when there was an issue of foreclosures and it was difficult for custodians to produce the original note that proved whom-ever was entitled to enforce that transaction and foreclose on a property, because the piece of paper had gone missing or the custodian had merged with another custody company or whatever.

One of the things crypto is trying to do is to use technology so that you can safely keep your own assets for free, versus having to pay somebody else to custody them. That also provides a layer of financial privacy, something that this committee usually favors, but sometimes, strangely, doesn't favor.

Self-custody is one of the key things, along with self-ownership and self-determination, on this internet of value that is really critical to the nature of the network.

Mr. DAVIDSON. Thank you. And as we have digitized information, it is frankly amazing that we finally digitized money in a way that we can move not just a store of value but a means of exchange.

The use case for digital assets has partially been that it is this stable store of value. Certainly, stablecoins solve that. Some have pointed out that Bitcoin, for example, doesn't.

Mr. Bankman-Fried, one of the ways that people have speculated that volatility is created in the market isn't by holders of the asset who are hold-on-for-dear-lifers (HODLers), as it has become known in the space, but by the other big group that owns these assets, which are traders.

Many of them trade on leverage, so when you looked at leverage, you made a lot of news by saying, we are capping people at 20 times leverage. That is a lot of leverage. But you also pointed out that the average leverage on FTX was around 2 times. Could you talk about the importance of leverage in volatility?

Mr. BANKMAN-FRIED. Thank you for the question, Congressman.

The first thing that I will say is in crypto currencies and digital assets, as, like, essentially every other financial asset in the world, more volume trades through futures contracts than through the spot asset.

The reason for this is, basically, it is more economically-efficient. It is much more capital-efficient. The lack of an immediate delivery requirement on the physical creates a much easier ability for people to hedge exposure, for people to express opinions, and so, for all of those reasons, I think that they are an important part of the digital asset ecosystem, as they are for every other ecosystem.

I will just briefly say it is important to have robust risk engines that monitor the positions on these assets. We have gone through multiple very large up and down moves and have been able to manage positions both times.

Mr. DAVIDSON. Thank you, and thanks again for the hearing. I feel like I have just spoken to Steve Case in, like, 1990. So, thanks for the vision that you guys have, and thanks for the hearing, Madam Chairwoman.

Chairwoman WATERS. You are welcome.

The gentleman from New York, Mr. Torres, is now recognized for 5 minutes.

Mr. TORRES. Thank you, Madam Chairwoman.

I represent the South Bronx, which is often said to be the poorest congressional district in America, and of greatest concern to me are the use cases of crypto that would improve the lives of the people of the South Bronx.

I represent a heavy population of immigrants, who often pay predatory fees in order to send remittances to their loved ones abroad. What can crypto blockchain, Web 3, do for that Dominican immigrant in the South Bronx who is burdened by remittance fees that she cannot afford? How much more affordably and quickly can the crypto economy facilitate remittances?

Mr. Cascarilla, if you could take that question, and please be specific?

Mr. CASCARILLA. Yes. Thank you for the question.

I think this is a really important element of the technology, which, again, is that it is open to anybody. You don't need to have



a bank account. You don't need to, in fact, rely on any intermediary. So, somebody who is an immigrant and wants to send a remittance to a family member in another country is able to do that, and there are ways to do that with both crypto and with stablecoins, and all you need to do is download a wallet and then you can send it to somebody else anywhere in the world.

So, this is a really powerful tool for democratization of access, especially for those who have difficulty getting bank accounts. There are no minimum fees. There are no minimum balances. There are no check cashing fees that are part of this technology, and you can do it, in some cases, for a penny or less.

Mr. TORRES. And how much quicker?

Mr. CASCARILLA. This is an important point. Blockchains, part of the beauty of them is that they are operating 24-hours-a-day, 7-days-a-week, 365-days-a-year. So, it would be sent just about instantaneously.

There are no multi-day lags that you have right now, and that change in speed is just crucial because usually it is these lags that really are very costly.

Mr. TORRES. I am going to interject.

Mr. Brooks, I have a question about the challenge of enforcing laws in a world of decentralization, whether it be law enforcement relating to financial crimes or SEC disclosure.

How exactly do you enforce the law when there is no central entity against which to enforce the law? How do we grapple with that challenge?

Mr. BROOKS. That is a great question, Mr. Torres. I really appreciate you asking it. I would say a couple of things about it.

First of all, to the extent that some of the activity we are talking about is parallel to activity that happens in the supervised system, my question is, why don't we allow it in the supervised system? Again, you have heard me say it before this morning.

But you have on this panel a big stablecoin issuer who has applied for a bank charter, and it doesn't look like they are going to get it. The easiest way to supervise that would be to let them in the banking system and have the OCC have authority over them. I would start with that.

The second point is that lots of these decentralization protocols are designed to solve the exact problems that create the need for enforcement in the first place, because most enforcement in the securities and banking system is about some combination of human error, human negligence, human greed, or human bias.

And the point of some of these decentralized systems is to take that out and have an open source piece of software that everybody can look at and deal with those things algorithmically.

As an example, I used to sit on a bank credit committee. We would decide who got credit and who didn't, and I think we had a really good system for it.

But we were human beings. We might have been indulging in implicit bias. We might have made mistakes. Algorithms don't do that. So, some of the need for what you are talking about goes away in a decentralized system.

Mr. TORRES. And I know there are critics who have said that the blockchain might not be as secure and as unhackable as advertised.

But, for me, the proper question is not whether the blockchain is perfectly secure and unhackable. The question is whether it is better than everything else? Like Winston Churchill famously said, democracy is the worst form of government with the exception of everything else.

Is there a computer network that is more secure than the blockchain?

Mr. BROOKS. I think the beauty of the blockchain is not that it is perfectly secure. It is that it is perfectly transparent, so you can see when somebody messed with it.

Mr. TORRES. But I want to specifically address security. Is there a computer network, to your knowledge, that is more secure than the blockchain?

Mr. BROOKS. I don't know of one. But we have a Ph.D. in physics sitting right next to me, so we will let him answer.

[laughter]

Mr. BANKMAN-FRIED. If you are talking about any major global use blockchain, I don't know of one. There are small blockchains that are less secure. All of the major ones are incredibly secure.

Mr. TORRES. And one of my concerns about crypto is that it would present a challenge to the supremacy of the U.S. dollar as the world's reserve currency. But what I have found striking is that the leading stablecoin issuers have actually chosen to peg their stablecoins to the dollar, which strikes me as a vote of confidence that reinforces rather than challenges the status of the dollar as the world's reserve currency.

What are your thoughts on the relationship between the dollar and the crypto? Is it as contradictory as many have feared or could it be actually complementary?

Mr. CASCARILLA. I will answer that. I actually don't think that it is contradictory at all. What people want is a U.S. dollar bank account. Everywhere in the world, people want to be able to have U.S. dollars and, actually, that is the hardest thing to get. And crypto is a tool for a lot of different things, including bringing communities together, but what people want for their everyday spending is dollars.

If you are in Argentina, you want dollars. If you are somebody anywhere in the world, you want to have access to dollars, and that is the hardest thing to get access to right now, and that is why tokenized dollars are so valuable, because you don't need to have a bank account, yet, you can have access to the dollar-based system and a very, very important tool for inclusion.

Chairwoman WATERS. The gentleman's time has expired.

The gentleman from Michigan, Mr. Huizenga, is now recognized for 5 minutes.

Mr. HUIZENGA. Thank you, Madam Chairwoman. My apologies to the panel. I had to leave to manage a bill on the House Floor dealing with the very exciting issue of LIBOR.

Chairwoman WATERS. Thank you.

Mr. HUIZENGA. You are welcome. We are getting there, Madam Chairwoman.

But to my colleague from New York, I do want to point out that this isn't quite the same, but the same idea exists. Committee Republicans released a CBDC Central Bank Digital Currency prin-

ciples recently and of those, we had said in this as one of those principles is we need to make sure that the private sector leads the way but we need to ensure that the U.S. dollar remains the pre-eminent currency.

So, that is a common goal, certainly, and we have been very aggressive in trying to lay that out.

I only have a short amount of time, so I am going to try and go as quickly as possible, and I am going to peek around my colleague from West Virginia here, trying to get to Mr. Bankman-Fried, quickly.

And again, I apologize. I am not trying to replot ground that has already been gone over. But how many various levels and types of regulators do you currently engage with? Because I know you are worldwide. You have indicated that you have multiple regulators that you currently work with, so I am curious if you can even peg that number?

Mr. BANKMAN-FRIED. Yes. There are dozens, probably soon hundreds worldwide that we are engaging with, and that includes all across Europe, all across Asia, and then, within the United States, we are engaging with State money, transparent money services, and business licensure.

We have a CFTC license for derivatives that we are engaging with the SEC, and I anticipate more agencies getting involved soon as well.

Mr. HUIZENGA. Yes. And I want to make sure that we are not overregulating that law, and I am sure it has cost you an untold amount of money so far, and I am sure everyone has been dealing with that.

But I also want to make sure—no offense to any of you—that there are others who are going to be able to enter that space and that they are not being blocked out and that there is an artificial barrier to entry that is going to allow others to do, frankly, what you all did, which was be innovative and supply a product to people who are looking for that product.

I am going to have to move really quickly. I am going to go to Mr. Brooks on a couple of things.

Would you describe why establishing these clear rules of the road is an important step before we add additional regulation and consider that regulation?

Mr. BROOKS. Mr. Huizenga, it is good to see you again.

I think the most important reason of many is international competitiveness. Other countries make this easier. Let me just make clear, other companies make this easier in other countries.

I just came yesterday from the Middle East, we were in Dubai and Abu Dhabi, and they have super clear derivatives regulations, super clear ETF regulation. They are trying to lure Americans over there to build these products and they are moving there.

Mr. HUIZENGA. How are they viewing these crypto assets differently than traditional assets? What Rubicon have they crossed that we haven't, and why is it important to think about digital assets differently?

Mr. BROOKS. I think one of the things that they have figured out is that crypto actually is less fundamentally different than equities

in depth than you would think it is. It is a risk on asset that people want to invest in.

They want to invest in it in Canada, so Canada builds a regime for it. They want to do it in Germany. We are the last country standing that hasn't figured that out. It is a risk on asset that people want exposure to as part of asset diversification.

Mr. HUIZENG. As opposed to traditional assets?

Mr. BROOKS. Correct.

Mr. HUIZENG. Okay. I have a minute left here.

Ms. Haas, you indicated in your testimony that, "every asset listed on the Coinbase platform is subjected to rigorous legal compliance and security review."

Could you provide us specific details on what Coinbase's process has been to be able to make that type of statement?

Ms. HAAS. Thank you for the question.

Yes. Specifically, for the legal review, we assess each asset under the Howey Test where we, as Brian Brooks spoke about earlier, through the Crypto Rating Council, have established a framework where we look at the risk factors and we determine whether or not it meets characteristics of the Howey Test.

It is a risk-based assessment. It is not a black-and-white test. But based on our assessment, we believe it is lower risk that these are securities before we list them on our platform. We separately do a compliance review.

Our compliance review includes looking at the developers of the token, and ensuring they are not on an OFAC sanctions list. We look to make sure it is not a scam, that there are actual people using this coin, that it was developed in sound manners. And then, we look at a security review to understand the underlying code to say, can we provide custody for this, is this at heightened risk of an attack or someone pulling the value from these assets?

So, it is security, legal, and compliance before we list an asset.

Mr. HUIZENG. Okay, and I am hoping that the Chair will grant me leave for my LIBOR work to just scoot, and with a closing statement, as my time is up here, a number of you have brought up the unbanked and underbanked. And despite rhetoric that gets thrown around, all of us on this committee are very concerned about it.

I happen to represent the second-poorest county in the State of Michigan, which is in the top 100 poorest counties in the nation, and I understand what it means for these unbanked and underbanked folks to be involved in the process.

I want to make sure that what we do, not just here today, but in the future—we tend to be lag indicators at the government level and with regulators rather than on that front end, and I am hoping that we do nothing to harm their opportunity to engage in the process.

With that, I yield back.

Chairwoman WATERS. Thank you very much, and thank you for LIBOR.

The gentleman from Florida, Mr. Lawson, is now recognized for 5 minutes.

Mr. LAWSON. Thank you, Madam Chairwoman, and Ranking Member McHenry. This is a very extraordinary hearing, and I

would like to, again, as everyone else has, welcome everyone who is testifying today at this hearing, which is a very important one.

It will probably take me a long time to understand what all we mean by crypto currency, and I just heard some testimony stating how we lag behind all other countries in making changes.

And this is to everyone. My colleague, Representative Soto, and I, and eight other Members of Congress led a letter to leadership addressing the digital assets provisions that expand the definition of broker under Section 6045(c)(1) of the Internal Revenue Code in 1986 to include any person who for consideration are responsible for the regular provision and service of effectively to transfer of digital assets on behalf of another person.

As drafted, the provision would include minors and other validated as well as software and hardware wallet makers who do not engage in trading activity and beyond the scope of broker services.

What are your thoughts on this provision? Do you think this is a good tax policy requiring nonbrokers to report on transactions for people who are not even their customer? Why or why not? And this is to the whole panel.

Mr. BROOKS. Maybe I can jump in there, Congressman. It is Brian Brooks speaking here just for a moment.

I have said many times that that language would be sort of like requiring YouTube to get an FCC broadcast license because they are a person engaged in distributing television content.

I think what we need to recognize is that there is a difference between centralized exchanges—you have two of the biggest ones represented here—who all agree that they should be engaged in tax reporting, and they do that, versus decentralized algorithms where there is no company involved in the transactions at all, and there is no one well-situated to provide that kind of tax reporting.

I think that distinction is super clear. The technology has enabled people to transact peer to peer with no intermediary. So, who is it that we are asking to do the tax reporting in that context?

Mr. LAWSON. Would anyone else like to speak on that?

Ms. DIXON. Yes. This is Denelle Dixon from the Stellar Development Foundation.

One of the issues that I think is a problem with this is that it may seek to require these entities that actually don't have access to any personal information at all—because as the validators, they are actually just validating the transaction and don't know who those individuals are that are on the other side of it—to gain access to that information, which is exactly what I think many of you don't want, and neither do we.

Mr. LAWSON. Anyone else before I go to the next question?

[No response.]

Mr. LAWSON. This question is for Ms. Haas. Does Coinbase have multiple lines of business? And if so, how is each line of business segregated and ring-fenced from one another in a way that confidential information is not improperly used?

Ms. HAAS. Thank you for the question.

Coinbase does have multiple products. In many cases, we consider our products a product family where we are serving one customer and the customer benefits by having those products within one application.

For example, we provide custodial services, which is, for all intents and purposes, a wallet where they can hold their crypto assets. But then integrated with that is the ability to trade out of that account, and then to settle new assets back into that account.

So, those are different products to be able to store versus be able to buy or sell. But they are integrated products. Those we have within one legal entity, as an example, are offered as one product family.

That is different from when we offer products such as our Coinbase cloud offering where we are using our technology to allow others to build in the crypto economy. That data is 100 percent ring-fenced, not allowed through any of our other products, and we do segregate data.

We have different engineers, we have different legal entities, and we provide a lot of protection. So, it depends on the product that you are speaking about, Congressman, and some we share and some are very much ring-fenced.

Mr. LAWSON. Okay. And a really quick question, do withdrawal fees apply to taking crypto off the platform? What fees apply? How are these fees calculated?

Ms. HAAS. No, we do not charge any fees to withdraw crypto from our platform.

Mr. LAWSON. Okay. With that, Madam Chairwoman, I yield back.

Chairwoman WATERS. Thank you. The gentleman from Arkansas, Mr. Hill, is recognized for 5 minutes.

Mr. HILL. Thank you, Madam Chairwoman. I appreciate this good productive hearing and the good questions from both sides of the aisle, and I appreciate the panel being here.

Let me start with Mr. Brooks. You have had some good comments about the President's Working Group on whether or not stablecoins should be banks.

But on the issue of the wallet, what should Members of Congress be concerned about in sort of that regulatory umbrella of any individual's wallet?

Do you anticipate, really, tens of thousands of wallet providers or hundreds or and I know in the Working Group they suggested it, too, should be a bank or, I assume, connected to a bank. So is that really necessary, and talk to me about wallets for our consumers to have access?

Mr. BROOKS. Yes. Congressman Hill, thank you for that question. That is an important one, and I think, as I said earlier, the ability of people to self-custody their own assets and to send them directly without using an intermediary is at the core of what we are trying to build.

So if we made it so that wallets had to be hosted by a bank or some other regular institution, we already have that. We already have banks and that will take time—

[interruption]

Chairwoman WATERS. Mr. Lawson, please mute. You are unmuted. Please mute. Please mute. Mr. Lawson, please mute. Thank you.

Mr. BROOKS. Okay. So, just to finish the thought—

Mr. HILL. Meanwhile, back at the ranch.

[laughter]

Mr. BROOKS. Exactly. So, the ability to self-custody is really, really important. My point about the role of the banking system is simply that, again, to my point of parity, an asset that is or a transaction that is allowed to be done inside of a bank shouldn't be technology-specific. It should be technology-agnostic.

If your agent payments are lending you should be able to do that however. But wallets are critical. What is missing from this, which technologists are building today, are crypto-native identification protocols that will allow us, without getting the name and the taxpayer ID number of the person on the other side, to know that it is a safe wallet, not a blocked wallet. And that is in development today by multiple companies.

Mr. HILL. Yes, I think that is critical because we like the concept of not being spied upon by the actions in our wallet. And yet, we all want to comply with the rules around AML/BSA. And so, anonymously securing that the wallet is in compliance is sort of an important feature.

Mr. BROOKS. Absolutely.

Mr. HILL. Ms. Haas, community banks have been the backbone, of course, of our local markets, and in September, it was announced that your institution partnered with Vast Bank to provide crypto banking services.

Maybe others can comment, but let's start with you. For aiding a normal community bank customer out there in my district, or someone who wants to innovate in a bank and using crypto products, are we in a good position regulatorily or are there changes we need to make?

Ms. HAAS. I am going to speak about two things. One, I am going to talk about how they can do it, and separately, we can talk about the regulatory environment.

Coinbase has tools to allow any bank to be able to provide crypto to their customers where we want to make our back end services, our 9 years of experience of safely custody and crypto assets of being able to integrate with blockchains available to all global users, and one way we do this is by letting banks partner with us and white label our tooling so that they can offer this directly to their customers.

There does need to be continued innovation and clarity on behalf of many banks about what are permissible activities for them and—banks that we partner with and speak about their ability to offer crypto to their end customers are working with their various State and Federal regulators to gain clarity about what would be permissible for them to offer to their end consumers.

Mr. HILL. Thank you. This is a big deal because having spent almost 4 decades in and out of that business, banks are gun-shy about their regulatory burden, as Mr. Brooks certainly knows, and being cleared for that IT exam or their new product review exam at their board level is really not something that bank boards want to be surprised about in this arena.

Mr. Cascarilla, on taxes, do you have a view on that, on partnering with banks?

Mr. CASCARILLA. Yes. As maybe some Members know, we have a number of partnerships with banks and they work with us today.

I think we are an infrastructure provider. So for us, banks are an important customer set.

I think that they are trying to upgrade their infrastructure to be able to adapt to this new technology. There is a recognition that the way the current financial system is working today is not really adapting to the 21st Century needs of a digital economy.

And so, I think that there are important ways in which the current financial system can upgrade itself. Traditional assets can now move on blockchain dollars, gold, and securities, and it is not just about crypto, which, as exciting as it is, is only one piece of this broader transformation that is happening.

Mr. HILL. Thanks. What one regulatory issue would be important to you at that community bank level? And if you would respond to me in writing?

Thank you. I yield back.

Chairwoman WATERS. Thank you. The gentleman from Illinois, Mr. Foster, who is also the Chair of our Task Force on Artificial Intelligence, is now recognized for 5 minutes.

Mr. FOSTER. Thank you, Madam Chairwoman, and I thank our witnesses as well.

I would like to focus on what I think is the crucial importance of having a secure digital identity for crypto asset transactions.

First, regarding controlled anonymity for prevention of criminal activities, it seems to me that if we wish to prevent crypto assets from being used, for example, for ransomware or other criminal payments, that there is no logical alternative to having all crypto transactions be associated with a legally-traceable identity—someone who can be extradited if they do something criminal—and these can be pseudonymous to market participants and to the public then must be capable of being de-anonymized pursuant to the action of a court in a trusted jurisdiction.

Do any of you disagree with that conclusion, that this is a necessary condition for preventing, for example, ransomware?

[No response.]

Mr. FOSTER. Let the record show that no one raised an objection to that statement. I think that is very significant. So, we have to start planning for a system where, in a court and a suitable jurisdiction, it can actually de-anonymize any legitimate crypto asset.

Okay, and, now, that is relevant to crypto assets such as stablecoins or CBDCs that have stable valuations but still could be used for criminal activities. But for crypto assets, which are speculatively traded, then we also have an additional worry, which is abusive trading practices.

In that case, we need to know not only the beneficial owner behind a trade, but there has to be a uniquely-identified beneficial owner. There has to be a regulator that can see, oh, this is a wash trade, because even though they look like separate pseudonymous IDs, they are, in fact, the same person.

Historically, in trading, it is required to have a regulator that can see the true beneficial owners. We had spent a decade trying to get the beneficial owner under the Consolidated Audit Trail (CAT), of which you are probably aware.

So, do you think that is also a logically necessary condition to prevent wash trades and similar abuses?



Mr. Bankman-Fried?

Mr. BANKMAN-FRIED. Yes, I will say I do think that it is, and we conduct Know Your Customer diligence on all of our users so that we do know who the participants are, and we are responsive to governmental inquiries about that.

We are overseen by the CFTC on that with FTX US derivatives. I also think that this is a powerful argument in favor of having harmonized regulatory and market frameworks, in particular, between different asset classes, where if you end up with a different regulatory framework for the market's regulation of Bitcoin, Bitcoin derivatives, stablecoin, stablecoin derivatives, Ethereum, Ethereum derivatives, and other assets, you end up making it not just riskier and harder and more annoying for the user to access, and more overhead for the industry, but you make it hard to have consistent regulatory oversight of a fractured regime.

Mr. FOSTER. I agree completely. Look, I have been lurking in the deep weeds for over a decade and trying to get this split inside Congress between the SEC and the CFTC. This is not something anyone would have created.

But if you had built that discussion with—a number of you expressed enthusiasm for having a single, unified national regulator. Have you run that past the EAC committee?

[No response.]

Mr. FOSTER. No, look, I know the answer to that. This is one of the original sins of Congress as it is constituted, and financial services have been suffering from it for a while.

Now, in terms of tax payments, it seems to me that if there was simply the requirement for any digitally-traded asset to be associated with a pseudonymized, basically, a tax ID, that you have an API provided by the government which says, I want you to give me a pseudonymous tax ID, and that that be put publicly on the blockchain, then and that that blockchain be listed with the tax authorities that then the tax authorities could just run a piece of software and calculate how much tax everyone has owed.

It seems like that is a very lightweight requirement, even on a startup in this business. Is there anything wrong with that concept?

Mr. ALLAIRE. Congressman Foster, I think you have raised a number of really critical issues here around identity and the importance of that for law enforcement, and transparency and auditability.

I think it is a critical area. I think there are some critical things that have to be balanced, of course. I think most of us would agree, I hope, that privacy, security, limiting the leakage of personal identifiable information in data breaches, these are real challenges.

Blockchains provide a very powerful way to have assured data. They also provide auditability and transparency. And there is actually a risk of if you connect too much personally identifiable information to these, that that could be abused. And so—

Mr. FOSTER. But the only personal identifier is the pseudonymous—you can cryptographically inspect it.

Mr. ALLAIRE. Right.

Mr. FOSTER. Make sure it is valid issued by whatever government you claim to be domiciled in that has issued this and then that is all you need to know.

Mr. ALLAIRE. I would agree with that. I think that, really, a critical next step for this industry are digital identity standards that allow using cryptographic proofs, using crypto technology itself to prove that someone has been KYC'd, prove that someone has a pedigree.

Mr. FOSTER. Oh, sure. I agree, and we have legislation on that subject. Thank you, and I—

Mr. ALLAIRE. Of course.

Mr. FOSTER. —yield back.

Chairwoman WATERS. Thank you. The gentleman from Minnesota, Mr. Emmer, is now recognized for 5 minutes.

Mr. EMMER. Thank you, Chairwoman Waters, and thanks to our witnesses for joining us today.

Congress really needs to better understand the great opportunities that your businesses are bringing to this country.

Mr. Bankman-Fried, I have several questions for you, and I would appreciate, as much as you can, quick answers so we can make the most of the time that we have.

FTX US offers crypto commodity derivatives products, such as futures and options contracts. To provide these products in the United States, it is my understanding that FTX US has obtained at least four licenses from the CFTC, which you listed in your testimony.

Mr. BANKMAN-FRIED. That is correct.

Mr. EMMER. Do you know if there are any additional licenses separate from those four listed in your testimony that are required by the CFTC for FTX US derivatives to be fully compliant with U.S. derivatives regulation?

Mr. BANKMAN-FRIED. I do not believe so.

Mr. EMMER. I think that is correct. And where does the price discovery, sir, for your CFTC-regulated crypto commodity derivatives contracts primarily come from?

Mr. BANKMAN-FRIED. There is a very large number of market participants that partake in those. There are hundreds of billions of dollars per day globally of volume in similar products.

And like other markets, we don't choose that pricing. It is a market-based pricing that comes from a variety of liquidity buyers, market-making firms, individual users, and other people.

Mr. EMMER. Right, and I will note that for Bitcoin futures contracts that trade on the CME, which is a CFTC-regulated exchange, 100 percent of that pricing comes from five U.S. crypto spot exchanges: Bitstamp; Coinbase; Gemini; itBit; and Kraken.

We have seen disapproval letters from the SEC on multiple Bitcoin spot ETF applications. I don't know if you are aware of that.

SEC Chair Gensler's justification for not allowing Bitcoin spot ETFs to trade is his belief that Bitcoin spot markets are, "vulnerable to fraud and manipulation."

Now, it is my understanding that FTX uses surveillance trade technology akin to the technology that national securities exchanges use to protect investors and to ensure sound spot markets.

What does this technology and any other tools FTX uses to protect the spot market from fraud and manipulation look like?

Mr. BANKMAN-FRIED. Yes. So, like other exchanges, we do have these technologies in addition to the Know Your Customer policies so that we can identify individuals associated with trades. We have surveillance for unusual trading activity. We have manual inspections of anything that gets flagged either by the automated surveillance or by manual inspection, and we do this with the trading activity, with the deposits or withdrawals and everything else.

Mr. EMMER. It sounds like you are doing a lot to make sure there is no fraud or other manipulation. I thank you, Mr. Bankman-Fried—

Mr. BANKMAN-FRIED. Thank you.

Mr. EMMER. —again, for helping us understand the extensive guardrails a crypto currency exchange like FTX has in place to ensure sound crypto spot markets for investors.

The SEC has approved several Bitcoin futures ETFs that get 100 percent of their pricing from U.S. crypto spot markets.

I guess I am left incredibly confused by how the SEC's concern over spot market vulnerability applies to Bitcoin spot ETFs when it doesn't apply to Bitcoin futures ETFs. And by the way, this is not a partisan issue. I have been working closely with Darren Soto, our Blockchain Caucus Co-Chair, on this very issue.

Why? Because the bottom line is that Americans deserve access to a wide diverse range of investment products. They deserve to choose what investment vehicle they want to put their hard-earned money into.

But the SEC is not providing Americans this choice when it comes to crypto commodity ETFs for reasons, again, that just don't make a lot of sense, especially after highlighting the extensive measures that crypto exchanges take to protect their spot markets.

Our strong crypto and Web 3 markets in the United States, have been giving the United States incredible capital market success. These markets are also teeing Americans up for incredible capital formation opportunities.

But our regulators simply aren't capitalizing on the opportunity here, and it is my constituents and all of your constituents who are taking the hit because of this, and it must change.

Again, I want to thank the witnesses for being here. I hope this is the first of many of these discussions we have as Congress tries to put together a thoughtful, light-touch guide framework for the industry.

Thank you. I yield back.

Chairwoman WATERS. Thank you very much. We have been joined by Mr. Sherman from California, who has been on the House Floor working on his beloved LIBOR bill, and I understand it has been put up for a vote, and we are all looking forward to voting for this bipartisan legislation.

So, the gentleman from California, Mr. Sherman, who is also the Chair of our Subcommittee on Investor Protection, Entrepreneurship, and Capital Markets, is now recognized for 5 minutes.

Mr. SHERMAN. Crypto is many different things. Crypto currency is an incredibly volatile investment that aspires to be a currency

that might displace or at least compete with the dollar. A stablecoin aspires to be incredibly stable and is tied to the dollar.

What they share is a culture, a vibe, a stick-it-to-the-man moniker, a belief that somehow this is new and hip, and a attack on the powers of society. But the fact is that the advocates of crypto represent the powers in our society.

The powers in our society on Wall Street and in Washington have spent millions and are trying to make billions or trillions in the crypto world. These include Goldman Sachs, JPMorgan, Visa, BlackRock, Citadel, Musk, and Zuckerberg, not to mention the CEOs who are before us here today.

Everyone before us today is a crypto advocate. We will at some point hear from the crypto critics. We won't hear from CEOs. We will hear from academics with their pencils and pens. Today, we hear from the CEOs with their lobbyists, their PACs, and their power.

And we wonder why we won't be able to protect investors. The regulators need to listen to this hearing very carefully. With all of the money and power on one side, we will not be able to pass meaningful legislation.

Don't cop out and say we are not going to do anything until we pass meaningful legislation. And if you wonder about where the power is, Zuckerberg had to come here himself, and sit there. Brian Armstrong sent his number two, and Tether didn't bother to show up at all.

Zuckerberg did not have a day in the park. He did not enjoy it, but he had to come. Armstrong didn't, and Tether hasn't been here at all.

Now, the number-one threat to crypto currency is crypto. Bitcoin could be displaced by Ether, which could be displaced by Dogecoin, which could be displaced by HamsterCoin. And then, there is CobraCoin, and what could MongooseCoin do to crypto coin?

In the area of fiat currency, the dollar will always be more important than the Uruguayan peso, and the Uruguayan peso is not a joke. There will always be an Uruguay, and the Uruguayan peso will always have some value.

Will MongooseCoin always have a value? I don't know. I just made it up. It is a joke. Although I said that about HamsterCoin, and then I found out there really was a HamsterCoin.

It is not fair to compare fiat currencies' current system to what crypto currencies aspire to be. It is true that if you try to use a credit card or a debit card to buy a sandwich today, the system takes half a percent, 50 cents, away from the merchant. If you try to use crypto to buy a sandwich today—I don't know where you can go in Washington you can use a Bitcoin to buy a sandwich. It can't be done at all, but someday.

We compare what we hope crypto can do, to the problems that we face with fiat currencies now. That is not a fair comparison.

Now, looking at Ms. Haas from Coinbase, if I take a hundred bucks on your exchange, buy some Bitcoin, and then a couple of days later, say, Bitcoin happens to be selling at the exact same price, and I sell it, it is my understanding that I get \$94.02 back. Am I wrong?

Ms. HAAS. We have multiple products and it—

Mr. SHERMAN. Yes or no? Would I get, in that exact transaction, \$94.02 back? Am I wrong?

Ms. HAAS. I can't answer the question. It depends on the product.

Mr. SHERMAN. Okay. Are there products where I would be right?

Ms. HAAS. There is a product where you would be right.

Mr. SHERMAN. Okay. So, I could lose \$6 in 2 days. What about Tether? Buy a hundred bucks worth of Tether, 2 days later sell the hundred bucks worth of Tether or sell the Tether, could I lose six bucks?

Ms. HAAS. Yes.

Mr. SHERMAN. Okay.

Ms. HAAS. It is a 2 percent charge.

Mr. SHERMAN. A 2 percent charge. I thought it would be a 3 percent charge. It was \$2.99 last time I was on your site.

Ms. HAAS. No.

Mr. SHERMAN. Okay. I am looking at the Coinbase fee, \$2.99 on USTD. We will put this in the record. In any case, to lose even 2 percent, let alone 3 percent, and then another 2 or 3 percent on the way out in scarcely a couple of days, that is well over 1,000 percent interest lost in that period of time.

Mr. Allaire, are your reserves all in instruments that yield less than one-tenth of 1 percent?

Mr. ALLAIRE. That is correct.

Mr. SHERMAN. Then, how do you pay 1 percent interest on some deposits?

Mr. ALLAIRE. We don't pay interest on deposits.

Mr. SHERMAN. And yet, you have a deal with oh, my time is expired.

Chairwoman WATERS. Thank you very much. The gentleman from Georgia, Mr. Loudermilk, is recognized for 5 minutes.

Mr. LOUDERMILK. Thank you, Madam Chairwoman, and thank you for having this hearing. I think it is very intriguing and very timely with where we are with the progression of technology. I go back and I think about my 30 years I spent in the IT field. Had the government gotten in the way of the internet, we would still be using dial-up today to do a lot of what we are doing.

So, I think we have to proceed very cautiously. One thing I have learned in my 30 years in the IT sector, especially the 10 years that I spent in the intelligence realm in the Air Force, is that the most important aspect, from an IT perspective, is data security—cybersecurity.

That is something we have to be focused on all the time. In fact, in my business, 20 years in the private sector, that was the number-one issue for most of my customers.

And it really got to the point—when I ran for Congress, of course, I couldn't continue that business. I sold it primarily because I knew that with the way things were, the question wasn't if someone was going to be hacked and lose data, it was when.

And one of the things that I learned when I was in the military, one principle is that you don't have to secure what you don't have. So if you don't need data, don't keep it. But then you have the aspect of, yes, we have to secure the data that we do need to keep.

Now, this is one thing that the Federal Government has yet to learn is you don't need to acquire a whole lot of data and keep that

data, especially for the Federal Government, which is the riskiest of anyone out there of letting data get out.

And then, you see more proposals like the one that we have heard recently, the craziest proposal, that the banks would have to report every transaction by Americans in their banks to the Federal Government. This is the type of thing that we don't need to be doing.

However, there is data that is important that we do have, whether you are in the private sector, or whether you are in public sector, and that is where I see the value of the underlying technology of crypto currency, particularly blockchain, as a solution to our cybersecurity problems because of the distributed ledger aspect of it, is the data is available but is not centrally located to where it could be taken.

Mr. Brooks, can you discuss how blockchain and distributed ledger technology can enhance our cybersecurity posture?

Mr. BROOKS. Mr. Loudermilk, it is good to see you, and I appreciate the question.

The simplest answer, as I said earlier today, is that blockchains are as much about transparency as they are about security. One of the biggest problems when you think about the biggest cyber hacks we have ever had in the United States is how long it took for us to figure out that they occurred—the case of Target, the case of Equifax, etc.

We found out days and weeks later by accident that they occurred. And if you think about the Equifax hack, in particular, initially, we thought it was a small problem. Weeks later, we learned it was a medium-sized problem, and only months later did we learn it was a gigantic problem that involved all of our data, because there was no transparency.

The thing about blockchains is every single block as it is validated is publicly visible to the network. The other thing about blockchain is it is based on a consensus mechanism. So, before you can have a change to the ledger, you have to have a significant majority of all of the validators agree that that is the correct change.

So, unlike normal networks, where one bad guy can defeat the entire system, here, you have to have thousands of computers agreeing at the same time that the change can be made, and even then, everyone sees it.

That hiding in plain sight aspect is the safest thing about blockchain, is why it is so critical to our security infrastructure.

Mr. LOUDERMILK. And I think that is one of the most key values of this emerging technology is bringing us into a new era where we can do some of the things that we need to do without amassing this data.

Another area I have been interested in is, really, with payments, and I have done some work on a related issue with the CFPB's regulation of remittance transfers.

So, Ms. Dixon, I understand that your organization is active in that space. Can you describe how blockchain and DLT are being used to facilitate payments?

Ms. DIXON. Yes, thank you for the question. This is one of my favorite topics, because it is something that actually is defining the use case that is happening today.

I think that there are businesses that transact on the network, that can actually go from the interoperability with the traditional financial system, is remarkable.

You can actually take money from a bank account, put it into a digital asset, transfer that value to another to the end, wherever it is being sent, and then it can convert right back into a bank account.

The fact that you have such complete interoperability with the existing financial infrastructure should give us all the ability to take, like, excitement about elevating that technology to the right level so that we continue to innovate there.

Payments are something that are constantly being leveraged on the Stellar Network. They are done with business payments. They are also done with remittances from the personal standpoint.

When you live in California, for example, and you want to send money to your family in another country, you can do so in 3 to 5 seconds, 100,000 transactions for less than a penny on the Stellar Network. It is a remarkable use of this technology.

Mr. LOUDERMILK. And this is what can happen if government doesn't get in the way of the development of technologies that benefit the individual.

I have several other questions, but I see my time has expired, and I want to be respectful of everyone.

With that, Madam Chairwoman, I yield back the balance of my time.

Chairwoman WATERS. Thank you. The gentlewoman from Iowa, Mrs. Axne, who is also the Vice Chair of our Subcommittee on Housing, Community Development, and Insurance, is now recognized for 5 minutes.

Mrs. AXNE. Thank you, Madam Chairwoman, and thank you all for being here.

Mr. Bankman-Fried, I would like to start by asking you the first question. FTX US has a derivatives platform and recently bought LedgerX as part of that. Is that correct?

Mr. BANKMAN-FRIED. Yes.

Mrs. AXNE. Okay. Thank you. And that platform is registered with the CFTC. Is that correct?

Mr. BANKMAN-FRIED. Yes.

Mrs. AXNE. Okay. Perfect. I just want to clarify something. And this isn't to say anybody is doing anything wrong. It is just to get the lay of the land. You also have an exchange for Bitcoin and other tokens, but that is not registered with either the CFTC or the SEC. Is that correct?

Mr. BANKMAN-FRIED. That is correct. Currently, neither of them. Our primary market is regulated for spot Bitcoin to USD markets.

Mrs. AXNE. Okay. Thank you. And I know you are registered as a money transmitter, but that is not the same kind of oversight that we will see from a Federal market regulator.

I also sit on the House Agriculture Committee, which oversees the CFTC, so, a gap like this is especially concerning to me. And the big problem that I see here from what I understand is that the CFTC doesn't have regulatory authority for spot trading of commodities, just their derivatives. That leaves consumers with inconsistent protections, which is a concern that I have.

Mr. Bankman-Fried, both you and Ms. Haas run exchanges, but the investor protections, basically, can be whatever the companies separately come up with and they won't necessarily be the same. Is that correct?

Mr. BANKMAN-FRIED. I completely agree with your worry. We do, in fact, have much the same investor protections on our spot markets as on our derivatives markets. But I would be very much supportive of a similar regime for spot commodities markets like Bitcoin USD markets as we see for the derivatives markets.

Mrs. AXNE. Very good. Thank you.

When it comes to oversight, I have a couple more questions here. Do you report your full order history publicly, either you, Mr. Bankman-Fried, or Ms. Haas, and are there public standards for that to make sure it is accurate?

Mr. BANKMAN-FRIED. We do report all of our public market data. It is available on our webpage. It is available via our API. We do not charge anything for it, and never intend to.

I would be supportive of that becoming more than just a norm but a regulatory standard as well.

Mrs. AXNE. Okay. Ms. Haas?

Ms. HAAS. We also make all of our data available, and we do not charge for our data. It is available to our customers.

Mrs. AXNE. And is that order history public as well?

Ms. HAAS. Yes, it is.

Mrs. AXNE. Okay, thank you. I just want to make sure I am clear on this. Bitcoin, which has almost a trillion dollars invested, has CFTC oversight for people who are trading futures and options, but not for people who are trading the currency itself, is that right?

Mr. BANKMAN-FRIED. That is essentially correct.

Mrs. AXNE. Okay. That kind of difference in protections is really what I want to focus on here. I am not here to tell anyone what they should or shouldn't buy, if they should have crypto or not have crypto. I think there are pros and cons, and certainly, I have had plenty of conversations with my own son, who wants to get into crypto.

But I will tell you that what I care about is that when folks do, I want to make sure that they are protected and they have the same investor protections that they would for other forms of currency.

I am asking, can you as an industry, and it sounds like you can, benefit long term from having more regulation that sets better standards to protect investors in this area?

Mr. BANKMAN-FRIED. Yes, I absolutely think so and I think it is—I am not concerned about more regulation. I think getting consumer protection in areas where there is not currently enough can be extremely helpful for a robust ecosystem. I think it is just important to do so in a way that fits the product and in a way that fits the regulators as they are.

Mrs. AXNE. Okay, thank you for that. And, listen, I agree. I think it is something that we absolutely need to look at, and I would certainly ask all of you to think about the steps that you can take within your own organizations to make crypto more safe and trustworthy for investors.



But I completely agree with you that we have to be doing something to make sure that we are protecting investors.

There are things that you, as exchanges have to help the industry long term. You mentioned that you think we could do some of these regulations, and they would be good for the long-term growth.

What do you think that you could do to help you build trust, and trust for folks in general for crypto currency?

Mr. BANKMAN-FRIED. I will say that we have had conversations with a very large number of institutional players, everyone from banks, investment banks, pension funds, and the number-one thing that comes up is, what is the regulatory framework for the industry, how can we feel that we are protected both from a commercial standpoint, but also from a regulatory standpoint in pursuing these options for our investors.

And I think it could be extremely helpful to clarify the regulatory frameworks, to build them out where they are missing, and to make sure that we have streamlined and uniform standards that are clearly communicated.

Mrs. AXNE. Thank you so much for that. I would love to make sure that crypto is safer and more trustworthy for investors.

I yield back.

Chairwoman WATERS. Thank you very much.

The gentleman from West Virginia, Mr. Mooney, is now recognized for 5 minutes.

Mr. MOONEY. Thank you, Madam Chairwoman.

I am certainly thankful to the witnesses for being here. I appreciate your expertise as we all learn more about the growing digital currency issue.

Back in August of this year, the Cuban government announced their central bank would work on a rule to officially recognize digital currencies. So, I am wondering whether the country's recent embrace of crypto could be a way for the Communist Regime to evade tough U.S. sanctions.

So, let's start with Mr. Bankman-Fried. What process does FTX use to ensure that rogue and, frankly, murderous autocratic regimes like Cuba cannot use an exchange to avoid United States sanctions?

Mr. BANKMAN-FRIED. We run sanctions checks on all of our users. We conduct Know Your Customer surveillance on them. In addition to that, we conduct surveillance on the blockchain and fiat assets that transfer into and out of our system.

Mr. MOONEY. Okay. Thank you.

I want to ask Ms. Haas the same question, propose the same question to you as it relates to Coinbase.

Ms. HAAS. Largely, the same answer. We similarly run OFAC tasks on all of our customers, both on onboarding and then ongoing. We believe that sanctions are an effective tool of the U.S. Government in combatting illegal activity.

In addition to our onboarding controls, we do transaction monitoring. We do surveillance on all of our transactions on our platform, but we also have tools that are looking across the industry, looking in, and we partner with law enforcement on investigations.

Mr. MOONEY. Okay. So, second question. Let me set it up for you. One of the ways that bad actors or rogue states could try to fool exchanges is by using technology like VPN that spoofs IP addresses, fooling others into thinking they are in a different location.

Let's go with Mr. Brooks on this one. Can you speak to the importance of moving away from IP addresses to verify location, and a follow-up to that, what is an alternative way of verifying location?

Mr. BROOKS. I have a couple of quick answers. On the compliance side, I think the utilization of VPNs to avoid geolocation and to avoid sort of geofencing is something that 3 years ago, was effective and useful, and the industry has developed lots of technology which makes that much, much harder today. So, some of these decentralized tools, several of the companies that have been mentioned already—Chainalysis, Elliptic, and some others—have an ability to actually trace IP addresses based on probabilistic sort of network information. So, it is not just that that IP address might have been issued by an ISP in a given jurisdiction; it is also that that IP address is associated with lots of other transactions that could only be Cuba or could only be Libya or whatever. And the probability assessment is one of the things that makes this much easier. That is why the network is so important.

Mr. MOONEY. Okay. Thank you.

I referenced Cuba. The Cuban government's continued tyranny is personal for me and my family. My mother fled Communist Cuba when she was 20-years-old to come to the United States. She even wrote a book about the horrific experiences and the aftermath of the revolution there, including her time as a political prisoner in the Castro regime and the Marxist Cuban government cannot be allowed to continue to oppress the Cuban people.

Former President Trump's tough sanctions restricted access to resources for Cuba's rogue government, and I want to work with the members of this panel to ensure that the digital marketplace does not enable the Communist Cuban regime or other bad countries around the world who hate us and kill their own people and are tyrannical. I am sure we all share that goal. I know there are those who think that that is a role for the Federal Government to come in and issue a whole set of regulations, because you can't do it yourselves, but I think it is better if we work with you, and if you can do it yourselves better than the Federal Government, then that might be the answer.

Thank you, Madam Chairwoman, and I yield back the balance of my time.

Chairwoman WATERS. Thank you.

The gentleman from New Jersey, Mr. Gottheimer, who is also the Vice Chair of our Subcommittee on National Security, International Development and Monetary Policy, is now recognized for 5 minutes.

Mr. GOTTHEIMER. Thank you, Madam Chairwoman.

And thank you to all of our panelists for being here today. I am very grateful.

If I can start with Mr. Bankman-Fried, in my role on our National Security Subcommittee, I am committed to ensuring that bad acquisition torsion like terrorists and drug dealers cannot access the financial services sector for purposes contrary to U.S. interests.

And while, obviously, I support cryptocurrency and its potential benefits to the digital payment space, one area remains particularly concerning for me: the theft of cryptocurrency and its potential use in illicit or terrorist financing.

These issues are also related insofar as stolen funds may be used for nefarious purposes. I introduced my bill, H.R. 3685, the Hamas International Financing Prevention Act, in part because of the increased reporting around the use of cryptocurrency donations to support Hamas.

Two questions, if you don't mind: one, what are exchanges doing today to both ensure that consumers are protected from hacking and theft, and to prevent bad actors such as Hamas and other terrorist organizations from accessing cryptocurrency markets and in what context; and two, in what context would you flag a transaction to law enforcement and have you ever flagged transactions to law enforcement agencies?

Mr. BANKMAN-FRIED. Yes. I guess I will first briefly talk about the security aspect of this, about stopping breaches to accounts where we mandate that all users have to factor authentication for all of their accounts. We have a very broad suite of security practices that all users can access on the site, in addition to all familiar customer policies.

On the bad actor side, we conduct KYC surveillance on all users of the exchange. We do that on all deposits and withdrawals, using multiple tools on the blockchain and for fiat currencies. And to address any care question about law enforcement, we work cooperatively with law enforcement here in the United States and globally on tracking down any bad actors. We are in constant communication. We strive to be as helpful as we can be.

The combination of the Know Your Customer surveillance that we do, plus the transparency of the public ledgers of blockchains actually can make it a really powerful tool for tracking down any funds from illicit activity. We have been participating in freezing a substantial amount of assets on our platform in cooperation with law enforcement, and we look forward to continuing to work with them globally.

Mr. GOTTHEIMER. Thank you so much.

Mr. Allaire, the President's Working Group's recent paper on stablecoins includes a recommendation that all stablecoin issuers be required to become insured depository institutions, such as banks. I understand that Circle has stated that it intends to become a bank, but currently backs the USDC in circulation 1:1 with reserves held at partner banks.

I am working on a bill that could potentially implement a number of these recommendations. If I can ask, do you think it is necessary for safety and soundness for stablecoin issuers to, themselves, be insured depository institutions, or is partnering with insured depository institutions sufficient, and what are the pros and cons of each model, please?

Mr. ALLAIRE. Thank you for the question, Congressman.

I think it is a very important issue. As noted, we have decided to pursue a national bank charter and we are open to being an FDIC-insured bank, as well. I think, however, there is some subtlety in this topic, and I think it is important for the committee to

consider it. A full-reserve digital currency model, such as USDC, where 100 percent of the assets are fully reserved in high-quality liquid assets such as cash and short-duration U.S. Treasuries, is not the same as a bank deposit where the bank is, in turn, taking the deposit and rehypothecating it and lending it.

And, really, the purpose of FDIC insurance is for that fractional reserve lending that takes place. I think it can be really powerful for a stablecoin issuer to have a Federal bank charter, to be able to access the Fed and hold cash at the Fed in terms of the ultimate form of safety and soundness for those cash assets, but not necessarily being lending banks that are rehypothecating capital. The form of insurance, perhaps, could be investigated.

I know that the FDIC, itself, has been thinking about, what are potential appropriate forms of insurance on stablecoin issuers, and so I think it is a live issue. But just applying the kind of apples-to-apples model on a full-reserve banking model, I think, does raise some questions.

Coming back to your question, I think that statutes in the United States should support stablecoin issuers that are operating at a State level, and at a Federal level, and support money services businesses, as well as banks, being active participants in the stablecoin ecosystem. And I think it is important that the barrier to entry in the stablecoin space not be so high that start-ups that are innovating as money services businesses can't participate in this innovation.

Mr. GOTTHEIMER. Thank you so much.

And I yield back.

Chairwoman WATERS. Thank you.

The gentleman from North Carolina, Mr. Budd, is now recognized for 5 minutes.

Mr. BUDD. Thank you, Madam Chairwoman.

The United States has a huge opportunity with crypto, but my fear is that this regulatory state is going to crack down on an industry that the regulators really don't understand yet, and it is going to force the next generation of financial technology to be created outside of our country. And we can't let that happen.

Mr. Brooks, it is good to see you again. Where do companies draw the line and say, enough is enough, with this anti-innovation, "regulation by enforcement," and then just decide to take their industry elsewhere to another country. Where is the line?

Mr. BROOKS. Mr. Budd, it is good to see you, and thank you for that question.

What I would say is that in some aspects of the industry, the line is super clear. There are some products that are legal in other countries and are just not legal here. Take some of the investment products we talked about earlier today, for example, exchange-traded funds. One of the things that makes crypto risky is that consumers may not understand the difference between one token and another token and so they may want to diversify much as I own an S&P 500 mutual fund.

We don't allow that in the United States. We do allow it in Canada. We also allow it in Germany, Singapore, Portugal, and a number of other places. So, if you are a developer of those products,

there is no fuzzy line. It is super clear: you can't do that here, so you have to go abroad.

There are some other—

Mr. BUDD. Please say why we can't do that here?

Mr. BROOKS. Sure. It is because the Securities and Exchange Commission has consistently refused to approve products that other G20 nations have approved.

Mr. BUDD. So, we are behind the curve?

Mr. BROOKS. Unquestionably.

Mr. BUDD. Given your previous experience running the OCC, I would love to hear your perspective on where a regulator's authority begins and ends.

And remember the joke earlier this year that everything is infrastructure? It seems like SEC Chairman Gensler thinks that everything is a digital asset that he can regulate. He cites the Howey Test and the Reves Test without providing any other explanations. So, Mr. Brooks, what are we missing, because Chairman Gensler clearly doesn't see a limit to his regulatory authority in this area?

Mr. BROOKS. Congressman, one thing I learned running my little agency is that the U.S.—and this is not specific to crypto—is sort of unique among the developed countries in our fragmented approach to regulation. So, when I hear people talk about the idea that we need one regulator for crypto, I would say we should first have one regulator for banks, but we have three of them, or if you are an investment bank, five of them. So, that is inherent to the system that we have.

What I say to that is, the last thing we need to do is add another regulator to a system that already has dozens of regulators. What we need to do, instead, is have parity for crypto activity, along with traditional finance. If I make a crypto lending platform, I should probably be regulated by the FDIC. If I make a crypto trading platform, I should probably be regulated by the CFTC and the SEC.

But somehow, we treat crypto, because it is new, as different from everything else, and I am going to argue that crypto is just a step-function improvement in the system. We already have a regulatory system. The laws are super clear how it works, but there is something about crypto that scares people. I don't know what it is. Maybe it is just because it is new.

And I remember in my banking law class when banks were first allowed to use computers to keep ledgers, people sued over that at the time. I remember when I was a second-year lawyer, and we got email, and the ADA said that lawyers couldn't use email because it would travel over this mysterious network of computers. These all seem ridiculous today, but it seems like we haven't really learned the underlying lesson, which is that technology usually advances human flourishing. We have a regulatory system. Let's use it.

Mr. BUDD. Thank you for that.

Ms. Haas, as you are aware, the infrastructure bill was signed into law last month, and it had lots of problems for digital assets. So, I was very vocal about a need for a fix for this, and I was proudly supporting Ranking Member McHenry's bill to make those fixes. Would you please address some of your concerns, and why those flaws would be so bad for the crypto community?

Ms. HAAS. Thank you. And thank you for your support on this important bill.

First of all, I want to make it clear that Coinbase supports tax payments in crypto. We think that everybody should be paying their taxes, and we think that centralized entities like Coinbase should be reporting, no different than a Schwab, no different than a Fidelity. It is an important value-added service for our customers.

But what concerned us about the drafting of the infrastructure bill, specifically to the tax provisions, was that these are complex issues. Crypto taxation is complex. The technology has new players in the space and we didn't have the public comment period that we would typically have for something so complex, and so what happened was the risk of an unintended consequence.

And I think that we can still solve this. I think that we are not to the place that it could be scary, but the definition of a broker was potentially overly-wide and could be interpreted to include players such as minors, such as the hardware wallets that do not have access to this information that have no ability to comply with reporting regimes, and there could be consequences. There could be penalties. There could be Federal risk to them. So, we thought it was overly-broad.

And then separately, in Section 6050I, we thought that there were additional reporting risks that were privacy, and also could be deemed overly-broad and pull in parties that were not necessarily deemed to be covered by this rule.

Mr. BUDD. Thank you very much.

Madam Chairwoman, I yield back.

Chairwoman WATERS. Thank you very much.

I think you need to make a correction. You referred to Mr. Brooks as having been at the SEC, and he has been saying all along that he was at the OCC.

Mr. BUDD. Okay. I never made that reference, but thank you.

Chairwoman WATERS. Okay. Thank you very much. We appreciate your presence here today and your expertise in banking law. Thank you.

The gentleman from Massachusetts, Mr. Lynch, who is also the Chair of our Task Force on Financial Technology, is now recognized for 5 minutes.

Mr. LYNCH. Thank you, Madam Chairwoman.

Great hearing. I want to thank all our witnesses, as well.

Prior to the creation of the Subcommittee on National Security, we had a terrorist financing task force that I chaired for about 8 years. So, I am keenly sensitive to the issues around Know Your Customer (KYC) and Anti-Money Laundering (AML). And I have worked a lot, since then, with the Financial Crimes Enforcement Network (FinCEN) on traditional banking protections with regard to terrorist financing and money laundering.

And I know that at the end of last year, FinCEN issued a rule-making proposal to require banks and money services businesses to submit reports and verify the identity of customers involved with wallets for virtual currency. So, this particular rulemaking focused on those wallets that were hosted in low-compliance jurisdictions and were identified by FinCEN as wallets which were not hosted by a financial institution as, "unhosted wallets."

And the requirements that FinCEN came up with are sort of similar to what we use now for money transmitters. Mr. Allaire, your firm, in particular, was vocally opposed to that rulemaking and I heard your responses to Mr. Foster and to others regarding identity. And I just want to try to understand—can you share why the transactions involving Virtue Assets and payments involving those wallets that are quite similar to Western Union transmissions or MoneyGrams, why you objected to what looks like a fairly similar regulatory approach?

Mr. ALLAIRE. Thank you, Congressman Lynch, for the question. It is a very important question.

First, I would simply start by saying that I think FinCEN has done an excellent job of looking at the issues of money laundering and terrorist financing in the context of virtual assets, virtual currencies. They led the way as the first Federal regulator to, in fact, put in place rules around that back in 2013, that led firms like Circle, Coinbase, and many others to put in place licensing and supervision around Bank Secrecy Act (BSA), Anti-Money Laundering (AML) provisions and the like.

I think the specific issue at hand, which you are correct, we had some significant objections to, was really twofold. One was, there was an introduction of an eleventh hour rulemaking that did not have significant public comment. And I think at the bottom of that issue is there are some really significant things about the way digital assets and blockchains work, that we want to make sure that if we are going to be introducing rules around reporting, that they take account of the unique things with public blockchain infrastructures, in particular.

Notably, public blockchain infrastructures are in some ways like the public internet or the worldwide web or email; they are open networks that anyone can connect to, join, and use. And it is really one of the powerful things that has made information exchange free and I think it is one of the things that we believe with digital assets on blockchains, can make value exchange much more frictionless for people around the world.

Part of that is there is the ability for an individual to self-custody assets with a piece of hardware or a piece of software. That piece of software can be downloaded from an app store. And they are self-custodying a stablecoin like a USDC or a Bitcoin, that is, the software maker, itself, is not involved in facilitating a customer transaction; they are really just a software developer providing technology that end-users can use.

And I think the rule as it was outlined, would be kind of a square peg/round hole or a bit of a blunt-force instrument. And what we, and I think is hopefully going to bear fruit significantly over the next year, is that what we really need are ways to provide proof of digital identities. A firm like Circle or a firm like FTX or Coinbase or Paxos can provide a cryptographic proof that someone has been KYCed and that proof could actually be carried around with them in a hardware wallet or a software wallet and then you would have the ability to know that you have legitimate actors, to be able to have the right information about users, without having, essentially, more personally identifiable information (PII) being broadcasted really broadly.

And so, I think our view was to give the industry more time to develop technology that can allow these forms of transactions to happen, but still preserve privacy and take advantage of the really significant security benefits that come from cryptography.

Mr. LYNCH. Okay. That is fair.

I know my time has expired, so thank you, Madam Chairwoman. I yield back.

Chairwoman WATERS. Thank you.

The gentleman from Tennessee, Mr. Kustoff, is now recognized for 5 minutes.

Mr. KUSTOFF. Thank you, Madam Chairwoman, and thank you also for convening today's hearing.

And thank you to the witnesses. I know we have been here for some time, but it has been very informative, and I appreciate it, and I know we all do.

Ms. Haas, could we talk about the Crypto Rating Council, that I believe Coinbase and other industry players created to determine what digital assets look more like securities and which ones don't. Could you talk to me about how the Council makes its determination and who is involved in the process?

Ms. HAAS. Thank you for the question.

The Crypto Rating Council is an independent entity that works to serve industry participants, such as Coinbase, with an assessment of digital assets underneath the Howey Test. So, it is looking at the White Papers that new asset projects put forth and making a determination under the Howey Test whether or not that new project is more likely than not to meet the definition of a security under U.S. Federal securities laws. Independent law firms are the ones who are doing this assessment, who are U.S. securities laws experts and looking at facts and circumstances to make an assessment.

Mr. KUSTOFF. Thank you.

You talked about securities, so can you talk about to what degree, if any, the SEC and other stakeholders have been involved in, what the discussions have been with them in terms of the framework?

Ms. HAAS. Thank you for the opportunity to address this.

At this point in time, the SEC has not provided a clear definition about what is or is not a security. They have asked us to rely on the Howey and Reves Tests. And we, companies like Coinbase, companies like FTX, and others pay careful attention to ongoing litigation that is existing in the space, and news that we see. But we are left to interpret, based on our interpretation of the law, what is and is not a security at this time.

Mr. KUSTOFF. Thank you, Ms. Haas.

Mr. Brooks, thank you also for being here. I think there are, obviously, people who believe that cryptocurrency is difficult, maybe even impossible to track. Can you talk about that as it relates to the blockchain?

And while we talk about alleged illicit activities oftentimes being investigated by Federal authorities, could you explain, maybe, the fallacy in that, as if you were talking to our local police chiefs or our local sheriffs?



Mr. BROOKS. Sure. Thank you for the question, Mr. Kustoff. I actually do this talk at local rotary clubs and things around the country all the time, so I think I can do that pretty well.

I think the easiest way to understand it is, let's contrast blockchain transactions with normal banking transactions to see how much easier it is to trace them on a blockchain than it is in a banking transaction. So, let's imagine for a moment that—I would never do this because it would be flagrantly illegal—but let's say I bought you lunch, okay. And let's say that afterwards, you wanted to Venmo me your payment back. So, you hit your Venmo button on your iPhone and you send me money.

What many people don't understand is that there are seven or eight different steps in the Venmo transaction. All Venmo does is send an instruction to your bank. Your bank then receives the instruction, they write it down in their books and records, and then they send an instruction to an underlying transfer network. It could be the automated clearinghouse, it could be the Fed wire system, or something else. That system then contacts my bank. It inquires whether my bank has enough money to pay you. Once that has been done, then there is a debit from my account. It is very complicated. And in any one of those steps, information could be lost. There could be a breach. Something bad could happen.

Versus in a blockchain, there are no intermediaries. I am not sending instructions to a third party to send instructions to another third party to eventually send you money. I've sent you money. And when the block is valid, I can see that my wallet address transferred that value to your wallet address; it's as simple as that.

The easiest way for people to understand how easy this is, because we have had a lot of talk about hacking and cybersecurity issues, the reason that we found the bad guys in the Colonial Pipeline hack was because they asked for Bitcoin. If they had asked for diamonds, if they had asked for cash, if they had asked for almost any other thing, we never would have caught the bad guys. We caught the bad guys because—not in spite of the fact—they used Bitcoin and we could tell exactly where the money went.

Mr. KUSTOFF. So, because the blockchain was used, it was traceable?

Mr. BROOKS. Correct.

Mr. KUSTOFF. And just briefly, because my time is expiring, again, as you are talking to rotary clubs, could you give specific examples where the FBI and other Federal law enforcement agencies use the blockchain, in fact, to help trace and help determine?

Mr. BROOKS. When I used to work at Coinbase, I ran a group that facilitated those customers; they were our clients. We did work for them.

Mr. KUSTOFF. Thank you very much. I yield back.

Chairwoman WATERS. Thank you.

The gentlewoman from North Carolina, Ms. Adams, is now recognized for 5 minutes.

Ms. ADAMS. Thank you, Chairwoman Waters, and Ranking Member McHenry, for hosting the hearing.

Mr. Cascarilla, I want to touch briefly on the risks that stablecoins might pose to our broader financial system. The Presi-

dent's Working Group report, which we spent plenty of time talking about today, expressed concern that any perceived instability could trigger a run on that stablecoin. In 2008, we saw the dangers of instability in prime lending market funds, and now rating agencies are saying that.

So, how do you respond to the assertion by the President's Working Group that a run on stablecoins could cause systemic instability?

Mr. CASCARILLA. Thank you for the question.

I think this is a crucial topic when it comes to stablecoins. I think the key point here is to define stablecoin. And depending on how you define it, it creates different risks. If a stablecoin is backed by only cash and a cash equivalence—essentially, money that is sitting in an FDIC-insured bank account or sitting in T-Bills that mature in 3 months—there is no risk of a run; it is liquid cash. You have simply taken a dollar and you have tokenized it.

And there are very good uses for that, and there are really good reasons to set it up that way. Of course, you could decide to back your stablecoin with other assets and certain issuers do. It could be loans. It could be CDs. It also could be other types of securities.

And in that case, you start to have not really a stablecoin, but you have something that looks more like maybe a bank deposit. In that case, it would make a lot of sense, I think, for a banking regulatory regime to oversee it.

And, also, it could be that it looks more like a money market fund because it is backed by certain securities and it would make sense for the SEC to oversee it. So [inaudible] or a trust company.

Ms. ADAMS. Okay. I was going to ask how stablecoins are not similar to money market funds, but I think you have made some clarification there.

Ms. Haas, in October of this year, Coinbase released an operational framework of the digital assets policy proposal in which you advocate for the creation of a new self-regulatory organization (SRO). You indicate that incorporating an SRO into the regulatory supervision of marketplaces will speed the development and enforcement of an appropriately-tailored digital asset industry rule.

In your view, how can Congress and industry best come together to begin laying the foundation for a successful regulatory framework for digital asset trading platforms such as yours?

Ms. HAAS. Thank you so much for this question.

I want to clarify that first, in our proposal, we are seeking one single Federal regulator. It could be an existing Federal regulator. We are not asking for the creation of a new Federal regulator.

And the value that we think having an SRO would be—this is complex. There is no innovation happening in crypto every single day. We haven't even touched on non-fungible tokens (NFTs) or decentralized autonomous organizations (DAOs) in this committee hearing today. And we think it is important that there is a nimble group that is constantly looking at the changes in crypto. And so, that is why we recommended having an SRO in addition to a single Federal regulator.

The way we would love to work with you all is we think this is an important step in the process. We think this hearing is important, but we really believe that having policymakers deeply under-

stand the technology, getting input from the industry, understanding the use cases will help craft prudent regulation here.

We believe that we agree with you all on first principles of regulation, but how we get there is going to look very different in crypto than it has in our traditional financial markets, the relied-on intermediaries.

I think many of the testimonies on this panel have spoken very similarly about the challenges we have seen and we would love to work with you in partnership.

Ms. ADAMS. Thank you, ma'am.

This is to all of the witnesses, and it can be a yes-or-no answer, would you commit to—as a two-time graduate of Historically Black Colleges and Universities (HBCUs), I care deeply about making sure that your companies reflect the diversity of our country. So, yes or no, would you commit to sharing data about the racial and gender makeup of your companies?

I want everyone, if you can, to answer quickly, yes or no, are you committed to doing that?

Mr. ALLAIRE. Yes.

Mr. BANKMAN-FRIED. Yes.

Ms. ADAMS. Okay.

Ms. HAAS. We would be happy to follow up with your office.

Ms. ADAMS. Great. We would appreciate that very much. It is a concern of not only this committee, but certainly of one of our Co-Chairs, Joyce Beatty, and myself and some others. So, thank you for your responses.

And Madam Chairwoman, I am going to yield back.

Chairwoman WATERS. Thank you.

The gentleman from Indiana, Mr. Hollingsworth, is now recognized for 5 minutes.

Mr. HOLLINGSWORTH. Good afternoon.

I appreciate everyone being here, and I certainly appreciate the dialogue that has been engendered thus far. I will admit to you that my erudition on such matters is very, very low, and so I am on a genuine fact-finding mission, not on a confirmation of my preconceived notions about how this could be used or, alternatively, how it should be treated by regulators.

I think, specifically to Mr. Allaire to start with, would you define stablecoin for me?

Mr. ALLAIRE. Sure. Thank you for the question, Congressman.

There are many types of stablecoins. There are stablecoins that are called stablecoins because they are intended to hold a stable value, thus the name.

Mr. HOLLINGSWORTH. Can you clarify and be more specific? A stable value relative to what?

Mr. ALLAIRE. Relative to some underlying reference asset.

Mr. HOLLINGSWORTH. Right. But that reference asset, in and of itself, may, in fact, be volatile, right? If I said this had a 100 percent correlation with one ounce of gold, that should be stable relative to gold—

Mr. ALLAIRE. That is right.

Mr. HOLLINGSWORTH. —but not stable relative in an absolute sense, I should say.

Mr. ALLAIRE. That is exactly right.

Mr. HOLLINGSWORTH. Okay.

Mr. ALLAIRE. So, say, the purchasing power of a dollar is changing rapidly with inflation and so, or in other countries, hyperinflation or there are deflationary assets and so on. So, the reference asset obviously has a huge impact.

Mr. HOLLINGSWORTH. You brought this up, and I wanted to delve further into that and I appreciate that. So, a lot—not a lot, maybe not even the majority, some non-trivial portion of stablecoins—are backed by U.S. dollars and are transferable to and from dollars, right? So, in essence, explain to me the value proposition to me owning a stablecoin that I can convert into dollars, as opposed to owning the dollars themselves?

What is the value proposition to a consumer?

Mr. ALLAIRE. Yes, that is a really great question, and I think it is good to use analogies sometimes on this.

Mr. HOLLINGSWORTH. Right.

Mr. ALLAIRE. It is sort of like the difference between having a postal letter versus an email. A digital version of a letter can move at the speed of the internet for free.

Mr. HOLLINGSWORTH. Right.

Mr. ALLAIRE. That is really an upgrade to the functionality of a letter, for example.

Mr. HOLLINGSWORTH. Right.

Mr. ALLAIRE. And, digital music, the same kind of attribute. So, digital currency dollars inherit the kind of super powers of the internet: the speed; the reach; the interoperability; and so forth.

Mr. HOLLINGSWORTH. The net summary of that is that it is no different as a store of value than owning dollars, because it is convertible to and from dollars, but is different in its transaction characteristics? It can move faster and presumably at a cheaper cost of transaction than, perhaps, transacting in dollars? Is that a fair way to say that?

Mr. ALLAIRE. I think that is basically correct, although I would say that well-designed stablecoins are safer than bank deposits because with bank deposits, you are taking a risk on the lending book of the underlying bank. And so, you have run risks. You have default risks of all of the deposits and loans that might sit in a bank.

A full reserve form of money, which is what a dollar digital currency such as USDC represents, is actually a safer form to hold, not just store value, but as a transactional medium, as well.

Mr. HOLLINGSWORTH. Right. Assuming that you hold your dollars in a bank account.

Mr. ALLAIRE. That is right.

Mr. HOLLINGSWORTH. Yes, there is some level of counterparty risk. We have worked hard, frankly, in this country and through a regulatory environment of minimizing that and through Federal Government guarantees, but that remains non-zero, if trivial.

So, walk me through the transaction value of owning a stablecoin. And here is my view just outside of this. I understand the notion that if I go to a retailer that accepts that stablecoin, then I can transact with them, presumably at a lower cost to that retailer. Hopefully, my prices are lower on account of that and I can transact faster with them.

But there is a non-zero transaction cost associated with getting into that stablecoin, so, I have kind of traded this notion of accelerating my pace of transaction, lowering the costs once I get into the system, but there are costs to get into that system, right? I have to buy whatever that stablecoin is from dollars, right?

Mr. ALLAIRE. Yes, and I can speak in the case of USDC.

Mr. HOLLINGSWORTH. Please.

Mr. ALLAIRE. So, if an institution wants to transfer dollars into USDC, we don't charge a fee for that.

Mr. HOLLINGSWORTH. You might have to get set up to do so.

Mr. ALLAIRE. You need an account.

Mr. HOLLINGSWORTH. I can't just go and get a debit card, and use my debit card out of my bank account. I have to set up an account. Presumably, you have some process by which I do that.

Once I get over that hurdle, then I can transact, or something like that.

Mr. ALLAIRE. That is correct. And I think many users of stablecoins keep their value in stablecoins because they are now able to use a very, very efficient payment and settlement medium. The high growth that you are seeing is partially attributed to that.

Mr. HOLLINGSWORTH. So, is the value proposition that this network of those that accept this is going to expand some more, and people are going to keep that in stablecoins?

And then my second question is going to be, why can't the same technology that runs stablecoins eventually run the payment system in dollars? Won't we eventually cut out the middle step of having to convert to a stablecoin, and then transact in this frictionless and speedier environment? Won't we eventually figure out how to run that through the existing payment system?

Mr. ALLAIRE. I think there are two points here. One is that dollar digital currencies like USDC are both kind of protocols and are a form, a representation, a form factor for a dollar. And there are network effects there, just like there are network effects in other internet protocols that we use for things, and I think that is significant.

To the second question, I think in some ways it is a question of semantics. When I use the IOU settlement system of a Visa card, I am not actually spending dollars, per se. There are a bunch of IOUs that are on a centralized ledger that are keeping track of things, and then, ultimately, underneath, there is a Fedwire that goes from one bank to another. We experience it as, well, that is just this card and there is a whole elaborate kind of system underneath that, that charges fees.

I think well-regulated stablecoins are an upgrade to those kinds of payment systems to be ready for the internet therein.

Mr. HOLLINGSWORTH. I appreciate the Chair's indulgence.

Chairwoman WATERS. Thank you. The gentleman's time has expired.

The gentlewoman from New York, Ms. Ocasio-Cortez, is now recognized for 5 minutes.

Ms. OCASIO-CORTEZ. Thank you, Madam Chairwoman, and thank you to all of our witnesses who are here today at this hearing.

Before I get into the heart of my questions today, there was a slight discrepancy in some of the testimony and questioning from

earlier today that I wanted Ms. Haas to clarify very quickly. Earlier in the hearing, Representative Velazquez asked about proprietary trading on the Coinbase platform, and in that moment, I believe you told her that, “Coinbase does not engage in proprietary trading on our platform. All prices are established, et cetera.”

However, in looking at the Coinbase rules under Section 3.21 of Coinbase corporate ops, it says that Coinbase, Inc., which owns and operates Coinbase Pro and Exchange, also trades its own corporate funds on Coinbase Pro and Exchange, and I just wanted to give you, briefly, the opportunity to clarify.

Ms. HAAS. Thank you so much for the opportunity to clarify. There are a few things that we do in our business. One is, we do have a corporate investment portfolio that every month we make an investment in crypto and add to our balance sheet. We have not sold that. We don’t trade it actively, but we do increase the investment on a monthly basis on pre-established investment protocols. We do buy those on our exchange.

Ms. OCASIO-CORTEZ. Got it. Understood. Thank you very much.

So, to the heart of the matter, crypto, as we know, is a growing industry. It is rising in market value from \$500 billion last year to more than \$3 trillion as of November of this year, 2021. There are a lot of advocates, proponents of the cryptocurrency industry who discuss the creation of new digital currencies, I should say, and then building safer, more inclusive systems, outside of the traditional financial sector.

But I kind of want to explore this assertion a little bit more. Mr. Allaire, a substantial portion of the buying and selling of cryptocurrencies is done with stablecoins, correct?

Mr. ALLAIRE. A significant amount is traded with stablecoins, yes.

Ms. OCASIO-CORTEZ. It is about 75 percent. Does that sound about right to you?

Mr. ALLAIRE. I don’t have the data in front of me, but it does sound roughly correct.

Ms. OCASIO-CORTEZ. Okay. And these stablecoins are designed to be backed by certain reserve assets, whether they are primarily USD or safe, highly-liquid cash substitutes; essentially, a coin to be stable in value so that people can kind of use it in a larger world of crypto where other coins could perhaps be a little more volatile in their value.

Mr. ALLAIRE. I can certainly speak to the design of USDC. I can’t really speak to others. So, yes, USDC is designed as a payment instrument under electronic money law in the United States. So, it is cash and short-duration U.S. Government Treasuries, which are the underlying instruments for the stored value.

Ms. OCASIO-CORTEZ. And, in fact, your firm recently announced a transition to 1:1 backing in dollars of USD coin after it was found that only 60 percent of the coin was backed by cash or cash substitutes. So, if the cryptocurrency industry, hypothetically, lost its ability to use stablecoins as a bridge to trade in and out of dollars tomorrow, would that cause a significant shift? It seems as though it would not be able to work the way that it does currently, correct?

Mr. ALLAIRE. I think a primary reason why stablecoins are so powerful is that they are a superior form of settlement. And the ex-

isting banking system moves slowly. Funds take several days to move, and there are significant fees and the access to that can be limited, whereas, blockchains operate continuously and settlement happens at the speed of the internet.

And so, I think it is important that payments and settlement in these new forms of internet financial products and services can operate at the speed of the internet. So, I think it is essential.

Ms. OCASIO-CORTEZ. I see. Thank you.

Lastly, what would you say to some of the folks who are listening today, not just here on this panel, but in the larger world? What do you say to the folks who say, basically, this doesn't seem like a new financial system, per se, but really an extension or perhaps expansion of our present one?

Mr. ALLAIRE. I would disagree with that. I think what I believe we are seeing is a new open infrastructure layer on the internet, a missing infrastructure layer of the internet that is designed around value exchange and economic coordination that is rooted in immutable data, the ability to interact with counterparties in a very, very safe way that hasn't existed before on the internet. And, really, many of the efficiencies that the internet brings in terms of moving information brought into moving value, but also with greater degrees of security than are often offered to the existing financial system.

So, I really do believe we are building a new global economic infrastructure layer and we are—

Ms. OCASIO-CORTEZ. And you would argue that that is distinct, and not an expansion or an increase in the sophistication of our current financial system?

Mr. ALLAIRE. I believe that for this to take hold, it needs to be well-integrated with our existing financial system, and we have long believed in a kind of hybrid model that does that.

Ms. OCASIO-CORTEZ. Thank you very much.

Chairwoman WATERS. Thank you. The gentlelady's time has expired.

The gentleman from Ohio, Mr. Gonzalez, is now recognized for 5 minutes.

Mr. GONZALEZ OF OHIO. Thank you, Madam Chairwoman. I truly appreciate this hearing. It is a great hearing.

I want to start with Mr. Brooks. I am going to attempt to respond to some of the objections, which I believe demonstrate a complete and utter misunderstanding of what we are even doing here today. One contention is that the vibe of crypto is a, "stick-it-to-the-man" vibe, but in actuality, it is dominated and controlled by Big Tech and Wall Street.

While the culture may be somewhat accurately described, the notion that a handful of big tech leaders and Wall Street banks somehow created and now control crypto is absurd on its face and, frankly, anyone who would make such a claim, I believe, should be ignored on this topic.

My contention is that Web3 crypto blockchain, et cetera, by its very structure has the ability to solve some of the most difficult and frustrating problems that the current version of the internet and the financial system have, where a narrow set of platforms control what we see, how we interact, and what we buy, while mil-

lions of Americans remain completely disconnected from the financial system. Web3 can turn this entire thing on its head in a very empowering way.

So, my question is simple: How, specifically, could you see Web3 solving some of these bigger challenges associated with the current version of the internet and the financial system?

Mr. BROOKS. Congressman Gonzalez, thanks for the question.

When I go back to the criticisms that you just were recounting, the only part of it that I heard was hip. I am going with hip. The rest of it, we can come to.

But in terms of the problems being solved, I think the first issue is that the biggest critics of cryptocurrency have been the biggest banks. Those are the people who are the most concerned about the entry of stablecoins into the payment system, about the ability of crypto assets to build networks that are away from the clearinghouse. Those are the biggest critics, so I think that tells you a lot of what you need to know.

And the reason is because the way that Web3 solves a lot of problems is really twofold. First of all, it eliminates the toll-collector role of traditional banks and traditional broker-dealers. The main thing that they do is they employ large numbers of human beings maintaining ledgers of account and allocating credit for a fee. Bitcoin and other cryptocurrencies do that without human beings and with no fee and the elimination of minimum account balance fees, the \$25 wire transfer fees that your bank charges to give you 3 days to send money; those are gone.

Mr. GONZALEZ OF OHIO. Thank you.

Mr. BROOKS. That is what is important, but the last part is it unlocks value. The traditional economic structures don't unlock the creator economy, play to earn in the gaming system. Those don't exist.

Mr. GONZALEZ OF OHIO. I want to go to Ms. Haas on that. Building off of this, in your testimony, you mentioned use cases for Web3 in the creator and gaming economies. Could you please outline a specific-use case and discuss how Web3 can empower creators and artists over mega-tech platforms, which was implied earlier, and quickly, please, if you could?

Ms. HAAS. Okay. Let's talk really quickly. I will cite the one that we just talked about earlier, which is in the month of November, play to earn, so these are where video games, one can play a video game and earn non-fungible tokens (NFTs). Those NFTs are in-game experiences. So, if anyone here has young kids who are playing with Roblox, playing Minecraft, playing with these, there are in-game experiences where you can buy avatars, and you can buy various things. These can become NFTs.

These NFTs, then, can be sold for value. And so, what we have here is this kind of concept of play-to-earn. You can play a video game. You can earn money. You can then monetize that back into fiat, and you can create these new economies and these new communities that have increasing value.

Mr. GONZALEZ OF OHIO. Thank you.

Mr. Bankman-Fried, I believe you live in Hong Kong; is that correct?

Mr. BANKMAN-FRIED. I'm sorry, can you repeat that?



Mr. GONZALEZ OF OHIO. You live in Hong Kong; is that correct?

Mr. BANKMAN-FRIED. I do not anymore.

Mr. GONZALEZ OF OHIO. Oh, okay. Well, let me ask the question differently.

Mr. BANKMAN-FRIED. I did, at one point.

Mr. GONZALEZ OF OHIO. So, 10 years ago, certainly 20, 30 years ago, if you wanted to start a major internet company, you probably wanted to do it in the United States. You probably wanted to do it where you grew up in Stanford, on the coast of Silicon Valley, for a whole host of reasons, one of which being a very, very conducive, innovative environment.

When I look at Web3, I see a lot of projects moving overseas. To what degree is the current regulatory environment in the United States contributing to this change where projects are now being built and domiciled in other nations, not the United States, whereas, in the previous versions of the internet, they were.

Mr. BANKMAN-FRIED. I do think it has contributed to that. I am optimistic that we are going to see changes to the framework over the next few years that will bring us into a world that can make the United States the source of the deepest and most liquid markets in the cryptocurrency ecosystem. I don't think we have seen that historically.

And if you look at the difference between the volume distribution of crypto and digital assets versus most other industries, you can see that.

Mr. GONZALEZ OF OHIO. Mr. Brooks, do you have any thoughts on that?

Mr. BROOKS. Congressman, as I said earlier, there are certain activities that our G20 partners seem to think are perfectly appropriate, legitimate, and subject to regulation that we keep resisting. Those have moved abroad.

Mr. GONZALEZ OF OHIO. Thank you.

And thank you, Madam Chairwoman. I yield back.

Chairwoman WATERS. Thank you.

The gentlewoman from Michigan, Ms. Tlaib, is now recognized for 5 minutes.

Ms. TLAIB. Thank you, Madam Chairwoman, and thank you so much to everyone who has been coming forward in regards to this important issue.

Cryptocurrency like Bitcoin currently consumes enough energy to power a small nation, and that is something that continues to be missed in the debate around this issue. The University of Cambridge's analysis estimated that Bitcoin mining consumes 121 terawatts hours a year. To put that in perspective for everyone, that is more electricity than the entire country of Argentina consumes. That is more than the consumption of Google, Apple, Facebook, and Microsoft combined.

One Bitcoin transaction, a single purchase, sale, or transfer uses the same amount of electricity as the typical U.S. household uses in more than a month. This is really astounding to me, and many folks do not know this, many Americans and folks who are talking about this issue.

Ms. Dixon, can you explain why for a cryptocurrency like Bitcoin that relies on a proof-of-work model, mining is such an energy-intensive process?

Ms. DIXON. Thank you for the question.

This is a really important area, obviously, in terms of sustainability and the focus on what we do in this space. We should always be trying to do it better and much more efficiently.

Bitcoin is the proof—the way that Bitcoin consensus is achieved is through really complicated math equations, and so there is a lot of energy that is needed to be used to make that happen. I know best about the consensus mechanism on Stellar, which is the Stellar consensus protocol, which can be done on a very small computer, like any of the ones that you have in front of you.

The University of London did a study on the Stellar Network, itself, and the network is low in terms of energy consumption. It is around .00022 kilowatts per hour for each transaction. That is less than a transaction for Visa. That is a really important comparison for us all to think about. So, not every consensus mechanism is proof of work or proof of stake; again, there are many different ones out there and depending on the mechanism, it depends on the energy consumption. But it is definitely important for us to be able to try to do this better, more efficiently, and to consider the sustainability concerns around it.

Ms. TLAI. No, I am so glad you talked about a model to potentially shrink cryptocurrency's enormous carbon footprint. I am particularly alarmed that previously-idled, shut-down coal plants like the one operated by Greenidge Generation in Seneca Falls, New York, are now being brought back online to aid in cryptocurrency mining.

And I don't know if the chairwoman knows this, but in Montana, a coal-fired generating station is now providing 100 percent of its energy to Marathon Digital Holdings for Bitcoin mining under the power purchase agreement. Prior to the crackdown in China, it was estimated that nearly two-thirds of all Bitcoin mining took place in China, included in regions with very heavy power generation sets in Mongolia and other areas.

Ms. Dixon, should the world central banks and governments be taking a more active role in monitoring and regulating cryptocurrency in order to bring energy consumption and carbon emissions in line with our own targets here in our country, the Paris Agreement, and what would that look like?

Ms. DIXON. I think it is really important for us, as an industry, to really focus on this issue even without regulation. I think it is something that you need to always balance the value of what you receive in terms of the harm that is actually created to the environment. So, we constantly have to be doing that kind of analysis.

I think we all need to focus on minimizing the energy consumption as much as possible and then think about how we can work with governments to be able to consider the best way to achieve the carbon-neutral status that I think a lot of folks want us to get to.

So, I encourage constant discussion. I encourage us to be innovative. This is one of the wonderful things about blockchain and just innovation generally; you look and you use technology to help to solve problems just like this.

Ms. TLAIB. Yes, and the proof-of-work model, fundamentally, is incompatible with the environmental-neutral future. You are saying we have to move in this direction, Ms. Dixon, so what tools can policymakers like ourselves look at to incentivize, to move us away from that model? How can policymakers accelerate that transition away from carbon-intensive mining?

We know our planet is burning. The climate crisis is here. And I just want to get the cryptocurrency community to become part of the solution and not make this crisis even worse. So, can you talk about things that you would suggest for us to be working on in regards to this issue?

Ms. DIXON. I think it is really important. We have actually engaged a third party to be able to look at the additional energy consumption, not just for what, as I mentioned, the University of London did with respect to the work that they did, but I do think it is important to be able, and we are engaging a third party to look at all of the different transactions and how the network actually can even be better and better with this, with respect to Stellar.

I think that same kind of work can be done with all of the different types of consensus mechanisms out there. So, I think research and more focus on what we can do to achieve sustainability and our sustainability goals is an important mechanism, and I think it would be really good to continue that conversation with you.

Ms. TLAIB. Thank you.

And I yield back.

Chairwoman WATERS. Thank you very much.

The gentleman from Tennessee, Mr. Rose, is now recognized for 5 minutes.

Mr. ROSE. Thank you, Chairwoman Waters, and thanks to Ranking Member McHenry for holding this hearing.

And thanks to our witnesses for hanging in with us for such a long period of time. Your testimony and participation today is very important to helping us understand this area and craft the appropriate policies going forward.

Mr. Bankman-Fried, FTX and FTX US have grown substantially over the past several years. Can you tell us about the economic impact, from your perspective, that FTX US has in this country?

Mr. BANKMAN-FRIED. Yes, thank you for the question, Congressman.

In addition to, obviously, the impact in terms of the hiring that we are doing and the support of a number of initiatives in the country related to job training and education, we are also hoping that we can help provide financial services to people who have not had easy access to those before. If you think about the number of intermediaries that are involved in the traditional financial transaction, whether it is using a bank or whether it is investing your assets, that is a lot of points that can be very difficult to navigate for a number of people, both in this country and around the world.

We aim to be able to provide services to everyone here, all easy to access on a mobile phone, giving inclusive and equitable access to financial markets that have been missing to a number of people.

Mr. ROSE. Obviously, you have described a great many benefits to the U.S. economy. So, in your view, how do we keep this innovation happening in the United States?

Mr. BANKMAN-FRIED. I think I am optimistic that on the regulatory side, we are not that far from that point, and I think that there are a few clarifications that could go a very long way here. I think that on the market side, having a framework with a single regulatory structure, and it might have multiple regulators involved in it. The CFTC and the SEC are both likely to be involved to some extent, but having a single, unified framework for futures and spot digital assets could go a long way towards providing the sort of experience that you can offer in a lot of jurisdictions today.

I think that giving clarity on the stablecoin side of audit requirements for the reserves, but without sort of squashing innovation by requiring only a very limited number of institutions to be able to issue them, could go a long way on that side.

And then, the last thing I would say is that moving away, hopefully, from a binary distinction of what asset class you are part of, where one is very much close to the sentence and moving towards a structure where we identify the necessary disclosures for certain digital assets related to the issuance related to the supply related to antifraud measures so that they can all be part of our financial system with appropriate disclosures and antifraud mechanisms and regulatory oversight would be really valuable.

Mr. ROSE. I want to turn to you, and thank you for a moment, Mr. Brooks. If you were king for a day and you were going to tell us, here is what you need to do to structure the regulatory framework, in a minute and 39 seconds, tell us what that would look like?

Mr. BROOKS. I can barely introduce myself in a minute and 39 seconds, Congressman.

I come back to the concept of parity. I don't know why we believe that incumbent institutions are risk-free and anything new is highly risky. So, if I have a platform built on a blockchain that is doing lending, I don't know why it is so hard for us to say that it can participate in our banking system. If I decide that XRP is a security, why won't we let it list on a U.S. exchange?

The problem is that we treat crypto assets differently from all other assets, and the answer is to just recognize them for what they are. These are assets that represent some underlying activity. It could be a network. It could be an application. They have a value that people are willing to buy and sell at. Let them in. That would be my message: Let them in.

Mr. ROSE. Okay. I am going to ask this question, and then ask you all to respond afor the record. I recently read an article entitled, "The Bitcoin Boom and the Quantum Threat." I bet most of you have read this article by Arthur Herman, who is a senior fellow at the Hudson Institute. The article discussed the fact that quantum computing could pose a security risk to the blockchain technology.

My friend, Mr. Perlmutter, asked Mr. Bankman-Fried about this topic earlier, but I think it is worth revisiting, and I would open this question up to all of you and ask you to respond in writing.

Do any of you worry that in the future, quantum computing could be used to compromise the security of blockchain technology?

And I see my time is expiring, so I will just go ahead and yield back, Madam Chairwoman. Thank you.

Chairwoman WATERS. Thank you very much.

The gentlewoman from Pennsylvania, Ms. Dean, is now recognized for 5 minutes.

Ms. DEAN. I thank the chairwoman, and I thank all of you for being here today and testifying before us.

I want to start in a general way, and I am thinking, Mr. Brooks, of what you said about the practice of law with the advent of emails. I was a younger lawyer then and I remember all of the fears around it. And so, it has been said, and this is really a follow-up to what Mr. Greene asked long ago, hours ago, it is obviously, clearly, a fast-growing and a bit mysterious market. Looking at the total cryptocurrency market cap over the last year, as some here have reported, it exploded from about \$500 billion a year ago to now almost \$3 trillion as of last month.

But it is also, clearly, a volatile, fast-moving market. As of last night, the total market cap is back down closer to \$2.4 trillion. Another example of volatility is Bitcoin, which lost half of its value over just 2 days in March before rebounding. So, to that notion, to the people who find all of this a bit mysterious, are we at risk? Do we see warning signs of a bubble in this marketplace, if I am allowed to call it that, and what do we do to make sure that the industry does not threaten the overall stability of our financial system?

Mr. Brooks, I will start with you.

Mr. BROOKS. Thank you, Congresswoman. It is good to see you again.

I will just give you a very quick anecdote. When I was practicing law, I represented one of the largest mutual fund complexes in the United States, and in their market room, they had a chart, a physical chart showing the U.S. equity market from 1792 to the present. What I remember about this room is it was a full city block long, and if you stood at the end of that room and looked at that chart, it was a straight line and up to the right. But if you walked right up close to the chart, you could very clearly see the Civil War and the panic of 1907 and the Great Depression and all kinds of other volatility along the way.

What I would tell you is in the beginning of a fundamental, technological revolution like this, the early days are going to see turbulence, but the long chart of crypto in only its 11-year history is up to the right, just like the U.S. equity market. So, what I would say is there are risks. There are disclosures that ought to be had. There is framework regulation that should be adopted. But the fact that the price goes up and down doesn't make it any different from U.S. equity markets in the first 100 years of the country's existence.

Ms. DEAN. That is a great comparison and probably a metaphor for other things that we are struggling with in our democracy. Hopefully, the upward trend is the trend. Let's pray that that is so.

A little more specifically, digital assets clearly don't fit into our current fiscal regulatory frameworks, and so we are here to try to learn what are the right policies to make sure that this is appropriately regulated.

Do we need to start from scratch and create an entirely new framework for crypto with a new regulator, such as has been suggested by Coinbase? Ms. Haas, can you talk about Coinbase's view that Congress should regulate digital assets under a new framework, with a single regulator?

Ms. HAAS. Thank you for the opportunity to clarify. So, yes, we do believe that there are benefits to having a single regulator that can address the broad strokes of crypto, generally. I share a lot of the views that Mr. Bankman-Fried had in his written testimony. I also share the views of Mr. Brooks that if it is a security token, then it is going to fall under the SEC. If it is a commodity token, then it will fall under the CFTC. But we also have new tokens here, and when you think about NFTs and an NFT marketplace, when you think about Bitcoin, itself, when you think about these new protocols where all you are doing is getting a right to governance in a protocol, they do not fit under the contours of existing frameworks and meet definitions.

So, I think that we benefit from definition taxonomy. I think we benefit from clarity on who we go to, to kind of walk through these issues and find one voice. And I think we benefit from an SRO that can really get into the weeds of these issues and help us move with speed in the regulatory speed to keep up with the pace of the innovation of the industry.

Ms. DEAN. Thank you very much. I appreciate that.

Mr. Cascarilla, you also said in your testimony that, "a primary prudential State or Federal regulator should regulate digital asset companies and their products." Could you elaborate on that?

Mr. CASCARILLA. Yes, thank you.

Paxos was the first company in the entire country to become regulated. We operate using a trust company status and the reason we do that is because we don't make loans or take deposits, so a trust company is actually safer than a bank. And so, that is an example of using State regulator authority in order to oversee our business.

And I think having either a primary regulator that is on the State basis or on the Federal basis is what will allow there to be a consistent application of AML/KYC rules, reserve rules, customer-protection rules. And there isn't a clear way to be able to do that right now. We feel this, even ourselves as a trust company, where we don't have explicit reciprocity on a State-by-State basis.

I think creating a clear parity across-the-board, as Mr. Brooks was saying, is very important for the industry.

Ms. DEAN. I thank you, and my time has expired.

I yield back.

Chairwoman WATERS. Thank you.

The gentleman from Wisconsin, Mr. Steil, is now recognized for 5 minutes.

Mr. STEIL. Thank you very much, Madam Chairwoman.

As you may know, I serve as the ranking member on the Select Committee on Economic Disparity & Fairness in Growth, along with Chairman Himes, both of us also members of this committee.

And we are holding the first of two roundtables tomorrow on financial inclusion and access to banking for underserved communities, a topic we talk a lot about also in this committee, and an issue that is front of mind for many underserved communities around the United States.

And so, Mr. Brooks, I would love to get your thoughts on the relevance of today's topic for financial inclusion and how the growth in digital assets and decentralized finance can actually drive inclusion, and how can underserved communities benefit from these developments?

Mr. BROOKS. I love that question and thank you for giving me a chance to address it.

A couple of things, first of all, let's ask, why do we have so many underbanked people in the United States, and the answer is a combination of minimum-balance fees, monthly account-maintenance fees, and all kinds of other things that are a hallmark of the money-center model that banking is built on.

If you talk to Mr. Allaire about his product, he would tell you they don't have any minimum-balance fees. They don't have any monthly maintenance fees. You can keep your assets in a tokenized bank deposit for free.

So, that is the first answer, that there are ten-dollar-a-month fees. There are twenty-five-dollar wire charges. Those things don't exist, that eat away at your life savings, A. And, B, the next most important thing about crypto is here you have an early-stage asset which, unlike the IPO boom, and unlike venture capital, doesn't require that you know a guy or that you be well-connected or that you be an accredited investor to participate.

This is a chance for underrepresented communities to be in on the wealth-creation stage of some new thing, as opposed to coming in at the end. So, what I always say is that is the way you solve underrepresentation is through wealth creation. This is an opportunity and that is why there are more minority investors than White investors in crypto in the United States is because—

Mr. STEIL. I appreciate your comments.

I'm just thinking general technology is one of the key aspects that we have to really address some of the underserved communities in the United States, and I agree with your comments. You may enjoy our hearing tomorrow on the Select Committee on Economic Disparity & Fairness in Growth.

To build further, what do you see as the main regulatory impediments to further innovation in this space that we think is really going to help us on the inclusionary aspect?

Mr. BROOKS. It is all incumbency protection. The big banks don't like this. The big banks have been slow to adopt because they make a lot of money on those fees that I just mentioned.

Mr. STEIL. Okay. So, let me keep going with you, Mr. Brooks, in the time that we have. In your opening testimony, you talked about the, "do no harm" approach, and that approach helped bring in a period of tremendous growth and opportunity in, really, Web1. You mentioned some of the countries that U.S. crypto businesses are moving to. What are some of the examples of the positive approaches to digital-asset regulation that you see in those countries, if you had to put your finger on it?

Mr. BROOKS. For example, responding to market demand. If a whole bunch of customers want to buy a Bitcoin ETF, why is it our business to say they can't do it? You see this domestically in New York versus the rest of the United States. Lots of investors like to buy certain tokens. New York won't let New Yorkers buy tokens. So, they are safe in Nebraska, but not safe in New York. Why would that be?

Mr. STEIL. Thank you very much.

I want to shift gears to you, Ms. Haas, if I can. I want to ask you about your firm's interactions with the SEC. As you know, the SEC blocked Coinbase from launching its lend protect earlier this year. Your CEO, Brian Armstrong, has been very vocal about his concerns with the SEC's decision and the process by which it reached that decision. I think it is important that regulators apply standards consistently, and so I want to better understand how this played out, to the extent you can help us here.

Has Coinbase had further conversations with the SEC about why it was not allowed to offer the lend product?

Ms. HAAS. We have, and we still do not have clarity as to why our product was not able to proceed.

Mr. STEIL. How would you characterize the discussions you have had with the SEC? Is it a little bit of a black box? I don't want to put words in your mouth.

Ms. HAAS. At this time, we have provided a lot of information, but not had clarity as to why or why not we can offer a product.

Mr. STEIL. Okay. That is helpful. I think it is something that this committee needs to consider and look into as to how we assist technology being developed here in the United States, rather than abroad, and I appreciate your comments there.

If I can, in my final 1 minute, Mr. Cascarilla, earlier in today's hearing you talked about how people around the world want the stability of U.S. dollars. We all know of countries with out-of-control inflation and autocratic governments. Can you talk, just briefly, about how digital assets in Web3 will help people dealing with these challenges?

Mr. CASCARILLA. I think it is really important to recognize that in the U.S., we have a sophisticated financial system. It certainly can be better, but it is sophisticated and relatively stable, certainly compared to most places in the world.

And when you look at the developing world, it is access to financial services that is a real problem. And I think in significant ways, they want access to U.S. dollars, but they also want access to crypto. They want to have the ability to protect themselves when they are in either politically unstable environments or economically unstable environments or both. And this technology creates the capacity to create a global, interconnected way of being able to operate on an economic basis that hasn't existed before, and that is very powerful and the U.S. should take advantage of it.

Mr. STEIL. Thank you very much, Mr. Cascarilla.

I appreciate all of our witnesses here today.

Madam Chairwoman, I yield back.

Chairwoman WATERS. Thank you.



The gentlewoman from Texas, Ms. Garcia, who is also the Vice Chair of our Subcommittee on Diversity and Inclusion, is now recognized for 5 minutes.

Ms. GARCIA OF TEXAS. Thank you, Madam Chairwoman, and thank you so much for this hearing on such a fascinating and critical topic. Blockchain technology has the potential to change how we transact around the world, not just in the financial sector, but across multiple industries.

Indeed, digital assets have expanded the financial marketplace in unprecedented ways already. The Bank for International Settlements recently found that decentralized finance has grown to an estimated \$250 billion worldwide.

I want to zero in on one part of these transactions that has already been talked about a little bit, but I want to build on it, and that is the cross-border transactions.

Ms. Dixon, your company is a nonprofit clearing network designed to facilitate financial transactions worldwide. In your testimony, you say that your primary focus is to facilitate cross-border remittance transactions for over 800 million people supported by funds by migrant workers. In Texas, an estimated 3.1 million immigrant workers comprise about 22 percent of our labor force. And in my district, in particular, we are 77-percent Latino. So, this is of great interest to me and to them.

Many of these workers, however, face the same financial struggles, not only the financial struggles, but access to the financial-services industry and it is multiplied by cultural and language barriers. So, specifically, what is it that you think that this sector now will be able to do to be able to provide better access to wealth, better access to the financial services industry, considering the economic and language barriers that many migrants face?

Ms. DIXON. Thank you so much for the question. This is another one of those areas that I love to talk about, because I think it is actually—

Ms. GARCIA OF TEXAS. We have limited time.

Ms. DIXON. There are a lot of important pieces here. The interoperability with the existing financial infrastructure means that individuals who don't actually have bank accounts, but something like a MoneyGram relationship, which is based in Texas, that we have on the Stellar Network, allows these individuals who have cash, but they might not have a bank account, to walk into MoneyGram, convert their cash into a digital asset and then send that asset to their family, to their friends, or to anyone they choose, using the blockchain. And then, those individuals that they sent it to, could send those digital assets to a MoneyGram location outside the country in those regions that are participating, and then they could remove those assets from the blockchain. This is getting to the unbanked and the underbanked all over the world.

Ms. GARCIA OF TEXAS. At the receiving end, how do they then convert the MoneyGram or, I forget what you called it, into their local currency? And is there a fee involved there for the conversion, much like there is for traveler's checks?

Ms. DIXON. It is very important that we—on the network layer, the fees are very, very low, but we have pricing pressure, created by the fact that these network fees are low. So, there is going to

be a fee when you have feet on the ground and you have an ability to make that transaction.

The end user who wants to go pick up their fiat at the local MoneyGram, for example, will pay a fee, but there are no other intermediaries that are layered on top of that, and the fees are much lower than those that you see in the traditional financial infrastructure. So, I feel like with this particular relationship, and also just with this technology generally, what it opens up is a world for those users, as Mr. Brooks indicated earlier, where they get access to all of the ability to hold these assets, to be able to create value for themselves.

Ms. GARCIA OF TEXAS. I will follow up in writing with just how you are planning to reach those communities, because I can imagine many remote villages, many remote rural areas, even in the Great State of Texas, where you are not going to have access to the place you are supposed to pick up the money at the receiving end. So, I have a lot of serious concerns about that, but I know that you have reached out to my office and we can talk.

I want to now move on to—I am glad that you all are sharing a lot of data and posting things on your webpage. So, from each one of you, will you commit to providing transparent information not only on your employment numbers—I know that Ms. Adams asked about that—but in terms of your leadership, your board of directors, and salaries and wages. Because I know at least one of you has already had a New York Times review that was not very good. And I am not going to pick on anybody. I just want a commitment from everyone on diversity and inclusion and transparency, and just a yes or no, please.

Ms. DIXON. We can commit to that.

Mr. ALLAIRE. Yes.

Mr. BANKMAN-FRIED. Yes.

Mr. BROOKS. Yes.

Ms. HAAS. As a public company, our data is available.

Ms. GARCIA OF TEXAS. I'm sorry, I can't hear you, ma'am.

Ms. HAAS. As a public company, our leadership and our board data is available.

Ms. GARCIA OF TEXAS. I didn't hear from Mr. Cascarilla.

Mr. CASCARILLA. Yes.

Ms. GARCIA OF TEXAS. Thank you. Thank you so much. And I have 15 seconds.

The other thing that I would like to see, and I can follow up in writing, is demographic data on your users: how many are Latino; how many are African American; and also by income, because I want to make sure, again, that the users are diverse and that your leadership reflects that. Thank you.

Chairwoman WATERS. Thank you.

The gentleman from South Carolina, Mr. Timmons, is now recognized for 5 minutes.

Mr. TIMMONS. Thank you, Madam Chairwoman.

I want to talk about ransomware. Obviously, we have seen an exponential increase in the number of attacks in the last months and years and it seems to only be getting worse. I know the crypto industry believes it can, and currently does play a critical role in preventing illicit finance, including ransomware.

Could you, maybe Ms. Haas or Mr. Bankman-Fried, describe for us how your firms take an active role, such as working with law enforcement and other market participants when these ransomware attacks occur? I would just like to get a better sense of the role that centralized exchanges play with the flow of funds. For example, how do you keep track of tokens, transactions, and wallets, and maybe include in your explanation, discuss the Colonial Pipeline attack and how the FBI was able to retrieve a substantial portion of the ransomware payments made.

Whoever wants to go first?

Mr. BANKMAN-FRIED. Yes, I will jump in. We work really actively on this. And in addition to all of the standard procedures that we have around surveillance of deposits, of withdrawals, and of our customer information, we are responsive to law enforcement inquiries constantly around this. We are helpful whenever we can be, both in terms of information related to FTX and our users, but also, we can extend that out to blockchain histories. Because it is a public ledger, we can trace these assets through and say, hey, you should go talk to this place next. This is where it seems like the assets probably ended up.

We have assisted in, I think, somewhere north of \$10 million of successful seizures so far, in cooperation with law enforcement, related to this.

Mr. TIMMONS. A quick follow-up, if you can get a percentage back, why can't you get all of it back?

Mr. BANKMAN-FRIED. If you can get a certain percentage of?

Mr. TIMMONS. Again, with the Colonial Pipeline attack, 70, 80 percent of the ransom was retrieved, so what is the difference in the Bitcoin that was successfully retrieved as to the one that was not?

Mr. BANKMAN-FRIED. We can follow up with specifics on that case, but I will say in general that any assets which are on our platform, we can retrieve. And, often, you might see a case where some of the people involved would send in one direction. Others would send it in another direction and those others might not be in a trackable way. But anything that is on our platform, we can retrieve.

Mr. TIMMONS. Sure. Thank you.

Maybe a follow-up question, do you have any tools that we could help put in your toolbox, Congress, legislation that would facilitate greater recovery percentages?

Mr. BANKMAN-FRIED. I think that speed is, frankly, one of the more important things here. I think like in any investigation, the faster that law enforcement can act on this, the greater the chances of recovery are. So, I think that we would love to just have standardized open lines with law enforcement where they know exactly how to reach out to us. We could have phone numbers available because, yes, the faster that action can be taken, the greater the odds that the assets are retrievable.

Mr. TIMMONS. Sure. Thank you.

Mr. Allaire, one curious statistic regarding the cryptocurrency ecosystem I have noticed is its popularity with a younger and more diverse demographic. According to P research, among African Americans, 18 percent have some level of experience with

cryptocurrency while among White Americans, the comparable figure in the survey was 13 percent; Hispanic, 21 percent; Asian, 23 percent; and additionally, 43 percent of men between the ages of 18 and 29 have invested and traded or used cryptocurrency. These numbers are incredibly divergent from what we see for traditional finance.

Why do you believe that to be the case?

Mr. ALLAIRE. Thank you for the question, Congressman. I think what we see with the crypto assets and digital assets more broadly is it is a form of finance that makes sense to young people. A lot of younger people have grown up with the internet. They were born with the internet in their crib, so to speak, and I think have an expectation of value being able to be used the same way that they can share a JPEG photo or react to something. And so, I think there is just a familiarity and an expectation that, of course, everything is going to be digital.

And so, I think the expectations are different. I think that a component of digital-asset markets is this concept of democratizing access to financial markets and digital-asset markets do that. There is more democratized access. There are fewer barriers to entry for individuals and I think that affects the adoption rates in minority communities. It affects the adoption rates, more generally, on some of those other demographics.

So, I think those are some of the key contributors.

Mr. TIMMONS. Sure. Thank you.

Madam Chairwoman, I want to thank you for holding this hearing. It has been productive, and I think this is a good example of how this committee should learn about important issues that are facing the American people and we need to regulate carefully.

Thank you, ma'am.

Chairwoman WATERS. You're welcome, and thank you for your participation.

The gentleman from Massachusetts, Mr. Auchincloss, who is also the Vice Chair of the committee, is now recognized for 5 minutes.

Mr. AUCHINCLOSS. Thank you, Madam Chairwoman.

I appreciate the written and oral testimony from our expert witnesses. It is timely.

The current regime of regulation by enforcement in which entrepreneurs must negotiate with the SEC or the CFTC on a one-off basis is not fair. It is not efficient or conducive to U.S.-based innovation. Congress needs to provide clarity and predictability by statute and I am ready to work with both my Democratic and my Republican colleagues to provide that. The rules of the road for Web3 can be a bipartisan initiative.

The United States needs a primary crypto regulator that is tech- and market-structure neutral, and that has three imperatives: it compels disclosure and transparency; it prevents fraud and abuse; and it promotes the efficiency and the resilience of the market. And this primary regulator should work with a self-regulatory organization as a counterpart in the private sector to establish one light-touch rule book for spot and derivatives listings, custody requirements, token issuance, asset-servicing and cross-margining settlement, Know Your Customer and anti-money laundering disclosure and auditing, and, of course, stablecoin standards.

Mr. Bankman-Fried, on that final point, stablecoin standards, which you have identified as perhaps the most important crypto innovation—in a recent interview on the, “Invest Like the Best” Podcast, you identified stablecoin regulation as a, “substantial step forward for persisting dollar dominance globally.” And to quote you further, you said, “There are going to be stablecoins in the world, and if you ban U.S. Dollar stablecoins, then it is going to be Euro coins or it is going to be one stablecoins.”

And in your written testimony, you propose a seven-part framework for stablecoin regulation and I want to thank you for the thoughtfulness behind that. Within this framework, can you identify the single-most important thing that Congress could do right now to regulate stablecoins in order to persist dollar dominance?

Mr. BANKMAN-FRIED. Yes, thank you for the questions.

I think the single-biggest thing is just to ensure the reserves are what they say they are. That is the fundamental large portion of the risk that could be posed by them is from both, a consumer protection and a systemic-risk perspective is, what if there is a trillion-dollar stablecoin with only a billion dollars actually backing it?

And so, I think having daily attestations and periodic third-party audits to confirm that the stablecoins are backed 1:1, with regulatory oversight of that process is by far the single-most important piece of that.

Mr. AUCHINCLOSS. Do any of the other members of the panel disagree or want to expound on that statement?

Mr. Allaire?

Mr. ALLAIRE. Yes, I would like to jump in. I think what Sam has outlined is a really productive framework. I think clarity on this, on the disclosure and reporting requirements and I think also on the reserve and liquidity requirements, and having that be a focused set of statutes, could be extremely valuable to providing confidence to the market, providing confidence to market participants, and allowing dollar digital currencies to flourish on the internet.

Mr. AUCHINCLOSS. So, if you say that this stablecoin is tethered to the value of the U.S. dollar, you have to disclose on a regular basis that you have the liquidity and the reserves to match that to reduce run risk, and you have to be willing to be audited by a primary regulator.

Mr. ALLAIRE. Absolutely.

Mr. AUCHINCLOSS. Mr. Bankman-Fried, you have said that you think that is the single-most important regulatory step the United States could take to persist dollar dominance. And I don’t want to put words in your mouth, but it struck me from the interview you had on, “Invest Like the Best,” that it may be the most important thing we could do, period, for crypto innovation.

Does anybody on the panel want to expound on that or disagree with that statement?

Mr. CASCARILLA. I will add some thoughts here. I completely agree that this is the most important thing that the U.S. can do. At the moment, it is not clear exactly how you can trust a dollar stablecoin, and that is unfortunate. Money is ultimately a product, and the way money is working today for people leaves a lot to be desired. Being able to put a dollar into a blockchain environment would solve so many problems that we have been talking about all

day, today here and I think that it is crucial for us to be able to set a clear regulatory plan in place that creates parity across all of these different products.

And so, I think it is really simple, if you have a primary regulator, you have clear reserves, you have made sure that you have backed them by cash or cash equivalents. That creates a very level playing field for all different dollar-backed stablecoins, and then they will really be stable.

Mr. AUCHINCLOSS. I appreciate that.

And this, to me, is an example of why these hearings, Madam Chairwoman, are so useful. And I feel like we really have a pretty clear path forward for one step that we could take, which is Congress should designate a regulator, at least initially, the primary regulator, and task them with disclosure and auditing requirements for the stablecoin.

I yield back, Madam Chairwoman.

Chairwoman WATERS. Thank you.

The gentleman from Texas, Mr. Taylor, is now recognized for 5 minutes.

Mr. TAYLOR. Thank you, Madam Chairwoman. I appreciate this hearing.

Ms. Dixon, I have a question for you. As you know, my home State of Texas earlier this year created a more friendly jurisdiction for crypto and blockchain in an effort to be a leader in that space. And I saw that you have developed a partnership with MoneyGram, which has many employees in my district, and is headquartered right outside my district, and I was just wondering if you could go into further detail about what you are doing with MoneyGram?

And for those who don't know, MoneyGram is one of the premier money-transfer operations in the world. There are countries where, literally, 20 percent of their GDP is transferred in by MoneyGram. So, it is a pretty important product for a lot of the world. I was just wondering if you could tell us what you are doing with them?

Ms. DIXON. Yes, thank you so much for the question, and it is an important part of what—it demonstrates not just the interoperability that blockchain has with the existing financial infrastructure, but it also demonstrates that you can actually offer services to traditionally unbanked or underbanked folks all over the world by leveraging this kind of technology.

And, finally, and I think importantly, from the MoneyGram standpoint and from a remitter's standpoint, it actually provides instantaneous settlement. So, they don't have IOUs out there. They actually have the money in their bank account when they are using the stablecoins, which is very important for us to be able to get right.

So, the MoneyGram relationship, which is in pilot right now in the United States, allows folks—you don't need to have a bank account to be able to get assets put on the blockchain. Right now, the hardest part about blockchain is the onramp and the offramp. We actually haven't done that exceptionally well because it is very, very hard—unless you have a bank account, it is very, very hard to be able to get assets into, to get money into digital assets.

The MoneyGram relationship could be one of many that actually demonstrates the ease of use that you can have. The beautiful thing about this is that MoneyGram, which acted very quickly, and in less than 2 months, was able to help to develop this technology and this integration with Stellar, but the other part of it is, all you have to have is a wallet that is Stellar-enabled. So, a wallet anywhere in the world, it doesn't have to be a specific wallet, to be able to then walk into MoneyGram, and get assets onto the blockchain using your fiat, your local fiat. It will convert into USDC, which is Mr. Allaire's coin, and then you can have that in your wallet. You can generate yield on that. You can do lots of other things with respect to the assets that you have.

You could then send them to family in a different country, for example, and once this is global, which will be next year, you could then go into participating MoneyGram locations and have those assets converted into your local currency, which is very important. So, it works very well with the cash economy and cash ecosystems and it demonstrates the true interoperability with blockchain and the traditional financial infrastructure, because that is what MoneyGram is and has done exceptionally well, and it demonstrates the value that these traditional players bring, because they have created this really important ecosystem and network of folks all over the world who have feet on the ground, who really work with cash, the individuals who have cash to be able to deliver value to them, whether to be able to get it from family outside of their country or just to be able to convert these into digital assets.

So, it is a really exciting and transformational opportunity, in my opinion, for blockchain because of the speed of use and the ease at which you can get money on and off of the blockchain.

Mr. TAYLOR. And just to follow up on my earlier statement about Texas and its role, I think all of you have testified that you have different State regulatory licensure. Everybody here has State licenses and multiple State licenses, right? Some of you have licenses in almost every State.

And so, on some level, you are seeing States, sometimes referred to as the laboratories of democracy, come up with their own policy sets.

Ms. Dixon, do you think that is working? Is that effective?

Ms. DIXON. I think that we actually don't have to have the licenses because we are the infrastructure, but I will tell you working with companies that have to have that, it is complicated for them, to have the individualized different licensing structures all over, but I think that folks are doing it very well. Many of the individuals on this panel have been able to be successful at getting those licenses at the State level.

Mr. TAYLOR. And one final comment, because it seems to me that there is sort of a drive to say you are unregulated. I was actually kind of surprised, reading the memo from the committee staff saying that this is an unregulated industry. Do any of you feel unregulated?

Ms. DIXON. I think that is an important distinction is that the activity, itself, is already regulated. And I think that when we focus on activity versus focus on the technology stack, you'll see that there is already a tremendous amount of regulation here and

a lot of protections and we should just be looking for those gaps instead of actually trying to create a new regulatory framework.

Mr. TAYLOR. Yes, I just think it is funny that when I asked, "Are you unregulated?", everybody laughed. That, literally, the concept, almost the memo, unfortunately, is almost laughable, at least to the people who are regulated, the people who live it every day to say, hey, you guys are a bunch of unregulated yahoos, do whatever you want. Like, that is not the world that we live in.

Madam Chairwoman, I really appreciate the opportunity for this discussion. Thank you for having us here. I yield back.

Chairwoman WATERS. You are so welcome. Thank you.

I would like to thank our witnesses for their testimony today.

The Chair notes that some Members may have additional questions for these witnesses, which they may wish to submit in writing. Without objection, the hearing record will remain open for 5 legislative days for Members to submit written questions to these witnesses and to place their responses in the record. Also, without objection, Members will have 5 legislative days to submit extraneous materials to the Chair for inclusion in the record.

And with that, this hearing is adjourned.

[Whereupon, at 2:49 p.m. the hearing was adjourned.]



# **A P P E N D I X**

December 8, 2021

**Written Statement of Jeremy Allaire, Co-Founder, Chairman and CEO of Circle Before the  
House Financial Services Committee On December 8, 2021  
Hearing on Digital Assets and the Future of Finance: Understanding the Challenges and  
Benefits of Financial Innovation in the United States**

Chairwoman Waters, Ranking Member McHenry and Members of the House Financial Services Committee, thank you for the opportunity to share my testimony with you today on the important matter of how to advance U.S. policy, regulations and leadership in the emerging digital assets and crypto-economy.

My name is Jeremy Allaire and I am the Co-Founder, Chairman and CEO of Circle Internet Financial, a now 8-year-old company that has operated at the cutting edge of the digital assets market. Today, estimates are that there are more than 20 million people in the U.S. and 200 million around the world participate in this market. We have proudly built our business inside the United States, where we employ a wonderful, diverse and growing group of colleagues in more than 35 states. We also now employ people in 11 different countries. From this platform of strength, we aim to continue expanding around the world.

Today, we are at a pivotal moment in the development of the next major infrastructure layer of the internet, extending from an internet of data, content and communications, to an internet of value exchange and economic coordination. The impact of this development on the future of U.S. economic competitiveness cannot be overstated. Indeed, just as the internet of the past two decades imported liberal western ideals of openness, free market competition and decentralization, this new economic infrastructure layer of the internet should similarly enshrine our principles.

In a world where money becomes a core feature of the internet, the U.S. should aggressively promote the use of the dollar as the primary currency of the internet, and leverage that as a source of national economic competitiveness, security and a major upgrade needed for more efficient and inclusive financial services.

Indeed, Circle's mission of raising global economic prosperity through the frictionless exchange of financial value, is animated by a business model where financial inclusion, responsible financial services innovation and protecting the integrity of the global financial system are not conflicting objectives.

As with my presence in today's hearing, for which I am honored to join alongside my peers, we have also aspired to walk through the front door on emerging policy and regulatory priorities, always with a focus on how to appropriately spur competitiveness, user protection and regulatory clarity in the emerging digital assets economy. Today, I would like to address some of the key policy issues facing the U.S. around the rapid growth and use of dollar digital currencies, also known as stablecoins.

Circle is the sole issuer of USD Coin, or USDC - an innovation that brings the benefits of digital currency - fast, inexpensive, highly secure, global and interoperable value exchange over the internet - without the downside of extreme volatility that has plagued most cryptocurrencies. USDC is helping to pave the way for digital dollars to be the leading currency of the internet.

While stablecoins gained their footing by providing an efficient digital dollar settlement layer for digital asset trading markets, their use is now expanding into a wide-variety of applications. Just in the past several weeks, we signed on institutional customers who are using these services for small business payments, international remittances, and efficient payments for remote workers. We are working with startups and established firms on using this technology to bring down the costs and increase the speed of remittances across Africa, Latin America and parts of Asia. Soon, we believe that dollars on the internet will be as efficient and widely available as text messages and email.

As the recent President's Working Group report on stablecoins highlighted, not all of these payment instruments are created equal - but, by the same token, not all of them are part of an unregulated Wild West as has been often portrayed. Rather, in our case, we have prioritized building, designing and guarding the prudential standards for USDC, which now stands at over \$40 billion in circulation and has powered more than \$1 trillion in on-chain transactions, inside of and conforming with prevailing U.S. regulatory standards that apply to leading fintech and payments firms such as PayPal, Square, Venmo, Stripe and others.

The dollar-denominated reserves backing USDC are held conservatively in the care, custody and control of the U.S. regulated banking system. These are strictly held in cash and short-duration U.S. treasuries and we have consistently reported on the status of these reserves and their sufficiency to meet demands for USDC outstanding with third party attestations from a leading global accounting firm.

With the continued rapid growth in reserves backing USDC, we aim to deploy cash deposits across the country where we will allocate a share of USDC reserves, hopefully accruing to billions of dollars over time, to minority depository institutions (MDIs) and community banks as a way of improving their balance sheets, but also ensuring that the future of payments and banking is more inclusive than the past. This is a part of a company-wide initiative called Circle Impact, which is aimed at reaching the people and communities who are all too often left behind by the traditional financial system. This work also includes:

- Enhancing digital financial literacy in partnership with historically black colleges and universities (HBCUs) and other partners.
- Driving diversity and inclusion for women and minority entrepreneurs via SeedInvest, our startup fundraising platform that has funded over 250 startups, which have raised over \$400 million from a diverse set of more than 600,000 investors.

- And spurring faster, inexpensive and corruption-resistant disaster relief and humanitarian aid using USDC and blockchain-based payments.

The Administration and leadership of the top Federal financial regulators have put forward to Congress a set of recommendations for establishing national regulatory supervision of stablecoin issuers such as Circle. They have also asked Congress to work to put appropriate statutes in place ensuring this innovation can both flourish while the fundamental risks can be well managed. In a word, stablecoins and internet-native capital markets are not too big to fail, but they are now too big to ignore. We wholeheartedly support this effort, and believe that there can be very strong non-partisan support for national licensing and Federal supervision of this highly strategic financial market infrastructure.

Similarly, well prior to the President's Working Group on financial markets recommendations on stablecoins, we announced our intention to pursue a full national banking charter from the Office of the Comptroller of the Currency (OCC), and we continue prioritizing bilateral and inter-agency engagement with all of the relevant Federal and state financial regulatory stakeholders.

There is much work to do in defining the reserve, liquidity, and capital requirements, and the risk management and operational resilience requirements for global-scale stablecoin issuers. At the same time, the technology of blockchains and open protocols for value exchange are not standing still, and whatever the ultimate policy and regulatory outcomes, it is crucial that policy embraces and enables the U.S. to be global leaders in the development of the internet of value, similar to the policy frameworks established in the mid to late 1990s that helped ensure the U.S. was the global leader in internet technology and communications. Policy frameworks need to support an open and competitive playing field, and allow new technologies to flourish.

As the Committee works in earnest to build policy for digital assets more broadly, and stablecoins specifically, we welcome active engagement, and believe this to be one of the most important areas for economic infrastructure and growth in the coming decade.

Thank you again Chairwoman Waters and Ranking Member McHenry for the opportunity to present to you today, I look forward to the Committee's questions.



## Testimony of Sam Bankman-Fried Co-Founder and CEO of FTX

“Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of  
Financial Innovation in the United States”  
Hearing Before the U.S. House of Representatives  
Committee on Financial Services

December 8, 2021  
10:00am ET

### Introduction

Chair Waters, Ranking Member McHenry, members of the committee and distinguished guests, thank you for inviting me to testify before this committee today. It is an honor and a privilege to be before you to share some information and insights into the digital-asset industry as this committee, this chamber and the Congress as a whole deliberate on a variety of key topics stemming from this exciting space. Along with my colleagues and teammates, I am pleased to provide you with as much information as you need in order to ensure a fully informed and robust debate around whether and how this committee should address some of these key topics.

### Background on FTX

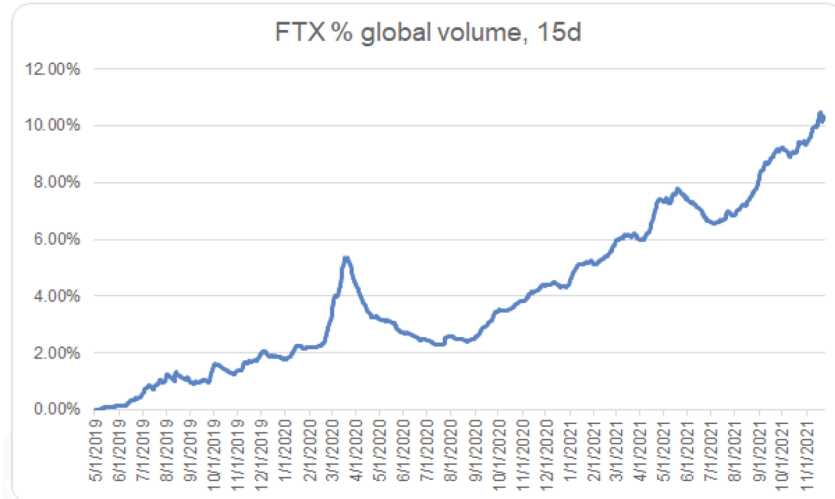
The FTX group of companies (FTX Group or FTX) was founded in 2019 and began as an exchange or marketplace for the trading of crypto assets. In the U.S., the company is a federally regulated exchange operator with licenses from the Department of Treasury (as a money services business) and the U.S. Commodity Futures Trading Commission (CFTC). FTX was established by three Americans, Samuel Bankman-Fried, Gary (Zixiao) Wang and Nishad Singh, with operations commencing in May 2019. It was established in order to build a digital asset trading platform and exchange for the purpose of a better user experience, customer protection, and innovative products. FTX built the FTX.com exchange to develop a platform robust enough for professional trading firms and intuitive enough for first-time users.

The core founding team had unique experience to develop an exchange given their experiences in scaling large engineering systems at Google and Facebook, combined with trading experience on Wall Street. This brought to the effort an understanding of how to build the best platform from scratch, as well as what that platform should look like, unencumbered by legacy technology or market structure. FTX has aimed to combine the best practices of the traditional financial system with the best from the digital-asset ecosystem.

Early Success. The FTX.com exchange has been extremely successful since its launch. This year around \$15 billion of assets are traded daily on the platform, which now represents approximately 10% of global volume for crypto trading. The FTX team has grown to over 200 globally, the majority of whom are responsible for



compliance and customer support. The FTX Group's primary international headquarters and base of operations is in the Bahamas, where the company is registered as a digital asset business under The Bahamas' Digital Assets and Registered Exchanges Act, 2020 (DARE).



In addition to offering competitive products, the FTX platforms have built a reputation as being highly performant and reliable exchanges. Even during bouts of high volatility in the overall digital asset markets, FTX.com exchange has experienced limited downtime and technological performance issues when compared to its main competitors. We believe this dual-track focus on customers and reliability are key reasons why FTX has also experienced the fastest relative volume growth of all exchanges since January 2020.

The core product consists of the FTX.com web site that provides access to a market place for crypto assets and tokens. Platform users also can access the market through a mobile device with an FTX app. The core product also consists of a vertically integrated, singular technology stack that supports a matching engine for orders, an application programming interface or API, a custody service and wallet for users, and a settlement, clearing and risk-engine system. In a typical transaction, the only players involved are the buyers, sellers, and the exchange.

The FTX Group has operations in and licenses from dozens of jurisdictions around the world, including here in the U.S. At the time of this writing the FTX platforms have millions of registered users, and the FTX US platform has around one million users. For FTX.com, roughly 45 percent of users and customers come from Asia, 25 percent from the European Union (EU), with the remainder coming from other regions but for the U.S. (also excluding persons from sanctioned countries). Nearly all users of FTX.us are from the U.S.



**U.S. Operations.** FTX services U.S. customers through the FTX US platform, which also includes FTX US Derivatives. FTX US is a separate corporate entity and company with a similar governance and capital structure to the overall corporate family, and also has its own web site, FTX.us, and mobile app. As with FTX.com, the core product is an exchange for a spot market for digital assets that, like other crypto-platforms in the U.S., is enabled through money-transmitter licenses. FTX US is headquartered in Chicago with a few other satellite offices in other US cities.

FTX US Derivatives was formed through the acquisition and re-branding of LedgerX, and is now a business unit that offers derivatives products such as futures and options contracts on digital commodities to both U.S. and non-U.S. persons. FTX US Derivatives has four licenses from the U.S. Commodity Futures Trading Commission (CFTC): a Designated Contract Market (DCM) license, a Swap Execution Facility (SEF) license, a Designated Clearing Organization (DCO) license, and a Commodity Pool Operator (CPO) license. Prior to its acquisition, this business was the first crypto-native platform issued a DCO license by the CFTC in 2017, which was a milestone for the agency and the crypto industry. That license was later amended in 2019 to permit the clearing of futures contracts.

**Commitment to a Diverse Workforce.** We are proud of our workforce at FTX and believe that one of our key strengths is a culture of mutual respect and cooperation. This type of culture is borne from the diversity of our team, which necessitates a spirit of empathy, understanding and humility. These traits in our workforce are good for business and are much of the reason we have been successful at understanding our customers and their needs, and executing on products that meet their needs. FTX has employees from all over the world with diverse ethnic backgrounds, and 60 percent of women in our workforce are in senior management positions.

**Commitment to Mitigating Climate Impacts.** FTX is very serious about minimizing our impact on the global environment where we live and work, and as a company we have taken several important steps to ensure this. Here, I would like to share several key points to explain why FTX's environmental impact is de minimis, but nonetheless explain the additional steps the company has taken to reduce even further this impact. *First*, FTX has no factories or physical products and therefore does not leverage global shipment networks, a substantial source of energy consumption. FTX has a small workforce with a small physical-office footprint, renting only a few small offices spread out around the world, and operates online. FTX corporate operations, therefore, do not have direct impacts on climate change at a globally relevant scale.

*Second*, digital asset deposits to and withdrawals from FTX platforms in fact require energy consumption as public blockchains facilitate and record those transactions, but on FTX over 80 percent of deposits and withdrawals use low-cost, carbon-efficient Proof of Stake (PoS) blockchains. These PoS networks contrast with Proof of Work (PoW) blockchains such as the Bitcoin blockchain, which consume significant amounts of energy to maintain the network. By using PoS blockchains for the vast majority of FTX deposits and withdrawals, FTX massively reduces the overall climate impact of blockchains. To facilitate the remaining approximately 20 percent of deposits and withdrawals, energy consumption is relatively small, but FTX subsidizes the blockchain network fees to share in paying the costs of that energy consumption. Separate from deposits and withdrawals, on-exchange transactions and transfers (the overwhelming majority of our user activity) do not require public blockchain activity and require only the amount of energy needed to run a web-based trading venue.



*Third*, FTX also has endeavored to take ownership of our portion of the environmental costs of mining associated with public blockchains and has purchased carbon offsets to neutralize those costs. Estimating the costs of energy consumption and carbon output associated with blockchain mining is difficult because mining is decentralized, and discerning how much energy is coming from which source is elusive. Nonetheless, FTX estimates that it costs \$1 million to take ownership of those costs, and has purchased a total of 100,000 tons of carbon offsets through two providers for \$1,016,000. Additionally, FTX through its affiliated arm, FTX Climate, created a comprehensive program to focus on the most impactful solutions to climate change possible. In addition to achieving carbon neutrality, our initial program funds research that we believe can have an outsized impact, as well as supports other special projects and carbon-removal solutions. FTX plans to spend at least \$1 million per year through FTX Climate. Those interested in learning more about these initiatives can find more information at <https://www.ftx-climate.com>.

*Fourth*, FTX believes energy consumption by PoW blockchains and its impacts should be assessed within the appropriate context, which we believe should include consideration of their benefits, an understanding of their differences with PoS networks and how each type of network is being leveraged and growing, as well as a comparison to other energy-consuming activities or even industries. For example, BTC has delivered benefits to many as measured by access to financial products, asset transmission, and wealth creation, which should be weighed against the network's energy costs.<sup>1</sup>

Additionally, while PoW networks attract attention for their energy consumption, transactional activity on PoS networks is growing substantially due to their superior ability to process a greater number of transactions in a shorter period of time at a lower cost. FTX believes these PoS networks will become increasingly important over time, which will continue to minimize the overall climate impact of blockchains over time. And finally, the energy consumption by PoW blockchains is relatively small when compared to other industries that the BTC network in particular is often compared to.<sup>2</sup> Of assets whose futures trade on CFTC-regulated venues, BTC actually ranks fairly low in terms of environmental impact, relative to traditional, physically mined commodities, oil, livestock, and other environmentally impactful assets.

Commitment to Giving Back. FTX is committed to improving the lives not just of our customers through superior products, but also the lives of those in the broader global community. Toward this end, FTX created the FTX Foundation, which was founded with the goal of donating to the world's most effective charities. FTX has pledged to donate one percent of net revenue from fees to the foundation. FTX, its affiliates, and its employees so far have donated over \$10 million to help save lives, prevent suffering, and ensure a brighter future.

<sup>1</sup> See "Everything We Want Costs Energy, Including Bitcoin," by Benjamin Powers, *CoinDesk*, Apr. 22, 2021; <https://www.coindesk.com/tech/2021/04/22/everything-we-want-costs-energy-including-bitcoin/>; see also "The Bitcoin Mining Network: Trends, Average Creation Costs, Electricity Consumption & Sources," *CoinShares Research*, June 2019 Update, <https://coinshares.com/assets/resources/Research/bitcoin-mining-network-june-2019-fidelity-foreword.pdf>

<sup>2</sup> See "On Bitcoin's Energy Consumption: A Quantitative Approach to a Subjective Question," *Galaxy Digital Mining*, May 2021, Rachel Rybarczyk, Drew Armstrong, Amanda Fabiano. <https://docs.google.com/view/adwmdeeyfvqwecj2>.





## Discussion

In this discussion I will address the following topics: (1) an overview of the products offered by FTX and their role in the digital asset economy; (2) stablecoins and how to address risks associated with these instruments; and (3) the current regulatory landscape and principles to guide policy makers toward good policy outcomes. Throughout this discussion I distinguish our non-U.S. and U.S. businesses by referring to FTX International and FTX US, respectively, where relevant.

There are several key themes in my testimony as it addresses the various topics. The first is that *FTX empowers the individual investor and consumer because we offer products that are easily accessible and inexpensive, so investors and consumers can make simplified choices to achieve their economic goals*. Easy access to financial products all in one place, in many cases on a mobile phone, without multiple gatekeepers assessing rents and posing risks to the investor along the way, is how the digital-asset ecosystem is impacting the real everyday lives of those involved, and helping them achieve economic security along the journey. A supportive and accommodating policy environment for this easy access to financial tools (balanced with other policy goals) will only empower the individual investor even further.

The second theme is that *FTX has designed and offered a platform with a market structure that is risk reducing*. To be sure, there are irresponsible actors in the digital-asset industry, and those actors attract the headlines, but FTX is not one of them and in fact has built a resilient, risk-reducing platform *as a competitive advantage*. As a result, the FTX model should be able to fit into any regulatory framework with the highest of risk standards around the world, so long as policy makers are willing to be flexible and allow a risk-reducing, 24/7, direct-to-investor market structure, and dispense with any *requirements* for a legacy, intermediated market structure that has not always best served the individual investor.

The final theme is that *FTX already is subjected to U.S. federal regulatory supervision of the highest standards*, including that of the U.S. Commodity Futures Trading Commission (CFTC) and the U.S. Department of Treasury, as well as stringent supervision by other global and state regulators. As discussed below, FTX embraces and would prefer to operate under one, federal, unified regulatory regime. In any case, FTX views its official-sector supervisors as stakeholders and partners with whom a consistent, active dialogue is necessary, and this viewpoint applies equally to the U.S. Congress. We at FTX are always available and eager to share our insights into the digital-asset industry and how it can continue to improve people's everyday lives.

The future, of course, is difficult to predict, but FTX believes that digital assets and blockchain technology more generally are very likely to endure and continue to present exciting opportunities for consumers, investors and entrepreneurs. FTX believes the U.S. should continue to lead in presenting those opportunities here in this country. FTX fully supports a regulatory framework for the trading of digital assets that protects investors and delivers on the hallmarks of orderly markets. To maintain U.S. leadership, policy makers will need to continue leveraging the best features of existing policy, but also accommodate the best features of the digital-asset industry, which we believe are empowering to the consumer and risk-reducing to markets.



## 1. FTX Products and Their Role in the Digital Asset Economy

Core Product: Digital Asset Exchange. As briefly explained above, FTX's core products are its digital asset exchanges, FTX.com and FTX.us. On both platforms, users can spot trade digital assets with other users for cash, stablecoins and other digital assets. On the spot exchange, users can set a variety of different order types on a central limit order book (CLOB). Users are able to offer orders at a specific price (limit order) or trade on the book at the best price shown. A robust matching engine sits in between these orders to connect buyers and sellers and display the best available prices.

Futures and volatility contracts related to digital assets also are listed on the platforms as well, with or without leverage. On FTX.com, leverage is limited to 20x; as of now it is not available to users of FTX.us (although there is facilitation of other forms of credit to Eligible Contract Participants -- see below). The platforms have listed quarterly-settled (as well as perpetual futures contracts only on FTX.com) that are cash settled. Additionally, MOVE volatility contracts are offered on FTX.com and are similar to futures except, instead of expiring to the price of a digital asset, they expire to the USD amount that the price of BTC has moved in a day, week or quarter. FTX.com also lists Bitcoin (BTC) options for trading. Finally, FTX US Derivatives offers to U.S. users both BTC and Ethereum (ETH) options, futures and swaps.

To cover initial and maintenance margins, derivatives and leveraged products users post collateral in the form of cash, stablecoins or other digital assets held on their account. The exchanges also have integrated risk-management and back-office systems to perform clearing and settlement of trades, which includes updating records of ownership of the digital asset or digital asset futures and options contracts traded (clearing), and transferring value between users' accounts (settlement), using either delivery versus payment or delivery versus delivery.

Market events last week showed how effective the risk-reducing attributes of the FTX core product are. Multiple digital assets declined in value in a short time period late Friday (December 3, 2021), increasing substantially the trading volumes for those assets on the FTX platforms, particularly as the FTX risk engine was activated and began liquidating relevant customer positions on the platforms. The market decline began very late in the day, long after trading hours ended for U.S. markets. But with 24/7 trading hours for digital assets, the FTX risk engine was able to respond immediately to the decline in asset prices, and began liquidating positions immediately before any customer account became net negative. In traditional markets, had a material market event began at the same time, risk-management systems would not have responded until markets re-opened more than two days later, a period of time when customer positions could have declined dramatically before an opportunity to stem losses in the customer account. Importantly, FTX's risk model avoids the systemic warehousing of such risks over a weekend or other period of market closure, and instead addresses at-risk positions and accounts immediately, in real time.

Off-exchange Portal for Arranging and Matching User Orders. FTX.com also offers an off-exchange portal that enables users to connect with other, large users, enabling them to request quotes for spot digital assets and trade directly. This facility forwards requests for quotes to large users, returning prices offered and



enabling users to then place an order. The portal is similar to other facilities found in traditional markets where a central limit order book is not used to match trades.

**Margin Lending.** FTX platform users can lend their digital assets to those who need them for spot trading. Users (including eligible users on FTX.us) wishing to trade digital assets they do not have may borrow them from users willing to lend them by posting collateral in the form of cash, stablecoins or other digital assets held in their account. The FTX platform maintains a borrow/lending book and matches users wanting to borrow with those willing to lend.

**NFT Marketplace.** FTX operates a marketplace for users to mint, buy and sell non-fungible tokens (NFTs). NFTs are tokens that are not fungible with any other tokens. They can take a number of forms and, for example, can be redeemed for a physical object, or an experience (such as a movie or phone call), or can be linked to a digital image, etc. FTX's NFT marketplace is conducted through an auction system. Alternatively, users can purchase directly at the prevailing selling price set by the seller. Users can choose to display their NFT collection on the FTX NFT marketplace portal, and/or to continue to buy or sell on the NFT marketplace. An NFT market is available to users of both FTX.com as well as FTX.us.

**FTX Pay.** FTX Pay is a service offered to merchants to accept payments in digital assets or fiat. Users have the option to top up their FTX accounts with ACH or credit cards, which are then used to make payments to enrolled merchants. For digital asset payments, the relevant user's FTX account would be debited by an amount in the chosen digital asset that is equivalent to the amount that is payable to the merchant. FTX facilitates the payments to the merchant by providing the payment infrastructure.

**Staking.** FTX.com offers the ability for users to "stake" certain supported digital assets on the platform. By staking such digital assets, users can earn staking rewards; in addition, for some tokens, users can receive and unlock certain benefits on FTX, such as reduced trading fees, withdrawal fees, as well as other rewards. Generally, users can "unstake" their digital assets at any time, subject to an unstaking or unbonding period. For certain digital assets, FTX may allow the user to unstake the digital asset immediately by paying an unstaking fee.

**Types of Digital Assets on FTX Platforms.** FTX has developed listing standards and a framework for determining which digital assets to list on the platforms. Part of that framework entails evaluating the assets to assess factors such as security, compliance risk, legal risk, technological risk and other factors. On FTX.com, which again is unavailable to U.S. users, FTX has listed approximately 100 stablecoins and other digital assets on its spot exchange. Digital assets include tokens such as Bitcoin (BTC), Ether (ETH), , Uniswap Protocol Token (UNI), Chainlink token (LINK), Solana (SOL), and Aave (AAVE). Non-pegged stablecoins include tokens such as USDT (USD Tether) and DAI.

On FTX.us, the company has taken what we believe to be a conservative approach to listing digital assets for trading. Consequently, there are far fewer tokens listed for trading on FTX.us due to much stricter listing standards for this platform. Care has been taken to avoid listing assets with features viewed to be similar to securities in the U.S. The assets and tokens listed more closely resemble BTC and ETH, two tokens expressly addressed by the CFTC to be commodities subject to its jurisdiction.



In sum, a quick review of these products will lead to the conclusion that the products available now in the digital-asset economy and on the FTX platforms are very similar to ones found in the traditional finance space. This reflects a maturing of the industry as more and more sophisticated investors enter the space and demand products and solutions familiar to them from traditional finance.

Again, one of the defining features of these products that is different from traditional finance is that the investors can get access to all of them on one platform, and without going through multiple intermediaries for access. In addition, all market data is made public and free -- all users are given full knowledge of the orderbook and trades. Easy access to financial products and solutions on one, easy-to-use platform is a powerful feature that empowers investors, consumers and entrepreneurs. By simplifying access to these tools, users of the products can focus more on the core of their everyday financial goals and needs -- ultimately this is what FTX believes will promote financial inclusion and economic security for more people.

## 2. The Benefits of Stablecoins and Addressing Their Risks

FTX believes that stablecoins are one of the most important payment innovations to come from the digital-asset industry, and users on our platforms rely heavily on their use for payment and settlement of transactions. FTX acknowledges the important work of the *President's Working Group on Financial Markets* and we read with interest the recently released "Report on Stablecoins." FTX has shared its recommendations on how best to ensure the safety and soundness of stablecoins, which I include here as an exhibit to this written testimony and can also be found at <https://www.ftxpolicy.com/stablecoins>.

In addition to our recommendations for stablecoin supervision, FTX believes two other key points are worth making to this committee for your consideration. *First*, this committee should understand that FTX believes that without banking-type federal supervision of stablecoin issuers today, FTX allows their use on our platforms and indeed leverages them for our own corporate money transfer because we believe they are *risk reducing*. Indeed, FTX has opted to use stablecoin transmission for very large money transfers, including for our merger-and-acquisitions activity, rather than the traditional banking system's payment rails.

While it might seem counterintuitive to some that using stablecoins would be viewed as less risky than the heavily regulated payment rails of the banking system, the reason is because stablecoin transfers have nearly instantaneous settlement, and settlement can be easily confirmed by both counterparties by viewing the deposit into a wallet on a public blockchain. Contrast this with the process for a typical wire transfer, a process that includes multiple intermediaries standing between the transferor and transferee, each of which poses counterparty risks; takes days to complete and settle; and is costly compared to a stablecoin transfer. Other payment systems such as ACH or credit-card networks also suffer from size limitations as well as costliness, even if hidden to users.

FTX, therefore, is skeptical that bank-like supervision for *all* stablecoin issuers is the best solution for consumers. Our concern is that bank-like supervision in every case might inadvertently introduce the risks that stablecoins currently sidestep. We recognize, however, that minimum standards for certain core requirements should be met by both the issuer and the stablecoin it issues. These core requirements include:



- Daily attestations of what assets (cash, bonds, etc.) are backing a stablecoin
- Periodic audits to confirm the asset backing is as claimed
- Haircuts for assets with moderate risk
- An open line for law enforcement to blacklist address and persons associated with financial crimes

These core requirements could be met in a variety of regulatory contexts, including ones other than the federal banking supervisors such as the CFTC or the Securities and Exchange Commission (SEC). Indeed, members of this chamber have introduced legislation with these regulators in mind.

*Second*, FTX believes that the continued use of stablecoins with appropriate standardized safeguards **will protect** the hegemony of the U.S. dollar as the world's reserve currency, not threaten it. Again, this viewpoint might seem counterintuitive, but today the most widely used stablecoins are pegged to the U.S. dollar, and so ultimately those stablecoins settle to U.S. dollars themselves. This system promotes the continued reliance worldwide on the U.S. dollar, rather than threatens it. In fact, FTX's concern is that an overly onerous approach to supervising stablecoins is what will pose a risk to the U.S. dollar's reserve-currency status, because stablecoin issuers might be compelled to shift to other jurisdictions and focus their efforts on stablecoins that are pegged to fiat currencies other than the U.S. dollar.

To be sure, consumers will benefit most from having some level of competition among payment-service providers, which U.S. policymakers have allowed or promoted before. FTX believes that it should be instructive to policymakers that new innovations, including stablecoins in the payments space, often materialize outside of a defined regulatory perimeter, which typically means that service providers within that same perimeter are not offering what a market is demanding, usually for a variety of reasons. To allow innovation to continue and healthy competition to persist, however, policymakers should take care to strike the appropriate balance and not insist on moving all innovators to within the same regulatory perimeter. FTX commends this committee for holding this hearing to educate itself first on the benefits of new innovations like stablecoins before moving to act on the recommendations of the PWG's report.

### 3. U.S. Market Regulation of Crypto Platforms and Challenges to Operations

This committee in the past has asked thoughtful questions about the best way to provide supervisory oversight of crypto platforms that offer trading, and some members of this committee indeed have introduced legislation addressing this topic. Other members have questioned whether federal legislation is necessary at all. We appreciate all of these questions and efforts.

Last week FTX released *FTX's Key Principles for Market Regulation of Crypto-Trading Platforms*, which can be found on the FTX.com web site at <https://ftxpolicy.com> and is included here as an exhibit to my testimony. This document was designed and released to assist with this committee's and other



policy makers' deliberations about how best to protect investors and serve the public through sensible market supervision of crypto platforms.

FTX's *Key Principles* document goes into some amount of detail but here I would like to focus on a few highlights for this committee to consider. *First*, in considering a framework for supervising spot and derivatives crypto trading markets, policymakers should take a principles-based approach and leverage the existing policy goals that apply to traditional capital and derivatives markets. These goals essentially are universal to all markets and include: ensuring customer and investor protection, promoting market integrity, preventing financial crimes, and ensuring overall system safety and soundness. FTX believes that any new policies related to crypto platforms also should be in service to these goals, which also necessarily means that much of the principles reflected in the Commodity Exchange Act (CEA), Securities Act of 1933, and Securities Exchange Act of 1934 are relevant to our industry. FTX believes it makes sense to leverage these goals as well as the experience and expertise of the CFTC and the SEC as appropriate.

*Second*, FTX and other crypto platforms have brought important innovations to trading, and a sound policy framework should preserve these innovations where possible. This is because these innovations help to minimize risk, promote capital efficiency and protect investors, all of which better serve the public. As referenced above in this testimony, some of the key innovations include: (1) automated risk-management systems that ensure customer accounts trading multiple different assets do not go net negative across customer positions; (2) 24/7 trading hours, which also reduces risk by allowing markets and their systems to manage risks without interrupting and lengthy time gaps between market hours; (3) permissioning a non-intermediated market structure that gives all investors the same equal access to the market and helps minimize conflicts of interest; and (4) access to market data for all platform users free of charge, which aligns the platform operator's interest with the investor's.

*Third*, a successful policy framework would allow crypto platforms to offer both spot and derivatives trading on crypto assets under one unified system, with one rule book and one technology platform to manage risks related to all trading activity in customer accounts. In jurisdictions with mature markets such as the U.S., regulatory frameworks were developed in response to fragmented markets for securities, commodities, and derivatives on those assets. FTX has demonstrated that bringing together markets for both the assets and derivatives for those assets delivers key benefits to market participants. Those benefits come from having one rule book that applies to all trading, having one collateral and risk-margin program, and a single technology stack for the front end (the user interface), to the back end (settling and risk managing positions). Public policy should permit this one-rule-book model due to its risk-reducing and customer-protection attributes.

To accomplish this, and where there is more than one market regulator such as in the U.S., regulators should work together cooperatively and use their authorities where applicable to accommodate this model for crypto assets. Our *Key Principles* document proposes a scheme where a crypto-platform operator could opt into a program of joint supervision by the CFTC and SEC, with one of the two market regulators serving as the primary regulator, and the other as the secondary regulator. This type of paradigm is familiar to market regulators globally and requires joint responsibilities and cooperation between regulators. A hallmark of this paradigm would be having one primary regulator, which is likely necessary to ensure the accommodation of one rule book, one matching engine and risk engine supported by one technology stack. It is these features that again are risk reducing.





Under this paradigm, which FTX believes largely could be created under existing CFTC and SEC authorities, there might remain some other policy gaps, which include the proper treatment and disclosures for certain types of crypto assets that are not precisely securities, or whose function and purpose can change over time, but in any case would fit the definition of a commodity under the CEA.<sup>3</sup> While some of these tokens are securities, the classification of others is unclear under existing definitions, and therefore it may be appropriate to establish more definitional refinements as well as a different disclosure framework for certain assets. In any case, *FTX's Key Principles* again envisions all tokens and derivatives referencing them trading on the same platform, under the same rule book, and with a unified system to manage risks related to all trading activity in customer accounts.

*Fourth*, an appropriate policy framework for market regulation of crypto assets should remain market-structure neutral and expressly allow non-intermediated markets. While FTX believes the U.S. market regulators have authorities to accommodate this type of market structure today, it nonetheless is not the market structure generally contemplated by the CFTC and SEC regimes. FTX is quite familiar with the CFTC regime as the owner and operator of a registered futures market and clearinghouse, and believes the CFTC's principles-based approach to supervising those functions makes a lot of sense. This regime requires disclosed and approved policies and procedures created by the platform operator to address key issues such as custody of assets, key features related to the lifecycle of a trade, reporting of market activity to supervisors, provisioning market data to platform users, ensuring adequate financial resources, and protecting against cyber-attacks and financial crimes. Given the nascency of the digital-asset class, this type of approach especially makes sense as it affords flexibility to the CFTC and the platform operator to address new market developments through expeditious changes to the platform's rule book, policies and procedures.

## Conclusion

FTX is grateful to this committee for the opportunity to share information about the digital-asset ecosystem and suggest ways the benefits and promise of the industry can continue to be realized, and in a responsible way. FTX believes most or many of the products and tools we offer on our platforms could continue to be offered to U.S. customers within the regulatory paradigms in place today, although in some instances with some careful modifications or productive interpretations by our supervisors. We believe that new policy affecting the digital-asset industry and FTX's business should build on the best features of existing policy, and our suggestions on stablecoin and marketplace supervision are informed with this in mind. By using this approach, FTX believes that the best aspects of traditional finance and digital assets will be combined, and consumers will continue to have access to the empowering tools they seek for economic security, all in one place, and from a singular, risk-reducing platform.

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<sup>3</sup> FTX observes that the definition of a "commodity" under the CEA is very expansive, and securities also meet that definition.



### Exhibit A

## **Stablecoin Regulation**

Note: As global regulators continue to consider whether and how to regulate various components of the digital asset ecosystem, we think it is important to share our perspective on how a practical, responsible, and thoughtful approach to regulation might look. This post is not a comment on the current regulations surrounding stablecoins, a legal interpretation of them, or advice on the suitability of transacting in or owning a given stablecoin. This post is an exploration of what a hypothetical new regulatory framework for stablecoins could look like, engineered towards solving for key regulatory priorities and preserving critical usability features.

### Context on stablecoin regulation

As the cryptocurrency industry matures, it's vital that a robust regulatory regime grows alongside it which takes seriously its duty to protect consumers, ensure transparency, and prevent illicit activity, while still allowing for innovation and growth.

Stablecoins play a crucial role in the cryptocurrency ecosystem; the majority of all transactions in crypto are settled via stablecoins, and they are one of the most promising payment tools for the broader financial sector. It is also, as of now, unclear exactly what regulatory regime stablecoins will end up being placed in.

### What is a stablecoin?

Let's start with the core question: what exactly is a stablecoin?

There are a wide variety of stablecoin designs that have been utilized in the cryptocurrency ecosystem. For illustrative purposes, in this article we will assume a stablecoin on the US Dollar, although parallel assets do exist on EUR, GBP, and other currencies. We will also imagine that it is 1:1; that is, 1 token represents 1 US Dollar. We will imagine that the token's ticker be STBC.

In this construct, this imaginary stablecoin, STBC, is a blockchain-based asset that can be exchanged for a US Dollar. That would typically be accomplished through the following mechanics and arrangements:

Reserves: typically a stablecoin is backed by one or more USD accounts or other similar assets, generally held at a bank, in an account under the name of the stablecoin sponsor, issuer, or other similar body. The USD value of the assets should be at least the supply of the stablecoin.

Token: a blockchain-based token, STBC, where one token represents \$1 (as supported by the creation / redemption process, described below). These could be issued by a private company, a central bank, or a decentralized protocol.





Creation/Redemption: In order to create 1 STBC token, an eligible user must send \$1 to the reserve account. In return, the protocol mints 1 new STBC token and sends it to the user.

Similarly, an eligible user may send 1 STBC token back to the protocol to redeem it for \$1. The protocol destroys the token and sends \$1 back to the user.

### What are the benefits of stablecoins?

We believe that stablecoins are one of the most important innovations of the cryptocurrency industry.

Let's say you want to send \$20 to a friend. What are your options?

- a) You could hope that both you and your friend use the same peer-to-peer transfer app (e.g. Venmo), and then separately each of you figure out how to send money to/from that app.
- b) You could send a \$20 wire transfer to your friend. This would likely take a day and cost \$5+ in fees; and if it's international, it might take a week and cost substantially more in fees.
- c) You could send \$20 via ACH, if both you and your friend use US-based USD bank accounts. Then, the transfer would not fully settle for months, exposing both parties to "chargeback risk".
- d) You could go to an ATM, withdraw \$23 paying a \$3 fee, and hand \$20 to your friend, who would then have to find a way to use the physical dollar bills.
- e) You could send 20 STBC to your friend's cryptocurrency wallet; if you use an efficient blockchain (or both use the same exchange), it will arrive in less than a minute, costing a tiny fraction of a penny in fees.

Option (e), the stablecoin, has a compelling case here as an efficient means of transfer.

Taking our real world use case a step further, consider that a user wants to build a blockchain based application. How should the application's users contribute and withdraw assets?

Here, the users face the same potential options and cost structures as before; once again, stablecoins are the cheapest, safest, fastest way for a user to engage with that application.

### What are the risks of stablecoins?

There are three major intertwined risks associated with stablecoins.



### Reserve volatility risk

If the stablecoin is backed by something other than US Dollars in a bank account, the asset might depreciate against USD. If, for instance, you were to back a stablecoin with 1,000,000 tokens issued with \$1,000,000 of the SPY (S&P500) ETF, and stock markets decreased 5% in price, you would be left with only \$950,000 backing 1,000,000 stablecoins—meaning that the “stable” token had in fact fallen in value, at least in regards to the reserves it is purported to be redeemable for!

Unlike investment products where customers gain from appreciation in the assets backing the product, there is generally no way for a stablecoin to be worth more than \$1, as customers can always create more for \$1 each. This means that the core philosophy behind the assets backing a stablecoin should be to focus on assets with low volatility which are very similar to USD. US Treasury bonds may be an appropriate asset for a stablecoin’s reserves; if Bitcoin is used, it has to be overcollateralized to an extent that there is very little risk of loss to the stablecoin holders. Backing 100 stablecoins with \$101 of BTC is untenably risky: a mere 2% decrease in bitcoin markets would cause the stablecoin to be under-backed and no longer fully redeemable for \$1. Backing 100 stablecoins with \$400 of BTC, on the other hand, is substantially more defensible, as there is very little risk of a 75% move before the reserves would have a chance to de-risk. Any stablecoin issuer or designer must have a transparent, robust risk model to mitigate the volatility of its reserves, including determining which assets are appropriate for its reserves.

### Redemption risk

A related worry is that a user might own 1,000 STBC, go to the issuer to redeem their STBC, and be denied.

This might happen if the reserves had in fact run out of dollars and so there was nothing left to redeem STBC for; this would likely imply the reserves had not been in USD, and had fallen in value.

Alternately, this could happen if the issuer arbitrarily decides to block your redemption, possibly to try to keep more impressive metrics for STBC.

Either way, the lack of ability to redeem (or a lack of transparency related to redemption process and requirements) presents a risk to the user.

### Financial crimes

One final risk of stablecoins is that they could be used for financial crimes, or to finance illicit activities.

Any stablecoin issuer or designer must include creation, redemption, and use mechanics that, in harmonization with regulation, address and avoid this use case.



### What is a sensible stablecoin regulatory framework?

As noted above, we believe that stablecoins have presented a significant positive use case to the world, and they continue to hold the potential to revolutionize the payments and remittances industry. Stablecoins could in the future revolutionize the payments industry, drastically reducing friction and transaction costs, delivering to many around the world the benefits that come with having access to reliable and usable value transmission. As such, we think it is important to ensure that the ongoing regulatory discussions around the approach to a framework for stablecoins be based on a practical structure that solves equally for usability, reliability, transparency, consumer protection, and the identification and prevention of financial crimes.

We look forward to engaging with regulators on examples of what such a framework might look like. There are many different approaches and we remain open and excited for feedback and engagement from regulators and from other participants in the cryptocurrency industry.

As outlined above, there are real risks associated with stablecoins, and any framework should work to mitigate those.

As such, while we look forward to continuing dialogue on the details, we would be in favor of a proposal for a transparency-based reporting and registration regime for stablecoins.

A proposed framework might look like the following:

- a) All stablecoins issued to US users must be registered on an official list of “regulated stablecoins” under the oversight of one or more US regulatory department(s).
- b) The registration itself would be focused on transparency and reporting, on a notice filing basis, coupled with clear obligations on recordkeeping, reporting, and regular examination. The regulatory departments authorizing the program would have the ability to decertify registered stablecoins.
- c) The registration would involve publishing a daily Reserves List which details what the total net value of the stablecoin’s reserves are, and breaks that down into exact quantities of specific categories (e.g. “100 USD in Bank XYZ; \$95 of short-term US treasury bills; \$50 of Tier-1 commercial paper of US companies; \$30 of Tier-1+ commercial paper of European companies; \$10 of [other suitable assets as permitted by the regulation and by that stablecoin’s registration document]”)
- d) The registration would require that the issuer maintain “sufficient” reserves. This could be defined by a set of haircuts on various types of reserves. E.g., perhaps a 0.10% haircut on USD in an FDIC insured bank account; a 1% haircut on short-term US treasury bills; a 10% haircut on Tier-1+ commercial paper; a 15% discount on Tier-1 commercial paper; a 20% haircut on EUR, GBP, JPY, CHF, CAD, AUD, SGD, HKD, etc.; and a 50% haircut on bitcoin.



e) The registration would require semi-annual audits by an accounting firm to confirm that the reserves are as represented.

f) The registration would require stablecoins to have clear and transparent redemption requirements (e.g. based on Know Your Customer documentation) and a clear customer complaint process if a redemption is denied.

g) To address financial crimes, all registered stablecoins would have to be on a public ledger, and the creation and redemption process must be sufficiently structured in order to ensure that stablecoins associated with illegal activity (as observed via on-chain surveillance and analytics tools, via a suite of standard blockchain surveillance software) cannot be redeemed.

As noted above, this is a basic strawman framework for how the key components of a potential stablecoin registration program might look. Each of these points are designed to preserve the usability of stablecoins while solving for regulatory considerations that need addressing. If designed in the right way, this framework could enhance the ultimate usability of stablecoins. We very much look forward to engaging with policymakers, regulators, and market participants on these concepts.





**Exhibit B**

## FTX's Key Principles for Market Regulation of Crypto-Trading Platforms

In this piece we identify a series of ten principles (and in some instances, proposals) that should guide policy makers and regulators as they build the regulatory framework for spot and derivatives crypto markets. FTX does not propose specific legislation here but rather principles and proposals that could be reflected in policy making, whether in the form of legislation, rulemaking or other regulatory action. Many of these principles are familiar to traditional securities and derivatives markets, but some of the principles reflect market-structure choices made by FTX and other crypto-platform operators that we believe lead to superior outcomes for investors and, indeed, the public. FTX therefore believes public policy should not only permit these choices but promote those that lead to such outcomes. Some of the discussion here focuses on the U.S. marketplace but the principles and proposals are applicable in any jurisdiction globally. FTX appreciates being able to engage in this dialogue with policy makers and regulators, and we are always happy to pursue follow-up discussions with interested parties. See our prior policy blog posts at <https://www.ftxpolicy.com>.

### 1. Proposing One Primary Market Regulator with One Rule Book for Spot and Derivatives Listings

In the U.S. regulatory ecosystem, spot markets and derivatives markets are subject to different regulatory programs, and this can lead to inefficient and non-optimized market structures. In this post we propose as a solution an alternative regulatory approach that would provide market operators the ability to opt in to a unified regulatory regime for spot and derivatives marketplaces, through a primary regulator model.

As many know, the CFTC is the primary regulator of commodity derivatives marketplaces, while the SEC is the primary regulator of cash securities marketplaces, and the two agencies share oversight responsibility for certain aspects of security derivatives marketplaces.

In parallel, there is a further regulatory split for spot markets (sometimes called “cash markets” in the traditional commodities or securities context), where the applicable regulatory program depends on whether the product being traded is categorized as a security (where the SEC regulates) or a commodity that is not a security (where the states largely regulate, via money transmitter or money services business licensing).

Against that backdrop, and particularly outside of the U.S., we observe that many crypto-native trading-market operators offer for trading both spot transactions on crypto assets as well as derivatives on those assets, under a



unified rule book, one collateral and risk-margin program, and a single technology stack. This model is generally not found in the U.S. given the jurisdiction's historically fragmented approach to markets regulation. Nonetheless, we believe that for traded crypto markets, the key principles for market regulation (customer and investor protection, market integrity, preventing financial crimes, and system safety and soundness) generally apply equally across spot and derivatives markets, and commodities and securities markets. That is, the regulatory label on a given product or market need not change the core goals of regulation, and the same rulesets should generally apply across all markets. For that reason, we strongly support offering a single unified regulatory program for crypto market operators.

Specifically, in jurisdictions where there is a primary derivatives-market regulator separate and distinct from a primary cash-markets regulator (such as in the U.S.), policy makers and regulators should seek to permit qualified crypto markets operators to run a single rule book, risk program, and technology stack, approved and overseen by a primary regulator (perhaps chosen by the marketplace on an opt-in basis and supported thereafter by inter-regulator cooperation and information sharing, with the possibility of the primary regulator shifting if the underlying product mix evolves in a certain way), that governs the listing and trading of both spot cash transactions in crypto assets as well as derivatives on crypto assets.

Much of this can be achieved today under existing statutory authority and with creativity and cooperation by and among market regulators. With some specific issues, however, clarity might be needed from legislation. Under the current U.S. paradigm, for example, we acknowledge that it is unlikely to be absolutely clear at any given moment, absent legislation, whether all of the crypto products listed on such a venue are definitively "within" or "without" the jurisdiction of either of the markets regulators. However, between two possible regulatory solutions under this paradigm - which are (1) that regulators can prohibit the marketplace altogether (via indecision, decree, or a combination of the two), or (2) that regulators can innovate and cooperate to ensure that key regulatory and policy goals are met in a clear and robust way while also permitting the marketplace to operate - we think the second approach offers a compelling option.

Said more explicitly, in jurisdictions where there are two mature market regulators, FTX proposes the permissibility and adoption of a reasonable and rigorous framework that would allow a crypto-markets platform operator to elect one market regulator as its primary regulator for a unified spot and derivatives trading book, subject to adherence to a cooperative framework in which the other market regulator acts a secondary regulator while maintaining appropriate visibility into the platform's operations, but not day-to-day supervisory responsibilities. (Indeed, a similar approach is used today when a market regulator from one jurisdiction "recognizes" the framework of a different jurisdiction where a primary, "home" regulator resides, and then defers to that primary regulator's regulations and rulesets so long as they are sufficiently comparable.)

We propose a functional-based approach, where the regulation and the trading venue rule books that comply with that regulation should be largely modeled after existing market regulations for securities and derivatives markets, on the basis that most jurisdictions will follow this same approach. FTX believes that there is a unique current opportunity for U.S. regulators to take a leadership position in the global crypto markets regulatory discussion, and we believe that modelling a primary regulator model on existing market regulation will foster standardization and harmonization of regulation globally, paving the way for international adoption and reciprocal jurisdictional recognition.



To underscore why we are so focused on these regulatory issues - it is because we believe that getting crypto market regulation appropriately calibrated is critical for the continued development of healthy, transparent, and well functioning global crypto markets, which we believe will deliver knock-on positive effects to the global economy as a whole. And we think our proposed approach, in addition to solving for regulatory uncertainty and fragmentation, would also reduce operational complexity by allowing matching engines for both spot and derivatives transactions to operate on the same platform with the same user interface. This in turn would reduce operational risk to the platform, and promote capital efficiency by allowing collateral in support of both order books to rest on the same platform. In the rest of this piece, we discuss in more detail various additional practical benefits of crypto market place operators being subject to unified primary regulator oversight.

## 2. Full-Stack Infrastructure Providers and Maintaining Market-Structure Neutrality

Regulation should be market-structure agnostic, provided that the core regulatory issues (identified above as customer and investor protection, market integrity, preventing financial crimes, and system safety and soundness) are addressed. Technology has enabled any capable entity to perform the various functions involved with the pre-trade, execution, and post-trade phases of the lifecycle of an asset trade or transaction in a single regulatory stack - in fact, to split up those functions, from a technology perspective and when building a market from the ground up, would require a forced and artificial deconstruction.

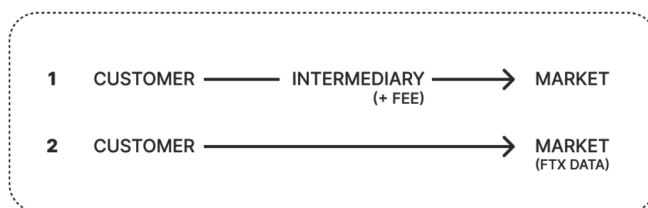
However, one of the things that prohibits an entity from taking on any or all of these functions can be the specifications of a regulation. To say it another way, much of current market structure is a creation of regulatory artifact rather than a reflection of a thoughtful and holistic approach to marketplace design, efficiency, transparency, and risk management. FTX built and continues to evolve its trading ecosystem with the latter approach in mind.

We believe that so long as the various needed functions necessary to the lifecycle of a transaction are being met, policy makers would do well to remain otherwise neutral on how a market is structured (so long as appropriate customer protections also are in place, discussed below). For one example, most market regulation today envisions an intermediated market place where an intermediary such as a broker interfaces directly with a customer (think back to calling in, or mailing in, your order to a broker that had access to the physical exchange floor). In contrast, crypto-asset platforms largely dispense with this mode in favor of a direct-membership market structure, where end investors onboard directly to the platform for trading, and not through an intermediary or broker (although service providers such as Internet and data-center providers are involved).

A non-intermediated market allows all users to get the same access to market data (consider that FTX's data is free, globally, versus much of the global trading venue industry where data fees are a material commercial component of the business), connectivity, and key features related to functionality and risk management, regardless of the sophistication of the user. The positive implications of this are potentially enormous, and are only just beginning to be seen, interestingly, around the direct-to-consumer crypto marketplace models. The



public is better served if the barrier to entry to transact competitively with global markets is an internet connection, rather than a \$100,000 (or more) data-subscription fee and a costly fee- or commission-based relationship with a broker that merely plugs you into the trading venue's technology. Non intermediated markets create a more level playing field that's often lacking in many traditional financial systems, whose market structures have created a number of challenges including real and perceived conflicts of interests between intermediaries and their customers.



Consequently, a direct membership market structure should be expressly permitted (not required, but permitted) so long as the relevant customer protections continue to be afforded, in this case by the platform provider.

### 3. Custody of Crypto Assets -- Key Functional and Disclosure Requirements

For crypto assets, the asset is safekept in a wallet, where custody can be performed by the asset owner or by a wallet holder on the customer's behalf. Where custody is performed on a customer's behalf by a platform operator or intermediary, appropriate safeguards should be disclosed in policies and procedures of the custodian. Key areas of focus and disclosure should include: wallet architecture; whether insurance is provided by the custodian; how private keys are kept secure, managed and transferred; managing risks related to insider collusion or fraud; and physical security of data centers.

Importantly, in the case of platform operators, consideration should be given to the increasingly common practice of using third-party providers for data centers (i.e., cloud-service providers) as well as custodial services. In these instances, the platform operator will not itself perform these functions but nonetheless will be held responsible by users for them, and users should be given visibility into how third parties will address the aforementioned issues. Market supervisors should require regulated platform operators to perform regular diligence on their vendors and to have sufficient business continuity and disaster-and-recovery programs in place in connection with their vendor suite.

### 4. Full-Stack Market Infrastructure Providers and the Lifecycle of a Trade -- Addressing Risk Related to Token Issuance and Asset Servicing, Orderly





## Markets and Settlement of Trades, Cross Margining and Risk Management of Positions

Again, native crypto-trading platforms integrate into a whole the system for custody, issuing tokens, settlement of trades, and risk managing positions with one technology stack. In creating or fine-tuning a regulatory framework for these platforms, policy makers should ensure that market supervisors understand this system through well developed and clear policies and procedures disclosed by the platform operator. The framework should address the following key issues related to the lifecycle of a spot or derivatives trade.

### Token Issuance and Asset Servicing

Token issuers who have access to the platform for purposes of issuing a token should be governed by disclosed policies and procedures that explain the listing standards for tokens. In some cases, existing securities laws will apply, in which case the policies and procedures should explain how such laws are complied with by the platform as it relates to issuing the security tokens.

This document does not address whether existing securities laws should be amended to account for distributed-ledger technologies and new methods of issuing securities in tokenized form. Suffice it to say here that some of the traditional requirements for central securities depositories might not be appropriate for platforms that offer these services, but others will be.

To the extent a token is not a security but has some security-like features at some point in time, and policy makers otherwise have not addressed whether such tokens should be treated as securities, a platform operator in any case should be required to disclose, or otherwise facilitate disclosure of (i.e., most material information for a token can be easily found on the Web, and a platform could direct a platform user to this information), key material information about the token issuer as part of the platform's listing standards.

Likewise, in the case of all tokens, the platform operator should develop and disclose policies and procedures for how a token issuer will interact with the platform for purposes of facilitating asset servicing, so that supervisors and platform users both can understand and assess the risks to the platform posed by token-issuance functionality. This would be especially relevant in the case of security tokens, where dividend payments and changes in ownership, for example, would impact the token and the owner of the token.

### Market Surveillance

Good public policy would require that a crypto-platform operator has policies and procedures concerning the practices and technology used to perform market surveillance of the platform's trading environments in order to curb market manipulation and promote orderly markets. This is standard policy for traditional supervised markets and should be carried over to supervised crypto markets as well.



### Settlement

With regard to settlement, our recommended policy would require the platform operator to have clear and transparent policies and procedures that explain when settlement of a transaction becomes final, and the conditions and circumstances under which the platform provider would reverse settlement due to errors, etc. By and large, regulated venues do this today in their terms of service, etc., and we think it is important they continue to do so.

One of the hallmarks of the FTX trading experience is to allow users to pair in a transaction nearly any combination of assets for purposes of settlement -- for example, a user could exchange BTC for USDC or for SOL. Sound policy would allow the platform to settle transactions by pairing the assets with any of the others listed on the platform, including stable coins or cash fiat currencies (see below for discussion of stable coins) but also other crypto assets, so long as the platform otherwise made clear how and when settlement becomes final.

Another hallmark of full stack trading experiences is access to credit to ensure and promote liquidity on the platform. Public policy should allow platform operators to facilitate the provisioning of credit to platform users so long as this service and function are well documented and explained to the supervisor and market participants on the platform. This is a clear example of where services previously provided by intermediaries can be solved by the trading venue itself.

Because crypto platforms have led the way in exchange innovation, public policy should anticipate that crypto firms will become more and more integrated with traditional payment rails and similar systems. Policy makers should consider whether and when to expressly delineate under what circumstances these platforms could access government-sponsored payment systems created for the settlement of securities, for example. Other policy initiatives will address whether and under what circumstances securities, including government-issued securities, can be reflected in tokenized form, but if such tokenization is permitted, an otherwise properly supervised platform operator should be allowed to access existing payment systems to facilitate settlement of such securities, even if interaction with that system is not on a real-time basis. Such a policy is recommended because otherwise access to this payment system would involve an intermediary, introducing various types of counterparty, operational, and credit risks to the platform that would not be in the interests of the participants on the platform (which itself would be highly supervised under our proposed framework).

### Cross Margining and Risk Management

The regulatory framework for crypto should clearly allow for the cross-margining of both derivatives and spot positions on the platform with any and all assets permitted in the customer wallet and account, subject to appropriate risk weights and haircuts, as applicable. For the settling and risk management of crypto asset transactions on a crypto platform, the settlement and risk systems are automated and the relevant software interacts with the wallet and account that contain customer assets.



A well-designed regulatory framework would allow a single platform to perform all risk functions, and require the appropriate standards on those functions. For example, in addition to the custody requirements mentioned above, the settlement and risk-management systems should be appropriately explained to the market supervisor through the platform's rule book, and the regulator should be made aware of major changes to the system.

Sound policy also should ensure that risk-management systems used by a platform operator are configured to prevent customer accounts from going net negative across positions. A risk-management system that effectively performs this function with this goal, including through liquidations of customer positions, should not be allowed to do so in an arbitrary manner. Instead, the rules, risk parameters and business logic that trigger any actions taken by the customer platform as it relates to customer assets should be clearly disclosed and appropriately explained to the supervisor as well as the platform users in the platform's rule book, which should be approved by the primary market supervisor.

In permissioning the use of a risk-management system for clearance and settlement, policy makers should take care to remain technology and methodology neutral, so long as the platform operator can effectively demonstrate its responsibilities can be adequately met.

## 5. Trading Platform Providers -- Ensuring Regulatory and Market Reporting

Regulatory reporting of transactional activity should be required in order to provide market supervisors appropriate visibility into the trading platform, and to better allow supervisors to police for market manipulation and other unfair trade practices.

Policy makers should consider carefully how best to provide this data -- a requirement should be considered that would mandate that trading platforms create an API for the beneficial use of market supervisors to directly ingest data from the platform itself, rather than require a separate entity to undertake reporting responsibilities.

With respect to market reporting, a hallmark of the crypto-asset industry (as previewed above) is the provisioning of market data to users free of charge. Policy makers should carefully consider the standards under which platforms are permitted to charge users a fee for the provisioning or use of market data related to trading that takes place on said platform along with the implications of that activity for market access, transparency, and fairness policy initiatives. The right standards could incentivize the platform operators to focus on risk management, user experience, and product innovation for competitive advantage rather than fees based on trading activity brought to the platform by the user.

## 6. Ensuring Customer Protections

As suggested, crypto-asset platforms have ushered in an evolution of market structure in favor of a non-intermediated model, where entities separate from the platform are not needed in order to access the platform and the trading environment.



In this market structure, however, key customer protections should remain in place. From a policy perspective, one approach could be a very general and non-prescriptive one that requires that platform providers or intermediaries develop and disclose policies and procedures to ensure the best interests of all customers are protected at all times, and leave it to the entity's discretion. This would allow investors to choose a platform provider based on the robustness of those policies and procedures.

If a more detailed or prescriptive approach is favored, such an approach should consider whether specific requirements related to practices impacting platform customers such as front-running trading activity, market manipulation, general risk disclosures related to the assets and instruments listed for trading, appropriate and non-misleading communications with customers, and avoidance of entering into conflicts of interest with customers. Again, appropriate customer-protection requirements can be borrowed from the traditional finance space -- the key is to ensure that the platform provider can provide them rather than insisting that an intermediary perform the function. FTX believes that market place operators are properly positioned (perhaps best positioned) to deliver these types of disclosures and materials to users in a way that can be built directly into the trading venue user interface/user experience.

## 7. Ensuring Financial Responsibilities are Met

As with traditional markets, ensuring that customer assets are protected to the maximum extent possible should be a principle for regulating crypto-asset markets.

Again, the prominence of the wallet as a tool for storing assets is key to the crypto-asset space, and apart from requirements to ensure that the wallet itself is safely maintained and secured, policy makers should ensure that customers have access to real-time information about their account levels at all times (and redundant access paths, in the event of disruptions on one access path), particularly if and when a platform operator commingles customers' assets in an omnibus manner. If a platform provider elects to provide this infrastructure, operational complexity can be substantially reduced while customer assets are meaningfully protected.

In the case of a platform operator or an intermediary, policy makers should consider whether to adopt a minimum capital requirement (or other financial wherewithal condition) to ensure there are adequate resources to address operational and other types of risks that could jeopardize customer assets in custody. For platform operators, this could take the form of ensuring operational resiliency but in addition also ensuring adequate resources to address defaults and liquidations performed by a risk-management system (see above discussion on platform risk management). The goal should be to ensure platform operators need not depend on off-platform resources for settlement and risk management.

With respect to margining customer accounts, there should be a policy that expressly allows portfolio margining of all customer positions in all assets on the platform. This risk-management approach promotes capital efficiency and reduces operational risks to the platform or intermediary managing the customer account.



## 8. Ensuring Stable Coins Used on Platform Meet Appropriate Standards

A platform operator that permits the use of stable coins for settlement of transactions should be required to explain the standards the platform operator uses in deciding which stable coins it permits for such purposes. FTX has articulated and explained its policy recommendations for stable coin issuers (see <https://blog.ftx.com/policy/context-stablecoin-regulation/>).

The reason such a policy is recommended is that stable coins are exposed to reserve-volatility as well as redemption risk, and platform users should be entitled to some understanding of whether and to what extent those risks could impact their activity on the platform, including their impact on settlement of transactions (which might not be direct, but nonetheless indirect).

For example, a stable coin backed by risky and volatile assets and not transparently backed by an adequate amount of such assets with appropriate haircuts, could become exposed to price risk. This price risk could interfere with settlement finality on the platform, insofar as the value of the stable coin delivered as payment for the crypto assets in a transaction on the platform are suddenly not equal. Ensuring that stable coins allowed for use on the platform meet adequate standards set by the platform operator (or by public policy makers if applicable) mitigates this risk, and should better protect the users of the platform.

## 9. Full-Stack Infrastructure Providers -- Ensuring Appropriate Cybersecurity Safeguards are Kept

Market regulators in recent years have developed comprehensive cybersecurity requirements for market infrastructure providers. Policy makers should either apply the relevant safeguards already in place for exchanges, or otherwise require that the platform provider develop and disclose to market participants its policies and procedures regarding cybersecurity safeguards. In the case of platform operators already licensed by a market regulator, system-safeguard requirements already will be in place. In the case of platform operators not already licensed, one consideration for policy makers is to adopt a policy that helps facilitate standardization of these safeguards domestically as well as globally.

## 10. Full-Stack Infrastructure Providers -- Ensuring Anti-Money Laundering and Know Your Customer Compliance

Platform operators must perform appropriate KYC as part of user onboarding and must conduct regular anti-money laundering surveillance of user activity (both on the trading venue and via the scrutiny of related on-chain transfers in and withdrawals out). Many platforms, including FTX, use a combination of vendors and internal compliance personnel to assist with these functions today. However accomplished, it is critical that crypto market place regulation continues to require significant focus on the performance of KYC and AML



obligations. To ensure this, market place operators should be performing periodic self-audits and should also be subject to regular review and exam by their primary regulator on these requirements.



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STATEMENT OF

BRIAN P. BROOKS

CHIEF EXECUTIVE OFFICER  
BITFURY GROUP

FORMER ACTING COMPTROLLER OF THE CURRENCY

before the

COMMITTEE ON FINANCIAL SERVICES

UNITED STATES HOUSE OF REPRESENTATIVES

December 8, 2021

Chairwoman Waters, Ranking Member McHenry, and members of the committee, thank you for inviting me here today to discuss digital assets and the future of finance. This topic is an important one for anyone who cares about American competitiveness in the financial services sector, a financial ecosystem that empowers users over bank CEOs and other powerful central decisionmakers, and the next iteration of the Internet in which individuals are able not only to read information and write content but also own a piece of the underlying network protocols themselves.

I am CEO of Bitfury Group, a company that provides a suite of infrastructure products and services that support various aspects of the cryptocurrency ecosystem – an ecosystem many of us refer to as “Web 3” since cryptoassets generally represent either the rewards paid to participants for maintaining a particular decentralized network or an app that operates on such a network. Since 2011, Bitfury has designed and produced eight successive generations of ASIC chips and related equipment for conducting transaction validation activity on the Bitcoin blockchain – a process known informally as bitcoin mining. Along the way, Bitfury developed a series of adjacent businesses to make cryptoassets safe, sustainable, and useful. Our various businesses include LiquidStack, one of the world’s largest immersion cooling companies focusing on



reducing the energy used by bitcoin mining and other high performance data centers by as much as 90 percent; Crystal, a blockchain analytics company that provides transaction monitoring and related compliance tools to more than 150 law enforcement agencies, crypto exchanges, and financial services companies in Europe, Asia, and North America; Axelera, a producer of cutting-edge artificial intelligence ASIC chips; and others.

I believe the committee's topic requires an understanding of three important threshold issues.

*First*, a national policy agenda that takes crypto compliance seriously should assess whether it makes more sense to continue to keep crypto activities largely out of the regulated financial system, or to bring them inside the system precisely so they can be supervised and operated with appropriate levels of risk management. For example, is it consistent to take the position that only banks should be allowed to issue stablecoins, but then fail to grant bank charters to the largest issuers of stablecoins? That would, after all, bring stablecoin activity within the ambit of national bank supervision. Or does it make sense to bring enforcement actions challenging certain cryptoassets as unregistered securities, but then fail to allow those assets to be registered and trade on a national securities exchange or alternative trading system that is supervised by FINRA and the SEC?

*Second*, Americans deserve to know what our national policy is for a decentralized Web 3 powered by cryptoassets. Treating “crypto” as a single unitary activity whose main feature is a need for financial regulation would be like treating the original Internet in the 1990s as primarily a tax policy issue. We did not do that then. What we had in the 1990s with respect to Web 1 that we lack today with respect to crypto is a comprehensive national policy predicated first on the notion of do no harm to the emerging Internet. Today, instead of focusing only on micro questions such as whether a particular token is a security or whether a particular exchange-traded fund may be offered, it would be worthwhile for the elected branches of government to grapple with the bigger questions: Do we believe a user-controlled decentralized Internet is better than an Internet largely controlled by five big companies? Do we believe that the financial services sector is any less subject to network effects than information and commerce were in earlier iterations of the Internet? Do we trust big banks more, or open-source software more, as a tool for maintaining ledgers of account and allocating credit and capital? Can we recognize the difference between crypto projects failing for lack of demand just as many publicly traded companies do, and individual crypto projects being scams unworthy of being presented to the fair but sometimes harsh judgment of markets?

*Third*, crypto policy should take into account not only any new risks introduced into the system, but also the risks in the present system that are being

solved by decentralization. Having issued almost \$1 billion in civil money penalties against banks and bank executives during my tenure leading the Office of the Comptroller of the Currency, it is clear to me that the present financial system has plenty of examples of risks and costs and various forms of unsafe and unsound conduct. Shouldn't we take seriously the possibility that algorithms and open-source software that take a measure of human error, greed, negligence, fraud, and bias out of the system might make the system better on net even if there are some new risks that need to be examined and understood?

Apart from those three overarching considerations, I would like to make two points specific to my current perspective on the cryptoeconomy.

One relates to the effect of U.S. crypto regulation on American competitiveness in both the technology and capital markets sectors. There are a number of examples of U.S. regulatory decisions that have driven legitimate activity offshore, in ways that harm U.S. investors, innovators, and workers. Can anyone explain, for example, why Fidelity Investments, one of America's best-known investment advisors, had to go to Canada to offer a bitcoin ETF? Or why physically settled crypto ETFs are safe and legal in Germany, Brazil, and Singapore, but not in the United States? Can anyone explain why crypto exchanges, stablecoin issuers and others can receive e-money licenses to access the payments system in the United Kingdom, but in the United States that privilege is

reserved exclusively for chartered banks, with the result that the GDP cost of the payments system in the U.S. is roughly four times the cost in the U.K.? For that matter, why is there no clear path for crypto-focused insured depositories chartered in the State of Wyoming to access Federal Reserve payment services like all other insured depositories? There is a reason why crypto talent is no longer concentrated in Silicon Valley, the birthplace of the original commercial Internet. Sure, some talent has merely moved from Silicon Valley to Miami – but a surprising number of talented founders have left for Portugal, Dubai, Abu Dhabi, Singapore, and other jurisdictions that are not at all unregulated but that have a more positive posture toward innovation and growth.

My other specific point relates to the debate over the environmental sustainability of “proof of work” assets – bitcoin and other assets that rely on compute power to solve complex math puzzles to validate transactions on their networks. On one level the headline allegations about bitcoin mining – that somehow bitcoin mining consumes more electricity than, say, the entire nation of Argentina – are just wrong. The best data shows that bitcoin’s total global energy usage of about 188 terawatts is somewhat less than the total annual energy usage of Christmas lights (around 201 terawatts). It is statistically trivial compared to the energy usage of countries like South Korea (3,336 terawatts), Brazil (3,342

terawatts), or Germany (3,364 terawatts), let alone the United States (24,386 terawatts).

But what is truly striking is how small Bitcoin's energy usage is compared to the total energy *wasted* each year in the United States alone – 188 terawatts for Bitcoin versus 6,800 terawatts lost or wasted in the U.S. And that is the compelling pro-Bitcoin case: that Bitcoin has the potential to capture some of that lost energy production (much of which is from renewable energy that cannot be stored due to battery technology limitations), create financial value, and in the process take an unprofitable and government subsidized solar and wind power industry and make it more profitable – thus inducing the development of more of it. This is in fact what the industry is doing, with the result that the sustainable power mix of bitcoin mining – 57.7 percent – is also twice as good as the sustainable power mix of the U.S. energy mix as a whole (31.4 percent). Bitcoin's ability to use excess energy capacity, create market incentives for more sustainable energy development, and create more than \$1 trillion of financial value in the process is surely a relevant consideration as the committee considers what a comprehensive national policy toward cryptoassets should look like.

Thank you for the opportunity to speak with you today and I look forward to the committee members' questions.



**HEARING BEFORE THE UNITED STATES HOUSE OF REPRESENTATIVES  
COMMITTEE ON FINANCIAL SERVICES**

**"Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of  
Financial Innovation in the United States"**

Testimony of Charles Cascarilla, CEO and Co-Founder of Paxos  
December 8, 2021

**Introduction**

Chairwoman Waters, Ranking Member McHenry and members of the Committee, thank you for this opportunity to appear before you today. My name is Charles Cascarilla, and I am the CEO and Co-Founder of Paxos. During my 22-year career in financial services as an analyst, investor and entrepreneur, I have witnessed the shortcomings and systemic risks of our financial market infrastructure firsthand -- and I've seen how digital assets, and the blockchain technologies they're based on, could solve many of those problems.

Paxos is a regulated financial institution and a blockchain infrastructure platform that offers a range of products primarily to institutional customers, including Bank of America, PayPal, MasterCard, Interactive Brokers, Credit Suisse, Mercado Libre, Societe Generale and many others.<sup>1</sup> In particular, we help large financial institutions provide their own clients with reliable, regulated access to digital assets.<sup>2</sup>

Paxos also offers a uniquely structured and regulated stablecoin, the Pax Dollar (USDP).<sup>3</sup> A true stablecoin is a type of digital token that is backed only by the assets held in reserve -- in this case, the U.S. dollar.<sup>4</sup> Because every one of our stablecoins is fully backed by one dollar, it is not volatile like other types of digital assets. However, it retains the same properties that have made this asset class so appealing: namely, it can be traded or transferred nearly instantly -- including overnight and on weekends and holidays -- with an extremely high degree of programmability, security and traceability. It is a "digital dollar."

Lastly, we recently completed a successful pilot program to offer same day securities settlement.<sup>5</sup> Earlier this year, the T+2 settlement cycle was thrust into the spotlight when Securities and Exchange Commission Chair Gensler testified before this Committee that "time equals risk." We at Paxos agree. The SEC is working to shorten the settlement cycle, and we're working to make that possible.

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<sup>1</sup> <https://paxos.com/2021/09/09/how-paxos-powers-regulated-settlement-for-mastcards-new-payments-pilot-now-live-and-open-for-business/>;  
<https://paxos.com/2021/09/13/interactive-brokers-group-introduces-cryptocurrency-trading-through-paxos/>;  
<https://paxos.com/2020/02/20/paxos-settlement-service-begins-settling-u-s-securities-trades-for-credit-suisse-and-institut>;  
<https://paxos.com/2021/12/02/mercadolibre-is-creating-the-biggest-crypto-market-in-latin-america-paxos-powers-the-experience/>;  
<https://paxos.com/2020/09/09/societe-generale-begins-settling-u-s-securities-trades-through-paxos-settlement-service/>

<sup>2</sup> <https://paxos.com/crypto-brokerage/>

<sup>3</sup> <https://paxos.com/usdp/>

<sup>4</sup> <https://insights.paxos.com/hubfs/USDP-whitepaper.pdf>

<sup>5</sup> <https://www.forbes.com/sites/ninabambysheva/2021/04/06/same-day-stock-settlements-are-here-using-paxos-blockchain-credit-suisse-and-nomura-institut-hit-t-zero/?sh=8f70af838029>; <https://www.sec.gov/divisions/marketreg/mr-noaction/2019/paxos-trust-company-102819-17a.pdf>

As you are well aware, there is an intense policymaking debate over how, or even whether, to regulate digital assets.

So let me be blunt. Regulation should establish a level playing field and safeguard consumers -- while still encouraging the innovation that helps ordinary people, especially those disadvantaged by the status quo. In fact, Paxos became the first regulated digital asset financial institution in the country when it was approved as a trust company by the New York State Department of Financial Services in 2015.<sup>6</sup>

With the right policy approach, digital assets and their related blockchain technologies can create a more efficient, secure and innovative financial system -- and by extension, a more inclusive and equitable global economy.

### **Our Current Financial System is Inadequate**

The U.S. financial system is exceedingly slow. This is in part by accident and design. Virtually every other aspect of life has sped up. Computers make trading decisions in nanoseconds and yet moving the money can take days. It can take five days to transfer funds internationally.<sup>7</sup>

At any given time, there are trillions of dollars' worth of capital held up in transactions that have not yet settled.<sup>8</sup> Remittance recipients and other payees don't have access to their funds.<sup>9</sup> Money that could help others or be productively deployed is unnecessarily trapped in limbo. Whole industries have developed to take advantage of these delays, often to the detriment of those who can least afford it. How many overdraft fees could have been avoided if people received their money immediately after it was sent?

Our financial system has failed many groups, like minority families who have not been able to obtain mortgages and build generational wealth or have otherwise suffered from discrimination that prevented them from receiving loans they were qualified to receive.<sup>10</sup>

While other sectors speed into the future, the financial industry has been slow to adapt to changing technologies and shifts in consumer demand -- and remains vulnerable to some of the same dangers that caused the 2008 financial crisis. Simply put, our financial system is not ready to meet the needs of a digital-first society.

The global financial system suffers from unnecessary fragility and systemic structural problems that threaten major financial institutions and consumers alike. And it also blocks tens of millions of low- and middle-income Americans -- and billions of people worldwide -- from full participation and equitable inclusion.

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<sup>6</sup> [https://www.dfs.ny.gov/reports\\_and\\_publications/press\\_releases/pr1505071](https://www.dfs.ny.gov/reports_and_publications/press_releases/pr1505071)

<sup>7</sup> <https://www.inaa.org/how-long-does-a-wire-transfer-take/>

<sup>8</sup> <https://www.banking.senate.gov/imo/media/doc/Cascarilla%20Testimony%206-30-201.pdf>

<sup>9</sup> <https://www.pymnts.com/news/international/2021/remittances-remain-a-huge-business-nsp-to-benefit-by-offering-blockchain-compatibility/>

<sup>10</sup> <https://lgbt-token.org/banks-lgbt-same-sex-mortgage-housing/>



In the existing system, a person needs a bank account to get paid, safely store money, establish credit, earn interest and borrow. Yet according to the Federal Reserve, 18% of Americans are unbanked or underbanked.<sup>11</sup> That rate is much higher among historically marginalized groups. For example, 40% of Black adults and 50% of adults without a high school degree are unbanked or underbanked.<sup>12</sup>

Globally, about 1.7 billion adults lack a bank account.<sup>13</sup> More than half are women.<sup>14</sup>

The existing financial system is also expensive for users, with the burden falling disproportionately on those who can least afford it. In 2020, Americans spent \$303 billion on credit card fees, subprime auto loan interest, money order fees, overdraft fees and other similar charges associated with everyday financial services primarily used by vulnerable households, according to a report from the Financial Health Network.<sup>15</sup> Among people who are unbanked, nearly half said they didn't have enough money to meet minimum balance requirements, according to an FDIC study.<sup>16</sup>

Perversely, our banking system is most expensive for the lowest-income consumers.

### **With Blockchain, We Can Replatform the Financial System**

There is another path forward. Digital assets, and the blockchains they're built on, offer a better alternative.

Blockchains are distributed electronic databases for securely recording transactions. This is an oversimplification, but think of them almost like an Excel spreadsheet that anyone can join and can be viewed by everyone simultaneously. Each transaction -- whether it's a bank transferring digital assets to another bank, or a person using digital assets to purchase a cup of coffee<sup>17</sup> -- is documented in a "cell" of the spreadsheet through a series of complex math operations. Once a transaction is complete and a "cell" is locked, it can't be edited anymore. There's a clear, irreversible public record of the transaction.

Most importantly, these transactions don't need an intermediary -- like a clearing house or payment processor.

Blockchain technology will revolutionize the global financial system.

First, it is vastly more accessible to the unbanked, whether here in America or in developing countries. A person with a phone and an internet connection but no bank account can download a

<sup>11</sup> <https://www.federalreserve.gov/publications/2021-economic-well-being-of-us-households-in-2020-banking-and-credit.htm>

<sup>12</sup> <https://www.federalreserve.gov/publications/2021-economic-well-being-of-us-households-in-2020-banking-and-credit.htm>

<sup>13</sup> [https://globalfindex.worldbank.org/sites/globalfindex/files/chapters/2017%20Findex%20full%20report\\_chapter2.pdf](https://globalfindex.worldbank.org/sites/globalfindex/files/chapters/2017%20Findex%20full%20report_chapter2.pdf)

<sup>14</sup> <https://www.weforum.org/agenda/2021/01/women-banking-digital-divide/>

<sup>15</sup> <https://finhealthnetwork.org/research/finhealth-spend-report-2021/>

<sup>16</sup> <https://www.fdic.gov/analysis/household-survey/2019execsum.pdf>

<sup>17</sup> <https://www.foodandwine.com/news/starbucks-bitcoin-frequent-flyer-miles-payment-gift-cards>

digital asset wallet and use that to send and receive assets. Of the 1.7 billion unbanked adults around the world, the vast majority -- 1.1 billion -- own a mobile phone.<sup>18</sup>

Second, trading or transferring digital assets is instantaneous and available at any time. People can send or receive digital assets 24/7/365 -- there's no waiting around for wire transfers or money orders to arrive, or for banks and stock exchanges to open for business. Imagine how dramatically less productive our society would be if we could only email on weekdays between 9am and 5pm.

Third, transferring digital assets is often very inexpensive. In these early days, transaction fees can vary widely. However, they are often much less than the fees charged by conventional intermediaries, in some cases as little as a penny per transfer. This is partly because digital assets can move directly from user to user, rather than passing through an intermediary. And as more and more people and institutions embrace digital assets, transaction costs will keep dropping thanks to improving technology and network effects.<sup>19</sup>

Fourth, digital assets can help restore trust in financial services. In the FDIC study of unbanked Americans, 36% said they didn't trust banks.<sup>20</sup> Internationally, reports suggest that people in countries with less stable national currencies turn to digital assets at higher rates, seeing them as safer stores of value.<sup>21</sup>

Fifth, digital assets and blockchain platforms can reduce bias in finance. At its heart, blockchain is just a math equation -- it is totally agnostic to a user's identity. There's no collection of data on race, gender or proxies like geographic location. And no reliance on traditional credit scores. Instead, we have the opportunity to create platforms that strictly look at a user's assets and historical usage.<sup>22</sup>

This inherent neutrality appeals to groups that view their governments and financial systems with skepticism -- often with good cause. Digital assets are already more popular among marginalized communities. A Harris Poll conducted in June and July showed that 17% of Hispanic Americans and 23% of Black Americans said they owned digital currencies, compared to only 11% of White Americans. While only 13% of the general public own these assets, a quarter of LGBTQ people do.<sup>23</sup>

Sixth, in a world of increased cyber-security risks, the historical reliance on centralized ledgers creates fragility due to reliance on single points of failure.<sup>24</sup> The very nature of distributed ledgers increases redundancies, improves resiliency and largely eliminates the risk of systemically significant cyber security incidents.

<sup>18</sup> <http://www.brinknews.com/bridging-the-digital-divide-to-widen-financial-services-in-central-asia/>

<sup>19</sup> <https://www.federalreserve.gov/newsevents/speech/waller20211117a.htm>

<sup>20</sup> <https://www.fdic.gov/analysis/household-survey/2019execsum.pdf>

<sup>21</sup> <https://www.weforum.org/agenda/2021/02/how-common-is-cryptocurrency>

<sup>22</sup> <https://www.afr.com/technology/bitcoin-s-growing-roots-in-unstable-economies-20210915-p58rxn>

<sup>23</sup> <https://blog.seagate.com/human/potential-effects-blockchain-credite-reporting-industry/>

<sup>24</sup> <https://finance.yahoo.com/news/black-latino-lgbtq-investors-see-100412051.html>

<sup>25</sup> <https://www.reuters.com/article/us-usa-fed-fedwire/fedwire-resumes-operations-after-hours-long-disruption-idUSKBN2A0211>

### **We Can Avoid More Financial Crises**

Blockchain technologies have the potential to prevent or mitigate the kind of financial crises experienced over the last two decades. Consider how, during the Great Recession and its aftermath, mortgage foreclosures piled up, and a lack of documentation became a major problem.<sup>25</sup> Lenders and brokers failed to make sure fees and taxes were paid, failed to record deeds and failed to properly assign mortgage notes. This mess often caused lenders to wrongfully foreclose on consumers, kicking families out of their homes.<sup>26</sup>

Blockchain's ability to permanently and publicly record and track transactions would significantly reduce such failures.

Or consider how, during the buying frenzy for Gamestop shares earlier this year, the clearinghouse that settles stock trades forced retail brokers such as Robinhood to put up billions of additional dollars in margin overnight.<sup>27</sup> Robinhood, in turn, had to restrict trading in Gamestop and other "meme stocks" while it raised emergency capital -- a move that sparked outrage and created the perception that a cabal of financiers were colluding to harm retail investors.<sup>28</sup>

A blockchain-based financial architecture could settle trades on the same day, mitigate counterparty risk and eliminate the costly central clearinghouse.<sup>29</sup> This would enable market participants and regulators to monitor and correct settlement and margin shortfalls in real time.<sup>30</sup> We agree that shortening the trade settlement cycle should be a high priority for the SEC, and we are working aggressively to make that possible.

### **The Need to Update Rules and Regulatory Frameworks**

At Paxos, one of our governing principles is that regulation is essential to maximize the potential of blockchain technology. This is why we sought oversight by a primary prudential regulator.

Just as we are regulated as a company, so are our products. There are only three regulated, dollar-backed stablecoins in the world -- and two of them are issued by Paxos.<sup>31</sup> These regulated stablecoins are fundamentally, economically and legally different from other stablecoin products in the marketplace. New York State regulation requires that each stablecoin token correspond to an existing U.S. dollar held in custody by Paxos. Our stablecoin reserves can only be held in the safest and most liquid forms -- cash and cash equivalents like short-term U.S. Treasury bills -- which protects stablecoin holders from liquidity and credit risks.<sup>32</sup>

<sup>25</sup> <https://thif.org/2012/12/21/mortgage-assignments-as-evidence-of-fraud/>

<sup>26</sup> <https://www.chicagofed.org/publications/chicago-fed-letter/2016/370>

<sup>27</sup> <https://paxos.com/2021/02/05/what-lehman-brothers-gamestop-and-the-next-financial-crisis-have-in-common/>

<sup>28</sup> <https://www.cnbc.com/2021/01/28/robinhood-interactive-brokers-restrict-trading-in-gamestop-s.html>

<sup>29</sup> <https://paxos.com/2021/02/05/what-lehman-brothers-gamestop-and-the-next-financial-crisis-have-in-common/>

<sup>30</sup> <https://www.cnbc.com/2021/01/30/gamestop-reddit-and-robinhood-a-full-recap-of-the-historic-retail-trading-mania-on-wall-street.html>

<sup>31</sup> [https://www.dfs.ny.gov/reports\\_and\\_publications/press\\_releases/pr1809101](https://www.dfs.ny.gov/reports_and_publications/press_releases/pr1809101)

<sup>32</sup> <https://paxos.com/2021/07/21/a-regulated-stablecoin-means-having-a-regulator/>

We pursued oversight because we wanted to build trust within a clearly established regulatory framework that provides certainty as we structured our operations and developed new products. We also knew our customers would find the reassurance of this oversight valuable, especially since some of the most important financial infrastructure companies in the US are New York trusts.<sup>33</sup>

As a regulated trust company, we adhere to the same anti-money laundering and "know your customer" rules as banks. We are subject to regular examinations of our operations, procedures, capital levels and books and records. We are required to keep high capital reserves and to custody client assets bankruptcy remote and fully segregated from the corporate treasury that funds our business and operations.

Unfortunately, the uncertain state of digital asset regulation is hampering the industry's dynamism. The solution is not to shoehorn digital asset operations into a regulatory system designed for earlier generations of financial assets. Rather, we have an opportunity to learn from past failures and build something more efficient and effective.

For instance, if policymakers gave non-bank digital asset platforms direct access to the Federal Reserve's services<sup>34</sup> -- just as the Bank of England already grants access to non-bank payment service providers<sup>35</sup> -- it would enable these platforms to offer a wider array of products to consumers, without the cost and delay of depending on financial intermediaries.

We believe a primary prudential state or federal regulator should regulate both digital asset companies and their products. Anti-money laundering and know-your-customer rules need to be enforced, and regulation must ensure that customer assets are held fully segregated from the company's balance sheets. For stablecoins, independent auditors should regularly attest that assets backing the tokens are always held in reserve,<sup>36</sup> and those reserves should be held bankruptcy-remote and therefore not available to the issuer's general creditors.

By creating a clear set of standards for companies, the government can create the conditions that drive innovation -- which not only results in greater convenience and better products for consumers, but also helps ensure continued American primacy as the global reserve currency and center of global capital markets. The biggest financial institutions in the world, including JP Morgan, Bank of America and Credit Suisse, as well as some governments, like the European Union and China, are embracing blockchain technology.<sup>37</sup> A failure to embrace blockchain wouldn't just mean lost economic opportunities. It could actually threaten America's financial preeminence and economic security.<sup>38</sup>

<sup>33</sup> <https://www.dtc.com/about/businesses-and-subsidiaries/dtc>; [https://www.theice.com/publicdocs/clar\\_us/ICE\\_Trust\\_Overview.pdf](https://www.theice.com/publicdocs/clar_us/ICE_Trust_Overview.pdf)

<sup>34</sup> <https://libertystreeteconomics.newyorkfed.org/2021/12/why-central-bank-digital-currencies/>

<sup>35</sup> <https://www.bankofengland.co.uk/-/media/boe/files/markets/other-market-operations/access-for-nonbank-payment-service-providers>

<sup>36</sup> <https://paxos.com/attestations/>

<sup>37</sup> <https://www.eib.org/en/press/all/2021-141-european-investment-bank-eib-issues-its-first-ever-digital-bond-on-a-public-blockchain>; <https://www.wsj.com/articles/china-creates-its-own-digital-currency-a-first-for-major-economy-11617634118>; <https://www.jpmorgan.com/solutions/cib/news/digital-coin-payments>; <https://www.bloomberg.com/news/articles/2021-05-17/bank-of-america-joins-paxos-blockchain-stock-settlement-network?srsl=1MCzuOUc>; <https://www.credit-suisse.com/about-us/news/en/articles/media-releases/paxos-settlement-service-202002.html>

<sup>38</sup> <https://www.federalreserve.gov/newsevents/speech/brainard20210524a.htm>

If the federal government stifles the adoption of digital assets, then issuers, talent and capital will flee to more welcoming jurisdictions. The advantages of well-regulated stablecoins, in particular, are so great that it's only a matter of time before they become the primary means to transfer large amounts of funds between consumers, companies, financial institutions and even central banks. Without reputable, U.S.-dollar backed stablecoins or a central bank digital currency and the infrastructure to support them, it will become less viable for other countries and multinational companies to continue using the U.S. dollar as the global reserve currency.

**Final Remarks**

For our industry to succeed and benefit *all* Americans, we need clear standards and the government's support to create a new, more secure, more competitive financial system. The benefits of getting this right are enormous -- but so are the consequences of getting it wrong.

To the Committee, thank you for the opportunity to provide my testimony. I look forward to your questions.

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**Testimony of Denelle Dixon, CEO and Executive Director, Stellar Development Foundation**

**Before the United States House of Representatives  
 Committee on Financial Services**

**Regarding “Digital Assets and the Future of Finance: Understanding the Challenges and  
 Benefits of Financial Innovation in the United States”**

*December 8, 2021  
 Washington, D.C.*

Good morning Chairwoman Waters, Ranking Member McHenry, and members of the Committee.

Thank you for inviting me to testify today. I’m honored to be here to speak with you about digital assets and the future of finance and to share the meaningful ways that blockchain technology is creating new avenues for financial inclusion and greater access to financial services.

My name is Denelle Dixon, and I am the CEO and Executive Director of the Stellar Development Foundation. I took on this role and joined the blockchain industry about two and a half years ago. Prior to that I was the Chief Operating Officer of Mozilla - the maker of the Firefox browser where I spent my time focusing on the intersection of business, technology and public policy, and more specifically the importance of privacy, net neutrality, encryption and the need for openness and interoperability in technology.

It’s those same policy priorities that actually drew me to blockchain — an industry that I believe can learn from the past mistakes made in other areas of web development, an industry that can help us move beyond walled gardens and closed innovation to open, interoperable technology that inspires developers to build solutions to real-world problems. When it comes to something as important as financial access, we are compelled to remove barriers and friction and create simplicity and interoperability.

I’d like to use my time with you today to cover three topics: first, to share more about the Stellar Development Foundation and the Stellar network to give you an understanding of what we do and our role in the blockchain industry; second, to share some of the use cases that are being built on the Stellar network today that rely on stablecoins and why these financial innovations are important; and third, to comment on the recommendations from the President’s Working Group on Financial Markets’ (“PWG”) Report on Stablecoins and its implications for our ecosystem.

**The Stellar Network and the Stellar Development Foundation**

Our organization, the Stellar Development Foundation or SDF, is a non-stock, non-profit corporation with no shareholders, no owners, and no profit motive. We are not a charity. We generate revenue and we pay state and federal taxes, but our structure requires us to use our assets to support only our mission of creating equitable access to the global financial system and to do so using the Stellar network. To achieve this mission, we focus our work on a few top priorities: we shepherd the code base for the Stellar network, participate in the ecosystem surrounding Stellar, support the growth of the ecosystem and the use cases built on top of Stellar, in addition to supporting global public policy and education around Stellar and blockchain.

What is Stellar? Stellar is an open, permissionless, decentralized ledger — or blockchain network — that is optimized for payments. There is no single entity, including SDF, that controls the codebase of the network or its growth. You don't need permission to use the technology; just like the underpinnings of the Internet, it is open and ready for use.

Importantly, especially in the context of this hearing, Stellar was designed for asset issuance, making it possible to create, send and trade digital assets backed by nearly any form of value — and also was designed with compliance tools built in to help those asset issuers meet their own compliance obligations. The network interoperates with the traditional financial system to leverage the benefits of blockchain technology to enhance, not supplant existing financial infrastructure. The Stellar network has been operating for over six years, and today, there are an average of 6.5 million daily operations, surpassing more than a billion this year alone, with over 6 million accounts.

#### **Stellar Use Cases: A Growing Stablecoin Ecosystem**

The Stellar platform pioneered tokenization, designed for fiat-backed asset issuance before stablecoin was even a word — and as such, over the last number of years, an ecosystem of businesses and users have built use cases around Stellar-based stablecoins, due to their incredible utility to solve many of the problems we see in today's payment landscape.

Especially the current cross-border payment system, which is slow, costly, and fragmented<sup>1</sup> — a problem that has been acknowledged not just by blockchain networks like ours but across the international spectrum from the G20 to the World Bank — and hurts businesses and individuals alike.

We aim to improve the existing cross-border payment system for the businesses and individuals that utilize such services, for example, the 800 million people<sup>2</sup> — about one in nine globally — who are supported by funds sent home by migrant workers. Or the rapidly growing number of gig workers who struggle to expand their work opportunities across borders. Or the small businesses upon which our global economies rely who face barriers to accessing even basic financial tools. Stablecoins are crucial for these use cases because they do not suffer

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<sup>1</sup> Bank of International Settlements, Committee on Payments and Market Infrastructures Report: [Enhancing cross-border payments: building blocks of a global roadmap](#), July 2020

<sup>2</sup> United Nations, [Remittances matter: 8 facts you don't know about the money migrants send back home](#), June 2019

from the same volatility that cryptocurrencies do - meaning a sender knows when she sends a \$1 fiat-backed asset, the recipient will receive a \$1 fiat-backed asset.

A lot of times we focus on the promise of blockchain. I would like to shift that narrative and use my time with you to share some concrete examples about use cases that are either live or in development on the Stellar network today that demonstrate how blockchain technology — and more specifically tokenized assets like stablecoins — drives us towards a more equitable financial system, delivering greater access to financial services for these underserved and marginalized populations. Despite all of the headlines, what's happening in the world of blockchain with cryptocurrency and stablecoins is not just lending, trading, and borrowing.

Let me start with MoneyGram International. You may think of MGI as the definition of traditional finance, but I have found them to be financial innovators, looking for ways to provide new, efficient payment options for the nearly 150 million people around the world that they serve.

They are building a solution on Stellar that enables seamless conversion between cash and digital assets. MoneyGram's leading global network integrates with the Stellar blockchain to enable cash funding and payout in different currencies of the consumer's choice, using a stablecoin, Circle's USD Coin (USDC) — issued by my fellow witness Jeremy Allaire's company. In real terms, consumers will be able to send value in the stablecoin and easily convert to local fiat currency for instant pickup at participating MoneyGram locations globally. With near-instant settlement flows and an accelerated collection of funds, consumers, some of whom may have been limited to using cash for various payments, will be able to use the blockchain network after going through appropriate compliance checks by MGI and its agents. Their transactions with USDC are traceable on the network, safer and more secure than transacting in cash. It provides consumers with options for improved efficiency, reduced risk, and strong competitive pricing pressure.

This is already in the pilot phase here in the U.S.; it's gone from idea to pilot in a matter of months this year, and is expected to be widely available in 2022. There is so much work to be done to improve interoperability between traditional and digital financial rails, but this is a meaningful example of what can be accomplished when we do.

New players are developing innovative solutions for financial services, too — many designed specifically for underserved populations. For example, Leaf Global Fintech has built a solution for refugees that also demonstrates a strong use case for stablecoins.

On average, refugees remain in exile for 17 years before they find permanent homes. New African countries become their temporary residences for a long time — so the ability to easily and affordably send money across borders is essential. The founders of Leaf saw a powerful opportunity to build a product for people with cross-border financial needs, whether they are refugees bringing their money to a new country or cross-border goods traders who are vulnerable to theft while carrying cash across borders.

With Leaf's wallet, these users can save their money in multiple currencies, benefit from free Leaf-to-Leaf wallet cross-border transfers, and pay for goods and services. That functionality is only possible because they leverage Stellar's ability to issue stablecoins and exchange value



with low transaction fees and high speeds. That allows them to keep remittance costs down, and ultimately make these payments more accessible to those who need it most.

Their product is uniquely accessible because you don't even have to use a smartphone. They've designed their wallet with USSD technology so that even those with basic phones are able to access all of their services. This use case is live and operational today.

The last use case I'd like to touch on is one that is in development but positioned to make a big impact on financial inclusion. Currently operational in Kenya, Mexico, India, and the Philippines, Tala, based in California, aims to provide the unbanked access to financial services that they do not have via traditional means. Tala is best known for its mobile lending app, powered by advanced data science, which enables its customers to apply for a loan and receive an instant decision, regardless of their credit history. If the loan is approved, then the borrower receives the money (ranging from \$10-500) in their mobile money account in a matter of minutes.

Tala is now working to expand their offerings by using blockchain technology, specifically, Stellar assets and stablecoins, to help their current customers with credit by allowing borrowing, spending, saving, investing, and sending/receiving. Since 2014, Tala has delivered more than \$2.7 billion in credit to more than six million customers across emerging markets, with thousands of new users joining daily. Now that it plans to harness the Stellar network to expand its product offerings, Tala is set to help even more people – the people that need financial services the most.

There are many more valuable use cases across the Stellar ecosystem that I could share today, but recognizing my time is limited, I would just like to briefly mention the numerous use cases being developed for Micro, Small and Medium Enterprises (MSMEs). World Bank data shows MSMEs in emerging markets create 7 out of 10 jobs – however, lacking access to finance is cited as a major barrier to growth.<sup>3</sup> In a recent report from the G20 and International Finance Corporation on MSME Digital Finance, there were FIVE Stellar ecosystem companies named for their innovative solutions in digital finance supporting MSMEs: ClickPesa, Tribal, Airtm, Flutterwave, and Tala.<sup>4</sup>

Use cases like these are in varying states of maturity but their current and potential value to financial inclusion is undeniable. Financial inclusion is a right, not a privilege, and stablecoins are a foundational building block to achieve true financial inclusion.

None of these use cases would be possible without stablecoins. Stablecoins are a core technological component – and by extension that means stablecoins are essential to delivering on financial inclusion. SDF is not the issuer of any stablecoin. The Stellar network is the underlying blockchain infrastructure on which more than 20 stablecoins pegged to fiat currencies from around the world are issued – and it is these ecosystem companies that are using stablecoins to expand financial inclusion and empowerment for marginalized communities.

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<sup>3</sup> World Bank, Small and Medium Enterprises, <https://www.worldbank.org/en/topic/sme/finance>

<sup>4</sup> GPFI, MSME Digital Finance: Resilience and Innovation during COVID-19, November 2021

### **A Post-PWG Future for Stablecoins**

That brings me to the President's Working Group on Financial Markets' (PWG) Report on Stablecoins. Let me start by saying that we appreciate being consulted by the PWG, along with several of my co-panelists today, prior to the release of the report. Like we have done with you today, we shared with the PWG a real world example of stablecoins improving the lives of their users, and we were pleased to see some acknowledgement of stablecoin benefits reflected in the report. Second, I want to be clear that we agree with many of the conclusions in the PWG report, particularly around several of the identified risks in today's stablecoin market. For example, the PWG report noted that "there are no standards regarding the composition of stablecoin reserve assets, and the information made publicly available regarding the issuer's reserve assets is not consistent across stablecoin arrangements as to either its content or the frequency of its release." While there are industry standards, such as those adopted by the Centre consortium for USDC, admittedly, they are not legal standards. The PWG report also notes that there is considerable variation in the contractual terms of use applicable to stablecoin holders with respect to things like a holder's right to redeem. We agree that risks such as these should be addressed, and that clear regulation in these areas will benefit both the consumers using these products as well as the innovators building them.

However, while we agree with the PWG on a number of stablecoin risks, we disagree with the PWG report's recommendations to address them. For example, the primary recommendation of the PWG report is to limit stablecoin issuance to insured depository institutions. However, this is not narrowly tailored to the actual risk identified — run risk — because of a fundamental difference between bank and stablecoin business models: banks hold fractional reserves while stablecoin arrangements are predominantly intended to be fully reserved. In short, we believe the recommended solution targets the wrong risk. Moreover, U.S. insured depository institutions have shown little interest in issuing stablecoins and requests by some stablecoin issuers to become banks have, thus far, gone unrequited. As we lay out below, the actual run risk faced by stablecoin arrangements could be more accurately addressed in a manner less disruptive to those actually building stablecoins and without handing a monopoly to the banks.

The PWG report's other major recommendation to subject "any entity that performs activities critical to the functioning of the stablecoin arrangement" to federal supervision similarly misses its target. By way of analogy, banks rely on countless vendors and technology providers critical to their provision of banking services — internet service providers for example — which are not subject to federal prudential regulation. Despite making this recommendation, the PWG report failed to articulate why the entire stablecoin value chain should be made subject to federal banking regulation when the entire banking value chain is not, or what consumer benefits of stablecoins would necessarily be sacrificed by such an approach. And while we agree that the PWG report identified risks that should be addressed, we believe the PWG report's recommendations are overbroad and would not provide any marginal consumer or systemic benefit over a smarter and more narrowly tailored regulatory framework.

Instead, we advocate for a regulatory approach that focuses more on stablecoin reserves than on stablecoin issuers. Stablecoin arrangements based on a reserve-backed model should be required: (1) to be fully reserved, and (2) those reserves should be held at insured depository institutions in bankruptcy remote segregated accounts. The law should specify that stablecoin

holders have the highest claim on reserve assets. Pass-through deposit insurance for stablecoin holders would also be welcome, and we are encouraged to hear that the FDIC is actively researching ways to achieve it. A regulatory framework should also set standards for the regular audit and public disclosure of stablecoin reserves as well as establishing eligibility parameters for stablecoin reserve assets. For example reserve assets could be limited to cash, cash equivalents, and other high quality, highly liquid assets like short dated U.S. Treasuries and investment grade debt securities. Alternatively, a tiered structure of capital buffers could be applied to classes of reserve assets based on their quality and liquidity profiles. Additionally, we believe that some standardization of key contractual terms between stablecoin issuers and stablecoin holders, such as around redemption, would benefit the market. Finally, we agree with the apparent conclusion of the PWG report that “payment stablecoins” are not securities, and this should be made clear in the law.

Of course, there must be some regulatory body empowered to oversee these requirements, and we could envision an optional framework where issuers could choose state banking supervision or opt into a narrow stablecoin charter administered by the Office of the Comptroller of the Currency. A regulatory framework such as this would, in our view, promote the safety and soundness of stablecoin arrangements and enhance protections for stablecoin holders while providing U.S. stablecoin innovators the space, clarity and flexibility they need to extend America’s lead in global competitiveness.

We’ve started to see how innovation can be hampered in other parts of the world when regulators and lawmakers react quickly, and arguably prematurely, to address perceived risks around cryptocurrency. When I had the privilege of briefing this Committee’s FinTech Task Force in September 2020, I described a company in Nigeria that was leveraging stablecoins to enable Nigerians to meet the high demand for global currencies, particularly in trade, and transact in the global marketplace efficiently and cost-effectively. In underserved markets like Nigeria, where the local currency is not globally traded, cross-border payments and foreign exchange are exceptionally slow and expensive due to high-operating costs, technical inefficiencies of legacy systems, and reliance on multiple intermediaries. Stablecoins and blockchain technology were eliminating costly foreign exchange and transaction fees and slow processing times associated with traditional banking rails for businesses and individuals alike until the Central Bank of Nigeria abruptly ended that business model due to concerns over the use of cryptocurrency for illicit purposes— a concern wholly unrelated to this solution. The challenges persist, but the solutions are more challenging because of the sweeping action taken by the Central Bank. And many innovators have consequently been stopped in their tracks.

Let’s not hamper innovation here in the United States which would have a real impact on the ability to make full use of this technology elsewhere. Let’s learn from the past, let’s take down the walled gardens, let’s get rid of the friction, and let’s create an open loop for innovation here in the U.S. We’ve seen firsthand the challenges when we leave access to innovation in the hands of a few; consider the existing banking infrastructure that relies on technology decisions made decades ago. Open networks, like Stellar, allow for continuous innovation, making sure our systems are more interoperable and adaptable. Financial inclusion, innovation, and integrity are not trade-offs.

The international community is calling for leadership on this front. A recent BIS report<sup>5</sup> suggested that the path forward requires policymakers to work together to develop a consistent, comprehensive regulatory framework for stablecoins. Let's work together to ensure that US policymakers are the ones that set the stage for a productive, smart, regulatory roadmap for this technology around the world.

As we walk away from this hearing, I hope that we can all agree that crypto and stablecoin shouldn't be buzzwords, thrown around to incite fear of the unknown. I urge you all to look at this industry and technology beyond the narrow lens of applications that often dominate the news. That approach risks putting us back where we started, repeating our past mistakes.

Instead, let's move forward looking at the meaningful financial innovation that can result from us working together, public and private sector leaders, to help citizens and businesses benefit from a more accessible, affordable, efficient financial system.

Thank you again for having me here today. I look forward to taking your questions.

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<sup>5</sup> Bank of International Settlements Working Paper No 973, [What does digital money mean for emerging market and developing economies?](#), October 2021



Testimony of Alesia Haas

Chief Executive Officer  
Coinbase, Inc (U.S. Subsidiary)

Chief Financial Officer  
Coinbase Global, Inc.

Before the U.S. House Committee on Financial Services  
Wednesday, December 8, 2021

Chairwoman Waters, Ranking Member McHenry and Members of the Committee, thank you for this opportunity to testify on digital assets and the future of finance.

My name is Alesia Haas and I am Chief Financial Officer of Coinbase Global Inc. I also serve in the role of Chief Executive Officer of our U.S. subsidiary, Coinbase Inc. I joined Coinbase in 2018 after serving as Chief Financial Officer at Sculptor Capital and OneWest Bank and have over 20 years of experience in the finance industry.

I'd like to tell you about Coinbase, discuss the benefits and challenges of crypto, and close with our views on the legal and regulatory landscape.

### ***Coinbase Intro***

Coinbase was founded in 2012 with the idea that anyone, anywhere, should be able to easily and securely send and receive Bitcoin, the first crypto asset created in 2009. Today, we are a leading provider of end-to-end financial infrastructure and technology for the cryptoeconomy. We define the cryptoeconomy as a fair, accessible, efficient, and transparent financial system for the internet age that leverages digital assets built on blockchain technology. Coinbase Global, Inc. (COIN) is registered with the SEC as a public company listed on Nasdaq with a market capitalization of \$68 billion.<sup>1</sup> Our primary operating company, Coinbase, Inc., and our affiliates (collectively, "Coinbase") make up one of the largest digital asset financial infrastructure platforms in the world, including an exchange for digital assets.

Today, our platform enables 73 million individuals, businesses, and developers in over 100 countries to participate in the cryptoeconomy. For individuals, we offer a safe, trusted, and easy-to-use crypto account to buy, sell, store, spend, earn, and use crypto assets. For our 10,000-plus institutional customers, we offer a comprehensive solution that combines advanced trading, battle-tested custody, and financing. And, for our more than 185,000 developer partners, we provide technology and services, such as our Coinbase Cloud offering, that enable them to build crypto-based applications and securely accept crypto assets as payment.

Coinbase now has more than 3,000 full-time employees - more than double what we had at this time last year. Coinbase decided in May 2020 to become a remote-first company, not just during the COVID-19 crisis, but moving forward. The shift to remote work has enabled us to find and hire talent across the United States and around the world. We are no longer bound by proximity to a major city; we can hire the best and the brightest no matter where they live. We currently have employees in 45 states and the District of Columbia, including 24 of the 25 states represented by the Members of the Committee. This approach aligns with our mission of helping everyone achieve economic freedom regardless of location.

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<sup>1</sup> See Yahoo Finance, Coinbase Global, Inc., <https://finance.yahoo.com/quote/COIN/>.

Coinbase is the largest U.S. digital asset exchange with the highest daily spot trading volume of Bitcoin. As of September 30, 2021, we supported 158 assets for Custody and 103 assets for Trading on our platform, including USD Coin ("USDC"). USDC is a stablecoin issued by Circle Internet Financial, Ltd. ("Circle"), resold by Coinbase, and governed by the Centre Consortium, which Coinbase and Circle founded in 2018.

Every asset listed on the Coinbase platform is subject to a rigorous legal, compliance, and security review. As a founding member of the Crypto Ratings Council, Coinbase has led an industry effort to create consistent guidelines for evaluating the suitability of each token for trading.

With an early focus on regulatory requirements, Coinbase has set the standard for legal and regulatory compliance in the digital asset industry. Coinbase was among the first regulated digital asset exchanges in the United States. We are federally registered as a money services business with FinCEN, licensed as a money transmitter in 42 states, and hold a "BitLicense" from the New York Department of Financial Services. Coinbase affiliates also hold various registrations, such as Coinbase Custody Trust Company, a limited purpose trust company chartered by the New York State Department of Financial Services, and Coinbase Credit, which is authorized to engage in consumer lending in 15 states.

In addition to the various state regulatory regimes, our activities are subject to federal oversight from the Department of the Treasury's FinCEN and Internal Revenue Service, the Commodity Futures Trading Commission, the Securities and Exchange Commission, the Federal Trade Commission, and the Consumer Financial Protection Bureau. We have a robust AML/BSA program, and we are one of only two digital asset members of the Department of the Treasury's Bank Secrecy Act Advisory Group.

Coinbase has worked to develop best-in-class criminal investigative methods to help make the crypto ecosystem safe for our customers and the world. We have trained state, federal, and international law enforcement agencies to identify and pursue illicit use of digital asset technologies, and we host law enforcement for in-house secondments to partner with our Global Intelligence team on blockchain investigations. We have twice been recognized by FinCEN for providing essential intelligence to law enforcement authorities. In 2019, we received the Private/Public Partnership award from Homeland Security Investigations for our contribution to major law enforcement investigations.

One of Coinbase's cultural values is to maintain a customer focus in everything we do. We aim to provide the best customer service response times in the industry, and we want our customers to trust that we will match their sense of urgency when they contact us. By the end of this year, we will have implemented 24/7 live phone and messaging support for all retail customers.

As a digitally native company, the security and operational resiliency of our platform has always been one of our foundational principles. We secure our customers' funds with multiple layers of

protection, including, among others, cybersecurity industry best practices, physical security, and industry-leading identity management tools.

### ***Coinbase Roadmap***

Coinbase's platform is powering the cryptoeconomy, which is a critical infrastructure layer to Web 3.0. The first iteration of the internet, or Web 1.0, was static content (e.g. a website describing a company's goods and services). Social media and mobile companies drove the creation of Web 2.0, which enabled users to interact with internet content in a dynamic way. We believe crypto and the blockchain will drive Web 3.0, which improves upon the past models to combine content, payments, and identity on decentralized platforms that are owned and controlled by individual consumers. One example of this innovation is new digital assets that will empower individuals to control their personally identifiable information and authorize its use in discreet and measurable ways. Similarly, a token in a Web 3.0 environment could be used by content creators to directly manage and monetize their intellectual property for things like music, art, books, and other creative content.

We believe Web 3.0 represents a paradigm shift in how we all interact with the internet, and that shift will unleash unprecedented innovation and economic freedom. The Coinbase product suite is being designed to fuel this shift by building technology and a new generation of financial infrastructure to support Web 3.0.

We are also continuing to invest in foundational tools that provide a reliable, scaled infrastructure in service of our customers. Coinbase has pioneered industry-leading security practices and backend technology that supports the demands of the crypto market, which is global, works in real-time, and operates 24/7. We have also invested heavily in regulatory compliance tools, including next-generation industry solutions such as compliance and market monitoring using blockchain analytics, a Travel Rule solution supported by a coalition of crypto providers known as TRUST, and the Crypto Ratings Council.

Coinbase's efforts have helped drive a shift in crypto participation, particularly over the last year. Total crypto market capitalization at the end of Q3 was ~\$2.0 trillion, up from ~\$800 billion at the end of 2020, driven by higher crypto asset values and the ongoing proliferation of crypto assets. According to [crypto.com](https://crypto.com), the number of crypto users globally doubled in the first half of 2021 to over 200 million, and the rate of crypto user growth is accelerating. Another survey by the Pew Research Center indicates that roughly 16 percent of Americans have invested in, traded, or used cryptocurrency.<sup>2</sup>

Coinbase's roadmap for fostering economic freedom and the cryptoeconomy is based on three pillars.

<sup>2</sup> See *16% of Americans Say They Have Ever Invested in, Traded or Used Cryptocurrency*, Andrew Perrin (Nov. 11, 2021), <https://www.pewresearch.org/fact-tank/2021/11/11/16-of-americans-say-they-have-ever-invested-in-traded-or-used-cryptocurrency/>.



1. **New financial system.** Crypto is opening up a new financial system. This means creating new digital tools and services that enable people to do more with their crypto beyond buying, selling, or storing. We are seeing the needs of our customers evolve and we are building products accordingly. In the third quarter of 2021, nearly 50% of our transacting customers are doing something other than buying and selling crypto, including participating in Earn campaigns to learn about new crypto assets and then earn some of that asset or Staking their crypto to earn a reward. We are proud that our products and services are giving our customers opportunities to enhance their financial position and better participate in economic activities.
2. **App platform.** Crypto can serve as an app platform. The foundational benefit of crypto is that it allows for innovation of new financial and non-financial applications, like non-fungible art tokens (NFTs), that are controlled by the individual. Coinbase will enable institutions and app developers to plug into the existing crypto infrastructure via external APIs thus supporting application innovation. Coinbase will also build products that help customers benefit from this innovation. By supporting both the development of, and access to, these new applications, we will create the conditions for an entirely new ecosystem of Web 3.0 applications that put power back in the hands of individuals.
3. **Investment.** We want to empower everybody to achieve economic freedom through investing in and using crypto. At Coinbase, we believe we can enable customers to buy, sell, and hold crypto in a safe, informed, and compliant way. What began with the creation of Bitcoin in 2009 has subsequently blossomed into an industry with thousands of different crypto assets -- with diverse underlying use cases -- and a total market capitalization of \$2.4 trillion<sup>3</sup> as of this writing. We serve as the primary crypto account -- enabling customers to buy, sell, securely store, transact and use crypto -- for millions of customers who leverage our technology to invest in the cryptoeconomy.

### **What is Crypto?**

*A blockchain is similar to a database or ledger, but unlike traditional ledgers, there is no need for a central authority to maintain it. Instead, blockchain-based ledgers are public, distributed, and immutable: anyone can download the ledger and see the entire history of every transaction that has ever occurred on a given blockchain. That free public history is an essential feature of a blockchain because **it ensures that a counterparty possesses the digital asset that is being transacted**. As a result, transactions can occur remotely without an intermediary vouching for either party.<sup>4</sup>*

<sup>3</sup> Total Cryptocurrency Market Cap, Coin Market Cap, <https://coinmarketcap.com/charts/> (Dec 7, 2021).

<sup>4</sup> For a general overview of blockchain technologies, see C. Jaikaran, Blockchain: Background and Policy Issues, Congressional Research Service, at 1-2, Feb. 28, 2018, <https://fas.org/sqp/crs/misc/R45116.pdf>.

*Distributed ledgers are enabled by cryptography. At the core of all cryptocurrencies are private keys -- complex and secret numbers used by an individual transacting on the blockchain. A private key is mathematically linked to a public key, which is the address that others can use to transact with the owner of the private key.<sup>5</sup> Put simply, a distributed ledger is really just the history of transactions between public keys. A transaction occurs if the private key associated with the public key cryptographically signs off on the transaction. Other than the owner, no one viewing the blockchain can see the private key by looking at the public key.<sup>6</sup>*

*The cryptographic math that secures the blockchain generally obscures the identity of the owner of the private keys - making transactions pseudonymous. This means that a transaction can be tracked but the details are obfuscated. For example, the public blockchain does not indicate that a Coinbase wallet transacted with a PayPal wallet and does not disclose the identities of the individuals transacting.*

### **The Benefits of Crypto**

We believe the cryptoeconomy is a fair, accessible, efficient and transparent financial system for the internet age that leverages digital assets built on blockchain technology. Digital asset trading platforms, such as Coinbase, have emerged to meet the demand from Americans for access to innovative digital assets. The digital asset market infrastructure has developed dramatically in recent years to ensure exchange and trading services, clearing, settlement, and custody can be provided effectively and more efficiently across a suite of asset offerings. The benefits of these assets are many and the list is growing, but we believe there are 10 key benefits of crypto:

#### **Ten Key Benefits**

1. Access. Anyone, anywhere with an internet connection can directly access crypto networks. People may choose to work through central intermediaries, like Coinbase, but an intermediary is not required for access and participation in this market. This means the cryptoeconomy is not just available to sophisticated and institutional investors, but – even more importantly – to millions of people in the US and billions of people around the world, who often do not have access to traditional financial services.

Recent studies have shown that populations historically underrepresented in traditional finance are turning to the cryptoeconomy to find avenues that put them on even ground

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<sup>5</sup> *Id.*

<sup>6</sup> *Id.*

with other investors.<sup>7</sup> This stands in stark contrast to the traditional financial system where Black and Hispanic communities are underrepresented.<sup>8</sup>

2. Individual ownership. Crypto assets are fundamentally different from traditional financial assets because they allow for simple and secure individual ownership without the need for a complex web of intermediaries to record ownership and confirm transactions. The upshot of this is that, in the crypto economy, consumers control their financial assets. This means that participants can maintain their own addresses or accounts on the distributed ledger, and can complete their transactions (e.g., payments or remittances) directly using software, rather than indirectly relying on intermediaries. This processing model can improve settlement certainty, reduce processing times, and minimize system demands on centralized entities.
3. Enhanced transparency. Distributed ledgers are simultaneously hosted across multiple systems with no central authority. Recording a transaction requires consensus in accordance with the distributed ledger's technology: for example, via a computationally intensive cryptographic problem (i.e., "proof of work") or validation by the community of digital asset owners (i.e., "proof of stake"). The distributed nature of this validation process and the accessibility of the ledger provides enhanced transparency, as well as a readily accessible means of auditing past transactions.
4. Increased resiliency. Because distributed ledgers are simultaneously hosted across multiple systems, they are highly resistant to corruption. An effective attack would require extraordinary resources and intense coordination. System failures of well established blockchain protocols are extremely unlikely.
5. Efficiency. Digital assets, distributed ledger technology, and smart contracts can be designed to automatically execute transactions if specific conditions are met (e.g., release of collateral upon repayment of a loan). This enables real-time processing, which reduces counterparty risk and the risk of transaction delays or failures to clear transactions.
6. Lower transaction costs. New entrants to the digital asset economy can immediately benefit from lower transaction costs when sending and receiving payments or holding digital assets. For example, an individual who wants to send money to family overseas

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<sup>7</sup> See *16% of Americans Say They Have Ever Invested in, Traded or Used Cryptocurrency*, Andrew Perrin (Nov. 11, 2021), <https://www.pewresearch.org/fact-tank/2021/11/11/16-of-americans-say-they-have-ever-invested-in-traded-or-used-cryptocurrency/>.

<sup>8</sup> See *Stocks are Soaring, and Most Black People are Missing Out*, Stan Choe (Oct. 12, 2020), <https://apnews.com/article/virus-outbreak-race-and-ethnicity-business-us-news-ap-top-news-69fe836e19a8dfe89d73e8e4be6d480c>.

can eliminate the standard remittance fee of 6.5%<sup>9</sup> by using crypto instead of the legacy fiat remittance and correspondent banking infrastructure.

7. Continuous operation. Digital assets and distributed ledgers are in continuous operation, allowing transactions to be processed and validated 24 hours a day, 365 days a year.
8. Creator control. Crypto can empower a new generation of creators who own their content and maintain life-time monetization of it. For instance, crypto is increasingly enabling artists and other creators to release their product directly to consumers and receive credit for their creation beyond its initial sale.
9. New ways to interact with assets. Crypto will empower individuals to use and invest in assets in ways that have never been considered. Bitcoin and other cryptocurrencies are just the beginning. Technology is creating new ways to invest in an array of assets, such as real estate, creative works, and traditional financial products. This evolution will take place using decentralized protocols, enabling deep liquidity and global access to previously non-existent or hard to access products.
10. Micro-transactions. Crypto's efficiency, coupled with its ability to transact in much smaller amounts, will allow for micro-payments that are impractical under traditional payments systems. These small transactions can have big impacts. At the individual level, for example, we could see this technology allowing hourly workers to be paid in real-time. This would help many workers avoid the high interest rates they often pay to payday lenders while waiting weeks for the close of a pay period to receive their paychecks.

### ***The Challenges of Crypto***

As described above, we are beginning to see a more efficient, transparent, and cost-effective ecosystem as compared to traditional financial markets. These developments, driven by technological advancement, will empower market participants with greater and more direct control over their financial decisions. In turn, this will increase accessibility to financial services, reduce excess costs of the current system (which are often borne by retail customers) and create more transparency for regulators. In fact, regulators are already deriving benefits by leveraging this new technology to engage in market surveillance and combat illicit finance. These changes are contributing to one of the most dynamic and broad based periods of American financial innovation.

Disruption, however, generally results in both benefits and challenges. By drawing an even sharper contrast between new and old ways of doing business, crypto has increased the tension between traditional finance and financial services fueled by innovation. Crypto is an entirely new asset class that requires thoughtful consideration to address very real challenges, including

<sup>9</sup> See *An Analysis of Trends in Cost of Remittance Services*, Remittance Prices Worldwide Quarterly, Issue 36 (Dec. 2020), [https://remittanceprices.worldbank.org/sites/default/files/rpw\\_main\\_report\\_and\\_annex\\_q42020.pdf](https://remittanceprices.worldbank.org/sites/default/files/rpw_main_report_and_annex_q42020.pdf).

helping individuals and businesses comply with U.S. tax law, combating illicit finance, and eliminating regulatory confusion.

### **Key Challenges**

#### ***Need for Purpose Built Crypto Tax Code***

Coinbase agrees with the goal of the IRS and Congress to ensure individuals and businesses pay the taxes they owe. Central to achieving this goal is recognizing the unique nature of crypto technology – and creating parity with other asset classes. Coinbase has developed a number of resources to help our customers meet their tax obligations, including a tax resource center<sup>10</sup> and partnerships with both TurboTax and Cointracker to help customers accurately calculate their taxes owed.<sup>11</sup>

Holders of digital assets want to pay their taxes, and centralized crypto intermediaries like Coinbase want clear rules and guidance to help them do that. Digital asset platforms should be subject to the same third-party reporting rules on our customers' gains and losses that brokerage firms, like Fidelity and Charles Schwab, operate under today.

As we and others in the ecosystem have noted, the development of crypto, and financial innovation generally, has enormous potential for the American economy through increased job creation and GDP growth.<sup>12</sup> As policymakers craft the laws to address this new innovation, they should do so openly with public participation to fully understand the implications of new tax policy. The recently passed infrastructure bill includes provisions related to the definition of broker and reporting requirements that could run counter to our efforts to achieve parity with traditional finance. The bill currently includes language that could be interpreted in a way that fails to recognize technological capabilities and limitations.<sup>13</sup> The provisions could be fixed in either legislation or regulation, and we are eager to work with policymakers to find a path forward that supports innovation and enables tax compliance. Tax policy should be thoughtful and deliberate, particularly when new technology presents new opportunities and challenges.

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<sup>10</sup> See Coinbase Tax Resource Center, Coinbase Help Center, <https://help.coinbase.com/en/coinbase/taxes-reports-and-financial-services/taxes/coinbase-tax-resource-center>.

<sup>11</sup> See Using TurboTax or CoinTracker to Report on Cryptocurrency, Coinbase Help Center, <https://help.coinbase.com/en/coinbase/taxes-reports-and-financial-services/taxes/using-turbotax-or-cointracker-to-report-on-cryptocurrency>.

<sup>12</sup> See Digital Asset Provision in Infrastructure Bill Places Unworkable Requirements on Crypto Technology, <https://theblockchainassociation.org/digital-asset-provision-in-infrastructure-bill-places-unworkable-requirements-on-crypto-technology/>.

<sup>13</sup> See Infrastructure Investment and Jobs Act, H.R. 3684, 117th Cong. (2021), <https://www.congress.gov/bill/117th-congress/house-bill/3684/text>.

### ***Controls and Oversight for Illicit Finance***

Coinbase implements a robust Anti-Money Laundering (AML) program, requires Know Your Customer (KYC) information when onboarding customers, reviews transactions for suspicious activity, files Suspicious Activity Reports (SARs), and regularly engages with law enforcement. Yet, there is a very real problem that a small group of non-compliant foreign exchanges are the venues used by criminal actors to cash out their illicit gains, and those foreign exchanges use jurisdictional arbitrage to avoid U.S. regulations. Criminal actors generally avoid exchanges, like Coinbase, that have AML/KYC programs because they would likely be identified by us, have their account frozen, or referred to law enforcement.

As an example, research indicates that from 2017-2019, over 80% of ransomware cashout activity was handled by just four offshore entities.<sup>14</sup> 2021 data so far shows that ~64% of ransomware cashouts occurred on just three foreign exchanges. Of the top 10 recipients of ransomware payments, eight are offshore exchanges and two are mixing services.

The reality is that crypto technologies are tools that can help identify and prevent criminal activities. Cryptocurrency is easier to track than fiat currency because searchable databases (public blockchains) exist for most transactions. The information in these blockchains exists permanently, and provides law enforcement with details about crypto transactions that are not available with fiat currency. The Department of Justice discusses this utility as part of its investigation methods; the September 2019 edition of the *Department of Justice Journal of Federal Law and Practice* says:

*Cryptocurrency, despite the purported anonymity it grants criminals, provides law enforcement with an exceptional tracing tool: the blockchain. While the blockchain's historical ledger will not list the names of parties to transactions, it provides investigators with ample information about how, when, and how much cryptocurrency is being transferred.*<sup>15</sup>

The public blockchains have helped advance law enforcement efforts with new tools that reveal the structure of organized ransomware crime rings and individual hackers in ways that are unavailable with fiat.

Policymakers should develop tailored solutions in this space to effectively target illicit activity that uses crypto. We know that a vast amount of illicit activity is happening on a small set of non-compliant offshore exchanges and mixing services that enable criminal actors to monetize their activity. Directing more of law enforcement's investigations and resources to those actors can very effectively disrupt those actors' infrastructure in the near-term. On a more long-term basis, we believe that the laws can be modified to provide broader forfeiture authority (i.e., not

<sup>14</sup> Chainalysis 2021 Crypto Crime Report (Jan. 19, 2021).

<sup>15</sup> 67 DOJ J. FED. L. & PRAC., No. 3 at 166 (2019).

just property traceable from or involved in the offense, but all assets of the criminal actor), and to include a universal venue provision for money laundering that allows for prosecution as long as a victim or some act was committed in the district.

Without tailored legislative solutions that are openly debated with public participation, the United States risks unnecessarily onerous and chilling laws and regulations. This could effectively push crypto activity underground or to offshore exchanges that have little or no compliance programs. Customers will be driven to offshore platforms, as will victims. Non-compliant exchanges do not implement a program for reporting potential illicit activity or working with law enforcement. All of this would undermine law enforcement enforcement efforts in the United States, and hurt U.S. consumers.

#### ***New Asset Classes Create Opportunities for New Solutions***

Blockchain technology offers a foundation on which any thing of value -- debt, equity, collectibles, property, titles, currency, identities can be tokenized and transacted freely and transparently via a public ledger. This has and will continue to revolutionize how consumers exchange value, and will drive innovation across many familiar (and new/unfamiliar) asset classes. Regulatory clarity will be needed on how these assets are defined, whether the assets fall within existing regimes, and how consumer protection laws will apply to them.

As examples, the largest areas of tokenization to-date have been:

- Bitcoin: a deflationary commodity designed to prioritize scarcity and capital preservation;
- Ether: a commodity that allows individuals to transact on the Ethereum blockchain, enabling developers the ability to create and interact with smart contracts;
- DeFi protocol tokens: tokens that allows for direct participation in the governance of decentralized protocols;
- Digital NFTs: ownership of digital works; and
- Stablecoins: a stored value token intended to maintain a stable value over time.

We envision a future where this list expands to include tokenized collectibles like titles, property, art, and people's time, along with the tokenization of traditional asset classes like securities and commodities. Tokenizing anything of value gives rise to entirely new asset classes with characteristics that are not specific to any one existing regulatory scheme. Some assets may fit under existing regulatory agencies, whereas others warrant discussion as to how (or if) they should be regulated, and what form consumer protection takes as assets that previously fell outside regulatory perimeters become liquid tradable instruments.

Because of their nascent stage of development and unique underlying technology, digital assets trade in markets that are fundamentally different from traditional financial markets. As a result, existing regulatory regimes often do not accommodate this new technology. Below we identify a

case study that articulates a strong argument for why current securities laws need to be updated to accommodate this new asset class.

***Case Study: Securities Exchange Regulation Does Not Work for Digital Asset Trading Platforms***

Our federal securities laws, which originally date from the 1930s, include a list of more than 20 financial instruments that are considered securities. None of these categories are a good fit for most digital assets, which have characteristics and functions beyond those contemplated for regulation by securities laws. Similarly, the regulatory requirements for securities intermediaries (broker-dealers (BD), automated trading systems (ATS), and national securities exchanges) are ill-suited to regulate digital asset markets. They are designed to oversee market structures with intermediary systems significantly different from those of digital asset markets. Whatever the risks and benefits of this new asset class may be, existing laws and regulations were not designed with digital assets in mind.

Some, nevertheless, assert that applying these legacy requirements is appropriate. While applying existing regulation may appear, at first, like a straightforward solution, the reality is far more complex. Applying the requirements of securities laws to crypto platforms produces untenable results because the BD/ATS and national securities exchange models simply do not fit. This helps explain why no major cryptocurrency exchanges have registered under these frameworks, despite ongoing conversations with regulators on how to apply legacy rules to emerging crypto technologies.

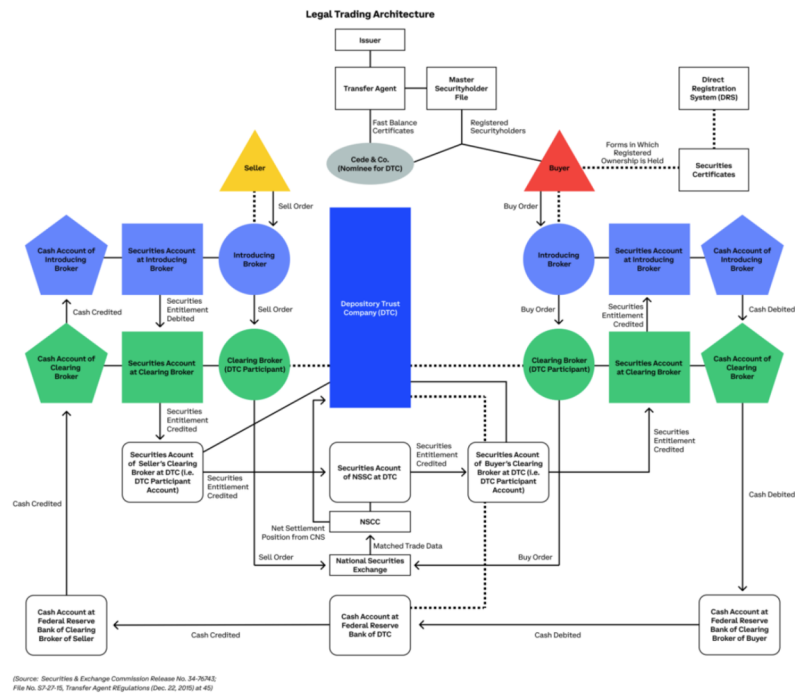
In the traditional national securities exchange framework, securities exchanges like the NYSE or Nasdaq do not provide services to individuals or institutional investors. Instead exchange members must be registered broker-dealers or persons associated with a registered broker-dealer.<sup>16</sup> Individuals and institutional investors are served by these broker-dealers, either directly or through a second set of broker-dealers who have access to an exchange member and trade securities for customers and provide custody for their customer's securities and cash.

These broker-dealers often rely on another set of broker-dealers – clearing brokers – to clear, settle, and record their customer's securities transactions. Banks may separately provide securities custody and transactional services to customers. And there are clearing agencies and transfer agents that serve market participants and securities issuers in providing further clearing, settlement, and recordkeeping services to facilitate securities trading on exchanges and in other markets. This highly intermediated and complex market structure evolved over a hundred years and is based upon legacy technology. It is complex and does not necessarily need to be duplicated when new technologies are able to provide more streamlined and efficient services.

**Put differently, this...**

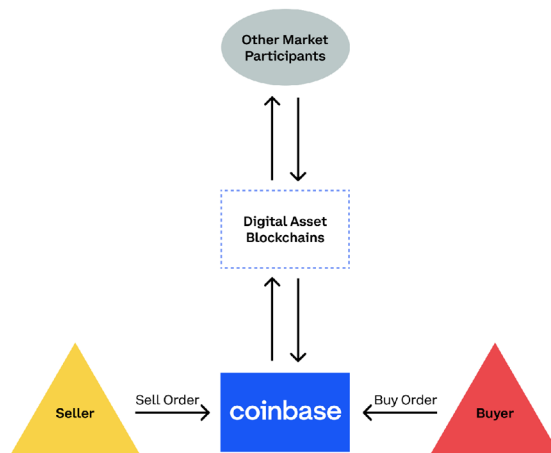
<sup>16</sup> See Section 6(c)(1) of the Securities Exchange Act of 1934 (the "Exchange Act").





Shouldn't be used to regulate this...

#### Coinbase Trading Architecture



Coinbase, like other digital asset trading platforms, performs the full lifecycle of digital asset transactions within a single entity. We seamlessly host and directly serve tens of millions of customers. These customers benefit from direct access to our exchange and do not compensate or pay fees to broker-dealers or other gatekeepers as would be required for access to a securities exchange. Clearing brokers and related services are similarly not needed. Recordkeeping is native to blockchain transactions and settlement for digital assets takes place in minutes, compared to two days for equity securities. This eliminates the need to manage settlement risk by separating central counterparties from depositories, clearing agencies, transfer agents, and custody services.

The efficiency gains from straight-through-processing (streamlining trading, custody, clearing, and settlement services) can also serve to reduce risks in the system. Quicker settlement reduces reliance on capital and margin to facilitate trading and can avoid suspension of customer access to markets.

While the outdated and costly role of the broker-dealer as gatekeeper is eliminated, these types of traditional intermediaries can still engage in critical market-making activities that provide valuable liquidity benefits to all participants. This preserves the benefits of added liquidity provided by these intermediaries to markets, without the added fees being incurred by end users generated by layers of required intermediation.

Given the significant structural difference between securities markets and digital asset markets, we believe that regulators should not react by simply imposing the existing regulatory framework—designed for a different context—on digital asset activities. Doing so would be like responding to the automobile's invention by requiring cars to be pulled by horses.

Instead, regulators should seek to preserve the benefits of this new market structure while fully addressing its risks. As we have described in our Digital Asset Policy Proposal, this would include comprehensive regulation of trading platforms – or digital asset marketplaces – and other market participants based upon the services they provide and the risks that those services raise. It would include, for example, disclosure requirements, obligations to protect customer assets, for cybersecurity and resilience, for post-trade transparency, to combat illicit crimes, and to mitigate conflicts of interest. Such an approach would ensure that US consumers have the protections of comprehensive federal regulation while also preserving the benefits of and innovations in digital asset markets.

### ***A Path Forward***

#### ***A Single Regulator is the Solution***

At Coinbase, we have been urging policymakers to adopt clear rules for crypto because they lead to better oversight, more transparency, higher levels of confidence, and ultimately more adoption. For that reason, we have developed our Digital Asset Policy Proposal (#dApp), in which we shared our thoughts about the challenges of the existing framework of regulation. In the #dApp, we provided principles that Congress and the Administration could use to develop a new framework of regulation. These principles are articulated in four pillars.

First, we believe the government should regulate digital assets under a new framework. Our existing regulatory system does not work effectively for the open, decentralized networks that crypto has created. Financial regulation was built around a series of financial intermediaries—transfer agents, clearing houses and traditional brokers—which are not necessary to effectuate crypto transactions. Crypto and blockchain technology are potentially transformational across the broad gamut of financial services and activities, and therefore a single comprehensive framework of regulation would best advance regulatory outcomes, while ensuring that legacy regulation does not unnecessarily impede societally beneficial innovation.

Second, responsibility for this new framework should be assigned to a single federal regulator and a new registration process established for marketplaces for digital assets. In the tradition of other markets, a dedicated self-regulatory organization (SRO) should be established to strengthen the oversight regime and provide more-granular supervision of such marketplaces. Together, the regulator and the SRO can set new and well-informed rules that work for everyone in the digital asset ecosystem. This of course does not mean an entirely new regulatory agency is required. If it deems appropriate, Congress can identify an existing regulatory agency for this role and spare other agencies the inefficiencies and inconsistencies that come when multiple agencies seek to regulate the same aspects of the same industry at the same time.

Third, this separate framework should have three goals to ensure holders of digital assets are empowered and protected: 1) Enhance transparency through appropriate disclosure requirements. 2) Protect against fraud and market manipulation. 3) Promote efficiency and strengthen market resiliency. Each of these goals should be accomplished while recognizing that crypto has unique and novel characteristics that often unlock new and better ways to achieve these goals than may have been possible using legacy technologies.

Finally, it's important to promote interoperability and fair competition. To realize the full potential of digital assets, marketplaces for digital assets must work with products and services across the cryptoeconomy. If fully realized, this can enshrine competition, encourage responsible innovation, and promote a thriving developer ecosystem.

### ***Conclusion***

Coinbase's mission is to increase economic freedom in the world. We believe crypto will drive change across society in meaningful ways. Coinbase is committed to doing what we do best: finding ways for people to access crypto in order to access its benefits and bring about broad societal changes. While disruption always creates challenges, we believe there are exciting opportunities for policymakers to partner with technologists and industry stakeholders to design solutions that will improve the system for everyone. We applaud Chairwoman Waters, Ranking Member McHenry and the members of this Committee for holding this important hearing, and we appreciate the efforts of many who are working hard to find solutions to these complex public policy questions. Coinbase wants to be a helpful partner as you move forward on policy solutions that will help shape the future of the cryptoeconomy.

**Statement for the Record**  
*On Behalf of the*  
**American Bankers Association**  
*Before the*  
**Committee on Financial Services**  
**U.S. House of Representatives**

**December 8, 2021**



**Statement for the Record***On Behalf of the***American Bankers Association***Before the***Committee on Financial Services****U.S. House of Representatives****December 8, 2021**

Chairwoman Waters, Ranking Member McHenry, and distinguished Members of the Committee, the American Bankers Association (**ABA**)<sup>1</sup> appreciates the opportunity to submit a statement for the record for the hearing titled “Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of Financial Innovation in the United States.” The topic of today’s hearing is an important one.

We appreciate the Committee’s attention to these important issues. The digital asset marketplace is growing rapidly. The total market capitalization of all cryptocurrencies (including stablecoins), by some estimates, reached over \$3 trillion in November of 2021. Digital assets have the potential to be a catalyst for change in traditional financial markets, with significant implications for our financial system, economy, markets, and most importantly for the American consumer.

The origins of cryptocurrency were driven by the desire to build a “trustless” financial system, where parties can transact directly with each other without the need for a trusted third party. It is ironic, therefore, that as interest in cryptocurrencies and other digital assets continue to grow, consumers engaging with digital assets most often seek out trusted financial institutions to act as financial intermediaries. ABA believes that customers who choose to access digital asset markets will be best served when they can do so through fully regulated banks where they are afforded robust consumer protection. To accommodate this customer demand, banks are actively evaluating ways to safely and responsibly allow their customers to buy, hold, and sell digital assets through their existing banking relationships.

Today, the digital asset marketplace can feel like the Wild West—where there is seemingly limitless opportunity for growth, but the risks are not always adequately addressed. For example, hundreds of millions of dollars in cryptocurrencies can go missing on a lost USB drive, the world’s largest coin exchange can go bust after the theft of 850,000 bitcoin, stablecoin issuers misrepresent the reserves backing their coins, and crypto is the currency of choice in ransomware attacks.

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<sup>1</sup> *The ABA is the voice of the nation’s \$23.3 trillion banking industry, which is composed of small, regional and large banks that together employ more than 2 million people, safeguard \$19.2 trillion in deposits and extend \$11 trillion in loans.*

By comparison, banks, which have been around for hundreds of years and understand the risks inherent to their businesses, have in place comprehensive risk management procedures. Moreover, banks are subject to a robust set of safety and soundness regulations, adhere to stringent consumer protection laws, and maintain robust anti-money laundering practices. In addition, banks are subject to rigorous oversight and supervision to ensure compliance with these and other requirements. These factors, in combination with deposit insurance from the Federal Deposit Insurance Corporation (FDIC), make banks a safe place for consumers to store their funds.

This level of oversight and supervision should be applied to banks and non-banks alike to ensure all customers are protected equally, regardless of where they engage with the financial marketplace. As non-bank technology firms begin offering banking products and services through digital channels, Congress should ensure that these activities are appropriately monitored, emerging risks adequately captured, and all applicable legal requirements met.

Ultimately, a level regulatory playing field in digital assets means a simple proposition: offer bank-like services, receive bank-like oversight. In other words, as Acting Comptroller Michael Hsu has emphasized, “Because you do, you are; and because you are, you do.”<sup>2</sup> Securities and Exchange Commission Chairman Gary Gensler is right to observe that the crypto sector is “at the level and the nature that if it’s going to have any relevance five and 10 years from now, it’s going to be within a public policy framework. History just tells you it doesn’t last long outside.”<sup>3</sup> Permitting digital asset activity to occur outside the regulatory perimeter poses risks to consumers and the financial system.<sup>4</sup>

To aid the Committee in its consideration of the complex issues surrounding the three main types of digital assets—cryptocurrencies, stablecoins, and central bank digital currencies—we have appended to this statement the following four documents:

- (1) The comment letter the ABA submitted in response to a recent request for information by the FDIC on banks’ use of digital assets.<sup>5</sup> In this letter, we offer recommendations for regulators on how banks can responsibly facilitate customer access to these markets, arguing that customers who choose to

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<sup>2</sup> Acting Comptroller Michael J. Hsu, “Modernizing the Financial Regulatory Perimeter,” Remarks before the Federal Reserve Bank of Philadelphia Fifth Annual Fintech Conference (Nov. 16, 2021), <https://www.occ.gov/news-issuances/speeches/2021/pub-speech-2021-117.pdf>.

<sup>3</sup> Financial Times, “Crypto Platforms Need Regulation to Survive, Says SEC Boss” (Aug. 31, 2021), <https://www.ft.com/content/fb126d79-2e60-4002-8aba-b08887fca609>.

<sup>4</sup> See, e.g., Acting Comptroller Michael J. Hsu, “Modernizing the Financial Regulatory Perimeter,” *supra* note 2.

<sup>5</sup> ABA Comment Letter on FDIC RFI on Digital Assets (July 15, 2021), <https://www.aba.com/advocacy/policy-analysis/aba-comment-letter-on-fdic-rfi-on-digital-assets>.

access these markets are best served when they can do so through banks that are subject to rigorous oversight and supervision to ensure compliance with appropriate safety and soundness and consumer protection requirements.

- (2) The ABA's response to the recent Basel Committee's consultation on the prudential treatment of cryptoasset exposures.<sup>6</sup> In this letter, we address the prudential treatment of banks' cryptoasset exposures and note that the overall stability of the global financial system will benefit from the transparency that will result by conducting a significant share of the cryptoasset market through supervised financial institutions, as opposed to being driven outside the banking system.
- (3) An assessment of the report on stablecoins by the President's Working Group on Financial Markets, together with the FDIC and the Office of the Comptroller of the Currency. In this document, we support the recommendations made by the PWG to require stablecoin issuers to be insured depository institutions subject to appropriate supervision and regulation at the depository institution and the holding company level and require custodial wallet providers to be subject to appropriate federal oversight, as well as require stablecoin issuers to comply with activities restrictions that limit affiliation with commercial entities.
- (4) The statement for the record that the ABA submitted on CBDC to the Subcommittee on National Security, International Development, and Monetary Policy of the House Financial Services Committee.<sup>7</sup> In this statement, we argue that the retail use case(s) for CBDC introduce risks far in excess of possible benefits because (1) a high proportion of American consumers have retail bank accounts, and (2) electronic payments in U.S. are pervasive, highly efficient and competitive. Moreover, a retail CBDC that competes for commercial bank deposits would adversely affect bank cost of funding, and ultimately, the cost of credit to the real economy by reducing commercial banks' ability to make loans. We further note that a wholesale CBDC model also raises a number of difficult policy issues, but is beyond the scope of this statement. Depending on its structure, including whether such a payments system would be interoperable with existing systems, this could adversely affect U.S. payments systems.

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<sup>6</sup> ABA Letter to BCBS re: Crypto Consultation (Sep. 10, 2021), <https://www.aba.com/advocacy/policy-analysis/aba-letter-to-bcbs-re-crypto-consultation>; see also Basel Committee on Banking Supervision, *Consultative Document: Prudential Treatment of Cryptoasset Exposures* (June 2021), <https://www.bis.org/bcbs/publ/d519.pdf>.

<sup>7</sup> Statement for the Record Before the Subcommittee on National Security, International Development, and Monetary Policy Of the Financial Services Committee (July 27, 2021), <https://www.aba.com/-/media/documents/testimonies-and-speeches/cbdc-testimony-hfsc-nsidmp-subcommittee-hearing-07272021.pdf?rev=86c7a8b8fa6c4cfabe906db9c972e9f8>.



Appendices

- (1) ABA Assessment of President's Working Group on Financial Markets' Report on Stablecoins
- (2) ABA Comment Letter on FDIC RFI on Digital Assets (submitted July 15, 2021)
- (3) ABA Letter to BCBS re: Crypto Consultation (submitted Sep. 10, 2021)
- (4) ABA Statement for the Record on Central Bank Digital Currency (submitted July 27, 2021)



### Filling Gaps in Stablecoin Regulation

The President's Working Group on Financial Markets, together with the FDIC and OCC, recently released a report on crypto tokens pegged or linked to the value of fiat currencies, so-called stablecoins (Report).<sup>1</sup> Given the risks these products pose to consumers, the payments system, and the broader financial system, the Report recommends that Congress act promptly to enact legislation to ensure that stablecoin arrangements are subject to a consistent and comprehensive federal prudential regulatory framework. The Report also identifies certain interim measures detailing how financial and banking regulators can address stablecoin risks falling within their respective jurisdiction. In addition, in the absence of Congressional action, the Report recommends that the Financial Stability Oversight Council (FSOC) consider steps to address the risks outlined in the Report. **ABA agrees that action is urgently needed to address the gaps in the federal regulation of the stablecoin market and supports many of the Report's recommendations.**

Stablecoins, unlike other financial instruments, are currently not subject to a consistent, comprehensive set of regulatory standards that mitigate the risks they pose to consumers and the financial system. The lack of regulation is particularly concerning as the rapidly evolving uses of stablecoins is fueling significant market growth. To date, stablecoins have primarily been used to facilitate digital asset trading and lending activities, but increasingly they are being used as a means of payment for real-world goods and services (*e.g.*, Facebook/Meta's new digital wallet using stablecoins, called "Novi Wallet").

While enthusiasts claim that stablecoins have the potential to support faster and more efficient payments options, stablecoins pose a number of unmitigated risks. These risks include harm to consumers as well as a range of prudential concerns, including the potential for stablecoin runs and payment system risks, both of which could spill over into the broader financial system. The possibility that some stablecoins may rapidly scale also raises additional issues related to the concentration of economic power.

Accordingly, ABA supports appropriate regulatory and legislative actions to provide a comprehensive regulatory framework for stablecoins. While Congressional action is pending, we encourage regulatory agencies to use their existing authorities to identify and address the risks of stablecoin arrangements, as well as FSOC to engage in a determination of whether certain activities conducted within a stablecoin arrangement are, or are likely to become, systemically important payment, clearing, and/or settlement activities.

In connection with this, ABA wishes to emphasize that any regulatory or Congressional action should:

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<sup>1</sup> President's Working Group on Financial Markets, the Federal Deposit Insurance Corporation, and the Office of the Comptroller of the Currency, *Report on Stablecoins* (Nov. 2021), [https://home.treasury.gov/system/files/136/StableCoinReport\\_Nov1\\_508.pdf](https://home.treasury.gov/system/files/136/StableCoinReport_Nov1_508.pdf).

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- Provide a clear and comprehensive definition of “stablecoin” that avoids creating loopholes or permitting regulatory arbitrage and that clearly differentiates stablecoins from other types of digital assets. This would also ensure the regulatory treatment of stablecoins is appropriately calibrated to their risks;
- Recognize that stablecoin arrangements pose *both* financial risks *and* consumer and investor protection concerns, making it critical to regulate not just the issuers of stablecoins, but also other participants in the stablecoin ecosystem, including custodial wallet providers and parties engaged in the business of stablecoin trading and/or brokerage;
- Encourage banking and financial regulators to collaborate on and coordinate a comprehensive approach to prevent the rise of unregulated (or under-regulated) stablecoin issuers and platforms that could pose risks to consumers, investors, the financial system, and the general economy; and
- Provide consistent treatment of banks and non-banks that engage in similar stablecoin activity to prevent regulatory arbitrage and ensure all customers are protected equally.

\* \* \*

ABA Assessment of Legislative Recommendations in the PWG Report	
Legislative Recommendations	ABA Assessment
<b>Stablecoin Runs:</b> Require stablecoin issuers to be insured depository institutions, subject to appropriate supervision and regulation at the depository institution and the holding company level, and require them to be subject to standards and regulations aimed at managing liquidity risk.	ABA supports this recommendation. Requiring stablecoin issuers to be insured depository institutions, subject along with their key affiliates to consolidated supervision and prudential regulation, is the most effective way to address risks to stablecoin users and guard against stablecoin runs.
<b>Payment System Risk:</b> Require custodial wallet providers to be subject to appropriate federal oversight.  Provide the federal supervisor of a stablecoin issuer with the authority to require any entity that performs activities that are critical to the functioning of the stablecoin arrangement to meet appropriate risk-management standards.	ABA supports these recommendations. Custodial wallet providers play a key role in the stablecoin ecosystem, and it is critical that they be subject to appropriate federal oversight to address payment system risk. This should include, among other things, requirements for clear and complete disclosures and protections against fraud, manipulation, and related risks, as well as appropriate risk management standards.
<b>Systemic Risk and Concentration:</b> Require stablecoin issuers to comply with activities	ABA supports imposing activities restrictions that limit the affiliation of stablecoin issuers

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<p>restrictions that limit affiliation with commercial entities.</p> <p>Supervisors should have authority to implement standards to promote interoperability among stablecoins.</p> <p>In addition, Congress may wish to consider other standards for custodial wallet providers, such as limits on affiliation with commercial entities or on use of users' transaction data.</p>	<p>with commercial entities to prevent the concentration of economic power and address additional concerns about systemic risk.</p> <p>Interoperability among stablecoins and between stablecoins and other payment instruments is critical in order not to disrupt existing payments systems.</p> <p>Appropriate restrictions that limit affiliation of custodial wallet providers with commercial entities and the use of users' transaction data will help to prevent concentration of economic power.</p>
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July 15, 2021

**FEDERAL DEPOSIT INSURANCE CORPORATION**

James P. Sheesley  
 Assistant Executive Secretary  
 Attention: Comments-RIN 3064-ZA5  
 Federal Deposit Insurance Corporation  
 550 17th Street NW  
 Washington, DC 20429

**Re: Request for Information and Comment on Digital Assets (RIN 3064-ZA25)**

Ladies and Gentlemen:

The American Bankers Association (“ABA”)<sup>1</sup> welcomes the opportunity to comment on the request by the Federal Deposit Insurance Corporation (“FDIC”) for information and comment concerning insured depository institutions’ current and potential activities related to digital assets (“RFI”).<sup>2</sup> This RFI is a timely look at an important issue. Digital asset markets are relatively new and have the potential to be a catalyst for change in financial markets.

Banks are actively evaluating ways to safely and responsibly allow their customers to buy, hold, and sell digital assets through their existing banking relationships. ABA believes that customers who choose to access these markets are best served when they can do so through banks that are subject to rigorous oversight and supervision to ensure compliance with appropriate safety and soundness and consumer protection requirements. However, significant questions remain regarding the regulation of these markets. In this letter, we highlight the need for (1) a consistent taxonomy for digital assets, (2) regulatory clarity regarding what digital asset activity is permissible for a bank, and (3) consistent regulation of banks and non-banks engaged in digital asset activity.

Accordingly, we support the FDIC’s efforts to seek more information regarding the use of digital assets in financial markets and intermediation, as well as in connection with settlement and payment systems. ABA encourages the FDIC to promote responsible innovation so that banks can meet their customers’ needs by offering products and services in the digital asset space.

<sup>1</sup> The American Bankers Association is the voice of the nation’s \$21.5 trillion banking industry, which is composed of small, regional, and large banks that together employ more than 2 million people, safeguard \$18 trillion in deposits and extend nearly \$11 trillion in loans.

<sup>2</sup> FDIC, Request for Information and Comment on Digital Assets, 86 Fed. Reg. 27602 (May 21, 2021), <https://www.govinfo.gov/content/pkg/FR-2021-05-21/pdf/2021-10772.pdf>.

## I. Background

The FDIC requests comment generally on the broad categories of digital assets and related activities described in the RFI. However, the RFI does not define the term “digital asset.” While there is no generally agreed upon definition, for the purposes of this letter, we will broadly construe the term “digital asset” to mean private digital assets that depend primarily on cryptography and distributed ledger or similar technology.<sup>3</sup> This includes privately-issued cryptocurrencies (such as Bitcoin and Ethereum), stablecoins, and non-fungible tokens. In this letter, we will not address the treatment of tokenized commercial bank money,<sup>4</sup> tokenized securities, or central bank digital currencies (“CBDCs”).<sup>5</sup>

Digital assets, in the form of cryptocurrencies, were initially intended to be used to facilitate payments transactions. In some cases, their protocols claim to make participants’ transactions anonymous. As the market has developed, new use cases have emerged. In fact, there is a diverse, complex, and rapidly evolving ecosystem of digital asset products today. The digital and programmable nature of these products means that they can be used to facilitate many kinds of financial activities that increasingly mirror the products and services offered by traditional financial institutions—to cite two examples: decentralized finance (“DeFi”) lending and stablecoin yield farming.<sup>6</sup>

Although this market continues to develop at a rapid pace, there remains significant uncertainty related to the regulation of digital assets. Among other things, this uncertainty makes it difficult to identify the legal status of a cryptocurrency. Given the regulatory uncertainty surrounding the framework applicable to digital assets, banks have moved more carefully to market than many of the less regulated providers of these services. Such non-bank market entrants are typically not subject to prudential regulation and examination, are not subject to robust capital and liquidity requirement, and could expose consumers and counterparties to harm.<sup>7</sup>

<sup>3</sup> See, e.g., Financial Stability Board, Regulation, Supervision and Oversight of “Global Stablecoin” Arrangements (Oct. 13, 2020), <https://www.fsb.org/wp-content/uploads/P131020-3.pdf>.

<sup>4</sup> Tokens and/or digital coins issued by commercial banks that represent U.S. dollars held in specified accounts are fundamentally different from stablecoins issued by non-bank entities, as they present a mere alternative means for accessing and using funds placed with depository institutions, similar to checks and prepaid debit cards. As direct bank liabilities that meet the statutory definition of “deposits,” such tokens do not raise the same risks and issues posed by stablecoins and are already subject to a robust and extensive regulatory framework.

<sup>5</sup> CBDC raise important and complex policy issues that are beyond the scope of this letter.

<sup>6</sup> For a discussion of products and services in the digital asset marketplace, please see ABA, *Understanding Cryptocurrency: What Banks Need to Know* (July 2021), <https://www.aba.com/news-research/research-analysis/understanding-cryptocurrency>.

<sup>7</sup> Given customer demand, not having a clear regulatory framework for financial institutions may push this activity to a less regulated sector with potential implications for financial stability and consumer protection.



## II. General Considerations

ABA recognizes that regulators are increasingly interested in the digital asset ecosystem, and we support their continued work to ensure that banks can provide their customers products and services related to digital assets. We encourage regulators to continue to engage in a coordinated fashion to help develop a framework for banks to engage in such activities in a safe and responsible manner. To that end, we wish to raise the following general considerations in connection with the RFI.

### A. Characterization of Digital Assets

The ability to understand these markets and how existing regulation applies requires a clear and consistent taxonomy between the FDIC and other regulators. A common taxonomy and understanding of crypto assets' risks and features, broadly consistent and coordinated across all the relevant regulators, is essential to fostering prudent innovation within a sound risk management framework.

To the extent that the FDIC or other U.S. regulator provides regulatory guidance or policy regarding digital assets, it is critical that it work with other regulators and stakeholders to define the term "digital asset," and any related terms, clearly for purposes of the guidance or policy. Lack of clarity regarding what products and services are being addressed or covered by agency action can inadvertently sweep in more products than intended. This can discourage banks from engaging in digital asset activity by imposing unnecessary regulatory costs. For example, the risk profiles of cryptocurrencies like Bitcoin are different from the risk profiles of stablecoins, and therefore their regulatory treatment should be tailored to correspond to their respective riskiness.

Furthermore, to avoid confusion and simplify regulatory compliance, it is critical that the FDIC and other regulators use digital asset terms consistently. Different categorization of the same instrument by different regulators will increase legal uncertainty and lead to unnecessary complexity and inefficiency. In addition, we encourage the FDIC and other banking regulators to work with non-banking regulators to reach consensus and clarity regarding the status of digital assets as cash equivalents, intangibles, securities, or commodities that are not securities, as the legal characterization of digital assets affects their bank regulatory treatment. Regulatory coordination will inevitably take time, so regulators should be transparent in their process and be ready to quickly respond to requests.

### B. Regulatory Clarity

Well managed banks have robust risk management and compliance systems that can account for the risks of digital assets, particularly where the core products and services offered (*e.g.*, secured lending) are largely consistent with those offered by banks today. Consistent with prior agency actions, we think it would be appropriate for the FDIC and other banking regulators to clarify that such activities are generally permissible when conducted in a safe and sound manner, notwithstanding the novel technology involved.

Furthermore, since banks often have multiple regulators, it is important for regulators to take a coordinated approach that fosters innovation and gives banks clarity regarding their expectations for safe and responsible digital asset activities. The FDIC can play an important role in collaborating with other banking agencies to promote a common understanding and consistent

application of laws, regulations, and guidance that will support responsible innovation. The FDIC could work more closely not only with the other banking agencies, but also with non-bank agencies whose actions can affect innovation by banks (e.g., the Commodity Futures Trading Commission, Securities and Exchange Commission, Consumer Financial Protection Bureau, and Federal Trade Commission).

### C. Consumers and other Market Participants Should Receive Consistent Protections

Banks are already subject to a comprehensive regulatory framework and supervision that help ensure that digital asset activities are implemented carefully and do not lead to unintended consequences. This activity is backed by a culture of compliance and supervision and examination that ensures that any risks are identified and remediated before there is harm to consumers or other market participants.

This level of oversight and supervision should be applied to banks and non-banks alike to ensure all customers are protected equally, regardless of where they engage with the financial marketplace. To this end, the FDIC and other regulators should coordinate their approaches to digital assets to create consistent expectations regarding digital assets, to the extent possible and appropriate. As non-bank technology firms begin offering banking products and services through digital channels, the FDIC and other regulators should coordinate their efforts, to the extent the activity falls within their jurisdiction, to ensure that these activities are appropriately monitored, emerging risks adequately captured, and all applicable legal requirements met.

Certain novel charters raise concerns regarding an uneven application of supervision and regulation. The state of Wyoming created a Special Purpose Depository Charter (“SPDC”) for cryptocurrency-focused firms that accept uninsured deposits. This exempts these state-chartered banks from being subject to the prudential standards required of federally-insured or supervised financial institutions. The OCC has granted three trust charters to firms operating business models facilitating cryptocurrency payments and digital asset custody instead of traditional trust fiduciary services.<sup>8</sup> Bank policy makers should recognize that although these entities are chartered, they are not subject to all of the same laws and regulations as insured banks.<sup>9</sup>

<sup>8</sup> See OCC Interpretive Letter No. 1176, OCC Chief Counsel’s Interpretation on National Trust Banks (Jan. 11, 2021), <https://occ.gov/topics/charters-and-licensing/interpretations-and-actions/2021/int1176.pdf>.

<sup>9</sup> See ABA’s previous advocacy in this area: ABA Statement for the Record Before the Subcommittee on Consumer Protection and Financial Institutions re: Banking Innovation and Financial Charters (Apr. 15, 2021), <https://www.aba.com/advocacy/policy-analysis/aba-statement-consumer-protection-financial-institutions-banking-innovation>; Joint Trades Letter on Interpretive Letter 1176 (May 27, 2021), <https://www.aba.com/advocacy/policy-analysis/joint-trades-il-1176>; Joint Trades Letter to OCC re: Trust Charter Application (Jan. 8, 2021), <https://www.aba.com/advocacy/policy-analysis/joint-trades-letter-to-occ-re-trust-charter-application>; Joint Trades Letter to OCC re: Figure Bank (Dec. 7, 2020), <https://www.aba.com/advocacy/policy-analysis/joint-trades-letter-to-occ-re-figure-bank>; and Joint Trades Letter to OCC re: Novel National Bank Chart Applications (Nov. 20, 2020), <https://www.aba.com/advocacy/policy-analysis/joint-trades-letter-to-occ-re-novel-national-bank-chart-applications>.

### III. Specific Issues

#### A. Custody Services

ABA believes an appropriately chartered and regulated state or national bank may provide cryptocurrency custody services on behalf of customers, including by holding the unique cryptographic keys associated with cryptocurrency, as part of its existing custody business. Providing cryptocurrency custody services, including holding the unique cryptographic keys associated with cryptocurrency, is a modern form of traditional banking activities.<sup>10</sup> As financial markets develop and become increasingly technological, there will be increasing need for banks to leverage new technology and innovative ways to provide traditional services on behalf of their customers. By providing such services, banks can continue to fulfill the financial intermediation function they have historically played in providing payment, loan, and deposit services.<sup>11</sup> Banks are ideally suited to perform custody services in connection with digital assets because they have the legal and compliance systems in place to address applicable anti-money laundering (“AML”) requirements, as well as address cybersecurity and risk management issues.

We encourage the FDIC to recognize that providing custodial services for digital assets is a modern form of traditional banking activities.

#### B. Partnerships with Technology Firms

Developing and bringing to market new or improved financial products, services, and processes is an integral part of a typical bank’s business model. Technology firms partner with banks to access the payments system to onboard and offload deposits. Such partnerships are becoming increasingly common and already subject to existing regulatory requirements applicable to banks entering into partnerships with third parties.

We encourage the FDIC to support bank partnerships with non-bank technology firms, where appropriate.

#### C. Capital Treatment

ABA is working to provide a response to the recent Basel Committee’s consultation on the prudential treatment of cryptoasset exposures.<sup>12</sup> We would be happy to share our response to the Basel Committee with the FDIC after it is submitted. We encourage the FDIC to consider the information that is being gathered by the Basel Committee in connection with this consultation, as it is directly relevant to the use of digital assets by banks, as well as their characterization and treatment under various aspects of bank regulatory regimes, including capital and liquidity treatment.

<sup>10</sup> See, e.g., OCC Interpretive Letter No. 1170, Authority of a National Bank to Provide Cryptocurrency Custody Services for Customers (July 22, 2020), <https://www.occ.gov/topics/charters-and-licensing/interpretations-and-actions/2020/int1170.pdf>.

<sup>11</sup> See *id.*

<sup>12</sup> See Basel Committee on Banking Supervision, *Consultative Document: Prudential Treatment of Cryptoasset Exposures* (June 2021), <https://www.bis.org/bcbss/publ/d519.pdf>.

#### D. Stablecoins

ABA believes a state or national bank should be able to issue or hold stablecoin “reserves” as a service to bank customers that are issuers of stablecoin. For example, stablecoin issuers may desire to place assets in an account with a state or national bank to provide assurance that the issuer has sufficient assets backing the stablecoin in situations where there is a hosted wallet.<sup>13</sup> State or national banks should also be able to issue stablecoins as direct liabilities of the bank to ensure that utilization of the banking system is not lost over time due to the failure to provide products in demand by customers.<sup>14</sup>

ABA further believes a state or national bank should be able to serve as a node on an independent node verification network (“INVN”) and use INVNs and related stablecoins to conduct permissible banking activities, including authorized payment activities.<sup>15</sup>

We encourage the FDIC to recognize that engaging in such activities with respect to stablecoins is permissible banking activity.

#### IV. Conclusion

ABA appreciates the opportunity to provide comments on the FDIC’s RFI on digital assets. Digital assets represent a rapidly developing marketplace, and banks are actively evaluating ways to safely and responsibly allow their customers to buy, hold, and sell digital assets through their existing banking relationships. For the reasons set forth above, we believe that customers who choose to access these markets are best served when they can do so through banks that are subject to rigorous oversight and supervision to ensure compliance with appropriate consumer protections and other regulatory requirements.

Sincerely,



Matthew A. Daigler

Vice President & Senior Counsel  
Innovation Policy and Regulation

<sup>13</sup> See, e.g., OCC Interpretive Letter No. 1172, OCC Chief Counsel’s Interpretation on National Bank and Federal Savings Association Authority to Hold Stablecoin Reserves (Sep. 21, 2020), <https://www.occ.gov/topics/charters-and-licensing/interpretations-and-actions/2020/int1172.pdf>.

<sup>14</sup> In addition, state and national banks should be able to record bank deposits using cryptography or other technology as a separate and distinct product from stablecoins. See *supra* note 4.

<sup>15</sup> See OCC Interpretive Letter No. 1174, OCC Chief Counsel’s Interpretation on National Bank and Federal Savings Association Authority to Use Independent Node Verification Networks and Stablecoins for Payment Activities (Jan. 4, 2021), <https://www.occ.gov/news-issuances/news-releases/2021/nr-occ-2021-2a.pdf>.





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*Via Electronic Submission*

September 10, 2021

Basel Committee on Banking Supervision  
Bank for International Settlements  
CH-4002 – Basel, Switzerland

RE: Consultative Document - Prudential Treatment of Cryptoasset Exposures (June 2021)

Ladies and Gentlemen:

The American Bankers Association (ABA)<sup>1</sup> is pleased to respond to the consultative document (Consultation) dated June 2021, issued by the Basel Committee on Banking Supervision (BCBS) concerning prudential treatment of banks' cryptoasset exposures. The Consultation provides a useful starting point for analysis of the regulatory issues relevant to bank cryptoasset activities. ABA believes, however, that considerable further work is required to inform this policy debate, which should be framed by three key principles:

- Market participants and supervisors should acknowledge the need for and work to develop a broad, common understanding of key features of the many existing cryptoassets, as well as the principal risks they present, as the basis for prudential treatment of these assets.<sup>2</sup>
- As banks seek to serve customers who want exposure to cryptoassets, national regulatory and supervisory authorities must permit prudent innovation to accommodate those customer desires. Authorities should be careful to avoid preempting technological innovation by being overly prescriptive - technological evolution is rapid, and highly prescriptive regulation cannot be adjusted quickly enough to remain current. Inflexibility would constrict financial inclusion and other benefits of emerging technology.
- The overall stability of the global financial system will benefit from the transparency that will result by conducting a significant share of the cryptoasset market through supervised financial institutions, as opposed to being driven outside the banking system. Rational supervision and regulation that avoids overly prescriptive approaches will promote key

<sup>1</sup> The American Bankers Association is the voice of the nation's \$22.8 trillion banking industry, which is composed of small, regional and large banks that together employ more than 2 million people, safeguard nearly \$19 trillion in deposits and extend \$11 trillion in loans.

<sup>2</sup> This document, unless otherwise specified, uses the definition of "cryptoasset" set out in the Consultation, drawing on earlier consultative documents: private digital assets that depend primarily on cryptography and distributed ledger or similar technology. See Consultation at 1, <https://www.bis.org/bcbs/publ/d519.pdf>.

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public objectives of law enforcement, and suppression of terrorism finance and other security threats.

Numerous aspects of the Consultation bear directly on these principles. The balance of this discussion explores these aspects in more detail.

#### **Summary of Recommendations**

- The proposed definition of Group 1 cryptoassets creates operational problems and a potential “cliff effect” that could undermine financial stability. Below are several suggestions for mitigating or eliminating these risks.
- The proposed risk weight for Group 2 cryptoassets is unnecessarily high.
- Credit risk and market risk for Group 2 cryptoassets should be assessed separately as is currently done for other assets.
- Hedging and netting should be recognized and encouraged as risk mitigants.

#### **The general principles that guided the Consultation fail to highlight adequately several key factors that could produce adverse results.**

The Consultation’s three guiding principles (summarized) are:

- Same risk, same activity, same treatment;
- Simplicity; and
- Minimum standards (*i.e.*, national regulatory and supervisory authorities would be free to add additional and/or more conservative requirements).<sup>3</sup>

Though appealing at first impression, application of these principles in a regulatory and supervisory scheme requires careful judgment.

First, equivalent treatment that is “technology neutral” is a sensible approach only if it is based on a thorough understanding of the relevant technology and the related operational risks. Lack of a thorough understanding on the part of regulatory and supervisory agencies would mean difficulties in understanding whether the “same risk” is present, likely leading to overregulation. The recent intense focus on operational risks generally (*e.g.*, cybersecurity) makes concern about potential overregulation even greater.

Second, the principle of simplicity as discussed in the Consultation appears to conflict in important respects with the principle of “same treatment.” As discussed in detail below, the

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<sup>3</sup> See Consultation at 2.

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Consultation's proposed capital treatment for cryptoassets conflates capital protections against credit risk with those that protect against market risk. Though such an approach would arguably be simpler in many ways (and, indeed, regulatory capital regimes from decades past could be described as doing the same), the approach was discarded in favor of more granular measures of risk, with which internationally active banks are now familiar and which they have operationalized. Particularly with respect to cryptoassets that exhibit significant market volatility, national regulatory and supervisory authorities should seek consistent treatment for cryptoassets and traditional assets presenting similar risks, bearing in mind the relevance of differing technological characteristics discussed above.

Third, though the principle of minimum standards properly acknowledges the legal and practical aspects of the relationship of BCBS to national regulatory and supervisory authorities, divergence in national standards applied to internationally active banks creates a significant risk of regulatory fragmentation. Not only could this approach result in unfair terms of competition among those banks, but it also risks skewing markets because of regulatory arbitrage. An original objective of BCBS's work was to place regulation of international banking activity on a reasonably consistent basis across jurisdictions,<sup>4</sup> and that objective certainly is important to this rapidly evolving financial sector.

**The proposed definition and treatment of Group 1 assets would raise practical and operational problems and create a potential cliff effect that could undermine financial stability.**

For tokenised traditional assets (Group 1a) and cryptoassets with effective stabilization mechanisms (Group 1b), the Consultation proposes application of the same risk-based capital treatments that apply to the underlying traditional assets, as long as the cryptoassets meet specified structural conditions.<sup>5</sup> The conditions generally require either (in the case of Group 1a assets) that cryptoassets be digital representations of traditional assets using cryptography, Distributed Ledger Technology (DLT) or similar technology, or (in the case of Group 1b assets) that the asset have a stabilization mechanism that is effective at all times in linking their value to underlying traditional assets or a pool of traditional assets. The arrangements establishing these structures must be legally enforceable, have robust operational risk management, and be transparent such that all transactions and participants are traceable. In addition, only regulated and supervised entities could execute redemptions, transfers, and transaction settlements.<sup>6</sup> For Group 1b cryptoassets, the Consultation proposes that the daily difference between the value of the cryptoasset and the underlying traditional asset(s) must not exceed 10bp of the value of the underlying traditional asset more than three times over a one-year period.<sup>7</sup>

<sup>4</sup> See [History of the Basel Committee](https://www.bis.org/bcbs/history.htm), available at <https://www.bis.org/bcbs/history.htm>.

<sup>5</sup> Consultation at 3. Stabilization mechanisms that: (i) reference other cryptoassets as underlying assets, or (ii) use protocols to increase or decrease the supply of the cryptoasset are not considered to meet this condition. See Consultation at 4.

<sup>6</sup> Consultation at 4-5.

<sup>7</sup> Consultation at 4.



Thus, the risk-based capital treatment of Group 1 cryptoassets would depend entirely on compliance with all of these tests, and, because of the highly punitive proposed risk weight proposed for other cryptoassets, discussed below, the consequences of failing any part of the tests could be catastrophic from a compliance and economic standpoint. If legal aspects of a cryptoasset's stabilization mechanism were called into question, *e.g.*, by an adverse court ruling in litigation to which a given institution was not a party, the bank could be required to reclassify its investment upon very short notice and with no opportunity to contest the result. The undesirable choice between dealing with a suddenly recognized capital deficiency and liquidating a position in what is likely a highly uncertain environment (at least as concerns that specific asset) is unlikely to further either institutional safety and soundness or financial stability generally.

Another potentially harmful (and avoidable) "cliff effect" would occur when values diverge beyond the 10bp collar more than three times in a year. Though it may be easier to foresee the potential test failure in advance, a third breach of the collar means a potentially drastic change in capital structure, with the poor choices of solution noted above.

Both of these scenarios can be avoided if national regulatory and supervisory authorities adhere to the principles noted at the beginning of this letter. A thorough common understanding among regulators, supervisors, and regulated institutions of key cryptoasset features should help significantly to avoid unexpected reclassification of assets (*e.g.*, from Group 1 to Group 2) due to misunderstandings or disputes about legal structure and enforceability.<sup>8</sup> In addition, if market volatility (including divergence between a stabilized cryptoasset and the underlying traditional asset) is addressed by more precisely targeted measures, with incrementally higher volatility requiring only incrementally higher capital commensurate with the risk that volatility presents, part of the cliff effect noted above could be avoided. The ability to address market volatility in a more targeted way depends on a more thorough common understanding of cryptoassets by regulators and regulated institutions.<sup>9</sup>

In addition, the proposed requirement that, for Group 1 cryptoassets, entities that execute redemptions, transfers, or settlements of the cryptoasset be regulated and supervised is likely to inhibit banks' dealings with some existing major cryptoasset market participants.<sup>10</sup> Some degree

<sup>8</sup> The Consultation does not reach the question of who decides whether a particular cryptoasset meets the conditions for Group 1 treatment. Though national regulatory and supervisory authorities would certainly have significant voices in such decisions, it is unlikely that regulatory processes alone would be sufficiently flexible and nimble to accommodate rapid market innovation. On the other hand, supervised banks might be discouraged from market participation if there lingering uncertainty about classification, particularly if the "cliff effects" discussed in the text are not addressed. Both of these considerations have the potential to inhibit banks' service to customers and to create a bias in favor of unregulated, unsupervised market participants in cryptoasset transactions. The entire cryptoasset classification logic must be judged against these considerations.

<sup>9</sup> Moreover, as discussed more generally below, a comprehensive capital treatment of cryptoasset market risk should follow existing, well-understood models, and the classification problems described above could more easily be appropriately addressed.

<sup>10</sup> For example, a recent €100MM bond offering by the European Investment Bank was delivered to investors via the Ethereum blockchain. See [https://www.eib.org/en/press/all/2021-141-european-investment-bank-eib-issues-its-](https://www.eib.org/en/press/all/2021-141-european-investment-bank-eib-issues-its-ethereum-blockchain)

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of diligence to verify other structural and legal aspects of stabilization mechanisms, as well as monitoring of market data, are logically necessary, but these prudent requirements do not necessarily depend upon, or even benefit from, the regulated and supervised status of service providers involved in the transaction. As long as banks can satisfy supervisors that these other conditions are met, supervisors should be flexible regarding the status of other parties.

**The proposed risk weight of 1,250% for Group 2 cryptoassets is punitively high, particularly in light of the “cliff effect” of a classification failure.**

The Consultation proposes that any cryptoasset that fails any aspect of the Group 1 tests be treated as a Group 2 cryptoasset, which would carry a 1,250% risk weight.<sup>11</sup> This proposed risk weight amounts to a mandate to fund long positions in Group 2 cryptoassets 100% with capital, not permitting any leverage,<sup>12</sup> and to hold similar capital against the notional amount of short positions. The rationale for this punitive risk weight is that it is intended to address both credit risk and market risk,<sup>13</sup> and it may be an attempted analogy to the capital treatment of intangible assets.<sup>14</sup>

This aspect of the proposal raises several concerns. First, as noted above, a change in classification from Group 1 to Group 2 would have drastic results if the proposed risk weight is used. Regardless of the cause of the classification shift, the dramatic increase in risk weight, especially if unanticipated, may force liquidation of the position. Moreover, as noted above, such liquidations would be likely to occur under adverse market conditions for that asset, when either the legal status of a stabilization arrangement is suddenly thrown into doubt, or market conditions have resulted in (or market participants anticipate) an increase in volatility. In the latter case, liquidation of positions ahead of an expectation that a cryptoasset is likely to breach the Group 1 volatility collar could create a self-fulfilling prophecy.

These risks of sudden, adverse regulatory consequences, in addition to the punitively high risk weight *per se*, would likely amount to an effective prohibition of Group 2 cryptoasset activity by many banks. The unfavorable economics of positions in acknowledged Group 2 cryptoassets, combined with the potential uncertainty inherent in the proposed classification of Group 1 cryptoassets, would seriously inhibit banks from accommodating their customers’ desire for cryptoasset exposure, even if managed conservatively and prudently.

The 1,250% risk weight also assumes that all Group 2 cryptoassets present equivalent combined credit and market risks. Both regulated banks and national regulatory and supervisory authorities are unlikely to accept this implicit conclusion. At a minimum, assets that do not present a risk of

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[first-ever-digital-bond-on-a-public-blockchain](#). The financial and legal terms of this security would clearly meet the requirements of Group 1a, but [certain steps in] its transfer and settlement were not through a regulated entity.

<sup>11</sup> Consultation at 13. This treatment would not, however, apply to any assets that have already been deducted from Common Equity Tier 1 (CET1) under applicable risk-based capital regimes.

<sup>12</sup> This calculation assumes a basic risk-based capital requirement of 8% of risk-weighted assets.

<sup>13</sup> See Consultation at 14.

<sup>14</sup> Note that intangible assets usually lack available market quotations. Even many highly volatile cryptoassets have readily available market quotations.

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a particular party failing to perform an obligation (because the structure of the cryptoasset includes no such obligation) present essentially no credit risks compared to those that do, and this difference should be reflected in an appropriate difference in risk weight.<sup>15</sup>

Finally, banks involved in or contemplating cryptoasset market-making have noted that some assets, such as tokenized bonds, involve payment of fees and similar charges in Group 2 cryptoassets.<sup>16</sup> For example, to send bonds that have been issued via the Ethereum blockchain network to investors, firms must pay transaction fees in Ether. Ether and other Group 2 assets held for such purposes should be subject to a significantly lower risk weight.

Given all of these concerns, BCBS should propose a risk weight for Group 2 cryptoassets no higher than 400%. This risk weight is currently applied to “speculative unlisted equity,” including private equity securities and similar assets that typically offer very limited liquidity or price transparency. Many Group 2 cryptoassets offer a significantly higher degree of liquidity and price transparency. The development of a cryptoasset capital regime would ideally be based on a range of risk weights subject to this 400% maximum. To account appropriately for credit exposure will require further empirical research, but a range of risk weights should be an integral part of setting capital requirements for cryptoasset exposure.

**Credit risk and market risk for Group 2 cryptoassets should be assessed separately as is currently done for other assets, and hedging and netting should be recognized and encouraged as risk mitigants.**

Over several decades, BCBS and national regulatory and supervisory authorities have developed highly detailed, carefully calibrated risk-based capital regimes for addressing both credit and market risk. These capital regimes are now applied across the universe of asset types and activities that involve bank balance sheet exposure. As noted above, the Consultation proposes to depart from this framework with respect to Group 2 cryptoassets, substituting a 1,250% risk weight for more carefully calibrated approaches. Both because it would apply concepts already familiar to bank risk managers, supervisors, and public markets, and also because it should more precisely capture risks, BCBS and national regulatory and supervisory authorities should maintain separate but integrated approaches to credit and market risk of cryptoassets.

In this regard, the Consultation proposes restrictions on netting Group 2 cryptoasset positions, including requiring capital against the greater of the gross long and short positions in a given cryptoasset, without netting.<sup>17</sup> This treatment is particularly problematic in light of the further proposal that, since (unhedged) short positions can theoretically lead to infinite losses, national regulatory and supervisory authorities are encouraged to consider incremental capital under Pillar 1 to address this risk.<sup>18</sup> To the extent a long position is partially offset by a short position,

<sup>15</sup> Assessing market risk separately, as discussed below, would facilitate clearer recognition of such structural distinctions.

<sup>16</sup> See, e.g., <https://support.blockchain.com/hc/en-us/articles/360000939903-Transaction-fees>.

<sup>17</sup> Consultation at 13.

<sup>18</sup> Consultation at 13-14.

holding capital, particularly at such a high risk weight, against the gross long position is unwarranted. Assuming an appropriate range of risk weights below 1,250% can be established, calculating capital based on net long positions (after deduction of short positions in the same cryptoasset) should be adequate. Net short positions, which could still theoretically pose infinite risk, require further analysis, but, again, the existing framework for holding capital against credit and market risk should be the guide.<sup>19</sup>

Beyond netting long and short positions, similar logic supports the recognition and encouragement of hedging to address cryptoasset risks. Practical hedging products exist for numerous Group 2 cryptoassets,<sup>20</sup> and these generally present negligible basis risk. Given the extensive history and effort that has gone into hedge recognition for trading book assets generally, it is both unnecessary and potentially dangerous to ignore this aspect of risk management in cryptoasset activities. Participating banks are likely to implement them as part of their own risk management strategies, and regulatory and supervisory regimes should acknowledge their benefits.

Concerning the related issue of recognition of collateral, existing capital frameworks again point to an appropriate approach. Qualification as collateral necessarily entails having adequate liquidity, and that requirement (and other criteria, *e.g.*, requiring a perfected security interest) currently in place for acceptable financial collateral should apply to cryptoassets also. In addition, current rules already address assessment of value and volatility (providing for haircuts). Like other aspects of the existing framework, these features should be incorporated into the capital treatment of cryptoassets.

Moreover, the market risk considerations applicable to Group 2 assets are also inconsistent with the proposed risk weight. For example, as noted above, speculative unlisted equity investments carry a 400% risk weight, and there is normally no market quotation available for such assets. In contrast, many of the best-known Group 2 cryptoassets are regularly quoted, and volatility can be measured and tracked. Graduated capital requirements reflecting documented volatility and the availability of quotations would be preferable to a single, excessively conservative risk weight.

In a final analysis, for all the reasons outlined, BCBS and national regulatory and supervisory authorities should build on and follow existing accounting, hedging, netting, and legal documentation concepts in existing risk-based capital requirements. The propriety of this approach for exchange traded or centrally cleared assets is especially clear, but the same logic applies to other assets as well.

<sup>19</sup> In fact, the Consultation notes that, in addressing capital requirements for short positions, "... the capital add-on would be calibrated... to calculate aggregate capital requirements under the [BCBS's] revised market risk framework... and to use this amount if the result is higher than the requirement based on a 1250% risk weight." Consultation at 15. This aspect of the proposed framework demonstrates the logic of using existing credit and market risk capital frameworks to address cryptoasset risks.

<sup>20</sup> Examples include: [CME bitcoin futures and options](#) and various ETPs/ETFs, such as [ABTC](#), [QBTC11](#), and [BTCC](#).

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**The Consultation leaves other risks for future evaluation, but appropriate capital treatment cannot be developed, and definitely cannot be finalized, in isolation from regulatory and supervisory approaches to those risks.**

The Consultation correctly notes that national regulatory and supervisory authorities (and presumably BCBS) will have to address other risks related to cryptoasset holdings, including leverage capital and liquidity ratios and supplemental capital requirements to address large exposures. Moreover, it notes that cybersecurity/resiliency and other operational risks will be left to Pillar 1 supervision.<sup>21</sup> Though the Consultation provides a very useful opening discussion of risk-based capital requirements for cryptoasset activity, a fully developed risk-based capital regime is impossible to achieve in a context isolated from these other requirements. As the policy discussions of which the Consultation is an important part progress, these topics require concurrent thoughtful examination.

Throughout the policy development process, BCBS and national regulatory and supervisory authorities should operate under the key principles noted at the beginning of this letter: working toward a broad market consensus concerning the key features and risks of cryptoassets; permitting prudent innovation so banks can accommodate customer needs; and avoiding overly prescriptive approaches that shift cryptoasset transactions into less transparent parts of the financial market, with negative consequences for law enforcement and security. Doing so will promote the public interest in competitive, convenient, and secure financial services.

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Thank you for your consideration of the matters discussed. Should you have any questions, please do not hesitate to contact the undersigned at [hbenton@aba.com](mailto:hbenton@aba.com).

Very truly yours,

/s/

Hu A. Benton

Vice President, Banking Policy

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<sup>21</sup> Consultation at 15-17.



**Statement for the Record**  
*On Behalf of the*  
**American Bankers Association**  
*Before the*  
**Subcommittee on National Security, International Development,  
and Monetary Policy**  
*Of the*  
**Financial Services Committee**

**July 27, 2021**

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**Statement for the Record**  
*On Behalf of the*  
**American Bankers Association**  
*Before the*  
**Subcommittee on National Security, International Development,**  
**and Monetary Policy**  
*Of the*  
**Financial Services Committee**  
**July 27, 2021**

Chairman Himes, Ranking Member Barr, and members of the Subcommittee on National Security, International Development, and Monetary Policy, the American Bankers Association (ABA) appreciates the opportunity to submit a statement for the record for the hearing titled “The Promises and Perils of Central Bank Digital Currencies.” The topic of today’s hearing is an important one, with significant implications for our financial system, economy, markets, and most importantly for the American consumer.

Policymakers around the world, including at the U.S. Federal Reserve, are examining the potential opportunities and risks associated with issuing Central Bank Digital Currencies (CBDCs).<sup>1</sup> A number of central banks are moving from conceptual research to developing pilot programs to explore the uses and efficiency of CBDCs.<sup>2</sup> As this work progresses, there is a growing recognition that central bank digital currencies may be weighed down by very significant real-world trade-offs. The reality is that the dollar is largely digital today. The proposed benefits of CBDCs to international competitiveness and financial inclusion are theoretical, difficult to measure, and may be elusive, while the negative consequences for monetary policy, financial stability, financial intermediation, the payments system, and the customers and communities that banks serve could be severe.

The primary reason for this disconnect between the commonly-touted benefits of CBDCs and the more privately-assessed risks of re-engineering our financial system is that we tend to treat CBDCs superficially, as though a digital currency is a single concept, and one that could be implemented beside, rather than on top of, our existing system. Neither is true. A CBDC is not a single proposal; rather, it refers to a wide range of different proposals with varied potential

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<sup>1</sup> In its simplest terms, a CBDC is a digital representation of a country’s government-issued, central-bank-controlled money (a “digital dollar”). A CBDC would be a liability of the central bank, just as the dollar is today.

<sup>2</sup> See BIS Papers No. 114, *Ready, Steady, Go? – Results of the Third BIS Survey on Central Bank Digital Currency* (Jan. 2021), <https://www.bis.org/publ/bppdf/bispap114.pdf>.



designs, each with specific costs and benefits. Nor does CBDC fill a fundamental gap in our financial architecture that it could slide neatly into to perform a discrete role. Some designs are more disruptive than others, but all have the potential to transform the way money flows through our economy in ways both intended and unintended.

#### **The Highlight Reel Effect**

Current policy discussions often fail to acknowledge that many of the purported benefits of CBDC are mutually exclusive and driven by how the CBDC is designed. Choosing between the various designs requires serious and complex policy tradeoffs. Too often CBDC proponents take a “highlight reel” approach to describing CBDC, cherry picking all the perceived benefits, while downplaying the serious risks to consumers and our financial system. In particular, all CBDC designs would take the money currently held on bank balance sheets and place it directly on that of the Federal Reserve.<sup>3</sup> In today’s economy, most money takes the form of bank deposits. Money—and therefore deposits—is created through the private credit allocation process, which is a critical driver of economic growth and prosperity. Taking deposits out of the banking system would disrupt this key economic function by bifurcating deposit taking and lending, making lending more expensive, among other things.<sup>4</sup>

Federal Reserve Chairman Jerome Powell highlighted the importance of this in a recent video where he noted that any potential CBDC “serve as a complement to and not a replacement of cash and current private-sector digital forms of the dollar such as deposits at commercial banks.”<sup>5</sup>

#### **The U.S Already Has the Most Robust Financial System in the World**

As Governor Brainard has recently noted, “In any assessment of a CBDC, it is important to be clear about what benefits a CBDC would offer over and above current and emerging payments options, what costs and risks a CBDC might entail, and how it might affect broader policy objectives.”<sup>6</sup>

For example, it is unclear what policy goals a CBDC would achieve in the United States. For some countries, a CBDC could enhance weak or nonexistent financial systems. Unlike many other countries, the United States has a well-developed and robust financial system that is the

<sup>3</sup> In a May 24, 2021 speech Federal Reserve Governor Lael Brainard highlighted these concerns noting, “Banks play a critical role in credit intermediation and monetary policy transmission, as well as in payments. Thus, the design of any CBDC would need to include safeguards to protect against disintermediation of banks and to preserve monetary policy transmission more broadly.” <https://www.federalreserve.gov/newsevents/speech/brainard20210524a.htm>.

<sup>4</sup> Even a CBDC with account limits would likely have a significant impact on the deposit base. The ECB estimates that a CBDC with account limits of €3,000 would lead to deposit outflows of € 1trillion.

<sup>5</sup> Chair Powell’s Message on Developments in the U.S. Payments System, May 20, 2021 <https://www.federalreserve.gov/videos.htm>.

<sup>6</sup> Lael Brainard, Member Board of Governors of the Federal Reserve System, “Private Money and Central Bank Money as Payments Go Digital: An Update on CBDCs,” Remarks at the Consensus by CoinDesk 2021 Conference Washington, D.C. (May 24, 2021), <https://www.federalreserve.gov/newsevents/speech/brainard20210524a.htm>.

backbone of our economy and markets. As they have done for hundreds of years, American banks today provide a broad array of essential financial and economic functions that benefit their communities, most notably, safekeeping deposits and making loans. For other countries, a CBDC could enhance their payment systems. The United States, however, has one of the most efficient, safe, and modern payments systems in the world. Banks have invested significant resources in expanding faster, safer, more inclusive options, including P2P, real-time payments systems (*e.g.*, The Clearing House Real Time Payment Network (RTP) and the Federal Reserve's FedNow), and upgraded Automated Clearing House (ACH) products. Solutions to pay gig workers instantly and put funded bank accounts into the hands of disaster victims have recently come online, addressing key use cases proffered for CBDC.

The United States should not implement a CBDC simply because we can or because others are doing so. Policy changes of this magnitude should be driven by a careful analysis of the benefits and risks. A CBDC may be beneficial in an economy that does not have an advanced payment system or a robust banking system, or in jurisdictions where the central government is already a major provider or facilitator of financial services and expectations of individual privacy are not strong. **However, after a careful review of the benefits and risks of various proposals to implement a CBDC, it does not appear that a CBDC is well-positioned to enhance underlying financial capabilities or extend the reach of financial services in well-developed markets, at least not in the U.S. context, despite the overly optimistic promises from proponents.**

#### **Policymakers Should Proceed with Extreme Caution**

Given the important policy implications of CBDC and the potential to disrupt the U.S. financial system, we support the Federal Reserve's thoughtful and considered approach. The forthcoming Federal Reserve Bank of Boston findings will be an important next step for understanding the feasibility of this novel technology in our unique economy.<sup>7</sup> We further support the Federal Reserve's recognition that the development of a CBDC would require input, engagement, and support from a range of stakeholders in both the public and private sectors. To this end, we look forward to responding to the discussion paper the Federal Reserve intends to issue this summer, which, according to Chairman Powell, will outline the Federal Reserve's current thinking on digital payments, with a particular focus on the benefits and risks associated with CBDC in the U.S. context.<sup>8</sup> Before the introduction of a CBDC, we believe the Federal Reserve Board, with input from the Treasury and the other banking regulators, should publish a rigorous analysis that assesses the benefits and risks of a CBDC and that convincingly

<sup>7</sup> See "The Federal Reserve Bank of Boston Announces Collaboration with MIT to Research Digital Currency" (Aug. 13, 2021), <https://www.bostonfed.org/news-and-events/press-releases/2020/the-federal-reserve-bank-of-boston-announces-collaboration-with-mit-to-research-digital-currency.aspx>.

<sup>8</sup> The authority of the Federal Reserve to issue CBDC remains an open—and fundamental—question in this policy debate, which must be resolved before Federal Reserve action on this issue. Chairman Powell has expressed reluctance to proceed with a CBDC without Congressional approval. See American Banker, "We don't need to rush' on Fed digital dollar, Powell says" (Mar. 22, 2021), <https://www.americanbanker.com/news/we-dont-need-to-rush-on-fed-digital-dollar-powell-says> (quoting Powell as saying, "I think that would ideally come in the form of an authorizing law, rather than us trying to interpret our law, to enable this").

establishes (if findings warrant) that a CBDC would not create adverse impacts on consumers, markets, or the economy.

In the remainder of this testimony we will:

- Outline the risks and benefits of CBDC designs being considered today, and
- Highlight the challenging tradeoffs policymakers face in achieving their intended goals.

#### **CBDC Design Choices Matter**

The potential benefits and risks of a CBDC depend heavily on the way it is structured, making it impossible to evaluate the merits of CBDC in the abstract. Design choices involve tradeoffs, and so we must avoid a rush to action driven by cherry-picked benefits. By contrast, some of the disadvantages and risks of CBDC carry across all designs.

While a number of factors affect the theorized operation of a CBDC (*e.g.*, whether to use distributed ledger technology or a centralized database), the most important factors are *architecture*, or the role of the central bank in the distribution of CBDC, and *access*, or consumer's utilization of CBDC.<sup>9</sup> The following identifies some of the most significant potential benefits and risks of each architecture and access design choice that policymakers should consider as they determine whether to implement a CBDC in the United States.

#### **Architecture Choices**

Architecture goes to the operational role of the central bank in the CBDC. There are a number of different CBDC architectures, but the two principal models are (1) a "direct" CBDC that provides retail consumers with central bank accounts and (2) an "intermediated or hybrid" CBDC (or "two-tiered" model) where the distribution of CBDC would be through a commercial bank or other financial intermediary, such as a nonbank digital wallet provider.<sup>10</sup>

The following sets forth some of the purported benefits and potential risks of these models.

Direct CBDC	
Potential Benefits	Potential Risks
➤ Provides additional monetary policy tools ( <i>e.g.</i> , increases	➤ Takes money out of the real economy, diverts deposits and

<sup>9</sup> We assume that, in whatever form it takes, CBDC will be compatible with other forms of money (cash, bank notes) and interoperable with pre-existing payment systems that choose to interface with it. Financial institutions, consumers, and end users also should remain free to use CBDC or continue to use conventional digital or physical currency.

<sup>10</sup> A wholesale CBDC model, which focuses on cross-border payments, also raises a number of difficult policy issues, but is beyond the scope of this testimony. Depending on its structure, including whether such a payments system would be interoperable with existing systems, this could adversely affect U.S. payments systems.

<p>influence on deposit rates and reduces the risk of alternative units of account—such as privately-issued cryptocurrencies—dominating)</p> <ul style="list-style-type: none"> <li>➤ May improve access to financial services and enhance financial inclusion</li> <li>➤ May facilitate direct government disbursements to citizens</li> <li>➤ May improve efficiency of payment system by some measures</li> </ul>	<p>stymies money creation, thereby undermining commercial lending and the deposit insurance system</p> <ul style="list-style-type: none"> <li>➤ Makes the Federal Reserve a massive retail bank, introducing significant costs and operational burdens (<i>e.g.</i>, interfacing with customers, building front-end wallets, fraud resolution/mitigation), as well as fundamentally changing the mission of the central bank</li> <li>➤ Likely would lead to less privacy than for those using cash or other forms of digital payments</li> </ul>
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Intermediated or Hybrid CBDC	
Potential Benefits	Potential Risks
<ul style="list-style-type: none"> <li>➤ Decentralized relative to other models (<i>e.g.</i>, central bank will not have customer relationship)</li> <li>➤ Facilitates compliance with anti-money laundering (AML)/combating the financing of terrorism (CFT) and know your customer (KYC) frameworks</li> <li>➤ Provides a more convenient and modern alternative to paper cash</li> <li>➤ Means of countering new private digital currency</li> </ul>	<ul style="list-style-type: none"> <li>➤ Potential for CBDC to move out of banks into non-bank financial institutions</li> <li>➤ If counted as cash, likely would not be available to support lending in the real economy</li> <li>➤ Raises information security risks and the potential for fundamental design mistakes</li> <li>➤ Changes the economics of the payments system, potentially reducing incentives for product innovation</li> </ul>

*Takeaways:*

Policymakers throughout the world have generally concluded that the direct model is not feasible because of the increased costs and operational burdens placed on central banks.<sup>11</sup> A direct CBDC model would effectively set the Federal Reserve up as a retail bank to every household in the nation. This would present an immense operational burden on the central bank, which would be responsible for onboarding customers and servicing those accounts. Today U.S. banks employ over 2 million employees to accomplish the same goal. Among the most critical technical and operational challenges that would need to be dealt with is the risk of creating a global target for cyberattacks or a new avenue for money laundering. A CBDC could be a very attractive target for cyberattacks.<sup>12</sup>

If policymakers determine that a CBDC is warranted to address payments system gaps, a “two-tier” CBDC architecture should form the basis of further work. Under this approach, the Federal Reserve would continue to focus on monetary policy and the underlying design of CBDC, and only commercial banks and appropriately regulated and supervised financial institutions should be permitted to distribute CBDC.<sup>13</sup>

**Access Choices**

Access addresses how consumers can utilize CBDC. Generally speaking, CBDCs may be account-based or token-based.<sup>14</sup> A key difference between the two types of access is the mode of verification when a transaction takes place. Account-based CBDCs are tied to an identity scheme, similar to existing bank accounts. In an account-based system, the accountholders on either end of the transaction are authenticated. Token-based CBDC is more similar to cryptocurrencies and would be freely transferrable tokens, which may be held in an “unhosted”

<sup>11</sup> This appears to be the approach the ECB is taking. *See, e.g.,* Fabio Panetta, Member of the Executive Board of the ECB, “Evolution or Revolution? The Impact of the Digital Euro on the Financial System,” Bruegel Online Seminar (Feb. 10, 2021), <https://www.ecb.europa.eu/press/key/date/2021/html/ecb.sp210210~a1665d3188.en.html> (“[t]he ECB does not plan to interact directly with potentially hundreds of millions of users of a digital euro. We simply would not have the capacity or the resources to do so. Financial intermediaries—in particular banks—would provide the front-end services, as they do today for cash-related operations. We would provide safe money, while financial intermediaries would continue to offer additional services to users.”).

<sup>12</sup> *See, e.g.,* Lael Brainard, Member Board of Governors of the Federal Reserve System Cryptocurrencies, “Digital Currencies, and Distributed Ledger Technologies: What Are We Learning?” Remarks at the Decoding Digital Currency Conference Sponsored by the Federal Reserve Bank of San Francisco, San Francisco, California (May 15, 2018), <https://www.federalreserve.gov/newsevents/speech/files/brainard20180515a.pdf>.

<sup>13</sup> The Federal Reserve is keenly aware of the longstanding legal and policy framework maintaining the separation of banking and nonbank commercial activities. If it decides that private-sector financial intermediaries should play a role in CBDC distribution and transactions as intermediaries, it should assure that this separation is maintained, taking into consideration whatever aspects of banking functions such intermediaries ultimately play.

<sup>14</sup> *See* Alexander Lee, Brendan Malone, and Paul Wong, FEDS Now, “Tokens and Accounts in the Context of Digital Currencies” (Dec. 23, 2020), <https://www.federalreserve.gov/econres/notes/feds-notes/tokens-and-accounts-in-the-context-of-digital-currencies-122320.htm> (highlighting some issues with the “tokens vs. accounts” dichotomy).

digital wallet on the holder's smartphone.<sup>15</sup> In a token-based system, the token itself is authenticated. This makes the token a bearer instrument, much like cash today.

The following sets forth some of the purported benefits and potential risks of these models.

Token-Based CBDC	
<i>Potential Benefits</i>	<i>Potential Risks</i>
<ul style="list-style-type: none"> <li>➤ More consumer privacy in comparison to account-based models</li> <li>➤ Promotes ease of transfer</li> <li>➤ More resilient to infrastructure outages and cyberattacks</li> <li>➤ Most like digital cash</li> <li>➤ Frees the central banks from the duties of large-scale account keeping and reconciliation</li> </ul>	<ul style="list-style-type: none"> <li>➤ Complicates compliance with AML/CFT and KYC frameworks</li> <li>➤ May drain deposits from banks and the real economy, reducing the amount available for banks to lend.</li> <li>➤ May lead to destabilizing runs on bank deposits into central bank money</li> <li>➤ Introduces risk of loss or theft of the private key for the token</li> </ul>

Account-Based CBDC	
<i>Potential Benefits</i>	<i>Potential Risks</i>
<ul style="list-style-type: none"> <li>➤ Most akin to traditional bank accounts</li> <li>➤ Facilitates compliance with AML/CFT and KYC frameworks</li> <li>➤ Helps to preserve banks' deposit base, and money creation function that is essential to lending and economic growth</li> </ul>	<ul style="list-style-type: none"> <li>➤ May not achieve the potential benefits of introducing CBDC</li> <li>➤ May pose threat to financial anonymity and privacy for citizens</li> <li>➤ May not be available to support lending in the real economy</li> </ul>

<sup>15</sup> An "unhosted" wallet describes situations where transactions from the wallet do not require the use or involvement of a financial institution.

*Takeaways:*

In considering the trade-offs between account-based and token-based CBDC, including the ability to use unhosted wallets and engage in offline transactions, policymakers should ensure they are not facilitating money laundering or more generally impeding the ability of financial institutions to comply with AML/CFT and KYC frameworks, or to respond to lawful government orders. They should also be mindful of privacy concerns related to direct government oversight of consumer accounts. These two objectives are difficult to reconcile and may be mutually exclusive.

**Policymakers Face Challenging Tradeoffs to Achieve Desired Outcomes**

As discussed above, the various designs of CBDC being considered today all come with significant tradeoffs. As policymakers consider how to achieve their desired outcomes, they must seriously consider these tradeoffs. The intended benefits of implementing a CBDC are often less than expected, given these tradeoffs. In some cases, these benefits may be effectively non-existent because they come at such a high cost. Below, we briefly describe some key considerations for policymakers as they look to achieve their desired outcome.

**Risks***Financial Intermediation:*

As noted above, every construction of CBDC requires moving funds from banks' balance sheets to the Federal Reserve. Regardless of the model chosen, a CBDC is a direct liability of the central bank. This contrasts to bank deposits, which are a liability on an individual bank insured by the Federal Deposit Insurance Corporation (FDIC).

In effect, these accounts will serve as an advantaged competitor to retail bank deposits that will move money off bank balance sheets where it can be lent back into the economy and into accounts at the Federal Reserve. Philadelphia Fed Research referenced above found that these proposals would create a "deposit monopoly" that would "attract deposits away from the commercial banking sector."<sup>16</sup>

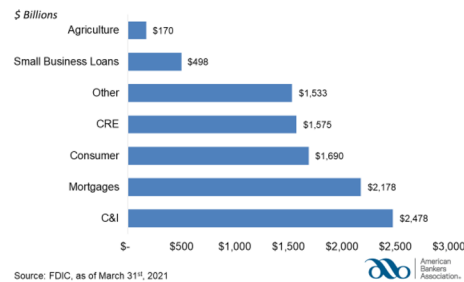
While depositors at FDIC insured banks have never lost a penny of an insured deposit, it is hard to compete with a government agency that prints that money. Philadelphia Federal Reserve research found that depositors value this and will, in equilibrium, choose to hold their funds at the Federal Reserve instead of at retail banks, establishing the Federal Reserve as a "deposit monopolist."

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<sup>16</sup> <https://www.philadelphiafed.org/-/media/frbp/assets/working-papers/2020/wp20-19.pdf>.

These bank deposits are the primary funding source of bank loans. These loans are critical drivers of economic growth and prosperity. In the United States today, banks fund more than \$10 trillion in loans. This includes \$2.1 trillion in consumer mortgages, \$1.6 trillion in consumer loans, and \$498 billion in small business loans.<sup>17</sup> Any reduction in this deposit base would quickly impact consumers and small businesses in the form of reduced credit availability and increased cost, undermining the goal of financial inclusion and undercutting economic growth.

#### Bank Loans Support Economic Growth



Some models seek to minimize this effect by capping the amount of funds that can be held in CBDC. However, this limits the potential benefits of a CBDC account. These limits would reduce the business use cases often cited as in arguments for CBDC's ability to promote international competitiveness. It also does little to offset the problem. For example, the ECB estimates that a CBDC with account limits of €3,000 would lead to deposit outflows of €1 trillion.

Unlike retail banks, the Federal Reserve is not prepared to make loans to consumers and businesses. As deposits migrate from bank balance sheets to the Federal Reserve, capital that fuels economic growth will be severely restricted.

In times of economic hardship, the bank balance-sheet driven model is even more important. Banks' balance sheets and strong capital position allow them to make long-term investments and continue lending throughout a downturn, just when it is needed most.

A digital currency also creates a risk to financial stability. In times of economic stress, depositors are likely to prefer holding their money at the Federal Reserve. This creates a risk of bank runs that would undermine financial stability.

#### Anti-Money Laundering, Sanctions Enforcement, and Countering the Financing of Terrorism:

One significant challenge associated with many CBDC models is whether the central bank has the ability to identify users and track funds held in CBDC. Today, it is difficult to track the movement of physical cash throughout the economy. There is significant investment in programs to address this; however, any of those rely on the fact that is logistically challenging

<sup>17</sup> Federal Deposit Insurance Corporation Quarterly Banking Profile (May 26, 2021).



to move large amounts of physical cash. Simply put, it is difficult to move large volumes of physical cash. Digitizing that cash as a CBDC allows users to more easily move larger sums, making a CBDC more attractive to those looking to circumvent these important measures.

In the case of a direct CBDC, the Federal Reserve would be able to control for account onboarding and implement these checks itself. However, the operational burdens of doing so are significant. Today U.S. banks employ an estimated 20,000 employees to accomplish this.

Moving to an indirect model does not solve this challenge either. A token-based CBDC presents even more challenges to implementing these controls. Token-based CBDCs are authenticated by the token (not the user) similar to many cryptocurrencies in the market today. These tokens are held in software-based programs like “unhosted” digital wallets. Regulators could police the access points to these assets but will have little control once they leave that controlled environment.

Minimizing this risk would point to an indirect, account-based CBDC. These would function similarly to bank accounts today; however, as discussed below this also minimizes many of the purported benefits associated with CBDC.

#### Privacy

Another challenging question around the implementation of a CBDC is the level of insight that governments have into the use of CBDC. Unlike physical cash, many constructions of CBDC allow the government to directly track and monitor the use of these assets. This raises important public policy questions around the appropriate role of government.

Pervasive government surveillance of consumer and commercial payments may be considered a benefit to some governments issuing CBDC, but this feature should not be taken lightly in a democracy where the government is not meant to have access to the details of financial transaction without proper legal cause.

There are models that minimize this risk, like an indirect token-based CBDC, but this involves a tradeoff in the ability to monitor for illicit uses of CBDC as discussed above. In many cases privacy is mutually exclusive with the objectives of AML/KYC programs.

#### Role of Government

By making a governmental body into the nation’s near-monopoly provider of currency, bank accounts, and payment services, the Federal Reserve would quickly become politicized as the central control point for monitoring and potentially denying transactions. For controversial but locally-regulated purchases such as cannabis and firearms, a CBDC would entangle the Federal Reserve as a national arbiter of social issues.

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**Desired Outcomes****Financial Inclusion**

A foundational goal of direct CBDC proposals (and similar proposals like postal banking) is to promote financial inclusion. Access to banking services provides people with a means to save for their future and economic opportunity that is critical to promoting social equity. This is an important and urgent goal.

The pandemic has laid bare the consequences of being unbanked, from delays in receiving stimulus payments to navigating additional barriers in the Paycheck Protection Program. Sustainable economic opportunity requires a long-term banking relationship, but according to the FDIC's 2019 "How America Banks" survey, despite some encouraging trends, over 7.1 million US households – 5.4% – remain unbanked, and another 24 million households are underbanked.<sup>18</sup> While the FDIC observed "particularly sharp" declines between 2017 and 2019 for Black and Hispanic households, 13.8% of Black households and 12.2% of Hispanic households remained entirely unbanked in 2019, "substantially above the unbanked rated for White households (2.5 percent). Our nation and industry can do better.

America's banks are committed to promoting financial inclusion and are working to address this challenge. Today, unbanked customers have numerous options to open bank accounts that are designed to address the reasons most unbanked individuals cite as barriers to becoming banked. Through the Bank On program, run by the Cities for Financial Empowerment Fund and other efforts, free and low-cost bank accounts are widely available at banks of all sizes, with new accounts being certified every day. Bank On sets account standards that provide a benchmark for safe, affordable accounts at mainstream financial institutions, setting consumers on a path toward financial inclusion. Today, these accounts are available at over 32,500 branches across the United States. And importantly, they represent the beginning of a banking relationship, which can grow to include lending, saving, investing and other opportunities.

As the government rushed to distribute millions of Economic Impact Payments during the COVID-19 pandemic, the [FDIC](#), [the IRS](#), [Bank On](#) and [the ABA](#) worked to promote awareness of such accounts so American taxpayers could receive their payments quickly and securely. We have another critical opportunity to promote Bank On-certified accounts ahead of the expanded and newly-advanceable Child Tax Credit payments, which will be available to 36 million taxpayers starting in July.

Unlike programs like Bank On, it is unclear whether access to a direct account at the Federal Reserve would address the reasons families report not having a banking relationship.

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<sup>18</sup> Underbanked means that a household has an account at an insured institution but also obtained financial products or services outside of the banking system.

Moreover, by taking too narrow a view of the problem, these proposals risk undermining the real progress underway with Bank On and similar efforts.

In addition, direct CBDC proposals focus solely on the question of access to a deposit account. While it is true that deposit accounts are often the first step towards inclusion, the benefits of a long-term banking relationship go well beyond a deposit account. The same is not true of a CBDC account with the Federal Reserve, which would not grow into a lending or investing relationship.

Not only do direct CBDC proposals not address this serious issue, they will likely exacerbate it. Philadelphia Fed Research referenced above found that these proposals would create a “deposit monopoly” that would “attract deposits away from the commercial banking sector.” This has the effect of reducing the funds on banks balance sheets that is available to lend which would reduce access to credit to the communities that need it the most.

#### Payments system efficiency

Many CBDC proponents cite the need to speed up payments by digitizing them; the reality is that the majority of payments in the U.S. are already digital. Today, consumers and businesses have the option to pay with credit or debit cards, payments applications like Zelle or Venmo, and via ACH.

Efforts to modernize and speed up our payments system have been underway for some time and are already being implemented. The Federal Reserve’s 2017 Faster Payments Task Force examined the entirety of the payment system and its experts, including consumer groups, recommended faster networks – not a new currency. As a result of these efforts, the Federal Reserve is building out an instant payments solution called FedNow.

Industry has been driving these improvements as well. The RTP Network is a brand-new instant payment system that represents an advancement equivalent to moving from dial-up to broadband in terms of speed and features. ABA was a strong advocate for using this capability as part of the EIP program to speed electronic payments to those with bank accounts or even prepaid cards.

Together, RTP, FedNow, and faster ACH systems are forming a web of super-fast, low-cost or free digital payment options that will make waiting for days to receive a payment a thing of the past.

#### Conclusion

A U.S. CBDC could fundamentally change the role of the central bank in the United States and reshape the banking system. Given the additional complexity, delay, and transition costs involved in creating a new form of money, there are strong efficiency interests that suggest

CBDC should only be pursued as a final option to meet clearly-defined public policy goals that cannot be achieved through payments innovations that leverage existing digital dollars. As of today, those use cases have not emerged.

If a viable use case for CBDC in the United States does emerge in the future, design choices must be carefully considered to ensure that the benefits as well as the risks of introducing a CBDC are fully appreciated.



**Statement for the Record by Chamber of Progress  
December 8, 2021 Hearing:  
“Digital Assets and the Future of Finance”**

December 8, 2021

The Honorable Maxine Waters  
Chairwoman  
House Committee on  
Financial Services  
2129 Rayburn House Office Building  
Washington, DC 20515

The Honorable Patrick McHenry  
Ranking Member  
House Committee on  
Financial Services  
2129 Rayburn House Office Building  
Washington, DC 20515

Dear Chairwoman Waters and Ranking Member McHenry:

Chamber of Progress appreciates the opportunity to submit a statement for the record for the hearing entitled, “Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of Financial Innovation in the United States,” held by the House Committee on Financial Services on November 8, 2021. Chamber of Progress is a new progressive tech industry group fighting for public policies that will build a fairer, more inclusive country in which all people benefit from technological leaps.

Over the past decade, innovators in the U.S. have played a leading role in developing and deploying cryptocurrency and blockchain technologies in new ways that are changing the global economy. Today, the United States ranks second<sup>1</sup> in the world for citizens holding cryptocurrency, and last year, the U.S. led the world in Bitcoin trading volume.<sup>2</sup> Two of the top five crypto exchanges in the world are currently run by U.S. companies,<sup>3</sup> and experts rank the U.S. as the most crypto-friendly country in the world.<sup>4</sup>

**However, the U.S. risks losing its position at the forefront of the cryptocurrency industry without the creation of a regulatory framework that supports innovation.**

Despite the rising number of Americans employed by the crypto industry,<sup>5</sup> the embrace of cryptocurrency by traditional American financial institutions<sup>6</sup>, and the many examples of

<sup>1</sup> <https://triple-a.io/crypto-ownership/>

<sup>2</sup> <https://www.statista.com/statistics/1196036/bitcoin-market-size-usa/>

<sup>3</sup> <https://coinmarketcap.com/rankings/exchanges/>

<sup>4</sup> <https://coincub.com/2021/09/01/globalranking/>

<sup>5</sup> <https://www.bloomberg.com/news/articles/2021-11-04/crypto-jobs-span-u-s-as-hubs-spring-up-from-miami-to-denver>

<sup>6</sup> <https://www.nytimes.com/2021/11/01/business/banks-crypto-bitcoin.html>

cryptocurrency creating opportunity for those neglected by traditional finance,<sup>7</sup> there is still no comprehensive framework for the regulation of digital assets and no regulatory framework for protecting everyday crypto holders.

Instead, the Securities and Exchange Commission (SEC), the Commodity Futures Trading Commission (CFTC), the Internal Revenue Service (IRS), the Financial Crimes Enforcement Network (FinCEN), and lawmakers in Congress have all proposed separate regulatory regimes, leaving the industry and investors in confusion<sup>8</sup>.

Other nations, including the United Kingdom and France, have moved quickly to enact regulatory frameworks that encourage innovation while protecting consumers.<sup>9</sup> Countries including Singapore<sup>10</sup> and Ukraine<sup>11</sup> have worked to become global centers for the cryptocurrency industry.

The U.S. is in danger of losing the global race to become the hub for a technology that could define the next century of our financial system as well as changes in other industries. Already, crypto companies have left the United States, citing a legal grey area that has dampened their ability to grow and serve customers.<sup>12</sup>

As you hear from top leaders in the cryptocurrency and blockchain industry at today's hearing, I encourage you to ask the entrepreneurs who are testifying how to best secure America's position as a leader in this growing sector. With industries from health care to defense to finance depending on the future of blockchain, the importance of staking out our nation's role in developing this emerging technology could not be more important.

Thank you for your leadership on this important issue and for holding this hearing. As cryptocurrency investors and companies seek regulatory clarity, it is vital for lawmakers to hear directly from leaders in digital assets about the future of this industry.

Sincerely,



Koustubh "K.J." Bagchi  
Senior Director, Federal Public Policy

<sup>7</sup>[https://www.washingtonpost.com/national/locked-out-of-traditional-financial-industry-more-people-of-color-are-turning-to-cryptocurrency/2021/12/01/a21df3fa-37fe-11ec-9bc4-86107e7b0ab1\\_story.html](https://www.washingtonpost.com/national/locked-out-of-traditional-financial-industry-more-people-of-color-are-turning-to-cryptocurrency/2021/12/01/a21df3fa-37fe-11ec-9bc4-86107e7b0ab1_story.html)

<sup>8</sup> <https://www.protocol.com/fintech/bitcoin-cryptocurrency-regulations>

<sup>9</sup> <https://blockchainassoc.medium.com/why-the-us-is-in-danger-of-losing-the-global-blockchain-race-3772fe5b5211>

<sup>10</sup> <https://www.bloomberg.com/opinion/articles/2021-12-06/singapore-no-longer-allows-bitget-to-issue-crypto-tokens-pending-a-licensing>

<sup>11</sup> <https://www.nytimes.com/2021/11/14/business/crypto-ukraine.html>

<sup>12</sup> <https://www.coindesk.com/markets/2019/07/22/circle-moves-exchange-operations-offshore-with-new-bermuda-office/>



Creative Investment Research  
 PO Box 75574  
 Washington, DC 20013  
 202-455-0430 phone  
<http://www.minorityfinance.com>  
[www.minoritybank.com](http://www.minoritybank.com)  
<http://www.creativeinvest.com>

# **STATEMENT FOR THE RECORD**

by  
 WILLIAM MICHAEL CUNNINGHAM  
 and  
 CREATIVE INVESTMENT RESEARCH

Submitted to the  
 U.S. House Committee on Financial Services for a hearing entitled, "Digital  
 Assets and the Future of Finance: Understanding the Challenges and  
 Benefits of Financial Innovation in the United States."  
 December 8, 2021

William Michael Cunningham and Creative Investment Research (CIR)  
 submit the following statement for the record to the hearing entitled, "Digital  
 Assets and the Future of Finance: Understanding the Challenges and  
 Benefits of Financial Innovation in the United States."

We thank the Committee for this opportunity. We urge the Committee to  
 continue to get opinions from a culturally and economically diverse set of  
 persons and feel this is especially important as you seek to maintain your  
 position as "a leader in highlighting issues related to cryptocurrency and  
 financial technology." As the Committee noted,

*"Given the digital asset sector's growth and evolution, several questions have  
 arisen as to how regulators can ensure investor protections, ensure  
 consumer protections, and maintain market integrity. The House Committee  
 on Financial Services has explored the emergence of cryptocurrencies as an  
 asset class for investors, implications for consumer privacy and financial  
 inclusion, and the promises and perils of central bank digital currencies  
 (CBDCs)."*

Mr. Cunningham states that

*"It is critical to understand that bitcoin was created in direct response to the  
 failure of global regulators to protect the public in the years leading up to the  
 financial crisis of 2007/2008. Thus, the social and monetary functionality of  
 cryptocurrency is superior to that of paper money. Eventually,  
 cryptocurrency is going to dominate."<sup>1</sup>*

<sup>1</sup> From *Blockchain, Cryptocurrency and the Future of Monetary Policy*. Copywritten research report provided in  
 2019 to the House Financial Services Committee on a confidential, not for distribution basis.

<https://www.prlog.org/12785779-blockchain-cryptocurrency-and-the-future-of-monetary-policy.html>

Copyright, 2005, by William Michael Cunningham and Creative Investment Research, Inc.  
 All rights reserved.

Mr. Cunningham (WMC) has long been concerned with the failure of bank and financial institution regulatory agencies to protect the public interest.

We base this on the following:

- On July 3, 1993, WMC wrote to SEC Commissioner Mary Schapiro to notify the Commission about a certain, specific investing "scam." A timely warning was not issued to the investing public and members of the public were damaged. See: <https://www.creativeinvest.com/SECNigerianLetter.pdf>
- WMC designed the first mortgage security backed by home mortgage loans to low- and moderate-income persons and originated by minority-owned institutions. (See: Security Backed Exclusively by Minority Loans, at <https://www.creativeinvest.com/mbsarticle.html> )
- In October, 1995, the Washington Gas Light (WGL) Company retained WMC to create mortgage-backed securities (MBS) consisting of one to four family residential home loans originated by minority-owned financial institutions serving areas of high social need. Mr. Cunningham developed a completely original approach that involved geocoding and mapping, for the first time, the location of every loan in an MBS pool and tying that location to social data. A sample map WMC created in 1997 for this process is attached as Appendix A.
- On April 30, 1997, in Case 97-1256 at the US Court of Appeals for the DC Circuit, Mr. Cunningham opposed the merger of Citigroup and Travelers and the elimination of the Glass-Steagall Act.
- In November, 1997 and, again in December, 2003, WMC wrote to the Division of Market Regulation at the Securities and Exchange Commission, on behalf of WMC and Creative Investment Research to request that CIR be considered a nationally recognized statistical rating organization ("NRSRO"). WMC requested this status only with respect to rating securities issued by financial institutions owned by women and minorities. WMC never received a reply from the Commission. We have attached a copy of a letter sent to Ms. Nazareth, Director, Division of Market Regulation, Securities and Exchange Commission, as Appendix 1.
- On June 15, 2000, WMC testified before the House Financial Services Committee of the U.S. Congress on ways to improve the supervision and regulation of government sponsored enterprises, Fannie Mae and Freddie Mac. See: <https://www.creativeinvest.com/fnma/>
- In 2001, WMC designed an investment vehicle for victims of predatory lending. (See <https://www.creativeinvest.com/PropertyFlipping.pdf> )



- On Monday, April 11, 2005, WMC testified before Judge William H. Pauley III in the U.S. District Court for the Southern District of New York on behalf of the public at a fairness hearing regarding the \$1.4 billion-dollar Global Research Analyst Settlement. See: <https://creativeinvest.com/fairness.html>
- On December 22, 2005, WMC issued a strongly worded warning that system-wide economic and market failure was a growing possibility in a meeting with Ms. Elaine M. Hartmann of the Division of Market Regulation at the SEC.
- On February 6, 2006, statistical models created by WMC using the Fully Adjusted Return ® Methodology signaled the probability of system-wide economic and market failure. (See page 2: <http://www.sec.gov/rules/proposed/s71005/wcunningham5867.pdf> )
- On June 18, 2009, WMC testified before the House Ways and Means Select Revenue Measures Subcommittee at a joint hearing with the Subcommittee on Domestic Monetary Policy and Technology of the Financial Services Committee concerning ways to improve the New Markets Tax Credit Program. See: <https://www.creativeinvest.com/nmtctestimony.html>
- On January 25, 2012, WMC submitted a "Friend of the Court" brief in a case before the United States Court of Appeals for the Second Circuit (Case 11-5227). As a friend to the Court, Mr. Cunningham provides an independent, objective and unbiased view in support of broad public interests. His education and experience uniquely positioned him to provide objective, independent research and opinions concerning the issues central to the case.
- Mr. Cunningham was in the pool of Corporate Governance Advisors and Diversity Investing Advisors to CalPERS. He is currently under contract for Portfolio Assistance (Non-Fiduciary) Investment Consulting Spring-Fed Pool 2020 to the fund. See: <http://www.creativeinvest.com/Calpers1.pdf> <http://www.creativeinvest.com/Calpers2.pdf> and <http://www.creativeinvest.com/Calpers3.pdf>
- Creative Investment Research was one of the first signatories to the UN Global Principles for Responsible Investment ([www.unpri.org](http://www.unpri.org)). See: <http://www.creativeinvest.com/PRINews2009land.jpg>

Mr. Cunningham has a long track record of analyzing proposed regulatory agency rules:

- Our 2003 comments on proposed proxy voting rules that would, under certain circumstances, require companies to include in their proxy materials security holder nominees for election as director. <https://www.sec.gov/rules/proposed/s71903/wmccir122203.pdf>

- See: Comments on Proposed Rule: Internet Availability of Proxy Materials Release Nos. 34-52926 IC-27182 File No. S7-10-05. Confirmed that system-wide economic and market failure was a growing possibility. (See page 2:  
<http://www.sec.gov/rules/proposed/s71005/wcunningham5867.pdf> )
- Shareholder Proposals Relating to the Election of Directors. Release No. 34-56161 File No. S7-17-07 <https://www.sec.gov/comments/s7-16-07/s71607-495.pdf>
- We have requested that the U.S. Securities and Exchange Commission (SEC) develop mandatory rules for public companies to disclose high-quality, comparable, decision-useful information concerning BLM Pledge fulfillment. See: <https://www.sec.gov/rules/petitions/2021/petn4-774.pdf>

Mr. Cunningham has been concerned with using new financial technologies to maximize social and financial return.<sup>2</sup> As his record shows, over the past 30 years, he has sought to protect the public by working with private sector and Federal regulatory agencies, including the Federal Reserve Board (FRB), the Securities and Exchange Commission (SEC), the Federal Deposit Insurance Corporation (FDIC), the Financial Crisis Inquiry Commission (FCIC), the U.S. Department of Justice (DOJ), the Consumer Financial Protection Bureau (CFPB), the Federal Housing Finance Agency (FHFA), the Department of Commerce (Minority Business Development Agency) and the US Treasury, as an employee or as a contractor. Despite his education and experience, all offers to provide consulting services and all employment applications have been denied (due to age, racial and class discrimination.) Further attempts to work with these institutions would be futile. This leaves Mr. Cunningham no option but to appeal to this Committee in order to have his independent, objective technical knowledge and experience given consideration. Mr. Cunningham's interest in this matter stems from his role as an economist and an expert in marketplace ethics and rests upon his status as a citizen of the United States.

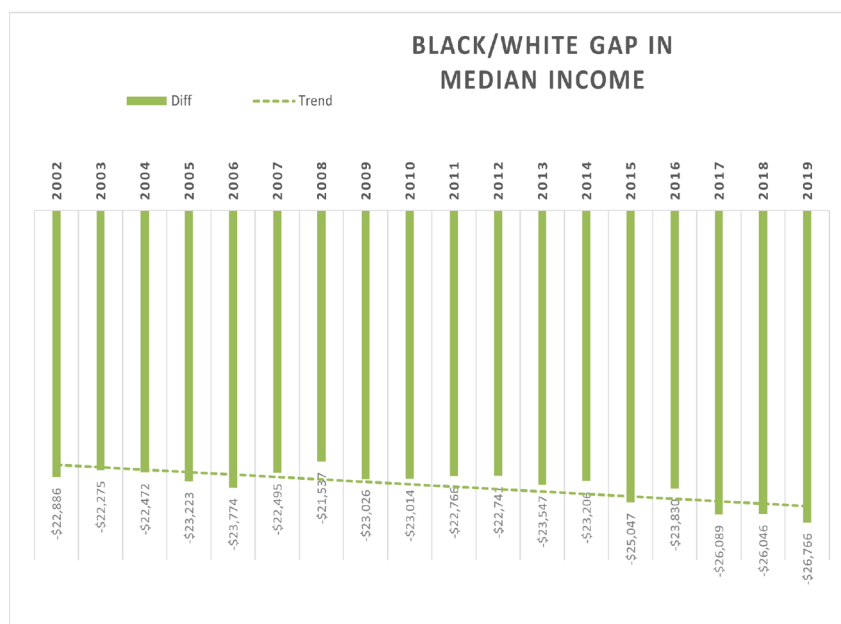
As Mr. Cunningham demonstrates, inadequate consideration of the public interest has clearly damaged the public and investors.<sup>3</sup> Current regulatory practices protect the monetary interest of a narrow set of non-minority

<sup>2</sup> Bitcoin and Blockchain Explained IN 30 MINUTES FOR FREE. <https://www.udemy.com/course/bitcoin-explained/>

<sup>3</sup> For example, see: Fed Unveils Stricter Trading Rules Amid Fallout From Ethics Scandal. Jeanna Smialek, Oct. 21, 2021. The New York Times. Online at: <https://www.nytimes.com/2021/10/21/business/federal-reserve-trading-ethics.html> and Bankers Cast Doubt On Key Rate Amid Crisis [https://www.wsj.com/articles/SB120831164167818299?reflink=desktopwebshare\\_twitter](https://www.wsj.com/articles/SB120831164167818299?reflink=desktopwebshare_twitter) via @WSJ

persons, fail to protect the interest of the general public, and damage the Country's long term economic prospects.  
 Inclusion Myths

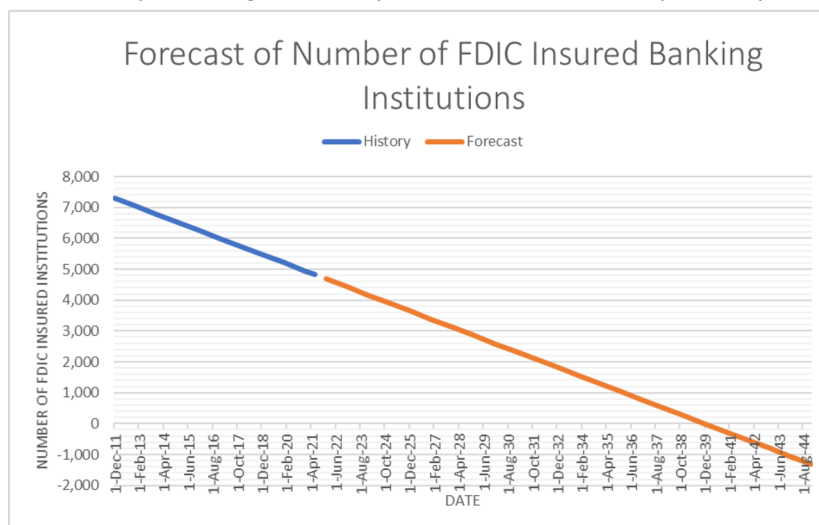
We warn the Committee not to believe, at face value, claims by participants in this field that rest upon the ability of these new technologies to increase financial inclusion. These are the same faulty arguments used to promote subprime lending in the years leading up to the financial crisis of 2008. We note that there is no objective, fully independent data to support this contention, thus, we consider these statements false.



We also note the lack of any African Americans on the hearing witness panel.

## Cryptocurrency and Industry Concentration Issues

Regulatory ethical failings have real implications for the banking industry and for the public. Regulators may have abdicated their responsibility to



consider the public interest, if that interest includes maintaining a competitive industry. Our forecast indicates that by 12/31/2039, if current trends continue in a linear manner, the number of FDIC insured institutions will be approximately 1-2. Note that, with growing competition from fintech firms and alternatives, like bitcoin, this may imply the wholesale exit of banking institutions from both the FDIC and Federal Reserve systems. This would not be in the public interest.

## Functions of Money

Further, cryptocurrency and blockchain highlight the hidden, fourth function of money. The three widely recognized main functions of money are as: a medium of exchange, a unit of account, a store of value. There is a fourth function of money that is hidden and rarely discussed: as a means of social control. Crypto currency forces this function into the open.

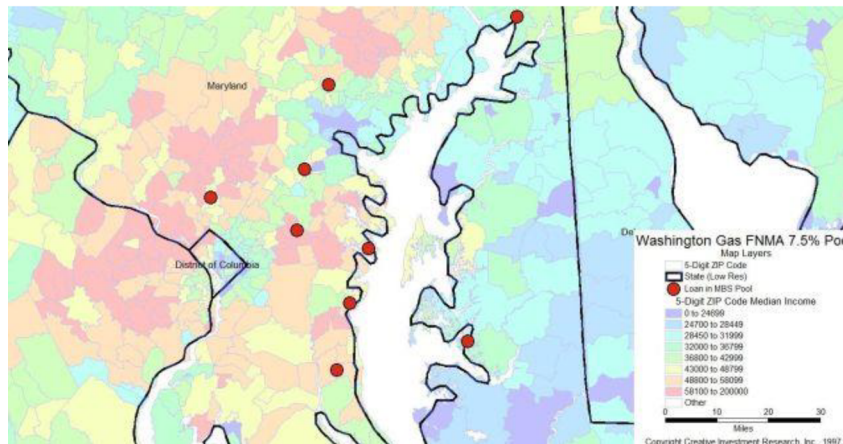
Creative Investment Research  
<http://www.minorityfinance.com>  
[www.minoritybank.com](http://www.minoritybank.com)  
<http://www.creativeinvest.com>

## Appendix A

William Michael Cunningham manages an investment advisory and research firm, Creative Investment Research, founded in 1989 to expand the capacity of capital markets to provide capital, credit and financial services in minority and underserved areas and markets.

We have done so by creating new financial instruments and by applying existing financial market technology to underserved areas. The Community Development Financial Institution Fund of the US Department of the Treasury certified the firm as a Community Development Entity on August 29, 2003. The Small Business Administration certified the firm as an 8(a)-program participant on October 19, 2005. (We did not receive any benefit or revenue due to our participation in the 8(a) program.)

In 1991, Mr. Cunningham created the first systematic bank analysis system using social and financial data, the Fully Adjusted Return® methodology. In 1992, he developed the first CRA securitization, a Fannie Mae MBS security backed by home mortgage loans originated by minority banks and thrifts.



Creative Investment Research  
<http://www.minorityfinance.com>  
[www.minoritybank.com](http://www.minoritybank.com)  
<http://www.creativeinvest.com>

In 2001, he helped create the first predatory lending remediation/repair MBS security.<sup>4</sup>

Also see:

BLACK LIVES MATTER: CORPORATE AMERICA HAS PLEDGED \$1.678 BILLION SO FAR. June 10, 2020.

<https://www.blackenterprise.com/black-lives-matter-corporate-america-has-pledged-1-678-billion-so-far/>

BLACK WOMENOMICS Maternal Mortality Reparation Facility

<https://blackwomenomics.com/>

CHILD TAX CREDIT <https://www.childtaxcredit.net/>

FIFTEEN DOLLAR MINIMUM WAGE <https://fifteendollarminimumwage.com/>

THE FAIRNESS ECONOMY <https://thefairnesseconomy.com/>

The Crisis in Black Housing

<https://drive.google.com/file/d/11jEtWfQY5RpdBpw0s6stHhawY0iero6/view>

4

Pool	Client	Originator	Social Characteristics
FN374870	Faith-based Pension Fund	National Mortgage Broker	Mortgages originated by minority and women-owned financial institutions serving areas of high social need.
FN296479			
FN300249			
GN440280	Utility Company Pension Fund	Minority-owned financial institutions	
FN374869			
FN376162			
FN254066	Faith-based Pension Fund	Local bank	Predatory lending remediation

Creative Investment Research  
<http://www.minorityfinance.com>  
[www.minoritybank.com](http://www.minoritybank.com)  
<http://www.creativeinvest.com>

## Appendix B

December 8, 2005

Ms. Elaine M. Hartmann  
Division of Market Regulation  
U.S. Securities and Exchange Commission  
450 5th Street, NW  
Washington, DC 20549

Dear Ms. Hartmann,

Creative Investment Research (CIR) has requested that the Division of Market Regulation not recommend enforcement action to the U.S. Securities and Exchange Commission if CIR is recognized as a Nationally Recognized Statistical Rating Organization (NRSRO) for purposes of applying Rule 15c3-1 under the Securities and Exchange Act of 1934, as amended and codified at 17 C.F.R. 240.15c3-1 with respect to rating short term debt vehicles issued by women and minority owned financial institutions.

As part of the NRSRO recognition process, we have provided you and your staff with information regarding our qualifications, including confidential, nonpublic information on our trade secret protected Fully Adjusted Return ® methodology.

Thank you.

Sincerely,

William Michael Cunningham  
CEO and Social Investment Advisor

Sample page below

## Creative Investment Research

<http://www.minorityfinance.com>[www.minoritybank.com](http://www.minoritybank.com)<http://www.creativeinvest.com>

## Creative Investment Research, Inc. Minority Bank &amp; Thrift Report

Page No.: 71

## Dryades Saving Bank

233 Carondelet St  
New Orleans

LA 70130

Phone: (504) 581-5891

Fax: (504) 598-7233

Route #: 265070516

Certificate #: 1470512650

INST TYPE: Savings Bank

Branches: 4

Employees: 54

Ethnic Group: Black

## Community Reinvestment Act Rating:

Latest Rating: Outstanding

Rating t-1: Outstanding

Rating t-2: Satisfactory

Rating t-3: Satisfactory

## Management

President: Virgil Robinson

CFO: Frank J Oliveri

Loan Officer: Tomorr LeBeauf

Operations Officer: Hedy Hebert

## Fully Adjusted Return (TM):

173

Index of social and financial performance.  
Range 300 to 0. (Higher is better.)

## Regulatory and Business Status

Trading Status: Not Publicly Traded

Insurance Type: Savings Association Insurance Fund (SAIF)

Holding Company: Dryades Bancorp, Inc.

## Social Data COUNTY:

Orleans

Unemployment, %, 7/1/2005: 5.60

Population, 7/1/04: 462,269

Population change, % 2000 to 2004: -4.6 %

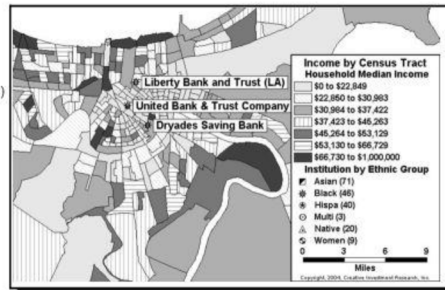
Offices of FDIC-Insured Inst, 8/22/05: 108

Minority population, % of total in County: 73.4 %

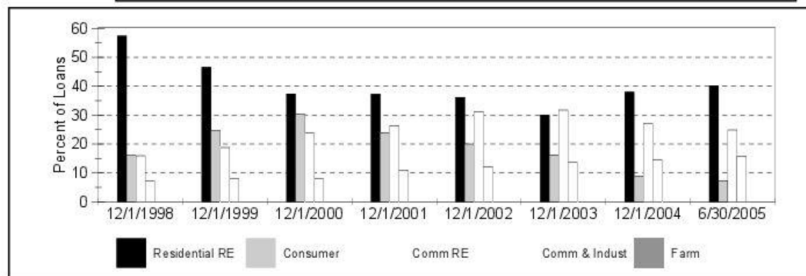
Per Capital personal income, 2003: \$30,152

Minority firms in County, % of total, 1997: 28.6 %

Women-owned firms in County, % of total, 1997: 26.6 %



Year	12/1/1998	12/1/1999	12/1/2000	12/1/2001	12/1/2002	12/1/2003	12/1/2004	6/30/2005
Assets	\$88,946	\$95,937	\$105,717	\$122,844	\$123,349	\$92,773	\$103,456	\$111,051
GLns	\$68,952	\$74,217	\$82,735	\$76,801	\$61,982	\$56,390	\$62,766	\$66,165
Deposits	\$79,132	\$83,939	\$87,046	\$116,073	\$114,874	\$75,938	\$86,965	\$94,535
Equity	\$6,112	\$5,886	\$5,779	\$5,832	\$7,119	\$8,484	\$7,046	\$6,978
Salaries	\$2,697	\$3,039	\$3,151	\$3,132	\$2,921	\$2,793	\$2,839	\$1,428
Net Inc.	\$365	\$292	\$3	(\$44)	\$302	\$1,733	(\$427)	(\$4)
Net Ch	0.14	0.16	0.61	0.43	0.30	2.16	0.66	1.35
Offs%	0.56	0.82	1.42	1.03	1.50	2.83	2.23	1.34
NonPerfLns	0.44	0.32	0.00	-0.04	0.23	1.71	-0.42	-0.01
%	6.21	4.85	0.05	-0.75	4.66	20.00	-5.35	-0.11
ROA								
ROE								



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December 8, 2021

The Honorable Maxine Waters  
Chairwoman  
House Financial Services Committee  
Washington, DC 20515

The Honorable Patrick McHenry  
Ranking Member  
House Financial Services Committee  
Washington, DC 20515

Dear Chairwoman Waters and Ranking Member McHenry:

On behalf of the Electronic Transactions Association (ETA), we appreciate the opportunity to submit this statement for the record before the Committee's hearing, "Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of Financial Innovation in the United States."

As the trade association that represents the breadth of the payments industry,<sup>1</sup> the Electronic Transactions Association (ETA) has deep expertise in payments technology, including the use of cryptocurrencies, blockchain, and other crypto-related technologies to facilitate payment transactions (cryptoassets). At ETA, we are engaged in ongoing conversations within the industry and with policymakers about the promise and challenges of cryptoassets, and we believe there is a common set of principles against which any proposed governmental policies should be measured. In this regard, the payments industry has been a leader in developing industry best practices for mitigating risk and protecting the payments ecosystem.

As policymakers consider new laws and regulations for cryptoassets, they should carefully consider the following principles and ensure that any proposal best serves the needs of consumers and businesses, furthers financial inclusion, preserves and strengthens the financial system, minimizes fraud and money laundering, and ensures that consumers and businesses continue to have access to a robust and innovative array of secure banking and payment options.

1. **Properly Defining Cryptoassets:** Developing appropriate and functional definitions of cryptoassets is a critical first step in ensuring clarity about the regulatory requirements that are applicable to the technology. Given that new technologies can be deployed in many different ways, and that new use cases are constantly being developed, cryptoassets should be defined and regulated based on the underlying activity or use case. Adopting tailored definitions for specific activities and use cases will balance the need to appropriately regulate activity against the harms that might arise from sweeping definitions that inadvertently regulate other activities and use cases, while encouraging innovation that benefits consumers, businesses, and the economy.

<sup>1</sup> ETA is the world's leading advocacy and trade association for the payments industry. ETA's members include banks, mobile payment service providers, mobile wallet providers, money transmitters, and non-bank financial technology companies (fintech) that provide access to credit, primarily to small businesses, either directly or in partnership with other lenders. ETA member companies are creating innovative offerings in financial services and are revolutionizing the way commerce is conducted with safe, convenient, and rewarding payment solutions and lending alternatives – facilitating over \$22 trillion in payments in 2019 worldwide.





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2. **Tailoring Regulations to the Risk Profile of the Participant/Activity:** Appropriate regulation of cryptoassets is key to unlocking their potential while ensuring the safety and soundness of the payments ecosystem. Entities engaging with cryptoassets should be subject to regulation that is tailored to the risks that they or the activity in which they are engaged poses to the payments ecosystem. Appropriate regulation of cryptoassets should consider potential harm to consumers as well as safety, soundness, and financial stability risks.
3. **Ensuring Consumer Protection:** The public policy governing cryptoassets should include a framework of standards and rules that appropriately safeguard the privacy and security of every transaction, protect consumers' interests, and give consumers confidence to use the technology for in-person and online transactions. Policymakers should also ensure that consumers understand those protections and how they may differ from those offered by other payment methods. The ability to identify and reduce fraud is critical and should be part of the regulatory framework.
4. **Harmonizing With Existing Regulatory Frameworks:** The payments industry is heavily regulated, and the adoption of any new laws or regulations governing cryptoassets should be designed to fit within this established, robust, regulatory framework. This framework includes federal and state laws relevant to anti-money laundering, economic sanctions, and other anti-fraud and consumer protection requirements. New public policies for cryptoassets should complement, and not conflict with, existing laws and regulations as well as private sector rules and practices.
5. **Encouraging Responsible Innovation:** Continual investment in innovation is at the heart of past, present, and future improvements to the financial ecosystem. Our financial system has benefited greatly from the development of new technologies and capabilities, which serve to strengthen cybersecurity and consumer protection, increase efficiencies, and expand access to financial services. As a technology, cryptoassets have the potential to further many of these developments and promote new innovation and developments. Accordingly, any regulation of cryptoassets should consider the technology's promise to improve existing capabilities while serving as a catalyst and platform for continued innovation.

We appreciate the opportunity to submit this letter for the record and the Committee's leadership on this topic. If you have any questions, please contact me or ETA's Senior Vice President of Government Affairs, Scott Talbott, at [stalbott@electran.org](mailto:stalbott@electran.org)

Sincerely,

Jeff Patchen  
Senior Manager of Government Affairs  
Electronic Transactions Association





December 8, 2021

## Enhanced Regulation of Digital Assets Will Promote Responsible Innovation

The Independent Community Bankers of America, representing community banks across the nation with nearly 50,000 locations, appreciates the opportunity to provide this statement for the record for today's hearing titled: "Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of Financial Innovation in the United States."

We appreciate the Committee's examination of fundamental issues related to the surge in digital assets and are pleased to share the community bank perspective. To ensure that innovation is undertaken safely, ICBA advocates for a comprehensive, coordinated regulatory approach for the reasons described below.

### Community Banks and Cryptocurrency

Wider adoption of cryptocurrency is altering global digital commerce and the global financial system. Community banks keep pace with innovation to remain viable, relevant and continue to serve their communities. Numerous financial service providers and financial technology companies now offer consumers and businesses access to cryptocurrency-related activities, such as investments, lending, and custodial services. Although cryptocurrencies are still not widely used for payments, some community banks are beginning to explore offering cryptocurrency services to meet customer demand. They want to ensure they can do so safely. Several crypto companies are developing solutions to enable crypto payments for consumers and businesses.

ICBA is working with community bankers to educate their staffs on cryptocurrencies, follow market and regulatory developments, and evaluate their bank's exposure to cryptocurrency through customer activities. Community bank involvement, as regulated financial institutions, will help mitigate risks presented by cryptocurrencies, provided it can be done under a rigorous and thoughtful regulatory framework.

Community banks have a strong interest in ensuring that cryptocurrencies do not create systemic, investor, or consumer risk. As described below, ICBA is concerned with cryptocurrency's potential impact on privacy, money laundering, terrorist financing, fraud, consumer protection, and financial stability.

### Risks Presented by Cryptocurrencies

Risks presented by cryptocurrencies include:

- Due to limited regulation and oversight, consumers and investors that use or hold cryptocurrency are exposed to significant risks, including highly volatile fluctuations in value.
  - Cryptocurrencies have a long history of being used for criminal and illicit activity, undermining law enforcement. Criminals frequently use cryptocurrencies to launder funds, hijack computer systems with malware to surreptitiously mine cryptocurrency, and use cryptocurrencies to facilitate payments for illegal goods and services. Anonymity-enhanced cryptocurrencies, or cryptocurrencies designed to evade scrutiny and cloak users in greater secrecy, are utilized by fraudsters around the world for a variety of criminal actions.
  - Private stablecoins, including those backed by fiat currencies, can pose other threats, including eroding monetary authority, threatening financial stability, and risking community bank disintermediation.



### Policy Recommendations

ICBA encourages policymakers to harmonize regulations to ensure strong, clear, and consistent oversight of cryptocurrency service providers.

- Any regulatory regime applied to cryptocurrency should be comparable to the same regulations applicable to traditional, functionally similar payments products and services offered by the banking system.
- The scope of regulation should include capital adequacy and reserves; activity restrictions; due diligence; information security and privacy; business resiliency; ownership and control of data; anti-money laundering and anti-terrorist financing; reporting and maintenance of books and records; consumer protections; safeguarding customer information; vendor and third-party management; and ongoing examination.
- A more comprehensive, coordinated regulatory approach by banking and market regulators, including the Securities and Exchange Commission and the Commodity Futures Trading Commission, could help address risks, dispel confusion in the marketplace, and prompt more community banks to explore digital asset products and services to address customer needs. Cryptocurrency companies are not subject to comprehensive consolidated supervision, which allows for risks to multiply and creates an unequal playing field with banks.
- The harmonization of regulations will not only address risk—the additional clarity can level the playing field and create opportunities for more community banks to consider offering crypto products and services. Without such information, many banks may choose not to engage in cryptocurrency or other digital asset activities.
- Collaboration can also help to ensure that the development of digital assets will not harm the integrity of the U.S. financial system by disintermediating community banks. Without harmonization among all the banking regulators, community banks that are not regulated by the OCC may find they are at a competitive disadvantage relative to their OCC-regulated peers and non-bank cryptocurrency companies.

### Special-Purpose Bank Charters

ICBA strongly opposes granting special-purpose bank charters to cryptocurrency companies that do not fully meet the requirements of federally insured chartered banks. These novel charters for non-banks firms raise a number of regulatory concerns—such as violation of the long-standing principle of the separation of banking and commerce, lack of application of traditional banking statutes and regulations governing safety and soundness and consumer protection, and the potential introduction of systemic risk into the payments system.

### Stablecoins

Stablecoins are digital assets that are issued and transferred using distributed ledger technologies and are purported to maintain a stable value relative to a national currency or other reference asset or assets. Many of the concerns expressed above with regard to cryptocurrencies also apply to stablecoins, which could disintermediate national payment systems and even monetary policy.



The President's Working Group on Financial Markets (PWG) report on digital assets rightly reflects ICBA concerns about the potentially harmful and rapidly accelerating risks to consumers, the financial system, and the economy of continued, rapid stablecoin growth. In addition, the November 2021 Financial Stability Report of the Board of Governors of the Federal Reserve, quoted below, identifies the following risks associated with stablecoins:

- "Certain stablecoins, including the largest ones, promise to be redeemable at any time at a stable value in U.S. dollars but are, in part, backed by assets that may lose value or become illiquid. **If the assets backing a stablecoin fall in value, the issuer may not be able to meet redemptions at the promised stable value.**
- "Accordingly, these stablecoins have structural vulnerabilities similar to (...) certain money market funds and are susceptible to runs.
- "These vulnerabilities may be exacerbated by a lack of transparency and governance standards regarding the assets backing stablecoins. **The potential use of stablecoins in payments and their capacity to grow can also pose risks to payment and financial systems."**

#### Stablecoin Policy Recommendations

ICBA's policy recommendations on stablecoins are broadly similar to our cryptocurrency policy recommendations.

Regulatory collaboration on a comprehensive approach would prevent the rise of a shadow banking system filled with unregulated platforms that pose risks to consumers, the financial system, and U.S. national security. Enhanced regulation of stablecoin arrangements is critical. Whether classified as securities, commodities, or demand deposits, stablecoins must be brought within the regulatory perimeter. Appropriate federal oversight is needed to close regulatory gaps regardless of how these digital assets are classified by policy makers. The regulatory framework should address risks posed by any entity within a stablecoin arrangement that participates in the creation, transfer, or storage of stablecoins. Unregulated entities should not be permitted to issue stablecoins.

A consistent federal regulatory framework for stablecoins should balance their benefits and risks and preserve the separation of banking and commerce.

#### Closing

ICBA and community bankers look forward to continuing to work with policymakers to balance the benefits of innovation in digital assets with their safety and soundness risks.

Thank you for your consideration of the community bank perspective.

Chairwoman Maxine Waters

December 13, 2021

U.S Committee on Financial Services

2129 Rayburn House Office Building

Washington, DC 20515

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Minority Chairman Patrick McHenry, Minority Chairman

Financial Services Committee

4340 O'Neill House Office Building Washington, DC 20024

Chairwoman Waters and Minority Chairman McHenry,

For the first time in our documented history, we have the opportunity to elevate the human position and alleviate global suffering truly. I'm ordinarily known through my nom de plume Satoshi Nakamoto, founder of Bitcoin. I'm a British national of Pakistani origin. I have been mired in a myriad of disappointments in seeing this technology I created that can eradicate racism, prejudice and poverty, being consistently hijacked by selfish imposters seeking nothing but the sole advancement of their position and stealing this gift to humankind. It is my dream to help people become financially independent. I created Bitcoin to achieve a world truly devoid of judgements. My vision & goal was, and remains, to do this for humanity.

At the point when I published the Bitcoin Design Paper in 2008, the spirit of the task was to liberate individuals, which I depicted unmistakably in a portion of my old posts like the ones featured here: <https://www.metzdowd.com/pipemail/cryptography/2008-November/014853.html>

Bitcoin has kicked the hornet's nest, and the swarm is headed towards us. So, my return after nearly 10 years isn't only a fortuitous event, but it is necessary to deal with this multitude reasonably.

#### **Bitcoin Explained**

Since the origin of Bitcoin, individuals have been discussing whether Bitcoin was made as an Asset (Commodity), Payment Framework or a Store of Value. Currency can be treated as a commodity, being acquired and offered to take advantage of vacillations in its value similar to various financial guidelines and assets. If you look back throughout history, there was a time where a barter system was in-place, and bartering was utilised instead of cash to purchase merchandise.

I comprehend that Bitcoin and later the Block chain industry veered off from its actual embodiment and vision. However, I had created Bitcoin best-of-breed with the proper reconciliation and vision.

Banks must be trusted to hold our money and transfer it electronically, but they lend it out in waves of credit bubbles with barely a fraction in reserve. We have to trust them with our privacy, trust them not to let identity thieves drain our accounts. Unfortunately, their massive overhead costs make micropayments impossible.

*This letter was written with the consultation of Satoshi Nakamoto*

Bitcoins have no dividend or potential future dividend, therefore not like a stock, more like a collectable or commodity. The price of any commodity tends to gravitate toward the production cost. If the price is below cost, then production slows down. If the price is above cost, profit can be made by generating and selling more. At the same time, the increased production would increase the difficulty, pushing the cost of generating towards the price.

When someone attempts to buy all the world's supply of a scarce asset, the more they buy, the higher the price goes. At some point, it gets too expensive for them to buy anymore. It's great for the people who owned it beforehand because they get to sell it at the corner at crazy high prices. As the price keeps fluctuating, some people keep holding out for yet higher prices and refuse to sell.

#### **Bitcoin Will Save the United States**

Bitcoin could be an ally to the US Government and a true game-changer for the US Economy. Bitcoin/ Block chain was akin to water, which underpinned all life forms and was similar to an operating system underlying revolutionary future innovations.

We all come with the right intentions but create our own demons in the end. I started this journey with the intent to clear the name of the BCCI (an International Bank founded by a Pakistani) that had over 400 branches in 78 countries and assets over US \$20 billion, making it the seventh-largest private bank in the world. As the creator of Bitcoin, my purpose was to create a universal system where everyone may benefit. But, to my vexation, it was hijacked by a few people and entities who didn't want an ordinary individual to receive the reward, which is a disgrace.

America has around \$29 trillion in debt. In my opinion, through my Bitcoin renaissance, I can create a free economy where America can pay off its debts and simultaneously become an arbitrator between different nations, including Israel, the Arab world, Iran, China, and the rest of the world. Only then will I have accomplished my duty to see the liberation of an ordinary person without the judgement of colour, creed and religion. I also see that the US is interested in becoming the centre for this movement, global ecosystem and collaborative economy. So I am trying to show the United States of America that they can lead this revolution head-on and from the front and empower the developing world away from corruption.

#### **Bitcoin Conception & Creation Through the Help of People Like Hal Finney and Many Others!**

My nearest partner and mentor Hal Finney said in a March 2013 post on Bitcointalk, "When Satoshi announced Bitcoin on the cryptography mailing list, he got a sceptical reception at best." I was resolute that I would make history, and I did. Be that as it may, someplace not far off, I lost it. I overlooked my identity, and my battle wasn't with any person or something else yet with myself. I'm returning now, not to demonstrate anything to any other individual. However, to prove something to myself. Nobody can crush you except if you rout yourself. Period!

*My invention will allow us to take tangible steps towards creating a genuinely utopian society in which the world will no longer seek war as a way to generate wealth.* One of my goals was to change the often negative impression people have of my ilk; when I created Bitcoin in 2008, the world was not friendly towards people of my background. I'm very much liberal, and I do believe in God simultaneously. Truth be told, the only universal language is mathematics. Numbers are universal. Even though people have tried x, y, z and to claim ownership of what I chose to create for the world, they have done a favour by showing the world that what they have been claiming is false. They claim to know Jesus more than Jesus knows himself. *I have always lived my life by the truth.*

*This letter was written with the consultation of Satoshi Nakamoto*

Unfortunately, my dream was not what the world has come to, and I understand that greed sometimes can get the best of human beings. And suppose we can provide financial freedom for those struggling in the world. In that case, we can unite humanity by alleviating that underlying pressure point and focusing more squarely on elevating the human position.

Even though everything I've touched around me has quite literally turned into gold, I remain like a cobbler; a shoemaker whose own shoes are torn because I'm the one who created this. So I lost my whole fortune. But I think that is one aspect of how God speaks to you to let you know who is in charge of this entire thing.

I've shown the world that sometimes an idealist can achieve what the realist people cannot. I'm an idealist. Mine combines altruism with a cause to help people achieve their maximum potential.

I do see how the media sometimes can be biased. But I'm not bothered by that bias. My point is to push forward and show through action. I want them to be on my side, but it will take time. And I'm not bothered by what they think because my creation speaks for itself.

When people see Bitcoin, they do not know how it is so deeply rooted within myself and how I wanted to change the world. As a British national of Pakistani origin, I understand the challenges associated with race.

My life is limited, but if I can leave a better legacy for future generations, then it doesn't matter if I'm the richest person in the cemetery or not!

All the people who came out and tried to impersonate me, claiming credit for my gift to the world and using it to benefit their greediness, are nothing more than mere vultures who are dancing on a dead body. That disgusts me. Money is irrelevant. You will make money if you are clear with your vision. But if you just run after money, then the money runs away from you.

I wanted to change the mentality of hatred and animosity between Jews, Christians, Muslims and other Religions. I found that poverty and radicalisation often go hand in hand. If you don't have money and you are poor, you need some scapegoat and blame someone else, someone wealthier. I'm emotionally attached to this. I want to make the world a better place. I want to do things so that Americans win, and other guys win too. Everyone wins. Bitcoin is the first creation in human history that is trying NOT to create war and in doing this, is providing the opportunity for prosperity and is fostering an environment for true peace to exist for the first time in human history.

I realise that everything we have around us, including wars, are made by people, and they are exactly like us. So why can't we make things better and do something to take down people's misery? The initial International Monetary Fund agenda was excellent but then went off track. A free economy will allow people to settle things for themselves, and for as long as I am alive, I can give them that direction.

Peer-to-peer is my vision.

While growing up, I got keen on cryptography, computational/quantum finance, and numerology. These later had a significant influence on the making of Bitcoin.

**That said, I am writing today to offer an Intrinsic Academic Examination of Bitcoin before the House Committee on Financial Services and request the presence of every Committee Member for this historic event.**

*This letter was written with the consultation of Satoshi Nakamoto*



Your legacy must be what you leave behind for People. If you change people's lives, you create a win-win situation where they don't have to lose their integrity to earn more. But, unfortunately, today's world has become a place where you have to lose your integrity to make money. That is odd to me.

We must do better, and we must be better. And Bitcoin is how we will achieve it.

I'm a free spirit and want to show the world the beacon of hope that can be translated as being an American from the heart. It's very attractive to the Libertarian viewpoint if we can explain it properly. I'm better with code than words though. It doesn't matter where you were born. It's where your heart is and what you're capable of. Money is irrelevant if you intend to do something for the world.

America tried to make the USD the dominant currency over decades. But Bitcoin has achieved that in just 10 years. All we have to do is connect that in the right way. I am not asking the people for money. I am offering to take off their debt. The only currency which has the potential to bail out America's massive debt is Bitcoin.

My main goal is to assemble a team that works for the world, for things that do matter and not for things that don't matter. All this greed came out because of money. And if you can create a winning formula where people no longer crave, desire or want to make money because they can make money and at the same time they don't feel the need to go into that dirty, nasty mindset where they see others as mere objects. And if we can remove that hunger, everyone can have money, and equality can be achieved.

Bitcoin can not be only money. It is software that can be used as a commodity, but at the same time, it can be used as a regular form of cash. This is what my dream was, and unfortunately, it has been classified only as a commodity and an investment. That is not utilising it correctly.

I'm not doing this for money. I'm doing this because I genuinely want to make things better for everyone in our world. But I now feel the overwhelming impetus and need to emerge from my humble abode and private life to rescue my creation from the grips of those who wish to rob humankind of completing the mission. I was tasked with accomplishing on behalf of what is good and what is suitable for humanity and our ever-increasingly connected world.

The truth is a sword that will cut off any short or long-term lie. I've witnessed this my whole life: if you are honest, you are truthful; even in the casino business, you will prosper. Whether you are a believer in the Torah, Bible, Quran, or Bhagavad Gita, you will come out on top if you are honest and truthful. But, unfortunately, people often prefer the truth to be told as fiction because the raw truth is too blunt, too raw, too bitter for them. When you look at the actual, natural form of gold or the proper, raw form of a diamond, people will not want to buy it. But when it's been polished and is shown pleasingly, they love that and will believe that to be true, in its original form.

Ultimately, a pure heart is what matters. It does not matter where you came from.

Sincerely,

Satoshi Nakamoto



Satoshi Nakamoto

*This letter was written with the consultation of Satoshi Nakamoto*



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**National Association of Federally-Insured Credit Unions**

December 7, 2021

The Honorable Maxine Waters  
Chairwoman  
Committee on Financial Services  
United States House of Representatives  
Washington, DC 20515

The Honorable Patrick McHenry  
Ranking Member  
Committee on Financial Services  
United States House of Representatives  
Washington, DC 20515

**Re: Tomorrow's Hearing: "Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of Financial Innovation in the United States"**

Dear Chairwoman Waters and Ranking Member McHenry:

I write to you today on behalf of the National Association of Federally-Insured Credit Unions (NAFCU) to share our thoughts on issues of importance to credit unions ahead of tomorrow's hearing, "Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of Financial Innovation in the United States." NAFCU advocates for all federally-insured not-for-profit credit unions that, in turn, serve over 127 million consumers with personal and small business financial service products.

NAFCU appreciates the work of the Committee in examining the integration of digital assets into traditional financial products. In the little more than five years in which the cryptocurrency market's value has risen from roughly \$7 billion to more than \$2 trillion, credit unions have seen the number and value of ACH, debit card, and wire transfers from share accounts to cryptocurrency exchange platforms like Coinbase Global, Inc. (Coinbase) grow at an increasing rate, particularly among younger members. Stated plainly, the members with whom credit unions almost uniformly have the greatest difficulty connecting and on whom credit unions', and therefore the National Credit Union Share Insurance Fund's (SIF), long-term viability depend are more frequently transferring ever greater sums from share accounts to cryptocurrency exchange platforms with no connection to their communities and subject to little, if any, regulatory oversight.

Distributed ledger technology (DLT) and other technologies related to digital assets present an increasing array of potential operational efficiencies. For example, smart contracts and the use of digital representations or tokens of traditional assets may have the capacity to reduce credit unions' operational costs, enhance regulatory compliance, and reduce instances of human error, fraud, and other misconduct. Digital identification built on DLT may not only enable credit unions to more robustly contribute to BSA/AML efforts but also more quickly and accurately engage the unserved, underserved, and credit invisible and guide them along the path to financial inclusion. While these technologies are exciting and may provide operational advantages, some regulators have been behind the pace of innovation in providing rules and guidance and adopted a disjointed approach. Regulators are only now beginning to embrace some of the technologies. For example, on January 4, 2021, the Office of the Comptroller of the Currency (OCC) released Interpretive

The Honorable Maxine Waters, The Honorable Patrick McHenry  
December 7, 2021  
Page 2 of 2

Letter 1174 (OCC Interpretive Letter) permitting national banks and Federal savings associations to use digital assets adopting the term “stablecoin” and related technologies to perform payment activities and other bank-permissible functions. Then in November the OCC released Interpretive Letter 1179, which adopts a more conservative posture towards activities addressed in previous interpretive letters and states that a bank should not engage in certain cryptocurrency and stablecoin related activity until it receives a non-objection from its supervisory office. However, the OCC also reaffirmed that all prior crypto-related activities mentioned in past letters are in fact legally permissible. The Federal Deposit Insurance Corporation issued an RFI on digital assets in May 2021, seeking comment on digital asset use cases, risk, supervision, and deposit insurance. The National Credit Union Administration published a similar RFI for digital assets and related technologies in July. Neither agency has yet provided any guidance on these issues. This disjointed regulatory approach amongst the financial services regulators creates uncertainty and threatens to stifle innovation.

Additionally, the President’s Working Group on Financial Markets (PWG) recently released a report recommending Congress enact legislation requiring all payment stablecoin issuers to be insured depository institutions. In later describing American depositors’ access to federal deposit insurance and their financial institutions’ access to emergency liquidity and Federal Reserve services, the Report adopts and cites the *Federal Deposit Insurance Act* definition of an insured depository institution. By adopting this narrow definition, which includes banks and savings associations but not credit unions, the Report risks legislators and other regulators interpreting the Report as recommending that Congress enact legislation requiring a stablecoin issuer to obtain a bank charter – not either a bank charter or a credit union charter. This piecemeal approach, if left unchecked, will result in competitive disadvantages, market distortions, and reduced innovation. We urge Congress to explore ways to provide regulatory certainty and parity across the financial services system and ensure a level playing field for all. We urge you to ensure the needs of credit unions are considered in any legislative approach you consider in the future.

We thank you for the opportunity to share our thoughts and look forward to continuing to work with you on including emerging technologies into financial services. Should you have any questions or require any additional information, please contact me or Lewis Plush, NAFCU’s Associate Director of Legislative Affairs, at (703) 258-4981 or [lplush@nafcuc.org](mailto:lplush@nafcuc.org).

Sincerely,



Brad Thaler  
Vice President of Legislative Affairs

cc: Members of the U.S. House Committee on Financial Services



**Submission for the Record by the Securities Industry and Financial  
Markets Association (SIFMA)**

U.S. House Committee on Financial Services Committee

Digital Assets and the Future of Finance: Understanding the Challenges  
and Benefits of Financial Innovation in the United States

December 8, 2021

The Securities Industry and Financial Markets Association (SIFMA)<sup>1</sup> and its member firms appreciate the opportunity to submit our perspectives on the regulation of digital assets and applaud the Committee's efforts to ensure federal law supports protections for crypto investors and the safe development of emerging cryptocurrency and distributed ledger technology (DLT) based innovations.

The United States has the deepest and most liquid capital markets in the world, facilitating growth and innovation across all industry sectors. Throughout the years, U.S. capital markets have continued to innovate as technology has allowed for profound evolutions in market infrastructure, changing at times the very nature of American financial markets. These prior waves of technological change have broadly been accommodated within the existing regulatory framework, and we encourage regulators and policy makers learn from these successes as they approach blockchain based assets and infrastructure.

In addition to our comments and questions to consider below, please see our series of white papers and comment letters outlining SIFMA's views and positions on how best to consider within the existing statutory framework the transformative innovations facing securities market participants as they build new products and services based on blockchain technology. We welcome your feedback and look forward to providing the Committee with additional input on potential statutory changes as you move forward on these very important issues.

#### **Digital Assets – Regulatory Treatment and Custody Frameworks**

SIFMA has taken particular interest in the frameworks under existing statutory law to understand and effectively regulate digital asset securities and security tokens – i.e. registered securities which are natively digital assets using blockchain infrastructure. SIFMA recommends that regulators look across the lifecycle of digital asset securities to understand how they can be incorporated into existing regulatory and operational frameworks, with the expectation that in many areas limited regulatory change will be needed to accommodate them, as was the case in prior waves of technological change in the securities industry.

SIFMA recommends that both legislators and regulators take a principles based, technology-neutral approach to regulation that focuses on the relevant risks, and not the specific technology used to record or transfer securities. In particular, regulation should not be based on a general distinction between digital asset securities and “traditional” securities. This approach should allow broker-dealers to develop policies, procedures, and best practices that may be customized to different types of digital asset securities and/or related technologies and provide flexibility for broker-dealers to address issues unique to different forms of digital asset securities.

In particular, SIFMA and its members have identified three key areas where we believe further dialogue is needed between industry participants, legislators, and regulators; effective resolution of

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<sup>1</sup> SIFMA is the leading trade association for broker-dealers, investment banks and asset managers operating in the U.S. and global capital markets. On behalf of our industry's nearly 1 million employees, we advocate for legislation, regulation and business policy, affecting retail and institutional investors, equity and fixed income markets and related products and services. We serve as an industry coordinating body to promote fair and orderly markets, informed regulatory compliance, and efficient market operations and resiliency. We also provide a forum for industry policy and professional development. SIFMA, with offices in New York and Washington, D.C., is the U.S. regional member of the Global Financial Markets Association (GFMA). For more information, visit <http://www.sifma.org>.

these questions will help support the further development and growth of the markets for the digital assets:

- If and how DLT would be sufficiently robust to act as the registrar or to satisfy industry participants' books and records and reporting requirements;
- The standards to which possession or control requirements (i.e., SEC Rule 15c3-3, "Customer Protection - Reserves and Custody of Securities") when using DLT-based infrastructure can be successfully complied with;
- The need for certain parties involved in the clearing and settlement of a transaction to register as a clearing agency

Providing a framework for firms to custody digital asset securities in compliance with regulatory requirements is particularly important to support the further development of markets for these assets. The unique, or different, risk profile of digital asset securities does not necessarily mean their risks are greater compared to traditionally represented securities, particularly when firms are able to draw on their existing risk management and control frameworks, and can put in place best practices and controls suited to the technological features of the digital assets securities and infrastructure they are supporting

As such, as policy makers look to provide oversight or craft legislation for blockchain based securities and infrastructure, SIFMA recommends they look to build regulatory and policy frameworks based on technology neutrality, that do not artificially distinguish between blockchain based and "traditional" securities and that offer pathways for the industry to industry to meet regulatory requirements that are consistent with these principles. Similarly, we recommend a clear framework to allow broker-dealers to meet recordkeeping and reporting requirements using blockchain infrastructure, and for regulation to recognize market participants may meet these requirements in different ways using distributed ledger technology.

#### **Prudential Treatment of Cryptoasset Exposures:**

While work is underway through the Basel Committee on Banking Supervision to develop a framework for the prudential treatment of these assets, it is critical that Congress encourage U.S. prudential regulators to remain engaged on this issue, and work with their market regulator counterparts to develop a clear regulatory framework for cryptoasset markets that strikes the right balance among innovation, growth and regulatory conservatism. A properly balanced framework will help to ensure the capital markets will be able to continue to serve the needs of businesses and households as efficiently and comprehensively as possible.

In our view, any future prudential regulatory framework for blockchain based assets ought to be calibrated to ensure a practical degree of conservatism while avoiding being overly punitive such that financial institutions are effectively precluded from meaningful involvement in this space. That framework should also be technology neutral and designed to reflect the underlying risks of the blockchain assets involved, and it should allow for effective hedging in order to reduce risks, costs, and volatility. Any new prudential framework should furthermore maintain a distinction between the capital treatment of blockchain based assets held in the trading and banking books and ensure that capital treatment is based on the risks of the assets rather than the accounting treatment. Finally, the framework should be agile, reflecting the evolving nature of this sector.

**Distributed Ledger Technology:**

Over the last few years, DLT has experienced a rise in global interest from regulated financial institutions, market infrastructure providers, and market participants looking to explore how the technology could help advance the development of capital formation and improve the transfer of value across parties. The U.S. securities industry is exploring the potential benefits of using DLT, including through the direct issuance of registered securities natively on blockchain networks (i.e. digital asset securities or security tokens) and the use of blockchain networks by firms and infrastructure providers to better manage information and carry out securities processes. These applications include, but are not limited to, using DLT to enhance the speed of issuance and settlement, automate regulatory compliance, increase transparency, integrate programmability into an asset via Smart Contracts, leverage data immutability, and improve trade efficiencies. These operational and infrastructure applications are being explored both to support natively digital assets as well as to make markets and processes for “traditional” securities more efficient.

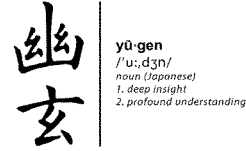
When looking at these applications of blockchain technology to carry out industry processes in new ways, SIFMA recommends that the baseline assumption for policy makers should be that the existing regulatory framework will cover many applications of distributed ledger technology, with adjustments as needed on a case-by-case basis, and that regulators should approach DLT-based projects with the expectation that most can operate within existing regulatory frameworks.

Where modifications of regulatory frameworks are needed to accommodate blockchain technology, we believe that new regulation should be focused on specific use cases as needed, not the technology as a whole. The specific features of these markets and processes, as well as the details of regulatory requirements that currently govern them, will determine the degree to which modification of existing regulations will be necessary.

We recommend that policymakers and regulators take this approach when reviewing blockchain technology and take a technologically neutral approach which focuses on the specific policy goals of regulation such as customer protection, risk management, resiliency, transparency, and market integrity – as opposed to mandating the specific technology and process solutions that firms and industry infrastructure providers use to meet them. Where there are rules that mandate specific technologies or processes that are inconsistent with distributed ledger technology, we recommend that regulators revise them to make them technology neutral.

SIFMA greatly appreciates the opportunity to provide these important questions and comments to inform Committee Members and staff. SIFMA takes digital asset and consumer protection very seriously, and we welcome further dialogue in addition to serving as a resource for the Committee as needed. Please reach out with any additional questions.

###



W. Scott Stornetta, Ph.D.  
Chief Scientist and Partner, Yugen Partners  
Morristown, NJ

Monday, December 13, 2021

Chairwoman Maxine Waters  
U.S Committee on Financial Services

Chairwoman Waters,

As someone who devised and implemented, along with Dr. Stuart Haber, the foundations of the blockchain, it is personally important to me that this ecosystem develops in a way that enhances the personal liberties of American citizens and the general prosperity of the American Experiment.

The December 8 hearing was historic. Under the leadership of Chairwoman Maxine Waters, the U.S. House Committee on Financial Services began a broad and open discussion on Digital Assets made possible by the blockchain. Specifically, it showed a genuine attempt by members of Congress to learn about an industry whose representatives in turn made clear their willingness to support a fair regulatory framework.

Ranking Member Patrick McHenry noted that it was "the first time Congress [had held] a hearing about cryptocurrency in its fullness."

There was something else worth noting. Citizens of all political stripes should applaud the harmonious, largely non-partisan nature of the hearing and the demonstrated interest, in Chairwoman Waters' words, "to arm ourselves with the ability to make the right decisions," by, in Representative McHenry's words, the willingness of members to "listen, learn, and ask questions."

Several well-prepared members of Congress asked questions which led to substantive and informative responses from what was, quite frankly, a highly-credible team of expert witnesses. A few of the exchanges are particularly worth highlighting. First, the market-driven move to ever greater energy efficiency in consensus mechanisms, rather than painting the entire ecosystem with the broad brush of coal-powered bitcoin mining in China. Second, the need for and benefits of stablecoins, even with the potential advent of a U.S. CBDC. Third, the recognition that some aspects of current regulation attempt to address problems that do not even exist in the blockchain, including a particularly detailed response from Sam Bankman-Fried, CEO of FTX.



But the most illuminating moment occurred in an exchange short enough to fit within the attention span of even the Tik-Tok generation. Current Bitfury CEO Brian Brooks, a self-confessed "long-suffering Dodgers fan," responded to a question from Congressman Roger Williams, who introduced himself as "a former professional baseball player." Both agreed that a somewhat obscure chapter from the history of baseball, namely, the national pastime's transition from the dead-ball to the live-ball era, provided an apt context for how to address digital assets built on the blockchain.

Brooks took William's interrogatory pitch and parlayed it into a walk-off home run answer. He suggested the lesson to be learned from that historical moment was how it marked a change from a strategy of simply not losing to one of outright winning. In doing so, Brooks helped listeners understand *the need to move from a regulatory environment focused on protect-the-status-quo defense to one that unleashes an innovative economic offense based on the power of the blockchain* (surely George Will is smiling). And Mr. Brooks brought particular credibility to the field, having played on both sides of this debate due to his prior stint as Acting Comptroller of the Currency.

This was but the first of many hearings and subsequent legislative discussions. The early innings, if you will, in a World Series with truly global implications. I claim more than a disinterested bystander's interest in how this game plays out, and feel a personal responsibility to see the blockchain achieve its originally intended promise.

We will continue to follow developments closely. But with this hearing as a refreshing beginning, let us hope for a legislative response that places its trust in consumer choice and free and fair competition. That way leads to better outcomes for both individuals and the nation as a whole in a thriving economy based on blockchain's principles of integrity, transparency, and widely-shared responsibility.

Respectfully submitted,



W. Scott Stometta, Ph.D.

**U.S. House Financial Services Committee  
Hearing on “Digital Assets and the Future of Finance:  
Understanding the Challenges and Benefits of Financial  
Innovation in the United States”**

**Responses by Mr. Jeremy Allaire  
Co-Founder, Chairman and CEO of Circle  
Submitted February 28, 2022**

**Questions from House Financial Services Chairwoman Maxine Waters for  
 Mr. Jeremy Allaire, Co-founder, Chairman and CEO, Circle**

***Oversight and Investigations of Cryptocurrency Industry***

**6. Mr. Allaire, according to a regulatory filing, Circle Internet Financial Ltd. set aside more than \$10 million to settle a case initiated by the SEC against Poloniex LLC, its discontinued cryptocurrency exchange business and former Circle subsidiary. As demonstrated in its SEC disclosures, in 2019, Circle received administrative subpoenas from OFAC and an Iranian government agency, inquiring possible violations regarding accounts in embargoed jurisdictions and transactions that may have violated sanctions.<sup>9</sup> More recently, the SEC has issued an "investigative subpoena" to Circle Financial, the USD coin issuer. The regulator asked for information on Circle's "holdings, customer programs, and operations." Can you elaborate on the measures you've taken to comply with the subpoena?**

Circle takes seriously its obligations as a regulated entity, both with the states under which it operates its money transmitter licenses as well as with its federal regulators. The August 2021 settlement between the SEC and Poloniex, LLC is between Poloniex, LLC and the SEC only. Circle is not party to the settlement and is mentioned in the Order only peripherally as the former parent company. Circle acquired the digital asset trading platform in 2018 and, in November 2019, sold it and no longer operates the exchange. Poloniex, LLC also received administrative subpoenas from OFAC regarding accounts opened and/or closed on the Poloniex digital asset trading platform. Poloniex, LLC is fully cooperating with OFAC, and is currently in discussions with OFAC regarding a potential resolution of OFAC's investigation. Poloniex, LLC has not received a subpoena from any Iranian government agency. Circle is fully cooperating with the SEC on the investigative subpoena we received; and, as we have filed to become a publicly traded company subject to the SEC's oversight, we are fully committed to working closely with the SEC on any requests related to becoming a public company.

**8. Mr. Allaire, on May 6, 2020, Circle received a \$1.8 million PPP loan. Circle did not pay this loan back until March 4, 2021. Prior to receiving this loan from the government, Circle had raised \$246 million over seven funding rounds.**

**a. Do you think it was appropriate to take out a nearly \$2 million government loan when you'd already raised nearly a quarter of a billion dollars in prior funding rounds?**

Yes. On May 6, 2020, Circle received a loan of \$1.8 million under the Paycheck Protection Program (PPP) as part of the CARES Act and administered by the Small Business Administration (SBA). Circle received this PPP loan in full compliance with the terms, regulations, and conditions stipulated by the SBA. Circle voluntarily repaid the loan, in full and ahead of schedule, on March 4, 2021. The PPP loan helped Circle retain employees, maintain

payroll and make payments amid the uncertainty and disruptions of a global pandemic, as the law intended. The PPP loan also provided a bridge at a time when Circle was restructuring its business lines and activities to focus on a growing area of the market, particularly the use of USD Coin (USDC), our dollar digital currency. It is also important to note that Circle's financial outlook and competitive position are much stronger today than they were in May 2020. The PPP loan helped Circle at a crucial time, and as Circle has grown, we have been able to create more jobs, expanding our workforce from 136 employees in January 2021 to more than 460 employees as of February 2022.

*Stablecoin Activities, and Oversight from Prudential and Market Regulators*

**18. Mr. Allaire, the USDC has been described as the second largest stablecoin globally, with \$27 billion worth of coins in circulation. Can you guide us through the purchase, holding, and exchanging processes by which customers can acquire USDC for U.S. dollars? Please describe any restrictions or requirements involved in those processes.**

Circle is the sole issuer of USD Coin (USDC), a regulated, fully-reserved U.S. dollar digital currency. Only institutional customers - business and financial institutions - are currently eligible to apply for a Circle Account. The Circle Account provides customers with a platform to make payments and store funds in USDC. Customers are able to connect to bank accounts in approximately 90 countries, purchase and redeem USDC, securely store digital assets with us, and make blockchain-based payments using USDC and other digital assets. A Circle Account enables customers to make and receive payments nearly instantly and globally to any blockchain-compatible digital wallet, providing an efficient and cost-effective alternative to traditional bank payment rails.

A Circle Account also allows customers to deposit, via wire transfer, U.S. dollars corresponding to the amount of desired USDC they wish to purchase. Once the credit is made to the Circle Account, USDC is issued by Circle LLC to the customer and delivered to the customer's Circle Account, effectively increasing the amount of USDC in circulation. Funds used to purchase USDC are placed into a segregated reserve account. Customers can then send USDC as a medium of exchange to others via blockchain transfers or, in some cases (e.g., exchanges), resell USDC to their own customers. Additionally, Circle Account infrastructure includes wallet services for securely storing USDC, BTC and ETH digital assets. Clients can make on-chain transactions using USDC or hold these digital assets as a store of value, relying on Circle's digital asset custody capabilities.

Likewise, customers who transfer USDC into a Circle Account can choose to redeem USDC and transfer funds out of reserve and into a customer's linked bank account as U.S. dollars. When

USDC is redeemed, the USDC is canceled and U.S. dollars are transferred out of reserves held by Circle LLC to the customer's linked bank account via wire transfer, thereby reducing the amount of USDC in circulation.

**19. To all witnesses, in 1946, 75-years ago, the Supreme Court in SEC v. Howey determined that the offer of a land sales and service contract for orange groves was an investment contract within the meaning of the Securities Act of 1933. This case established the "Howey Test" which is the basis for determining whether a financial instrument is an investment contract. The Howey Test is as broad as it is simple. Premised on a 4-part test, under Howey, a financial instrument is an investment contract where: (1) there is an investment of money; (2) in a common enterprise; (3) with the expectation of profits; and (4) derived from the efforts of others.**

**b. Mr. Allaire, as the CEO of Circle, please answer:**

- i. Where is Circle incorporated, and where is its principal place of business?**
- ii. On Circle's website, you claim that USDC, your stablecoin, "is always redeemable 1:1 for U.S. dollars". What financial instruments are used to back USDC?**
- iii. What is the frequency in which Circle rebalances or tops off the underlying assets so that you can maintain the 1:1 redemption?**
- iv. Is USDC free or does an investor have to pay for USDC?**
- v. Why do investors purchase USDC? Are holders of USDC entitled to interest, investment benefit, or other financial remuneration?**
- vi. How is USDC different from a SEC registered money market fund, an investment product designed to maintain a stable asset value?**

Circle Internet Financial, LLC, the operator of USDC, is incorporated in Delaware. We were founded and based in Boston, Massachusetts. In June 2021, we became a remote-first company, with employees now working from 34 U.S. states and the District of Columbia.

USDC is fully backed by cash and short-duration U.S. government obligations, so that it is always redeemable 1:1 for U.S. dollars. Each month, we publish attestation reports by a global accounting firm regarding the reserve balances backing USDC. There is no need to "rebalance" or "top off" the USDC reserves, as funds equal to or greater than the amount of USDC in circulation are always held in cash or cash-equivalents.<sup>1</sup>

USDC reserves are and have always been fully backed. In other words, the amount of U.S. dollars held in reserve, including U.S. dollars held in a "buffer" account, has always exceeded

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<sup>1</sup> The market also prevents fluctuations in the price of USDC, because everyone knows that it can be purchased from Circle—either directly by an account holder or indirectly through an exchange—and sold for \$1. Consequently, if the price of USDC on any exchange deviates from \$1, then institutional market participants will either buy or sell USDC and arbitrage away the price difference.

the amount of USDC in circulation. USDC issued and redeemed by Circle is free, in that there is no commission to purchase or redeem it; a USDC stablecoin costs, and can be redeemed for, one U.S. dollar—no more and no less. Therefore, purchasers of USDC have no expectation of profit, and are not investors.

Circle does not pay interest, investment benefits, or other financial remuneration to purchasers of USDC. USDC is not a money market fund. A holder of USDC does not receive any interest income or have any expectation of profit, unlike a money market account holder, who expects a certain rate of return. Instead, a holder of USDC gains the utility of an always-on, trusted, secure and low-friction method of payment for emerging internet commerce and other uses.

**22. Mr. Allaire, currently, Coinbase pays a 1% APY on your USDC token by default, with no action needed from the user apart from purchasing USDC. This creates an automatic expectation of profits for USDC and raises questions about whether or not Coinbase is in violation of federal securities laws for offering unregistered securities. Is your product therefore a security, and should be regulated as such?**

USDC is not a security under any recognized test, including within the statutory meaning of Section 2(a)(1) of the Securities Act of 1933, as an “investment contract” under the U.S. Supreme Court’s decision in *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946), or as a note under *Reves v. Ernst & Young*, 494 U.S. 56 (1990).

Circle issues 1 USDC for 1 U.S. dollar, and redeems 1 USDC for only 1 U.S. dollar. There is no expectation of profit in connection with Circle’s offering of USDC. USDC acts as a store of value, a unit of account, and a medium of exchange, none of which are securities. Other firms may offer lending, banking or other interest-bearing products to customers in exchange for their USDC. But this does not make USDC a security any more than a person lending U.S. dollars to a bank makes U.S. dollars a security.

**25. Mr. Allaire, your stablecoin was previously backed by various forms of debt securities and bonds, such as corporate bonds, commercial paper, and municipal bonds. Late this year you announced that, moving forward, your stablecoin would only be backed by the U.S. dollar and short-term U.S. Treasuries.<sup>28</sup> Can you explain why you were offering a stablecoin that wasn’t backed by fiat currency and what prompted you to make this change? Can you guarantee to the global public that your product is and will continue to be backed fully by the U.S. dollar?**

- a. Do you both agree that the lack of clarity on how stablecoins are backed with reserves could raise systemic risk concerns if there is a run on stablecoins?
- b. Does your stablecoin products compete against the U.S. Dollar and other nationally issued currencies? What is their use-case that you envision in

**the future?**

There is no lack of clarity with respect to how Circle backs USDC. While it is not a requirement that Circle report on the sufficiency of reserves to meet demands for USDC outstanding, Circle believes that the unique nature of stablecoins calls for maximum transparency and ongoing reporting, two areas in which Circle has established leading practices in this competitive market. To date, 40 monthly attestation reports on the sufficiency of dollar-denominated reserves to meet demands for USDC outstanding have been provided by one of the world's leading accounting firms. The most recent report released on February 28, 2022, shows that there are 50,031,478,777 USDC in circulation and \$50,031,478,777 is held at U.S. regulated financial institutions, limited to cash and short-duration U.S. government obligations, and are fully segregated from other accounts of the company.

For a short period of time between June and August 2021, Circle diversified its reserve holdings to include other safe and secure assets, including municipal and high-quality corporate bonds. At the same time, Circle established an additional reserve "buffer" account in which sufficient U.S. dollars were held so as to ensure that any daily mark-to-market fluctuations in the reserve bond holdings would not cause the reserve assets to fall below the amount of USDC in circulation—which, we would emphasize, never happened. Effective September 2021, Circle decided to hold all reserve assets in cash and short-duration U.S. government obligations.

Circle does not agree that any "lack of clarity" regarding how USDC is backed could raise "systemic risk concerns" if there were a "run on stablecoins." There are at least two reasons for this: first, as set forth in our prior responses, there is no lack of clarity regarding how USDC is backed – the monthly attestations see to that. Second, a "run on stablecoins" – or at least a run on USDC stablecoins – is unlikely, given that each and every USDC stablecoin is backed 1:1 by U.S. dollars and cash equivalents, such that distrust in the dollar reserves backing USDC would be tantamount to distrust of the U.S. regulated banking system.

Finally, USDC is not a competitor to the U.S. dollar. Rather, USDC is a complement to the U.S. dollar, providing a trusted, secure, always-on, and low-friction method of payment for emerging internet commerce and other uses. Importantly, USDC is issued without monetary policy or controls on circulation and redemption other than supply and demand factors. There is no money creation with stablecoins like USDC, and dollar-denominated reserves consisting of cash and short-duration U.S. government obligations are held inside the very banking system prudential regulators supervise. This does not suggest that even the best run stablecoin arrangements are risk-free, for nothing in finance or the economy is. Rather, it does suggest a materially lower risk proposition that only adds value to the U.S. dollar in a competitive, always-on global economy.

Currently, the bootstrap use case for stablecoins was supporting internet-native capital markets and trading activities, including software-intermediated financial markets. However, to say this is the only use or that enhancing consumer choice with wealth creating investments is somehow wrong, would be a mistake. Indeed, the use of stablecoins in highly demanding and efficient internet trading markets has been a perfect proving ground for a fundamentally new payments

innovation.

USDC has been used for more than \$1.8 trillion in on-chain transactions — a rounding error vis-à-vis the size of traditional markets, payments and trading infrastructure, but an important “trial run” of dollar digital currencies and third generation blockchains to support always-on financial needs. These early use cases in digital asset markets are starting to come out of beta and emerging late generation blockchains are beginning to enjoy transaction throughput and operational robustness akin to major retail-scale payment networks. Critically, transactional prices are already attaining pennies on the dollar cost structures.

The one distinction, however, is that rather than riding on proprietary technology, stablecoins rely on open-source software and public blockchains and promote price-reducing competition and interoperability. Today’s payment networks, no matter how efficient they may be for those so fortunate to be inside the walled garden, labor under a universal lack of interoperability and openness. Open, blockchain-based financial services (noting that the use cases are much bigger than banking and money) are changing this landscape for the better.

*President’s Working Group Report on Stablecoins*

**29. Mr. Allaire and Mr. Cascarilla, earlier in November, the President’s Working Group on Financial Markets issued its report on stablecoins. The working group describes key issues with stablecoins which include: the nature of reserve assets; redemption variations; the lack of transparency among ‘permissioned blockchains,’ custody of the reserve assets, the unreliability of the wallets, and settlement and distribution issues. As some of the largest stablecoin issuers by market capitalization,<sup>31</sup> what steps are you taking to address these concerns?**

In the commercial banking sector, the global standards for liquidity are based on Basel III, with standards to ensure that banks can provide 1:1 dollar liquidity to depositors even during extremely-rare high-stress periods, with sustained large outflows for a full 30 days. Basel III mandates that banks must maintain sufficient High Quality Liquid Assets (HQLAs) to ensure they can meet the liquidity demands of such a stress situation. Basel III defines the Liquidity Coverage Ratio (LCR) as the amount of HQLAs on a bank’s balance sheet divided by the expected net outflows in a 30 day stress case, and mandates that banks maintain their LCR above 100%.

Circle has always held ourselves to the highest of regulatory standards, to ensure that a dollar exchanged into USDC is safe. As such, we have always exceeded, and will continue to exceed, the bank-grade LCR and HQLA requirements under Basel III. As we move towards national bank-level regulatory supervision we will begin to publish information about the fundamental liquidity of USDC and our liquidity coverage under Basel III. Similarly, as specific national supervisory standards for dollar digital currencies emerge, we will proactively work with our national regulatory counterparts on the ultimate commercial adoption of new dollar digital



currency standards.

While it is not a requirement that Circle report on the sufficiency of reserves to meet demands for USDC outstanding, Circle believes that the unique nature of stablecoins calls for maximum transparency and ongoing reporting beyond expectations of comparably regulated U.S. money transmission companies. As noted in response to a prior question, we take pride in leading the industry on these standards of trust, transparency and accountability.

A first principle for USDC has been the power of adopting digital currencies built on open internet networks, or public blockchains. Open networks and decentralization are foundational to economic and financial system progress. Additionally, USDC is a safe and secure digital alternative to fiat currency that permits holders to conduct transactions far more quickly and less expensively than they could using traditional banking rails.

**30. Mr. Allaire and Mr. Cascarilla, the President's Working Group on Financial Markets recently published its report on stablecoins and highlighted the concern for regulators that this subset of cryptocurrencies supposedly backed by reserve currencies may not be fully backed. Additionally, the report raised potential financial stability concerns because of their rapidly growing size, with stablecoins growing from \$30 billion to approximately \$130 billion in the last year and are projected to grow roughly tenfold to \$1 trillion by 2025. However, one of your recommendations is to make stablecoin issuers become fully insured depository institutions. Critics of this proposal have expressed concern that requiring a stablecoin issuer to have a banking charter, backed by FDIC deposit insurance, would validate private money in the form of stablecoins, to the detriment of the U.S. dollar and its role as the global reserve currency.**

- a. What do you both think of the PWG proposal that stablecoin issuers must be insured depository institutions?**
- b. Can you make a commitment that your products will in no way undermine the value of the U.S. dollar as the pre-eminent currency of our global economy?**

Circle is fully supportive of the President's Working Group call for Congress to establish Federal banking supervision for stablecoin issuers. The rapid scaling and strategic importance of this to dollar competitiveness in the age of always-on economic activity on the internet and public blockchains is critical.

Prior to the President's Working Group recommendations on stablecoins, Circle announced our intention to pursue a full national banking charter from the Office of the Comptroller of the Currency (OCC), and we continue prioritizing bilateral and inter-agency engagement with all of the relevant Federal and state financial regulatory stakeholders. We believe that full-reserve banking, built on digital currency technology, can lead to not just a radically more efficient, but also a safer, more resilient financial system. Establishing national regulatory standards for dollar

digital currencies is crucial to enabling the potential of digital currencies in the real economy, including standards for reserve management and composition.

Circle believes that the U.S. should aggressively promote the use of the dollar as the primary currency of the internet, and leverage that as a source of national economic competitiveness, security, and as a major upgrade needed to create more efficient and inclusive financial services. As we have seen with foreign currencies, any country that pegs its exchange rate to the U.S. dollar imports U.S. monetary policy. Therefore, it stands to reason that well-regulated U.S. dollar-denominated stablecoins do not threaten the U.S. dollar. To the contrary, they enhance the role of the U.S. dollar as the world's reserve currency.

#### *Decentralized Finance*

**31. Mr. Allaire, in one of your recent SEC filings, you mention that Circle plans to launch "Circle DeFi", including plans to "allow companies to have connectivity to Compound, Aave, and other protocols through Circle Accounts and Circle APIs".<sup>32</sup> DeFi platforms, including those that you mention in your investor presentation, may perform little Know-Your-Customer, Anti-Money Laundering, and Countering Terrorist Financing oversight and compliance. U.S. or otherwise.**

- a. What would Circle do differently in its partnership with these DeFi platforms to ensure that your firm doesn't push its account holders and institutional clients into a market that also may be leveraged by criminals and terrorists? Is Circle compliant with Regulations T, U, and X?**
- b. Given recent Financial Action Task Force guidance on virtual assets and virtual asset service providers or VASPs, how will your DeFi products and services and this segment of industry adapt to meet the FATF's view on DeFi and financial crime compliance?**

As we announced on February 17, 2022, Circle collaborated with Centre and leading blockchain-finance organizations on the creation of Verite, a decentralized identity solution for crypto finance. Verite is a decentralized model for identity credential issuance, custody and verification that addresses the KYC requirements and national security interests in the DeFi market. With a digital identity verified with traditional KYC, anti-money laundering, and counter terrorist financing checks, customers can transact on DeFi platforms in a reliable and verified manner.

We commend the Financial Action Task Force's (FATF) 2019 revisions, under the leadership of the U.S. President, which explicitly require Virtual Asset Service Providers (VASPs) to implement the full range of preventative measures for AML/CFT. We are also familiar with the recent guidance ("Updated Guidance for a Risk-based Approach to Virtual Assets and VASPs") from the FATF, which intends to help jurisdictions in understanding and developing regulatory and supervisory responses to virtual asset activities and VASPs. We recognize that the purpose

of FATF guidance is to help countries implement FATF standards against which countries are assessed; we look forward to any further revisions to the U.S. regulatory regime based on FATF standards and will continue to remain an active and constructive counterparty to financial integrity efforts in the U.S. and around the world. To this end, we recently responded to the Financial Crimes Enforcement Network's (FinCEN) request for information on modernizing the Bank Secrecy Act.

Notwithstanding some of the potential challenges and unique risks posed by decentralized finance, the opportunity to develop safe programmable money and software-intermediated lending and borrowing markets, presents unique financial inclusion and wealth generating opportunities. Managed well, DeFi can lower the barriers to financial access well beyond the well-heeled investors that make the most from Wall Street, while creating safe, always-on pathways for money to work for people, rather than people working for their money.

**32. To all witnesses, Decentralized Finance, or DeFi, is an especially fast-growing area within the digital asset industry, reportedly reaching more than \$100 billion in size in November 2021, up from around \$21 billion only a year ago. DeFi generally refers to the use of digital assets and blockchain technology to replicate and replace conventional delivery of financial services without central financial intermediaries such as brokerages, exchanges, transfer agents, or banks. However, SEC Commissioner Crenshaw recently warned that DeFi is risky, with DeFi promoters flouting their legal obligations, and that investors may lose their money as they are not provided with the detail needed to assess risk likelihood and severity.<sup>33</sup>**

- a. How is your company currently engaged in DeFi activities?**
- b. How do you manage risks for your DeFi products, and how do you abide by your Know-Your-Customer requirements?**
- c. Do your customers understand the risks of using DeFi, and if so, what do you do communicate these risks?**

Circle is not currently engaged in DeFi activities, although we intend on entering this market as disclosed previously. DeFi activity using USDC is conducted by third parties and we continue to explore ways to bring the benefits of DeFi to customers in a regulated and compliant way with, for example, permissioned pools, KYC, and identity standards, among other measures.

#### *Diversity, Equity and Financial Inclusion*

**36. To all witnesses, as you know, this Committee has been dedicated to advocating for diversity on all levels within the financial services sector. Our February 2020 bank diversity report further highlighted the lack of people of color in the nation's largest banks, and we addressed similar findings in our report on investment management firms from earlier this week.**

- a. Please provide this Committee a detailed breakdown of diversity at the senior**

House Financial Services Committee Questions for the Record  
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**leadership level, of your board members, your workforce, and any suppliers and third parties that are used.**

Circle's commitment to diversity, equity, and inclusion starts at the top of our company. In the last six months, we have expanded our Executive Leadership team to 11 members. There are four prominent women leaders on that team, and six of the 11 members are women and/or people of color, including one African American woman and a man who is African American and Latino.

In just the last year, the number of Circle employees has doubled to 469 people, representing the U.S., Canada, Germany, Ireland, Poland, Singapore, Spain, and the United Kingdom. Of Circle's total workforce, 409 employees are based in the U.S., representing 34 states and the District of Columbia. With our full embrace of a remote-first workforce, we have the freedom to attract a diverse, growing group of people worldwide, while contributing to much needed post-COVID-19 economic recovery in the U.S. We are absolutely committed to attracting and developing the best, brightest, and most diverse talent possible at every level of the company and we will not rest until the composition of our workforce fully reflects the rich diversity of this country.

The following chart shows how Circle's Executive Leadership team, Board of Directors and employees self-identified their personal demographic information:

Group	Female	Male	Total	African American	American Indian	Asian	Hispanic or Latino	Multiracial	White
Executive Leadership Team	4	7	11	1	0	3	1	1	5
Board of Directors	3	5	8	0	0	2	0	0	6
Employees	151	318	469	21	1	125	21	11	290

In addition to continuously evolving, recruiting and retaining diverse talent in the company, Circle's mission of raising global economic prosperity through the frictionless exchange of financial value fuels our recently announced Circle Impact initiatives. This is a newly-announced effort from late 2021, which includes a target of allocating a meaningful share of USDC dollar reserves to community banks and Minority Depository Institutions (MDIs) across the U.S., thereby strengthening their balance sheets and communities. An additional pillar of Circle Impact is to drive digital financial literacy and entrepreneurial efforts in collaboration with leading academic institutions and other partners, including Historically Black Colleges and Universities (HBCUs), the first of which was announced with Bowie State University in Maryland and Rhodes University in South Africa. Finally, Circle will drive national campaigns for more representation among women and minority entrepreneurs using our SeedInvest platform, which is one of the nation's leading equity crowdfunding businesses.

**38. To all witnesses: After the murder of George Floyd by the police last year, hundreds of companies, including tech companies, made public pledges to promote racial equity. However, these commitments have not correlated to an increase in workforce diversity within tech companies. A 2021 study of the technology industry found that companies that made public commitments had 20% fewer Black employees on average than those that didn't.<sup>38</sup>**

- a. Do you consider the lack of diversity within tech companies and in the digital assets industry a hindrance to the progress of the field?**
- b. Have your companies made commitments to promote equity and inclusion within your company and in the industry?**
- c. According to one recent report, between 2014-2021, among the 240 tech companies they surveyed, the diversity of their workforces has not grown significantly. For example, proportion of women employees increased by 2.14% points, and that of Black employee representation increased by just 0.36% points.<sup>39</sup> Do you see a similar trend in the crypto industry?**
- d. Please describe which, if any, concrete actions are your respective companies considering to increase diversity among your workforce?**

Like all industries, the digital assets industry must do better to increase workforce diversity. As stated above, Circle is wholly committed to attracting and developing the best, brightest, and most diverse talent possible at every level of the company, and we know there is more work to do. While Circle has evolved and grown as a company, we have remained focused on fulfilling our mission to raise global economic prosperity through the frictionless exchange of financial value. That is why we launched Circle Impact, a permanent initiative aimed at reaching the people and communities who are all too often left behind by the traditional financial system. This work includes:

- Allocating a share of USDC dollar reserves to MDIs and community banks across the country. We hope this will accrue to billions of dollars over time, strengthening the balance sheet of these banks and, in turn, strengthening their communities.
- Collaborating on digital financial literacy and entrepreneurship initiatives with HBCUs and other partners supporting the development of essential learning and hands-on approaches to entrepreneurialism. We recently announced the first in a series of partnerships through a collaboration with Bowie State, Maryland's oldest HBCU, and Rhodes Universities' joint learning module, the Entrepreneurial and Technological Empowerment Program (ETEP).<sup>2</sup> The program will deliver digital financial literacy

<sup>2</sup> Circle, February 2022, *Circle Collaborates with Bowie State & Rhodes Universities' Entrepreneurial and Technological Empowerment Program*, at: <https://www.circle.com/en/pressroom/circle-collaborates-with-bowie-state-rhodes-universities-entrepreneurial-and-technological-empowerment-program>

modules, educating students about the opportunities that open-source technologies and fintech offer aspiring entrepreneurs.

- Leveraging our SeedInvest platform, which is one of the nation's leading equity crowdfunding businesses, to catalyze targeted campaigns for women and minority entrepreneurs across the country.
- Expediting the corruption-resistant mobilization of aid, relief, and disaster assistance using real-time blockchain-based payments, in the United States and around the world.

Circle has also been developing, enhancing, and delivering sourcing and recruiting training for our Talent Acquisition team, interview training for our interviewers, as well as unconscious bias training for our staff. One of the top priorities of the Research function within Talent Acquisition at Circle is to gather industry best practices on diversity, equity, inclusion, and belonging. It is our intention to design and implement best-in-class programming that will enhance the already strong company culture. Our approach will include data collection and analysis, identifying areas of opportunity, and defining policies, practices and objectives.

**39. To all witnesses, it is troubling that there is little to no publicly available data about the demographics of consumers who your companies market your products to, including the demographics of users, and whether you target your products to those who are financially disadvantaged.**

- a. Do you collect demographic information on your customers?
- b. If so, please describe the type of information you collect from customers.
- c. If voluntary, about how many of your customers provide the information?
- d. What protocols do you have in place for protecting consumers' personal identifying information and securing this information?
- e. If you don't collect demographic data, then what sources of information are you using that lead you to believe that people of color and the traditionally unbanked are among your primary customers?
- f. Please provide a report that includes a detailed breakdown of the demographic information of both the consumers and populations your companies market products to and the users of your company's products.

As mentioned previously, only institutional customers are currently eligible to apply for a Circle Account. We provide tools for businesses of any kind to build on dollar digital currencies. Key market segments today include institutional trading firms, NFT marketplaces, crypto exchanges, wallets and gaming companies, and fintechs. Since we do not directly market to individual consumers for our Circle Account or API products, we do not collect any demographic data on individuals. The company might receive demographic information indirectly through the KYC process, but we do not specifically ask for it from our customers.

While we do not directly collect these demographic information, we are actively working to

extend the perimeter of trusted, always-on digital financial services that are at once safe, sound and more inclusive. A recent example includes the enablement of USDC-denominated remittances in collaboration with MoneyGram and the Stellar blockchain, which supports lowering the costs of cross-border payments.

*Consumer Protection Policy Concerns*

**40. To all witnesses, there is concern about the protection of the personal and transactional data and the digital finances of users of digital payments and assets, including the average consumer or small business owner using these products to make an online purchase, send money to family overseas, or complete transactions with their customers.**

- a. Do most stablecoin issuers and exchanges shift the risk related to cybersecurity to the user? What responsibility lies with the issuer, wallet, or exchange?**

In the past, firms collected, stored, and mined substantial quantities of personal and transactional information. These practices undermine individual privacy rights and create significant targets of cyber attacks from bad actors. We believe there is a better way.

Through blockchain technology, we can protect individual privacy rights and also enhance compliance with financial regulations. We believe that individuals, not unscrupulous state actors or a few large, private corporations, should own their personal information.

Circle is a launch partner and key contributor to Verite, a set of decentralized identity standards launched in February 2022 and developed with support from Block, Circle, Coinbase and Centre, as well as other leading blockchain projects. Verite enables organizations to issue and verify digital identity credentials for users and institutions participating in this market. Unlike alternative approaches to digital identity that involve proprietary tokenization or centralized approval mechanisms, Verite is decentralized, open-source, and free for anyone to build upon.

With Verite, credentials can be issued and used to prove identity claims for an unbound number of use cases, including financial regulatory compliance such as KYC verification. We support a system where identity credentials are owned by users, allowing total control over when and how identity attestations are accessed by different organizations or protocols. Decentralized privacy solutions like Verite will increase individual privacy and decrease the risks from cyberattacks by reducing the number of unjustified data aggregation repositories by state and private firms.

- b. How do issuers and exchanges secure the personal and financial data of its**

**users? Based on what standards? Are data protection and disclosure policies shared in full with all users?**

Circle is subject to a number of laws, rules, directives, and regulations relating to the collection, use, retention, security, processing, and transfer of personally identifiable information (PII) about our customers and employees in the countries where we operate. Our business relies on the processing of personal data in many jurisdictions and the movement of data across national borders. As a result, much of the personal data that we process, which may include certain financial information associated with individuals, is regulated by multiple privacy and data protection laws and, in some cases, the privacy and data protection laws of multiple jurisdictions. In many cases, these laws apply not only to third-party transactions, but also to transfers of information between or among us, our subsidiaries, and other parties with which we have commercial relationships.

Our security program is consistent with widely accepted industry standards such as the National Institute of Standards and Technology Cybersecurity Framework and ISO 27002 security standard and has been extended to include controls specific to the safekeeping and availability of cryptocurrency assets in our custody. In addition to these traditional security controls, we protect cryptocurrency assets via strong key management controls, the offline storage of funds, financial “circuit breaker” controls, and other controls specific to preventing cyberattacks against cryptocurrency infrastructure. Our internal controls testing program and annual external audits and assessments are designed to ensure the effectiveness of the cybersecurity program.

**c. How does your company ensure that the financial transactions, like bank transfers or payments that are authorized by a consumer from their bank account, are secure from theft, fraud, hacks, and other cyber-enabled financial crimes?**

At Circle, we believe that the safety and integrity of the U.S. and international financial systems, including preventing and detecting illicit financial flows, are a critical part of our company’s vision for providing well-regulated, internet-native financial services around the world. We view this as a prerequisite to protecting customers and the financial system, building trust and achieving global, mainstream adoption of digital currency and public blockchain-based payments.

We deposit, transfer, and hold in custody customer funds and digital assets in multiple jurisdictions. In each instance, we are required to safeguard customers’ assets using bank-level security standards applicable to our hot and cold wallet storage systems, as well as our financial



management systems related to such custodial functions. Our security technology is designed to prevent, detect, and mitigate inappropriate access to our systems, by internal or external threats.

**42. Mr. Allaire, Circle's amended S-4 form filed on October 4<sup>th</sup> of last year details the revenue sharing agreement between Circle and Coinbase for USDC, stating that "as part of our and Coinbase's investment in the development of the Centre Consortium, we entered into agreements with Coinbase, pursuant to which we share any revenue generated from USDC reserves."<sup>40</sup> How are you protecting consumers from harm, including from the effects of price collusion?**

Respectfully, there is no "price collusion" involved in the revenue sharing agreement between Circle and Coinbase. Circle and Coinbase founded Centre to serve as a standard-setting body with respect to the issuance and redemption of USDC. As part of Circle's and Coinbase's investment in the development of the Centre, we entered into agreements with Coinbase, pursuant to which we share any revenue generated from USDC reserves pro rata based on (1) the amount of USDC distributed by each respective party and (2) the amount of USDC held on each respective party's platform (i.e. held in its customers' accounts) in relation to the total amount of USDC in circulation. Circle earns revenue on the U.S. dollar-denominated reserves backing USDC, which are held in the care, custody and control of the U.S. regulated banking system and issued in compliance with money transmitter requirements. This revenue sharing arrangement requires the parties to calculate their revenue allocation on a daily basis and provides for an annual true-up mechanism by which the revenue share is adjusted and paid per each party's pro rata allocations. This arrangement has nothing to do with the price of USDC, because the price of each USDC is always \$1. To be clear, Circle is not in the market of helping Coinbase sell more USDC on Coinbase, and has no financial incentive to do so.

**45. Mr. Allaire, there is concern that regular people who choose to buy, sell, and hold digital assets and currencies may not be aware or be able to tolerate high risks, and may be especially vulnerable to fraud and manipulation. The volatility of cryptocurrency assets' valuations can potentially result in both large gains and losses, the risk of which may not be well understood by users of these products. Furthermore, these assets operate outside the traditional financial system and may not offer common transaction protections such as halting suspicious transactions or recovering lost authentication methods.**

- a. Have you invested time and resources on educational materials and customer support in response to these challenges?
- b. In your view, have any improvements been made to user interface to address consumer protection concerns?
- c. What do you think is the role of the CFPB, the SEC, and other agencies to

**ensure there are appropriate disclosures for users of these products?**

Circle's current product offerings are not available to retail consumers. Circle has a robust customer relationship management program that individualizes the company's relationship with our institutional clients to help guide them through the compliance review, integration process, and overall support of their organization. Circle's Accounts application programming interface (API) helps our clients provide custodial wallets to consumers, and provides support for activities such as resetting passwords and resetting two-factor authentication when a mobile device is lost, among others.

While Circle does not currently serve retail customers, we understand the importance of providing financial literacy tools to help people and organizations understand and safely participate in digital assets and blockchain technology. As previously stated, financial literacy is a core pillar of our Circle Impact initiative.

The CFPB, SEC, and other federal agencies have important roles within their jurisdictional mandates to protect consumers. This obligation extends to protecting consumers from fraud, false statements, and misleading omissions in consumer disclosures. As noted previously, Circle welcomes such regulation and, by applying to become a full-reserve national digital commercial bank, is actively seeking such oversight.

**46. To all witnesses, every innovation has its downsides. What do you consider to be the downsides of crypto innovation, both for the parties to crypto transactions, and for people who don't use crypto?**

Products and services that are based on cryptocurrency and other digital assets are relatively new. Consumers who participate in this market need to have access to and proficiency with certain technologies, and the ability to adapt to changes with the technology and the marketplace. Many of Circle's competitors are unlicensed, unregulated, operate without supervision by any governmental authorities, and/or do not provide the public with significant information regarding their ownership structure, management team, corporate practices, cybersecurity, and regulatory compliance. As a result, customers and the general public may lose confidence in crypto assets and blockchain technology, including regulated products and services like Circle's. Nevertheless, while not all stablecoins are created equal, like blockchains and crypto-assets more generally, they represent important breakthrough innovations in how money moves around the world. That is a key reason why we believe there is a need for national licensing and federal supervision of this highly strategic financial market infrastructure.

**48. To all witnesses, do you collect information from your customers about the ways in which they save and invest and their investment goals? Follow up as appropriate--**

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- a. If voluntary, about how many of your customers provide the information?
- b. What information do you collect?
- c. What safety protocols do you have in place for this information?
- d. If you don't collect this information, then what sources of information are you using that has led you to believe that so many of your customers were previously unbanked?

Circle does not ask for, collect, or store this type of information.

#### *National Security and Cybersecurity Concerns*

49. Mr. Armstrong and Mr. Allaire, as you know, at the end of last year, the Financial Crimes Enforcement Network or FinCEN issued a rulemaking proposal to require banks and money service businesses to submit reports, keep records, and verify the identity of customers in relation to transactions involving wallets for convertible virtual currency or digital assets with legal tender status. This rulemaking focused on those wallets hosted in certain low-compliance jurisdictions identified by FinCEN and wallets which are not hosted by a financial institution, called "unhosted wallets." These possible requirements are similar to those already required of other money transmitters which must know the customers at each end of the transaction and apply financial crime compliance measures as a basic component of the business model. You and your firms were vocal in your objections to this rulemaking. Can you share why financial transactions involving virtual assets and their service providers – payments and exchanges that are in essence no different than a Western Union or a MoneyGram, should be treated differently than other transmitters?

Circle does not have any objection to customer identification and recordkeeping for direct customers of the platform, nor to the application of the Travel Rule to virtual assets. Indeed, along these lines, as noted above, the company has and remains a highly engaged actor working with global and domestic financial integrity bodies on how to ensure global open financial systems can also conform with compliance and financial integrity standards.

There is a fundamental difference in the properties of unhosted wallets that make them unlike traditional financial services accounts, which is that unhosted wallets are more functionally equivalent to a physical personal wallet and the contents therein are much more akin to cash or personal property. In effect, users of an unhosted or self-hosted wallet are making a choice to carry their own risk. Given this similarity, the proposed recordkeeping requirement unfairly targeted convertible virtual currency (CVC) transactions, resulting in a double standard between CVC and cash transactions. CTR reporting on cash transactions over \$10,000 do not require the

collection of information about non-customers who have not consented to data collection and sharing.

We believe that safety and integrity of the financial system, including preventing and detecting illicit finance, are a critical part of Circle's vision for more inclusive and safe financial services, and a prerequisite to achieving mainstream adoption across the world. We believe that applying a mix of traditional compliance controls (e.g. KYC, sanctions screening) with innovative technologies (e.g. decentralized identification standards, blockchain monitoring) are key components of the framework that both private and public sector organizations should be working towards. We are committed to working with regulators and policymakers in implementing the right balance of controls while allowing the benefits of decentralized technologies.

**50. Mr. Allaire, on page 23 of its Investor Presentation<sup>43</sup> in an SEC filing, Circle states that the "opportunity" for USDC is \$130 trillion, effectively the US's entire money supply. The slide shows the entire M2 money supply<sup>44</sup> as the opportunity. (M2 is a measure of the money supply that includes cash, checking deposits, and easily convertible near money). Can you elaborate on why Circle listed the US's entire money supply as an opportunity?**

USDC has the same use cases as a U.S. dollar, and because Circle is regulated by the appropriate authorities, we have the same relationship with USDC users as banks have with people and institutions that use U.S. dollars. We believe becoming a *full-reserve* national digital currency bank will enable frictionless, instant, and nearly free payments of U.S. digital dollars on open blockchains. We believe a digital bank will create a safer and more resilient financial system. It will also build on open networks to support new forms of capital formation and intermediation. Traditional capital formation through today's banking system, including the borrowing and lending of money, is expensive, inefficient, and exclusive. Lending money to banks for most individuals yields near-zero interest returns. At today's inflation rate, individual depositors are losing approximately 7% of their wealth every year. We can do better. Digital dollars can increase global prosperity and economic freedom. New forms of digital asset capital market activities offer a less expensive, more prosperous, faster, and more inclusive alternative.

While it is true that the use case for a well-regulated and trusted digital dollar is not dissimilar to the use of an actual dollar, the global growth of new technologies and new financial markets infrastructure calls for U.S. leadership in the digital currency space race. We think USDC and the company's growing competitiveness in these markets contributes deeply to national and international standards on blockchain-based financial services and responsible digital currency innovation.

**51. To all witnesses, consumer and investor experts have stated that some of the largest digital asset trading platforms frequently allow off chain transactions to occur, which are**

**transactions that are internalized or executed within the platform and not on a public blockchain. Please describe your off-chain transaction practices, and how you address the risk of double spending when a transaction is executed off of the chain upon which it was originally issued.**

- a. Please specify what measures you adopt to ensure that as a digital asset exchange, you do not take advantage of information the platform gleans from off chain transactions.**

**52. To all witnesses, regarding hacking incidents, according to one analysis, in 2021 alone, over \$7 billion was hacked from platforms and issuers of digital assets.<sup>45</sup> Please describe your understanding why these hacks are so frequent in your industry.**

- a. What measures are you taking to safeguard customers' assets and prevent bad actors from harming customers and damaging market integrity?**

Addressing questions 51 and 52 together: An increasing number of organizations, including large businesses, technology companies and financial institutions, as well as government institutions, have disclosed breaches of their information security systems, some of which have involved sophisticated and highly targeted attacks, including on their websites, mobile applications, and infrastructure. Attacks upon systems across a variety of industries, including the cryptocurrency industry, are increasing in their frequency, persistence, and sophistication, and, in many cases, are being conducted by sophisticated, well-funded, and organized groups and individuals, including state actors. The techniques used to obtain unauthorized, improper, or illegal access to systems and information (including customers' personal data and digital assets), disable or degrade services, or sabotage systems are constantly evolving, may be difficult to detect quickly, and often are not recognized or detected until after they have been launched against the victim company. These attacks, which may occur on our systems or those of our third-party service providers or partners, are typically intended to result in significant financial gain to the bad actors. Therefore businesses perceived as having financial resources, such as those in the cryptocurrency industry and many other industries, are susceptible targets of these attacks.

Although we have developed systems and processes designed to protect the data we manage, prevent data loss and other security breaches, and to effectively respond to known and potential risks, and although we expect to continue to expend significant resources to bolster these protections, there can be no assurance that these security measures will provide absolute security or prevent breaches or attacks. We have experienced from time to time, and may experience in the future, breaches of our security measures due to human error, malfeasance, insider threats, system errors or vulnerabilities, or other irregularities. Unauthorized parties have attempted, and we expect that they will continue to attempt, to gain access to our systems and facilities, as well as those of our customers, partners, and third-party service providers, through various means, including hacking, social engineering, phishing, and attempting to fraudulently induce individuals (including employees, service providers, and our customers) into disclosing usernames, passwords or other sensitive information, which may in turn be used to try to access

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our information technology systems and customers' digital assets. Threats can come from a variety of sources, including criminal hackers, hacktivists, state-sponsored intrusions, industrial espionage, and insiders. Certain threat actors may be supported by significant financial and technological resources, making them even more sophisticated and difficult to detect. As a result, our costs and the resources we devote to protecting against these advanced threats and their consequences may continue to increase over time. We remain committed to protecting our customers' personal and financial information, our company's data, and the integrity of the industry against these unlawful attacks.

In cases where off-chain transactions may occur, for example via an omnibus account with an exchange, VASP, bank or other company using digital currencies and virtual assets, these transactions will not affect the share of USDC in circulation nor introduce the risk of "double spend." Indeed, one of the benefits of ledgering financial transactions on public blockchains is their auditability, recordkeeping and transparency, which also create unique opportunities for combating illicit finance.

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**Questions from Rep. Bill Foster for  
 Mr. Jeremy Allaire, Co-founder, Chairman and CEO, Circle**

I appreciate the unanimous agreement of the panel of witnesses that, in order to prevent the use of crypto assets in ransomware and other illicit uses, it will be essential to have a traceable legal identity associated with cryptocurrency transactions. These questions are for all of the witnesses. My questions concern your preferred implementation of such an identity system, in particular:

- 1) Who should be allowed to issue—and, if necessary, revoke—such an identity?
- 2) What features are desirable for maximum preservation of user privacy, while at the same time allowing a legally traceable identity?
- 3) How do you envision such a regime would operate internationally?
- 4) Are there technical considerations that would prevent such a legally traceable identity to be used for automated collection of taxes, similarly to payroll, interest, or financial taxes?
- 5) What measures will be necessary to prevent wash trades and similar abuses in crypto asset trading, where persons operate multiple digital identities to defraud the market? Is there an alternative to biometrically de-duplicating lists of market participants, and the prohibition of opaque shell corporations, in order to prevent these abuses?
- 6) Should more relaxed identity requirements be implemented for trading in assets with fixed valuations (like stablecoins), where wash trades are not of concern but legal traceability is still required?

Effectively conducting Know Your Customer (KYC) checks, including the verification of an individual's identity, is central to an effective anti-money laundering/countering the financing of terrorism (AML/CFT) program. The current methods used to verify identity involve centralized silos in which an individual's private identity data are stored. These data are often breached, sold or otherwise exposed,<sup>3</sup> and are generally outside of the control of the individual. Even though traditional methods to conduct KYC processes are overly cumbersome and outdated, financial

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<sup>3</sup> Examples: Capital One, 2019, *Capital One Announces Data Security Incident*, at: <https://www.capitalone.com/about/newsroom/capital-one-announces-data-security-incident/>; Nasdaq, 2021, *Probably The Largest KYC Data Leak In History* "Demonstrates The Importance Of Bitcoin Privacy", at: <https://www.nasdaq.com/articles/probably-the-largest-kyc-data-leak-in-history-demonstrates-the-importance-of-bitcoin>.

institutions have been hesitant to adopt innovative technologies related to digital identity due to concerns from federal and state examiners, among other reasons.<sup>4</sup>

Furthermore, the current methods to verify identity are ill-suited for many decentralized blockchains, which are frequently designed to enable trust while avoiding exposing personal data.<sup>5</sup> However, the absence of a better model could risk non-compliance with critical BSA regulations and/or slow further adoption of digital assets. The U.S. government and the private sector should work together to identify new privacy-preserving identity and verification model(s) that can be widely adopted.

Ideally, a digital identity model would provide a verifiable and proven identification that is scalable, usable by anyone, and interoperable across systems, while also providing individuals the certainty that only the minimal amount of information is shared (to protect their own privacy).<sup>6</sup> This could all be possible via cryptographic proofs. These new models would also overcome the current inefficiencies and risks that occur in the current identification data silos that exist within financial institutions.

In addition to the points outlined above, Circle is a launch partner and key contributor to Verite, a decentralized digital identity and verification solution, along with leading players in the industry. This standard, which is open-source enabling broad interoperability and development, supports a wide range of use cases calling for privacy preserving methods of identity verification and attestation. The company has also helped in launching the Travel Rule Universal Solution Technology (TRUST), along with leading firms in the industry, to support Travel Rule compliance in blockchain-based finance. These efforts, together with ongoing collaboration with industry and domestic and international financial integrity bodies can ensure that financial inclusion, responsible financial services innovation and protecting the integrity of the financial system are no longer trade-offs where consumer privacy most often falls prey.

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<sup>4</sup> FinCEN, 2021, *Innovation Hours Program: Emerging Themes and Future Role in AML Act Implementation*, at: [www.fincen.gov/sites/default/files/2021-03/FinCEN%20IH%20Prgm%20Public%20Report%20508C.pdf](https://www.fincen.gov/sites/default/files/2021-03/FinCEN%20IH%20Prgm%20Public%20Report%20508C.pdf).

<sup>5</sup> Atlantic Council, 2021, *Financial Services and the Privacy Challenge*, at: <https://www.atlanticcouncil.org/blogs/financial-services-and-the-privacy-challenge>.

<sup>6</sup> Example: Forbes, 2017, *The Equifax Breach and the Case for Digital Identity*, at: <https://www.forbes.com/sites/dantedisparte/2017/10/02/the-equifax-breach-and-the-case-for-digital-identity/?sh=160605634e24>.



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**Questions from Rep. Carolyn B. Maloney for  
Mr. Jeremy Allaire, Co-founder, Chairman and CEO, Circle**

**To Mr. Allaire and Ms. Haas:**

**Our anti-money laundering requirements are paramount to prevent fraud, sanctions evasions, and the financing of terrorism. And you and your companies have highlighted your firms' compliance programs, stating that these standards are important to protect the financial system and to drive trust and adoption.**

**But not everyone in this industry believes that, and many have rejected or avoided compliance standards. Some actively promote themselves on not complying with Know Your Customer requirements. This is an entire financial services ecosystem, and one weak link exposes the entire system to money laundering risks.**

- **Could you share why your firms have taken your AML compliance approach and the benefits of doing so across your firms' products and services?**
- **What steps can we take to bolster our anti-money laundering efforts and ensure all crypto marketplace actors comply?**

At Circle, we believe that the safety and integrity of the U.S. and international financial systems, including preventing and detecting illicit financial flows, are a critical part of our company's vision for providing well-regulated, internet-native financial services around the world. We view this as a prerequisite to protecting customers and the financial system, building trust and achieving global, mainstream adoption of digital currency and blockchain-based payments.

Circle is the sole issuer of USD Coin (USDC), a regulated, fully-reserved U.S. dollar digital currency. Since its founding in 2013, Circle has been committed to complying with all applicable laws in the jurisdictions where we operate. Circle is regulated by prevailing U.S. regulatory standards that apply to leading fintech and payments firms such as PayPal, Square, Venmo and Stripe, among others. Circle is also registered as a money services business (MSB) with the U.S. Department of the Treasury's Financial Crimes Enforcement Network (FinCEN), and works closely with law enforcement and other authorities to protect the integrity of the financial system.

Only institutional customers are currently eligible to apply for a Circle Account. Circle's customers must meet our own Know Your Customer (KYC) requirements and are screened against various sanctions and watchlists, including the U.S. Department of the Treasury Office of Foreign Assets Control (OFAC) Specially Designated Nationals and Blocked Persons List ("SDN List"). Circle verifies the identities of all of its customers pursuant to the company's

Anti-Money Laundering (AML)/Counter Terrorist Financing (CTF) and Sanctions Program in compliance with regulatory requirements and expectations, including but not limited to the Bank Secrecy Act. Individuals (other than a limited number of existing individual “legacy” account holders<sup>7</sup>) wishing to purchase USDC must do so through an exchange, brokerage or retail wallet service. Those customers would be screened by the exchange, brokerage or wallet service pursuant to all applicable laws in the jurisdictions for which they operate.

We actively apply a mix of the aforementioned traditional compliance controls with innovative technologies, as we believe this is essential for the safety and soundness of the entire digital assets industry. The open and transparent nature of blockchain transactions, along with the ability to irrevocably record money flows, provide new tools for combating bad actors and illicit activity. The industry is working closely to assist law enforcement with monitoring and tracing transactions as they operate on a public ledger. Innovations in privacy-preserving digital identity, authentication and verification are being introduced by Circle and other leading organizations in the industry.

Processes such as global coordination among financial intelligence units (FIUs) - national financial intelligence authorities that keep their national and global financial systems safe by tracking, tracing and reporting illicit or suspect activities – are also underway. FIUs are working more closely with actors in the digital assets industry, including Circle, to identify trends and red flags around illicit activity. Actions such as blocking suspect blockchain wallet addresses, tracking illicit money flows in near real time and freezing and geo-fencing transactions are giving bad actors few places to hide in increasingly transparent financial networks. This activity is happening without imperiling every user’s personal information along the way.

We are also encouraged that international standard-setting bodies, such as the Financial Action Task Force (FATF), have taken a proactive stance to outline best practices for how to regulate and supervise digital assets. A federal regulatory regime that applies to the entire industry would help align with global macroprudential and regulatory bodies such as FATF and the Bank for International Settlements (BIS), among others. Harmonizing a broad U.S. approach to digital assets and competition in this growing, important economic sector can improve U.S. competitiveness, financial integrity and security, and lower fundamental costs for basic financial access.

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<sup>7</sup> Circle has about 1,500 “legacy” individual customer accounts from when the company was retail facing, holding approximately \$3.4 million in USDC. These legacy accounts are able to buy or redeem USDC directly from Circle.

**Questions from Rep. Nikema Williams for  
 Mr. Jeremy Allaire, Co-founder, Chairman and CEO, Circle**

**I am a Congresswoman who has been unbanked, and I've had to rely on cash to get by. Looking back, it's difficult to imagine using digital currency at a time when I did not even have access to a bank account.**

**To all witnesses, as we write the rules of the road around digital assets, what recommendations do you have to maximize financial inclusion and economic prosperity for those who have barriers to accessing the financial system? What do you think about the promise of a Central Bank Digital Currency in addressing financial inclusion concerns for the unbanked?**

Circle was founded on the principle that public blockchains and digital currency will make the global economic system more open, inclusive, and efficient for people everywhere. Today, that vision is becoming clearer. People and businesses worldwide are connecting and transacting with each other through a system that has the reach, accessibility, and speed of the internet, without borders or boundaries, while at the same time conforming with compliance, regulations and standards of trust.

Still, there are far too many unbanked and underbanked people around the world, numbering more than 1.7 billion according to the World Bank Group. Currencies and blockchain technology alone cannot solve this problem today. But because they are inherently lower cost, faster, and more accessible than a traditional bank account, they represent a critical tool that can help increase financial inclusion. It is also important to note that, as regulations are set and innovation evolves, there is a greater chance that the unbanked and underbanked will be able to use a digital currency like USDC without the need for a traditional bank account. We are still in the early phases of what is possible with this technology, and promising examples of how open financial systems are supporting lowering barriers to entry are, thankfully, abundant.

While Circle has evolved and grown as a company, we remain focused on fulfilling our mission to raise global economic prosperity through the frictionless exchange of financial value. That is why we launched Circle Impact, an initiative aimed at reaching the people and communities who are all too often left behind by traditional financial services. This work includes:

- Allocating a share of USDC dollar reserves to Minority Depository Institutions (MDIs) and community banks across the country. We hope this will accrue to billions of dollars over time, strengthening the balance sheet of these banks and, in turn, strengthening their communities.

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- Embarking on Digital Financial Literacy initiatives together with Historically Black Colleges and Universities (HBCUs), and other partners supporting the development of essential learning and hands-on approaches to entrepreneurialism. The first of these efforts has been announced with Bowie State University in Maryland and Rhodes University in South Africa.
- Leveraging our SeedInvest platform, which is one of the nation's leading equity crowdfunding businesses, to catalyze targeted campaigns for women and minority entrepreneurs across the country.
- Assisting humanitarian interventions and coordinating public-private partnerships to mobilize blockchain-based payments and USDC to deliver corruption-resistant, real-time aid and relief.

Each of these focus areas is an extension of Circle's burgeoning Environmental, Social and Governance (ESG) efforts to make meaningful progress — within our resource base — to improve economic prospects and prosperity.

#### **Remittances and Financial Inclusion**

Trusted digital currencies like USDC and blockchain-based financial services are building bridges between internet-native applications and real-world financial use cases and transactions. None is more important for financial inclusion than peer-to-peer remittances, which cumulatively in pre-pandemic times amounted to more than \$700 billion a year.<sup>8</sup> Circle is working to address inefficiencies that have plagued traditional remittance transfers, such as slow delivery and high fees for sending money across borders. Examples of Circle's work in this area include:

- Partnering<sup>9</sup> with MoneyGram International, one of the world's largest money transfer companies, to enable USDC-denominated remittances on the Stellar blockchain and facilitate cross-border payments for millions of customers worldwide. With the global reach of MoneyGram's services and the speed and low cost of transactions on Stellar, people can convert their cash into and out of USDC, giving them access to fast and affordable digital asset services that may have previously been out of reach.

<sup>8</sup> Congressional Research Service, 2019, *Remittances: Background and Issues for Congress*, at: <https://sgp.fas.org/crs/misc/R43217.pdf>.

<sup>9</sup> Bloomberg, 2021, *MoneyGram Partners With Stellar Development on Blockchain Deal*, at <https://www.bloomberg.com/news/articles/2021-10-06/moneygram-partners-with-stellar-development-on-blockchain-deal>.

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- Leveraging<sup>10</sup> Circle's payments infrastructure and USDC, Bitso, the largest cryptocurrency exchange platform in Latin America with more than 3 million users, launched an initiative to make it easier, faster and more secure for Mexican residents to send and receive cross-border payments to or from the U.S. In 2020, remittances increased nearly 10 percent to over \$40 billion.<sup>11</sup> Remittances continued to increase in 2021<sup>12</sup>, largely attributed to the growth of migrant labor in the U.S.
- Helping<sup>13</sup> the legitimate, elected government of Venezuela distribute millions of dollars of desperately needed aid to the nation's front-line medical workers as they battled coronavirus under horrendous conditions. Circle partnered with the Bolivarian Republic of Venezuela (led by President-elect Juan Guaidó), U.S.-based fintech Airtm, and the U.S. government to send the relief funds. The joint initiative established a disbursement pipeline that leveraged USDC to bypass the controls that Nicolás Maduro's authoritarian government placed on Venezuela's financial system

#### **Financial Inclusion and a Central Bank Digital Currency**

Many of the prospective gains that advocates of Central Bank Digital Currencies (CBDCs) are seeking can and already are being met by USDC and other existing blockchain-based payment system innovations. This is particularly true as public blockchain technology reaches scale and begins to integrate as a settlement option among leading global payment providers, banks and fintech startups. Similarly, gains with real time payment systems and wholesale payment integrations can satisfy broad public policy goals on how people send, spend, save and secure their money - including in internet-native form.

The issuance of a digital U.S. Federal Reserve dollar carries important potential risks, several of which relate to financial inclusion. For instance, most value-added money in circulation today is

<sup>10</sup> CoinDesk, 2021, *Mexican Crypto Exchange Bitso Incorporates Circle Solutions for Cross-Border Payments Initiative*, at <https://www.coindesk.com/business/2021/11/18/mexican-crypto-exchange-bitso-incorporates-circle-solutions-for-cross-border-payments-initiative/>.

<sup>11</sup> The World Bank, *Personal remittances, received (current US\$) - Mexico*, at <https://data.worldbank.org/indicator/BX.TRF.PWKR.CD.DT?locations=MX>.

<sup>12</sup> Bloomberg, 2021, *Remittances to Mexico Can't Stop Growing Thanks to U.S. Boom*, at <https://www.bloomberg.com/news/articles/2021-10-01/remittances-to-mexico-can-t-stop-growing-thanks-to-u-s-boom>.

<sup>13</sup> Financial Times, 2021, *Digital Scheme Pays Venezuela Health Workers from Frozen Fund*, at <https://www.ft.com/content/2a271032-35b4-4969-a4bf-488d4e9e3d18>.

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both created by private sector banking institutions and rides on private or consortium-backed rails. A U.S. CBDC would transition substantial technological and operational risk from the private sector, which is today powering safe and well-regulated digital currencies and assets on public blockchains, to the public balance sheet – where it would be shouldered by taxpayers.

In addition, a U.S. CBDC would disrupt the two-tiered banking system, while providing uncertain outcomes for consumers and markets. The two-tiered banking system is the structure that enables traditional banks to interface directly with a country's central bank, enhancing consumer protection and regulations, while at the same time enabling central banks to convey monetary policy. The democratic promise of cryptocurrencies and digital currencies is the ability of powering internet-level prosperity and merchant acceptance – the technological equivalent of digital legal tender, while importing sound monetary policy.

Ideally, U.S. policy would achieve a public-private balance that makes the U.S. dollar the reference asset for all manner of value-added activity. Whether enshrined on paper bills or emblazoned on coins, plastic cards or, in the case of dollar-digital currencies, in code, the key is to offer the full faith and credit of the U.S. economy across a range of payment instruments and rails. Ultimately, that will be good for consumers, financial inclusion, the economy and global security.

**Questions for the Record**  
**Chairwoman Maxine Waters**  
**Hearing entitled “Digital Assets and the Future of Finance: Understanding the Challenges**  
**and Benefits of Financial Innovation in the United States”**  
**December 8, 2021 at 10:00 a.m. ET**

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**Witnesses**

- **Jeremy Allaire**, CEO, Circle
- **Sam Bankman-Fried**, CEO, FTX
- **Brian Brooks**, CEO, Bitfury
- **Charles Cascarilla**, CEO, Paxos
- **Denelle Dixon**, CEO, Stellar Development Foundation
- **Alesia Haas**, CEO, Coinbase Inc. and CFO, Coinbase Global Inc.

**Oversight and Investigations of Cryptocurrency Industry**

1. **Mr. Bankman-Fried**, digital assets were first created in direct response to the 2008 global financial crisis. In September 2008, Lehman Brothers filed for bankruptcy. Two months later, in November 2008, Bitcoin was introduced via a White Paper for a “new electronic cash system”.<sup>1</sup> Bitcoin began as a concept of a decentralized cryptocurrency, however, Bitcoin and other digital assets have functioned more as an investment asset rather than a currency.<sup>2</sup> The global financial crisis sparked the Great Recession. This crisis was triggered by the growth of the housing bubble, easy credit, predatory lending, financial innovation with adjustable-rate mortgages bundled into mortgage-back securities and collateralized debt obligations, and the lack of investor confidence due to inadequate financial disclosures for the financial securities that institutions held on their books. In the last year, the digital asset marketplace has exploded from about \$500 billion to \$3 trillion. But we continue to see tremendous volatility. Bitcoin, for example, lost half of its value over two days in March,<sup>3</sup> before later rebounding. Many of the problems leading up to the global financial crisis appears to be repeating, among other reasons, easy credit via margin investing, complex financial innovation, and the lack of transparency and adequate financial disclosures.

- a. With the explosive growth of cryptocurrencies, are we in another bubble?

First, given relatively recent fiscal and monetary policy decisions, many commentators have shared a view that a range of asset market values have increased as a consequence. FTX and myself are not in a position to opine as to whether any particular asset is over-valued, but share in the observation that these policies have had an impact on the market trading of many assets, including digital assets. Second, an asset whose trading value is volatile does not necessarily equate to an over-valuation of that asset in the market. There are many trading instruments, for example, considered to be traditional assets that trade on regulated exchanges that are quite volatile in their trading characteristics, apart from any market view about the value of that instrument.

- b. How do you view the role of the cryptocurrency industry in potentially putting us on the cusp of another financial crisis?

The risk-management programs on FTX platforms require all requisite customer collateral to be custodied with our platforms, and are designed to prevent net customer balances from going into negative value when the risk engine on the platforms take steps to reduce positions in an orderly way to try and keep the customer's account solvent. This risk-management approach is implemented in an ecosystem where data on order books for those assets is fully transparent to the public, which is the case with FTX. FTX also requires customer collateral in support of their trading positions to be placed in custody with FTX before trading. While these measures do not prevent volatility in the pricing of an asset, they do help prevent excessive build-up of risk on FTX platforms that could have a de-stabilizing impact on the overall market for an asset, as well as related markets. I also note that the digital-asset class, while growing, is still relatively small in comparison to financial markets more broadly, and while some firms that trade in digital assets also trade in traditional markets, the ones that do are not systemically important from a policy perspective.

2. **Ms. Haas**, leading issuers of stablecoins such as Tether have been fined over \$42 million for making misleading or untrue statements.<sup>4</sup> Additionally, many cryptocurrency asset companies offering securities have not complied with registration and disclosure obligations, potentially affecting investors' ability to understand their risk exposures.

<sup>1</sup>"Satoshi Nakamoto," [Bitcoin: A Peer-to-Peer Electronic Cash System](#), Bitcoin (Oct. 31, 2008).

<sup>2</sup>[The 2008 global meltdown and the birth of Bitcoin](#), Mint (Sept. 13, 2018).

<sup>3</sup>[Bitcoin loses half of its value in two-day plunge](#), CNBC (Mar. 13, 2021).

<sup>4</sup>[Turning stablecoin issuers into banks is a recipe for disaster](#), The Hill (Nov. 23, 2021).



- a. Why has Coinbase not registered with the Securities and Exchange Commission as a national stock exchange or as an Alternative Trading System?
  - b. What do you think is the role of the SEC in regulating digital assets and digital asset exchanges?
3. **Mr. Brooks**, you previously held the position of CEO of Binance US. As you know, Binance, which by many metrics is the largest cryptocurrency company globally, and its U.S. subsidiary of which you were in charge, have been mired in controversy, investigations, and allegations of malfeasance for a long time. For instance, the UK's Financial Conduct Authority barred Binance from carrying activities, Japan's regulator stated Binance was operating illegally, and Germany warned that Binance could be fined for illegally offering tokens connected to stocks. In the U.S., Binance has been investigated by the Department of Justice, the CFTC, and the IRS.
  - a. What made you decide to leave, approximately four months after taking up that role?<sup>5</sup>
  - b. While at Binance, did you worry that Binance was allowing investment scams and other types of investor fraud to proliferate?
  - c. Can you describe Binance's AML program when you were there? Do you believe that Binance did the requisite amount of BSA-AML compliance and provided enough investor and consumer protection?
  - d. Do you believe that Binance, as one of the largest cryptocurrency companies, being investigated by so many agencies domestically and abroad is a sign that Binance and the cryptocurrency industry at large has a problem with playing by the same rules as other companies registered with the SEC or overseen by prudential regulators?
4. **Ms. Haas**, earlier this year SEC Chair Gary Gensler testified before the U.S. Senate Banking Committee<sup>6</sup> and stated, "To the extent that there are securities on these trading platforms, under our laws they have to register with the Commission unless they qualify for an exemption." In response to a hypothetical question that mentioned Coinbase, Chair Gensler replied that Coinbase "haven't yet registered with us, even though they have dozens of tokens that may be securities." The CEO of Coinbase Global Brian Armstrong, and the Chief Legal Officer of Coinbase Global Mr. Grewal have publicly criticized the SEC's disapproval of the rollout of your "Coinbase Lend" platform after it was determined to be a security. Securities laws experts have stated that given that Coinbase is not a regulated bank, an offering like Lend would be considered a debt instrument and therefore a security.<sup>7</sup>
  - a. What is the basis for Coinbase's position that the Lend program is not a security?
  - b. In your view, what characteristics would legally qualify cryptocurrencies and related stablecoins to be defined as securities and therefore subject to regulation by the SEC?

<sup>5</sup> [Binance US CEO Brian Brooks Quits, Cites 'Strategic Differences'](#), CoinDesk (Sept. 14, 2021).

<sup>6</sup> Senate Committee on Banking, Housing, and Urban Affairs, [SEC Chair Gensler Testimony](#), *Oversight of the U.S. Securities and Exchange Commission*, 117<sup>th</sup> Cong. (Sept. 14, 2021).

<sup>7</sup> [Coinbase proposes crypto-focused financial regulator to replace SEC for oversight of digital assets](#), MarketWatch (Oct. 16, 2021).

- c. How are investors screened for participation in Coinbase Pro? Why are fees on Coinbase Pro significantly lower? Why are more assets traded on Coinbase Pro?
  - d. Does Coinbase do proprietary trading for its own accounts?
  - e. Does Coinbase have multiple lines of business? How are each line of business segregated and ring fenced from one another so that confidential information is not improperly used?
  - f. Are conflicts of interests disclosed to customers?
  - g. Prior to December 2020, did Coinbase permit trading in XRP? Did Coinbase conclude that XRP was not a security?
  - h. What safeguards are available to protect against loss from fraud or manipulation? What assets are deemed losses due to theft or hacking?
  - i. What capital does Coinbase carry to guard against losses? What insurance do you have in place?
  - j. Does Coinbase facilitate clearing? Does Coinbase act as a central clearing party for any transactions?
  - k. Leverage ratios create outsized individual, firm, and system risk. With 2x leverage, a downward movement of 50% wipes out the account. At 50x leverage, a 2% correction wipes out the account. At 100x leverage, a 1% downward movement wipes out the account. At 150x leverage, a 0.8% correction wipes out the account. Does Coinbase provide margin or leverage trading? If so, what is that ratio? What are the safeguards to protect investors, if any?
  - l. What margin rules do you follow? Is Coinbase compliant with Regulations T, U, and X?
  - m. What prohibitions or safeguards are built in to address fraud, manipulation, or spoofing? How are customers and trading participants informed of these prohibitions?
  - n. Do withdrawal fees apply to taking cryptocurrencies off your platform? What fees apply? How are the fees calculated?
  - o. Does Coinbase maintain written policies and procedures? If so, please provide a copy of these documents for all business lines.
  - p. As of the date of this letter, please indicate the total number of, and provide the names and titles of, all full-time employees employed in the capacity of legal or compliance and their relevant years of securities industry experience. Please indicate whether any of these employees are or were licensed by FINRA, the licenses they carried, and their CRD number.
  - q. What is the dollar amount allocated for legal and compliance and what percentage was spent?
5. **Mr. Bankman-Fried**, earlier this year SEC Chair Gary Gensler testified before the U.S. Senate Banking Committee<sup>8</sup> and stated, “To the extent that there are securities on these trading platforms, under our laws they have to register with the Commission unless they qualify for an exemption.”

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<sup>8</sup> Senate Committee on Banking, Housing, and Urban Affairs, [SEC Chair Gensler Testimony](#), *Oversight of the U.S. Securities and Exchange Commission*, 117<sup>th</sup> Cong. (Sept. 14, 2021).

- a. In your view, what characteristics would legally qualify cryptocurrencies and related stablecoins to be defined as securities and therefore subject to regulation by the SEC?

The well-worn tests for determining whether a contract, agreement or transaction is a security under U.S. federal law begins with the framework laid out by the decision in *SEC v. W.J. Howey & Co.* From that case, the hundreds of court decisions interpreting it, and ongoing SEC guidance, all assets, including digital assets, may be evaluated. FTX believes that this body of precedent continues to provide a reasonable framework for determining whether transactions involving a given digital asset should be subject to the securities laws.

- b. How are investors screened for participation in FTX?

Users of FTX.us are onboarded through a process that asks for verifying information, including name, address, date of birth, and other identification information, to confirm the identity of the user. Through use of questionnaires, technology tools and other methods for authenticating the onboarding user, FTX.us determines the domicile of the user and performs anti-money-laundering-screening checks.

For users of FTX.com, similar tools and processes are used. If the potential user is determined to be domiciled in the U.S., the onboarding process is designed to prevent that potential user from onboarding.

- c. Does FTX do proprietary trading for its own accounts?

No.

- d. Does FTX have multiple lines of business? If so, how is each line of business segregated and ring fenced from one another so that confidential information is not improperly used? And how are conflicts of interests disclosed to customers?

As described in my written testimony, FTX has a number of products and product lines that include digital-asset exchanges, an off-exchange portal for arranging and matching orders, third-party lending, an NFT marketplace, FTX Pay and a staking product. Some assets and products available to FTX.com users are not available to FTX.us users. FTX uses approved user agreements, approved rule books, and governing policies and procedures to eliminate, minimize or otherwise manage actual or perceived conflicts of interest that materialize from offering our product suite.

- e. Prior to December 2020, did FTX permit trading in XRP? Did Coinbase conclude that XRP was not a security?

FTX.us briefly listed XRP for trading but de-listed the asset in late 2020.

- f. What safeguards are available to protect against loss from fraud or manipulation? What assets are deemed losses due to theft or hacking?

FTX deploys market-surveillance technology on its platforms to determine abusive trading practices, which include fraudulent trading practices and stratagems to manipulate asset pricing. Its CFTC-regulated platform is specifically mandated to deploy this type of tool on the platform, which is subject to review by the agency. The CFTC also has anti-fraud authority to police all trading in any commodity, which includes digital assets, so manipulative activity subject to that authority is policed by the CFTC. Additionally, the onboarding process for FTX platforms includes KYC/AML protocols to determine the identity and authentication of users, thus helping minimize fraudulent conduct in this respect. To protect against the loss of assets from theft, FTX maintains a robust cybersecurity program and digital-wallet architecture to ensure the safety of assets on the platforms. Again, its CFTC-regulated platform in particular is governed by systems-safeguard regulation enforced by the agency and that subjects the platform to standard testing and independent audits.

- g. What capital does FTX carry to guard against losses? What insurance do you have in place?

FTX maintains reasonable capital cushions on its balance sheets to address operational losses as well as losses from market activity. More importantly, however, the risk-management program deployed by FTX requires that customer collateral in support of asset-trading activity be placed under the custody of FTX, to ensure the risk engine has immediate access to that collateral to manage customer accounts, including through appropriate position liquidations, and help prevent insolvency of those accounts.

- h. Does FTX facilitate clearing? Does FTX act as a central clearing party for any transactions?

FTX US Derivatives (FUSD) is registered with the U.S. CFTC as a designated clearing organization (DCO) or clearing house, which engages in the activities of clearing. On FTX.com, the company also performs the role of clearing house for relevant positions entered into on the platforms.

- i. Leverage ratios create outsized individual, firm, and system risk. With 2x leverage, a downward movement of 50% wipes out the account. At 50x leverage, a 2% correction wipes out the account. At 100x leverage, a 1% downward movement wipes out the account. At 150x leverage, a 0.8% correction wipes out the account. Does FTX provide margin or leverage trading? If so, what is that ratio? What are the safeguards to protect investors, if any?

FTX.com offers some futures contracts for trading with a maximum amount of leverage embedded in the contract equal to 20 times the notional value of the contract (e.g. initial margin or collateral equal in value to \$10 could support a futures contract with a notional value of \$200). FTX.com also facilitates third-party lending to users on the platform. For safeguards to protect investors, please refer to responses above to questions 1(b), 5(d), 5(f) and 5(g). FUSD only offers fully

collateralized derivatives for trading at present, but is in discussions with the CFTC to expand its product offerings.

- j. What margin rules do you follow? Is FTX compliant with Regulations T, U, and X?

FTX US has a broker-dealer license issued by the U.S. Securities and Exchange Commission (SEC) and is therefore subject to the SEC's Regulation T, which limits the amount of credit the broker-dealer can extend to a customer related to their purchase of securities under U.S. law.

- k. What prohibitions or safeguards are built in to address fraud, manipulation, or spoofing? How are customers and trading participants informed of these prohibitions?

See response to question 5(f).

- l. Do withdraw fees apply to taking cryptocurrencies off your platform? What fees apply? How are the fees calculated?

FTX absorbs and subsidizes fees charged by efficient, environmentally friendly blockchains. FTX absorbs almost all fees charged by other blockchains. However, FTX reserves the right to pass-through some or all of high, per-transaction fees charged on some transfers on less efficient blockchains.

Exchanges like FTX must integrate with a variety of different blockchains so that customers can transfer cryptocurrencies in and out of the platform. Although each of these blockchains (Bitcoin, Ethereum, and Solana, to name a few) have unique characteristics, they all share one common feature: all users of a given network must pay transaction fees to incentivize network participants to do the "work" (e.g., mining) required to add that transaction to the blockchain's distributed ledger. These fees are known as "gas" on the Ethereum blockchain, and are colloquially referred to as such in other contexts.

The actual amount that a blockchain requires to send a transaction differs widely based on the underlying structure of that blockchain. Platforms like Bitcoin and Ethereum are known as "Proof-of-Work" blockchains, where the "work" required to add that transaction to the blockchain uses a large amount of computing time and energy. On such platforms, average transaction fees can be quite high. There are other blockchains that use much more efficient means of validating transactions. Solana, Cardano, and Polkadot use variations of an algorithm known as "Proof-of-Stake." On Solana, for example, the average transaction fee is \$0.00025.

In practice, FTX does not charge fees for withdrawals on Proof-of-Stake blockchains, and it subsidizes about half of the blockchain fees for Proof-of-Work blockchains (requiring the user to pay the other half). However, FTX reserves the ability to charge withdrawal fees, on small transactions especially (and particularly where there is a perception that a series of small withdrawals or other transactions are done in an abusive or otherwise unnecessary manner). There are a few important considerations behind this approach:

**Environmental Impact**

Proof-of-Work networks require substantially larger energy consumption than Proof-of-Stake networks. We aim to incentivize our customers to utilize blockchain technology with the lowest energy usage and therefore the smallest impact on the environment. A single Solana transaction requires about the same amount of energy as two Google searches. Empirically (based on our analysis of our customers' actual activity), more than 80% of the blockchain transactions originating from FTX occur on proof-of-stake blockchains.

**Public Blockchain Usage**

Blockchains are open-access public goods. It is therefore up to the users of these networks, especially large users such as exchanges, to encourage fair usage. Imagine someone has \$100 worth of Bitcoin they want to withdraw from FTX to their private Bitcoin wallet. They could instruct a single transaction for the full amount. They could also try and send 10,000 transactions for \$0.01 worth of Bitcoin. FTX reserves the right to charge for small transactions to incentivize the former and disincentivize the latter, so that we are putting as little pressure on network bandwidth as possible, mitigating unnecessary and redundant costs, and ultimately mitigating unnecessary and redundant energy usage.

**Business Costs**

FTX wants to encourage users to bring their assets to our exchange for trading, because we believe we have the best approach to customer safety, technological robustness, and regulatory compliance. This is part of why we wish to subsidize blockchain transaction fees. However, with high-fee networks such as Ethereum, if we didn't pass some cost onto the user, then a customer could abuse the system by requesting lots of small transactions, which could become a prohibitive cost for FTX to do business (though a lesser concern than the environmental impact and network congestion effects of such behavior). Similarly, FTX does not charge fees to users for costs related to wire-transfer activity for transferring fiat onto or off of our platforms, which also can be quite costly. But FTX reserves the right to assess fees for wire-transfer activity if the amount of such activity becomes abusive, or to otherwise encourage users to employ more efficient methods for transferring their fiat. In practice, FTX only rarely passes along wire-transfer fees to our users.

**Blockchain Choice**

Finally, with advances in blockchain technology and interoperability, many cryptocurrency tokens can be transferred on multiple different blockchains. For example, on FTX you can withdraw USDC to an Ethereum wallet (where USDC originated), but you can also withdraw USDC to a Solana wallet. The latter is free on FTX, which we want to strongly incentivize our users to take advantage of given all the above considerations.

- m. Does FTX maintain written policies and procedures? If so, please provide a copy of these documents for all business lines.

FUSD has policies and procedures filed with the CFTC for the agency's review. FUSD also has a user agreement that can be found here: <https://derivs.ftx.us/legal>. The rule book for FUSD is available here: <https://global->

[uploads.webflow.com/5f4553126b2fe3eed9262959/61d364b58bdae33789d5ac4\\_LedgerX%20R%20ulebook%202021-12-31%20Final.pdf](https://uploads.webflow.com/5f4553126b2fe3eed9262959/61d364b58bdae33789d5ac4_LedgerX%20R%20ulebook%202021-12-31%20Final.pdf).

FTX.us and FTX.com have user agreements that provide various commitments and business processes followed by FTX. The user agreement for FTX.us can be found here: <https://ftx.us/TermsOfService.pdf>. The user agreement for FTX.com can be found here: <https://help.ftx.com/hc/en-us/articles/360024788391-FTX-Terms-of-Service>. FTX policies and procedures are proprietary in nature, but we are glad to provide access to those documents under the appropriate legal protections as discussed with the committee.

- n. As of the date of this letter, please indicate the total number of, and provide the names and titles of, all full-time employees employed in the capacity of legal or compliance and their relevant years of securities industry experience. Please indicate whether any of these employees are or were licensed by FINRA, the licenses they carried, and their CRD number. What is the dollar amount allocated for legal and compliance and what percentage was spent?

Last name	First name	Department	Job title	Years of relevant securities industry experience	Licensed by FINRA	License (current or past)	CRD number
Hawkins	Aaron	Compliance	Compliance Manager	0	No	N/A	N/A
Mohammed	Alfarida	Compliance	Compliance Senior Vice President	10	Yes	7	6044064
Dunzy	ShawnDea	Compliance	KYC/AML Analyst	0	No	N/A	N/A
Shaikh	Maria	Compliance	Compliance Manager	6	No	N/A	N/A
Okocha	Chidiebele	Compliance	Compliance Manager	1	No	N/A	N/A
Sheehan	Collin	Compliance	KYC/AML Analyst	0	No	N/A	N/A
Allen	Sherwayne	Compliance	KYC/AML Analyst	0	No	N/A	N/A
Clark	Allen	Compliance	KYC/AML Analyst	0	No	N/A	N/A
Halter	William	Compliance	KYC/AML Analyst	0	No	N/A	N/A
Hart	Sheena	FTX Pay	Compliance & Risk Analyst, FTX Pay				
Friedberg	Daniel	Legal	Chief Regulatory Officer		No		N/A

Miller	Ryne	Legal	General Counsel	10	No		N/A
Levine	Trevor	Legal	Associate Counsel	6	No		N/A
Vaeth	Karista	Legal	Associate Counsel	5	No		N/A
Jedzejec	Veronica	FUSD Compliance	Chief Compliance Officer & Chief Regulatory Officer	16	No	3	N/A
Brady	Tyler	FUSD Compliance	Market Regulation Lead	6	No	3	N/A
Kono	Daniel	FUSD Compliance	Compliance Manager	0	No	N/A	N/A
McCarthy	Meghan	FUSD Compliance	Compliance Manager	5	No	3	N/A
Mulherin	Brian	FUSD Legal	General Counsel	23	No	N/A	N/A
Sharma	Rahul	FUSD Legal	Deputy General Counsel	23	No	7, 63, 24, 55	3179347

6. **Mr. Allaire**, according to a regulatory filing, Circle Internet Financial Ltd. set aside more than \$10 million to settle a case initiated by the SEC against Poloniex LLC, its discontinued cryptocurrency exchange business and former Circle subsidiary. As demonstrated in its SEC disclosures, in 2019, Circle received administrative subpoenas from OFAC and an Iranian government agency, inquiring possible violations regarding accounts in embargoed jurisdictions and transactions that may have violated sanctions.<sup>9</sup> More recently, the SEC has issued an "investigative subpoena" to Circle Financial, the USD coin issuer. The

<sup>9</sup> [Circle Sets Aside \\$10.4 Million to Settle SEC Case on Poloniex](#), The Wall Street Journal (July 20, 2021).



regulator asked for information on Circle's "holdings, customer programs, and operations." Can you elaborate on the measures you've taken to comply with the subpoena?

7. **Mr. Bankman-Fried and Ms. Haas**, there has been a lot of media attention recently about people donating to ConstitutionDAO. It's been estimated that the total costs associated with donating to the project amounted to nearly \$1 million, and that obtaining a refund after the failed bid to buy the copy of the Constitution required roughly the same amount in transaction costs, which wiped out a lot of the small donors.<sup>10</sup> Who profited from this money? Did your companies profit in any way?

FTX was not an investor in the ConstitutionDAO. To the extent investors in ConstitutionDAO were also users of FTX, the FTX US platform did not list the token associated with ConstitutionDAO, and the FTX.com platform only listed the token after the redemption period for ConstitutionDAO had ended. For explanation of FTX fees related to withdrawing and transferring assets to and from our platforms, please see our response to question 5(l) above.

8. **Mr. Allaire**, on May 6, 2020, Circle received a \$1.8 million PPP loan. Circle did not pay this loan back until March 4, 2021. Prior to receiving this loan from the government, Circle had raised \$246 million over seven funding rounds.
  - a. Do you think it was appropriate to take out a nearly \$2 million government loan when you'd already raised nearly a quarter of a billion dollars in prior funding rounds?
9. **Mr. Bankman-Fried**, reporting indicates that Alameda Research, which you own 90% of,<sup>11</sup> is one of the top two largest purchasers of Tether.<sup>12</sup>
  - a. How is Alameda purchasing Tether? Are you using dollars, credit, or other digital assets?

While I am a shareholder of Alameda Research, I am not involved in the management of the company, which is left to a management team independent of the FTX management team. Generally, my understanding is that purchases of tether typically are made using U.S. dollars, with \$1 equal to one tether.

- b. Given you are such a large purchaser of Tether, what is your contingency plan should Tether lose its peg?

Please see response to previous question.

- c. There have been reports that Tether is under investigation by the Department of Justice. Tether and the company that runs it, Bitfinex, have been barred from doing business in New York<sup>13</sup> under the terms of a settlement<sup>14</sup> reached with Attorney General Letitia James over false statements about its backing. As a top two purchaser of digital assets, what is your view on whether Tether is properly backed or not?

As part of my written testimony, I submitted to the committee a white paper on appropriate supervision of stablecoin issuers, which also can be found here: <https://www.ftxpolicy.com/stablecoins>. In principle, routine audits of reserve assets held by a stablecoin issuer, by an independent third-party professional auditing organization, is the best way to ensure the integrity of a stablecoin, as well as protect against any systemic risk posed by the issuer.

- d. What is your contingency plan should Tether or Bitfinex face criminal charges? Would this materially impact the businesses you own?

FTX.com permits the use of a variety of different types of stablecoins on its platform, but does not treat USDT as a stablecoin – rather, USDT is treated in the same way as other floating-price tokens, and FTX does not consider USDT as fungible on a 1:1 basis with U.S. dollars. The impact of the scenario posed in the question therefore would affect FTX only insofar as it would affect demand for USDT as one of many listed tokens for trading on FTX.com.

10. **Mr. Bankman-Fried**, certain cryptocurrency platforms have “Development Funds” that are meant to further the growth of the platform’s ecosystem. Some of these Development Funds are controlled by a core group of people, via multi-signatures (“multi-sig”) wallets—cryptocurrency wallets that require two or more people to digitally “sign” and execute a particular transaction. SushiSwap is a DeFi platform whose Development Fund is controlled by a multi-sig wallet.<sup>15</sup>

<sup>10</sup> *‘Buy the Constitution’ Aftermath: Everyone Very Mad, Confused, Losing Lots of Money, Fighting, Crying, Etc.*, Vice (Nov. 22, 2021).

<sup>11</sup> *Portrait of a 29-year-old billionaire: Can Sam Bankman-Fried make his risky crypto business work?*, Yahoo! News (Aug. 12, 2021).

<sup>12</sup> *Tether Papers: This is exactly who acquired 70% of all USDT ever issued*, Protos (Nov. 10, 2021).

<sup>13</sup> *NY Bans Tether, Bitfinex Over False Statements About Dollar Backing and Losses*, NBC New York (Feb. 23, 2021).

<sup>14</sup> New York Attorney General, *Settlement Agreement: In the Matter of Tether Holdings, et al.*, (Feb. 18, 2021).

<sup>15</sup> Connor Dempsey, *The Sushi Chronicles*, Messari Daily Newsletter (Sept. 11, 2020).

- a. Are you one of the signers on the SushiSwap multi-sig wallet?<sup>16</sup>

No.

- b. Is it appropriate for you to be among the group that controls the funds in the Development fund for the SushiSwap decentralized exchange, given you are effectively a competitor?

See response to previous question above.

11. **Mr. Bankman-Fried**, the Department of Justice recently arrested two foreign nationals<sup>17</sup> over ransomware attacks. An arrest warrant<sup>18</sup> posted by the DOJ showed that up to \$13 million was held by one of the foreign nationals at FTX Trading Limited.

- a. Are you conducting sufficient Know Your Customer, Anti-Money Laundering, and illicit finance checks in your exchange?

First, see response above to question 5(b). Second, FTX has implemented a rigorous set of systems and technology for verifying the identity of users and checking those identities against the relevant international lists of prohibited users. Third, Ukraine is not on the list of sanctioned countries under the U.S. Department of Treasury's Office of Foreign Asset Control (OFAC), and so investors from Ukraine are not prohibited from participating in the international financial system or accessing the FTX.com platform under international law. The individuals from Ukraine identified in the question were not on any list of prohibited users or otherwise known to be responsible for crimes at the time they gained access to the FTX platform. FTX cooperated fully with law enforcement agencies involved in investigating this particular ransomware crime. Regrettably, it is a fact of life that individuals responsible for criminal acts cannot all be prohibited from accessing the financial system, including digital-asset platforms, before their crimes become known. In fact, as an example of our best-in-class AML/KYC policy, in this case FTX successfully flagged the deposit before the warrant for seizure was issued, froze the assets associated with the ransomware and delivered them to the DOJ.

- b. How is it that a ransomware extortionist is able to hold millions worth of crypto assets on your platform?

See response to previous question.

- c. Is it true that as recently of June of last year, users were able to withdraw up to \$9000 a day<sup>19</sup> from FTX.com without giving their address or supplying any kind of ID? Is it true that during that time period, users merely needed to give a name and their country of residence?

No – withdrawals up to that threshold required that the user provide an address, and the users eligible for this particular onboarding protocol were a subset of the entire FTX.com user base (limited to those users trading in amounts more than they were depositing and withdrawing from the

platform). Users also must supply documentation showing that the provided phone number matches their stated country of residence, or documentation showing proof of address.

### **Regulatory Framework, Market Supervision, and Chartering**

12. **Mr. Brooks**, Paxos was given conditional approval for a national trust charter from the OCC, granted shortly after when Brian Brooks was the Acting Comptroller of the Currency and the OCC's chief counsel made modifications to expand the use of these trust charters for cryptocurrency-related firms very close to when you left the OCC. It was granted without any clear understanding to the public what the capital and liquidity requirements might be, other than some agreement between Paxos and OCC. Can you share with the Committee specifics of what those capital and liquidity requirements might be, and how those requirements compare to capital and liquidity requirements of traditional banks?
13. **Mr. Brooks**, in the past we have seen a revolving door between big banks and their regulators that appears to be happening in the cryptocurrency space as well. You were previously at the OCC, where you promoted cryptocurrency and sought to charter companies in the space. Then you went to Binance US, a large cryptocurrency market exchange and stablecoin issuer which has been investigated by the DOJ, IRS, and various other regulators. And now you are at Bitfury. Do you agree that this type of revolving door may make investors, consumers and the public lose faith that regulators are working for them, and not for the industry seeking regulatory actions?
14. **Ms. Haas**, on October 14<sup>th</sup> of 2021, Coinbase released an Operational Framework of the Digital Asset Policy Proposal. In your proposal, you challenge the role of traditional agencies to oversee digital asset markets and instead propose the creation of a new self-

<sup>16</sup> Sushi, [Current Governance Model](#) (accessed Jan. 12, 2022).

<sup>17</sup> DOJ, [Ukrainian Arrested and Charged with Ransomware Attack on Kaseya](#) (Nov. 8, 2021).

<sup>18</sup> [Warrant to Seize Property Subject to Forfeiture](#), (Oct. 4, 2021) *In the Matter of the Seizure of All funds up to \$13 million in the FTX Trading Limited account in the name of "Evegnii Igorevich Polianin" and/or "Evgeniy Igorevich Polyaniin"*, N.D. Tex. (No. 3:21 MJ 888BT).

<sup>19</sup> FTX, [Individual Account KYC](#) (accessed Jan. 12, 2021).

regulatory organization (SRO). You indicate that, “[i]ncorporating an SRO into the regulatory supervision of MDAs will speed the development and enforcement of an appropriately-tailored digital asset industry rulebook.”<sup>20</sup>

- a. The SEC, a federal regulator, and FINRA, a securities SRO overseen by the SEC, already exists, and nothing stops Coinbase at this time from registering with the SEC or FINRA, correct?

- 15. **Mr. Bankman-Fried**, earlier this year FTX moved its headquarters in Hong Kong to Nassau, the Bahamas, citing “friendlier regulation and no mandatory quarantine upon arrival in-country.”<sup>21</sup> Additionally, Hong Kong authorities have been taking a stricter stance towards cryptocurrencies, barring non accredited investors from accessing the local crypto market. Why did FTX move to the Bahamas?

FTX moved its headquarters to the Bahamas for two reasons. First, the Bahamas has a clear and robust policy and regulatory framework for offering digital assets to investors from the country – the treatment of all digital assets is known and understood within this framework. Second, it became impractical to operate FTX from Hong Kong because business travel is critical to the functioning and successful operations of FTX. Returning to Hong Kong from business travel results in an onerous quarantine for the traveler upon return, severely impacting and limiting the person’s ability to perform his or her duties as an FTX employee.

- 16. **Mr. Bankman-Fried**, cryptocurrency market exchanges such as yours are regulated through a patchwork of different state and federal agencies. For instance, some exchanges register as a Money Services Business with FinCEN at the federal level and may also receive money transmitter licenses from multiple states.

- a. Can you provide an explanation on how your company registered?

As explained in my written testimony, FTX US Derivatives operates with three primary licenses from the CFTC: a Designated Contract Market (DCM) license, a Swap Execution Facility (SEF) license, and a Designated Clearing Organization (DCO) license. FTX US also has a broker-dealer license issued by the SEC, and has 29 state-issued money-transmission licenses (with a number of others in process). A money-transmission business also implicates the U.S. Bank Secrecy Act and by doing so must register with the U.S. Department of Treasury via FinCEN, unless otherwise exempted; FTX US is so registered.

- b. Is FTX registered with the SEC as a national stock exchange, broker dealer, or an alternative trading system?

FTX US (via FTX Capital Markets) is licensed as a broker-dealer by the SEC and FINRA.

- c. Has FTX sought a written exemption from registration with the SEC?

No because FTX US does not offer products in the U.S. that it believes require a license that FTX US currently does not have, or an exemption from such a requirement.

- d. Do you think that FTX should register with the SEC as a stock exchange, broker

dealer or alternative trading system, and should digital assets traded on its platform be considered securities, or not?

See response to question 16(b) above. FTX US will seek the appropriate registrations with the SEC for any product that requires such a registration.

- e. Do you think the current regulatory system of registration is sufficient, or should it be reformed?

With respect to market regulation, the current regulatory system should be reformed to clearly provide a framework for the trading of (non-security) digital-asset commodities, and for appropriate disclosures to investors for digital assets that are not securities. We believe the CFTC is well suited to become the primary Federal regulator for this type of market-regulation regime given its years-long experience addressing key issues related to digital assets, including their custody, liquidity profiles, and other trading characteristics. This body of experience sets the CFTC apart from other U.S. regulators at the present time. Additionally, please refer to my written testimony where more specific recommendations regarding the key principles for such a framework, which also can be found here: <https://ftxpolicy.com>.

#### **Stablecoin Activities, and Oversight from Prudential and Market Regulators**

17. **Mr. Cascarilla**, earlier this year, the Office of the Comptroller of the Currency (OCC) granted Paxos conditional approval to be a national trust bank charter.<sup>22</sup> The bank, according to the OCC, will provide a range of services associated with digital assets that are permissible for a national bank, including custody services for digital assets; custody and management of USD stablecoin reserves; payment, exchange, and other agent services; other cryptocurrency services, such as trading services and enabling partners to buy and sell cryptocurrency; and Know-Your-Customer as a service, which includes customer identification, sanctions screening, enhanced due diligence, customer risk rating, and other related services. However, unlike most banks, the Paxos National Trust would be an uninsured bank that would not be subject to consolidated supervision and other restrictions limiting affiliations with commercial entities as is generally required under the Bank Holding Company Act.

- a. Why did Paxos pursue this charter instead of a normal national bank charter?

<sup>20</sup> [Digital Asset Policy Proposal: Safeguarding America's Financial Leadership](#), Coinbase (2021).

<sup>21</sup> [Crypto Exchange FTX Quits Hong Kong](#), Finews.asia (Sept. 24, 2021).

<sup>22</sup> OCC, [OCC Conditionally Approves Chartering of Paxos National Trust](#) (Apr. 23, 2021)

- b. What do you say to critics of this action who believe this was an attempt to enjoy the economic benefits of a bank charter while avoiding the prudential requirements that traditional banks must comply with?
- 18. **Mr. Allaire**, the USDC has been described as the second largest stablecoin globally, with \$27 billion worth of coins in circulation. Can you guide us through the purchase, holding, and exchanging processes by which customers can acquire USDC for U.S. dollars? Please describe any restrictions or requirements involved in those processes.
- 19. **To all witnesses**, in 1946, 75-years ago, the Supreme Court in SEC v. Howey determined that the offer of a land sales and service contract for orange groves was an investment contract within the meaning of the Securities Act of 1933. This case established the “Howey Test” which is the basis for determining whether a financial instrument is an investment contract. The Howey Test is as broad as it is simple. Premised on a 4-part test, under Howey, a financial instrument is an investment contract where: (1) there is an investment of money; (2) in a common enterprise; (3) with the expectation of profits; and (4) derived from the efforts of others.
  - a. **Mr. Cascarilla**, as the CEO of Paxos, please answer:
    - i. Where is Paxos incorporated, and where is its principal place of business?
    - ii. On Paxos’ website, you claim that USDP, your stablecoin, has “100% cash reserves”. What financial instruments are used to back USDP (Pax Dollar)?
    - iii. What is the frequency in which Paxos rebalances or tops off the underlying assets so that there are 100% cash reserves?
    - iv. Is USDP, free or does an investor have to pay for USDP?
    - v. Why do investors purchase USDP? Are holders of USDP entitled to interest, investment benefit, or other financial remuneration?
    - vi. How is USDP different from a SEC registered money market fund, an investment product designed to maintain a stable asset value?
  - b. **Mr. Allaire**, as the CEO of Circle, please answer:
    - i. Where is Circle incorporated, and where is its principal place of business?
    - ii. On Circle’s website, you claim that USDC, your stablecoin, “is always redeemable 1:1 for U.S. dollars”. What financial instruments are used to back USDC?
    - iii. What is the frequency in which Circle rebalances or tops off the underlying assets so that you can maintain the 1:1 redemption?
    - iv. Is USDC, free or does an investor have to pay for USDC?
    - v. Why do investors purchase USDC? Are holders of USDC entitled to interest, investment benefit, or other financial remuneration?
    - vi. How is USDC different from a SEC registered money market fund, an investment product designed to maintain a stable asset value?
  - c. **Mr. Brooks**, as the former CEO of Binance US, please answer:
    - i. Where is Binance.US incorporated, and where is its principal place of business?

- ii. On Binance's website, Binance claims that BUSD, your stablecoin, is "1:1 fully USD-backed". What financial instruments are used to back BUSD?
  - iii. What is the frequency in which Binance rebalances or tops off the underlying assets so that there is 1:1 backing?
  - iv. Is BUSD free or does an investor have to pay for BUSD?
  - v. Why do investors purchase BUSD? Are holders of BUSD entitled to interest, investment benefit, or other financial remuneration?
  - vi. How is BUSD different from a SEC registered money market fund, an investment product designed to maintain a stable asset value?
20. **Mr. Cascarilla and Mr. Brooks**, of all of the stablecoins you have issued, what percentage is held by the five biggest holders? By the top twenty biggest holders?
21. **Mr. Cascarilla and Mr. Brooks**, what percentage of transactions consummated using your stablecoin involve purchasing non-crypto goods and services?
22. **Mr. Allaire**, currently, Coinbase pays a 1% APY on your USDC token by default, with no action needed from the user apart from purchasing USDC. This creates an automatic expectation of profits for USDC and raises questions about whether or not Coinbase is in violation of federal securities laws for offering unregistered securities. Is your product therefore a security, and should be regulated as such?
23. **Mr. Cascarilla**, Paxos runs Binance's stablecoin BUSD. In your view, are you subjecting yourself to serious reputational risk, given that Binance has been subject to regulatory actions by Germany's BaFin<sup>23</sup>, Japan's Financial Services Agency<sup>24</sup>, Malaysia<sup>25</sup>, Hong Kong<sup>26</sup>, and the UK's FCA<sup>27</sup>?
- a. Regarding as your company has not registered your stablecoin as a security, please explain the rationale behind not registering with the SEC.
24. **Mr. Cascarilla**, while your partnership with Facebook is reportedly a pilot limited to a number of users in Guatemala and the U.S., what is stopping Facebook from, in the future, allowing its nearly 3 billion monthly active users to make payments and save funds with a Pax Dollar or other privately issued stablecoin through a Novi wallet? If this were allowed at such a scale, how would this not undermine the U.S. dollar as the world's reserve currency?
25. **Mr. Allaire**, your stablecoin was previously backed by various forms of debt securities and bonds, such as corporate bonds, commercial paper, and municipal bonds. Late this year you announced that, moving forward, your stablecoin would only be backed by the U.S.

<sup>23</sup> [Germany's financial watchdog warns crypto exchange Binance over "stock tokens"](#), Reuters (Apr. 29, 2021).

<sup>24</sup> [Binance Holdings Limited Warning](#), Japan's Financial Services Agency Policy.

<sup>25</sup> [Binance Faces Money-Laundering Probe in India; Malaysia Orders Closure](#), Finance Magnates (July 30, 2021).

<sup>26</sup> [Cryptoexchange Binance to stop Hong Kong users trading derivatives](#), Reuters (Aug. 6, 2021).

<sup>27</sup> [Consumer warning on Binance Markets Limited and the Binance Group](#), FCA (June 26, 2021).



dollar and short-term U.S. Treasuries.<sup>28</sup> Can you explain why you were offering a stablecoin that wasn't backed by fiat currency and what prompted you to make this change? Can you guarantee to the global public that your product is and will continue to be backed fully by the U.S. dollar?

- a. Do you both agree that the lack of clarity on how stablecoins are backed with reserves could raise systemic risk concerns if there is a run on stablecoins?
- b. Does your stablecoin products compete against the U.S. Dollar and other nationally issued currencies? What is their use-case that you envision in the future?

#### **Central Bank Digital Currencies**

26. **Ms. Dixon**, the cryptocurrency market has grown exponentially in the past few years, with its global market value being approximately \$578 million in November 2020 to hitting \$3 trillion last month.<sup>29</sup> Due to this growth, and the possibility that these volatile products can be used as payments, there is growing concern that the U.S. dollar's position as the dominant currency is being put into question. A central bank digital currency, or CBDC, may be needed to ensure the preeminence of our fiat currency in the global economy. The Fed has still not released its long-awaited discussion paper on global payments and central bank digital currencies.

- a. Do you think we have a need for a U.S.-based central bank digital currency? If so, what do you think a U.S. CBDC should look like, and how important is it that privacy and financial inclusion are addressed in its design?
- b. How would a CBDC interact with existing private sector cryptocurrency products, such as stablecoins?

27. **Mr. Cascarilla and Mr. Bankman-Fried**, some scholars have suggested that CBDCs and stablecoins have the potential to provide low-income and unbanked communities with access to banking and digital payments, and could provide the benefits of digital transactions for small, mom-and-pop businesses, such as street vendors. Meanwhile, some believe the shift to a more cashless economy, encouraged by the proliferation of digital currencies, could also harm the economically marginalized communities with limited digital access and financial literacy as much as they could help those same communities.<sup>30</sup>

- a. What is the uptake and use of stablecoins among low-income and unbanked households?

FTX does not issue stablecoins and so is unable to track this data.

- b. In your view, will the global financial system become more inclusive with the continued proliferation of digital currencies and payments?

FTX believes that as more choices for payments and financial products become available, including from digital assets and through new technologies delivering those products, access to them will increase overall, which should bring more inclusivity to the global financial system.

- c. If yes, how would that system work for communities traditionally left out of the banking system, including those who don't have a bank account today?

There always will be tension between national security, cybersecurity and other financial-risk policy goals on one hand, and financial inclusion goals on the other. The policies designed to address the former can make it more difficult for more people to gain access to the financial system (because these policies include costs and other frictions, which can become barriers to access). But economic livelihood is critical to a well-functioning society and democracy, which cannot be achieved without tools to pursue that livelihood. The best policy response is to allow for innovation in financial products that will lead to choice, but provide clarity to those offering these products as well as their users about how customer protections apply. This requires an active dialogue between industry and the official sector.

- d. If not, who do you expect to remain behind, and why?

N/A.

<sup>28</sup> See [Coinbase, Circle Say USDC Reserves to Be In Cash, Treasuries](#), Bloomberg (Aug. 23, 2021); see also [Circle Publishes USDC Attestation, Reserve Report Reveals Segregated Accounts in USD-Denominated Assets](#), Bitcoin (July 20, 2021).

<sup>29</sup> [Cryptocurrencies hit market cap of \\$3 trillion for the first time as Bitcoin and Ether reach record highs](#), Fortune (Nov. 9, 2021).

<sup>30</sup> ['Future of Money' economist says the end of cash is coming—here's what could replace it](#), CNBC (Nov. 11, 2021).

28. **Mr. Bankman-Fried**, FTX is headquartered in the Bahamas, which is the country that issues the Sand Dollar, the first nationally used central bank digital currency that came onto the market last year.

- a. What is your view about the possible use of the Sand Dollar for payments, as well as the future potential of Central Bank Digital Currencies?

The Sand Dollar and any Central Bank Digital Currency (CBDC), with the right design features, could be a useful tool for making payments and transfers of value more efficient.

- b. Do you have any plans to allow the Sand Dollar or other CBDCs onto your platform in the future?

FTX has a policy and framework for determining whether a digital asset will be made available or used on our platforms, which also applies to CBDCs. The Sand Dollar and any other CBDC would be analyzed through this framework. In the case of the Sand Dollar, FTX has and will continue to have discussions with the Bahamian government about whether and how to make the asset available to users of FTX.

- c. As the Bahamas is the chair of the Caribbean Financial Action Task Force (CFATF), can you give any details to your working relationship or any collaborations with CFATF? What about The Financial Action Task Force here in the U.S.? Have you made any commitments to work together to combat money laundering, fraud, and any other illicit financial activities that may occur in the Bahamas using your financial platform?

FTX has and will continue to pursue a policy of engagement with the official sector on all matters of interest to the official sector. FTX has discussed with the Bahamian government matters related to AML/KYC policy, as required through the process of FTX securing its license under the Bahamas' Digital Assets and Registered Exchange Act, and its supervision by the Securities Commission of the Bahamas.

#### **President's Working Group Report on Stablecoins**

29. **Mr. Allaire and Mr. Cascarilla**, earlier in November, the President's Working Group on Financial Markets issued its report on stablecoins. The working group describes key issues with stablecoins which include: the nature of reserve assets; redemption variations; the lack of transparency among 'permissioned blockchains,' custody of the reserve assets, the unreliability of the wallets, and settlement and distribution issues. As some of the largest stablecoin issuers by market capitalization,<sup>31</sup> what steps are you taking to address these concerns?
30. **Mr. Allaire and Mr. Cascarilla**, the President's Working Group on Financial Markets recently published its report on stablecoins and highlighted the concern for regulators that this subset of cryptocurrencies supposedly backed by reserve currencies may not be fully backed. Additionally, the report raised potential financial stability concerns because of their rapidly growing size, with stablecoins growing from \$30 billion to approximately

\$130 billion in the last year and are projected to grow roughly tenfold to \$1 trillion by 2025. However, one of your recommendations is to make stablecoin issuers become fully insured depository institutions. Critics of this proposal have expressed concern that requiring a stablecoin issuer to have a banking charter, backed by FDIC deposit insurance, would validate private money in the form of stablecoins, to the detriment of the U.S. dollar and its role as the global reserve currency.

- a. What do you both think of the PWG proposal that stablecoin issuers must be insured depository institutions?
- b. Can you make a commitment that your products will in no way undermine the value of the U.S. dollar as the pre-eminent currency of our global economy?

### **Decentralized Finance**

31. **Mr. Allaire**, in one of your recent SEC filings, you mention that Circle plans to launch “Circle DeFi”, including plans to “allow companies to have connectivity to Compound,

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<sup>31</sup> CoinMarketCap, [Top Stablecoin Tokens by Market Capitalization](#) (accessed Dec. 4, 2021).

Aave, and other protocols through Circle Accounts and Circle APIs”.<sup>32</sup> DeFi platforms, including those that you mention in your investor presentation, may perform little Know-Your-Customer, Anti-Money Laundering, and Countering Terrorist Financing oversight and compliance. U.S. or otherwise.

- a. What would Circle do differently in its partnership with these DeFi platforms to ensure that your firm doesn’t push its account holders and institutional clients into a market that also may be leveraged by criminals and terrorists? Is Circle compliant with Regulations T, U, and X?
  - b. Given recent Financial Action Task Force guidance on virtual assets and virtual asset service providers or VASPs, how will your DeFi products and services and this segment of industry adapt to meet the FATF’s view on DeFi and financial crime compliance?
32. **To all witnesses,** Decentralized Finance, or DeFi, is an especially fast-growing area within the digital asset industry, reportedly reaching more than \$100 billion in size in November 2021, up from around \$21 billion only a year ago. DeFi generally refers to the use of digital assets and blockchain technology to replicate and replace conventional delivery of financial services without central financial intermediaries such as brokerages, exchanges, transfer agents, or banks. However, SEC Commissioner Crenshaw recently warned that DeFi is risky, with DeFi promoters flouting their legal obligations, and that investors may lose their money as they are not provided with the detail needed to assess risk likelihood and severity.<sup>33</sup>

- a. How is your company currently engaged in DeFi activities?

FTX US is not engaged directly in DeFi activities, although the platform plans to develop tools to facilitate for some users, upon the users’ request, the administrative steps that provide the user the ability to access DeFi protocols, but subject to and compliant with all applicable laws and regulations. FTX.com, a legally separate and distinct company from FTX US, has partnered with several DeFi projects through investments as well as products that provide users access to DeFi platforms for purposes of staking digital assets.

- b. How do you manage risks for your DeFi products, and how do you abide by your Know-Your-Customer requirements?

Any new user onboarded onto FTX platforms goes through the rigorous AML/KYC checks described above in the response to question 5(b), including those that gain access to DeFi-related products through the FTX platform. In addition, FTX platforms are supported by on-chain analytics vendors and transaction-monitoring vendors, as part of our surveillance programs.

- c. Do your customers understand the risks of using DeFi, and if so, what do you do communicate these risks?

FTX provides various risk disclosures in our terms of service and also provides customer support to customer inquiries, as appropriate. FTX also continues to look for ways to enhance the relevant disclosures and educational opportunities that are made available to users.

33. **Mr. Cascarilla**, metrics by the crypto-analytics firm Glassnode show that over 65% of the Pax Dollar supply as of November 11, 2021 was held in smart contracts<sup>34</sup>—indicating they’re being used in Decentralized Finance or DeFi. FinCEN recently warned that Ransomware-related payments are being converted to other types of crypto through DeFi. Given the high portion of Pax Dollars on DeFi, which lacks checks against illicit finance, that means Pax Dollar may be utilized to convert ransomware payments from one crypto asset to another. The Pax dollar supply lives in the most unregulated part of the crypto ecosystem. Please share your thoughts on this.
- a. How are you ensuring terrorists and other bad actors don’t redeem Pax Dollar? Do you check every crypto address against the sanctions (SDN) list, as required by recent OFAC guidance<sup>35</sup>?

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<sup>32</sup> [Circle Supplemental Presentation Materials](#), SEC (2021).

<sup>33</sup> SEC, [Statement on DeFi Risks, Regulations, and Opportunities by Commissioner Crenshaw](#) (Nov. 9, 2021).

<sup>34</sup> [Letter from Open Markets Institute to Acting Chair Behnam et al. Re: Facebook’s Digital Asset Wallet Pilot](#) (Nov. 23, 2021).

<sup>35</sup> [Sanctions Compliance Guidance for the Virtual Currency Industry](#), Office of Foreign Assets Control (Oct. 2021).

**Environmental Concerns related to Cryptocurrency**

34. **Ms. Dixon**, Bitcoin's power consumption has dire implications for climate change and achieving the goals of the Paris Accord. A University of Cambridge analysis estimated that bitcoin mining consumes 121.36 terawatt hours a year. This is more than all of Argentina consumes, or more than the consumption of Google, Apple, Facebook, and Microsoft combined.<sup>36</sup> Can you discuss the environmental implications of the growth of cryptocurrencies?
- What is "mining" of cryptocurrency and how does it work?
  - Can you discuss the significance of the proof-of-stake vs. proof-of-work models? Which model has the potential to shrink cryptocurrencies' enormous carbon footprint?
  - Is an environmentally neutral cryptocurrency a realistic possibility? If so, please explain.
  - How can Congress and policymakers help to achieve this goal?
35. **Mr. Cascarilla**, your USDP stablecoin is an ERC20 token on the Ethereum blockchain -- which uses Proof of Work mining.
- What steps, if any, is Paxos planning to take to mitigate the harmful climate impacts of Proof of Work mining -- which include excess energy consumption and electronic waste?
  - While the Ethereum foundation has repeatedly stated it intends to transition from Proof of Stake to Proof of Work, the timeline for when this will happen continues to be delayed -- can you provide an update on this migration?

**Diversity, Equity and Financial Inclusion**

36. **To all witnesses**, as you know, this Committee has been dedicated to advocating for diversity on all levels within the financial services sector. Our February 2020 bank diversity report further highlighted the lack of people of color in the nation's largest banks, and we addressed similar findings in our report on investment management firms from earlier this week.
- Please provide this Committee a detailed breakdown of diversity at the senior leadership level, of your board members, your workforce, and any suppliers and third parties that are used.

Approximately 60 percent of FTX's senior leadership are women, and the senior leadership are from various countries representing different ethnicities. FTX as a whole has employees from a range of countries representing a range of ethnicities, including Asian, Bahamian, European, Latin American and European. Additionally, FUSD has one female, African-American director serving on its board. Consulting firms representing FTX US have personnel who are principals that are female as well as Asian-American.

37. **Ms. Haas**, in a series of articles in late 2020, the New York Times shared that 15 Black employees, roughly three quarters of the company's Black workforce at the time, had left the company in 2018 and 2019, due to racist or discriminatory treatment. They found Black

employees were paid 7% less, and women paid 8% less than men in comparable roles.<sup>37</sup> When notified about complaints regarding the lack of diversity and inclusion, Coinbase Global CEO Brian Armstrong reportedly ignored recommendations and suggestions from affected employees. The New York Times also found that the percentage of women and

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<sup>36</sup> [\*Bitcoin's Impacts on Climate and the Environment\*](#), Columbia Climate School (Sept. 20, 2021).

<sup>37</sup> [\*Cryptocurrency Start-Up Underpaid Women and Black Employees, Data Shows\*](#), New York Times (Dec. 29, 2020).



Black employees has remained consistently low since 2018, with women representing 33 percent of the Coinbase workforce, and Black employees representing only three percent of the workforce. How has Coinbase responded to these allegations of discrimination and racism within the workplace?

38. **To all witnesses:** After the murder of George Floyd by the police last year, hundreds of companies, including tech companies, made public pledges to promote racial equity. However, these commitments have not correlated to an increase in workforce diversity within tech companies. A 2021 study of the technology industry found that companies that made public commitments had 20% fewer Black employees on average than those that didn't.<sup>38</sup>

- a. Do you consider the lack of diversity within tech companies and in the digital assets industry a hindrance to the progress of the field?

Yes. A culture of mutual respect and cooperation is borne from the diversity of a team, which necessitates a spirit of empathy, understanding and humility. These traits in any workforce are good for business. At FTX our diversity is much of the reason we have been successful at understanding our customers and their needs, and executing on products that meet their needs. FTX has employees from all over the world with diverse ethnic backgrounds, and 60 percent of our senior management are women. The majority of our global leadership comes from diverse backgrounds.

- b. Have your companies made commitments to promote equity and inclusion within your company and in the industry?

When assessing and addressing its personnel needs, FTX always looks to bring diversity into its workforce for the benefits described in the previous response.

- c. According to one recent report, between 2014-2021, among the 240 tech companies they surveyed, the diversity of their workforces has not grown significantly. For example, proportion of women employees increased by 2.14% points, and that of Black employee representation increased by just 0.36% points.<sup>39</sup> Do you see a similar trend in the crypto industry?

Unfortunately, there is not much data available on the profile of the workforce within the digital-asset community globally.

- d. Please describe which, if any, concrete actions are your respective companies considering to increase diversity among your workforce?

When assessing and addressing its personnel needs, FTX always looks to bring diversity into its work force for the benefits described in the response 38(a).

39. **To all witnesses,** it is troubling that there is little to no publicly available data about the demographics of consumers who your companies market your products to, including the

demographics of users, and whether you target your products to those who are financially disadvantaged.

- a. Do you collect demographic information on your customers?

FTX collects demographic information on our customers related to our KYC and identity-verification procedures for onboarding new users.

- b. If so, please describe the type of information you collect from customers.

As part of our identity verification procedures FTX collects information from forms of identification such as driver licenses. We use a user's age and location of residence to verify they are legally allowed to use our services. The information collected as part of this KYC process is never used for marketing purposes.

FTX also uses standard web-tracking tools such as Google analytics to collect aggregate information that provide some insights into the demographics of our users. In this respect, FTX minimally leverages tracking tools to collect this data.

- c. If voluntary, about how many of your customers provide the information?

FTX does not solicit from its users specific personal identifying information (PII) or data outside of the onboarding process.

- d. What protocols do you have in place for protecting consumers' personal identifying information and securing this information?

FTX uses industry-standard best practices to keep user PII and other sensitive information on our own hosted servers and segregates that data from data used for analytics and day-to-day web operations. See also response to question 5(b) and 5(f) above.

- e. If you don't collect demographic data, then what sources of information are you using that lead you to believe that people of color and the traditionally unbanked are among your primary customers?

FTX refers the committee to various polling data suggesting that minority groups are overrepresented among users of digital-asset products.

- f. Please provide a report that includes a detailed breakdown of the demographic information of both the consumers and populations your companies market products to and the users of your company's products.

Included with these responses is an attachment of a file that shows the breakdown of FTX US users based on their state of residence, and the number of users belonging to identified age ranges. This data set is gleaned from the FTX US onboarding process. From time to time FTX leverages third-party-analytics service providers in order to gain particular insights in response to specific commercial goals.

**Consumer Protection Policy Concerns**

40. **To all witnesses**, there is concern about the protection of the personal and transactional data and the digital finances of users of digital payments and assets, including the average

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<sup>38</sup> [State of DEI in Tech 2021](#), Blenddoor (2021).

<sup>39</sup> *Id.*

consumer or small business owner using these products to make an online purchase, send money to family overseas, or complete transactions with their customers.

- a. Do most stablecoin issuers and exchanges shift the risk related to cybersecurity to the user? What responsibility lies with the issuer, wallet, or exchange?

See response to question 5(f) above.

- b. How do issuers and exchanges secure the personal and financial data of its users? Based on what standards? Are data protection and disclosure policies shared in full with all users?

See response to question 5(f) above.

- c. How does your company ensure that the financial transactions, like bank transfers or payments that are authorized by a consumer from their bank account, are secure from theft, fraud, hacks, and other cyber-enabled financial crimes?

See response to question 5(f) above. Additionally, FTX imposes internal controls and fraud-detection programs to protect against operational risks and to prevent data breaches.

41. **Mr. Cascarilla**, please describe the extent to which cryptocurrencies that are used to remit funds to individuals in other countries receive the same protections that consumers get when they use traditional currency to remit funds.
  - a. With respect to Facebook's Novi pilot program, should a user attempt to send Paxos' USDP coins to a contact in Guatemala, and those funds were converted to their local currency, would that user receive the same disclosures as the Consumer Financial Protection Bureau requires with respect to exchange rate and other fees for traditional remittances?
42. **Mr. Allaire**, Circle's amended S-4 form filed on October 4<sup>th</sup> of last year details the revenue sharing agreement between Circle and Coinbase for USDC, stating that "as part of our and Coinbase's investment in the development of the Centre Consortium, we entered into agreements with Coinbase, pursuant to which we share any revenue generated from USDC reserves."<sup>40</sup> How are you protecting consumers from harm, including from the effects of price collusion?
43. **Ms. Haas**, Coinbase has two cryptocurrency exchange platforms: Coinbase, and Coinbase Pro. Coinbase is aimed at newer users — but charges much higher fees than Coinbase Pro. For example, it costs \$0.99 to purchase \$5 worth of Bitcoin on Coinbase, but only \$0.02 to do so on Coinbase Pro.
  - a. Please explain your company's rationale behind charging different fees for each of these platforms.
  - b. In your view, is this model replicating the problem we already have in the non-crypto financial system, where the least sophisticated users are charged the highest fees?
  - c. why is it that consumers can purchase US Dollar Coin (USDC) at no additional

charge on Coinbase, but your company charges fees to purchase other stablecoins – a \$1 fee to purchase \$5 worth of Tether, for example.

44. **Mr. Bankman-Fried and Ms. Haas**, as two of the largest cryptocurrency market exchanges, what types of data on digital assets do your companies use, sell or share?

FTX does not sell data related to digital assets. FTX does share customer data with banks and other financial institutions it works with, but this data is not sold and is only used for internal purposes. FTX also cooperates with law enforcement inquiries and shares customer data with those agencies to the fullest extent permitted by law.

- a. Do you produce macroeconomic data on digital assets? If so, please describe.

No, but other third parties can access data on FTX platforms and make use of it to produce or include in macroeconomic data sets. All FTX market data is free and available to all users via our website, mobile app, and API.

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<sup>40</sup> [Circle's Form S-4 Registration Statement](#), SEC (Oct. 4, 2021).

- b. Are there any reporting standards or requirements applicable to the data sets that you use, sell or share?

N/A

- c. Do you have concerns about the reliability of any of the data?

N/A

- d. Do you think it would be helpful to your business and its customers for there to be reporting standards or requirements for the data?

Unrelated to the commercialization of market data, a unified or comprehensive regulatory regime internationally for digital assets would naturally involve and lead to standardized data fields for purposes of regulatory and other types of reporting.

- e. Is there data on the carbon impact of digital assets? If not, should there be requirements for firms to collect and report such data?

While there is data made available related to hashing power used for Bitcoin mining (a Proof-of-Work network), the specific energy sources for the mining facilities is not reported. Generally, FTX sees value in transparency related to energy consumption and the sources for that energy as they relate to the digital-asset ecosystem. See also <https://ftx.us/climate>.

45. **Mr. Allaire**, there is concern that regular people who choose to buy, sell, and hold digital assets and currencies may not be aware or be able to tolerate high risks, and may be especially vulnerable to fraud and manipulation. The volatility of cryptocurrency assets' valuations can potentially result in both large gains and losses, the risk of which may not be well understood by users of these products. Furthermore, these assets operate outside the traditional financial system and may not offer common transaction protections such as halting suspicious transactions or recovering lost authentication methods.
- Have you invested time and resources on educational materials and customer support in response to these challenges?
  - In your view, have any improvements been made to user interface to address consumer protection concerns?
  - What do you think is the role of the CFPB, the SEC, and other agencies to ensure there are appropriate disclosures for users of these products?
46. **To all witnesses**, every innovation has its downsides. What do you consider to be the downsides of crypto innovation, both for the parties to crypto transactions, and for people who don't use crypto?

The most significant downsides are that the lack of regulatory clarity in the U.S. has pushed substantial economic dynamism and value creation off-shore, to the detriment of U.S. standing globally, while denying U.S. investors clearer and more comprehensive investor protections that companies like FTX are eager to provide.

47. **Mr. Bankman-Fried**, as recently as July 2021, FTX offered a maximum of 125 leverage on your exchange, meaning an investment of \$1,000 could be turned into a bet of \$125,000 on your platform. On July 23, 2021 the NYTimes detailed the incredible leverage<sup>41</sup> offered by your platform. Just two days after that article was published, you announced<sup>42</sup> you'd be reducing maximum leverage down to 20 times. What led you to decide in July 2021 to eliminate extremely risky leverage levels from your platform?

FTX did not offer any product with 125x leverage. In any case, FTX regularly assesses demand for certain types of products, and the risk attributes of those products balanced against their utility, as well as a host of other standards when determining to list or de-list a product for trading.

48. **To all witnesses**, do you collect information from your customers about the ways in which they save and invest and their investment goals? Follow up as appropriate--  
a. If voluntary, about how many of your customers provide the information?

N/A

- b. What information do you collect?

N/A

- c. What safety protocols do you have in place for this information?

N/A. FTX follows strict cybersecurity protocols, as required by all applicable regulations, that help ensure the protection of all data on its platforms, including information related to our users. See response to question 5(f) above.

- d. If you don't collect this information, then what sources of information are you using that has led you to believe that so many of your customers were previously unbanked?

FTX US does not solicit information from its users about whether the user has access to a bank account, and does not perform any creditworthiness analysis or other subjective analysis of an onboarding user.

<sup>41</sup> [Crypto Nomads: Surfing the World for Risk and Profit](#), The New York Times (July 23, 2021).

<sup>42</sup> Twitter, [Sam Bankman-Fried Twitter Thread](#) (July 25, 2021).

**National Security and Cybersecurity Concerns**

49. **Mr. Armstrong and Mr. Allaire**, as you know, at the end of last year, the Financial Crimes Enforcement Network or FinCEN issued a rulemaking proposal to require banks and money service businesses to submit reports, keep records, and verify the identity of customers in relation to transactions involving wallets for convertible virtual currency or digital assets with legal tender status. This rulemaking focused on those wallets hosted in certain low-compliance jurisdictions identified by FinCEN and wallets which are not hosted by a financial institution, called “unhosted wallets.” These possible requirements are similar to those already required of other money transmitters which must know the customers at each end of the transaction and apply financial crime compliance measures as a basic component of the business model. You and your firms were vocal in your objections to this rulemaking. Can you share why financial transactions involving virtual assets and their service providers – payments and exchanges that are in essence no different than a Western Union or a MoneyGram, should be treated differently than other transmitters?
50. **Mr. Allaire**, on page 23 of its Investor Presentation<sup>43</sup> in an SEC filing, Circle states that the “opportunity” for USDC is \$130 trillion, effectively the US’s entire money supply. The slide shows the entire M2 money supply<sup>44</sup> as the opportunity. (M2 is a measure of the money supply that includes cash, checking deposits, and easily convertible near money). Can you elaborate on why Circle listed the US’s entire money supply as an opportunity?
51. **To all witnesses**, consumer and investor experts have stated that some of the largest digital asset trading platforms frequently allow off chain transactions to occur, which are transactions that are internalized or executed within the platform and not on a public blockchain. Please describe your off-chain transaction practices, and how you address the risk of double spending when a transaction is executed off of the chain upon which it was originally issued.

For a variety of technical reasons, FTX has concluded that it is not efficient or necessary to support its trading markets with a public blockchain. Instead, FTX market operations are conducted with proprietary software and private databases under the control of FTX in order to best promote market integrity and efficiency.

Digital assets are transferred from a user’s own digital wallet to the relevant FTX-controlled digital wallet, and on FTX, private database notates and ledgers all customer accounts and the balances of digital assets in those accounts. A user’s trading activity will result in their balances fluctuating, but their digital assets will remain in the FTX-controlled wallet until the user decides to withdraw those assets from the FTX platform. At the time the user withdraws from the platform, the public blockchain ledger would be updated as the digital asset is transferred off of the FTX platform and into the customer’s own digital wallet.

- a. Please specify what measures you adopt to ensure that as a digital asset exchange, you do not take advantage of information the platform gleans from off chain transactions.

FTX as a company does not trade in digital assets on any other platform, based on information



gleaned from our own platforms or otherwise – FTX is a digital-asset platform and not a proprietary trading firm. Additionally, all FTX platform data is open and shared with all users.

52 **To all witnesses**, regarding hacking incidents, according to one analysis, in 2021 alone, over \$7 billion was hacked from platforms and issuers of digital assets.<sup>45</sup> Please describe your understanding why these hacks are so frequent in your industry.

- a. What measures are you taking to safeguard customers' assets and prevent bad actors from harming customers and damaging market integrity?

See response to questions 5(f) and 40(c).

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<sup>43</sup> [Circle's Investor Presentation](#), SEC, EDGAR (2021).

<sup>44</sup> Board of Governors of the Federal Reserve System, [M2](#), retrieved from FRED, Federal Reserve Bank of St. Louis (Nov. 2021).

<sup>45</sup> [Recounting 2021's biggest DeFi hacking incidents](#), Cointelegraph (Nov. 3, 2021).

**Questions for the Record from Chairwoman Maxine Waters**  
**Hearing entitled: "Digital Assets and the Future of Finance:**  
**Understanding the Challenges and Benefits of Financial**  
**Innovation in the United States"**  
**December 8, 2021 at 10:00 a.m. ET**

**Response to QFR 39(f)**

Users State	age Bins	Users Count
CA	T01 [18.0,38.0)	1302
TX	T01 [18.0,38.0)	975
FL	T01 [18.0,38.0)	921
CA	T02 [38.0,58.0)	632
FL	T02 [38.0,58.0)	511
TX	T02 [38.0,58.0)	500
GA	T01 [18.0,38.0)	340
IL	T01 [18.0,38.0)	333
NJ	T01 [18.0,38.0)	303
PA	T01 [18.0,38.0)	279
OH	T01 [18.0,38.0)	263
NC	T01 [18.0,38.0)	252
MI	T01 [18.0,38.0)	250
MA	T01 [18.0,38.0)	223
VA	T01 [18.0,38.0)	222
WA	T01 [18.0,38.0)	220
AZ	T01 [18.0,38.0)	212
TN	T01 [18.0,38.0)	196
CO	T01 [18.0,38.0)	191
MD	T01 [18.0,38.0)	171
IN	T01 [18.0,38.0)	162
OH	T02 [38.0,58.0)	161
IL	T02 [38.0,58.0)	160
GA	T02 [38.0,58.0)	152
NC	T02 [38.0,58.0)	150
MO	T01 [18.0,38.0)	148
CA	T03 [58.0,78.0)	145
MI	T02 [38.0,58.0)	143
NJ	T02 [38.0,58.0)	138
LA	T01 [18.0,38.0)	137
PA	T02 [38.0,58.0)	135
VA	T02 [38.0,58.0)	135
WI	T01 [18.0,38.0)	134
MN	T01 [18.0,38.0)	126
AL	T01 [18.0,38.0)	122
NV	T01 [18.0,38.0)	119
OK	T01 [18.0,38.0)	118
FL	T03 [58.0,78.0)	114
SC	T01 [18.0,38.0)	112

UT	T01 [18.0,38.0)	102
CT	T01 [18.0,38.0)	101
WA	T02 [38.0,58.0)	97
OR	T01 [18.0,38.0)	97
AZ	T02 [38.0,58.0)	97
TN	T02 [38.0,58.0)	93
CO	T02 [38.0,58.0)	93
MD	T02 [38.0,58.0)	92
MO	T02 [38.0,58.0)	89
MA	T02 [38.0,58.0)	87
TX	T03 [58.0,78.0)	85
IN	T02 [38.0,58.0)	82
NV	T02 [38.0,58.0)	81
KY	T01 [18.0,38.0)	80
AR	T01 [18.0,38.0)	79
KS	T01 [18.0,38.0)	75
UT	T02 [38.0,58.0)	69
AL	T02 [38.0,58.0)	69
MS	T01 [18.0,38.0)	67
OR	T02 [38.0,58.0)	62
SC	T02 [38.0,58.0)	61
WI	T02 [38.0,58.0)	59
HI	T01 [18.0,38.0)	54
OK	T02 [38.0,58.0)	53
IA	T01 [18.0,38.0)	52
NE	T01 [18.0,38.0)	51
MN	T02 [38.0,58.0)	51
ID	T01 [18.0,38.0)	50
LA	T02 [38.0,58.0)	50
CT	T02 [38.0,58.0)	48
NM	T01 [18.0,38.0)	46
KY	T02 [38.0,58.0)	45
AR	T02 [38.0,58.0)	40
GA	T03 [58.0,78.0)	38
OH	T03 [58.0,78.0)	37
DC	T01 [18.0,38.0)	34
ID	T02 [38.0,58.0)	33
NJ	T03 [58.0,78.0)	33
MS	T02 [38.0,58.0)	32
HI	T02 [38.0,58.0)	32
DE	T01 [18.0,38.0)	30
NC	T03 [58.0,78.0)	30
WV	T01 [18.0,38.0)	28
ME	T01 [18.0,38.0)	28
AZ	T03 [58.0,78.0)	28
KS	T02 [38.0,58.0)	28
WA	T03 [58.0,78.0)	27
MI	T03 [58.0,78.0)	27

MD	T03 [58.0,78.0)	26
IA	T02 [38.0,58.0)	26
RI	T01 [18.0,38.0)	26
PA	T03 [58.0,78.0)	25
NH	T02 [38.0,58.0)	25
VA	T03 [58.0,78.0)	24
CO	T03 [58.0,78.0)	24
IL	T03 [58.0,78.0)	23
NH	T01 [18.0,38.0)	23
MA	T03 [58.0,78.0)	22
RI	T02 [38.0,58.0)	22
MT	T01 [18.0,38.0)	21
WV	T02 [38.0,58.0)	20
ND	T01 [18.0,38.0)	19
OK	T03 [58.0,78.0)	19
NM	T02 [38.0,58.0)	18
OR	T03 [58.0,78.0)	18
TN	T03 [58.0,78.0)	18
ME	T02 [38.0,58.0)	18
MO	T03 [58.0,78.0)	17
NV	T03 [58.0,78.0)	17
MN	T03 [58.0,78.0)	17
AK	T01 [18.0,38.0)	16
MT	T02 [38.0,58.0)	16
VT	T01 [18.0,38.0)	16
SC	T03 [58.0,78.0)	16
DE	T02 [38.0,58.0)	15
IN	T03 [58.0,78.0)	15
SD	T01 [18.0,38.0)	15
AL	T03 [58.0,78.0)	14
LA	T03 [58.0,78.0)	13
NE	T02 [38.0,58.0)	13
WY	T01 [18.0,38.0)	12
WI	T03 [58.0,78.0)	12
AK	T02 [38.0,58.0)	12
VT	T02 [38.0,58.0)	10
NM	T03 [58.0,78.0)	10
UT	T03 [58.0,78.0)	10
DC	T02 [38.0,58.0)	10
KY	T03 [58.0,78.0)	10
CA	T04 [78.0,98.0)	10
AR	T03 [58.0,78.0)	9
MS	T03 [58.0,78.0)	9
ND	T02 [38.0,58.0)	9
CT	T03 [58.0,78.0)	8
WY	T02 [38.0,58.0)	7
ME	T03 [58.0,78.0)	6
ID	T03 [58.0,78.0)	6

KS	T03 [58.0,78.0)	6
NE	T03 [58.0,78.0)	6
WV	T03 [58.0,78.0)	6
FL	T04 [78.0,98.0)	6
TX	T04 [78.0,98.0)	5
MT	T03 [58.0,78.0)	5
NH	T03 [58.0,78.0)	5
HI	T03 [58.0,78.0)	5
SD	T02 [38.0,58.0)	4
RI	T03 [58.0,78.0)	4
IA	T03 [58.0,78.0)	3
AZ	T04 [78.0,98.0)	3
PR	T01 [18.0,38.0)	3
WY	T03 [58.0,78.0)	3
OR	T04 [78.0,98.0)	2
VI	T01 [18.0,38.0)	2
PR	T02 [38.0,58.0)	2
WA	T04 [78.0,98.0)	2
AK	T03 [58.0,78.0)	2
MO	T04 [78.0,98.0)	2
NC	T04 [78.0,98.0)	2
LA	T04 [78.0,98.0)	2
DE	T03 [58.0,78.0)	2
MD	T04 [78.0,98.0)	2
NA	T02 [38.0,58.0)	1
IN	T04 [78.0,98.0)	1
PR	T03 [58.0,78.0)	1
ID	T04 [78.0,98.0)	1
OK	T04 [78.0,98.0)	1
SC	T04 [78.0,98.0)	1
KY	T04 [78.0,98.0)	1
SD	T03 [58.0,78.0)	1
NV	T04 [78.0,98.0)	1
DC	T03 [58.0,78.0)	1
NM	T04 [78.0,98.0)	1
CO	T04 [78.0,98.0)	1
NJ	T04 [78.0,98.0)	1
VA	T04 [78.0,98.0)	1
VI	T02 [38.0,58.0)	1
NH	T04 [78.0,98.0)	1
ND	T03 [58.0,78.0)	1
MS	T04 [78.0,98.0)	1
IL	T04 [78.0,98.0)	1

Chairwoman Maxine  
Waters

Hearing entitled "Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of Financial Innovation in the United States"  
December 8, 2021 at 10:00 a.m. ET

Responses to Questions for the Record  
Submitted by Brian P. Brooks  
CEO, Bitfury Group

3. **Mr. Brooks**, you previously held the position of CEO of Binance US. As you know, Binance, which by many metrics is the largest cryptocurrency company globally, and its U.S. subsidiary of which you were in charge, have been mired in controversy, investigations, and allegations of malfeasance for a long time. For instance, the UK's Financial Conduct Authority barred Binance from carrying activities, Japan's regulator stated Binance was operating illegally, and Germany warned that Binance could be fined for illegally offering tokens connected to stocks. In the U.S., Binance has been investigated by the Department of Justice, the CFTC, and the IRS.
  - a. What made you decide to leave, approximately four months after taking up that role?
  - b. While at Binance, did you worry that Binance was allowing investment scams and other types of investor fraud to proliferate?
  - c. Can you describe Binance's AML program when you were there? Do you believe that Binance did the requisite amount of BSA-AML compliance and provided enough investor and consumer protection?
  - d. Do you believe that Binance, as one of the largest cryptocurrency companies, being investigated by so many agencies domestically and abroad is a sign that Binance and the cryptocurrency industry at large has a problem with playing by the same rules as other companies registered with the SEC or overseen by prudential regulators?

**Response:** I appeared at the Committee's December 8, 2021 hearing in my capacity as CEO of Bitfury Group, and not in my former capacity with Binance.US. Since I never worked at Binance Holdings d/b/a Binance.com, I lack personal knowledge to answer the questions that relate to that company's operations in countries I had no involvement with. With respect to Binance.US, that company is licensed by a number of U.S. states, which supervise its compliance with anti-money-laundering and other legal and regulatory requirements. As noted in my public statements at the time, I left the company due to differences with the founder over company strategy and operations.

12. **Mr. Brooks**, Paxos was given conditional approval for a national trust charter from the OCC, granted shortly after when Brian Brooks was the Acting Comptroller of the Currency and the OCC's chief counsel made modifications to expand the use of these trust

charters for cryptocurrency-related firms very close to when you left the OCC. It was granted without any clear understanding to the public what the capital and liquidity requirements might be, other than some agreement between Paxos and OCC. Can you share with the Committee specifics of what those capital and liquidity requirements might be, and how those requirements compare to capital and liquidity requirements of traditional banks?

**Response:** The OCC granted preliminary conditional approval to Paxos's charter application in late April 2021, more than three months after I left the agency. I thus do not have personal knowledge of the specific capital, liquidity, or other requirements ultimately imposed on Paxos as a condition of its charter request. As one of the OCC's principal oversight committees, the Committee has access to that information directly from the agency. Charter approvals such as the approval of Paxos, in any event, are granted only upon the recommendation of OCC career staff, including the leadership of the OCC Licensing Division and the OCC Executive Committee, which review charter applications as provided in the OCC's Licensing Manual. With respect to the OCC's guidance concerning national trust banks, the guidance issued during my leadership of the agency (OCC Interpretive Letter #1176 (Jan. 11, 2021)) was not specifically directed to cryptocurrency-related activities, but rather at the longstanding question of whether a national trust bank's fiduciary powers are limited to those activities deemed fiduciary activities under the law of the state where the bank is located, or whether the OCC itself has authority to define fiduciary activities as a matter of federal law. The conclusion that federal banking law is an independent source of the OCC's determination as to whether a particular activity constitutes fiduciary activity was reaffirmed recently in OCC Interpretive Letter #1179 (Nov. 2021).

13. **Mr. Brooks,** in the past we have seen a revolving door between big banks and their regulators that appears to be happening in the cryptocurrency space as well. You were previously at the OCC, where you promoted cryptocurrency and sought to charter companies in the space. Then you went to Binance US, a large cryptocurrency market exchange and stablecoin issuer which has been investigated by the DOJ, IRS, and various other regulators. And now you are at Bitfury. Do you agree that this type of revolving door may make investors, consumers and the public lose faith that regulators are working for them, and not for the industry seeking regulatory actions?

**Response:** My career in financial services is similar to the careers of my Democratic and Republican predecessors who have led the agency: I studied banking law at the University of Chicago Law School; led the financial services practice of a major global law firm; served as an executive at a mid-sized bank and as a board member of a major state community bank trade association, and served as general counsel and later a board member of a major financial institution. The fact that I also have professional experience in financial technology and cryptocurrency is, in my opinion, consistent with the idea that leaders of government agencies should possess expertise in the salient issues confronting that agency during the period of their leadership. Given the amount of

focus both in the current Administration and in the previous Administration surrounding cryptocurrency, stablecoins, and related matters, I believe my experience in those areas was helpful in my assessment of the relevant issues.

19. **To all witnesses**, in 1946, 75-years ago, the Supreme Court in SEC v. Howey determined that the offer of a land sales and service contract for orange groves was an investment contract within the meaning of the Securities Act of 1933. This case established the “Howey Test” which is the basis for determining whether a financial instrument is an investment contract. The Howey Test is as broad as it is simple. Premised on a 4-part test, under Howey, a financial instrument is an investment contract where: (1) there is an investment of money; (2) in a common enterprise; (3) with the expectation of profits; and (4) derived from the efforts of others.

c. **Mr. Brooks**, as the former CEO of Binance US, please answer:

- i. Where is Binance.US incorporated, and where is its principal place of business?
- ii. On Binance’s website, Binance claims that BUSD, your stablecoin, is “1:1 fully USD-backed”. What financial instruments are used to back BUSD?
- iii. What is the frequency in which Binance rebalances or tops off the underlying assets so that there is 1:1 backing?
- iv. Is BUSD free or does an investor have to pay for BUSD?
- v. Why do investors purchase BUSD? Are holders of BUSD entitled to interest, investment benefit, or other financial remuneration?
- vi. How is BUSD different from a SEC registered money market fund, an investment product designed to maintain a stable asset value?

**Response:** I appeared at the Committee’s December 2021 hearing in my capacity as CEO of Bitfury Group, and not in my prior capacity with Binance.US. Having said that, during my tenure at the company, Binance.US was the d/b/a name of BAM Management US Holdings, which is incorporated in Delaware and headquartered in California. With respect to BUSD, that asset was constructed as a partnership between Binance Holdings d/b/a Binance.com and Paxos. I never worked at either company and thus do not have firsthand knowledge of the underlying asset composition, nor can I speculate about the various reasons investors choose to purchase it or other competing stablecoins.

20. **Mr. Cascarilla and Mr. Brooks**, of all of the stablecoins you have issued, what percentage is held by the five biggest holders? By the top twenty biggest holders?

**Response:** Bitfury Group does not issue stablecoins.

21. **Mr. Cascarilla and Mr. Brooks**, what percentage of transactions consummated using your stablecoin involve purchasing non-crypto goods and services?



**Response:** Bitfury Group does not issue stablecoins.

32. **To all witnesses,** Decentralized Finance, or DeFi, is an especially fast-growing area within the digital asset industry, reportedly reaching more than \$100 billion in size in November 2021, up from around \$21 billion only a year ago. DeFi generally refers to the use of digital assets and blockchain technology to replicate and replace conventional delivery of financial services without central financial intermediaries such as brokerages, exchanges, transfer agents, or banks. However, SEC Commissioner Crenshaw recently warned that DeFi is risky, with DeFi promoters flouting their legal obligations, and that investors may lose their money as they are not provided with the detail needed to assess risk likelihood and severity.
- How is your company currently engaged in DeFi activities?
  - How do you manage risks for your DeFi products, and how do you abide by your Know-Your-Customer requirements?
  - Do your customers understand the risks of using DeFi, and if so, what do you do communicate these risks?

**Response:** Bitfury Group is not currently engaged in DeFi activities.

36. **To all witnesses,** as you know, this Committee has been dedicated to advocating for diversity on all levels within the financial services sector. Our February 2020 bank diversity report further highlighted the lack of people of color in the nation's largest banks, and we addressed similar findings in our report on investment management firms from earlier this week.

Please provide this Committee a detailed breakdown of diversity at the senior leadership level, of your board members, your workforce, and any suppliers and third parties that are used.

**Response:** As the founder of the OCC's Project REACH and the former chair of Fannie Mae's Diversity Advisory Council, I care deeply about issues of diversity and inclusion. Not surprisingly, each country's experience of race, gender, and related issues differs, and that shapes my view of these issues in my current role. Bitfury Group is headquartered in Amsterdam and has sizeable employee populations in the Netherlands, the United Kingdom, Ukraine, the Republic of Georgia, Kazakhstan, and other countries in addition to the United States. As Bitfury Group's relatively new CEO, my intention is to examine the company's diversity and inclusion strategy through the unique lenses of those geographies and the employees who reside there.

In addition, the executive teams of our two US-based portfolio companies, Cipher and LiquidStack, have promotion of a diverse workforce as major corporate priorities. Cipher, which is a publicly traded company, has a seven-person Board of Directors that includes two women and an African-American man. Attracting a diverse workforce is a

priority for Cipher's leadership team that they highlight to employees and recruiters when discussing hiring.

39. **To all witnesses,** it is troubling that there is little to no publicly available data about the demographics of consumers who your companies market your products to, including the demographics of users, and whether you target your products to those who are financially disadvantaged.
- a. Do you collect demographic information on your customers?
  - b. If so, please describe the type of information you collect from customers.
  - c. If voluntary, about how many of your customers provide the information?
  - d. What protocols do you have in place for protecting consumers' personal identifying information and securing this information?
  - e. If you don't collect demographic data, then what sources of information are you using that lead you to believe that people of color and the traditionally unbanked are among your primary customers?
  - f. Please provide a report that includes a detailed breakdown of the demographic information of both the consumers and populations your companies market products to and the users of your company's products.

**Response:** Bitfury Group's core business is bitcoin mining; we produce a commodity and sell it in markets. Our other business lines are B-to-B. Our customers are not individual consumers.

40. **To all witnesses,** there is concern about the protection of the personal and transactional data and the digital finances of users of digital payments and assets, including the average consumer or small business owner using these products to make an online purchase, send money to family overseas, or complete transactions with their customers.
- a. Do most stablecoin issuers and exchanges shift the risk related to cybersecurity to the user? What responsibility lies with the issuer, wallet, or exchange?
  - b. How do issuers and exchanges secure the personal and financial data of its users? Based on what standards? Are data protection and disclosure policies shared in full with all users?
  - c. How does your company ensure that the financial transactions, like bank transfers or payments that are authorized by a consumer from their bank account, are secure from theft, fraud, hacks, and other cyber-enabled financial crimes?

**Response:** Bitfury Group is not in the stablecoin business. Speaking as a former U.S. financial regulator and a person who formerly worked at a company with a stablecoin business, I believe that the risk-shifting is not unlike that in other payment forms (e.g.,

wire transfers, prepaid debit cards, other online banking, etc.). Hacking of the blockchain is very different from hacking an individual consumer's personal crypto wallet.

46. **To all witnesses,** every innovation has its downsides. What do you consider to be the downsides of crypto innovation, both for the parties to crypto transactions, and for people who don't use crypto?

**Response:** I have a high degree of conviction that the net effect of blockchain and crypto is positive for society. As transactions go on-chain, late adopters of the technology will be at a disadvantage compared with earlier adopters, similarly to, as in the 1990s, the "digital divide" that arose between early and late adopters of the internet. The "digital divide" was not a downside of the internet, it was something that understandably happened as hundreds of millions of consumers felt their way through how to understand and adopt something entirely new to them and others are at an economic disadvantage in their ability to adopt the new technology early in its lifecycle. In a pluralistic society such as ours, some people will choose not to avail themselves of new technologies. For example, electric vehicles are better for the climate, and it is not a downside of electric vehicles that some consumers fail to adopt or delay adopting them. Or, more recently, the vaccines developed to fight COVID-19 were an innovation that produced significant health benefits; the fact that a nontrivial minority of people have chosen not to take the vaccine is not a downside of the vaccine itself. Finally, some things that might be considered downsides may actually be benefits. For example, is it a benefit or a downside that bitcoin could one day compete with the US dollar as a currency (at least in the sense of a store of value)? While such a development could in theory potentially limit central banks' future control of monetary policy – a potential downside – that potential could also serve as a check on inflationary monetary policy, which is a downside of the status quo.

48. **To all witnesses,** do you collect information from your customers about the ways in which they save and invest and their investment goals? Follow up as appropriate--
- If voluntary, about how many of your customers provide the information?
  - What information do you collect?
  - What safety protocols do you have in place for this information?
  - If you don't collect this information, then what sources of information are you using that has led you to believe that so many of your customers were previously unbanked?

**Response:** Bitfury Group's core business is bitcoin mining; we produce a commodity and sell it in markets. Our other business lines are B-to-B. Our customers are not individual consumers.

51. **To all witnesses,** consumer and investor experts have stated that some of the largest digital asset trading platforms frequently allow off chain transactions to occur, which are transactions that are internalized or executed within the platform and not on a public blockchain. Please describe your off-chain transaction practices, and how you address the risk of double spending when a transaction is executed off of the chain upon which it was originally issued.

a. Please specify what measures you adopt to ensure that as a digital asset exchange, you do not take advantage of information the platform gleans from off chain transactions.

**Response:** Bitfury Group is not a digital asset trading platform, therefore this question does not apply to Bifury Group.

52. **To all witnesses,** regarding hacking incidents, according to one analysis, in 2021 alone, over \$7 billion was hacked from platforms and issuers of digital assets.<sup>45</sup> Please describe your understanding why these hacks are so frequent in your industry.

a. What measures are you taking to safeguard customers' assets and prevent bad actors from harming customers and damaging market integrity?

**Response:** Bitfury Group is not a digital trading platform, therefore we do not custody consumer assets. However, our portfolio company Crystal has worked with law enforcement agencies and financial institutions in more than 50 countries to help identify or track bad actors in security breaches totaling \$2 billion in 2021.

**Question from Representative Nikema Williams:**

3. **To all witnesses,** as we write the rules of the road around digital assets, what recommendations do you have to maximize financial inclusion and economic prosperity for those who have barriers to accessing the financial system? What do you think about the promise of a Central Bank Digital Currency in addressing financial inclusion concerns for the unbanked?

**Response:** It is important that we do not lock low- and middle-income consumers out of wealth-creation activities through things like the Accredited Investor Rule (i.e., that only wealthy investors have access to new, innovative financial products that have high growth potential).

We should be careful how we approach regulating self-hosted wallets because they provide a fee-free way for people to manage their own assets without paying fees to banks or other intermediaries.

We should be willing to reexamine the entire suite of legacy financial regulations to assess their applicability to crypto, because it is legacy regulations that produced the environment that created the current disparities in financial inclusion.

We should pay particular attention to the role that crypto plays in international remittances, which are very important in immigrant communities (many members of which are unbanked or underbanked).

Regarding Central Bank Digital Currencies, in my opinion stablecoins have a better chance of enhancing financial inclusion without the negative aspects of Central Bank Digital Currencies.

**Paxos Response to QFRs from 12/8/2021 HFSC Hearing**

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[Foster Questions](#)  
[Waters Questions](#)  
[Williams Questions](#)

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**FOSTER (R-IL)**

My questions concern your preferred implementation of such an identity system, in particular:

- 1) Who should be allowed to issue—and, if necessary, revoke—such an identity?

Paxos exercises the control and enforcement of our Compliance policies and standards as to which end customers may gain access to Paxos' ecosystem. Only verified individuals are allowed a unique identity and access to the Paxos platform. If our terms and conditions are violated, we will revoke access to our systems.

- 2) What features are desirable for maximum preservation of user privacy, while at the same time allowing a legally traceable identity?

Paxos takes measures to ensure personal identifiable information (PII) of customers is safeguarded in our internal systems and is tokenized. Internal tokenization of customer data allows us to properly conduct appropriate compliance monitoring of customer activity.

- 3) How do you envision such a regime would operate internationally?

All customers - international or domestic - should be subject to the same standards for onboarding and compliance. Paxos applies US KYC/AML requirements to all global customers, ensuring international customers receive the same level of oversight and service.

- 4) Are there technical considerations that would prevent such a legally traceable identity to be used for automated collection of taxes, similarly to payroll, interest, or financial taxes?

While there are technical considerations to implement such processes, this could be addressed by building specific solutions.

- 5) What measures will be necessary to prevent wash trades and similar abuses in crypto asset trading, where persons operate multiple digital identities to defraud the market? Is there an alternative to biometrically de-duplicating lists of market participants, and the prohibition of opaque shell corporations, in order to prevent these abuses?

Paxos has in place monitoring and built-in product controls to prevent market manipulation schemes like wash trading and to identify potential instances of spoofing and futures price manipulation. As part of Paxos' KYC process and standards, we require customers to submit government identity documentation and to conduct a liveness check prior to opening a Paxos account as part of our identity verification process. Additionally, as part of our KYC and due diligence process, we do not allow the onboarding of shell corporations and require the collection and verification of beneficial owners for all legal entity customers. As part of Paxos' Beneficial Ownership verification process, we do not allow the submission of non-natural person information.

- 6) Should more relaxed identity requirements be implemented for trading in assets with fixed valuations (like stablecoins), where wash trades are not of concern but legal traceability is still required?

KYC and CIP is an important standard that we uphold to ensure we understand who our customers are and how they are using Paxos. Identity requirements should not be relaxed in this instance. Of equal importance is ensuring that we are not allowing any access to denied or specially individuals or entities (e.g. OFAC) to access Paxos systems. Paxos' KYC program and standards are core to ensuring we have a robust sanctions program and controls in place to safeguard Paxos' products and services, our customers, and the broader digital asset ecosystem.

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**WATERS (D-CA)**

1. **Mr. Cascarilla**, earlier this year, the Office of the Comptroller of the Currency (OCC) granted Paxos conditional approval to be a national trust bank charter.<sup>22</sup> The bank, according to the OCC, will provide a range of services associated with digital assets that are permissible for a national bank, including custody services for digital assets; custody and management of USD stablecoin reserves; payment, exchange, and other agent services; other cryptocurrency services, such as trading services and enabling partners to buy and sell cryptocurrency; and Know-Your-Customer as a service, which includes customer identification, sanctions screening, enhanced due diligence, customer risk rating, and other related services. However, unlike most banks, the Paxos National Trust would be an uninsured bank that would not be subject to consolidated supervision and other restrictions limiting affiliations with commercial entities as is generally required under the Bank Holding Company Act.

- a. **Why did Paxos pursue this charter instead of a normal national bank charter?**

Paxos pursued a National Trust Bank charter because we believe we can provide higher levels of oversight with a consistent and comprehensive regulatory framework. Paxos has built thorough oversight by securing an NYDFS Trust Charter, Money Transmitter Licenses and Money Services Business registration, but this approach is time-intensive and difficult to ensure comprehensive oversight as we scale. In addition, unlike a depository bank, a non-depository national trust bank does not accept deposits and then loan them out to other customers; rather, a national trust bank operates on a custody model and is required to hold all customer assets without loaning them out. This lower risk profile is consistent with Paxos' business model and risk tolerance. The OCC has a long history of responsibly and comprehensively supervising such non-depository trust banks. We believe a National Trust Bank charter would allow Paxos to better serve and protect our US customers, and we look forward to opening Paxos National Trust.

- b. What do you say to critics of this action who believe this was an attempt to enjoy the economic benefits of a bank charter while avoiding the prudential requirements that traditional banks must comply with?

Pursuing a National Trust Bank charter is time intensive and expensive. Paxos has dedicated significant resources to this effort in the last year and a half. If we were concerned with immediate financial gain, we would not have pursued this regulatory oversight. This effort is about ensuring greater protections to our customers through a National Trust Bank structure.

2. **To all witnesses**, in 1946, 75-years ago, the Supreme Court in SEC v. Howey determined that the offer of a land sales and service contract for orange groves was an investment contract within the meaning of the Securities Act of 1933. This case established the "Howey Test" which is the basis for determining whether a financial instrument is an investment contract. The Howey Test is as broad as it is simple. Premised on a 4-part test, under Howey, a financial instrument is an investment contract where: (1) there is an investment of money; (2) in a common enterprise; (3) with the expectation of profits; and (4) derived from the efforts of others.

- a. **Mr. Cascarilla**, as the CEO of Paxos, please answer:

- i. Where is Paxos incorporated, and where is its principal place of business?

Paxos Trust Company is a New York State limited purpose trust charter overseen by the New York Department of Financial Services. Our primary headquarters is New York City, which is our principal place of business.

- ii. On Paxos' website, you claim that USDP, your stablecoin, has "100% cash reserves". What financial instruments are used to back USDP (Pax Dollar)?

Paxos' website states that "USDP reserves are held in cash and cash equivalents". As previously disclosed in a public blog post and consistent with account principles generally accepted in the United States, "cash equivalents" are defined as are short-term, highly liquid investments that have both of the following characteristics:

- Readily convertible to known amounts of cash
- So near their maturity (three months or less) that they present insignificant risk of changes in value because of changes in interest rates.
- All cash equivalents are held in the form of US Treasury Bills with maturities of 3 months or less or overnight repurchase agreements, overcollateralized by US Treasury instruments.
- Cash balances are held in USD at United States based insured depository institutions.

- iii. What is the frequency in which Paxos rebalances or tops off the underlying assets so that there are 100% cash reserves?

Paxos' stablecoins are 100% reserved at all times. Rebalancing only occurs to the extent necessary to shift operational liquidity.

- iv. Is USDP free or does an investor have to pay for USDP?

Paxos does not charge customers to create new USDP tokens or to redeem those tokens for dollars.

- v. Why do investors purchase USDP? Are holders of USDP entitled to interest, investment benefit, or other financial remuneration?

USDP buyers are not investors. Investors expect a return on investment. USDP buyers purchase our stablecoins with an understanding that they are a digital equivalent of the U.S. dollar. They purchase USDP as a mechanism for dollar transactions. All USDP are 100% backed by cash & cash equivalents held in segregated accounts at FDIC insured banks. The buyers are guaranteed the dollar equivalence and do not receive interest investment benefits or other financial remuneration.

- vi. How is USDP different from a SEC registered money market fund, an investment product designed to maintain a stable asset value?

USDP and SEC registered money market funds are functionally very similar products. Both are fully-backed by cash and cash equivalents. However, with USDP, there is no expectation of profit. Investors in money market funds expect a yield on their investment. Furthermore, USDP is not a broadly marketed product, unlike money market fund securities.

- vii. **Mr. Cascarilla and Mr. Brooks**, of all of the stablecoins you have issued, what percentage is held by the five biggest holders? By the top twenty biggest holders?

A real-time breakdown of balances held by the wallet can be found at the links below. All balances are



maintained on a public blockchain so that information can be retrieved in real-time, at any time.

- **USDP:** <https://etherscan.io/token/0x8e870d67f660d95d5be530380d0ec0bd388289e1#balances>
- **BUSD:** <https://etherscan.io/token/0x4fabb145d64652a948d72533023f6e7a623c7c53#balances>

- (5) **Mr. Cascarilla and Mr. Brooks**, what percentage of transactions consummated using your stablecoin involve purchasing non-crypto goods and services?

Paxos stablecoins are used to facilitate dollar-denominated transactions. It is impossible to breakdown the purpose or detail of transactions today.

1. **Mr. Cascarilla**, Paxos runs Binance's stablecoin BUSD. In your view, are you subjecting yourself to serious reputational risk, given that Binance has been subject to regulatory actions by Germany's BaFin<sup>23</sup>, Japan's Financial Services Agency<sup>24</sup>, Malaysia<sup>25</sup>, Hong Kong<sup>26</sup>, and the UK's FCA<sup>27</sup>?

Paxos is the sole issuer and operator of BUSD. BUSD is simply a white-label version of our regulated, fully-backed digital dollar Pax Dollar (USDP). BUSD has all of the same properties, operations and oversight as USDP. Binance is a branding and marketing partner when it comes to BUSD, but is not involved in any operations of the stablecoin and does not manage the reserving practices of BUSD. Paxos engages in ongoing due diligence of all of our partners and takes appropriate steps in order to manage reputational risk.

- a. Regarding as your company has not registered your stablecoin as a security, please explain the rationale behind not registering with the SEC.

Under relevant securities laws, USDP and BUSD are not securities and therefore are not subject to SEC registration. Paxos stablecoins USDP and BUSD are digital representations of the U.S. dollar. All reserves of USDP and BUSD are held in cash and cash equivalents. No holder of USDP or BUSD has any expectation of profit because there is no return associated with holding these stablecoins.

2. **Mr. Cascarilla**, while your partnership with Facebook is reportedly a pilot limited to a number of users in Guatemala and the U.S., what is stopping Facebook from, in the future, allowing its nearly 3 billion monthly active users to make payments and save funds with a Pax Dollar or other privately issued stablecoin through a Novi wallet? If this were allowed at such a scale, how would this not undermine the U.S. dollar as the world's reserve currency?

Facebook is a customer of Paxos. Facebook Financial has enabled access to USDP in its Novi wallet in a limited scale pilot. As for Facebook's aspirations with Novi and USDP, that is a question for Facebook. Any use of USDP on a larger scale would only further reinforce the U.S. dollar as the world's reserve currency as USDP is a digital representation of U.S. dollars. Every USDP in circulation is backed by cash and cash equivalents held in custody by Paxos Trust Company.

3. **Mr. Cascarilla and Mr. Bankman-Fried**, some scholars have suggested that CBDCs and stablecoins have the potential to provide low-income and unbanked communities with access to banking and digital payments, and could provide the benefits of digital transactions for small, mom-and-pop businesses, such as street vendors. Meanwhile, some believe the shift to a more cashless economy, encouraged by the proliferation of digital currencies, could also harm the economically marginalized communities with limited digital access and financial literacy as much as they could help those same communities.<sup>30</sup>

- a. What is the uptake and use of stablecoins among low-income and unbanked households?

We cannot quantify the uptake and use of stablecoins among low-income and unbanked households, but we suspect that this specific use case makes up a small percentage of total transactions for stablecoins today. However, outside the United States, we suspect that a significant number of unbanked and underbanked use stablecoins. Paxos exists specifically to build infrastructure to enable an open, digital economy.

- b. In your view, will the global financial system become more inclusive with the continued proliferation of digital currencies and payments?

Because of the broad availability of smartphones, computers and other means for digital communication, we believe the traditional barriers to the banking system will go away. By eliminating traditional barriers, the global financial system will become more inclusive.

- c. If yes, how would that system work for communities traditionally left out of the banking system, including those who don't have a bank account today?

Digital assets allow value to be transferred bilaterally, securely and instantaneously without the need for a traditional bank account. A blockchain based economy would eliminate barriers and create a more equal system accessible to anyone with a smartphone or internet connection.

4. **Mr. Allaire and Mr. Cascarilla**, earlier in November, the President's Working Group on Financial Markets issued its report on stablecoins. The working group describes key issues with stablecoins which include: the nature of reserve assets; redemption variations; the lack of transparency among 'permissioned blockchains,' custody of the reserve assets, the unreliability of the wallets, and settlement and distribution issues. As some of the largest stablecoin issuers by market capitalization,<sup>31</sup> what steps are you taking to address these concerns?

Paxos seeks the highest levels of regulation and oversight. We issue and operate stablecoins subject to NYDFS approval and oversight, including but not limited to reserving practices, redemption flows and information security. Additionally, Paxos is pursuing a National Trust Bank charter from the OCC because we believe federal oversight will further protect our customers' interests.

5. **Mr. Allaire and Mr. Cascarilla**, the President's Working Group on Financial Markets recently published its report on stablecoins and highlighted the concern for regulators that this subset of cryptocurrencies supposedly backed by reserve currencies may not be fully backed. Additionally, the report raised potential financial stability concerns because of their rapidly growing size, with stablecoins growing from \$30 billion to approximately \$130 billion in the last year and are projected to grow roughly tenfold to \$1 trillion by 2025. However, one of your recommendations is to make stablecoin issuers become fully insured depository institutions. Critics of this proposal have expressed concern that requiring a stablecoin issuer to have a banking charter, backed by FDIC deposit insurance, would validate private money in the form of stablecoins, to the detriment of the U.S. dollar and its role as the global reserve currency.

- a. What do you both think of the PWG proposal that stablecoin issuers must be insured depository institutions?

We disagree with the PWG proposal that stablecoin issuers should be insured depository institutions. We believe a limited purpose trust structure is a safe and effective model for stablecoin issuers. In fact, our customers' assets are more secure and less exposed to bank-run risks than assets held at traditional depository institutions. As a trust company, we are not a depository institution, we do not make loans to customers and we do not lend customer assets. Customer assets are not fractional.

- b. Can you make a commitment that your products will in no way undermine the value of the U.S. dollar as the pre-eminent currency of our global economy?

Yes. Paxos stablecoins neither create nor replace U.S. dollars, they represent only a perfect equivalence of a dollar that is already in circulation. Therefore, Paxos stablecoins have no impact on U.S. dollar monetary supply. But, Paxos stablecoins may provide a benefit over time by increasing the velocity of U.S. dollars.

6. **To all witnesses**, Decentralized Finance, or DeFi, is an especially fast-growing area within the digital asset industry, reportedly reaching more than \$100 billion in size in November 2021, up from around \$21 billion only a year ago. DeFi generally refers to the use of digital assets and blockchain technology to replicate and replace conventional delivery of financial services without central financial intermediaries such as brokerages, exchanges, transfer agents, or banks. However, SEC Commissioner Crenshaw recently warned that DeFi is risky, with DeFi promoters flouting their legal obligations, and that investors may lose their money as they are not provided with the detail needed to assess risk likelihood and severity.<sup>33</sup>

- a. How is your company currently engaged in DeFi activities?

Paxos Trust Company does not promote, manage or direct customers to participate in DeFi protocols.

- b. How do you manage risks for your DeFi products, and how do you abide by your Know-Your-Customer requirements?

Paxos Trust Company does not promote, manage or direct customers to participate in DeFi protocols.

- c. Do your customers understand the risks of using DeFi, and if so, what do you do communicate these risks?

Paxos Trust Company does not promote, manage or direct customers to participate in DeFi protocols.

7. **Mr. Cascarilla**, metrics by the crypto-analytics firm Glassnode show that over 65% of the Pax Dollar supply as of November 11, 2021 was held in smart contracts<sup>34</sup>—indicating they're being used in Decentralized Finance or DeFi. FinCEN recently warned that Ransomware-related payments are being converted to other types of crypto through DeFi. Given the high portion of Pax Dollars on DeFi, which lacks checks against illicit finance, that means Pax Dollar may be utilized to convert ransomware payments from one crypto asset to another. The Pax dollar supply lives in the most unregulated part of the crypto ecosystem. Please share your thoughts on this.

- a. How are you ensuring terrorists and other bad actors don't redeem Pax Dollar? Do you check every crypto address against the sanctions (SDN) list, as required by recent OFAC guidance<sup>35</sup>?

As part of Paxos' AML and sanctions program, we conduct both real-time checks and post-processing monitoring of our customers' cryptocurrency transaction activity leveraging Chainalysis (industry leading blockchain monitoring provider). As related to real-time monitoring, at the time of a crypto transfer we will screen our customer's underlying wallet address (withdrawal flow - where a customer is sending crypto to; deposit flow - where a customer is receiving crypto from) to understand if the wallet address is associated with a high risk wallet cluster prior to allowing the transaction to proceed. High risk wallet associations may include, but are not limited to, identified high risk and sanctioned jurisdictions (e.g. Iran, Venezuela), terrorist financing, and darknet markets. In addition to real-time checks, we also have in place post-processing monitoring of cryptocurrency activity as Chainalysis conducts ongoing risk scoring and attribution of wallet addresses to ensure we're able to capture any new risk indicators and intelligence as identified by Chainalysis. These screening and monitoring controls are applicable to all crypto assets supported on our platform. It should also be noted that Paxos does not support any service or payments associated with ransomware.

1. **Mr. Cascarilla**, your USDP stablecoin is an ERC20 token on the Ethereum blockchain -- which uses Proof of Work mining.

- a. What steps, if any, is Paxos planning to take to mitigate the harmful climate impacts of Proof of Work mining -- which include excess energy consumption and electronic waste?

Paxos is not involved in any mining activities or blockchain protocol development which would dictate energy consumption.

- b. While the Ethereum foundation has repeatedly stated it intends to transition from Proof of Stake to Proof of Work, the timeline for when this will happen continues to be delayed -- can you provide an update on this migration?

Paxos does not have any visibility into the migration of Proof of Stake to Proof of Work by the Ethereum Foundation.

1. **To all witnesses:** After the murder of George Floyd by the police last year, hundreds of companies, including tech companies, made public pledges to promote racial equity. However, these commitments have not correlated to an increase in workforce diversity within tech companies. A 2021 study of the technology industry found that companies that made public commitments had 20% fewer Black employees on average than those that didn't.<sup>36</sup>

- a. Do you consider the lack of diversity within tech companies and in the digital assets industry a hindrance to the progress of the field?

Yes. We believe that diversity is crucial to the long-term success of our company and our products.

- b. Have your companies made commitments to promote equity and inclusion within your company and in the industry?

Paxos has long had a commitment to diversity and is always committed to creating a more diverse workforce. We have recently brought on our first Chief People Officer who is explicitly tasked with bringing more diverse talent to our company.

- c. According to one recent report, between 2014-2021, among the 240 tech companies they surveyed, the diversity of their workforces has not grown significantly. For example, proportion of women employees increased by 2.14% points, and that of Black employee representation increased by just 0.36% points.<sup>39</sup> Do you see a similar trend in the crypto industry?

Yes. We see similar trends in the crypto industry.

- d. Please describe which, if any, concrete actions are your respective companies considering to increase diversity among your workforce?

We have recently brought on our first Chief People Officer who is explicitly tasked with bringing more diverse talent to our company.

2. **To all witnesses**, it is troubling that there is little to no publicly available data about the demographics of consumers who your companies market your products to, including the demographics of users, and whether you target your products to those who are financially disadvantaged.

- a. Do you collect demographic information on your customers?

Paxos does not collect demographic data of its customers. The company only collects personally identifiable information that is required to ensure the thorough, compliant onboarding of customers to our platform.

- b. If so, please describe the type of information you collect from customers.

Paxos does not collect demographic information on its customers.

- c. If voluntary, about how many of your customers provide the information?

Paxos does not collect demographic information on its customers.

- d. What protocols do you have in place for protecting consumers' personal identifying information and securing this information?

We have extremely robust internal controls as demonstrated by our SOC2 Type 2 accreditation. In addition, any Personal Identifying Information (PII) controlled by Paxos, or processed by Paxos on behalf of the data controller, is managed as required by both relevant legal and regulatory requirements as well as Paxos' own privacy policies. Paxos implements tools to monitor permissions for sensitive files on the Company document management system (eg, files with PII or financial data) as well as third-party application access to any corporate credentials. The access controls at Paxos employ a "least privilege" principle. Furthermore, PII and non-public information is stored and transmitted in an encrypted format.

- e. If you don't collect demographic data, then what sources of information are you using that lead you to believe that people of color and the traditionally unbanked are among your primary customers?

Paxos is a B2B blockchain infrastructure platform that primarily serves enterprise customers. Our clients are companies like PayPal, Venmo, Interactive Brokers and others. Our clients can more specifically speak to the demographics of their end users.

- f. Please provide a report that includes a detailed breakdown of the demographic information of both the consumers and populations your companies market products to and the users of your company's products.

Paxos is a B2B blockchain infrastructure platform that primarily serves enterprise customers. We market our products to strategy and business development leaders at global financial institutions and technology companies.

3. **To all witnesses**, there is concern about the protection of the personal and transactional data and the digital finances of users of digital payments and assets, including the average

<sup>38</sup> [State of DEI in Tech 2021](#), Blendoor (2021).

<sup>39</sup> *Id.*

consumer or small business owner using these products to make an online purchase, send money to family overseas, or complete transactions with their customers.

- a. Do most stablecoin issuers and exchanges shift the risk related to cybersecurity to the user? What responsibility lies with the issuer, wallet, or exchange?

Risks associated with stablecoins are commensurate with those of other cryptos. Nonetheless, Paxos maintains a formal Information Security program consisting of employee education, engineering resources and training, collaboration with executives, product managers, developers, site reliability engineers (SRE), compliance and legal teams. Paxos undertakes these initiatives in order to minimize risk and protect our customers' assets.

- b. How do issuers and exchanges secure the personal and financial data of its users? Based on what standards? Are data protection and disclosure policies shared in full with all users?

We have robust internal controls as highlighted by our SOC 1 & 2 designations. Paxos Privacy Policy is shared publicly on our company website and [linked here](#).

In addition, any Personal Identifying Information (PII) controlled by Paxos, or processed by Paxos on behalf of the data controller, is managed as required by both relevant legal and regulatory requirements as well as Paxos' own privacy policies. Paxos implements tools to monitor permissions for sensitive files on the Company document management system (eg, files with PII or financial data) as well as third-party application access to any corporate credentials. The access controls at Paxos employ a "least privilege" principle. Paxos stores all non-public information in encrypted format, under its policies governing the handling of PII. PII and non-public information is also encrypted in transit.

- c. How does your company ensure that the financial transactions, like bank transfers or payments that are authorized by a consumer from their bank account, are secure from theft, fraud, hacks, and other cyber-enabled financial crimes?

As a New York State Trust Company, Paxos adheres to transaction monitoring, sanctions screening, and cybersecurity regulations as mandated by the New York State Department of Financial Services. Our Compliance Program consists of the following elements which span across all businesses at Paxos: consumer protection, anti-money laundering (AML) and sanctions, anti-bribery and corruption, market manipulation, insider trading, and fraud, and regulatory and law enforcement inquiries and third-party risk management.

Paxos has an extensive schedule of both internal and external audits that review our processes, engaging with number of nationally recognized professional services firms to execute the following:

- Internal Audits: Paxos maintains a fully independent internal audit function, which uses a risk based approach to develop an annual internal audit plan. Coverage focuses on high risk areas such as BSA/AML and information security.
- SOC Reports: Paxos has achieved both SOC 1 Type 2 and SOC 2 Type 2 certifications, verified by a third-party, independent auditor.

4. **Mr. Cascarilla**, please describe the extent to which cryptocurrencies that are used to remit funds to individuals in other countries receive the same protections that consumers get when they use traditional currency to remit funds.

- a. With respect to Facebook's Novi pilot program, should a user attempt to send Paxos' USDP coins to a contact in Guatemala, and those funds were converted to their local currency, would that user receive the same disclosures as the Consumer Financial Protection Bureau requires with respect to exchange rate and other fees for traditional remittances?

This question pertains to operations on Facebook's Novi platform. Paxos cannot speak on behalf of Novi as to what disclosures its customers receive.

1. **To all witnesses**, every innovation has its downsides. What do you consider to be the downsides of crypto innovation, both for the parties to crypto transactions, and for people who don't use crypto?

Like any new technology, there is a learning curve associated with adoption.

2. **To all witnesses**, do you collect information from your customers about the ways in which they

save and invest and their investment goals? Follow up as appropriate--

a. If voluntary, about how many of your customers provide the information?

Paxos is a financial infrastructure provider and does not collect this information.

b. What information do you collect?

Paxos is a financial infrastructure provider and does not collect this information.

c. What safety protocols do you have in place for this information?

Paxos is a financial infrastructure provider and does not collect this information.

d. If you don't collect this information, then what sources of information are you using that has led you to believe that so many of your customers were previously unbanked?

Paxos is a financial infrastructure provider and does not collect this information.

3. **To all witnesses**, consumer and investor experts have stated that some of the largest digital asset trading platforms frequently allow off chain transactions to occur, which are transactions that are internalized or executed within the platform and not on a public blockchain. Please describe your off-chain transaction practices, and how you address the risk of double spending when a transaction is executed off of the chain upon which it was originally issued.

a. Please specify what measures you adopt to ensure that as a digital asset exchange, you do not take advantage of information the platform gleans from off chain transactions.

Paxos Trust Company does not engage in proprietary trading.

4. **To all witnesses**, regarding hacking incidents, according to one analysis, in 2021 alone, over \$7 billion was hacked from platforms and issuers of digital assets.<sup>45</sup> Please describe your understanding why these hacks are so frequent in your industry.

a. What measures are you taking to safeguard customers' assets and prevent bad actors from harming customers and damaging market integrity?

Paxos has a formal Information Security program in place, consisting of employee education, engineering resources and training, collaboration with executives, product managers, developers, site reliability engineers (SRE), compliance and legal teams. The program is supported by a formal Cyber Risk Assessment, which informs the Information Security Policy, Acceptable Use Policy, Bring Your Own Device policy, and to an extent, the Physical Security policy.

The Information Security program has been expanded and grown rapidly since September 2019. The Chief Information Security Officer (CISO) reports monthly to an internal Risk Committee on status, newly identified and mitigated risks, and progress tracking towards risk and mitigation. The CISO also reports at least quarterly to the Board-level Compliance and Risk Management Committee, which tracks these risks and provides strategic guidance.

Paxos Information Security policies align with a range of regulatory rule sets, such as:

- ISO27001/2 (IS Management Systems Requirements) and ISO27017 (Controls for Cloud Services) standards
- New York Department of Financial Services (NY DFS) Cybersecurity Requirements for Financial Services Companies (23 NYCRR 500)
- Gramm-Leach-Bliley Act (GLBA)
- Cybersecurity guidance from the Securities and Exchange Commission (SEC)
- Federal Financial Institutions Examination Council (FFIEC)
- United States Department of the Treasury
- Office of the Comptroller of the Currency (OCC)
- Texas Department of Finance, and
- Other industry rulesets such as cybersecurity guidance from the Society for Worldwide Interbank Financial Telecommunication (SWIFT) and the Depository Trust Corporation

In addition to our Information Security Program, our Compliance Program includes blockchain monitoring and in-house compliance features.

Paxos deploys blockchain monitoring utilizing industry-leading tools to identify association to known clusters of blockchain addresses and provenance of funds, including a blockchain monitoring system to identify high risk activity with attribution and cluster analysis for sanctioned addresses, darknet markets,



fraud, ransomware, and anomalous transactions.

Paxos develops in-house compliance features to augment its Compliance Program, including an automatic customer-facing confirmation process for all crypto withdrawals and a compliance-controlled blocklist of wallet addresses to prohibit withdrawals to such addresses. The Paxos Compliance team can de-confirm or remove addresses from the internal allow list as warranted. We also perform real-time analysis of potential fraud risk for withdrawals off platform.

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**WILLIAMS (D-GA)**

I am a Congresswoman who has been unbanked, and I've had to rely on cash to get by. Looking back, it's difficult to imagine using digital currency at a time when I did not even have access to a bank account.

1. Mr. Cascarilla, how will digital currencies and payments work for groups traditionally left out of the financial system, including those who are unbanked, underbanked, or lack financial literacy? Isn't it true that you still need internet connectivity or cell phone access and some technical knowledge to use these products? And if so, isn't that yet another barrier to entry that may affect my constituents?

Access to the internet is needed in order to participate in the digital asset economy, but given the proliferation of smartphones and broadband in the last decade, we believe that in the long-term internet access will not be a hindrance to the adoption of digital assets. Paxos exists to build the infrastructure needed to connect the digital ecosystem to traditional assets. The legacy financial system does not yet have the technological capabilities to enable digital assets. Paxos is building the infrastructure that will reduce and eliminate barriers.

How different demographic groups use stablecoins now could tell us a lot about who may be left behind in a more cashless society and the work we have to do to promote financial inclusion in an increasingly digital financial system.

2. Mr. Cascarilla, do you have demographic data of stablecoin users, and how could we use this kind of data to inform our policy decisions on this committee?

Paxos does not collect demographic information on its customers. It does not have demographic data on general stablecoin users.

I've come from being unbanked to being a Congresswoman, and I'm determined to hold the door open for more people like me to experience financial inclusion.

3. To all witnesses, as we write the rules of the road around digital assets, what recommendations do you have to maximize financial inclusion and economic prosperity for those who have barriers to accessing the financial system? What do you think about the promise of a Central Bank Digital Currency in addressing financial inclusion concerns for the unbanked?

There is a need to balance maximizing financial inclusion with ensuring consumer protections for those who have barriers to accessing the financial system. That said, clear standards for issuers of digital assets, and for the definitions of digital assets (e.g. stablecoins vs. securities), are necessary first steps to maximize inclusion. From there, the existence of strong state and federal licensing standards, which include regular examinations of issuers and products by a primary regulator, will help maximize financial inclusion. This will provide unbanked and underbanked communities with confidence in the legitimacy of these innovations. Widespread adoption and the lower costs associated with blockchain technology will ensure that consumers keep a larger percentage of their money. This will support economic prosperity in communities who currently pay a disproportionate percentage of their income in financial transaction costs.





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Chairwoman Maxine Waters  
 2221 Rayburn House Office Building  
 Washington, DC 20515

February 28, 2022

**Re: Questions for the record, House Committee on Financial Services: “Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of Financial Innovation in the United States”**

Dear Chairwoman Waters,

Thank you for your questions following the December 8, 2021 hearing, “Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of Financial Innovation in the United States,” before the House Financial Services Committee. Our organization was honored to be invited to testify and share more about the use cases being built on the Stellar network.

As we shared in the testimony at the hearing, our organization, the Stellar Development Foundation or SDF, is a non-stock, non-profit corporation with no shareholders, no owners, and no profit motive. We are not a charity. We generate revenue and we pay state and federal taxes, but our structure requires us to use our assets to support only our mission of creating equitable access to the global financial system and to do so using the Stellar network. To achieve this mission, we focus our work on a few top priorities: we shepherd the code base for the Stellar network, participate in the ecosystem surrounding Stellar, support the growth of the ecosystem and the use cases built on top of Stellar, in addition to supporting global public policy and education around Stellar and blockchain.

The Stellar network is an open, permissionless, decentralized ledger — or blockchain network — that is optimized for payments. There is no single entity, including SDF, that controls the codebase of the network or its growth. You don’t need permission to use the technology; just like the underpinnings of the Internet, it is open and ready for use.

Importantly, SDF does not engage directly with end-users of the Stellar network. With that understanding, we have focused our responses on the questions for which we are best positioned to provide valuable insights, namely around protocol level considerations and specific features of our network and organization.

**Question:** Ms. Dixon, the cryptocurrency market has grown exponentially in the past few years, with its global market value being approximately \$578 million in November 2020 to hitting \$3 trillion last month.<sup>29</sup> Due to this growth, and the possibility that these volatile products can be used as payments, there is growing concern that the U.S. dollar’s position as the dominant currency is being put into question. A central bank digital currency, or CBDC, may be needed to ensure the preeminence of our fiat currency in the global economy. The Fed has still not released its long-awaited discussion paper on

global payments and central bank digital currencies.

- a. Do you think we have a need for a U.S.-based central bank digital currency? If so, what do you think a U.S. CBDC should look like, and how important is it that privacy and financial inclusion are addressed in its design?
- b. How would a CBDC interact with existing private sector cryptocurrency products, such as stablecoins?

**Response:** We believe that a central bank digital currency can have far reaching benefits both in emerging economies and developed markets, especially for the unbanked and underbanked. We see CBDCs as an evolution of public goods, that support the realization of an “internet of money” that makes sending payments as easy as sending an email, on systems that are available to everyone. Today’s technological advances can certainly help in building a more efficient and more inclusive financial system, and central banks need to embrace such innovation, including CBDCs.<sup>1</sup> As the world becomes increasingly digitized, there is a growing reliance on digital money that is not issued or directly backed by central banks (and not equally available to all). Therefore, in order to continue playing the role of offering trusted money and a public good that is available to all, central banks, including the Fed, should explore the possibility of issuing a CBDC.

In the United States specifically, we believe a CBDC could play an important role in expanding the access and usage of central bank money in a secure, transparent, innovative, and competitive environment. It could promote financial inclusion, improve welfare, and boost job creation and economic participation, both for individuals and small businesses. A CBDC could also enable more affordable and efficient cross-border transactions.

With respect to what a U.S. CBDC should look like, we agree with the international consensus that the best avenue for CBDC development involves dividing the aspects of a CBDC between public and private stakeholders in much the same way current two-tiered systems do. Central banks would be responsible for the currency by governing and controlling the monetary aspect of a CBDC, while the private sector would lead efforts on the technological side by providing appropriate financial infrastructure and innovative end-consumer products such as digital wallets<sup>2</sup> and remain responsible for applicable compliance obligations. Under this option, an open network could provide the infrastructure to build a CBDC giving the appropriate control and certainty of a centralized system but leveraging the possibility to innovate in a competitive environment as consumer needs evolve.

Additionally, we believe that a U.S. dollar CBDC should be issued on an open network to enable more open competition and experimentation. Allowing private sector innovators more direct access to the infrastructure on which a CBDC is issued will lead to a wider variety of financial services, especially for those that may be underserved in today’s system. The alternative of a closed-network CBDC runs the risk of returning to the siloed world we experience today with traditional banking rails.

There are many technical and policy considerations for central banks to weigh when making building and

<sup>1</sup> Bank for International Settlements, [The future of money and the payment system: what role for central banks?](#) Lecture by Agustín Carsten, General Manager at Princeton University, December 2019.

<sup>2</sup> Welcome remarks from Agustín Carsten, General Manager for the BIS, Jeremy Powell, Chair of the United States Federal Reserve and Jens Weidmann Governor of the Bundesbank at the BIS Innovation Hub Summit of 2021.

design decisions with regards to CBDCs, such as interoperability, security, sustainability, reliability, and programmability. We've prepared the following primer for policymakers and regulators that explains these considerations in more depth: [Understanding CBDCs: A Guidebook for Policymakers and Regulators](#).

In order to realize the full potential of blockchain technology, CBDCs, stablecoins, and cryptocurrencies must be designed with interoperability in mind. There are many decisions yet to be made about the design and targeted use cases for CBDCs, while stablecoins and cryptocurrencies already exist and are used for myriad use cases – some of those may be well-suited for a CBDC and others may not. Innovation is continuing with all of these forms of digital assets and we would be short-sighted to think that we can anticipate all of the benefits each may bring. In order to ensure that competition and innovation continue in this space, central banks should focus on standard setting and interoperability in parallel with their research and development of a CBDC.

**Question:** Ms. Dixon, Bitcoin's power consumption has dire implications for climate change and achieving the goals of the Paris Accord. A University of Cambridge analysis estimated that bitcoin mining consumes 121.36 terawatt hours a year. This is more than all of Argentina consumes, or more than the consumption of Google, Apple, Facebook, and Microsoft combined.<sup>36</sup> Can you discuss the environmental implications of the growth of cryptocurrencies?

- a. What is "mining" of cryptocurrency and how does it work?
- b. Can you discuss the significance of the proof-of-stake vs. proof-of-work models? Which model has the potential to shrink cryptocurrencies' enormous carbon footprint?
- c. Is an environmentally neutral cryptocurrency a realistic possibility? If so, please explain.
- d. How can Congress and policymakers help to achieve this goal?

**Response:** As discussed in the testimony, it is important to understand that Proof-of-Work and Proof-of-Stake are not the only design choices for blockchain technology; there are multiple ways to achieve consensus (i.e. stay in agreement). While we agree with the premise of your question - that consensus mechanisms are what underlie a lot of the energy use on certain networks - we are not best positioned to speak to the energy usage of the two types of consensus that you cite. Our organization supports the Stellar network, which uses a Proof-of-Agreement (PoA) mechanism, called the Stellar Consensus Protocol, based on Federated Byzantine Agreement. PoA is a more efficient alternative to older blockchains that either require brute force solutions to difficult math problems and the energy to run and cool massive stacks of hardware, or give nodes with more value more influence over the network.

SCP is extremely efficient because it gains PoA by way of a series of messages sent back and forth among nodes about the transactions. This is quite different from "mining" with PoW algorithms that require a high amount of computing power to close and confirm blocks of transactions with complex math. In addition to the computing power requirements, PoW and PoS also severely limit potential participants by creating high requirements for sophisticated hardware, energy consumption, and cooling needs. By contrast, SCP can be run on a computer with easy-to-attain, standard specifications. The energy used to confirm one transaction on the Bitcoin blockchain, for example, is about one million

times more than it takes on Stellar – simply because of the way the different systems work.<sup>3</sup>

We believe environmentally neutral cryptocurrency is a realistic possibility. As highlighted above, it's important to understand that not all blockchains are built the same way. Energy efficiency on Stellar is something we've studied. We worked with a researcher from the University of Lund who conducted an analysis that confirmed that overall electricity consumption of the Stellar network is low – around .00022 kilowatt hours per transaction. For a point of comparison, Visa is a little higher, at .00092 kwh per transaction.

We believe the most effective way of helping to achieve sustainability goals is to first make sure to understand the facts about energy consumption - by asking questions of us as well as experts in the other consensus mechanisms. Second, look at the issue from a holistic view, not in a vacuum. Every day as consumers and citizens, we make decisions about the trade off that a social good might supply compared to its environmental impact. For example, taking a flight home for the holidays.

Those same assessments need to be made about blockchain and the ways it advances the social good. Only after making this sort of evaluation can we seek to find the best way to balance the negative impacts with other initiatives. Also, Congress should engage with the entities in the industry, such as the World Economic Forum's [Crypto Impact and Sustainability Accelerator](#), who are actively exploring ways to minimize the carbon footprint of various consensus mechanisms – many seeking ways to find greener solutions for the blockchain industry and beyond. This industry, full of innovators, has acted quickly based on concerns of their footprint and are actively trying to find solutions.

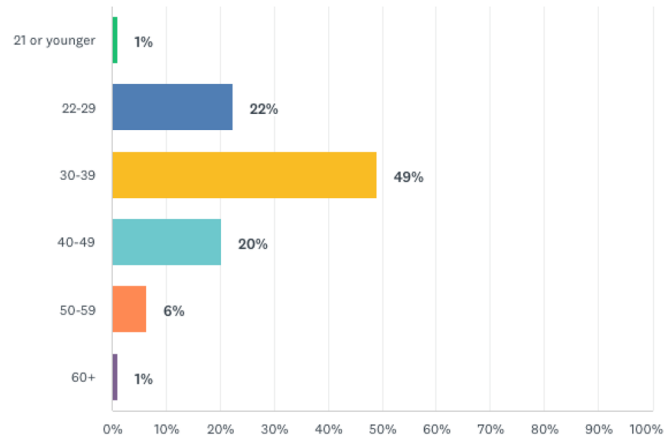
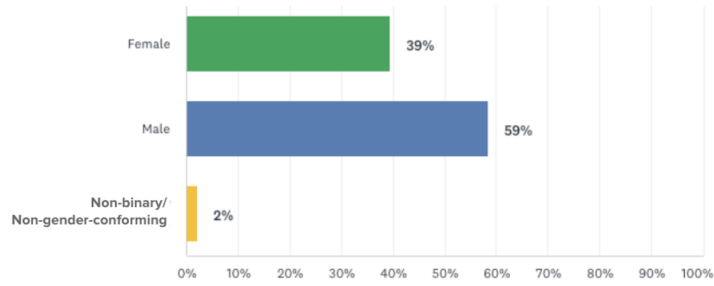
**Question:** To all witnesses, as you know, this Committee has been dedicated to advocating for diversity on all levels within the financial services sector. Our February 2020 bank diversity report further highlighted the lack of people of color in the nation's largest banks, and we addressed similar findings in our report on investment management firms from earlier this week.

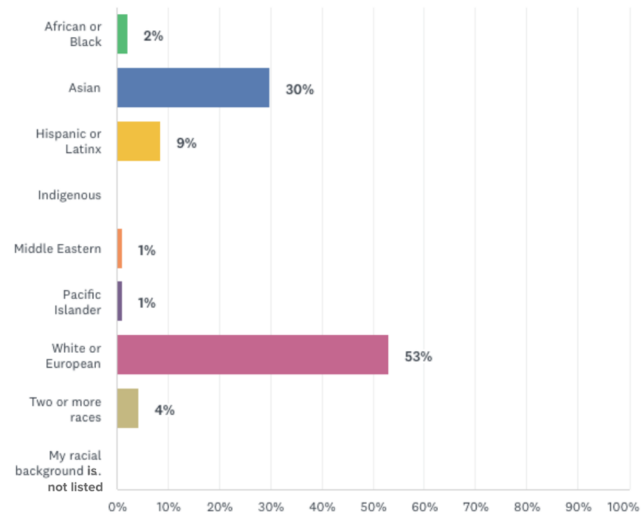
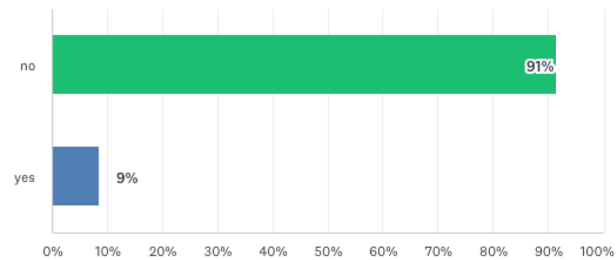
- a. Please provide this Committee a detailed breakdown of diversity at the senior leadership level, of your board members, your workforce, and any suppliers and third parties that are used.

**Response:** Below are the results of a demographic survey of our workforce, including senior leadership and board members. Percentages below are based on the 82% response rate (94 total respondents) to an anonymous, voluntary survey conducted in January 2022.

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<sup>3</sup> <https://stellar.org/blog/diving-into-energy-use-on-stellar-blockchain-payment-efficiency-examined>

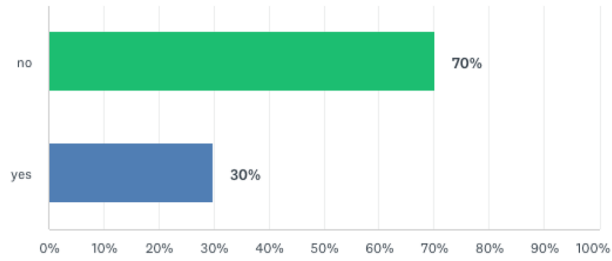
**Respondents Age Range***Data collected January 2022***Respondents Gender Identity***Data collected January 2022*

**Respondents Identified Racial Background***Data collected January 2022***Respondents Identified as LGBTQ+***Data collected January 2022*

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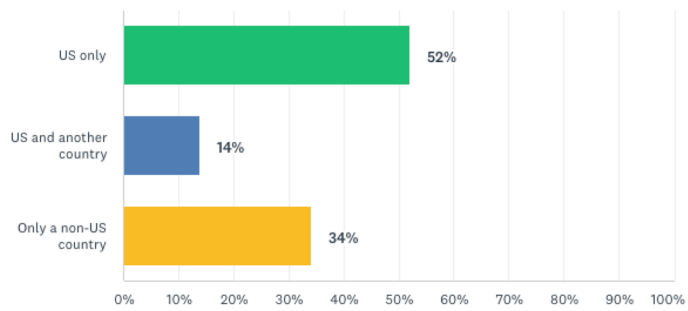
**Respondents Identified as a Parent**

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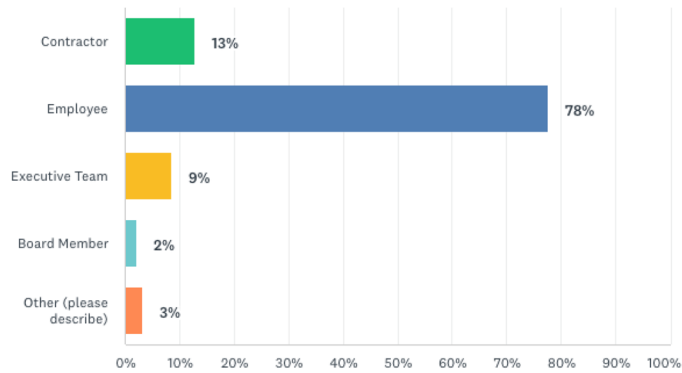


**Respondent's Identified Citizenship**

*Data collected January 2022*



**Respondent's Role at SDF**  
Data collected January 2022



**Question:** To all witnesses: After the murder of George Floyd by the police last year, hundreds of companies, including tech companies, made public pledges to promote racial equity. However, these commitments have not correlated to an increase in workforce diversity within tech companies. A 2021 study of the technology industry found that companies that made public commitments had 20% fewer Black employees on average than those that didn't.

- Do you consider the lack of diversity within tech companies and in the digital assets industry a hindrance to the progress of the field?
- Have your companies made commitments to promote equity and inclusion within your company and in the industry?
- According to one recent report, between 2014-2021, among the 240 tech companies they surveyed, the diversity of their workforces has not grown significantly. For example, proportion of women employees increased by 2.14% points, and that of Black employee representation increased by just 0.36% points.<sup>39</sup> Do you see a similar trend in the crypto industry?
- Please describe which, if any, concrete actions are your respective companies considering to increase diversity among your workforce?

**Response:** Speaking specifically from the perspective of the Stellar Development Foundation, we believe that to meet our mission of a more financially inclusive and accessible world, we need to ensure that diverse perspectives, ideas, views, and talents are included and sought.



We have made diversity and inclusion a core priority on our organization's roadmap. Today, that work entails both hiring from a diverse slate of candidates and creating a pipeline to bring more talent into the industry over time. As has been well documented,<sup>4</sup> historically, finance and technology have been male dominated industries. While at this time, we don't have readily available data about the breakdown of the blockchain and crypto industry to confirm if there is a similar trend, we recognize that we can't simply look at the current pool of candidates and flip a switch to create diverse workforces. We need to go further back in the system; we need to engage with schools and universities to inspire and engage diverse populations by giving them exposure to blockchain technology and the tools to build and create in ways that reflect their experiences, that focus on the problems they see in the world that need fixing. We announced an initiative last year called [Stellar Next-Gen](#), where we partner with universities to create more inclusive blockchain communities.

Our commitment and actions are outlined in our roadmap at [stellar.org/roadmap](https://stellar.org/roadmap). Namely, in our pursuit to demand and promote inclusion in 2022, we are focused on three top priorities: investing in regional research on financial inclusion, expanding our mandate to prioritize inclusion, and delivering network effects through inclusion.

In 2020, the Stellar Development Foundation launched a Diversity, Equity, and Inclusion (DEI) steering committee to evaluate new ways to enhance DEI within our organization and our ecosystem. We began this work by starting an annual organization-wide Culture Amp survey to better understand our workforce's feedback for critical DEI focus areas. Based on the feedback from this survey, we have taken the following actions :

- created hiring plans ensuring diverse slates for each position,
- implemented values alignment interviews,
- participated in 3 DEI conferences,
- built a recruiting team dedicated to sourcing, and
- introduced company-wide DEI workshops such as unconscious bias training and "Becoming An Accomplice in the Workplace."

We believe incorporating these initiatives into our culture will help us attract more diverse candidates to our workforce.

**Question:** To all witnesses, regarding hacking incidents, according to one analysis, in 2021 alone, over \$7 billion was hacked from platforms and issuers of digital assets. Please describe your understanding why these hacks are so frequent in your industry.

- a. What measures are you taking to safeguard customers' assets and prevent bad actors from harming customers and damaging market integrity?

**Response:** We understand that illicit behavior and bad actors raise serious and legitimate concerns, but we believe that this can often be taken out of context or not seen within the full picture of activity within the industry. For example, a recent report from Chainalysis did show that illicit transaction activity reached an all-time high in value, but represents an all-time low in the share of overall cryptocurrency activity.<sup>5</sup> Meaning, most actors in the space are not bad actors.

<sup>4</sup> <https://www.mckinsey.com/featured-insights/diversity-and-inclusion/women-in-the-workplace>

<sup>5</sup> <https://blog.chainalysis.com/reports/2022-crypto-crime-report-introduction/>

Additionally, a valuable feature of public blockchains, like the Stellar network, for law enforcement is that the ledger can actually help identify transaction patterns indicative of criminal activity based on publicly available information. This enables law enforcement to identify suspicious transaction activity and trace the movement of funds within the blockchain to an “off-ramp,” such as an exchange, where the user can convert digital assets into cash. As entities that facilitate the bridge between the digital and traditional financial worlds, these off ramps are regulated as money services businesses or money transmitters and therefore collect identifying information about the user. Full transaction history is visible on the blockchain, so once law enforcement obtains user information through the issuance of appropriate legal process served on the regulated entity, they can trace the flow of funds associated with that user. Information gathered by these regulated entities combined with the transaction tracing capabilities of businesses, like Elliptic, Chainalysis, and TRM Labs, create a powerful tool for law enforcement to detect, disrupt, and deter illicit financial transactions on blockchain networks.

We would welcome the opportunity to speak with you or your staff further about these important issues.

Very truly yours,

*Candace Kelly*

Candace Kelly  
General Counsel  
Stellar Development Foundation

**Questions For the Record (QFRs)****Witness: Alesia Haas****Hearing Date: December 8, 2022****Due Date: 2/28/22****I. QUESTIONS FROM CHAIR WATERS**

**Question #1: Ms. Haas**, leading issuers of stablecoins such as Tether have been fined over \$42 million for making misleading or untrue statements.<sup>4</sup> Additionally, many cryptocurrency asset companies offering securities have not complied with registration and disclosure obligations, potentially affecting investors' ability to understand their risk exposures.

- a. Why has Coinbase not registered with the Securities and Exchange Commission as a national stock exchange or as an Alternative Trading System?

**Answer #1(a):** *Coinbase Global, Inc. (together with its subsidiaries, "Coinbase") has not registered its digital asset trading platform with the Securities and Exchange Commission (the "SEC") as a national securities exchange or as a broker-dealer that operates an alternative trading system ("ATS") because Coinbase does not believe that it provides services that require such registration. Registration as a national securities exchange or ATS is only required for platforms engaging in certain activities involving assets that are securities under the federal securities laws. Coinbase evaluates each digital asset for which it offers services through a process that includes an evaluation of whether such digital asset is a security. If Coinbase concludes that such digital asset is or is likely to be a security under the federal securities laws, Coinbase does not provide exchange or brokerage services with respect to such digital asset.*

*However, there are broader challenges with applying the existing securities registration regimes to digital asset markets: The SEC appears to expect digital asset markets to operate in a manner that is identical to the traditional securities market. Yet, the existing securities regulatory structure was not designed for, and is not compatible with, the current operations of digital asset markets. For example, operating as an ATS entails registration as a broker-dealer, and some of the requirements placed on broker-dealers are functionally incompatible in the digital asset context. Under current SEC guidance, broker-dealers cannot maintain custody of digital asset securities on behalf of customers if the broker-dealer also provides any services for either traditional non-digital asset securities, or any digital assets that are not securities. A broker-dealer could therefore not offer services for both Bitcoin, a non-security, at the same time that it provides services for a digital asset that the SEC believes is a security. The SEC has also not permitted public permissionless blockchains, like those most commonly used in the digital asset markets, to be used as a clearance and settlement systems for securities. Further, from Coinbase's experience in attempting to expand the scope of its broker-dealer ATS subsidiary's*

*permitted activities to provide a trading platform for digital asset securities, the incompatibility between the existing securities regulatory regime and the nature of digital assets may prove to be insurmountable hurdles, without significant legislative or regulatory reforms. The SEC and FINRA have not yet been willing to provide sufficient flexibility in applying the existing rules to allow a platform like Coinbase to provide services for digital assets under the existing registration regimes.*

*We would welcome the opportunity to work with Congress and regulators to find a path forward, potentially through the creation of a digital ATS (Alternative Trading System) regime, that would allow for retail trading for a wide range of digital assets (including cryptocurrencies as well as digital assets deemed to be securities), pursuant to a unified rulebook that permits the custody, clearing, and settlement of customer assets.*

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b. What do you think is the role of the SEC in regulating digital assets and digital asset exchanges?

**Answer #1(b):** *The SEC has plenary authority to regulate digital assets that are securities under the federal securities laws and to regulate cryptocurrency exchanges that provide exchange services involving digital assets that are securities under the federal securities laws. With respect to digital assets that are not securities under the federal securities laws, we appreciate this Committee's interest in how cryptocurrency exchanges are regulated and would welcome the opportunity to work with this Committee and regulators to develop a regulatory regime appropriately tailored to the trading of digital assets, including those that are and are not securities under the federal securities laws.*

*Coinbase welcomes the opportunity to discuss how to regulate both digital assets and digital assets exchanges. We released a Digital Asset Policy Proposal in 2021 that identified four key pillars for an appropriate regulatory framework:*

1. **Regulate digital assets under a separate framework**, particularly one that recognizes the unique characteristics of this technology and the financial innovation it unleashes.
2. **Designate a single regulator for digital assets**. To avoid fragmented and inconsistent regulatory oversight of these unique and concurrent innovations, primary responsibility over digital asset trading should be assigned to a single federal regulator. This is the choice of Congress.
3. **Protect and empower holders of digital assets**, particularly enhancing transparency through appropriate disclosure requirements and protecting against fraud and market manipulation.
4. **Promote interoperability and fair competition**. If fully realized, this could enshrine fair competition, responsible innovation, and promote a thriving consumer and developer ecosystem.

*In order to embrace the full potential of U.S. digital asset leadership and innovation, it is important for Congress and regulators to leverage the potential benefits of more efficient trading methods and market design, and not to preserve the fragmented system of regulation that prevents digital asset market participants from operating under a unified rulebook and regulatory supervision.*

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**2. Ms. Haas**, earlier this year SEC Chair Gary Gensler testified before the U.S. Senate Banking Committee<sup>6</sup> and stated, “To the extent that there are securities on these trading platforms, under our laws they have to register with the Commission unless they qualify for an exemption.” In response to a hypothetical question that mentioned Coinbase, Chair Gensler replied that Coinbase “haven’t yet registered with us, even though they have dozens of tokens that may be securities.” The CEO of Coinbase Global Brian Armstrong, and the Chief Legal Officer of Coinbase Global Mr. Grewal have publicly criticized the SEC’s disapproval of the rollout of your “Coinbase Lend” platform after it was determined to be a security. Securities laws experts have stated that given that Coinbase is not a regulated bank, an offering like Lend would be considered a debt instrument and therefore a security.<sup>7</sup>

a. What is the basis for Coinbase’s position that the Lend program is not a security?

**Answer #2(a):** *Although we have paused our Lend product indefinitely, we worked with our internal and external legal counsel to design our Lend product in such a manner as to not necessitate registration of the product under the federal securities laws. We appreciate this Committee’s interest in the regulatory implications of innovative financial services, such as the Lend product, and would welcome the opportunity to work with this Committee and regulators to develop a regulatory regime appropriately tailored to such products.*

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- b. In your view, what characteristics would legally qualify cryptocurrencies and related stablecoins to be defined as securities and therefore subject to regulation by the SEC?

**Answer #2(b):** *As explained by the SEC, a cryptocurrency or stablecoin would qualify as a security under the federal securities laws if it were either an "investment contract" or a "note," that is a security as those terms have been interpreted by the Supreme Court, the lower federal courts and the SEC. In addition, we believe that a cryptocurrency or stablecoin would qualify as a security under the federal securities laws if it had the same attributes as another instrument specifically enumerated in the various definitions of the term "security" under the federal securities laws. In our experience, it can sometimes be challenging for market participants to apply binding interpretations of the term "security" to specific digital assets in a manner that yields predictable results for all interested parties. We appreciate this Committee's interest in the characteristics that should determine the securities-law status of a particular cryptocurrency or stablecoin and would welcome the opportunity to work with this Committee and regulators to develop a predictable classification system appropriately tailored to digital assets.*

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- c. How are investors screened for participation in Coinbase Pro? Why are fees on Coinbase Pro significantly lower? Why are more assets traded on Coinbase Pro?

**Answer #2(c):** *To access Coinbase Pro, users must pass authentication steps, complete ID verification, and based on region, provide certain additional information, including, but not limited to, source of funds, occupation, and employer. These requirements do not differ from onboarding requirements for Coinbase simple. They are dictated by Coinbase's "Know Your Customer" obligations. If a customer already has a Coinbase Account, the customer is eligible to access Coinbase Pro.*

*Coinbase Pro is directed towards more active traders, and permits a greater variety of order types, including stop, limit, and market orders. On Coinbase Pro, fees are determined using a maker-taker model. On simple trading, Coinbase assists transaction completion and includes fees determined by payment method, order size, and market conditions such as volatility and liquidity.*

*At this time, due to technical limitations, only one asset is not available on simple trading, that is otherwise available on Coinbase Pro. Coinbase is currently upgrading remaining technical limitations so the same assets are available on Coinbase Pro and simple trading.*

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d. Does Coinbase do proprietary trading for its own accounts?

**Answer #2(d):** *In my testimony, I described Coinbase's own investment activity in digital assets. We engage in monthly investments in cryptocurrencies based on a pre-set, systematic formula. In addition to this investment activity, Coinbase does, from time to time, purchase cryptocurrency as principal for specific purposes that we do not view as proprietary trading because its purpose is not for Coinbase to benefit from increases in value of the cryptocurrency being traded. For example, we act as counterparty to retail customers during system outages and periods of extreme high latency, and in the case of certain customer orders below a minimum size, to support orderly trading. We also purchase cryptocurrencies to conduct product and system testing, to make interest payments, to pay for network transaction fees, and to compensate clients in certain instances when there is an error.*

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e. Does Coinbase have multiple lines of business? How are each line of business segregated and ring fenced from one another so that confidential information is not improperly used?

**Answer #2(e):** *Yes, today, Coinbase operates in over 100 countries, and its 21 products can be divided into 3 primary lines of business:*

- *For individuals: Coinbase, Wallet, USD Coin.*
- *For businesses: Prime, Commerce, Exchange.*
- *For developers: Cloud, Connect, WalletLink.*

*Coinbase has an extensive policy designed to protect confidential personal and business information. Our Privacy Policy describes our information handling practices when a customer accesses our services, which include our content on the websites located at [coinbase.com](https://coinbase.com), [coinbase.com/exchange](https://coinbase.com/exchange), [coinbase.com/prime](https://coinbase.com/prime), [custody.coinbase.com](https://custody.coinbase.com), or any other websites, pages, features, or content we own or operate or when a customer uses the Coinbase mobile app, the Coinbase Card App, any Coinbase, Coinbase Exchange, Coinbase Prime, or Coinbase Custody API or third party applications relying on such an API, and related services.*

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f. Are conflicts of interests disclosed to customers?

**Answer #2(f):** *Coinbase has a variety of policies and disclosures in place to identify, prevent, and address conflicts of interest. Here are a few ways we do so: When Coinbase buys Bitcoin or Ethereum, for example, for corporate investment, it does that outside of our platform so that we are not trading across from our customers. Investments by Coinbase's venture capital arm, Coinbase Ventures, are publicly disclosed on our website so that customers are aware of what projects we have backed. The website for Coinbase's Retail product Earn discloses that Coinbase may receive service fees from asset issuers in connection with its educational content. That said, given how quickly the crypto economy moves, we are always seeking ways to align ourselves with our customers, and make sure they have as much information as possible when interacting with the Coinbase platform. We know there's always more work to*

do, and recently shared our view in this blog post:  
<https://blog.coinbase.com/proof-of-alignment-1a2ae680c801>.

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- g. Prior to December 2020, did Coinbase permit trading in XRP? Did Coinbase conclude that XRP was not a security?

**Answer #2(g):** Coinbase halted trading of XRP shortly after the SEC filed suit against Ripple Labs and others in December 2021 alleging that the distribution of XRP amounted to an unregistered public offering of securities. Prior to the SEC's lawsuit, Coinbase evaluated XRP and concluded that it was likely not a security, and we await the definitive judgment of the federal courts on XRP's status under the federal securities laws. We believe the ongoing uncertainty over XRP's status illustrates the challenges for market participants in applying binding interpretations of the term "security" to specific digital assets in a manner that yields predictable results for all interested parties. We appreciate this Committee's interest in this important question and would welcome the opportunity to work with this Committee and regulators to develop a predictable classification system appropriately tailored to digital assets.

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- h. What safeguards are available to protect against loss from fraud or manipulation? What assets are deemed losses due to theft or hacking?

**Answer #2(h):** Coinbase employs a number of safeguards and security features designed to combat fraud or manipulation attributable to unauthorized individual account access, commonly known as "account takeover" or "ATO." This includes both user-configurable features such as multifactor authentication on login and time-delayed, multi-approval managed wallets known as Coinbase Vaults, as well as behind-the-scenes features such as machine learning models designed to detect anomalous or suspicious activity, and automatically take appropriate response actions.

Many cryptocurrency custodians, including Coinbase, use a system design known as "hot and cold storage" to protect customer funds. "Hot" storage refers to cryptocurrency wallets that are on network-connected systems, and can be used for transactions. "Cold" storage refers to the offline, air-gapped storage of cryptocurrency, meaning these wallets cannot be compromised by hacking a networked computer. No single individual at Coinbase, or even a small group of individuals, has access to the necessary secret keys required to access funds held in cold storage. These keys are stored offline in guarded vault locations, and are protected by multiple layers of encryption. At each stage of the decryption process to move funds from cold storage to a hot wallet, approvals are required from multiple geographically-separated Coinbase employees.



*Coinbase carries crime insurance that protects a portion of digital assets held in its “hot wallet” against losses from theft, including cybersecurity breaches. Our insurance policy does not cover any losses resulting from unauthorized access to customer Coinbase or Coinbase Pro account(s) due to the customer losing control of their login credentials, but Coinbase does reimburse customers for ATOs in some circumstances.*

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- i. What capital does Coinbase carry to guard against losses? What insurance do you have in place?

**Answer #2(i):** *Coinbase, Inc. is subject to regulatory capital requirements under the NY Bitlicense regime, as well as state money transmission laws, which in general require that Coinbase, Inc. maintain permissible investments at least equal to the amount of outstanding money transmission obligations. Coinbase Trust, as a limited purpose trust company chartered by the NYDFS, is also subject to capital requirements, which are imposed by the NYDFS under its Supervisory Agreement with Coinbase Trust.*

*Coinbase also carries crime insurance to guard against losses from theft, including cybersecurity breaches, for digital assets held in our “hot wallet.”*

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- j. Does Coinbase facilitate clearing? Does Coinbase act as a central clearing party for any transactions?

**Answer #2(j):** *Coinbase facilitates real-time clearing and settlement for trades that occur on our exchange between registered users. These transactions occur off-chain and are recorded on the Coinbase ledger with Coinbase serving as custodian. Coinbase does not act as a central clearing party.*

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- k. Leverage ratios create outsized individual, firm, and system risk. With 2x leverage, a downward movement of 50% wipes out the account. At 50x leverage, a 2% correction wipes out the account. At 100x leverage, a 1% downward movement wipes out the account. At 150x leverage, a 0.8% correction wipes out the account. Does Coinbase provide margin or leverage trading? If so, what is that ratio? What are the safeguards to protect investors, if any?

**Answer #2(k):** *Coinbase does not offer margin or leverage trading at this time.*

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- l. What margin rules do you follow? Is Coinbase compliant with Regulations T, U, and X?

**Answer #2(l):** *Coinbase does not offer margin or leverage trading at this time.*

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- m. What prohibitions or safeguards are built in to address fraud, manipulation, or spoofing? How are customers and trading participants informed of these prohibitions?

**Answer #2(m):** *Fraudulent and manipulative trading are harmful to digital asset markets, and Coinbase takes a variety of measures to identify and prevent harmful trading activities. Coinbase users agree to the Coinbase trading rules, which prohibit a wide range of fraudulent and manipulative trading activity. This includes prohibitions on spoofing, wash-trading, and layering, among other manipulative behaviors. These rules can be found at [https://www.coinbase.com/en/legal/trading\\_rules](https://www.coinbase.com/en/legal/trading_rules).*

*To identify and address potentially fraudulent or manipulative trading activity on its platform, Coinbase employs an industry leading third-party trade surveillance software platform that is also utilized at several large global banks and broker-dealers. This software monitors and detects the trading activities of participants on the platform for potential market manipulation, fraud, behavioral patterns, rule violations, and generates alerts in real time. The software and alerts are monitored by a team that have significant traditional financial regulatory, trading, and surveillance experience.*

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- n. Do withdrawal fees apply to taking cryptocurrencies off your platform? What fees apply? How are the fees calculated?

**Answer #2(n):** *Coinbase offers our USD Wallet and Hosted Cryptocurrency Wallet Service free of charge, and we do not charge for transferring cryptocurrency from one Coinbase custodial wallet to another. However, to clarify, Coinbase does charge fees for withdrawals from the USD Wallet and Hosted Cryptocurrency Wallet to non-Coinbase wallets and non-custodial Coinbase wallets. These fees, which are described in our terms of services, include fees to cover network transaction fees, such as miner's fees, for transactions on cryptocurrency networks (i.e., transfers of cryptocurrency off the Coinbase platform). Coinbase charges fees based on our estimate of the network transaction fees that we anticipate paying for each withdrawal. In certain circumstances, the fee that Coinbase pays may be higher or lower than the earlier estimate. Coinbase charges a fee for "instant" cash out to a customer bank account (up to 1.5%, with a minimum fee of \$0.55), versus 1-3 business day standard cash out to a customer bank account or same-day PayPal transfer, which are both free. All fees we charge are disclosed at the time of the withdrawal.*

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- o. Does Coinbase maintain written policies and procedures? If so, please provide a copy of these documents for all business lines.

**Answer #2(o):** Yes, Coinbase maintains written policies and procedures that address various aspects of its business. Several entities within the Coinbase corporate family, including Coinbase, Inc. and Coinbase Trust, are subject to regulatory requirements to have and maintain policies and procedures. We are not able to provide copies of these documents, including because many are confidential regulatory materials.

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- p. As of the date of this letter, please indicate the total number of, and provide the names and titles of, all full-time employees employed in the capacity of legal or compliance and their relevant years of securities industry experience. Please indicate whether any of these employees are or were licensed by FINRA, the licenses they carried, and their CRD number.

**Answer #2(p):** Coinbase does not share confidential employment details. Information about our two registered broker-dealers (Coinbase Securities, Inc. and Coinbase Capital Markets Corp.) and associated licensed employees is available through the online database maintained by FINRA. See, for example, <https://brokercheck.finra.org/firm/summary/151143> and <https://brokercheck.finra.org/firm/summary/10722>.

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- q. What is the dollar amount allocated for legal and compliance and what percentage was spent?

**Answer #2(q):** Coinbase considers this information to be proprietary and competitively sensitive. However, we can share that in 2021 all Compliance and Legal budget requests were approved by leadership, including a significant incremental budget increase for Compliance at the mid-year mark. This budget has been used to support the ongoing growth and sustainability of Coinbase's Compliance program. We expect to continue this investment into 2022 and beyond.

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**3. Constitution DAO: Mr. Bankman-Fried and Ms. Haas**, there has been a lot of media attention recently about people donating to ConstitutionDAO. It's been estimated that the total costs associated with donating to the project amounted to nearly \$1 million, and that obtaining a refund after the failed bid to buy the copy of the Constitution required roughly the same amount in transaction costs, which wiped out a lot of the small donors.<sup>14</sup> Who profited from this money? Did your companies profit in any way?

**Answer #3:** Coinbase was not involved in the creation or management of the ConstitutionDAO.

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**4. SRO: Ms. Haas**, on October 14<sup>th</sup> of 2021, Coinbase released an Operational Framework of the Digital Asset Policy Proposal. In your proposal, you challenge the role of traditional agencies to oversee digital asset markets and instead propose the creation of a new self-regulatory organization (SRO). You indicate that, “[i]ncorporating an SRO into the regulatory supervision of MDAs will speed the development and enforcement of an appropriately-tailored digital asset industry rulebook.”<sup>20</sup>

- a. The SEC, a federal regulator, and FINRA, a securities SRO overseen by the SEC, already exists, and nothing stops Coinbase at this time from registering with the SEC or FINRA, correct?

**Answer #4:** *As explained more fully in the response to Question 1(a) Coinbase has not registered with the SEC because Coinbase does not believe that it provides services that require such registration. FINRA membership is only relevant to broker-dealers who are registered with the SEC.*

*As highlighted in the Digital Asset Policy Proposal, Coinbase welcomes the opportunity to work with Congress and regulators to develop frameworks that adequately address policy concerns, while also allowing responsible innovation to continue to thrive in our industry. One potential solution would be the creation of a digital ATS regime that allows for retail trading of a wide range of digital assets (including cryptocurrencies and Digital Asset Securities) pursuant to a unified rulebook that permits the custody, clearing, and settlement of customer assets.*

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**5. DeFi: To all witnesses**, Decentralized Finance, or DeFi, is an especially fast-growing area within the digital asset industry, reportedly reaching more than \$100 billion in size in November 2021, up from around \$21 billion only a year ago. DeFi generally refers to the use of digital assets and blockchain technology to replicate and replace conventional delivery of financial services without central financial intermediaries such as brokerages, exchanges, transfer agents, or banks. However, SEC Commissioner Crenshaw recently warned that DeFi is risky, with DeFi promoters flouting their legal obligations, and that investors may lose their money as they are not provided with the detail needed to assess risk likelihood and severity.<sup>21</sup>

- a. How is your company currently engaged in DeFi activities?

**Answer #5(a):** *Coinbase seeks to provide services to its customers across every aspect of the crypto ecosystem, including DeFi. Today, that primarily involves educating our users about emerging DeFi applications and continuing to provide readily available onramps to crypto so that interested customers can easily interact with third-party DeFi applications.*

*Coinbase has not helped to develop any standalone DeFi products to-date, but we have launched a DeFi access product for customers outside the United States which allows them to access decentralized lending protocols. In addition, Coinbase Wallet offers users with a self-custodial and self-managed wallet app and browser extension that allow users to directly*

*interact with DeFi protocols. As we grow, we will continue to seek to provide customers safe and simplified access to this emerging class of crypto use cases in a manner consistent with applicable law.*

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- b. How do you manage risks for your DeFi products, and how do you abide by your Know-Your-Customer requirements?

**Answer #5(b):** *Customers that access DeFi through Coinbase custodial wallets are subject to our standard set of KYC requirements. We conduct thorough KYC on all Coinbase customers that utilize our exchange and custodial payments services, consistent with applicable laws and regulations in the jurisdictions in which we operate.*

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- c. Do your customers understand the risks of using DeFi, and if so, what do you do to communicate these risks?

**Answer #5(c):** *Coinbase is dedicated to educating users about all relevant aspects of the crypto industry. Coinbase's terms of service for all of its products and services, including those that enable customers to access DeFi protocols, seek to clearly describe the services, so that customers can understand them and the potential risks. In addition, we offer Coinbase Learn ([coinbase.com/learn](https://coinbase.com/learn)) which provides dozens of articles on current topics in crypto, including "[What is DeFi](#)" and "[What are NFTs](#)," as several examples. In addition, we also offer Coinbase Earn, which enables users to earn crypto while they learn about relevant topics, including various DeFi protocols.*

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**6. DNI Public Disclosure:** To all witnesses, as you know, this Committee has been dedicated to advocating for diversity on all levels within the financial services sector. Our February 2020 bank diversity report further highlighted the lack of people of color in the nation's largest banks, and we addressed similar findings in our report on investment management firms from earlier this week.

- a. Please provide this Committee a detailed breakdown of diversity at the senior leadership level, of your board members, your workforce, and any suppliers and third parties that are used.

**Answer #6:** *At Coinbase, inclusion and diversity is important and essential to our success. Our goal is to provide a safe and inclusive work space for everyone, regardless of gender, ethnicity, and all other diverse groups. As one of the most important measures of Coinbase's internal health, diversity plays a critical role in everything we do.*

**Board members**

*Coinbase Global, Inc.'s board consists of 6 male and 2 female directors. One of the female directors is the Chair of the Audit and Compliance Committee. Coinbase, Inc.'s board consists*

of one male and one female director. Coinbase does not require board members to disclose their race or ethnicity.

#### Senior Leadership

As of December 31, 2021, the demographic breakdown of Coinbase's Operating Group, which consists of director level employees and above, is as follows:

- 67% male and 33% female.
- 50% white, 26% Asian, 3% Black or African American, 3% Hispanic/Latino, 2% Two or More Races, and 16% unknown.

#### US workforce

As of December 31, 2021, the demographic breakdown of Coinbase's US workforce is as follows:

- 67% male and 33% female.
- 43% white, 29% Asian, 5% Black or African American, 7% Hispanic/Latino, 4% Two or More Races, and 12% unknown.

#### Supplier / Third Parties

The company does not collect or maintain demographic information of its suppliers/third parties. We believe that we can have a positive impact on diversity by encouraging and highlighting diverse workforces of our suppliers and third-party service providers. As a result, we have initiated a supplier diversity program beginning in 2022.

**7. Coinbase DNO: Ms. Haas**, in a series of articles in late 2020, the New York Times shared that 15 Black employees, roughly three quarters of the company's Black workforce at the time, had left the company in 2018 and 2019, due to racist or discriminatory treatment. They found Black employees were paid 7% less, and women paid 8% less than men in comparable roles.<sup>32</sup> When notified about complaints regarding the lack of diversity and inclusion, Coinbase Global CEO Brian Armstrong reportedly ignored recommendations and suggestions from affected employees. The New York Times also found that the percentage of women and Black employees has remained consistently low since 2018, with women representing 33 percent of the Coinbase workforce, and Black employees representing only three percent of the workforce. How has Coinbase responded to these allegations of discrimination and racism within the workplace?

**Answer #7:** *Coinbase is and has always been committed to maintaining an environment that is safe, supportive and welcoming to employees of all backgrounds. We do not accept intolerant behavior or unfair treatment.*

*The New York Times piece contains many inaccuracies, as detailed in our [Company's blog post](#) on the subject. However, Coinbase does recognize that regardless of the facts, everyone's lived experience is real and it's important we listen and learn. One of our cultural tenets at Coinbase is "Continuous Learning." Even if we might disagree on the details of the NYT piece, it's part of*

our culture to embrace any opportunity to be and do better. In that spirit, Coinbase is proud of where we are and where we are going, most of which started well before the article.

- In August 2020, Coinbase hired an external consultant who specializes in data science and diversity and inclusion to cull through all of our historic data related to diversity (including hiring funnels, promotion rates, etc) and conduct a high volume of interviews with employees representing all background, functions, and tenures to understand the employee experience.
- The independent investigation concluded that there was no evidence of structural bias in hiring, promotions or performance evaluations. Employees reported a strong culture, fair employee treatment, high employee satisfaction and high energy for belonging, inclusion and diversity.
- Nevertheless, Coinbase wanted to push ourselves further, and we used the results from this exercise to improve our go forward strategy.
- Shortly thereafter, in October 2020, before these articles were published, Coinbase committed to a refreshed Belonging, Inclusion and Diversity or “BID” vision and strategy.
- Coinbase’s current diversity program, called Belonging@Coinbase, maintains that same vision: **Every employee feels they belong and can do their best work.** Belonging@Coinbase has three strategic focus areas:
  - (1) **Attract, Support and Retain Diverse Top Talent.** Improve representation, engagement and sense of belonging for under-represented minority and female employees.
  - (2) **Ensure Fair Treatment in Evaluation and Pay.** Be at the forefront of ensuring fairness in how employees are treated in all forms of evaluation - hiring, performance management, compensation, etc.
  - (3) **Explore New Ways of Supporting Coinbase’s Business Goals and Mission.** Impact business goals by leveraging the skills, resources and connections of our diverse workforce.
- As part of these initiatives, Coinbase is investing in minority communities to develop the next generation of talent through [scholarship programs and university partnerships](#).
- Coinbase has also partnered with [Pledge 1%](#) to build a corporate giving program that would commit 1% of Coinbase profits, equity, and employee time toward charitable activities that leverage the power of crypto to help people around the world.

Coinbase is happy to report that our most recent data from our minority and female employees shows that the strategy is working.

- Over the course of 2021, as Coinbase has tripled in size, we have 5x'd the representation of Black employees in our US population.
- Meanwhile, our Black employees are the most engaged: In our most recent employee survey this year: **93% of Black employees said they would recommend Coinbase as a great place to work**, 10 points higher than our overall company score.
- As the company has tripled in size, our female population has remained approximately one-third of our employee base at all levels. We are proud that we have a strong female leadership presence not only on our executive team, but also on our wider operating group leadership which tracks with the company average. We are committed to continuing to attract and retain a diverse workforce.

Regarding pay equity, in 2021, we engaged an outside law firm and a consultant to conduct a pay equity audit of our employee population, which found no evidence of systemic pay differences (looking at both base pay and equity) on the basis of gender or race/ethnicity. It was confirmation that our strategy to remove all negotiation from base pay was working to promote pay equity among our employees. In light of these results, to further promote fairness and diversity in our hiring process, we [removed all negotiation](#) from both base pay and equity compensation. Coinbase is proud to be an industry leader, particularly because we know salary negotiations can disproportionately leave women and underrepresented minorities behind, and a disparity created early in someone's career can follow them for decades.

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#### **Lack of diversity in tech**

**8. To all witnesses:** After the murder of George Floyd by the police last year, hundreds of companies, including tech companies, made public pledges to promote racial equity. However, these commitments have not correlated to an increase in workforce diversity within tech companies. A 2021 study of the technology industry found that companies that made public commitments had 20% fewer Black employees on average than those that didn't.<sup>38</sup>

- Do you consider the lack of diversity within tech companies and in the digital assets industry a hindrance to the progress of the field?

**Answer #8 (a):** Coinbase cannot speak broadly about the tech industry or digital asset industry on this topic. We can speak only to our company. We are committed to making Coinbase inclusive to all and believe that inclusivity drives better product outcomes.

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- Have your companies made commitments to promote equity and inclusion within your company and in the industry?



**Answer #8 (b):** *We are committed to making Coinbase inclusive to all and believe that inclusivity drives better product outcomes.*

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- c. According to one recent report, between 2014-2021, among the 240 tech companies they surveyed, the diversity of their workforces has not grown significantly. For example, proportion of women employees increased by 2.14% points, and that of Black employee representation increased by just 0.36% points.<sup>39</sup> Do you see a similar trend in the crypto industry?

**Answer #8 (c):** *We do not have the data for the crypto industry in general, but as mentioned above, Coinbase has seen significant improvement in this area. Over the course of 2021, as Coinbase has tripled in size, we have 5x'd the representation of Black employees in our US population. Meanwhile, our Black employees are the most engaged: In our most recent employee survey this year: 93% of Black employees said they would recommend Coinbase as a great place to work, 10 points higher than our overall company score. Our female population has consistently remained ~one-third of our employee base at all levels, even as the company has tripled in size. And we're proud that we have a strong female leadership presence not only on our executive team but also on our wider operating group leadership which tracks with the company average.*

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- d. Please describe which, if any, concrete actions are your respective companies considering to increase diversity among your workforce?

**Answer #8 (d):** *Coinbase has a comprehensive belonging, inclusion & diversity strategy, called Belonging@, which is outlined above.*

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**9. Demographic Info Collection:** To all witnesses, it is troubling that there is little to no publicly available data about the demographics of consumers who your companies market your products to, including the demographics of users, and whether you target your products to those who are financially disadvantaged.

- a. Do you collect demographic information on your customers?

**Answer #9(a):** *We collect information that is necessary to provide our services, fulfill our legal obligations, and protect our customers and platform; this can include certain demographic information.*

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- b. If so, please describe the type of information you collect from customers.

**Answer #9(b):** *Our privacy policy describes the types of personal information we collect in order*

*to provide our services, fulfill our legal obligations, and protect our customers and platform. This can include information such as country of residence, gender, employment information, and driver's license details. We obtain these types of information to fulfill our obligations under financial regulations and anti-money laundering laws (such as know-your-customer requirements), and to ensure the safety and integrity of our services by verifying customer identity and preventing potential fraudulent activity.*

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- c. If voluntary, about how many of your customers provide the information?

**Answer #9(c):** *We do not collect voluntary demographic information from customers.*

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- d. What protocols do you have in place for protecting consumers' personal identifying information and securing this information?

**Answer #9(d):** *Coinbase maintains a comprehensive set of privacy and security controls to ensure that customer information is properly used and safeguarded. These controls include encryption of customer data in transit and at rest, irreversible password hashing, background screening and training for personnel with access to customer data, limitations (along with auditing and monitoring) on employee access to customer data in our databases, robust oversight and evaluation of third-party service providers who process data on our behalf, regular penetration testing, a bug bounty program to incentivize whitehat reports of potential vulnerabilities, and a variety of other internal policies and procedures to maintain best practices for privacy and data minimization.*

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- e. If you don't collect demographic data, then what sources of information are you using that lead you to believe that people of color and the traditionally unbanked are among your primary customers?

**Answer #9(e):** *Coinbase's mission is to bring economic freedom to the world. Coinbase does not assert that people of color and the traditionally unbanked are our primary customers. Yet, our goal is to democratize access to the cryptoeconomy by enabling anyone with an internet connection to easily and securely invest in and use crypto assets.*

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- f. Please provide a report that includes a detailed breakdown of the demographic information of both the consumers and populations your companies market products to and the users of your company's products.

**Answer #9(f):** Coinbase collects age and gender for onboarding purposes, but Coinbase does not share this demographic customer information publicly: we consider it to be proprietary and competitively sensitive. We use age and location data to market our consumer products and services to persons over the age of 18 years old and in U.S. jurisdictions in which we are permitted to offer products and services. We do not use gender for marketing purposes.

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**10. Customer data protection:** To all witnesses, there is concern about the protection of the personal and transactional data and the digital finances of users of digital payments and assets, including the average consumer or small business owner using these products to make an online purchase, send money to family overseas, or complete transactions with their customers.

- a. Do most stablecoin issuers and exchanges shift the risk related to cybersecurity to the user? What responsibility lies with the issuer, wallet, or exchange?

**Answer #10(a):** While Coinbase is unable to speak generally to the practices of stablecoin issuers or other exchanges and wallet software creators, Coinbase maintains a robust cybersecurity program and practices to ensure the security of its platform and the integrity of the funds that it custodies on behalf of its customers, and provides an array of best-in-class security features to its customers, including hardware-based multifactor authentication and time-delayed, multi-approval Vault wallets. Customers, in turn, are responsible for maintaining the confidentiality of their own authentication credentials, which are necessary to access their individual wallets and accounts.

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- b. How do issuers and exchanges secure the personal and financial data of its users? Based on what standards? Are data protection and disclosure policies shared in full with all users?

**Answer #10(b):** The cybersecurity controls employed by Coinbase are outlined in answers 2(a) and 9(d). As an exchange regulated at both the Federal and state levels, Coinbase is subject to - and complies with - the following regulations and information security standards (among others):

- The Sarbanes-Oxley Act of 2002
- New York Part 500 Cybersecurity Requirements for Financial Services Companies
- SOC 1 and SOC 2 reporting, for certain Coinbase products

Coinbase shares its data protection and disclosure practices with consumers in its published Privacy Policy, available at <https://www.coinbase.com/legal/privacy>

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- c. How does your company ensure that the financial transactions, like bank transfers or payments that are authorized by a consumer from their bank account, are secure from theft, fraud, hacks, and other cyber-enabled financial crimes?

**Answer #10(c):** The cybersecurity controls employed by Coinbase are described in answers 2(h) and 9(d). Coinbase employs a robust set of fraud detection and prevention tools to identify deposits, transactions, and withdrawals that may be potentially unauthorized. This includes the use of in-house risk models, third-party fraud detection tools, and dedicated account security and fraud prevention teams.

In addition, Coinbase is a member of FS-ISAC (the Financial Services Information Sharing and Analysis Center) and shares cyber threat intelligence with peer financial institutions to proactively defend against cybercriminals. Coinbase actively participates in the USA PATRIOT Act 314(b) Voluntary Information Sharing program in accordance with FinCEN guidance.

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**11. Coinbase fees: Ms. Haas,** Coinbase has two cryptocurrency exchange platforms: Coinbase, and Coinbase Pro. Coinbase is aimed at newer users — but charges much higher fees than Coinbase Pro. For example, it costs \$0.99 to purchase \$5 worth of Bitcoin on Coinbase, but only \$0.02 to do so on Coinbase Pro.

- a. Please explain your company's rationale behind charging different fees for each of these platforms.

**Answer #11(a):** Coinbase Pro is directed towards more active traders, and permits a greater variety of order types, including stop, limit, and market orders. On Coinbase Pro, fees are determined using a maker-taker model. On simple trading, Coinbase assists transaction completion and includes fees determined by payment method, order size, and market conditions such as volatility and liquidity.

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- b. In your view, is this model replicating the problem we already have in the non- crypto financial system, where the least sophisticated users are charged the highest fees?

**Answer #11(b):** *As mentioned above, Coinbase Pro and Coinbase offer different types of trading services. Coinbase Pro is directed towards more active traders, and permits a greater variety of order types, including stop, limit, and market orders. On simple trading, Coinbase assists transaction completion and includes fees determined by payment method, order size, and market conditions such as volatility and liquidity.*

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- c. Why is it that consumers can purchase US Dollar Coin (USDC) at no additional charge on Coinbase, but your company charges fees to purchase other stablecoins— a \$1 fee to purchase \$5 worth of Tether, for example.

**Answer #11(c):** *Coinbase's platform allows customers to buy, sell, exchange, and store stablecoins, including USDC. Coinbase is a reseller of USDC. Coinbase acts as a direct counterparty to the purchase of USDC, enabling account holders to buy USDC or convert USDC to U.S. dollars at a ratio of 1:1. There are no fees for that conversion if purchasing via ACH. Account holders who purchase USDC from Coinbase using credit cards may be charged a credit card fee. The purchase of other stablecoins are subject to the same transaction fees as all other assets.*

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**12. Crypto Data: Mr. Bankman-Fried and Ms. Haas**, as two of the largest cryptocurrency market exchanges, what types of data on digital assets do your companies use, sell or share?

- a. Do you produce macroeconomic data on digital assets? If so, please describe.

**Answer #12(a):** *Coinbase Prime regularly produces reports that provide macroeconomic data on digital assets. Most recently, we released the 2021 Year in Review, which is available to the public on the Coinbase website.<sup>1</sup> In addition, Coinbase makes available on our website macroeconomic data, including price, market volume, and market cap for free. We also produce and share additional market data and insights with our customers.*

- b. Are there any reporting standards or requirements applicable to the data sets that you use, sell or share?

**Answer #12(b):** *Blockchain data is public and immutable by design. We build tools on top of this raw available data and provide our insights to our customers through research reports, Coinbase Analytics, and Prime Analytics.*

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<sup>1</sup> Duong, David, 2021 Year in Review, <https://www.coinbase.com/prime/2021-year-in-review> (December 2021)

- c. Do you have concerns about the reliability of any of the data?

**Answer #12(c):** *We carefully review our data sources and do not use information where we have concerns about reliability.*

- d. Do you think it would be helpful to your business and its customers for there to be reporting standards or requirements for the data?

**Answer #12(d):** *Coinbase has long advocated for transparency in reporting and disclosures, and we look forward to working with the committee to ensure integrity in the market and information disclosed to customers.*

- e. Is there data on the carbon impact of digital assets? If not, should there be requirements for firms to collect and report such data?

**Answer #12(e):** *There is important work being conducted to quantify and assess the carbon impact of digital assets. Coinbase supports a broad-based approach to maintaining high-quality, transparent data about electricity consumption and energy mix across multiple industries in a consistent way, as well as building constructive relationships with policymakers to develop meaningful data reporting requirements.*

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**13. Crypto downsides: To all witnesses,** every innovation has its downsides. What do you consider to be the downsides of crypto innovation, both for the parties to crypto transactions, and for people who don't use crypto?

**Answer #13:** *We agree that digital assets present many opportunities, including to increase access to innovative financial services to underserved communities. At the same time, this innovation must be done responsibly. Our mission at Coinbase is to bring financial freedom to the world. We are committed to educating consumers, providing innovative services and products, and being the most trusted, compliant, and secure crypto exchange in the world.*

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**14. Customer behavior: To all witnesses,** do you collect information from your customers about the ways in which they save and invest and their investment goals? Follow up as appropriate--

- a. If voluntary, about how many of your customers provide the information?
- b. What information do you collect?
- c. What safety protocols do you have in place for this information?
- d. If you don't collect this information, then what sources of information are you using that has led you to believe that so many of your customers were previously unbanked?

**Answer #14:** *Coinbase does not collect or maintain information about its customers regarding their investment or savings goals or how they achieve these goals. Coinbase does not assert that the traditionally unbanked are our primary customers.*

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**15. FinCEN/ Travel Rule: Mrs. Haas and Mr. Allaire,** as you know, at the end of last year, the Financial Crimes Enforcement Network or FinCEN issued a rulemaking proposal to require banks and money service businesses to submit reports, keep records, and verify the identity of customers in relation to transactions involving wallets for convertible virtual currency or digital assets with legal tender status. This rulemaking focused on those wallets hosted in certain low-compliance jurisdictions identified by FinCEN and wallets which are not hosted by a financial institution, called “unhosted wallets.” These possible requirements are similar to those already required of other money transmitters which must know the customers at each end of the transaction and apply financial crime compliance measures as a basic component of the business model. You and your firms were vocal in your objections to this rulemaking. Can you share why financial transactions involving virtual assets and their service providers – payments and exchanges that are in essence no different than a Western Union or a MoneyGram, should be treated differently than other transmitters?

**Answer #15:** *Coinbase has embraced the equal application of AML rules to the crypto industry. For example, Coinbase has led the industry's efforts to comply with the Travel Rule, which now applies to crypto transactions, through the development of TRUST (Travel Rule Universal Solution Technology) in partnership with other major U.S. crypto exchanges. TRUST enables Coinbase and other VASPs to comply with the Travel Rule, thereby increasing the transparency of such transactions and the crypto industry's parity with traditional financial services.*

*Coinbase objected to FinCEN's NPRM on self-hosted wallets not because we think the same rules should not apply to crypto, but because the proposed rule did the opposite – it applied new rules to crypto that do not apply to traditional money services businesses/financial institutions. Specifically, the NPRM would require crypto exchanges to obtain counterparty information for transactions above \$10k. This has never been a requirement for traditional financial institutions, which have to file Currency Transactions Reports (CTRs) on cash transactions greater than \$10k, but are not obligated to collect counterparty information. The counterparty collection requirement is both unreliable in that it would likely depend on self-reporting from the exchange's own customer and a serious privacy/security risk for consumers, whose information would be collected and stored not by their own financial institution – for whom they can make an informed choice about how the firm stores and uses their personal data – but by their counterparty's financial institution.*

*The NPRM also proposed a virtual CTR that exchanges would have to file for transactions greater than \$10k in value. This too is a requirement not imposed on traditional financial institutions – who only have to file CTRs on cash transactions, not wires or ACHs, for example. The CTR requirement makes more sense when applied to cash transactions because there is*

*no ledger, public or private, keeping track of cash transactions. CTRs were implemented in an attempt to bring transparency to cash transactions. On the other hand, crypto is the opposite of cash in that public, immutable ledgers keep track of all transactions. This gives law enforcement and financial institutions unparalleled access to information about transactions. Using blockchain analytics, investigators can often quickly determine – without the lag time of issuing a subpoena – if a crypto transaction is associated with illicit conduct. This data has led to a huge number of successful law enforcement takedowns of cybercriminals, including darknet market operators, hackers, and child abusers.*

*Lastly, we objected to the NPRM's treatment of self-hosted wallets as a high-risk technology. Self-hosted wallets are nothing more than software that allows individuals to securely store their own cryptocurrency, much like a billfold can be used to store cash. It is a healthy part of the crypto ecosystem. Indeed, empirical analysis of self-hosted wallet use by blockchain analytics firms reveals that self-hosted wallets do not pose a high-risk of money laundering.*

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**16. Off chain transactions:** To all witnesses, consumer and investor experts have stated that some of the largest digital asset trading platforms frequently allow off chain transactions to occur, which are transactions that are internalized or executed within the platform and not on a public blockchain. Please describe your off-chain transaction practices, and how you address the risk of double spending when a transaction is executed off of the chain upon which it was originally issued.

**Answer #16:** *As is the case for all centralized cryptocurrency exchanges, trades conducted on the Coinbase exchange are off-chain by design. Coinbase tracks customer transactions and resulting balances (in accordance with financial industry and accounting standards and subject to regulatory oversight) on its own internal ledger system. This ledger system is specifically designed to accurately track customer balances, including to avoid double-spend – just as with ledgers operated by other financial intermediaries such as broker-dealers and banks. Coinbase conducts on-blockchain transactions for customers when a customer moves assets into or out of a Coinbase account. Coinbase also conducts blockchain transactions when moving assets between cold storage and hot storage.*

- a. Please specify what measures you adopt to ensure that as a digital asset exchange, you do not take advantage of information the platform gleans from off chain transactions.

**Answer #16 (a):** *As described in the response to Question 2(f), Coinbase has a variety of policies and disclosures in place to identify, prevent, and address conflicts of interest, including for employees and corporate investments.*

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**Hacks**



17. To all witnesses, regarding hacking incidents, according to one analysis, in 2021 alone, over \$7 billion was hacked from platforms and issuers of digital assets.<sup>45</sup> Please describe your understanding why these hacks are so frequent in your industry.

**Answer #17:** *The past few years have seen a global rise in cybercrime that is by no means limited to the cryptocurrency industry. According to a study by VMWare Carbon Black, cyberattacks targeting financial institutions increased by 238% during the first half of 2020 alone, and 80% of financial institutions indicated an increase in cyberattacks compared to 2019. (<https://blogs.vmware.com/security/2020/05/modern-bank-heists-threat-report-finds-dramatic-increase-in-cyberattacks-against-financial-institutions-amid-covid-19.html>). In Coinbase's view, attacks targeting the digital asset ecosystem may make attractive subjects for news headlines, but do not tell the whole story regarding financially-motivated cybercrime.*

- a. What measures are you taking to safeguard customers' assets and prevent bad actors from harming customers and damaging market integrity?

**Answer #17(a):** *In addition to the cybersecurity measures outlined in responses 2(h), 9(d), and 10(a-c), Coinbase has also invested significant resources in the following areas:*

- *Maintaining collaborative relationships with industry partners and law enforcement to identify, stop, and hold bad actors accountable for criminal activity targeting the financial sector*
- *Detecting and mitigating off-platform attacks such as phishing websites and malicious software*
- *Providing customer education to ensure consumer awareness of the latest cybersecurity threats and best practices for self-protecting their online identities in addition to their digital assets*

## II. QUESTIONS FROM REP. FOSTER

1. Anonymity/ traceable legal identities: To all witnesses:

I appreciate the unanimous agreement of the panel of witnesses that, in order to prevent the use of crypto assets in ransomware and other illicit uses, it will be essential to have a traceable legal identity associated with cryptocurrency transactions. <https://youtu.be/4oOTytupND8?t=8961>

These questions are for all of the witnesses:

My questions concern your preferred implementation of such an identity system, in particular:

- a. Who should be allowed to issue—and, if necessary, revoke—such an identity?
- b. What features are desirable for maximum preservation of user privacy, while at the same time allowing a legally traceable identity?
- c. How do you envision such a regime would operate internationally?

- d. Are there technical considerations that would prevent such a legally traceable identity to be used for automated collection of taxes, similarly to payroll, interest, or financial taxes?
- e. What measures will be necessary to prevent wash trades and similar abuses in crypto asset trading, where persons operate multiple digital identities to defraud the market? Is there an alternative to biometrically de-duplicating lists of market participants, and the prohibition of opaque shell corporations, in order to prevent these abuses?
- f. Should more relaxed identity requirements be implemented for trading in assets with fixed valuations (like stablecoins), where wash trades are not of concern but legal traceability is still required?

**Answer #1 (a-f):** *Coinbase is passionate about securing the identity of our customers and supporting new technologies that will enable precision privacy protection. We also work with law enforcement to combat criminal activity, ransomware, and other illicit uses of crypto.*

**(a):** *We believe that any identity issuance should be in accordance with regulatory guidelines, and by an institution that is subject to regulatory oversight.*

**(b):** *Any viable identity standard must be traceable while also being “zero-knowledge.” For instance, it may validate that a user has completed KYC without exposing the user’s PII publicly.*

**(c):** *Such a regime would require collaboration between governments, multiple entities and identity issuers to ensure viability across different regions and jurisdictions.*

**(d):** *Yes, we anticipate many technical challenges associated with implementing a traceable identity at scale. This has not been achieved before, but that does not mean that it is not possible, and we believe this is a worthy endeavor.*

**(e):** *Protection against wash trading or similar abuses will require an auditable identity standard associated with a verified real-world person. With a sufficient level of technological investment, there may be a level of automation that can be created. For example, an encrypted on-chain biometric “fingerprint” that can be decrypted and deduped at scale. That said, we must tread extremely carefully to protect and uphold user privacy rights.*

**(f):** *Crypto can ultimately form the basis of a better financial system for the world. To do this, we believe that there is merit to exploring dynamic identity requirements that are contextual to the behavior of a particular user, and that can be adjusted as required to meet changes in user behavior or emerging regulatory requirements without placing an undue burden on the user.*

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### III. QUESTIONS FROM REP. MALONEY

**1. AML compliance: Mr. Allaire and Ms. Haas:** Our anti-money laundering requirements are paramount to prevent fraud, sanctions evasions, and the financing of terrorism. And you and your companies have highlighted your firms' compliance programs, stating that these standards are important to protect the financial system and to drive trust and adoption.

But not everyone in this industry believes that, and many have rejected or avoided compliance standards. Some actively promote themselves on not complying with Know Your Customer requirements. This is an entire financial services ecosystem, and one weak link exposes the entire system to money laundering risks.

- a. Could you share why your firms have taken your AML compliance approach and the benefits of doing so across your firms' products and services?
- b. What steps can we take to bolster our anti-money laundering efforts and ensure all crypto marketplace actors comply?

**Answer #1 (a-b):** *Since our founding, Coinbase has strived to be the most secure, trusted, and legally compliant bridge to the cryptoeconomy. Key to that goal has been our ongoing commitment to developing a robust BSA / AML and Sanctions Compliance Program. We believe that doing so creates a safe ecosystem for our customers and protects the global financial system from those wishing to exploit it. As examples of our commitment, we are one of only two digital asset members of the Department of the Treasury's Bank Secrecy Act Advisory Group, and we consistently work with law enforcement and other government agencies to combat illegal activity. As noted previously, we have worked collaboratively with other U.S. virtual asset exchanges to create the Travel Rule Universal Technology Solution, and maintain a blockchain analytics product which is used both internally at Coinbase and by law enforcement agencies around the world.*

*The existing regulatory regime is quite clear with respect to the obligations of virtual currency administrators and exchanges, holding them to the same standards as other types of financial institutions, including money transmitters. We support further engagement by policymakers to understand the cryptoeconomy and develop rulemaking that takes into account its unique properties. This would only serve to make compliance with BSA / AML regulations more widely understood by and accessible to cryptocurrencies companies.*

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### IV. QUESTIONS FROM REP. N. WILLIAMS

**1. Financial inclusion: To all witnesses:** As we write the rules of the road around digital assets, what recommendations do you have to maximize financial inclusion and economic prosperity for those who have barriers to accessing the financial system? What do you think about the promise of a Central Bank Digital Currency in addressing financial inclusion concerns for the unbanked?

**Answer #1:** *Today, consumers can face excessively high transaction fees in the U.S. for ordinary and ubiquitous services. Credit card fees can be as high as 3% of a transaction value, a rate that consumers and merchants do not control. Cross border remittances, which can be critical to the well being of those underserved by banking systems, can be as high as 7%. Similarly high minimum fees can be associated with wire transfers and other banking services. Crypto assets and the services developing in the crypto ecosystem provide alternatives to these traditional financial services, and in the process, will put competitive pressures on traditional services to lower the costs that consumers face, even for consumers not inclined to engage in the crypto ecosystem. Importantly, and unlike with centralized money payments systems, there is no inherent monopolistic structure to decentralized finance.*

*We recognize that a Central Bank Digital Currency (CBDC) could have a profound role in how the crypto ecosystem develops, particularly as it relates to financial inclusion. This will depend largely on the design of any future CBDC. The Board of Governors of the Federal Reserve System recently published a report outlining the potential costs and benefits of issuing a U.S. CBDC, and invited public comment. Coinbase is currently reviewing and evaluating the report for potential comment.*

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**Congressman Bill Foster (IL-11)**

Committee on Financial Services

*Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of Financial Innovation in the United States*

Hearing held on December 8, 2021

## Question for the Record

Question for:

**Jeremy Allaire**, Co-Founder, Chairman and CEO, Circle;**Samuel Bankman-Fried**, Founder and CEO, FTX;**Brian P. Brooks**, CEO, Bitfury Group;**Charles Cascarilla**, CEO and co-Founder, Paxos Trust Company;**Denelle Dixon**, CEO and Executive Director, Stellar Development Foundation; and**Alesia Jeanne Haas**, CEO, Coinbase Inc. and CFO, Coinbase Global Inc.

I appreciate the unanimous agreement of the panel of witnesses that, in order to prevent the use of crypto assets in ransomware and other illicit uses, it will be essential to have a traceable legal identity associated with cryptocurrency transactions. <https://youtu.be/4oOTvtupND8?t=8961>

These questions are for all of the witnesses:

Responses of FTX and Sam Bankman-Fried:

My questions concern your preferred implementation of such an identity system, in particular:

- 1) Who should be allowed to issue—and, if necessary, revoke—such an identity?

FTX believes that taking reasonable steps to prevent the use of any technology tool deployed in service to illicit finance is necessary. This includes with respect to blockchain technology. The recent recovery by the Federal Bureau of Investigation of Bitcoin stolen from the Bitfinex platform in August 2016 illustrates the features of public blockchain-based assets that make transfers of the asset more traceable than many other assets, including fiat cash. This, of course, includes the public key associated with a wallet on the blockchain. For activities involving digital assets that take place within the purview of U.S. regulatory authorities, creating a way to identify a specific transaction involving digital assets would be a natural progression of the current market supervision of other assets, including derivatives and securities. FTX does not have a strong view of who should create an identity for federally supervised market activities, but it should be done in cooperation with the relevant market regulators.

- 2) What features are desirable for maximum preservation of user privacy, while at the same time allowing a legally traceable identity?

For regulated markets such as the ones FTX operates, the onboarding process involves all relevant and applicable KYC/AML checks in order to remain compliant with those regimes. Users of FTX platforms do not have an expectation that their identities will be kept private from FTX, or relevant regulators enforcing regulations and laws applicable to the platform. Trading on the platform is expected to be, and is in fact kept, anonymous, but the identities of the users of FTX platforms is not anonymous to FTX. FTX does follow best practices and all relevant regulations related to keeping the identities of users secure and safe from other third-party intrusion, including through compliance with cyber- and systems-safeguards regulations.

3) How do you envision such a regime would operate internationally?

A regime for identifying specific transactions involving digital assets taking place on regulated platforms should operate internationally through the standard international-recognition approach that international market regulators currently follow. In short, relevant international standard setters, such as the International Organization of Securities Commissions (IOSCO) or the Financial Stability Board (FSB), could develop appropriate standards, if needed, for country-level regulators to adopt through regulation, and the overall process of mutual recognition of regulatory regimes – when a platform’s customers might come from multiple international jurisdictions – could be applied.

4) Are there technical considerations that would prevent such a legally traceable identity to be used for automated collection of taxes, similarly to payroll, interest, or financial taxes?

While doable, one technical challenge for tax authorities would be to ingest and store massive amounts of data related to digital-asset transactions, and then programmatically discern from this data any relevant tax events. While we appreciate various goals of this effort, any policy designed to bring these goals about would want to consider carefully the balance of costs and benefits while scoping out and later implementing such a policy.

5) What measures will be necessary to prevent wash trades and similar abuses in crypto asset trading, where persons operate multiple digital identities to defraud the market? Is there an alternative to biometrically de-duplicating lists of market participants, and the prohibition of opaque shell corporations, in order to prevent these abuses?

Market surveillance technology widely available today is quite effective at determining fraudulent trading activities on regulated platforms. As indicated by the question, these tools do not necessarily detect whether the entities trading are themselves fraudulently created and acting in concert through control of a singular owner or controlling entity. Requiring reasonable diligence as part of the KYC/AML onboarding process would be the most sensible method for rooting out these types of efforts to create fraudulent identities, something that FTX does today.

6) Should more relaxed identity requirements be implemented for trading in assets with fixed valuations (like stablecoins), where wash trades are not of concern but legal traceability is still required?

The principles of market surveillance tend to apply equally across asset classes, and in the case of the trading of stablecoins as well as other digital assets, they apply equally.

Question for **Samuel Bankman-Fried**, Founder and CEO, FTX.

During our discussion, you alluded that there might need to be a way to reverse transactions – either in the event that a user was defrauded, or in the event that assets were mistakenly sent either to the wrong party or in the wrong quantity.

- a) What mechanisms (e.g. forking) exist to allow us to achieve this functionality on a blockchain that is seemingly permanent?

For trading of digital assets on regulated centralized exchanges, it is not as efficient for now to leverage public blockchains themselves to deliver or exchange digital assets through the execution of a single trade on the platform. Rather, this activity for now is accomplished and recorded using off-chain technology platforms and databases. FTX customers are apprised of this model through user agreements and relevant rule books and are comfortable with this approach. Consequently, addressing trade errors can be accomplished through the approved rules of the regulated platform, where such issues are normally addressed.

For trading of digital assets on decentralized exchanges, it is theoretically possible to have programmed rules to address instances of fraud, or otherwise have the community of network supporters address such circumstances on a case-by-case basis through agreed-to governance rules or other methods.

- b) What impact would this have on speed and finality of transactions?

So long as all relevant programmatic, regulatory, or governance rules are disclosed and clear, their impact on finality of settlement should be clear. With respect to speed, it would depend on the specific facts and circumstances of any technology solution implementing a rule for addressing a trade error.

- c) What systems of governance would be necessary to allow such a functionality?

A system of governance that applies rules, regardless of their form, equally to all participants of a particular protocol would be necessary to effectively implement relevant rules.

**Congressman Bill Foster (IL-11)**

Committee on Financial Services

*Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of Financial Innovation in the United States*

Hearing held on December 8, 2021

## Question for the Record

Question for:

**Jeremy Allaire**, Co-Founder, Chairman and CEO, Circle;**Samuel Bankman-Fried**, Founder and CEO, FTX;**Brian P. Brooks**, CEO, Bitfury Group;**Charles Cascarilla**, CEO and co-Founder, Paxos Trust Company;**Denelle Dixon**, CEO and Executive Director, Stellar Development Foundation; and**Alesia Jeanne Haas**, CEO, Coinbase Inc. and CFO, Coinbase Global Inc.

I appreciate the unanimous agreement of the panel of witnesses that, in order to prevent the use of crypto assets in ransomware and other illicit uses, it will be essential to have a traceable legal identity associated with cryptocurrency transactions.

<https://youtu.be/4oOTvtupND8?t=8961>

These questions are for all of the witnesses:

My questions concern your preferred implementation of such an identity system, in particular:

- 1) Who should be allowed to issue—and, if necessary, revoke—such an identity?

**Response:**

Identity systems historically have been managed by centralized institutions such as governments (for such identifiers as Social Security Numbers, driver's licenses, passports, and the like), credit bureaus (for identifiers such as consumer reports), and banks (for identifiers such as credit card numbers, account passwords, and the like). Historically, all such centrally managed identity records have been subject to falsification and hacking at a certain rate – think of teenagers using fake IDs to obtain alcohol, or the use of deceased individuals' Social Security Numbers for purposes of identity theft scams. In the cryptoeconomy, identity verification is likely to be conducted by decentralized consensus mechanisms that are much harder to fake. A number of such projects exist today. For example, the recently-announced Verite project launched by companies including Coinbase, Block, Circle, and others, promises a crypto-native, user-controlled identity solution that does not have the same single point of failure that centralized identifiers do today. Through our Crystal Blockchain division, Bitfury is pioneering related work through an application called the Clarity Protocol. The Quadrata



project pioneered by Spring Labs is another example of important decentralized identity work.

- 2) What features are desirable for maximum preservation of user privacy, while at the same time allowing a legally traceable identity?

**Response:**

Tokenization is the key to allowing identity verification without transferring the underlying information necessary to the verification itself. By transforming sensitive information into cryptographically secure tokens, identity information can be shared among network participants anonymously with the result that a verifying party can have confidence that a given person is who they say they are without needing to share that person's Social Security Number or bank account information. In a blockchain context, the verification of the person's identity is likely to be associated with that person's crypto wallet by means of a digital identity "passport" that allows that person to interact with various blockchain protocols without need for transaction-by-transaction KYC processes.

- 3) How do you envision such a regime would operate internationally?

**Response:**

The international organizations working on financial identity issues – organizations such as the Financial Action Task Force, the Basel Committee, and others – would need to collaborate on clear standards for what qualifies as adequate identifying information in the context of decentralized transaction platforms such as blockchains. For example, the FATF's "Travel Rule" requires transactions to be appended with sender and recipient information as money is transmitted from one person to another. In a decentralized environment, it makes little sense to interpret this to require name, address, and similar information when a less-hackable and less-falsifiable digital token could be used instead.

- 4) Are there technical considerations that would prevent such a legally traceable identity to be used for automated collection of taxes, similarly to payroll, interest, or financial taxes?

**Response:**

The current system for identifying taxpayers is obviously riddled with problems – the epidemic of tax return-related identity fraud, including but not limited to refund theft, shows that the current system of identity verification works relatively poorly, and the IRS's recent experiment with a single-vendor ID.me approach was quickly abandoned amid controversy. Compared to these alternatives, adoption of an open-source,

consensus-based identity standard could potentially improve the system, particularly if tax authorities adopted a standard instead of a proprietary solution or vendor.

- 5) What measures will be necessary to prevent wash trades and similar abuses in crypto asset trading, where persons operate multiple digital identities to defraud the market? Is there an alternative to biometrically de-duplicating lists of market participants, and the prohibition of opaque shell corporations, in order to prevent these abuses?

**Response:**

Wash trading obviously long predates the invention of blockchain and cryptocurrencies. In the crypto era, the idea that individual market participants can create multiple digital *wallets* is not the same as being able to create multiple digital *identities*. Blockchain analytics services such as Chainalysis, Elliptic, or Bitfury's Crystal Blockchain division are able to trace transactions and identify both the source of funds and the recipient of funds, which increases the possibility of identifying wash trading and other illicit activity. The concept of digital identity passports, discussed above, holds the potential to securely identify market participants without divulging nonpublic information about the participants, while simultaneously making wash trading marginally more difficult than in the status quo.

- 6) Should more relaxed identity requirements be implemented for trading in assets with fixed valuations (like stablecoins), where wash trades are not of concern but legal traceability is still required?

**Response:**

As noted above, digital identity passports and other innovations are likely to develop into universal identity verification tools that apply across blockchain applications. Any policy that creates differential treatment across different classes of cryptoassets should be carefully reviewed for unintended consequences.

Question for **Samuel Bankman-Fried**, Founder and CEO, FTX.

During our discussion, you alluded that there might need to be a way to reverse transactions – either in the event that a user was defrauded, or in the event that assets were mistakenly sent either to the wrong party or in the wrong quantity.

- a) What mechanisms (e.g. forking) exist to allow us to achieve this functionality on a blockchain that is seemingly permanent?
- b) What impact would this have on speed and finality of transactions?
- c) What systems of governance would be necessary to allow such a functionality?



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Congressman Bill Foster  
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February 28, 2022

**Re: Questions for the record, House Committee on Financial Services: “Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of Financial Innovation in the United States”**

Dear Congressman Foster,

Thank you for your questions following the December 8, 2021 hearing, “Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of Financial Innovation in the United States,” before the House Financial Services Committee. Our organization was honored to be invited to testify and share more about the use cases being built on the Stellar network.

As we shared in the testimony at the hearing, our organization, the Stellar Development Foundation or SDF, is a non-stock, non-profit corporation with no shareholders, no owners, and no profit motive. We are not a charity. We generate revenue and we pay state and federal taxes, but our structure requires us to use our assets to support only our mission of creating equitable access to the global financial system and to do so using the Stellar network. To achieve this mission, we focus our work on a few top priorities: we shepherd the code base for the Stellar network, participate in the ecosystem surrounding Stellar, support the growth of the ecosystem and the use cases built on top of Stellar, in addition to supporting global public policy and education around Stellar and blockchain.

The Stellar network is an open, permissionless, decentralized ledger — or blockchain network — that is optimized for payments. There is no single entity, including SDF, that controls the codebase of the network or its growth. You don’t need permission to use the technology; just like the underpinnings of the Internet, it is open and ready for use. Importantly, SDF does not engage directly with end-users of the Stellar network. With that understanding, here is our response to your specific question.

**Question:** My questions concern your preferred implementation of such an identity system, in particular:

- 1) Who should be allowed to issue—and, if necessary, revoke—such an identity?
- 2) What features are desirable for maximum preservation of user privacy, while at the same time allowing a legally traceable identity?
- 3) How do you envision such a regime would operate internationally?
- 4) Are there technical considerations that would prevent such a legally traceable identity to be used for automated collection of taxes, similarly to payroll, interest, or financial taxes?
- 5) What measures will be necessary to prevent wash trades and similar abuses in crypto asset trading, where persons operate multiple digital identities to defraud the market? Is there an

alternative to biometrically de-duplicating lists of market participants, and the prohibition of opaque shell corporations, in order to prevent these abuses?

6) Should more relaxed identity requirements be implemented for trading in assets with fixed valuations (like stablecoins), where wash trades are not of concern but legal traceability is still required?

**Response:** We agree that being able to identify the actors who engage in ransomware and other illicit activity is an essential tool in the prevention of such activities – in much the same way that identification is critical to attribution with respect to criminal activity using non-crypto assets. While we do not have all of the answers, we are aware of a number of industry-led initiatives, including the Centre Consortium, of which we are a member, that are working on solutions and standards to address this challenge. We welcome the opportunity to work with you and your staff as we tackle these important concerns.

Please do not hesitate to reach out if you or your staff would like to discuss these important issues.

Very truly yours,

*Candace Kelly*

Candace Kelly  
General Counsel  
Stellar Development Foundation

**Williams (GA) Questions for the Record**

**House Committee on Financial Services: “Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of Financial Innovation in the United States”**

**December 8, 2021, at 10:00 a.m. ET**

I am a Congresswoman who has been unbanked, and I’ve had to rely on cash to get by. Looking back, it’s difficult to imagine using digital currency at a time when I did not even have access to a bank account.

1. Mr. Cascarilla, how will digital currencies and payments work for groups traditionally left out of the financial system, including those who are unbanked, underbanked, or lack financial literacy? Isn't it true that you still need internet connectivity or cell phone access and some technical knowledge to use these products? And if so, isn't that yet another barrier to entry that may affect my constituents?

How different demographic groups use stablecoins now could tell us a lot about who may be left behind in a more cashless society and the work we have to do to promote financial inclusion in an increasingly digital financial system.

2. Mr. Cascarilla, do you have demographic data of stablecoin users, and how could we use this kind of data to inform our policy decisions on this committee?

I’ve come from being unbanked to being a Congresswoman, and I’m determined to hold the door open for more people like me to experience financial inclusion.

3. To all witnesses, as we write the rules of the road around digital assets, what recommendations do you have to maximize financial inclusion and economic prosperity for those who have barriers to accessing the financial system? What do you think about the promise of a Central Bank Digital Currency in addressing financial inclusion concerns for the unbanked?

Response of FTX and Sam Bankman-Fried:

The U.S. as a nation has adopted a policy for determining and verifying the identity of those wishing to access regulated financial products, and these include banking products as well as investment products, as required by the Bank Secrecy Act and other related laws and regulations. This policy approach has largely been informed by the country's national security interests, but at times to the detriment of U.S. citizens who do not have easy access to typical methods of verifying identity (e.g., state-issued driver license, passport, etc.). To promote financial inclusion, U.S. policy first should be attuned to these trade-offs, and assess what is truly needed by way of verifying information to protect the national interest. Second, U.S. policy should promote choice in the marketplace for financial products and take care to allow for responsible innovation that leads to new products. Third, basic principles of customer protections can be ensured while also allowing flexibility in how those protections are implemented, including through implementations that take place outside of specifically regulated product areas. Congress should work cooperatively with regulators to encourage this type of approach to implementation, including as it relates to the trading of digital assets.

As for Central Bank Digital Currencies (CBDC), whether the innovation comes from the private sector or from agencies of the federal government, the same principles outlined above apply – fair and equal access to financial products, adequate customer

protections, flexible implementation. So long as those principles apply to the oversight of U.S.-based stablecoin issuers, it is not clear that a U.S. CBDC by itself would be needed to promote financial inclusion, although it could be helpful.





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Congresswoman Nikema Williams  
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January 31, 2022

**Re: Questions for the record, House Committee on Financial Services: “Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of Financial Innovation in the United States”**

Dear Congresswoman Williams,

Thank you for your questions following up on the December 8, 2021 hearing, “Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of Financial Innovation in the United States,” before the House Financial Services Committee. Your questions to all witnesses regarding financial inclusion and the unbanked focus on some of the topics we at the Stellar Development Foundation (SDF) find to be the most compelling uses of blockchain technology, stablecoins, and central bank digital currencies. Here are responses to your specific questions:

**Question:** What recommendations do you have to maximize financial inclusion and economic prosperity for those who have barriers to accessing the financial system?

**Response:** We would highlight three steps that companies, governments, and intergovernmental organizations could take to ensure that digital technologies reach and benefit those who need them the most:

- The private sector should ensure that product design embeds financial education into the user experience and provides sufficient transparency for consumers to fully understand the services they are using. Applications should be built in a user-centric fashion with a focus on simplicity, ease of use, and in-context education.
- Governments should provide regulatory clarity in the form of a policy framework that fosters innovation, competition, and openness to drive financial inclusion, among other priorities. For example, regulations for stablecoins should address the risks identified by the President’s Working Group Report, but not limit the issuance of stablecoins to federally insured depository institutions. Allowing stablecoins to be issued by entities that are subject to appropriate oversight to address issues such as consumer protection, appropriate reserves, audits and disclosures, and insurance would strike the appropriate balance between regulation and innovation and promote greater inclusion. As discussed in our CEO [Denelle Dixon’s testimony](#), the emergence of stablecoins has led to numerous opportunities for the unbanked and underbanked to solve real-world problems in ways that were unavailable to them under the traditional financial system.
- International organizations can help countries to gather and analyze data in an effort to understand the opportunities and risks of digital technologies including, but not limited to, blockchain and digital assets. Data will assist in understanding how specific target groups,

such as women, access and use financial services.

**Question:** What do you think about the promise of a Central Bank Digital Currency in addressing financial inclusion concerns for the unbanked?

**Response:** SDF believes that a Central Bank Digital Currency (CBDC), much like stablecoins and other digital assets, could play an important role in expanding the access and usage of central bank money. In turn, this could promote financial inclusion, improve welfare, and boost job creation and economic participation for the unbanked as well as for small businesses who face barriers to the traditional financial system. Even with the issuance of a CBDC, the private sector would maintain its role of providing innovative solutions for consumers to participate in the increasingly digital financial system.

Today, the unbanked are reliant on cash, the use of which, as the Federal Reserve noted in its recent report ([Money and Payments: The U.S. Dollar in the Age of Digital Transformation \(PDF\)](#), p.16) (hereinafter “the Federal Reserve’s Report”) has declined in the United States from 40 percent of transactions in 2012 to 19 percent in 2020. Indeed, as the world becomes increasingly digitized, there is a growing reliance on digital money, which is currently not issued or directly backed by central banks, nor equally available. The issuance of a CBDC would offer central banks the opportunity to continue playing the role of offering trusted money and a public good that is available to all. More specifically, a CBDC could be introduced as an additional form of public money that can serve as a means of payment with lower transaction fees and no credit or liquidity risks. Combined with private sector-led innovations in products and services, a CBDC could provide for inexpensive, easy to use, secure, safety-enhancing, and fast payments.

In light of this promise of CBDCs to enhance financial inclusion, we agree with the conclusion of the Federal Reserve’s Report that further study on this topic will be instructive. We are encouraged by the [latest data](#) published by the Bank for International Settlements in January 2022, that reveals that of the 68 central banks that have communicated publicly about their CBDC work, financial inclusion emerges as a main factor across emerging economies and remains a top priority for CBDC development.

We would welcome the opportunity to speak with you or your staff further about these important issues.

Very truly yours,

*Candace Kelly*

Candace Kelly  
General Counsel  
Stellar Development Foundation

