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CRYPTO CRASH: WHY THE FTX BUBBLE BURST AND THE HARM TO CONSUMERS

HEARING

BEFORE THE

COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS UNITED STATES SENATE

ONE HUNDRED SEVENTEENTH CONGRESS

SECOND SESSION

ON

EXAMINING THE FAILURE OF THE NON-U.S. AND U.S. BASED FTX CRYPTO EXCHANGES AND THE FALLOUT AFFECTING OTHER CRYPTO AND FINANCIAL FIRMS

DECEMBER 14, 2022

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CRYPTO CRASH: WHY THE FTX BUBBLE BURST AND THE HARM TO CONSUMERS

WEDNESDAY, DECEMBER 14, 2022

U.S. SENATE
COMMITTEE ON BANKING, HOUSING AND URBAN AFFAIRS
Washington, DC.

The Committee met at 10 a.m., in room G50, Dirksen Senate Office Building, Hon. Sherrod Brown, Chairman of the Committee, presiding.

OPENING STATEMENT OF SENATOR SHERROD BROWN

Chairman BROWN. The Senate Banking, Housing, and Urban Affairs will come to order. Thank you to the witnesses for joining us today.

Today's hearing, we believe, is in a hybrid format. That was the intent. We are having some problems, some technical problems that may be Senate-wide, and Cameron is a genius at this stuff and doing everything he can to fix it. So we are letting Committee Members who sometimes want to ask questions remote, that they probably need to show up in person. So that is our issue; certainly not the witnesses'.

I want to express my gratitude to the Department of Justice, the SEC, the CFTC, and the Bahamian authorities for taking the critical step to hold Sam Bankman-Fried accountable for his misdeeds. I would also like to thank Ranking Member Toomey and his staff—thank you—for working with me and my staff to try to secure Mr. Bankman-Fried's testimony. I trust that he will soon be brought to justice. It is clear he owes the American people an explanation.

Meanwhile, our job is to keep learning more about the collapses of FTX and other crypto firms—and I emphasize "and other crypto firms"—and work with regulators to put consumers, not the crypto industry, first.

This is not just about crypto. This is about protecting the consumers and the regulated financial sector from bad actors who think rules simply do not apply to them.

Two-and-a-half years ago, I explained why I thought Facebook's Libra currency was dangerous. At the time, Facebook was moving full steam ahead, as most of you know, to create its own "currency"—put that in quotation marks—to impose on its billions of users. Congress, regulators, and policymakers saw Facebook Libra for what it was: a shiny new tool Facebook could use to reach into Americans' pockets and profit from, no matter the risk to consumers or our economy.

Members of this Committee, and others in Congress, responded. Republicans and Democrats alike made it clear that Facebook could not be trusted, and our financial system was not to be played with.

The risk of a company creating its own currency to compete with the U.S. dollar was obvious. Ultimately, Facebook shut down its crypto project, but this Committee's work to protect consumers of course continues. Even though Facebook shelved its crypto plans, in the last 2½ years, the stablecoin market has grown 20 times, to become a tool for rampant speculation.

The number of crypto tokens has exploded, even as the total value of all crypto assets fell by two-thirds in the last year.

I have noted in the past the similarities that cryptocurrencies share with risky mortgage bonds and over-the-counter derivatives during the lead up to the financial crisis. In all these cases, they told us how great innovation is and how derivatives make markets efficient. Wall Street made it easy for everyone to get a mortgage so bankers could create more mortgage bonds and increase profits. Making money in crypto seemed easy, too easy. Every crypto token could double or triple in value in a matter of hours or days.

It did not matter if it was created with vague details or as a joke. Money still poured in. But no one is laughing now.

The weekend before our stablecoin hearing last February, we saw crypto companies spending big money on Super Bowl ads to attract more customers and pump up crypto tokens. I appreciated the comments of one of you in this panel on public radio today about that.

Crypto, like Facebook's Libra before it, was the shiny tool that was supposed to capture our imagination and revolutionize our lives. Wealthy celebrity spokespeople told Americans, if you are not buying crypto, you are missing out.

Crypto platforms created dozens of investment products, products that look and sound like bank deposits, and that used words like "lend" and "earn," or tokens that resemble securities and have a "yield" or governance rights. Yet these products had none of the safeguards of bank deposits or securities.

Crypto firms, and their backers, argued that billions of dollars invested in lending programs, or earning yield, should be exempt from basic oversight and regulatory protections.

That is not how regulation works. The things that look and behave like securities, commodities, or banking products need to be regulated and supervised by the responsible agencies who protect the public and serve consumers.

Crypto does not get a free pass because it is shiny and bright, or because venture capitalists think it might change the world, or its TV ads campaigns were witty and featured famous people, especially when so many consumers are at risk of losing their hard-earned money.

And that is before we even consider how crypto has ushered in a whole new dimension of fraud and threats to national security—people are talking about that more and more because it is a central issue in this—that support dangerous Nation States, embolden criminals, and finance terrorists.

North Korea uses crypto stolen in hacks to finance its ballistic missile programs. Think of that. Human traffickers and drug cartels and gunrunners launder their proceeds using crypto assets—

think of that—and some of these laundered funds end up bankrolling terrorists bent on undermining our Nation and our society. Think of that.

The ability of rogue States, cyber criminals, and terrorists to use crypto for their own malign purposes is a feature of the technology, and that is the point.

Crypto also has made it easier for fraudsters and scammers to steal consumers' money. Hacks and complex crypto transactions made it easy to steal billions of dollars of investors' money. That is what we saw with FTX. That is what will continue as long as we allow crypto firms to write their own rules.

The myth of Sam Bankman-Fried and his crypto trading success was supposed to impress us. We are still learning how he shuffled money between FTX and his trading firm, Alameda Research, a name calculated to sound as generic as possible to avoid raising eyebrows while sending money across the world.

FTX and Alameda Research took advantage of the crypto industry's appetite for speculation. They were able to borrow and lend from other platforms and invest in other crypto firms, inflating the crypto ecosystem and growing their own profits.

Even this summer as crypto values crashed and platforms began to fail, FTX and Alameda found ways to benefit. In one case, FTX made a $250 million loan to a platform using its proprietary token, and Alameda borrowed client deposits worth more than twice that from the platform.

All the while, venture capitalists and other big investors—shame on them—fell for it. They were caught up in the speculative frenzy, missed the red flags at FTX, and showered Mr. Bankman-Fried with more and more money, and now it is all most likely gone.

It is no surprise that in 2018, Alameda solicited investors by guaranteeing 15 percent returns with, quote, "no downside." That is more than the guaranteed 11 percent that Bernie Madoff offered. With Madoff and with Sam Bankman-Fried, investors did not ask questions for fear of missing out. It is a good reminder that most guaranteed investments are, in fact, too good to be true.

In this story, Sam Bankman-Fried was also the shiny object. Now he is the villain, possibly worse. But this story is bigger than one person or even one firm, and that is the point of this hearing. This is not just about misconduct at FTX, but about how to protect consumers and the financial system from unregulated crypto products.

For many investors, it might be too late. I have heard from far too many Ohioans who have money stuck at FTX.US, that they tried to get out before it filed for bankruptcy. But despite Mr. Bankman-Fried's assertions that the U.S. side of FTX should be fine, the court proceedings are likely to drag on and on.

If we are going to learn from FTX's meltdown, we must look closely at the risks from conflicts at crypto platforms that combine multiple functions. It means thinking about the kinds of disclosure that consumers and investors really need to understand how a token or crypto platform works. We can look to existing banking and securities laws for time-tested approaches to oversee and examine entities that want Americans to trust them with their money.

To protect consumers and the financial system we need a comprehensive framework that looks at crypto products for what they are, not looking at these products the way crypto executives want them to be, or want to tell us they should be.

I look forward to working with Treasury Secretary Yellen. We have been working with her to step and lead this governmentwide regulatory approach—and the other financial regulators to ensure there is an all-of-Government approach, just as we have done in the past. Anything less simply will not work.

Senator Toomey.

STATEMENT OF SENATOR PATRICK J. TOOMEY

Senator TOOMEY. Thank you, Mr. Chairman, and I want to thank our witnesses for joining us this morning.

We are here to discuss the fallout after the collapse of FTX. Some Americans very likely suffered significant losses from the bankruptcy of FTX and Sam Bankman-Fried's misconduct.

On Monday, we saw the arrest of Mr. Bankman-Fried. This came as a surprise to no one, with the possible exception of Mr. Bankman-Fried. We owe it to each customer to get to the bottom of the FTX implosion, and any violations of the law should be aggressively prosecuted. The Department of Justice and other enforcement agencies should expeditiously investigate the unseemly relationship between a company that was effectively a hedge fund, and an exchange entrusted with customer funds.

While all the facts have not yet come to light, we have clearly witnessed wrongdoing that is almost certainly illegal. There was unauthorized lending of customer assets to an affiliated entity, and there were apparently fraudulent promises to investors and customers about FTX's operations. These are outrageous and completely unacceptable. The SEC also believes FTX committed fraud against equity investors. They are going to pursue that, as they should.

But I want to underscore a bigger issue here, and that is the wrongful behavior that occurred here is not specific to the underlying asset. What appears to have happened here is a complete breakdown in the handling of those assets. In our discussion of FTX today, I hope we are able to separate the likely illegal actions from perfectly lawful and innovative cryptocurrencies.

Now it is important to define this space. Cryptocurrencies are analogized to tokens, but they are actually software. The software protocols that are foundational to the crypto ecosystem are like operating systems, and then applications are run on top of these operating systems. Currently there are many competing operating systems and many apps running on them. There is nothing intrinsically good or evil about software; it is about what people do with it.

With this analogy in mind, what we should all understand here is one simple thing: the code committed no crime. FTX and cryptocurrencies are not the same thing. FTX was opaque, centralized, and dishonest. Cryptocurrencies usually are open-source, decentralized, and transparent.

To those who think that this episode justifies banning crypto, and I have actually heard that suggested, I would ask you to think about several other historical parallels.

The 2008 financial crisis involved obvious misuse of products related to mortgages. Did we decide to ban mortgages? Of course not. A commodity brokerage firm run by former New Jersey Senator John Corzine collapsed after customer funds, including U.S. dollars, were misappropriated to fill a shortfall from the firm's trading losses. Nobody suggested that the problem was the U.S. dollar, or that we should ban it. With FTX, the problem is not the instruments that were used. The problem was the misuse of customer funds, gross mismanagement, and likely illegal behavior.

So let us talk about what comes next. Some of my colleagues have suggested somehow pausing cryptocurrencies before we pass legislation. This is a profoundly misguided, not to mention impossible, idea. Short of enacting draconian, authoritarian policies, cryptocurrency cannot be stopped. If we tried, the technology would simply migrate offshore; cryptocurrency does not need brick and mortar facilities to operate. And typing computer code should clearly be seen as a form of protected speech.

Are we going to decide to pause the Constitution to stop crypto? This is exactly the kind of mindset that has driven this activity to the darker and less regulated parts of the world.

Now, if Congress had passed legislation to create a well-defined regulatory regime with sensible guardrails, we would have multiple U.S. exchanges competing here under the full force of those laws and regulations. In that scenario, it is not clear that FTX would have ever existed, at least on the scale that it did, not if we had American companies that were an alternative and properly regulated. The complete indifference to an appropriate regulatory regime by both Congress and the SEC has probably contributed to the rise of operations like FTX.

Others have suggested we refrain from addressing cryptocurrency at all, because we would not want to legitimize its use. Well, I think that is both misguided and irresponsible. Congress can and should offer a sensible approach for the domestic regulation of these activities. I think we should start with stablecoins. This is an activity that my colleagues can analogize to existing, traditional finance products. There is clear bipartisan agreement that stablecoins need consumer protections. There are virtually none in place now. I have proposed a framework to do that. Senators Lummis and Gillibrand have also proposed a framework.

Congress also needs to determine the criteria and the disclosures by which the issuance of digital assets will be regulated. And we should acknowledge the possibility that certain token issuances, like Bitcoin, do not need that kind of regulation. We should also clearly delineate regulations for secondary market trading of these assets, including at exchanges like FTX.US. Some of my colleagues have begun this important work.

We can provide sensible consumer protections for which there would be very broad agreement, while still allowing for the development of applications that are going run on operating systems that we cannot even imagine today, just as I do not think any of us ever imagined applications like Uber operating on iOS today.

Let me conclude with this. It is absolutely essential to investigate any fraud and violations of existing law, and prosecute those who are committing those crimes. Congress owes it to the American people to do so. But this is fundamentally not about the kind of assets that were held by FTX. It is about what individuals did with those assets.

Individuals can also be tremendously empowered by the use and access to cryptocurrencies. Cryptocurrencies can protect against inflation when Governments irresponsibly manage their own currencies. They can provide useful services without the need for a company or a middleman. And they can let individuals preserve the freedom to transact privately.

Mr. Bankman-Fried may have well committed multiple crimes. The SEC and DOJ will determine that. But let us remember to distinguish between human failure and the instrument with which the failure occurred. In this case the instrument is software, and the code committed no crime. And while Sam Bankman-Fried very well may have, it is important we do not convict the code of anything but preserving and protecting individual autonomy.

Thank you.

Chairman BROWN. Thank you, Senator Toomey.

I will introduce today's witnesses. Starting on my left we will hear from Professor Hilary J. Allen from the American University Washington College of Law. She has testified remotely in this Committee last year, I believe.

Mr. Kevin O'Leary, an investor, television personality, and founder of several companies. Mr. O'Leary, welcome.

Ms. Jennifer Schulp, the Director of Financial Regulation Studies at Cato Center for Monetary and Financial Alternatives. Ms. Schulp, welcome.

And Mr. Ben McKenzie Schenkkan, an actor, writer, director who is cowriting a book on cryptocurrency and fraud. Mr. Schenkkan, welcome.

And Professor Allen, please begin.

STATEMENT OF HILARY J. ALLEN, PROFESSOR, AMERICAN UNIVERSITY WASHINGTON COLLEGE OF LAW

Ms. ALLEN. Chairman Brown, Ranking Member Toomey, and Members of the Committee, thank you for inviting me to testify today. My name is Hilary Allen and I am a professor of law at the American University Washington College of Law, and I am the author of the book, "Driverless Finance: Fintech's Impact on Financial Stability".

I would like to make three points today. The first is that FTX's failure was not an isolated incident but is symptomatic of many broader problems in the crypto industry. FTX is just the latest in a series of major crypto industry failures, failures of centralized crypto intermediaries like Celsius, and failures of DeFi offerings, like Terra Luna. These failures arose, in large part, because of a feature that is unique to the crypto industry. Crypto assets can be made up out of thin air. When assets can be made up out of thin air that generates leverage that makes the whole system more vulnerable to booms and busts. When assets can be made up out of thin air, they can also be used to obscure financial realities, as was done with FTX's FTT tokens, which were used as collateral for the FTX customer assets loaned to Alameda.

How can you have any reliable check on the valuation of an asset with no productive capacity behind it? The attestations and proof of reserves offered by the crypto industry are poor substitutes for rigorous and independent audits. Such an environment is highly conducive to fraud. Sam Bankman-Fried may have engaged in good old-fashioned embezzlement, as it was put yesterday, but the embezzlement was able to reach such a scale and go undetected for so long because it was crypto, shrouded in opacity, complexity, and mystique.

To be clear, decentralization will not protect us from future crypto frauds because even if DeFi is technologically decentralized it is not economically decentralized. If one person owns 90 percent of the governance tokens that control the software, which is quite common in DeFi, then they could cause it to perpetuate shady behavior.

The second point I want to make is that when we talk about regulating crypto we are often not being specific about the type of regulation we mean to apply. There are several different options. A ban on crypto, for example, would be the most straightforward way of protecting both investors and the financial system, and because crypto is not really decentralized it is possible to enforce such a ban. If policymakers do not wish to proceed with a ban then they will need to be careful to ensure that any laws that they do adopt do not inadvertently make crypto too big to fail.

Crypto should not be regulated like banking products because that would give crypto access to the Government support that we afford to banking because of its critical role in providing credit and processing payments for the broader economy. Banking regulations should, however, continue to keep actual banks away from crypto. The harm from FTX's collapse has been limited to those who invested in crypto, but allowing crypto to integrate with the rest of our financial system could cause a broader financial crisis that would hurt those who never even invested.

Investor protection regulation as opposed to banking regulation does not come with any deposit insurance or lender of last resort. It does not signal that an investment is a good investment or that an investment will not lose value. Robust enforcement of the securities laws could make significant strides in protecting U.S. investors without conveying the message that crypto is too big to fail. The SEC has been very clear in its public statements that most crypto assets are securities, but Sam Bankman-Fried and the rest of the crypto industry were not looking for this clarity on the current law. They were looking for changes in the law that would accommodate the industry. In particular, they wanted to be regulated by the CFTC and not the SEC.

I respectfully submit that Congress should not adopt legislation to that end that was endorsed by Sam Bankman-Fried, in particular, because the proposed CFTC self-certification regime for crypto assets would allow the unlimited supply of crypto assets to continue to proliferate. Energetic enforcement of the SEC's existing securities registration requirements, on the other hand, would make it a lot harder to make crypto assets up out of thin air. If

Congress wishes to provide more clarity and certainty to the crypto industry they could adopt legislation that categorically provides that all crypto assets are indeed securities.

The final point I want to make is that we have little to lose from limiting the growth of the crypto industry. The underlying blockchain technology can never deliver on the industry's promises, both because the technology itself is not very good and because technology is only a tool. After 15 years without a killer app, it is time for policymakers to listen to the technologists explain why blockchain technology is fundamentally not fit for purpose.

Even if it were good technology, though, it would not fix the underlying political and structural problems that limit access to financial services. In many ways, relying on the crypto industry to improve access to financial services is like adopting a policy to open more casinos in underserved communities. And to those who say that crypto investment is a matter of personal choice, crypto creates problems even for those who choose not to invest in it. It facilitates ransomware attacks, sanctions evasion, tax evasion, has significant environmental consequences, and as I have already discussed, could cause financial crises if allowed to integrate with the traditional financial system.

I would submit that the United States should not want to be a world leader in the worst kind of innovation that allows its suppliers to profit handsomely but offers little benefit to society and, in fact, inflicts a multitude of harms.

Chairman BROWN. Thank you, Professor Allen.

Mr. O'Leary, welcome.

STATEMENT OF KEVIN O'LEARY, INVESTOR

Mr. O'LEARY. Thank you very much. Chairman Brown, Ranking Member Toomey, and Members of the Committee, thank you for inviting me to testify about crypto and the collapse of FTX.

I am the Chairman of O'Shares, an ETF indexing firm, and also a private equity and venture investor. I support entrepreneurs at every stage of their journeys. I have dozens of family run businesses in our investment portfolios. My extensive social media platform enables me to tell the stories of their products and services to help reduce their customer acquisition costs. It is a model that has worked well for over a decade and helped support so many small American businesses, which create over 60 percent of the jobs in the American economy.

In 2017, I was a public critic and skeptic of crypto and blockchain technology. As the global regulatory environment began to open up in 2018, I began to invest. Now I am a shareholder in multiple companies involved in crypto technology, including WonderFi/BitBuy, the largest and first regulated broker/dealer crypto exchange in Canada, Immutable Holdings, a developer of NFT technology, and Circle, the company that brought USDC stablecoin to market. I have also invested in multiple crypto tokens, infrastructure and Level 1 and Level 2 blockchains.

I am of the opinion that crypto, blockchain technology, and digital payment systems will be the 12th sector of the S&P within a decade.

Many of these technologies are going to disrupt the existing financial services sector with faster, more efficient, more productive and more secure ways of investing, paying, transferring, and tracking assets.

As you are aware, Bitcoin, a store of value, is not a coin. It is software. Ethereum is software. Blockchain is software. In the last 30 years, every American enterprise has driven major efficiencies using various versions of enterprise software, and crypto is no different. The potential of these crypto technologies is astronomical in scale.

In August of 2021, nearly 3 years after I started allocating capital to the crypto sector, I entered into an agreement with FTX to be a paid spokesperson. I was paid approximately $15 million for these services, plus approximately $3 million to cover a portion of the taxes due. Of the remaining amount, approximately $1 million was invested in FTX equity and approximately $10 million in tokens held in FTX wallets. The equity is now most likely worthless and the accounts have been stripped of their assets and, interestingly, financial records. I have written them off to zero. Because I was a paid spokesperson, however, I never invested any capital from our partners or LPs in FTX. The capital lost was from an operating company that I had 100 percent ownership in.

I am using my own capital to pursue record recovery of the FTX accounts so that I can conduct a forensic audit. The truth of this situation will be discovered by following the transaction trail after obtaining the records. I have applied for membership on the FTX creditors' committee, in connection with the bankruptcy proceedings, because I feel obligated to pursue the facts on behalf of all stakeholders, and believe my perspective of this situation will be helpful to the other creditors' committee members.

The collapse of FTX is nothing new. While this situation is painful for shareholders, employees, and account holders, in the long run, it does not change this industry's promise. Enron came and went and had no impact on the energy markets. Bear Stearns' and Lehman Brothers' demise had no impact on the long-term potential of American debt and equity markets.

I am only one of many investors that has experienced this loss. However, this changes nothing in terms of the potential of crypto. In fact, the recent collapse of crypto companies has a silver lining. This nascent industry is culling its herd. Going or gone are the inexperienced or incompetent managers, weak business models, and rogue, unregulated operators. Hopefully, these highly publicized events will put renewed focus on implementing domestic regulation that has been stalled for years. Other jurisdictions have already implemented such policies and are now attracting both investment capital and highly skilled talent. In the U.S., we are falling behind and losing our leadership position.

I understand why many leaders in the banking industry are openly skeptics, calling for the banning of these new crypto software technologies. Disruption is always uncomfortable at first, and entrenched businesses abhor new competition. But it has been proven time and time again that disruption is absolutely necessary in advancing the economy.

There is the risk of investing in crypto and there is also the risk of not investing in it and letting others accrue its benefits first, essentially gifting them a competitive advantage that could be hard to recapture.

So where to start? We need clear policy and regulation for the crypto industry, its entrepreneurs, its developers, and its users. Congress should start by passing bipartisan legislation that creates a sensible regulatory framework for digital stablecoins backed by the U.S. dollar. Why? A well-regulated stablecoin backed by the U.S. dollar and other high-quality, liquid assets could become the global default payment system over time. The U.S. dollar already denominates the price of oil and other commodities. Why not everything else? What could be more bipartisan than this?

Let me close with this. We need to get to the bottom of what happened at FTX, but we cannot let its collapse cause us to abandon the great promise and potential of crypto.

Chairman BROWN. Thank you, Mr. O'Leary.

Ms. Schulp, welcome.

STATEMENT OF JENNIFER J. SCHULP, DIRECTOR OF FINANCIAL REGULATION STUDIES, CENTER FOR MONETARY AND FINANCIAL ALTERNATAIVES, CATO INSTITUTE

Ms. SCHULP. Thank you, Chair Brown, Ranking Member Toomey, and distinguished Members of the Senate Committee on Banking, Housing, and Urban Affairs. My name is Jennifer Schulp and I am the Director of Financial Regulation Studies at the Cato Institute's Center for Monetary and Financial Alternatives. Thank you for the opportunity to participate in today's hearing.

At the outset, I note that because the facts are developing it is premature to definitively diagnose the causes of FTX's demise. Claims of fraud and contractual breaches should be vigorously pursued, and courts should determine what crimes and violations took place.

Importantly, the issues with FTX do not appear to be intrinsically tied to cryptocurrencies or other blockchain technologies. John Ray, the company's bankruptcy CEO, described the situation as "a complete failure of corporate controls and a complete absence of trustworthy financial information." These risk management failures, whether the result of intentionally fraudulent practices or the product of gross negligence, should reflect on the perpetrators themselves, not on the crypto ecosystem.

Today I suggest three takeaways for policymakers. First, there are important distinctions between centralized entities and decentralized projects. Policies designed to address risks posed by centralized financial intermediaries should not be blindly applied to decentralized projects. FTX is, at heart, a traditional middleman. As a centralized exchange, and like a traditional bank or broker, FTX took possession of people's assets and kept the books, however poorly.

Decentralized finance, or DeFi, seeks to mitigate these intermediary risks through technology. While designs vary, decentralized exchanges utilize open-source software to provide exchange services by, among other things, publicly recording transaction data and allowing users to self-custody assets. That is not to say that decentralized exchanges solve every problem or eliminate every risk, or that DeFi is always preferable to centralized finance. Rather, the point is that different risks ought to be treated differently.

Second, unclear regulation remains a problem that can drive innovation offshore. A rational regulatory framework should distinguish between projects that reproduce the risks of traditional finance and those that mitigate those risks through disintermediation. For exchanges to provide rules that are narrowly targeted to relevant risks, Congress should provide for centralized marketplaces to register with the CFTC for crypto commodities and the SEC for crypto securities. Decentralized exchanges should be permitted to voluntarily register, which recognizes their capacity to address intermediary risks through technology.

Addressing marketplace regulation, though, is only part of the task. It is also important to clearly define when crypto projects trigger securities regulation to determine which regulator oversees trading and what customer protections are appropriate.

Federal securities law is appropriately applied to address the specific risks of fraud, deception, and manipulation by developers, sellers, or promoters who are active managers of a crypto project. But where no individual or entity acts like a manager, Congress should clarify that securities laws do not apply. Congress should also provide a disclosure option for decentralizing projects that covers information relevant to crypto purchasers.

Finally, following FTX's bankruptcy there have been the usual calls to protect consumers by banning crypto or, paradoxically, by declining to regulate crypto, to delegitimize it. This type of protection, premised on a value judgment about the worth of the crypto ecosystem, takes the choice to engage in technological innovation out of the hands of consumers, investors, and entrepreneurs and wrongly places it in the Government's hands.

While circumspection around a novel asset class and technology is more than fair, blocking access to an instrument that approximately 1 in 5 Americans already have chosen to use for diverse purposes, from trading to sending remittances, is entirely different. That crypto has yet to meet all of the goals that it or other have set is not a reason to limit access.

Moreover, the risk that some people will lose money does not justify harsh regulation. Risk is a natural component of markets, and failure is often necessary for development. Americans should be able to participate, for better and for worse, in that process.

Thank you, and I welcome any questions you may have.

Chairman BROWN. Thank you, Ms. Schulp.

Mr. Schenkkan, welcome.

STATEMENT OF BEN MCKENZIE SCHENKKAN, ACTOR AND AUTHOR

Mr. SCHENKKAN. Thank you, Mr. Chairman. Chairman Brown, Ranking Member Toomey, Members of the Committee, thank you for inviting me to testify before you today.

This hearing has been called for two reasons. The first is to examine the spectacular collapse of the crypto exchange FTX and its sister company, Alameda Research, both owned by Sam Bankman-Fried. These companies, valued at more than $32 billion earlier this year, are today worth less than nothing. In fact, they are $8 billion in the hole.

The demise of FTX and Alameda represent the most spectacular corporate downfall since Bernie Madoff's Ponzi scheme imploded in the wake of the Great Financial Crisis. It has captured the Nation's attention.

Like Madoff, FTX and Alameda owe enormous sums to supposedly sophisticated investors such as venture capital firms and hedge funds, and like Madoff, they also owe a lot of money to regular people.

However, the carnage at FTX is far more widespread. Madoff defrauded some 37,000 clients. FTX claims 32 times that amount in the U.S. alone. According to FTX, some 1.2 million retail traders, aka regular folks, and 5 million worldwide have lose access to the money they entrusted to FTX. It is unclear when, if ever, they will get any of that money back.

The harm to those consumers—I would prefer the term "investors"—is the second reason we are here today, and it is fitting that I am here, for those people are the focus of my attention. I believe they, and the estimated 40 million other Americans who have invested in cryptocurrency, have been sold a bill of goods. They have been lied to in ways both big and small, by a once seemingly mighty crypto industry whose entire existence, in fact, depends on misinformation, hype, and yes, fraud.

The first lie is the most obvious. Cryptocurrencies are not currencies by any reasonable economic definition. Anyone with even an undergraduate degree in economics, such as myself, can tell you that money services three functions: medium of exchange, unit of account, and store of value. Cryptocurrencies cannot do any of the three well, and they have no hope of ever doing so, for reasons I am happy to discuss at greater length during our session.

But in the interest of time let us keep it simple for now and focus on the present. If cryptocurrencies are not currencies, then what are they? Well, what do they do? How are they used? Via FTX, Binance, and a host of other exchanges, usually domiciled overseas, millions of Americans have used real money to purchase some of the over 20,000 cryptos in existence today. According to a recent Pew study, they are doing so as an investment, a way of making money.

So what do we have in the eyes of the law? We have an investment contract, more precisely, a security, an investment of money in a common enterprise, with the expectation of profit to be derived from the efforts of others.

To my mind, the four prongs of the Howey Test are easily satisfied by every coin, token, or whatever nonsense words the crypto industry attaches to lines of code, stored on ledgers called blockchains, in an attempt to convey legitimacy or technological sophistication to them.

But if these cryptos are securities they are bizarre ones. They offer no products, no services, no revenue streams. The projects they represent accomplish almost nothing in the real world that cannot be done better by other means, and add no overall value to our economy or any other. They are, at best, a vehicle for speculation, an exercise in a zero-sum game of chance, much like online poker. At worst, they are an instrument of crime.

Surveying the cryptocurrency mania during the summer of last year, I came to a terrifying conclusion: the supposedly multitrillion-dollar industry was nothing more than a massive speculative bubble, bound to pop. Worse than that, I had myriad reasons to believe that the crypto bubble was built on a foundation of fraud.

Investment contracts that are effectively valueless are often described as Ponzi schemes, which are regulated under American law by the Securities and Exchange Commission. In my opinion, the cryptocurrency industry represents the largest Ponzi scheme in history. In fact, by the time the dust settles, crypto may well represent a fraud at least ten times bigger than Madoff. The fact that his roped in tens of millions of Americans from all walks of life, as well as hundreds of millions of people worldwide should be of concern to us all.

Thank you for your time. I look forward to your questions.

Chairman BROWN. Thank you, Mr. Schenkkan.

My first question I would like to ask all four of you, and please give as close to a yes or no answer as you can.

The world is troubled by the extent of the fraud and misconduct at FTX. We all agree on that. Too many people have lost money they thought was safe. Some have suggested that what we see at FTX was unique, a one-off caused by one immoral fraudster rather than something more widespread and systemic.

So starting with you, Professor Allen, does this kind of carelessness, misconduct, or worse exist at other crypto firms?

Ms. ALLEN. Yes.

Chairman BROWN. Mr. O'Leary?

Mr. O'LEARY. Yes, the unregulated crypto firms.

Chairman BROWN. Ms. Schulp?

Ms. SCHULP. Most likely.

Chairman BROWN. Mr. Schenkkan?

Mr. SCHENKKAN. It is endemic.

Chairman BROWN. Thank you.

Professor Allen, we know that FTX was overleveraged, but look beyond, as you did in your testimony, beyond FTX. Given that a lot of crypto trading recycles one token into another, often with borrowed money, it seems as if the value of crypto has detached itself from the actual currency that was originally invested.

Is it possible to determine how much leverage there is in the crypto market, and if it is not, why is that a problem?

Ms. ALLEN. Well, I do not think it is possible to determine. I think researchers have really struggled to find data in this space, notwithstanding that people say that the blockchain is transparent. In fact, a lot of transactions happen off-chain. There are a lot of sort of back doors in software. So the data is not available to figure out what transactions have happened, and the accounting around the individual crypto assets themselves can be very dodgy as well. So even before you lose track of them in transactions it is not clear what they were worth up front.

So for all those reasons, it is very hard to get a bead on what the leverage is in this space, and that is problematic because, as we saw in 2008, when you do not understand how much leverage is in the system, you do not understand how fragile it is.

Chairman BROWN. Thank you. Mr. Schenkkan, your testimony highlights the similarities between crypto and gambling. Based on your research, can you describe the parallels between gambling and stablecoins as casino chips?

Mr. SCHENKKAN. Sure. Economically speaking, these are zero-sum games, strictly competitive. For someone to win, someone else has to lose. That does not mean the distribution is even. We know, at this point, most people who have invested in cryptocurrency have lost money. We know that from the industry's own research. Grayscale December 2021 report said that 55 percent of people who have ever bought Bitcoin bought it that year. Given the current price of Bitcoin, those people have lost money.

That does not include the people who have been locked out of their accounts. The list is very long and I include it in my written testimony.

So this is gambling. This is speculation, at best, zero sum. That is not including the environmental cost that Bitcoin incurs.

There are also members of the industry who come from online poker. I would refer you to Stuart Hoegner, general counsel of a company, Tether, a stablecoin company. He was former compliance officer of Excapsa, which was the holding company of Ultimate Bet. Ultimate Bet, from the online poker era, had a Secret God Mode, where players could see the other players' cards in order to defraud them, in order to win at poker.

Stuart Hoegner was joined at Excapsa by Daniel Friedberg. Daniel Friedberg was the former general counsel of FTX. He is now their chief regulatory officer. Alameda, FTX's sister company, is Tether's biggest client.

Chairman BROWN. Thank you. Last question, again, if you would answer as close to yes or no as you can. I want to talk about solutions. FTX, like other crypto firms, perform multiple roles in crypto trade. It acted as an exchange and as a broker. It provided margin to investors. FTX was essentially on every side of every transaction. Combining these functions undermines the fundamental regulatory checks and balances that exist to protect consumers and to protect our financial system.

My question, starting again with you, Professor Allen, should there be strong rules addressing related party transactions and creating firewalls between related entities?

Ms. ALLEN. Absolutely, to address conflicts of interest.

Chairman BROWN. Mr. O'Leary?

Mr. O'LEARY. I find the analogy of crypto to be that of gambling and speculation interesting. That was exactly what we described the New York Stock Exchange 150 years ago. And what happened was because of the nature of the risk we regulated it. We did it for bonds. We call them securities now. Back then, if they were speculations, no different than this nascent industry.

The reason this is happening over and over again, and we will be back here again soon, when the next one blows up, is the lack of regulation. That is why we regulate stocks and bonds. They are speculations too. You speculate the profits of the companies underlying those securities. We need to regulate this. I mean, this premise that it is some kind of different issue, it is not. It is just unregulated, wild west. And it will go on and on and on. The definition of madness is expecting different outcomes. I mean, it needs regulation. That is it.

Chairman BROWN. I take that is a yes, that there should be strong rules addressing related party transactions and creating firewalls.

Mr. O'LEARY. A long yes.

Chairman BROWN. A long yes. Ms. Schulp?

Ms. SCHULP. I also have a longer answer but I will still keep it short. I do think that conflicts of interest are something that need to be examined and addressed. Whether that results in strong rules banning certain types of transactions or whether it is simply that disclosures must be made is a different question. So while I agree that there are potential issues there, I am not sure I will agree with the outcome that you are looking for, Mr. Brown.

Chairman BROWN. Thank you. Mr. Schenkkan?

Mr. SCHENKKAN. Yes.

Chairman BROWN. Thank you. Senator Toomey.

Senator TOOMEY. Thanks, Mr. Chairman. Let me start with Ms. Schulp. Mr. Schenkkan indicated his opinion that, I think he said every cryptocurrency, or virtually every one, easily meets the Howey Test for the definition of a security. The Howey Test includes the investment of money in a common enterprise, with the expectation of profit, through the efforts of others.

So in Bitcoin, we have no corporation that controls it or issued it. We have no individual. We have no committee. It seems to me purely decentralized. Is it not hard to establish that there is a common enterprise when there is no central authority that controls and operates it?

Ms. SCHULP. I agree. I do not think for Bitcoin you can meet the elements of the Howey Test, in multiple respects.

Senator TOOMEY. Right. And would you say, as a general matter, a truly decentralized protocol, pretty hard to establish a common enterprise?

Ms. SCHULP. I completely agree. The securities laws were evolved in no small part in order to deal with questions of information asymmetry coming from managerial bodies that are doing that.

Senator TOOMEY. Right. Where is that asymmetry?

Look, I think there is a case to be made that there should be a regulatory regime on disclosure requirements for an issuer, that there should be a regulatory regime for secondary market trading. But I think we ought to make it specific to this sector because to try to shoehorn it into decades-old legislation that deals with different instruments, I think is very problematic.

Mr. O'Leary, it seems to me that tokens are very often the tool or mechanism to incentivize people to validate and maintain a distributed ledger. Now you can gamble with them. You can speculate as to what a given token is going to be worth. But it seems to me that underlying blockchain technology is potentially extremely powerful, is actually already being used in a variety of ways.

Could you address this notion that the only possible use is a zero-sum gambling enterprise?

Mr. O'LEARY. No, I do not agree with that at all. It is preposterous to say that. The potential of blockchain technology in authenticating physical assets and contracts and, and tokens as you suggest, is incredibly powerful. In fact, I think what is going to happen, as we peel the onion on FTX over the next year or two, is the shining outcome of the success of the blockchain to track these assets will become the focus of everybody. We will realize every security or token that left FTX, left Alameda, got traded between shareholders, all tracked irrefutably on the blockchain. The power of this technology is very harnessable, very powerful, and, of course, we should lead the world in it because so much of it is developed here.

The hottest hands coming out of MIT right now, where do they want to work? A third of the class, they want to work on the blockchain. You cannot take that much potential and not expect extraordinary outcomes. This is a remarkable technology. Yes, it requires regulation. But if you just ask where the hot hands are going, the great engineers, this is where they are going. We train them here and then we kick them out of the country so they do their work somewhere else.

Senator TOOMEY. So let me ask you directly. You were an investor in FTX, and I know you have spoken frequently with Sam Bankman-Fried over an extended period of time. Why do you believe FTX failed?

Mr. O'LEARY. I have an opinion. I do not have the records. Here it is.

After my accounts were stripped of all of their assets, and all of the accounting and trade information, I could not get answers from any of the executives in the firm so I simply called Sam Bankman-Fried and said, "Where is the money, Sam?" He said he had been refused access to the servers. He no longer knew. I said, "OK. Let us step back."

This is a simple case in my mind of where did the money go. And I said, "Sam, walk me back 24 months. Tell me the use of proceeds, of the assets of your company. Where did you spend it?"

And then he told me about a transaction that occurred over the last 24 months, the repurchase of his shares from Binance, his competitor. I did not know this at the time, but at some point CZ or Binance, who runs Binance, purchased 20 percent ownership in Sam Bankman-Fried's firm, for seed stock, and then, over time—and I asked him, "What would compel you to spend $2 billion," which was the number he was giving me at that time. Later, in a subsequent conversation, about 24 hours later, he told me it could have been as much as $3 billion, to buy back the shares from CZ. I asked him, "What would compel you to do that? Why would you not keep your assets on your balance sheet, and why would you offer this to just one shareholder?" He said, "Because every time we went to get licensed in different jurisdictions—because you must understand the prize of crypto is to get regulated. For all the talk we say about Bitcoin and everything else, no institutions own this."

I work for the sovereign wealth and pension plans. They do not touch this stuff because it is unregulated.

Between these two, let us call them "frenemies," because they obviously were potentially the two largest shareholders in the firm, they had a disagreement. They had a falling apart. Apparently, according to Sam Bankman-Fried, CZ would not comply with the regulators' request in these different geographies, in these different jurisdictions, to provide the data that would clear them for a license. He withheld it, according to Sam Bankman-Fried. The only option the management and Sam Bankman-Fried had was to buy him out at an extraordinary valuation of close to $32 billion, less, apparently, a 15 percent discount.

That stripped the balance sheet of assets. You asked me why it went bankrupt. Go to the last week. All of a sudden, in social media, CZ is asking for another $500 million. He wants to do a block trade of FTT, or the proprietary token of FTX. He wants to convert it back to fiat. Why would you put that out there? You know it is going to push down the value of that coin dramatically, and that is exactly what happened.

Every trader knows if you have a large block trade you go negotiate a clearing price with other buyers, and you do the transaction. In my view, my personal opinion, these two behemoths that owned the unregulated market together and grew these incredible businesses in terms of growth, were at war with each other, and one put the other out of business, intentionally.

Now maybe there is nothing wrong with that. Maybe there is nothing wrong with love and war. But finance is a massive, unregulated global monopoly now. They put FTX out of business. Now lots of other reasons, I am sure, but that is my personal opinion. That is what Sam Bankman-Fried told me in terms of where the assets went. Why should we care? Single reason: I am a shareholder. You tell me the two largest shareholders do a transaction together? That is related party transaction. I am not sure that is OK. Maybe I want a Madoff claw-back on those proceeds. Maybe I want to pursue——

Chairman BROWN. Mr. O'Leary, I am sorry. You are about 3 minutes over. Do you have a follow-up, Senator Toomey?

Senator TOOMEY. I had another topic, so if we do a second round I will take it up then. Thank you, Mr. Chairman.

Chairman BROWN. Thank you. Senator Reed, of Rhode Island.

Senator REED. Thank you very much, Mr. Chairman, and thank you, panel, for your insights.

The restructuring officer John Ray described in detail the absence of audited or reliable financial statements, absolutely no internal controls. Professor Allen, I would like to ask you a few questions about FTX and how they were able to get away with essentially cooking the books. First, was FTX a publicly traded company?

Ms. ALLEN. No.

Senator REED. As a private company, was FTX required by law to disclose basic information to the public about its business, like audited financial statements?

Ms. ALLEN. No.

Senator REED. Was FTX required to disclose transactions with related parties, like Mr. Bankman-Fried's hedge fund called Alameda Research?

Ms. ALLEN. No.

Senator REED. And also Mr. O'Leary's example, that would not be required to be disclosed. Was FTX required to have a chief financial officer or disclose whether a financial expert was on the board of directors?

Ms. ALLEN. No.

Senator REED. Was FTX's auditor required to attest to the effectiveness of the company's internal and corporate controls?

Ms. ALLEN. No.

Senator REED. And if FTX had been a publicly traded company, would it have been required to make disclosures and attestations that we just discussed?

Ms. ALLEN. Sorry. I missed the question.

Senator REED. If FTX had been a publicly traded company, would it have been required to make the disclosures and attestations that we have just discussed?

Ms. ALLEN. Yes.

Senator REED. OK. Thank you very much. And it is not just that FTX is a private company. In fact, just about all the biggest companies in the crypto industry are also privately held. In September, I introduced S. 4857, the Private Markets Transparency and Accountability Act, which would require the Nation's biggest private companies, including FTX, to disclose basic information about their financial condition and comply with basic corporate governance requirements. And according to a letter from the North American Securities Administrators Administration, this legislation, in their words, "would have made it easier for all of us to spot or prevent the alleged fraud and other misconduct at FTX earlier."

Mr. Chairman, I am going to ask unanimous consent to include this letter in the record.

Chairman BROWN. Without objection, so ordered.

Senator REED. The whole point is that we have all talked about the need for regulation, and I think that is obvious. And we have many mechanisms pending here in the Senate and the House to do that. We just have to move quickly. I would suggest this is a good place to start.

And final question, Professor Allen, do you think that would have helped illuminate what was going on at FTX?

Ms. ALLEN. Yes, I think so. I mean, attestations and proof of reserves and other forms of accounting disclosures common in the crypto industry, they do not include the rigor or the independence and the professional skepticism we get from auditors. But I would note that we should be wary of FASB's moves to implement fair value accounting for crypto assets because accepting market valuations from the crypto industry could potentially undermine the value of the audit function, and that is something to be wary of.

Senator REED. Thank you very, very much. When we talk about crypto tokens, in fact, it is reported that FTX held about $900 million in liquid assets and $9 billion in liabilities when it failed. And the vast majority of FTX's assets were illiquid cryptocurrencies created and promoted by FTX and Alameda. The company held them at wildly optimistic valuations that turned out to bear little resemblance to reality.

Can you explain how aggressive valuation practices contributed to the failure of FTX and put customers at risk, Professor?

Ms. ALLEN. Sure. As I outlined in my written testimony, many crypto assets are created out of thin air and there is no real basis for their valuation. There is simply no way to perform a sanity check on the valuations that are provided as those assets trade entirely on sentiment. And so when assets trade entirely on sentiment, meaning what other people think they are worth, that creates a space where a significant amount of leverage can be created and fraud can easily go undetected.

Senator REED. Thank you very much. Again, I think the one theme that seems to be consistent is that the need to regulate not just this industry but private entities that are controlling a huge amount of funds, that are investing in ways that are not obvious to the public or even to their own shareholders or equity owners. And we have to move. I would suggest as a starting place, the legislation I have proposed.

Thank you, Mr. Chairman.

Chairman BROWN. Thank you, Senator Reed.

Senator Menendez, of New Jersey, is recognized.

Senator MENENDEZ. Thank you, Mr. Chairman. A lot of securities regulation essentially comes down to one thing—what actions are and are not permissible when one person is handling another person's money? And by and large, we, in Congress, the securities industry, and the general public have agreed on the major principles that should guide that activity. For instance, as you point out in your testimony, Professor Allen, brokers are not permitted to use customer funds to finance their business. They are required to fully disclose conflicts of interest. And when dealing with retail investors they are required to go further and mitigate certain conflicts. FTX did not seem to have done any of this, and if they had it seems like a lot of harm would have been prevented.

So Professor Allen, is there any reason why we should not apply the same broad regulatory principles that are now in place with the traditional financial sector to digital assets?

Ms. ALLEN. I see no reason. The reason we typically hear is that crypto is different because it is decentralized, but in fact, it is not decentralized. At every level there are people controlling things.

So we heard that Bitcoin was decentralized. Well, you know, Bitcoin is controlled by a few core software developers, fewer than 10, and they can make changes to the software, and then that software is implemented by mining pools, and there is just a few of them.

So in all these spaces there are definitely people, often a very few people, pulling the strings, but the fact of the matter is that they are unidentified and unregulated, and that is not an ideal space to be in.

Senator MENENDEZ. Yeah. Mr. O'Leary, in your testimony you said you hope that the events at FTX would "put renewed focus on implementing domestic regulation." Do you agree that FTX customers, and perhaps your own investments, would have been better off if FTX had complied with the existing regulation we have that bars brokers from trading with customer funds?

Mr. O'LEARY. Absolutely. But they were not compelled to do that because they were offshore and unregulated. I think the model will not work.

There are examples of how regulated exchanges that are attached to broker-dealers have worked. You only have to look up to Canada, the OSC order, where Bitbuy wallets are controlled by the regulator. They limit the number of tokens. They limit the margin. They limit the lending. They do an exhaustive test of proof of reserves.

That is just the rules they implemented that they just copied from their own exchanges. We need to do the same thing here. It works. It has been proven to work. There are millions of Canadians that have accounts that are working under a very strict regulatory environment. We can implement the same.

Senator MENENDEZ. Well, I agree. We already know what should and should not be allowed when one person is handling another person's money. Whether we are talking about a new celebrity-endorsed coin or an index fund, I think we would be well served to keep in mind the basic principles that have largely saved and served investors and the markets well for decades.

As I was listening to some of your testimony back in my office it all seems like you looked at this as more of a security than a currency, at the end of the day, and that makes it pretty clear for me.

In the wake of FTX collapse, many crypto firms have attempted to reassure the public of their soundness by hiring outside auditors to provide proofs of reserve. However, the quality of these audits are inconsistent and often time provide an incomplete picture of the company's assets and liabilities.

Professor Allen, can you explain some of the flaws in these reports and why they are not as helpful to investors as the crypto industry claims?

Ms. ALLEN. Well, I mean, there is the fundamental issue that where do you even get the valuation number from these assets? Do we treat them on a sort of a fair value accounting basis? If so, we are essentially accepting whatever the market says about these asset prices, and then they are entirely based on sentiment.

You know, in addition, even if we put that aside, the actual attestations, et cetera, that we are getting, they do not have the skepticism that we expect from professional auditors who look at the financial statements to find red flags. They are required to look for red flags. In these attestations and proof of reserves, it is basically just the accountants sort of reporting what they have been told by the industry.

Senator MENENDEZ. Yeah. One of the things I am concerned about is the extent that cryptocurrency becomes integrated with the financial system and therefore the risks to financial system, which up to now has been pretty stable, and that is something I am concerned about.

Let me close on this. Prior to its collapse, FTX was well-known for huge spending on celebrity endorsements. Dozens of sports stars and actors received millions of dollars to generate hype for FTX and assure the public that crypto was a safe investment. There have even been reports that FTX was pursuing a $100 million sponsorship deal with Taylor Swift earlier this year, even as the firm was hemorrhaging money.

FTX is not the only firm doing this. Endorsements from public figures are just one of the factors contributing to misinformation about crypto. Mr. Schenkkan, how can we combat the spread of crypto disinformation and encourage investor education?

Mr. SCHENKKAN. Use words that are accurate. The cryptocurrencies are not currencies. We need to classify them as securities properly. I also think that we should consider treating crypto like gambling and having potential limitations on advertising and disclosures.

Senator MENENDEZ. Thank you, Mr. Chairman.

Chairman BROWN. Thank you, Senator Menendez.

Senator Tester, from Montana, is recognized.

Senator TESTER. Yeah, I want to thank the Chairman and Ranking Member for having this hearing and I want to thank the folks who testified today for being here to testify. I appreciate it.

I am concerned that we are signaling to people that this is a credible and sound investment, but as we have seen lately there are clearly bad actors. Crypto has been peddled everywhere, from the internet to the Super Bowl as get-rich schemes or safe places to put your retirement savings, but things look pretty uncertain right now, and that is a best-case scenario.

Ultimately, I want to make sure that taxpayers are not left holding the bag. These may be interesting technologies but I have yet to see how it can be useful in a real world without substantial risks for Americans. I am skeptical, but I am here to hear from both you, the proponents and opponents, and that is why I am glad you are all here today.

Professor Allen, when you were in front of this Committee about a year ago today, as a matter of fact——

Ms. ALLEN. Exactly.

Senator TESTER. ——you discussed similarities with synthetic products and you highlighted concerns that unlike 2007, these products are targeted to institutions and individuals. As we have seen larger and larger issues play out in this industry over the past year, how is your concern that you expressed a year ago played out?

Ms. ALLEN. So in some ways I have been heartened by the fact that the banking regulators have really kept this stuff out of the banking system, and I think that is why we are talking about the investors of FTX being harmed rather than everybody being harmed. But still, I mean, I think the idea that crypto is trying to disrupt banking is inaccurate. Crypto and banking would love to merge, and it is the regulators that are keeping them apart.

And so as we look at the banking industry trying to dip their toes into this water, I think there are a few causes for concern. Bank of New York Mellon has custody in crypto. JPMorgan is doing trades on permission-less blockchains. So I think we need to firm up the separation between crypto and banking in order to protect the broader financial system. But as I said, I think banking regulation has held up pretty well so far.

Senator TESTER. For you again, Professor Allen, the new bankruptcy-appointed FTX CEO has warned that the U.S. entity is not solvent. American customer accounts are in doubt. What does this mean for the consumers who are utilizing FTX?

Ms. ALLEN. Well, in the short term it means that they are not going to be able to access their funds because they are tied up. In the long term it means that they may not have any funds. So that is, I mean, really devastating, and we have to think about how much of this we are willing to tolerate in the name of innovation.

I would point out that the Australian stock exchange spent years trying to use blockchain technology to restructure it, and it has just given up entirely because the technology was not fit for purpose. I think we need to think really hard about the costs of what is going on.

Senator TESTER. So could you tell me what this could have meant for taxpayers if legislators had gone further with blessing this industry?

Ms. ALLEN. Sure. You know, the size of the subprime mortgage market in 2007 was estimated to—and I do not have my figures here but I think it was about $1.3 trillion. And, you know, we have just talked about a crypto industry, and as I said, the valuations are crazy in crypto, but we have talked about an industry that has shrunk apparently from $3 trillion to under $1 trillion.

So if that amount of assets or exposure had been brought into the existing financial system, intertwined with our existing financial system, then the banks would have been in a very serious problem. They would not have been able to lend. They would not potentially have been able to process payments. All the things that we count on for our broader economic growth would be jeopardized.

Senator TESTER. Do you think there would have been an inherent response that would have required Congress to step in and bail out folks, like happened in 2008?

Ms. ALLEN. Absolutely. It is simply untenable to let the economy tank like that. I mean, it is just the fact of the matter. And so that is why I think it is so critical that crypto be segregated away from banking. We do not want to make it too big to fail. Too big to fail is problematic with any asset class. An asset that has no productive capacity, that does not serve any capital formation function, that just is crazy.

Senator TESTER. Mr. O'Leary, in one of the answers to one of the other Senator's questions you said that the prize for crypto is to get regulated. Is that because it gives it credibility?

Mr. O'LEARY. It can exist for the institutional client. The potential of crypto is for it to be indexed with sovereign wealth and pension where about 70 percent of the world's wealth is actually managed. There is great interest there, particularly around Bitcoin and Ethereum and a few other platforms. But they have no infrastructure to apply to their compliance platforms. When you are managing a $900 billion fund, every day you have a massive compliance infrastructure that marks to market all your positions. There is no infrastructure for crypto.

I want to make a note here, just around this regulatory issue that you are raising, and it is a good one. Of all the entities that went to zero, that went to bankruptcy in the FTX portfolio, the only one that is not bankrupt, out of the 130-plus—and this is probably the best evidence of why we need regulation—is LedgerX. Why? It is regulated by the CFTC, 100 percent regulated. It is not bankrupt. Had the other entities been regulated, wherever they were, they would too not be bankrupt.

And so just look at this. This is a use case of why we need regulation. There would not be this tragedy and all of this drama and all the rest of this stuff and the loss of billions of dollars. The lack of regulation has caused some problems here, and will continue to, and the evidence is right here. The only entity that did not go to zero, in the FTX portfolio, CFTC forced the scrutiny, forced the transparency, forced the proof of where the assets were held in the reserves, forced the lack of comingling with the assets. They forced it. They did it. Proof positive that you can regulate this asset class.

Senator TESTER. I want to thank you all for being here today. We will have some questions for the record, but I appreciate the hearing, Mr. Chairman.

Chairman BROWN. Thank you, Senator Tester.

Senator Hagerty, of Tennessee, is recognized.

Senator HAGERTY. Thank you, Mr. Chairman, Ranking Member Toomey. Thank you for holding this hearing. To all of our guests here today I appreciate you being here.

I would like to touch on something that has been troubling me for some time. We know that FTX's collapse, as the second-largest exchange, is continuing to have ripple effects throughout the entire digital asset industry. If you look back to even early November, FTX did not appear to have the necessary scale to cause an industry-wide systemic meltdown. Binance, on the other hand, is the largest global crypto exchange, nearly 7 times larger than FTX by trading volume—at least it was in the month leading up to FTX's collapse. And Binance's market share, now with the absence of FTX, I think means will only grow.

You think about a similar implosion by Binance. That would really prove catastrophic. It would prove catastrophic for the cryptocurrency industry and it would prove catastrophic to all of the consumers that utilize the industry.

Yet U.S. regulators are limited in the extent to which they can mandate appropriate audits or appropriate disclosure of Binance's operations. Unlike the requirements placed on companies which are publicly traded here in the United States, Binance operates outside of our system.

Ms. Schulp, I would like to start with you. How can U.S. regulators work with their global counterparts to bring transparency to Binance's activities and to understand the reserves that it holds?

Ms. SCHULP. I think you raise a very important point that when we talk about FTX or we talk about Binance so much of what we are talking about is happening outside of our shores. And the influence that U.S. regulation can have on those exchanges and other crypto projects that are not taking place here is limited.

I think it is very important to have an ongoing dialogue with international regulators in order to have influence where we can. But I think the most important thing for the United States to do is to create a rational crypto regulatory framework in the United States to try to bring some of that home so that we have maximum influence over how those businesses are operated.

Senator HAGERTY. I hear you. Mr. O'Leary, you touched on this just a moment ago, about the impact of regulation and the certainty that it could bring. And from your perspective as an investor, Mr. O'Leary, what needs to change here in Washington from a regulatory standpoint so that capital actually does float to U.S.-based entities and empower U.S.-based entities to win on the global stage?

Mr. O'LEARY. Every global platform, the number one prize is to be regulated in the U.S. market, the number one financial market on earth, period. Now when you talk about other money center banks or other financial services industries that want to do business in the U.S., they must disclose their worldwide operations. They are scrutinized by the rules we already have in place.

A coordinated effort between the Canadian regulator, the U.S. regulator, the ADGM in Abu Dhabi, the regulators in Singapore, basically laying out the ground rules for any entity that wishes to do business in the U.S. or any of those jurisdictions solves this problem. If finance is not willing to—and you started by talking about them—disclose, and the reason that Sam Bankman-Fried claims he spent $3 billion was that he could not get the regulators to approve the fact that Binance owned 20 percent of their platform. CZ was not cooperative with any of those regulators. He was shut out of those markets, and he realized the prize was to get regulated for institutional capital.

Just having four or five markets coordinate, as we do already in other securities, solves this problem into perpetuity. All these regulators talk to each other. I have been to Abu Dhabi. I have talked to the ADGM. I seek a license there. And I have done the same in Canada. I am an investor and licensed there. These are long-term, very sound structural concepts, but it needs a coordination, and in one phone call we could solve this problem.

Senator HAGERTY. I am going to come back to you, Ms. Schulp, for a moment, and I want to stay on this concern that I have, particularly about Binance, about the Chinese Communist Party's role in support of that. To be clear, Binance is being proliferated around the world. It is a State-backed network. They are proliferating in emerging markets in a very predatory fashion. They are in developed markets. And again, how they have an even more open platform, as FTX has been taken down.

But think about an example like Binance, with ties to the CCP, a committed partner to the Belt and Road Initiative, and particularly as it expands its market dominance with the collapse of FTX, what does that spell, if lawmakers here in America follow through with their threats to ban digital assets, or leave the current regulatory uncertainty in place? What does it mean for the global crypto market in general? What does it mean for our Nation's national security and our economic security? And most important, what does it spell for the dominance of the U.S. dollar as the world's reserve currency?

Ms. SCHULP. Well, regardless of whether Binance itself is connected with the Chinese Communist Party, which Binance denies, but regardless of whether that is the case, by having a system in the United States that is unclear, that is regulatorily hostile, that could go so far as banning cryptocurrency in the United States, we would be losing the position of having a possibility to maintain American dominance for these technological innovations.

Senator HAGERTY. I am deeply concerned about that.

Ms. SCHULP. We would also be losing many of the great minds that want to work on these types of projects, that can make strides not just in blockchain and cryptocurrency but in other technological functions as well. To the extent that the United States is not a place that people look to for economic development, that also puts the U.S. dollar at risk.

Senator HAGERTY. Thank you. Thank you, Mr. Chairman.

Chairman BROWN. Thank you, Senator Hagerty.

Senator Warner, of Virginia, is recognized.

Senator WARNER. Thank you, Mr. Chairman. I appreciate you holding this hearing. I want to echo some of the concerns my friend from Tennessee just echoed, about Binance. I do think it is curious that China has made the decision to basically take that kind of risk to bank crypto, because of their, at least, risk reward analysis.

I have got so many questions. I know a lot of this started around Bitcoin. And I think, Professor Allen, you may have touched on this in your testimony. The clunkiness of the technology behind Bitcoin, it could never go to scale, no matter what. If you can only do five or six transactions per second, that is not a scalable tool and obviously a technology at a power and environmental cost that just does not make sense to me.

But I am going to try to get as quick as I can in my 4 minutes. I am going to start with Professor Allen and Mr. McKenzie. I sometimes worry that FTX is just a tip of the iceberg. You know, I am sure many of my colleagues have gone through all of the bad things Bankman-Fried has done and the graft and the Ponzi schemes and so forth. And I know Senator Hagerty already made comments about the Reuters story about Binance.

I really worry. I mean, I know the original pitch was this is going to be a seamless ability to transact, without currency risk, without timing risk. I can send my grandmother in Kenya resources on Sunday in way that is kind of error-free.

Sitting where I do on the Intelligence Committee, as Chairman, I have seen virtually no examples of that kind of use case. I know, Mr. McKenzie, you have gone down to El Salvador, where they tried to make that as the case. It just does not seem to be the case. Instead, we are seeing, at least at this stage—and Senator [unclear] has been a leader on this. I keep trying to have an open mind on the technology innovation, and I am all in on technology innovation. But at least so far, you know, from where I sit on the Intelligence Committee, I see an awful lot of illegal activity. I see drug deals. I see bad actors. I see ransomware criminals. And frankly, it is not even safe for them. Go back to the Colonial Pipeline issue where our Government, when payment was made in crypto, was able to recover some of that.

So I guess I would start again with Professor Allen and Mr. McKenzie. Do you think FTX is a one-off or is this the tip of the iceberg where we may be seeing a whole series of activities? And if you want to go ahead—I know it has been raised but I do not think in any detail—Alameda Research and some of the potential—I think we are only beginning to see the conflicts that were taking place there. But I will start with Professor Allen and Mr. McKenzie.

Ms. ALLEN. I think we saw the tip of the iceberg a couple of months ago, and then this is sort of moving further down the iceberg, you know, with the earlier rounds of Terra Luna and Celsius.

You know, the concern is that fraud is definitely being perpetuated, but that the whole industry itself is basically an asset class built out of nothing. It trades entirely based on people's belief that it can be worth something. But as you said, the technology has not worked for a payments mechanism. It has become a speculative instrument. But ultimately, you know, as Mr. McKenzie said, it is a zero-sum game, and if people stop believing in it then it all falls apart.

Mr. O'Leary has talked about that regulation in the United States is the prize. That is exactly right. Without that regulation as the prize to legitimize crypto, there is nothing there, and it could all go to zero. And while that is very bad news for the people who have already invested, I think it is very good news for the rest of us because it is being kept out of the broader financial system, and we will not suffer the consequences from its broader failure.

Senator WARNER. Mr. McKenzie.

Mr. SCHENKKAN. Thank you, Senator. Yes, I just want to echo what Professor Allen was saying. One of the many, many seemingly limitless ironies of cryptocurrency is that the supposedly decentralized nature of it, it is, in fact, highly centralized. I know this. I wrote an article with my colleague, Jacob Silverman, for the *Washington Post* about Binance this spring. Binance is incredibly murky, but Binance, as Mr. O'Leary, as other Senators have pointed out, Binance is in communication with FTX. They were an early investor in FTX. There is apparently a private signal chat group entitled "Exchange Coordination" that CZ is on. Yes, this is publicly reported. I believe Mr. Bankman-Fried submitted into the congressional record, if I am not, yeah. So they are all talking to each other.

The crypto industry is actually really, really small amongst the people that count. And a zero-sum, strictly competitive game, there are winners and losers, and in an unregulated zero-sum strictly competitive game you are either a scammer or a mark. If you do not know which one you are, you have a problem.

Oh, do you want me to answer the remittances question? I am sorry, sir.

Senator WARNER. Well, if you want to just touch on Alameda as well.

Mr. SCHENKKAN. Sure. So Alameda is Tether's biggest client. That is according to reporting from Protos last year. Supposedly Alameda purchase, I believe, $36.7 billion worth of Tethers. Given FTX's insolvency, I think one question might be where did the money come from.

Senator WARNER. I know I am running out of time, but Mr. O'Leary, I have great respect for you as an entrepreneur. I spent a long time as an entrepreneur. I am trying to sort this through as well. I get your point, but I guess what I would raise for the Chairman and the Ranking Member is, you know, I am still trying to wrestle with this in my mind whether we need a crypto set of rules or whether we frankly—what are we, 14 years after Dodd-Frank?—ought to take a bigger step backwards and realize we have got this bright, shiny problem over here around crypto, but the amount of financial activity—if you look at the fact that over 50 percent or the mortgage origination now is outside the regulated banking sector.

I have been a big advocate for fintech for a long time, but there are a whole series of lending entities out there, again, that have no regulatory protections around them at all. And nothing would be worse than doing a relatively good job—and we maybe overdid it in certain parts on Dodd-Frank—but put a structure our regulated industry, and suddenly see this huge escape of financial activity going outside any kind of regulatory envelope at all.

I am all for innovation, but Lord knows, if crypto was suddenly followed by a whole series of fintech entities that were coming back saying, “Hey, I need my money back as well. I did not get my lending that was taking place on this platform,” we could have a problem. Thank you, Mr. Chairman.

Chairman BROWN. Thank you, Senator Warner.

Senator Lummis, of Wyoming, is recognized.

Senator LUMMIS. Thank you, Mr. Chairman. I also want to thank Senator Toomey for his wonderful leadership on this Committee, just in the event this is our last hearing. Thank you for your service.

Chairman BROWN. We have a hearing tomorrow.

Senator LUMMIS. We are conflating topics today. Digital assets are not on trial. Fraud and organizations are on trial. So let us separate digital assets from corrupt organizations.

FTX, as I have been saying for the last few weeks, is good old-fashioned fraud, and what they did is separate from digital assets. Now we have all heard that FTX lent its executives hundreds of millions of dollars in comingled customer funds for personal use, and customers who tried to wire money to FTX were instead given Alameda’s routing number. That is fraud. That is fraud whether it is conducted in U.S. dollars or euros or digital assets. That is fraud.

Additionally, even though FTX was a multibillion-dollar enterprise, it had a shocking lack of corporate controls and enabled affiliates to conceal the movement of money and take on enormous liabilities, enabling the misuse—well, the misused customer assets that were supposed to be appropriately safeguarded. FTX, in its terms of service, said, “Title to customer digital assets always remain with the customer.” Now that, we know, is a lie, and now millions of FTX customers around the world will suffer.

So FTX is a failure of people, safeguards, and regulation. It is not a failure of technology. The people in the digital asset industry need to get really serious about risk management and compliance with things like anti-money laundering laws, and that is why we have seen a failure of a number of firms engaged in riskier practices, even for the digital markets this year.

So one question people should ask themselves is how FTX grew so quickly? They were founded in 2019, and grew to be one of the largest digital asset exchanges in just 2 years. So you look at other companies like Kraken, Coinbase, and Bitstamp. They have been around for a decade. They have grown organically.

This Committee needs to be focused on putting legislative solutions in place that would have prevented FTX’s collapse and other firms like it. This means things like regulation of digital asset trading, providing consumers with adequate bankruptcy protection, disclosures, and stablecoin regulation.

So let us not conflate topics here. Mismanagement, failure of people, inadequate controls is what is on trial. We need to regulate this business and lay digital assets on top of our existing financial regulatory framework.

Questions. Ms. Schulp, why do digital assets and distributed ledger technology have the power to make our capital markets safer and more efficient?

Ms. SCHULP. There are multiple ways that they can do that, and one of them is by removing the intermediaries that we have been talking about, where there are potential for such things as an FTX to take customer assets and misuse them. When those intermediaries do not exist in digital asset systems then you do not have the same risks.

You can also have faster, cheaper payment systems than we currently have, and a more global payment system, which allow people to send money cross-border in a way that should be very important for a country like the United States, which sends a lot of remittances across the world.

Senator LUMMIS. I know I am out of time, but I want to make a plug for the Responsible Financial Innovation Act that Senator Gillibrand and I have cosponsored, that we have been talking to our colleagues about. This is a case study in why we need the Responsible Financial Innovation Act. We will be reintroducing the bill next year. We are absolutely delighted and willing to take your comments, suggestions, ideas. And it is time to move, time to move to regulate the digital asset industry. Thank you.

Chairman BROWN. Thank you, Senator Lummis.

Senator Warren, of Massachusetts, is recognized.

Senator WARREN. Thank you, Mr. Chairman.

So Sam Bankman-Fried and other crypto billionaires argue crypto is special, but a basic principle of our financial system is same kind of transactions, same kind of risks means same rules apply. Right now, if a bank takes money from terrorists and the bank and the banker then have broken the law, and that is why banks spend so much time and so much energy identifying who their customers are and reporting suspicious activity to authorities.

A lot of crypto firms are not doing these kinds of checks, so crypto has become the preferred tool for terrorists, for ransomware gangs, for drug dealers, and for rogue States that want to launder money.

In 2021, at least $14 billion in digital assets went to criminals. Now that is a lot of drugs and a lot of ransoms and a lot of bombs and a lot of nuclear materials, but it is likely only the tip of the iceberg. A new report finds that one crypto exchange alone helped launder over $10 billion for criminals and countries like Iran. Even so, the crypto industry continues to take the position that nothing should change.

Professor Allen, the crypto industry claims that it does not need to do all of the know-your-customer and other anti-money laundering checks that banks do and stockbrokers do and even Western Union does because crypto is uniquely transparent. Everything is on the blockchain so criminals and rogue States that try to launder money in crypto will quickly be found out.

Does the fact that the blockchain is public mean that it is more difficult for criminals to launder money using crypto?

Ms. ALLEN. In many ways the blockchain is the worst of all words. For everyday people, the blockchain is a permanent public record of all their transactions, which is a privacy nightmare. But for sophisticated players with a vested interest in hiding their transactions there are all kinds of tools available—mixers, tumblers, et cetera, that can hide the provenance of their crypto assets. And far from being difficult for criminals to use crypto to launder money, the fact that there are not KYC checks is the point.

Senator WARREN. OK. So crypto is actually easier to do money laundering.

Let us look at another crypto industry argument. Professor Allen, crypto industry claims that it would be too much trouble and maybe even technologically impossible for them to check customers the way that banks and stockbrokers and even Western Union does. But let me ask, do banks and stockbrokers and Western Union have to invest money and resources to make sure that they are set up to conduct those checks?

Ms. ALLEN. Yea. I mean, KYC requirements are simply part of operating a financial services business. But avoiding those requirements, as you say, is critical to many crypto business models. Blockchain-based transaction processing, as we have discussed, is very clunky and expensive. Ms. Schulp has just told us that it can be more efficient. The only way it is more efficient is if it actually avoids the KYC checks that can slow things down. So this crypto business model is in many ways a regulatory arbitrage play.

Senator WARREN. Right. So actually it is an interesting question. If banks and Western Union said they should not have to follow any money laundering rules, so that they could make more money, they could improve their profitability, what would our country say and what does every country around the world in the financial system say?

Ms. ALLEN. No.

Senator WARREN. Right. OK. So Mr. O'Leary, I know that you are a big supporter of crypto, even after you lost $10 million in FTX's collapse, but you are an experienced investor. So let me ask you, do you believe that the potential benefits of crypto are so promising that we should accept weaker anti-money laundering rules and weaker compliance from crypto firms than we require from banks, from brokers, and from Western Union?

Mr. O'LEARY. No. I think we should apply the same regulatory structure that we apply to existing trading of stocks and bonds and exchanges tied to broker-dealers. That is not complicated. It has already been implemented in other countries.

And I take issue, Senator, with your concept that it makes it easier to do money laundering. Currencies have been used for drug trafficking since the '60s, and the American dollar, when it was thrown out of a Piper aircraft in a duffle bag. The American dollar is also used by bad actors all the time.

Senator WARREN. Mr. O'Leary, I appreciate your point that everyone tries to engage in money laundering. That is what terrorists do, that is what drug dealers do, and that is what States like Iran and North Korea have done.

The only point I am trying to make is should the same rules against money laundering apply to crypto in the way that they apply to banks, to stockbrokers, to credit card companies, to Western Union?

Mr. O'LEARY. You know——

Senator WARREN. And I think your answer to that was yes. Is that right?

Mr. O'LEARY. No.

Chairman BROWN. Mr. O'Leary, you have 30 seconds. Keep your answer short.

Mr. O'LEARY. It is not yes. I am just saying if you know your client rules on both sides of the transaction and use a crypto such as USDC, that is regulated, you solve this problem, Senator, overnight.

Senator WARREN. Well, I appreciate that you want the same kind of rules to apply to everyone, and we can talk about what is needed to make that happen.

You know, the dark underbelly of crypto is its critical link to financing terrorism and human trafficking and drug dealing and helping rogue Nations like North Korea and Iran. Crypto does not get a pass to help the world's worst criminals, no matter how many television ads they run or how many political contributions they make.

It is time for Congress to make the crypto industry follow the same money laundering rules as everyone else. That is why Senator Marshall and I introduced a bipartisan bill today that requires crypto to follow the same money laundering rules that every bank, every broker, and Western Union all have to follow today.

Thank you, Mr. Chairman.

Chairman BROWN. Thank you, Senator Warren.

Senator Van Hollen, of Maryland, is recognized.

Senator VAN HOLLEN. Thank you, Mr. Chairman, and let me add my words of appreciation to Senator Toomey for his leadership on all sorts of issues. I have disagreed with Senator Toomey many, many times, but I have also had the opportunity to work with him closely on lots of issues. So Pat, thank you.

And thank all of you for being here. You know, over the last more than 2 years I think this Committee has been trying to take a crash course on crypto, and understand all its implications. And I think the fact that we have four very bright individuals here, with diametrically opposed views, is an illustration of the challenges we are facing as a Committee.

But I do want to pick up where my colleague, Senator Tester, did, because the question is where do we go from here. And on the one hand, the impulse is, of course, to want to protect consumers. On the other hand, we want to make sure that in the process of trying to do that we do not give a Government imprimatur to a system that is so inherently risky and without necessarily any, at least as two of our witnesses said, underlying in value.

So Professor Allen, if you were king, queen for the day, what would you do right now? And let me just say, we have got the SEC. The SEC clearly has the authority and power to go after fraud, and we need to make sure they have the resources to go after fraud in this area because it has grown very fast. But beyond using the existing tools, what would you do, going forward?

Ms. ALLEN. If I were queen for a day I would ban crypto, but if I were someone who was dealing with multiple constituencies and realize that that might not be viable, I think the path I would take would be to strengthen banking law, what I have been calling Glass-Stegall 2.0, and make it quite clear that banks simply may not touch crypto in any way, shape or form. And then I would give the SEC more money. I would pass legislation that makes it clear, abundantly clear, that all crypto is a security. And to be clear, the definition section in the securities legislation does not just list investment contract. This is not just about the Howey Test. There are all kinds of securities that do not go through the Howey Test. Bonds are just listed. If it is a bond, it is a security. So we could say if this is a crypto asset it is just a security. You do not have to go through the Howey Test framework. And then we apply all the securities laws, you know, robustly, and I think that is the best way forward.

Senator VAN HOLLEN. Thank you. And is it Mr. Schenkkan, McKenzie Schenkkan?

Mr. SCHENKKAN. Yes, sir. You can also call me Ryan.

Senator VAN HOLLEN. All right. Well, in that case, listen. I appreciate your testimony. The bottom line, as I understood, is you said we should just deal with this and regulate it like it is gambling. And, you know, I have been listening. I have been listening to analogies to Enron, and even analogies to the mortgage meltdown, you know, mortgage-backed security meltdown. At least in those cases they were backed by real assets, right? In the case of Enron you have got an energy-producing company. In the case of mortgage-backed securities it was an outrageous scandal. At the end it was supposed to be backed.

What is this backed by, if I could ask you? What is this backed by, at the end of the day?

Mr. SCHENKKAN. Nothing. It is a story. Robert Shiller, the Nobel prize-winning economist talks about how economic narratives form. They are in response to real events. In this case, with cryptocurrency, I would argue the genesis was the subprime crisis. The Bitcoin white paper, released in October of 2008, was perhaps well intentioned. It was intended to be a peer-to-peer currency that would avoid all intermediaries.

So the story has understandable appeal. I think if crypto serves any function it is to highlight the myriad failures of our regulated system and our banking system, and our American economic system, to provide people with a fair shot at the American dream, or what is left of it.

That does not make the story true, however, the story of cryptocurrency. What it does is lend it enormous power, and these stories spread, as Shiller describes, like viruses, infecting one person to another, much like a multilevel marketing scheme. But, you know, for the digital era, instead of a 5-hour Tupperware party you get a 60-second TikTok video. And you are encouraged to invest because you see other people investing. They call it FOMO—fear of missing out. We used to call it greed.

People get very excited, these bubbles buildup very big, but then they collapse very swiftly, and I think that is what we are seeing now today.

Senator VAN HOLLEN. Thank you.

Chairman BROWN. Thank you, Senator Van Hollen.

Senator Cortez Masto, of Nevada, is recognized.

Senator CORTEZ MASTO. Thank you. Thank you, Mr. Chairman. I too, my kudos to our Ranking Chairman. Thank you so much. It has been a pleasure to work with you. We have not agreed on everything, but you are a gentleman, and I do always appreciate the opportunity to have an open line of communication with you, so thank you.

To everyone here, thank you. This obviously is something we have been working on for a period of time here, and really appreciate the insight you all bring.

I do want to follow up on my colleague, Senator Van Hollen's line of questioning with Professor Allen. I want to ask the rest of you. Clearly she is supporting banning it. If we do not ban it, how do we regulate it? She put forth a proposal which is isolate it from the banking system and then define it as a security. Does anybody disagree with that or have any other ideas about how it would be regulated? Mr. O'Leary.

Mr. O'LEARY. The concept of pressing legislation that would ban banks from integrating cryptocurrencies and crypto technology, if that were to happen, as an investor, I would short every American bank stock because it would make it the most uncompetitive financial services sector in the world.

The innovation that is coming forward, once regulated, is going to be profound in terms of how it changes the cost, the efficiency, the auditability, the productivity of the banking sector. Just look at things as simple as ACH transfers, how archaic they are. Look at the Fed wire.

Senator CORTEZ MASTO. So let me just stop you there. I only have so much time. So you do not agree with isolating it from the banking system.

Mr. O'LEARY. That is insanity.

Senator CORTEZ MASTO. OK. Ms. Schulp.

Ms. SCHULP. I also do not agree with isolating it from the banking system. I do think that if I were queen for a day to regulate I would ask Congress to make some clear lines here with respect to what is and is not a security, and I think a lot of crypto tokens do fall under the category of security, but it is not always clear.

I also would ask Congress to draw clear lines as to which market regulator handles secondary trading, giving the commodities segments to the CFTC and the securities segments to the SEC. That should put good guardrails in place in order to apply similar risk frameworks to similar risks.

Senator CORTEZ MASTO. Thank you. Mr. Schenkkan?

Mr. SCHENKKAN. If we allow cryptocurrency to infect our banking system we will be back here.

Senator CORTEZ MASTO. Thank you.

Mr. SCHENKKAN. We will be back here, not in a good way.

Senator CORTEZ MASTO. And Professor Allen, anything else to add. So I am going to ask you, because I also appreciate your conversation with Senator Tester, and it really focuses on why we should isolate it from the banking system.

But let me ask you this. Many crypto advocates have taken this scandal that we are talking about today as an opportunity to suggest that the failure of FTX was due to its centralization, and argue for decentralization finance, or DeFi. Can you talk a little bit—would that have made a difference, and what impact would the DeFi lead to possible greater centralization of wealth? I mean, can you talk a little bit about what that means, if anything?

Ms. ALLEN. Sure. So DeFi stands for decentralized finance, but that is a marketing term because it is not actually decentralized. As I mentioned earlier, technological decentralization and economic decentralization are not the same thing. First of all, DeFi is highly integrated with the centralized crypto ecosystem and it is not sure that it can survive without it.

And then even within DeFi there are so many intermediaries. At the underlying blockchain level you are trusting the core developers of the software that runs the blockchain and the validators who implement the software changes. On the next level up, you are trusting the people who program the application that runs on that blockchain.

Now the people who program that are controlled by the people who own the DAO governance tokens. So you may have heard about these DAOs, these decentralized autonomous organizations. They are basically like creating a partnership on the blockchain.

The ownership of those tokens, it is meant to be decentralized and disbursed, but that is not the reality. The economic reality is that for a lot of these things, like 90 percent of the tokens plus are owned by a single person. So saying that I could—you know, me, having one governance token in a DAO, is like me buying a share in Tesla and trying to tell Elon Musk what to do.

So economically it is very centralized, the whole way up and down. So much like many of the stories that Mr. Schenkkan has been talking about, it is a story. You know, I really get why people want these things. Would it not be nice if we could create a world where we did not have to trust the intermediaries who have made so many mistakes, so many times?

But the reality is that economic power concentrates in these places, and we cannot avoid intermediaries. So what is the point of DeFi?

Senator CORTEZ MASTO. Thank you. I noticed my time is up. Thank you, Mr. Chairman.

Chairman BROWN. Thank you, Senator Cortez Masto.

Senator Smith, of Minnesota, is recognized.

Senator SMITH. Thank you, Chair Brown. I am going to direct my first question to Professor Allen. The collapse of FTX is shocking, but it is hard to say that it is surprising, right? I mean, it is hard not to conclude that this crypto exchange and its related firm, Alameda Research, completely failed to safeguard the money of the people they entrusted their money to there. And we should not lose sight of the fact that millions of dollars disappeared overnight and that this is money that belonged to people who could not afford to lose their money.

So Professor Allen, I want to get at this question of consumer protection, just pretty quickly. People are free to invest their money pretty much however they want to, but they deserve to know that the market is fair and that there are rules that protect them from bad actors, so they are not getting ripped off. Exchanges and firms that buy and sell stocks and commodities are required to keep company money separate from their customers' money. They do not get to gamble with their customers' money without asking permission first. Is that correct?

Ms. ALLEN. Yes.

Senator SMITH. And that is not the case with what we saw with FTX, what we see often in crypto. Is that true?

Ms. ALLEN. I mean, they often say in their terms of service that they will not do it, but they do it anyway.

Senator SMITH. Yeah. I think that is right. And when a firm is being paid to give advice to their customers on how to invest their money, they have to put their customers' interests first, right? That is basic fiduciary responsibility. Is that the case in crypto right now?

Ms. ALLEN. So, I mean, I think there is a big concern here about crypto being incorporated into things like pension funds and also into 401(k) plans. So the Department of Labor is being very clear that they do not think that this is the type of thing that belongs in any kind of sort of retirement savings. Unfortunately, Fidelity has made the move to allow people to invest in Bitcoin through their 401(k) plans, and I think that is highly problematic.

Senator SMITH. Yes, and Senator Warren and Senator Durbin and I have sent letters to Fidelity and have urged the Department of Labor to follow up on this, because they have this highly volatile asset that does not appear to be—it seems to be exactly the wrong kind of thing to put in a retirement account, where you are looking for more stability over the long term. Right?

Ms. ALLEN. Right.

Senator SMITH. And let me just ask, just following up on what Senator Warren was focusing on, banks and other financial services firms have as their responsibility the duty to know who their customers are. That is how we protect against money laundering. Is that the case in crypto?

Ms. ALLEN. No. I mean, I think generally speaking there is sort of a failure of gatekeepers all over the crypto industry. We have talked about we do not have the auditors being able to exercise oversight. We do not have KYC functions there.

Another failure of oversight is the venture capital firms. We sort of expect them to exercise a restraint and exercise diligence before lending their reputation to these businesses. But venture capital firms were throwing money at FTX and similar firms without doing their diligence.

So as I explored in my written testimony, one of the things we can achieve by enforcing the securities laws is actually holding venture capitalists to account a little more because of potential liability as statutory sellers of unregistered securities.

Senator SMITH. Yep. So I agree with that. I think that the crypto world at FTX shows us what can happen when we do not have basic consumer protections in place. And, you know, crypto is a relatively new thing, but we know what to do to make sure that our markets are fair and that financial institutions know their customers. So it seems to me that our job here is to enforce the laws that we have, make sure that we are plugging holes where they exist, and making sure that our enforcement agencies have the authorities and the resources they need, or we are going to see more disasters like this.

Mr. Schenkkan, I would like to follow up and ask you a question. I want to talk about the external impacts of crypto. So crypto mining and verification is a highly energy-intensive process that requires more electricity annually than many individual countries. The worst offender is Bitcoin, but this is a widespread problem. In the U.S. alone, crypto operations require as much electricity as all home computers or residential lighting, and this is, of course, contributing to our challenges around carbon emissions. And then there is the issue about crypto mining exacerbating local noise and air and water pollution as well. So lots of externalities, as we say.

As I understand it, crypto mining is built on a process that becomes more and more energy-intensive over time. Is that correct?

Mr. SCHENKKAN. Yes.

Senator SMITH. So it is inherently inefficient. Is that correct?

Mr. SCHENKKAN. Yes. The technology is bad.

Senator SMITH. And so where is the benefit of this kind of innovation and how should we think about the impacts of this when it comes to the climate and energy use impacts? Because in fact, when crypto mines are located in communities, those communities often see their energy prices go up, their energy rates go up. Is that correct?

Mr. SCHENKKAN. That is right. I visited the largest crypto mine in the country, Whinstone, which is in Rockdale, Texas, just outside of my hometown of Austin, Texas. Local citizens are upset. It raises the cost of electricity for all citizens, and it also uses an enormous amount of energy. It took over a former Alcoa aluminum smelting plant that had been abandoned, and now we are using it to mine ephemeral digital assets of no productive value. I think that says a lot.

Senator SMITH. Thank you. Thank you, Mr. Chair.

Chairman BROWN. Thank you, Senator Smith.

My understanding is Senator Sinema is joining us remotely. Senator Sinema, from Arizona.

Senator SINEMA. Thank you, Mr. Chairman, and thank you to our witnesses for being here today.

You know, Arizonans are always interested in investment opportunities that allow them to build better lives for themselves and their families, especially in the last few years. In conversations at the grocery store, the gym, the coffee shop, or the kitchen table, Arizonans have been talking about cryptocurrency—the hype, the skepticisms, the questions of how it works and how it will work going forward.

Like most Arizonans, I am a skeptical optimist. I believe in the future and the potential of this technology, that it can be a force for good, and that it can ultimately make people's lives better, but also clear-eyed about what is happening right now, how technology and anonymity can be misused and abused and how people are being deceived and defrauded.

The collapse of FTX is just one of many recent market events that are shaking investors' faith in the ecosystem. Some will say this is about the ecosystem as a whole. Others will say this merely applies to centralized entities and that this criticism should not apply to more decentralized projects.

But even in the context of decentralized projects, we need to understand how dispersed ownership truly is. This is a complex issue but I want to put the focus where it should be, on everyday Arizonans, many of whom put their faith in a technology that appeals to our independent leanings and our natural skepticism of Government and centralized control.

So I believe we have some obligations to everyday Arizonans. First, to make sure they have the information they need to understand risks and opportunities, and ultimately to make investment decisions that work for themselves and for their families. Second, to grow the U.S. economy and protect the integrity of our capital markets. Third, to provide a regulatory framework that responsibly promotes innovation here in the U.S. while increasing funding through enforcement to ensure that any bad actor is pursued quickly and harshly. So protect investors, protect the economy, promote innovation, go after the bad guys—it is pretty fundamental.

So I would like to turn to Professor Allen and thank him [sic] for being here. Your testimony cites a *Financial Times* article entitled "Let It Burn", that calls for crypto to do just that, to burn down as a fully unregulated business. So let us be specific. In the cases of FTX, Terra Luna, Celsius, and others, who exactly got burned?

Ms. ALLEN. It was the investors.

Senator SINEMA. That is right. I also want to apologize, Professor Allen. I misnamed you there for a moment. I apologize.

Ms. ALLEN. That is fine.

Senator SINEMA. In other words, it was investors, right, everyday Arizonans, people who work hard for the money they make and are just trying to provide for their families, save for their kids' college, or take that vacation they have always dreamed of.

The founders did not get burned, even if ultimately they got arrested. It is regular people who got burned. And that is why it frustrates me when people say, flippantly, "Let it burn" because that is the hard-earned savings that everyday people invested in good faith, with promises of big returns. And for FTX customers, all of that is now gone.

Most people had no idea they find themselves as unsecured creditors, unlikely to get back the investments they entrusted to Mr. Bankman-Fried, and others, and they are last in line behind banks, lawyers, other lenders, and venture funds.

For months, I have had people in Washington tell me and my staff that new legislation is not necessary here. They say that there is sufficient regulatory authority and that the regulators should just handle it unimpeded. But my question is, where were the regulators? I was encouraged to see fraud charges pressed against Mr. Bankman-Fried and his subsequent extradition and arrest, but let us be serious—that was reactive, not proactive, and frankly, it is the least that Government could do. And perhaps most importantly, for all those regular Americans, it is not going to get them their money back.

And others will say that this is a classic case of buyer beware. It is clear that due to murky jurisdictional issues, unanswered legal questions, and a lack of regulatory clarity, investors are having a difficult time accurately pricing risk. In finance, we learn that the return on your investment should be related to the risk that you bear, but if you cannot price the risk it is hard to understand what return you should expect, and that cuts at the core of how a healthy market should function.

Professor Allen, your testimony highlights a number of ways that greater regulation enforcement can be valuable for investors, and I am interested in identifying specific ways that we can assist investors in quantifying the risks they may be taking on. Are there specific disclosure or registration requirements that you believe may assist investors in more accurate price discovery?

Ms. ALLEN. Thank you, Senator. So first of all I want to point out that the "let it burn" argument may seem harsh, and it is not one that I advocate for this reason. But it may seem harsh to the individual investors. But it is advocated in a sense of trying to protect people who have not invested in crypto from broader financial failure. So it is not as harsh as it might seem. We are trying to find a regulatory regime that can protect noninvestors as well as investors, and that is what I have tried to advocate for in my testimony.

In terms of protecting investors, as I have said, I do not know how you can really protect them from crypto assets with more disclosures because what are you actually disclosing about an asset that nothing behind it? I think that the securities laws are effective in requiring registration, which means people who have assets with nothing behind them will not be able to offer them in the first place, and that, I think, is the value, the ex ante value, as you said, instead of an ex post enforcement action. I think that is the value of applying the securities laws here.

And yes, I wish they had been enforced more aggressively in the lead-up to this. I think the SEC has not had enough resources. I also think that the SEC has faced a lot of significant political pressure to back off from the crypto industry. It received letters from Congresspeople last year, saying, "Don't look at FTX."

So I think that full-throated support from Congress for the SEC's investor protection mission could be very effective in increasing enforcement in this space.

Chairman BROWN. Thank you, Professor Allen. Thank you, Senator Sinema.

Senator Toomey has one last question, as I do, and then we will wrap. Thank you.

Senator TOOMEY. Thanks, Mr. Chairman. I think during the course of this hearing we have not talked as much as we ought to about some of the, I think, really exciting and terrific applications that the crypto ecosystem makes possible. One of the categories that comes to mind is the ability to use stablecoins in conjunction with smart contracts. Basically it turns into what I think of as programmable money, where you can write into the code a payment that will occur, based on some exogenous and verifiable event, and the payment requires no human intervention. It just happens when the exogenous event occurs.

So, Ms. Schulp, I wonder, first of all, could you comment on whether you think there is a lot of future in this idea of programmable money, and then second, I think you are familiar with the legislative framework that I have laid out for stablecoins. I think the heart of that is the requirement that we have 100 percent cash and cash equivalence as a backing for a stablecoin and oversight by the OCC, but not the Fed. And I wonder if you would comment also on whether you think that is the right approach to regulating stablecoins?

Ms. SCHULP. Of course. I do believe that stablecoins have a lot of promise, not only I terms of the programmable money concept that you state but also in terms of just being a faster and more stable way to work within a digital ecosystem rather than relying on kind of creaky payment rails. Stablecoins can offer a lot of alternatives in that space, where we have truly digital money.

I am familiar with your legislation, and I think that it addresses what is one of the, I think the most obvious risks in the stablecoin space, which is the concern that stablecoin issuers do not have stable coins, because the reserves that they have behind them might not be what they say they are.

I think that there are a number of ways that you can go about creating a regulatory regime to take account of that risk. I myself have proposed kind of a disclosure-based framework that could be put into place by something like the SEC. In fact, it is very similar to the disclosure framework that you have proposed with the OCC.

I do think it is important to separate that type of regulatory function from the Federal monetary regulator so that the Federal Reserve is not the one charged with handling regulation of kind of a money substitute here. There are a lot of conflicts of interest that can exist in that space, and I think it is wise to keep stablecoin regulation, which is something that I think is kind of low-hanging fruit at this point. There are obvious risks, and I think there are pretty obvious ways to deal with those risks in a pretty simple fashion. But we should keep that type of regulation separate and apart from monetary regulation.

Senator TOOMEY. Thank you.

Chairman BROWN. Thank you. And my question—in fact, thank you for that answer—Professor Allen, my question is, in part, a follow-up with your answer to Senator Sinema about the difficulty of regulating crypto. Crypto firms have called for regulatory clarity, is a term that some of them use. Do you think crypto platforms could mostly comply with actual regulations?

Ms. ALLEN. No, I do not, and I think when they are calling for regulatory clarity what they are asking for is actually bespoke regulation that they can comply with.

Chairman BROWN. OK. Good answer. Thank you.

Thanks to the witnesses for your testimony. The events of this week should be a warning to others about accountability, not just in crypto. How we discuss crypto from this point forward will define crypto markets for the future.

For Senators who wish to submit questions for the record, those questions are due Wednesday, December 21st. Witnesses, we ask you within 45 days to respond to any questions.

Thank you again. The Committee is adjourned.

[Whereupon, at 12:54 p.m., the hearing was adjourned.]

[Prepared statements, responses to written questions, and additional material supplied for the record follow:]

PREPARED STATEMENT OF CHAIRMAN SHERROD BROWN

Today's hearing is in a hybrid format. Our witnesses are in-person and virtual, and Members have the option to appear either in-person or virtually.

First, I want to express my gratitude to the Department of Justice, the SEC, the CFTC, and the Bahamian authorities for taking this critical step to hold Sam Bankman-Fried accountable for his misdeeds. I'd also like to thank Ranking Member Toomey and his staff for working with me and my staff to try to secure Mr. Bankman-Fried's testimony.

I trust that Mr. Bankman-Fried will soon be brought to justice. It is clear he owes the American people an explanation.

Meanwhile, our job is to keep learning more about the collapses of FTX and other crypto firms, and work with regulators to put consumers—not the crypto industry—first.

This isn't just about crypto. This is about protecting the consumers and the regulated financial sector from bad actors who think rules don't apply to them.

Two-and-half years ago, I explained why I thought Facebook's Libra currency was dangerous.

At the time, Facebook was moving full steam ahead to create its own "currency" to impose on its billions of users.

Congress, regulators, and policymakers saw Facebook Libra for what it was: a shiny new tool Facebook could use to reach into Americans' pockets and profit from—no matter the risk to consumers or our economy.

Members of this Committee, and others in Congress, responded. Republicans and Democrats alike made it clear that Facebook couldn't be trusted, and our financial system was not to be played with.

The risk of a company creating its own currency to compete with the U.S. dollar was obvious.

Ultimately, Facebook shut down its crypto project, but this Committee's work to protect consumers continues. Even though Facebook shelved its crypto plans, in the last two-and-a-half years, the stablecoin market has grown five-fold to become a tool for rampant speculation.

The number of crypto tokens has exploded, even as the total value of all crypto assets fell by two-thirds in the last year.

In the past, I've noted the similarities that cryptocurrencies share with risky mortgage bonds and over-the-counter derivatives during the lead up to the financial crisis. In all these cases, they told us how great innovation is and how derivatives make markets efficient.

Wall Street made it easy for everyone to get a mortgage so bankers could create more mortgage bonds and increase profits. Making money in crypto seemed easy, too easy—every crypto token could double or triple in value in a matter of hours or days.

It didn't matter if it was created with vague details or as a joke—money poured in. But no one is laughing now.

The weekend before our stablecoin hearing last February, we saw crypto companies spending big money on Super Bowl ads to attract more customers and pump up crypto tokens.

Crypto, like Facebook's Libra before it, was the shiny tool that was supposed to capture our imagination and revolutionize our lives. Wealthy celebrity spokespeople told Americans, if you're not buying crypto, you're missing out.

Crypto platforms created dozens of investment products. Products that look and sound like bank deposits, and that used words like "lend" and "earn." Or tokens that resemble securities and have a "yield" or governance rights. Yet these products had none of the safeguards of bank deposits or securities.

Crypto firms, and their backers, argued that billions of dollars invested in lending programs, or earning yield, should be exempt from basic oversight and regulatory protections.

That's not how regulation works. The things that look and behave like securities, commodities, or banking products need to be regulated and supervised by the responsible agencies who serve consumers.

Crypto doesn't get a free pass because it's bright and shiny. Or because venture capitalists think it might change the world. Or its TV ads campaigns were witty and featured celebrities.

Especially when so many consumers are at risk of losing their hard-earned money.

And that's before we even consider how crypto has ushered in a whole new dimension of fraud and threats to national security that support dangerous Nation States, embolden criminals, and finance terrorists.

North Korea uses crypto stolen in hacks to finance its ballistic missile programs. Human traffickers and drug cartels and gunrunners launder their proceeds using crypto assets, and some of these laundered funds end up bankrolling terrorists bent on undermining the United States.

The ability of rogue States, cyber criminals, and terrorists to use crypto for their own malign purposes is a feature of the technology. That's the point.

Crypto also has made it easier for fraudsters and scammers to steal consumers' money. Hacks and complex crypto transactions made it easy to steal billions of dollars of investors' money.

That's what we saw with FTX. That's what will continue as long as we allow crypto firms to write their own rules.

The myth of Sam Bankman-Fried and his crypto trading success was supposed to impress us.

We are still learning how he shuffled money between FTX and his trading firm, Alameda Research. A name calculated to sound as generic as possible to avoid raising eyebrows while sending money across the world.

FTX and Alameda Research took advantage of the crypto industry's appetite for speculation.

They were able to borrow and lend from other platforms and invest in other crypto firms—inflating the crypto ecosystem and growing their own profits.

Even this summer as crypto values crashed and platforms began to fail, FTX and Alameda found ways to benefit. In one case, FTX made a $250 million loan to a platform using its proprietary token, and Alameda borrowed client deposits worth more than twice that from the platform.

All the while, venture capitalists and other big investors fell for it. They were caught up in the speculative frenzy, missed the red flags at FTX, and showered Mr. Bankman-Fried with money.

And now it is all most likely gone.

It's no surprise that in 2018, Alameda solicited investors by guaranteeing 15 percent returns with quote "no downside." That's more than the guaranteed 11 percent that Bernie Madoff offered.

With Madoff and with Sam Bankman-Fried, investors didn't ask questions for fear of missing out. It's a good reminder that most guaranteed investments are too good to be true.

In this story, Sam Bankman-Fried was also the shiny object. Now he's the villain, possibly worse. But this story is bigger than one person or even one firm.

This is not just about misconduct at FTX, but about how to protect consumers and the financial system from unregulated crypto products.

For many investors, it might be too late. I've heard from Ohioans who have money stuck at FTX.US—that they tried to get out before it filed for bankruptcy. But despite Mr. Bankman-

Fried's assertions that the U.S. side of FTX should be fine, the court proceedings are likely to drag on.

If we are going to learn from FTX's meltdown, we must look closely at the risks from conflicts at crypto platforms that combine multiple functions.

It means thinking about the kinds of disclosure that consumers and investors really need to understand how a token or crypto platform works. We can look to existing banking and securities laws for time-tested approaches to oversee and examine entities that want Americans to trust them with their money.

To protect consumers and the financial system we need a comprehensive framework that looks at crypto products for what they are, not what crypto executives want them to be.

I look forward to working with Treasury Secretary Yellen and all the financial regulators to ensure there is an all of Government approach—just as we've done in the past. Anything less just won't work.

PREPARED STATEMENT OF SENATOR PATRICK J. TOOMEY

We're here today to discuss the fallout after the collapse of FTX. Some Americans likely suffered significant losses from the bankruptcy of FTX and Sam Bankman-Fried's misconduct.

On Monday, we saw the arrest of Mr. Bankman-Fried. This came as a surprise to no one, save for maybe Mr. Bankman-Fried. We owe it to each customer to get to the bottom of the FTX implosion, and any violations of the law should be aggressively prosecuted. The Department of Justice and other enforcement agencies should expeditiously investigate the unseemly relationship between a company that was effectively a hedge fund, and an exchange entrusted with customer funds.

While all the facts have not yet come to light, we've clearly witnessed wrongdoing that is almost certainly illegal. There was unauthorized lending of customer assets to an affiliated entity, and there were fraudulent promises to investors and customers about FTX's operations. These are outrageous and completely unacceptable. The SEC also believes FTX committed fraud against equity investors. They're going to pursue this, as they should.

But I want to underscore a bigger issue here: The wrongful behavior that occurred here is not specific to the underlying asset. What appears to have happened here is a complete breakdown in the handling of those assets.

In our discussion of FTX today, I hope we are able to separate potentially illegal actions from perfectly lawful and innovative cryptocurrencies.

Now it's important to define this space. Cryptocurrencies are analogized to tokens, but they are actually software. The software foundational to the crypto ecosystem are like operating systems. Applications then run on top of these operating systems. Currently there are many competing operating systems, and apps running on them. There is nothing intrinsically good or evil about software; it's about what people do with it.

With this analogy in mind, what we should all understand here is one simple thing: The code committed no crime. FTX and cryptocurrencies are not the same thing. FTX was opaque, centralized, and dishonest. Cryptocurrencies are open-source, decentralized, and transparent.

To those who think that this episode justifies banning crypto, I'd ask you to think about several examples. The 2008 financial crisis involved misuse of products related to mortgages. Did we decide to ban mortgages? Of course not. A commodity brokerage firm run by former New Jersey Senator John Corzine collapsed after customer funds—including U.S. dollars—were misappropriated to fill a shortfall from the firm's trading losses. Nobody suggested that the problem was the U.S. dollar, and that we should ban it. With FTX, the problem is not the instruments that were used. The problem was the misuse of customer funds, gross mismanagement, and likely illegal behavior.

Let's talk about what comes next. Some of my colleagues have suggested pausing cryptocurrencies before we can address it. This is profoundly misguided, not to mention impossible. Short of enacting draconian, authoritarian policies, cryptocurrency cannot be stopped. If we tried, the technology would simply migrate offshore; cryptocurrency does not need brick and mortar facilities to operate. And typing computer code should clearly be seen as a form of protected speech.

Are we going to decide to pause our Constitution to stop crypto? This is exactly the kind of mindset that has driven this activity to the dark and less regulated parts of the world.

Now, if Congress had passed legislation to create a well-defined regulatory regime with sensible guardrails, we'd have multiple U.S. exchanges competing here under the full force of those laws. It's not clear that FTX would have existed, at least at its scale, if we had domestic guidelines for American companies. The complete indifference to an appropriate regulatory regime by both Congress and the SEC has probably contributed to the rise of operations like FTX.

Others have suggested we refrain from addressing cryptocurrency at all, so as to not legitimize its use. This is not only misguided, it's irresponsible. Congress can and should offer a sensible approach for the domestic regulation of these activities.

We could start with stablecoins. This is an activity that my colleagues can analogize to existing, traditional finance products. There's clear bipartisan agreement that stablecoins need additional consumer protections. There are virtually none now. I've proposed a framework to do that. As have Senators Lummis and Gillibrand.

Congress also needs to determine the criteria by which the issuance of digital assets will be regulated. And we should acknowledge the possibility that certain token issuances, like Bitcoin, don't need any further regulation. We should also clearly delineate regulations for secondary market trading of these assets, including at exchanges like FTX.US. Some of my colleagues have begun this important work.

We can provide sensible consumer protections for which there would be very broad agreement, while still allowing for the development of applications that are going run on operating systems that we can't even imagine today. Just as we never imagined applications like Uber operating on iOS today.

Let me conclude with this. It's absolutely essential to investigate any fraud and violations of existing law, and prosecute those who are committing those crimes. Congress owes it to the American people to do so here. But this is fundamentally not about the kind of assets that were held by FTX. It's about what individuals did with those assets.

Individuals can also be tremendously empowered when they use cryptocurrencies. They can protect against inflation when Governments irresponsibly manage their own currencies. They can provide useful services without the need for a company or middleman. And they can let individuals preserve the freedom to transact privately.

Mr. Bankman-Fried may have well committed multiple crimes. The SEC and DOJ will determine that. But let's remember to distinguish between human failure and the instrument with which the failure occurred. In this case the instrument is software. And the code committed no crime. And while Sam Bankman-Fried very well may have, it is very important we do not convict the code of anything but preserving and protecting individual autonomy.

PREPARED STATEMENT OF HILARY J. ALLEN

PROFESSOR, AMERICAN UNIVERSITY WASHINGTON COLLEGE OF LAW

DECEMBER 14, 2022

Hearing on
Crypto Crash: Why the FTX Bubble Burst and the Harm to Consumers

Before the U.S. Senate Committee on Banking, Housing, and Urban Affairs

Wednesday, December 14, 2022

Prepared Statement

Hilary J. Allen
Professor of Law
American University Washington College of Law

Chairman Brown, Ranking Member Toomey, and Members of the Committee:

Thank you for inviting me to testify at today's hearing. My name is Hilary Allen, and I am a Professor of Law at the American University Washington College of Law. I teach courses in corporate law and financial regulation, and my research focuses on financial stability regulation. I have authored several articles for law reviews and the popular press about fintech and financial stability, and I have also written a book, *Driverless Finance: Fintech's Impact on Financial Stability*, that explores the threats that crypto and other fintech innovations pose to our financial system. Prior to entering academia, I spent seven years working in the financial services groups of prominent law firms in London, Sydney, and New York. In 2010, I worked with the Financial Crisis Inquiry Commission, which was appointed by Congress to study the causes of the financial crisis of 2007-2008.

I note that on May 25, 2022, I participated as an invited commenter at the CFTC's roundtable on FTX's proposal to automate clearing of margined trades for retail customers. I also co-authored a comment letter opposing that proposal. I have had no other interactions with FTX or any related entities. I am not testifying on behalf of the Washington College of Law or any other institution; the views expressed here are entirely my own.

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1. Executive Summary

We are still trying to piece together the details of FTX's failure, but a number of things are already clear. We know that FTX's affiliated hedge fund Alameda Research made large bets that fared poorly, leaving Alameda with a dubious balance sheet (its largest asset was its holdings of FTT tokens). We know that assets belonging to FTX's customers were lent to Alameda, in exchange for FTT tokens. We know that FTX created these FTT tokens out of nothing, and when FTX was no longer able to convince the world of FTT's value, it could no longer convert FTT into the assets needed to satisfy its customers' withdrawal requests. From all of this, it seems clear that FTX's problems arose in large part because of crypto's unique ability to create assets out of nothing. When unlimited assets can be created, there are no limits on the creation of leverage, and when assets have no fundamentals and trade entirely on sentiment, traditional checks on fraud (like valuation methodologies and financial accounting) will inevitably break down.

The problems at FTX were not a one-off, but part of a cascade of interconnected failures in the highly leveraged crypto financial system. These failures have impacted both centralized and decentralized players in the crypto industry: the decentralized players are not immune from problematic behavior. Bad actors can easily establish economic control over technologically decentralized platforms, so decentralization cannot guarantee that future FTXs will be avoided. Simply providing regulatory clarity will also be insufficient to prevent future FTXs. Some have claimed that FTX.com operated abroad because of a lack of regulatory clarity in the US, and that with more clarity, the exchange would have operated under the watchful eye of US regulators. The reality is, however, that FTX.com wanted to do things that it was not authorized to do in the United States (FTX operated a separate FTX US exchange designed to comply with US laws). FTX went abroad for more lax regulation, not more certain regulation.

FTX also sought to have more lax regulation implemented in the United States, by lobbying for new CFTC-administered crypto regulation that would help the crypto industry prosper. Crypto has demonstrated little utility in terms of real-world capital formation or financial inclusion, though, and so the public doesn't need the industry to prosper. What the public actually needs is protection – individual investors need protection from crypto frauds, and our broader financial system also needs protection from crypto's booms and busts. FTX's collapse has only harmed those who invested in crypto, but allowing crypto to integrate with the rest of our financial system could cause a broader financial crisis that will hurt those who never even invested in crypto.

A ban on crypto would be the most straight-forward way of protecting both investors and the financial system: it would end the uncontrolled creation of cryptoassets and also ensure that cryptoassets never require a bail-out. If policymakers don't wish to proceed with a ban, then they will need to be careful to ensure that any laws they *do* adopt don't inadvertently encourage the proliferation of cryptoassets or bring those cryptoassets closer to the core of our financial system. Crypto should *not* be regulated like banking products (that would give crypto access to the government support that we afford to banking because banking is critical to broader economic growth). Banking regulation should, however, continue to keep banks away from crypto. Crypto should also *not* have the CFTC as its primary regulator. The CFTC has no statutory investor protection mandate, has limited experience regulating retail-dominated markets, and the application of the CFTC's self-certification regime to crypto would allow an unlimited supply of cryptoassets to proliferate. Energetic enforcement of the SEC's registration requirements, on the other hand, would limit the creation of cryptoassets. Securities regulation could also help address problematic affiliations and asset custody problems in the crypto industry. Although the SEC's jurisdiction has geographical limitations, if properly funded and supported, the SEC could make significant strides in protecting US investors – and it could do so without conveying the message that crypto is "too big to fail."

2. FTX: Events and Narratives

Events

The FTX group is a sprawling group of entities that, prior to filing for bankruptcy, was majority-owned and controlled by Sam Bankman-Fried. The FTX group operated multiple businesses, including the FTX.com crypto exchange and the Alameda Research hedge fund.[1] Alameda sought to profit through various arbitrage, market-making, yield farming, and volatility-related trading strategies.[2] While "FTX and Alameda portrayed themselves publicly as distinct entities to avoid the perception of conflicts of interest between the exchange…and Bankman-Fried's proprietary trading firm," in reality, "[t]he close links between the firms and the large amount of borrowing by Alameda from FTX played a key role in the spectacular collapse of the exchange."[3]

There are conflicts of interest inherent in having any hedge fund affiliated with an exchange.[4] Alameda provided liquidity to FTX.com's other customers, but in doing so, it found a reliable source of trades to bet against. Alameda presumably also paid lower or no fees for trading on the exchange, and FTX.com also afforded preferential treatment to Alameda by delaying its margin calls (a benefit not extended to regular customers, who would have their positions liquidated for failing to meet margin calls).[5] The conflicts of interest become even more problematic, though, if the exchange starts lending out customer assets to the hedge fund, as FTX.com did with Alameda.[6]

Unlike stock exchanges, many crypto exchanges also integrate brokerage services into their offerings. As a result, exchanges like FTX.com not only facilitate the trading of their customers' assets, they also hold them in custody.[7] Instead of keeping its customers' assets safe in segregated accounts, it appears that FTX.com lent out its customers' assets to Alameda.[8] Presumably, the exchange benefitted from the interest paid by Alameda for the loans – although some have suggested that the loans were made for free.[9] Alameda could then use the customer assets as cheap collateral for margined trades with other parties (obtaining collateral from other sources would have been much more expensive).[10] It appears that Alameda did post collateral to secure the loans of FTX customer assets that it received, and that that collateral took the form of FTT tokens.[11] FTT tokens were the so-called "native token" of the FTX exchange:[12] FTX created FTT and issued it to both institutional and retail

[1] Declaration of John J. Ray III in Support of Chapter 11 Petitions & First Day Pleadings at 30, *In re* FTX Trading Ltd., No. 22-11068 (Bankr. D. Del. Nov. 17, 2022).
[2] *Id.* at 8.
[3] Joshua Oliver, *Sam Bankman-Fried's trading shop was given special treatment on FTX for years*, FIN. TIMES (Dec. 3, 2022).
[4] For a discussion of the conflicts of interest that were likely at work in the context of FTX/Alameda, *see* Frances Coppola, *The FTX-Alameda Nexus*, COPPOLA COMMENT (Nov. 10, 2022), available at https://www.coppolacomment.com/2022/11/the-ftx-alameda-nexus.html.
[5] Oliver, *supra* Note 3.
[6] Angus Berwick, Anirban Sen, Elizabeth Howcroft and Lawrence Delevigne, *Special Report: FTX's Bankman-Fried begged for a rescue even as he revealed huge holes in firm's books*, REUTERS (Nov. 16, 2022).
[7] Adam J. Levitin, *Not Your Keys, Not Your Coins: Unpriced Credit Risk in Cryptocurrency*, forthcoming 101 TEX. L. REV (2022)
[8] Paige Tortorelli and Kate Davidson, *Sam Bankman-Fried's Alameda quietly used FTX customer funds for trading, say sources,* CNBC.COM (Nov. 13, 2022).
[9] *Id.*
[10] Coppola, *supra* Note 4.
[11] Berwick *et al.*, *supra* Note 6.
[12] *Id.*

investors without registering with any regulator or undergoing any audit or other external due diligence. FTX could create unlimited amounts of FTT if it wished.

In short, there appear to have been two sets of leveraged transactions involved. First, Alameda borrowed assets from FTX's customers, providing FTT tokens as collateral for those loans. Second, Alameda engaged in margin trading, essentially borrowing money to execute risky trading strategies. Leverage makes trades potentially more lucrative, but also makes them more vulnerable to adverse market movements. At some point (perhaps during 2022's "crypto winter") Alameda seems to have lost a lot of money on its trades.[13] In an Alameda balance sheet made available to CoinDesk in early November, Alameda's largest asset holdings were listed as being FTT tokens[14] (it is possible that it received these in a kind of bailout from FTX). Other assets listed on that balance sheet included SOL tokens (issued by the Solana blockchain, in which Bankman-Fried was an early investor) and SRM tokens (issued by the Serum exchange that Bankman-Fried co-founded).[15] It appears that Alameda had few assets that hadn't been created out of thin air by FTX or FTX-related entities.

After the CoinDesk report came out on November 2, the CEO of FTX's rival exchange Binance Changpeng Zhao tweeted on November 6 that Binance was planning to sell off its holdings of FTT.[16] While FTX could control the supply of FTT and therefore could control its price to some degree, FTX did not have complete control over FTT's price because purchases and sales by existing holders would also impact that price. The large sale proposed by Binance would have put significant downward pressure on the price of FTT, and so when other FTT holders learned of it, they were incentivized to sell their FTT as quickly as possible and its price fell dramatically.[17] There was significant conjecture about liquidity problems, if not insolvency, at FTX and Alameda.[18]

Bankman-Fried negotiated a deal with Zhao (who is typically referred to as "CZ") for Binance to acquire FTX.com: the deal was announced on November 8, but was expressed to be non-binding.[19] All of this shook the confidence of FTX's exchange customers, many of whom sought to pull their assets off of the exchange. Presumably, exchange customers had assumed that their assets were being held in segregated accounts for them all along; in reality, they had been loaned to Alameda in exchange for FTT. This had gone unnoticed for some time: when customers had made withdrawals in the past, FTX seems to have been able to exchange FTT for any other assets that needed to be returned to a withdrawing customer.[20] However as the price of FTT fell, it would have become increasingly expensive for FTX to convert FTT into the assets that matched customers' expectations of their portfolio holdings – especially as so many FTX customers were seeking to pull their cryptoassets out of the exchange at the same time.

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[13] Molly White, *The FTX collapse: the latest revelations (part three)*, MOLLY WHITE (Nov. 18), available at https://newsletter.mollywhite.net/p/the-ftx-collapse-the-latest-revelations.
[14] Ian Allison, Divisions in Sam Bankman-Fried's Crypto Empire Blur on His Trading Titan Alameda's Balance Sheet, COINDESK (Nov. 2, 2022).
[15] *Id.*
[16] For a good timeline of the tweets and other events that immediately precipitated FTX's failure, *see* Dalia Ramirez, *FTX Crash: Timeline, Fallout and What Investors Should Know*, NERDWALLET (Nov. 28, 2022), available at https://www.nerdwallet.com/article/investing/ftx-crash.
[17] MacKenzie Sigalos, *FTX's token plunges 80% on liquidity concerns, wiping out over $2 billion in value,* CNBC.COM (Nov. 8, 2022).
[18] *Id.*
[19] Ramirez, *supra* Note 16.
[20] Coppola, *supra* Note 4.

It became clear that the FTX exchange had insufficient assets to make its customers whole, and on November 11, Sam Bankman-Fried resigned his position with FTX and John Ray III was appointed as CEO.[21] Ray immediately cause FTX Trading Ltd., together with multiple related entities (including Alameda- and FTX US-related entities), to file a Chapter 11 bankruptcy petition with the Delaware Bankruptcy Court.[22] Shortly after the bankruptcy filing, roughly $515 million was drained from FTX's accounts in a series of unauthorized transactions.[23]

Narratives

The foregoing reflects my present understanding of what transpired at FTX, but this account comes with the caveats that some of it has not yet been substantiated, that we are being inundated with emerging revelations, and that there remain many things we simply do not know about what happened. Law enforcement authorities, courts, and journalists continue to probe the events surrounding FTX's failure, but narratives are already being formed about what transpired. This part of my testimony will describe some of the theories of what contributed to FTX collapse. To be clear from the outset, not all of these theories are plausible, for reasons I will explain.

One version of the events that has been proffered by Coinbase CEO Brian Armstrong and echoed by some others is that "[t]he problem is that the SEC failed to create regulatory clarity here in the US, so many American investors (and 95% of trading activity) went offshore," where there was insufficient oversight.[24] This interpretation of events seems somewhat disingenuous, however. If we accepted this narrative, we would also have to blame the New York Department of Financial Services for FTX's failure, because the NYDFS never agreed to approve FTX's application for a BitLicense, and so they were not able to supervise FTX.[25] In reality, the NYDFS applied New York law to protect New Yorkers, just as the SEC applies the federal securities laws where it has jurisdiction. Geographical arbitrage of regulation is a longstanding problem, but it generally occurs because firms go abroad in search of more lax regulation – not more certain regulation. As SEC Chair Gary Gensler previously noted in response to criticism that the SEC has failed to provide regulatory clarity around crypto:

> *For the past five years, though, the Commission has spoken with a pretty clear voice here: through the DAO Report, the Munchee Order, and dozens of Enforcement actions, all voted on by the Commission. Chairman Clayton often spoke to the applicability of the securities laws in the crypto space. Not liking the message isn't the same thing as not receiving it.*[26]

Indeed, the "lack of regulatory clarity" argument was recently rejected by Judge Peter Barbadoro of the United States District Court for the District of New Hampshire, who concluded that crypto issuer

[21] Declaration of John J. Ray III in Support of Chapter 11 Petitions & First Day Pleadings at 16, *In re* FTX Trading Ltd., No. 22-11068 (Bankr. D. Del. Nov. 17, 2022).
[22] *Id.* at 1.
[23] David Yaffe-Bellamy, *FTX Investigating Possible Hack Hours After Bankruptcy Filing*, N.Y. TIMES (Nov. 12, 2022).
[24] Jason Abbruzzese and Daniel Arkin, *FTX is in freefall. Where was the oversight?*, NBC NEWS (Nov. 15, 2022).
[25] Jordan Atkins, *In wake of FTX collapse, New York financial regulator wants its digital asset licensing regime adopted nationally*, COINGEEK (Nov. 17, 2022), available at https://coingeek.com/in-wake-of-ftx-collapse-new-york-financial-regulator-wants-its-digital-asset-licensing-regime-adopted-nationally/.
[26] Gary Gensler, *Kennedy and Crypto*, Remarks at SEC Speaks (Sept. 8, 2022), *available at* https://www.sec.gov/news/speech/gensler-sec-speaks-090822

LBRY "did not have a defense that it lacked fair notice of the application of [the securities] laws to its offer and sale."[27]

Others have ascribed FTX's failure to its centralization, suggesting that decentralized finance or "DeFi" lacks the kinds of conflicts of interest and profit motives that drove FTX to siphon off customer assets.[28] This narrative, however, overstates DeFi's decentralization. Even where technology has been designed to be decentralized, that does not guarantee economic decentralization, and in DeFi, centralization has indeed occurred because of economic incentives.[29] As tech veteran David Rosenthal put it "economics forces successful permissionless blockchains to centralize": the reality is that wealth and power in DeFi are more concentrated than in traditional finance, and this centralization creates conflicts of interest and affords opportunities for exploitation.[30] For example, individuals holding the majority of the governance tokens controlling a decentralized exchange could potentially change the exchange's protocol to allow the transfer of customers' assets somewhere they shouldn't go. Although DeFi proponents may claim that it has a clean record, it's important to remember that Terra/Luna was considered DeFi until it failed[31] (Do Kwon's central economic role in managing Terra/Luna is now generally recognized).

Another narrative circulating about the FTX failure suggests that the whole crypto industry shouldn't be judged by the actions of "one bad apple," and that Sam Bankman-Fried perpetuated a "garden variety fraud" that could have happened in traditional finance. Although there is much more to learn about FTX's failure, it is already clear that this narrative is false and should be rejected. Most obviously, the "one bad apple" narrative does not hold up well when we have already seen multiple crypto failures happen during this year's "crypto winter." Following the failures of Terra/Luna, Celsius, Voyager, Three Arrows Capital, and others, it is hard to describe FTX as an outlier. The crypto industry (both the nominally decentralized and the centralized parts of it) is very interconnected, and failures in one part inevitably have reverberations for the rest of the industry. It is likely that Alameda incurred many of its losses during the "crypto winter," for example,[32] and FTX's failure was followed almost immediately by the failure of BlockFi.[33] It is highly likely that the industry will see more dominoes fall in the coming months.

Another key flaw in the "this wasn't about crypto" narrative is that many of the problems at FTX arose because of a feature that is unique to the crypto industry: cryptoassets (like the FTT token)

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[27] SEC Granted Summary Judgment Against New Hampshire Issuer of Crypto Asset Securities for Registration Violations, Litigation Release No. 25573 (Nov. 7, 2022), available at https://www.sec.gov/litigation/litreleases/2022/lr25573.htm (referring to the case of *SEC v. LBRY, Inc.*, No. 1:21-cv-00260-PB (D.N.H. filed Mar. 29, 2021)).
[28] See, for example, Giorgi Khazaradze, *FTX showed the value of using DeFi platforms instead of gatekeepers*, COINTELEGRAPH (Nov. 21, 2022), available at https://cointelegraph.com/news/ftx-showed-the-value-of-rejecting-gatekeepers-in-favor-of-defi.
[29] Sirio Aramonte, Wenqian Huang and Andreas Schrimpf, *DeFi Risks and the Decentralization Illusion*, BIS QUARTERLY REVIEW, 29-30 (Dec. 2021).
[30] David Rosenthal, *EE380 Talk*, (Feb. 9, 2022), https://blog.dshr.org/2022/02/ee380-talk.html.
[31] "LUNA was a growing powerhouse within the DeFi space before the collapse of the Terra ecosystem. In December 2021, Terra overtook the BNB Smart Chain to become the second-largest DeFi protocol with more than $20 billion locked into the network across its applications." *What is Terra (LUNA)? A beginner's guide* COINTELEGRAPH, available at https://cointelegraph.com/blockchain-for-beginners/terra-luna-beginners-guide-to-the-blockchain-for-stablecoins.
[32] White, *supra* Note 13.
[33] Lauren Hirsch, David Yaffe-Bellany and Ephrat Livni, *Crypto Lender BlockFi Files for Bankruptcy as FTX Fallout Spreads*, N.Y. TIMES (Nov. 28, 2022)

can be created out of nothing by anyone with computer programming abilities. I have previously explained that this unlimited supply of cryptoassets allows for significant leverage, making the crypto ecosystem very fragile.[34] The unlimited supply of cryptoassets also ensures that frauds are particularly easy to perpetuate: when an entire industry is built on an asset type that can be manufactured at zero cost, has no fundamentals, and trades entirely on sentiment, traditional checks on fraud (like valuation methodologies and financial accounting) will inevitably break down.

For example, concepts like "market capitalization" don't have the same meaning for crypto as they do for traditional finance, and that can be exploited to inflate the value of cryptoassets. If a token is created and then sold, either to a willing third party or in a wash trade, the price paid for that token can then be multiplied by the entire supply of that particular token (even those that have never been sold) to create a large market capitalization number.[35] As Matt Levine put it in his description of the Serum tokens listed on FTX's balance sheet:

> *So if for instance some company creates a token, and says that there can be 10 billion of the token, and reserves them all for itself, and then sells 1 million of them to outside investors for $1 each, then the market cap of that token is $1 million ($1 times 1 million circulating tokens), while the fully diluted market cap is $10 billion ($1 times 10 billion total tokens), and the issuer's 9,999,000,000 remaining tokens have a value, on this math, of $9.999 billion.*[36]

These types of valuations have a high propensity to mislead potential investors, and they are possible because an unlimited supply of tokens can be minted out of thin air.

Audits of financial accounts performed by reputable accounting firms are also key to detecting frauds. However, when crypto firms provide financial disclosures, they often take the form of "attestations" or "proof of reserves" that have not undergone the scrutiny of audited financials.[37] On occasions when audits *are* conducted, their reliability is not assured (for example, in FTX's bankruptcy filing, Ray expressed concerns about the reliability of the FTX financial statements audited by Armanino LLP and Prager Metis).[38] Requiring audits by reputable accounting firms would certainly introduce some rigor and oversight that could help detect fraud at crypto firms, but there remains the concern that auditing practices will simply reflect the flawed valuation metrics I just discussed. There is presently a lack of clarity as to how accounting standards should apply to crypto, but FASB has indicated that it will shift to fair market accounting for cryptoassets (this shift has reportedly been

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[34] "There is no legal constraint on the quality of the tokens accepted as collateral for loans, or the amount that can be borrowed against that collateral – amounts borrowed can then be used to acquire yet more assets. An unconstrained supply of financial assets to serve as collateral therefore means more opportunities for asset bubbles to grow, and more assets to be dumped during fire sales." Hilary J. Allen, *DeFi: Shadow Banking 2.0?*, forthcoming WM. & MARY L. REV. (2022).

[35] Molly White, *Cryptocurrency "market caps" and notional value*, MOLLY WHITE (Jul. 17, 2022), available at https://blog.mollywhite.net/cryptocurrency-market-caps-and-notional-value/.

[36] Matt Levine, *FTX's Balance Sheet Was Bad*, BLOOMBERG (Nov. 14, 2022).

[37] Jonathan Weil, *Binance Is Trying to Calm Investors, but Its Finances Remain a Mystery*, WALL ST. JOURNAL (Dec. 10, 2022).

[38] "As a practical matter, I do not believe it appropriate for stakeholders or the Court to rely on the audited financial statements as a reliable indication of the financial circumstances of [the relevant entities]." Declaration of John J. Ray III in Support of Chapter 11 Petitions & First Day Pleadings at 20-21, *In re* FTX Trading Ltd., No. 22-11068 (Bankr. D. Del. Nov. 17, 2022).

welcomed by the crypto industry).[39] This shift will lead to the current market value of cryptoassets increasingly being reflected on balance sheets – presumably recognizing and legitimizing the pliable market valuations discussed above. Where accounting standards accept market valuations of an asset class that can be synthesized out of nothing, it is easy to see how people could continue to be swindled.

The integration of crypto exchanges with other crypto businesses is another feature of the crypto industry that can encourage problematic behavior. Although the FTX exchange and the Alameda hedge fund were nominally separate legal entities, it seems that they were by and large operated as one enterprise.[40] FTX.com also consolidated brokerage, exchange, and clearing services in one platform. Consolidation of brokerage, exchange, clearing, and proprietary trading activities is endemic to the crypto industry,[41] and inevitably creates conflicts of interest – particularly the temptation for the exchange to use client assets and bet against its own clients. Presently, there is a lack of transparency about these and other potential conflicts of interest in the crypto industry. For example, all of the major stablecoins (Tether, USDC, and BUSD) have some kind of affiliation with a crypto exchange (Bitfinex, Coinbase, and Binance, respectively). Stablecoin reserves are meant to be comprised of safe assets which generate little return, so it is unclear how stablecoin issuers make profits. It may be that stablecoin issers are financially supported by their related exchanges, in which case there would be conflicts of interest involved in the business model. We simply do not know, though (we might have had some transparency had USDC's operator Circle proceeded with its SPAC and become a publicly-traded company, but that was recently abandoned).[42]

Not only could the FTX.com exchange affiliate with Alameda and manufacture assets, it was also able to take advantage of the mystique of crypto to help disguise what was going on behind the scenes. As with Bernie Madoff, Sam Bankman-Fried seems to have utilized his cult of personality to discourage investigation of his activities,[43] but Bankman-Fried was also able to exploit crypto's technological complexity to his advantage as well – something that Madoff was unable to do. As I have written previously, "finance is so complicated that casual observers are discouraged from trying to figure out what finance actually is or does, and so the financial industry often escapes public scrutiny:" this can be, and long has been, exploited by those seeking to perpetuate frauds. "We are now in a moment, though, when traditional financial complexity is being overlaid with new kinds of technological complexity, making new fintech innovations doubly hard to understand."[44] The result was that FTX was able to persist for a prolonged period with "such a complete failure of corporate controls and such a complete absence of trustworthy financial information" (this statement was made

[39] Robert Graham, *FASB Recommends New Cryptocurrency Accounting Method with Significant Impact on Corporate Reporting*, MARCUM (Oct. 20, 2022), available at https://www.marcumllp.com/insights/fasb-recommends-new-cryptocurrency-accounting-method-with-significant-impact-on-corporate-reporting.
[40] Oliver, *supra* Note 3.
[41] "The terminology of "exchange" in the cryptocurrency context is confusing because dome of the functions performed by a cryptocurrency exchange are more akin to those of a broker in securities or commodities markets. To understand the particular role of a cryptocurrency exchange, it is necessary to understand the relationship of three different functions in financial market places: exchanges, clearinghouses, and brokerages." Levitin, *supra* Note 7 at 14.
[42] Scott Chipolina, *Crypto group Circle ends $9bn deal to go public through Bob Diamond's SPAC*, FIN. TIMES (Dec. 5, 2022).
[43] David Jeans and Sarah Emerson, *'The Devil in Nerd's Clothes': How Sam Bankman-Fried's Cult of Genius Fooled Everyone*, FORBES (Nov. 12, 2022).
[44] Hilary J. Allen, DRIVERLESS FINANCE: FINTECH'S IMPACT ON FINANCIAL STABILITY, 2 (2022).

by incoming FTX CEO John Ray III in FTX's bankruptcy filing, who said that he had never seen such a failure – despite presiding over Enron's bankruptcy)."[45]

3. Different kinds of financial regulation

Following FTX's failure, there have been many questions about "where were the regulators?" and "what regulation do we need in response?" A difficulty with these types of questions is that there are many different types of regulation, and people are often talking about very different things when they talk about regulating crypto. This Section will address this by disaggregating different kinds of financial regulation and explaining that some kinds of financial regulation have worked very well with regards to crypto, that others need to be enforced more fully, and that some proposals for bespoke crypto regulation would be dangerous for the stability of our financial system.

<u>A ban</u>

The most effective way to protect both the stability of our financial system and individual investors would be to ban cryptoassets. It is sometimes said that such a ban would be impossible to enforce because of the decentralized nature of crypto. However, crypto is not actually decentralized,[46] and so there are many people against whom such a ban could be enforced. Most obviously, centralized exchanges (like FTX) serve as important gateways to the crypto markets. If they were banned from listing cryptoassets, then the market for cryptoassets would most likely diminish significantly.

In addition to centralized exchanges, there are also what are known as "decentralized exchanges", like Uniswap. These are typically operated by a "decentralized autonomous organization" or "DAO." Holders of the DAO's governance tokens can vote on any proposals to change the way the exchange operates (Uniswap's governance tokens are known as "UNI").[47] While it might be hard to regulate a decentralized exchange or DAO directly, ultimately, their governance tokens are held by real people who could be prohibited from holding governance tokens in a DAO operating a prohibited business. Practically speaking, ownership of governance tokens tends to be reasonably concentrated with the founders, venture capitalist funders, and crypto whales,[48] so enforcement efforts would only have to target a limited number of holders to be effective (the ownership of UNI tokens, for example, is highly concentrated).[49] It is theoretically possible for a DAO to have more dispersed ownership of its governance tokens, but as I have argued previously, "if DeFi were forced to live up to its claims of decentralization by operating without any centralized intermediaries it would be very difficult for users to access DeFi or for DeFi services to scale up, and this would limit the real-world fallout from any DeFi failures."[50] It is therefore feasible to implement a reasonably effective ban on crypto. Even if the ban is not 100% effective in practice, it can still be good public policy – bans on other illicit

[45] Declaration of John J. Ray III in Support of Chapter 11 Petitions & First Day Pleadings at 2, *In re* FTX Trading Ltd., No. 22-11068 (Bankr. D. Del. Nov. 17, 2022).
[46] See Aramonte *et al.*, *supra* Note 29.
[47] Andrey Sergeenkov, *A Deep Dive Into How the Top 10 DAOs Work*, COINMARKETCAP available at https://coinmarketcap.com/alexandria/article/a-deep-dive-into-how-the-top-daos-work.
[48] Chainanalysis Team, *Dissecting the DAO: Web3 Ownership is Surprisingly Concentrated*, CHAINANALYSIS BLOG (Jun. 27, 2022), available at https://blog.chainalysis.com/reports/web3-daos-2022/.
[49] The FSOC Report on Digital Asset Financial Stability Risks and Regulation uses the UNI governance token to illustrate the point that "the top 1 percent of addresses of certain governance tokens hold over 90 percent of the total supply." FSOC, REPORT ON DIGITAL ASSET FINANCIAL STABILITY RISKS AND REGULATION, 73 (2022), available at https://home.treasury.gov/system/files/261/FSOC-Digital-Assets-Report-2022.pdf.
[50] Allen, *supra* Note 34.

activities aim to reduce harm by discouraging the activities in question, even if eliminating those activities entirely is infeasible.

Because the crypto markets are largely speculative and self-referential, such a ban would not shut down any meaningful flows of capital to real-world productive capacity. Some might be concerned that such a ban would limit efforts to promote financial inclusion, but in a piece entitled "Debunking the narratives about cryptocurrency and financial inclusion," Brookings' Tonantzin Carmona concluded that:

> *When examined closely, crypto's current capabilities do not match the needs of the groups it purports to serve, and it carries a host of risks and drawbacks that undermine its benefits. More alarming, we can observe parallels between crypto and other predatory products, which highlights crypto's potential to exacerbate unequal financial services to historically excluded groups.*[51]

Narratives about the ability of blockchain technology to improve the efficiency of financial services are similarly flawed. Any technology that aims to be decentralized will need some way of validating transactions that is more cumbersome and expensive than validation by a centralized intermediary, otherwise it will be too easy for a nefarious actor to subvert the blockchain. Permissionless blockchains are therefore inherently less efficient than centralized alternatives. While attempts are being made to remedy these inefficiencies, for example, by processing transactions off-chain in so-called "second layer" solutions, off-chain processing entails increasing dependency on intermediaries.[52] As Professor Edmund Schuster put it:

> *Although it is possible to minimise or even eradicate the waste and computational overhead of blockchain solutions by, essentially, re-centralising the ledger, resulting systems so closely resemble traditional, widely available databases that there is little reason to expect significant benefits from their adoption compared to the status quo.*[53]

Ultimately, we have much to gain and little to lose from a ban on crypto (and the gains would go beyond investor protection – they would also include limiting environmental damage and preventing ransomware attacks).[54] If policymakers to not wish to enact such a ban, though, then they will need to be careful to ensure that any regulatory measures that they *do* adopt don't inadvertently compromise the stability of our financial system.

Banking regulation

[51] Tonantzin Carmona, *Debunking the narratives about cryptocurrency and financial inclusion*, BROOKINGS (Oct 26, 2022), available at https://www.brookings.edu/research/debunking-the-narratives-about-cryptocurrency-and-financial-inclusion/.
[52] See, for example, Alyssa Hertig, *Bitcoin's Lightning Network Is Growing 'Increasingly Centralized,' Researchers Find*, COINDESK (Feb. 20, 2020), https://www.coindesk.com/tech/2020/02/20/bitcoins-lightning-network-is-growing-increasingly-centralized-researchers-find/.
[53] Edmund Schuster, *Cloud Crypto Land*, 84 MODERN L. REV. 974, 975 (2020).
[54] "If [crypto cannot deliver on its promises] or is even unlikely to, deliver, there must be strong regulation to rein in the negative consequences of crypto experimentation. Among its negative impacts, the rise of crypto has spurred ransomware attacks and consumed excessive energy. Bitcoin's blockchain relies on a proof-of-work validation mechanism that uses about as much energy as Belgium or the Philippines." Hilary J. Allen, *The Superficial Allure of Crypto,* IMF Finance & Development (F&D) (Sept. 2022). See also, Lee Reiners, *Ban Cryptocurrency to Fight Ransomware*, WALL ST. JOURNAL (May 25, 2021).

Banking regulation is designed to promote the safety and soundness of individual banks and the financial system as a whole. It aims to do so by managing the risks that banks take on *ex ante* and providing *ex post* support should things go poorly, in the form of emergency lending from the central bank, deposit insurance, and special resolution mechanisms.

Last year, I testified before this Committee regarding the dangers of regulating stablecoin issuers as banks.[55] The essence of that testimony was that in the normal order of things, financial investments should be allowed to fail. Banking regulation, however, seeks to prevent the failure of certain kinds of investments – including through *ex post* measures like emergency lending from the central bank, deposit insurance, and special resolution mechanisms. The availability of these *ex post* measures creates moral hazard (i.e. it gives banks incentives to engage in riskier behavior in order to multiply their profits in good times, knowing that there is a government safety net that will absorb the losses in bad times), but this moral hazard is deemed worthwhile because the economy depends on keeping banks stable to facilitate broad-based growth. Ultimately, banking regulation entails a kind of *quid pro quo* relationship, but as I said in my testimony:

> *The moral hazard associated with deposit insurance was ultimately deemed a price worth paying to keep banks stable and funds flowing through them to the broader economy. But the value proposition for stablecoins is much less clear: what economic growth do they propel? And what moral hazard would government backing for stablecoins create?*

If we ask the same questions of crypto writ large, we should conclude that cryptoassets – which can be created out of whole cloth and are primarily used for speculation rather than investment – should not be the subject of government guarantees or otherwise be made "too big to fail." Policymakers should be mindful of how fragile the crypto system is – as a result of its leverage, interconnectedness, and underlying technological complexity – which means that it may need rescuing regularly. Policymakers should be particularly mindful of the possibility that if banking regulation were applied to cryptoassets, people could potentially fabricate cryptoassets out of thin air and then have them bailed out by the Federal Reserve.

Because cryptoassets should be allowed to fail, banking regulation should not be applied to cryptoassets. Banking regulation should, however, continue to be applied to banks themselves to prevent them from being exposed to crypto. At present, banking regulation is reasonably strong on this issue. For example, OCC guidance provides that nationally chartered banks should not engage in the few crypto-related activities it has deemed permissible "until it receives written notification of the supervisory office's non-objection" and that "a proposed activity cannot be part of the "business of banking" if the bank lacks the capacity to conduct the activity in a safe and sound manner."[56] The Federal Reserve and FDIC have adopted similar approaches.[57]

[55] Hilary J. Allen, Testimony before the Senate Committee on Banking, Housing, and Urban Affairs, Hearing on *Stablecoins: How Do They Work, How Are They Used, and What Are Their Risks?* (Dec. 14, 2021).
[56] Office of the Comptroller of the Currency, *Chief Counsel's Interpretation Clarifying: (1) Authority of a Bank to Engage in Certain Cryptocurrency Activities; and (2) Authority of the OCC to Charter a National Trust Bank*, INTERPRETIVE LETTER #1179, 1 (Nov. 18, 2021), available at https://www.occ.gov/topics/charters-and-licensing/interpretations-and-actions/2021/int1179.pdf.
[57] Acting Comptroller of the Currency Michael J. Hsu, *Remarks to the Harvard Law School and Program on International Financial Systems Roundtable on Institutional Investors and Crypto Assets "Don't Chase"*, 6 (Oct. 11, 2022), available at https://www.occ.treas.gov/news-issuances/speeches/2022/pub-speech-2022-126.pdf.

There is general agreement that this kind of banking regulation has performed well during this "crypto winter." Despite turmoil in the crypto industry, the banking system (and our broader economy, which relies on that banking system for loans and transaction processing) have remained largely unshaken. Some have attributed this to the size of the crypto markets, saying that they are too small to have a systemic impact (at its high point, the notional value of the global crypto market was thought to be about $3 trillion, now that notional value is hovering below $1 trillion).[58] However, for context, the value of subprime mortgages in the United States in March 2007 was estimated by one source to be $1.3 trillion,[59] and yet the subprime mortgage market was so intertwined with the banking industry that its failure led to a financial crisis and ensuing recession that harmed people who had never obtained a subprime mortgage, or even a mortgage at all.[60] In other words, even a relatively small market can cause systemic problems if the banking industry is significantly exposed to that market. So far, strong banking regulation has helped prevent failures in the crypto industry from harming those who have never invested in crypto: banking regulation has kept crypto away from the core of our financial system, crypto has not become "too big to fail," and policymakers and central bankers have felt no public pressure to bail out the crypto industry.

If new banking legislation is implemented in the wake of FTX's failure, it should formally recognize this separation of banking and crypto in a type of "Glass-Steagall 2.0." Such legislation should prohibit banks from investing in any cryptoassets, or accepting them as collateral for loans. Banks should also be prohibited from holding stablecoin reserves in a deposit account, as those funds could disappear in the event of the run on the stablecoin, exposing the bank to the risk of a run itself. Congress may also wish to reconsider the wisdom of allowing banks to custody cryptoassets,[61] or to perform trades on permissionless blockchains.[62] There are reputational concerns to be considered when banks work with crypto in any way: Silvergate Bank held deposits for FTX and Alameda, and is now being targeted by short sellers and scrutinized by members of Congress.[63]

Insured depository institutions should also be prohibited from issuing their own stablecoins. Stablecoins are not a good payments solution, because, as I've said elsewhere:

> *Blockchain technology needs to involve wasteful computations in order to discourage attacks, so it does not scale well. In addition, blockchains can have data added but not deleted from them, which prevents the reversal of mistaken or fraudulent transactions. It's hard to see how blockchain payments could ever be faster or more efficient than more centralised alternatives.*[64]

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58 https://www.statista.com/statistics/730876/cryptocurrency-maket-value/

59 *Will subprime mess ripple through economy?*, NBCNEWS (Mar. 12, 2007), available at https://www.nbcnews.com/id/wbna17584725. The Financial Crisis Inquiry Commission also provided information about subprime mortgage originations in the years leading up to 2008, showing that "In 2006, $600 billion of subprime loans were originated," with slightly more being originated in 2005 and somewhat fewer in 2004. FCIC Report Financial Crisis Inquiry Commission, THE FINANCIAL CRISIS INQUIRY REPORT, 70 (2011).

60 "We conclude collapsing mortgage-lending standards and the mortgage securitization pipeline lit and spread the flame of contagion and crisis." *Id.* at xxiii.

61 Stephen Alpher, *BNY Mellon Starts Crypto Custody Service*, COINDESK (Oct. 11, 2022).

62 Brayden Lindrea, *JPMorgan executes first DeFi trade on public blockchain*, COINTELEGRAPH (Nov. 2, 2022). There are significant operational risks associated with operating trades on a public blockchain. *See* Angela Walch, *The Bitcoin Blockchain as Financial Market Infrastructure: A Consideration of Operational Risk*, 18 NYU J. LEGISLATION & PUB. POL'Y 837 (2015).

63 Max Reyes, *An Obscure Bank Found Its Key to Success. Then FTX Collapsed*, WASHINGTON POST (Dec. 11, 2022).

64 Hilary J. Allen, *We're asking the wrong questions about stablecoins*, FIN. TIMES (May 25, 2022).

Instead, stablecoins are primarily used as an on-ramp for crypto speculation.[65]

Unfortunately, the proposed Stablecoin TRUST Act (introduced by Senator Toomey), the proposed Lummis-Gillibrand Responsible Financial Innovation Act, and the proposed House Financial Services Committee bill on stablecoins all seek to *integrate* banking and crypto. For example,

- Section 601 of the Lummis-Gillibrand Responsible Financial Innovation Act proposes a new 12 USC S 4810(k)(1)(F) that require the development of "tailored recovery and resolution standards relating to payment stablecoins." If the resolution process for stablecoin issuers happens outside of bankruptcy, it will likely require government funding to allow for speedy resolution in the same way that the deposit insurance fund is used to facilitate bank resolution. Section 702 would require the Federal Reserve to provide all stablecoin issuers (banks, and special purpose stablecoin banks) with master accounts, which would include "Fed guarantees for payments made on Fedwire, [and] daylight overdraft privileges."[66]
- Section 6 of the proposed Stablecoin TRUST Act similarly proposes to require the Federal Reserve to provide all stablecoin issuers (banks and non-banks) with master accounts.
- The HFSC bill is rumored to extend discount window access to all stablecoin issuers (both banks and non-banks), allowing them to borrow from the Federal Reserve in times of crisis.

If any of these bills were enacted, they would authorize banks to issue stablecoins, making it highly probable that the Federal Reserve would feel compelled to bail out a failing stablecoin (which would operate as an indirect bailout of the crypto speculation the stablecoins are used for). Even more problematic, those bills would also authorize non-banks to issue stablecoins, yet be subject to lighter-touch regulation *ex ante* than traditional banks.[67] Furthermore, none of these bills propose charging the crypto industry a fee for access to this government safety net (contrast with banks, who must pay a premium for deposit insurance).

In sum, each of these legislative proposals would extend stablecoins some form of government safety net, bringing crypto closer to the core of our financial system. As I stated in my testimony before this Committee last year:

> *Regulating stablecoins like bank deposits will lend them implicit government backing – and with it, confidence and legitimacy far beyond what stablecoin issuers could generate on their own. Inspiring this type of confidence in the stability of stablecoins may counterproductively make runs more likely. Furthermore, legitimized stablecoins will turbocharge the growth of*

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[65] "Gensler has previously compared the crypto industry to the Wild West, an analogy he expanded on during Tuesday's interview. "We've got a lot of casinos here in the Wild West," Gensler said. "And the poker chip is these stablecoins."" Cheyenne Ligon, *SEC's Gensler Calls Stablecoins 'Poker Chips' at the Wild West Crypto Casino*, COINDESK (Sept. 22, 2021).

[66] Arthur E. Wilmarth Jr., *Gillibrand-Lummis crypto bill ignores the lessons of history*, AM. BANKER (Jun. 17, 2022).

[67] *See* Section 6 of the Stablecoin TRUST Act, proposing a new Section 5244(i); Section 601 of the Lummis-Gillibrand bill, proposing new Sections 4810(k) and (l). The HFSC bill is rumored to include "tailored" capital, liquidity, and risk management standards for stablecoin issuers.

the DeFi (which relies upon stablecoins to facilitate "fund transfers across platforms and between users").[68]

<u>Investor protection regulation</u>

With banking regulation, the path forward is clear – keep banking and crypto separate. The more challenging question is what to do about investor protection regulation. In the wake of FTX's collapse, a number of proposals have been made to exclude crypto from investor protection regulation entirely: either to "let it burn" as an entirely unregulated business,[69] or to regulate it as online gambling.[70] These proposals have much to recommend them: they recognize that crypto funds no productive investment, and so avoid communicating any legitimacy to would-be investors. They also avoid providing any government backing or support to crypto.

However, under these proposals, anyone who purchases crypto would have no *ex ante* protections – it would truly be *caveat emptor*. While some might say that crypto investors know what they were getting into, letters from those affected by the Celsius bankruptcy suggest that many investors were duped into believing that certain crypto services were safe and reliable places to earn a return.[71] Multiple celebrities touted FTX to their fans as good investments.[72] Investors who are misled can sue for fraud after the fact, but that assumes they have the resources to commence litigation in the first place, and in any event does not guarantee them timely relief. It can be difficult (both morally and politically) to stand back and let these investors be harmed, but by the same token, even more people will be hurt (including people who never even invested in crypto) if regulation legitimizes and encourages the intertwining of crypto and traditional finance and it all blows up. The key question policymakers must therefore ask themselves is: is it possible to afford some protections to crypto investors, while still keeping crypto away from the core of our financial system?

I believe that it is possible to thread this needle by enforcing the existing securities laws against the crypto industry. Securities laws have long been applied to an odd array of investments – ranging from orange groves to payphones[73] – without bringing them into the core of the financial system or making them too big to fail. The securities laws have always eschewed merit regulation, and so are designed to limit the legitimacy they confer on the securities themselves:[74] people generally understand that corporate stock, for example, can lose a lot of value and even become worthless. While it is true that if a security is registered with the SEC, that will likely lend it *some* legitimacy in the eyes of the public (even in the absence of merit regulation), few cryptoassets are likely to be able to satisfy the SEC's registration requirements. The proper enforcement of the securities laws could therefore drastically reduce the supply of cryptoassets, and limits on supply will help curtail any threat that cryptoassets pose for financial stability.

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[68] Allen, *supra* Note 55 at 6.
[69] Stephen Cecchetti and Kim Schoenholtz, *Let Crypto Burn*, FIN. TIMES (Nov. 17, 2022).
[70] Todd H. Baker, *Let's Stop Treating Crypto Trading as If It Were Finance*, THE CLS BLUE SKY BLOG (Nov. 29, 2022), available at https://clsbluesky.law.columbia.edu/2022/11/29/lets-stop-treating-crypto-as-if-it-were-finance/.
[71] Molly White, *Excerpts from letters to the judge in the Celsius Network bankruptcy case*, MOLLY WHITE (Jul. 22, 2022), available at https://blog.mollywhite.net/celsius-letters/.
[72] Winston Cho, *FTX Investors Sue Celebrity Endorsers*, THE HOLLYWOOD REPORTER (Nov. 16, 2022).
[73] <u>Securities and Exchange Commission v. W.J. Howey Co.</u>, 328 U.S. 293 (1946); <u>Securities and Exchange Commission v. Edwards</u>, 540 U.S. 389 (2004).
[74] Daniel J. Morrissey, *The Road Not Taken: Rethinking Securities Regulation and the Case for Federal Merit Review*, 44 U. Rich. L. Rev. 647, 679 (2010).

To take a step back for a moment, the SEC administers regulation that pertains to anything that satisfies the definition of a "security." The SEC does so in accordance with its statutory mandates: to protect investors; maintain fair, orderly, and efficient markets; and facilitate capital formation. Not only does the SEC regulate the offer and sale of the securities themselves, it also oversees a number of key participants in the securities markets, including broker/dealers and securities exchanges. Several aspects of the securities laws would be particularly helpful in preventing another FTX-like failure. First, as just mentioned, the enforcement of the SEC's registration requirements is likely to drastically curtail the ability of the crypto industry to create assets out of thin air. Second, the enforcement of securities broker/dealer regulations would increase oversight of crypto exchanges, help protect customer assets, and expose conflicts of interest. These will be elaborated upon in Section 4 of this testimony.

SEC Chair Gary Gensler has made clear that the SEC considers the vast majority of all cryptoassets to be securities, and therefore subject to this regulatory framework.[75] One might ask: if the solution to regulating crypto has been there all along, why didn't it stop FTX and other crypto failures? Partly, this is due to inevitable geographical limitations on what the SEC can do: FTX.com operated beyond the jurisdiction of US regulators. The reality is, though, that when it comes to crypto, the securities laws have so far been underenforced even within the United States. This is partially attributable to the SEC's limited resources: members of Congress seeking to strengthen investor protections should therefore ensure that the SEC is adequately funded through the appropriations process. This is not just a resource issue, though. The extent of the SEC's jurisdiction over cryptoassets in the US has often been called into question, and the SEC has faced political pressure in the past to refrain from cracking down on the crypto industry (including, notably, FTX).[76] Given that the crypto industry offers little by way of financial inclusion or efficiency to counterbalance the increased potential for frauds, it is time for Congress to throw its support behind the SEC's enforcement efforts. If new crypto legislation is adopted, it should reaffirm the SEC's jurisdiction over cryptoassets. Legislation that categorically provides that all cryptoassets are securities would provide certainty to the crypto industry: they would know that the securities laws apply to them, and that the SEC is their regulator.

Unfortunately, both the proposed Lummis-Gillibrand Responsible Financial Innovation Act and the Digital Commodities Consumer Protection Act ("DCCPA") proposed by Senators Stabenow, Boozman, Booker, and Thune would move in the opposite direction. Both create regimes for cryptoassets to be regulated by the CFTC. The CFTC is widely regarded to be the crypto industry's preferred regulator (FTX endorsed the DCCPA).[77] The CFTC is a much smaller agency with a much smaller budget than the SEC, it has no statutory investor protection mandate, and it has limited experience regulating retail-dominated markets.[78] Section 4 of the DCCPA would also implement a new Section 5i(d) of the Commodity Exchange Act that expressly authorizes the CFTC to allow self-certification for cryptoassets (in a self-certification regime, the exchange is permitted to certify to the

[75] "Of the nearly 10,000 tokens in the crypto market, I believe the vast majority are securities. Offers and sales of these thousands of crypto security tokens are covered under the securities laws." Gensler, *supra* Note 26.
[76] David Dayen, *Congressmembers Tried to Stop the SEC's Inquiry into FTX*, THE AMERICAN PROPSECT (Nov. 23, 2022), available at https://prospect.org/power/congressmembers-tried-to-stop-secs-inquiry-into-ftx/.
[77] Dennis M. Kelleher, *10 Key Questions that Must Be Answered Regarding the Senate Agriculture Committee's Crypto Legislation that FTX Endorsed*, BETTERMARKETS (Nov. 30, 2022), available at https://bettermarkets.org/wp-content/uploads/2022/11/Better_Markets_Fact_Sheet_10_Questions_FTX_Hearing.pdf.
[78] *Id.*

CFTC that an asset complies with the Commodity Exchange Act, rather than putting the onus on the CFTC to ensure compliance).[79] Recall that the FTT token was integral to the arrangements between FTX and Alameda, and that there were no constraints on FTX creating unlimited supplies of those FTT tokens. While SEC registration would effectively limit the number of tokens that could be issued, the CFTC's self-certification process would allow issuers to bless their own unlimited supplies of self-minted assets.

In short, neither the DCCPA nor the Lummis-Gillibrand bill would create the needed investor protections. These bills are designed to offer fewer investor protections than the existing securities laws, and they were intentionally designed in this way in order to facilitate crypto innovation. As Acting Comptroller of the Currency Michael Hsu stated in a recent speech:

> *Regulators often talk about "bringing crypto into the regulatory perimeter." I have said as much on several occasions. There are two ways to interpret this statement. One is that crypto should be regulated and thus forced to change and conform to regulatory standards. The other is that regulation should adjust to crypto and accept the new technology and possibilities for what they are. The former is about taming, the latter about accommodation.*[80]

The Lummis-Gillibrand bill and the proposed DCCPA fall into the latter category: both can be viewed as an attempt to accommodate the crypto industry's concerns that it will not be able to thrive in compliance with the securities laws. However, as already discussed, there are no compelling justifications for accommodating or legitimizing crypto with a lighter-touch, bespoke regulatory regime – taming regulation is needed instead. Neither the Lummis-Gillibrand nor the DCCPA bills should be passed as a response to the FTX failure. If crypto cannot comply with existing securities laws, then it shouldn't exist.

There is also another, less obvious reason to avoid enacting bespoke, light-touch crypto legislation. As I explained in a recent op-ed:

> *Any legislation that creates a bespoke crypto regulatory framework will create opportunities for traditional financial assets to migrate into the new regime and so sidestep existing financial regulation. This problem is unavoidable because it's impossible to define "crypto asset" (or "digital asset" or "digital commodity") in a way that excludes traditional financial assets. Ultimately, there's nothing particularly special about crypto assets. They are just computer files, whose ownership is recorded on a blockchain (a type of database). Pretty much any financial asset could be represented as a computer file, and the ownership of any such computer file could be recorded on a blockchain. If the bespoke crypto regulatory regime is "lighter touch" than those for other financial assets, it's going to be tempting for financial asset providers to put those assets on the blockchain (something that JPMorgan is already experimenting with).*[81]

<u>Consumer protection regulation</u>

[79] For more on the CFTC and self-certification, *see* Lee Reiners, *Bitcoin Futures: From Self-Certification to Systemic Risk*, 23 N.C. BANKING INST. 61 (2019).
[80] Hsu, *supra* Note 57.
[81] Hilary J. Allen, *Beware the proposed US crypto regulation — it may be a Trojan horse*, FIN. TIMES (Nov. 17, 2022).

If there are crypto-related products and services that are not otherwise covered by the securities laws, then the Consumer Financial Protection Bureau may have a role to play. The CFPB has authority to regulate a broad variety of consumer financial products and services, including authority to make rules and bring enforcement actions relating to unfair, deceptive, or abusive acts or practices.[82] As with investor protection regulation, what is critical is that the CFPB use its authority to bring the crypto industry in line with existing regulatory standards, rather than lowering standards to accommodate the industry.

4. How securities regulation could be applied to the crypto industry going forward

The previous Section argued that if the SEC is supported in its efforts to apply the securities laws to crypto, those laws can protect investors and limit crypto's growth while keeping crypto away from the core of the financial system. This Section will sketch out how some key provisions of the securities laws might achieve these outcomes.

To be sure, there are some interpretative issues here that courts will certainly weigh in on. There are also limits to the jurisdiction of the US securities laws: FTX.com was organized outside of the US and was not authorized to provide services to US persons, and the SEC and the US courts cannot be securities policemen for the entire world.[83] Furthermore, the securities laws will not succeed in protecting US persons who actively seek to avoid regulations designed to protect them (presumably, some US residents used VPN networks to disguise their location and access the FTX.com exchange). But there is still much to be gained by robustly enforcing US securities laws to protect US persons. To highlight the benefits of such an approach, we can observe that customers of the FTX.Japan exchange will be able to retrieve their assets, because Japanese regulations implemented following the failure of the MTGOX exchange require crypto exchanges to segregate client assets.[84]

This Section will therefore explore how existing provisions of the securities laws pertaining to securities registration, as well as existing regulation of securities broker/dealers, could be robustly enforced to protect US investors.

Registration Requirements

If enforced robustly, the registration requirements in the existing US securities laws will both limit the supply of cryptoassets and apply scrutiny to those cryptoassets that are issued. This will help limit fraud in furtherance of the SEC's investor protection mandate; an incidental benefit is that the reduced supply of cryptoassets will also reduce the amount of leverage in the crypto ecosystem. While some might worry that limiting the supply of cryptoassets might be inconsistent with the SEC's mandate to promote capital formation, the reality is that the crypto markets are largely speculative and self-referential, and do not contribute significantly to capital formation.[85] It's also important to note

[82] Dodd-Frank Act, Title X, Subtitle C, Secs. 1031; 1036 (July 21, 2010).
[83] This sentiment informs the judgment of Justice Scalia in Morrison v National Australia Bank Ltd., 561 U.S. 247 (2010).
[84] Luke Huigsloot, *FTX Japan drafts plan to return client funds*, COINTELEGRAPH (Dec. 2, 2022).
[85] "Crypto trading is wholly unconnected to the productive purpose that defines finance: helping businesses, individuals, and governments raise, save, transmit, and use money for socially and economically useful ends." Baker, *supra* Note 70.

that under this approach, any cryptoasset that can meet the same registration requirements as other securities would be allowed into the market.

Under Section 5 of the Securities Act of 1933, it is prohibited to offer or sell a security without first registering with the SEC, unless an exemption from registration is available. The most widely-used exemptions in the Securities Act include restrictions on who is eligible to purchase the securities in question, and restrict resales of those securities.[86] However, cryptoassets (which aren't backed by any real-world productive capacity) need significant amounts of demand and liquidity to support their value. Restricting the pool of eligible investors, as well as limiting the liquidity of the cryptoassets through resale restrictions, is therefore unlikely to be an appealing avenue for crypto issuers. Issuers of cryptoassets who wish to access the public markets will therefore need to contemplate registration under Section 5. The securities registration process requires a significant amount of disclosure on the part of the issuer, including the provision of audited financial statements. It takes time and money to prepare these disclosures, which changes the cost-benefit calculus for issuers of cryptoassets. Right now, there are virtually no costs to creating a cryptoasset out of thin air. If the registration requirement is enforced, it will discourage the creation of cryptoassets unless they have some long-term value creation potential. The required audit of financial statements and review of the registration statement by the SEC will also help weed out any fraud.

The application of Section 5's registration requirement can also encourage better private sector due diligence. Details emerging from the FTX collapse suggest that the venture capitalists who helped fund the expansion of FTX did not engage in even basic due diligence or insist on basic principles of good governance at FTX[87] (FTX's bankruptcy filing described FTX's "unprecedented" "concentration of control in the hands of a very small group of inexperienced, unsophisticated and potentially compromised individuals,"[88] and noted that many entities had never even held board meetings).[89] Given that venture capitalists lend reputational capital to the projects they fund, they serve a kind of gatekeeper function that seems to have been abdicated with respect to FTX.[90] It is therefore worth considering how the securities laws, if properly enforced with respect to crypto, might impact venture capital firms and improve the performance of their gatekeeping function.

First, venture capitalists who fund crypto projects are often able to "exit" their investments much more quickly than if they had made a traditional equity investment in a start-up. Venture capitalist firms typically receive tokens in connection with their crypto investments, and they often sell these tokens to the public as soon as their contractual lock-up expires.[91] However, this practice is

[86] Rule 506, for example, restricts investor eligibility and resales. The Regulation A exemptions have fewer such restrictions, but require the filing of an Offering Statement with the SEC. The crowdfunding exemption also requires an initial filing with the SEC (as well as ongoing annual disclosure requirements), and resales are restricted for the first year.
[87] Erin Griffith and David Yaffe-Bellany, *Investors Who Put $2 Billion Into FTX Face Scrutiny, Too,* N.Y. TIMES (Nov. 11, 2022).
[88] Declaration of John J. Ray III in Support of Chapter 11 Petitions & First Day Pleadings at 2, *In re* FTX Trading Ltd., No. 22-11068 (Bankr. D. Del. Nov. 17, 2022).
[89] *Id.* at 16.
[90] Parallels can be drawn here with the Terra/Luna collapse. As one reporter details, "One very senior risk analyst at a crypto VC fund told me he held grave reservations regarding the "algorithm stablecoin." But his team was assuaged by the cap table having some big names in crypto capital…." Max Parasol, *The risks and benefits of VCs for crypto communities*, COINTELEGRAPH (Jul. 8, 2022).
[91] "VCs often buy a huge chunk of tokens at an early stage at a very low price, and these tokens are often time-locked, so they can't be sold for one or two years. When the time is up, VCs face the dilemma of dumping their

predicated on the assumption that the tokens are not securities: if the tokens *are* securities, then any token sales to the broader public will first need to be registered with the SEC. Venture capital firms will not be able to exit so quickly. In short, enforcing Section 5 against venture capital firms will likely result in their holding their crypto investments longer, reorienting their incentives to perform diligence because they will have "skin in the game" longer.

Second, individuals who have purchased a security that was offered or sold in violation of Section 5 have a remedy under Section 12(a)(1) that is essentially a put right: so long as the statute of limitations has not expired, investors can demand their money back. This remedy under Section 12(a)(1) is not just available against the issuer of the security; it is also available against any "statutory seller" that "successfully solicits the purchase, motivated at least in part by a desire to serve his own financial interests or those of the securities owner."[92] Depending on how the relationship between a venture capital firm and a crypto founder is structured, the venture capital firm may satisfy the definition of statutory seller and therefore be liable to refund purchasers of unregistered securities. The threat of such a possibility should encourage venture capital firms to both perform due diligence and ensure that the crypto projects they fund meticulously comply with the securities laws.

Broker/Dealer Regulation

As discussed earlier in this testimony, FTX.com (like many other crypto exchanges) performed brokerage, exchange, and clearing services for its customers (it also transferred customer assets to its affiliated hedge fund Alameda Research, marrying its brokerage, exchange, and clearing services with proprietary trading activities). Crypto exchanges providing similar services may need to register as exchanges, market-makers, and broker/dealers.[93] This testimony will focus on the application of broker/dealer regulation. Securities broker/dealers are subject to registration requirements under the securities laws, and registered broker/dealers are subject to a multitude of regulatory requirements. Relevantly, these include requirements relating to affiliations and to the custody of customer assets. Robust enforcement of these laws against crypto exchanges would confer protections on US investors.

More specifically, many crypto exchanges are likely to satisfy the definition of a "broker" in Section 3(a)(4)(A) of the Securities Exchange Act of 1934,[94] and as such be required to comply with

tokens — which makes them a fortune but tanks the price of the community's holdings — or hanging on. Typically, VCs are perceived to choose the former." *Id.*

[92] Pinter v Dahl, 498 U.S. 622 (1988).

[93] John Reed Stark, *A New Crypto Regulatory Framework? No Thanks*, LINKEDIN (Dec. 10, 2022), available at https://www.linkedin.com/pulse/new-crypto-regulatory-framework-thanks-john-reed-stark?trk=public_profile_article_view.

[94] The definition identifies "any person engaged in the business of effecting transactions in securities for the account of others" as a broker; the SEC has provided the following guidance on interpreting this definition:

"Here are some of the questions that you should ask to determine whether you are acting as a broker:

- Do you participate in important parts of a securities transaction, including solicitation, negotiation, or execution of the transaction?
- Does your compensation for participation in the transaction depend upon, or is it related to, the outcome or size of the transaction or deal? Do you receive trailing commissions, such as 12b-1 fees? Do you receive any other transaction-related compensation?
- Are you otherwise engaged in the business of effecting or facilitating securities transactions?
- Do you handle the securities or funds of others in connection with securities transactions?

A "yes" answer to any of these questions indicates that you may need to register as a broker."

the broker registration requirements in Section 15(a)(1) of that Act. Once registered, a broker is required to comply with many rules, including Rule 15c3-3 (which "prevents a broker-dealer from using customer funds to finance its business").[95] A broker/dealer is also subject to a duty of fair dealing which requires full disclosure of any conflicts of interest,[96] and when dealing with retail customers, to Regulation Best Interest. Regulation Best Interest not only requires disclosure of any potential conflicts of interest, it also includes an affirmative obligation to "[i]dentify and mitigate any conflicts of interest associated with such recommendations that create an incentive for the broker-dealer's associated persons to place their interest or the interest of the broker-dealer ahead of the retail customer's interest."[97]

As with securities registration requirements, robust enforcement of broker/dealer registration requirements against crypto exchanges will keep some of those exchanges out of the markets. For those exchanges that do register, investors will have more information about conflicts of interest, and their assets will be more secure.

Securities and Exchange Commission, *Guide to Broker/Dealer Registration* (Apr. 2008), available at https://www.sec.gov/reportspubs/investor-publications/divisionsmarketregbdguidehtm.html.

[95] *Id.*

[96] *Id.*

[97] Securities and Exchange Commission, *Regulation Best Interest: A Small Entity Compliance Guide* (last updated Sept. 23, 2019), available at https://www.sec.gov/info/smallbus/secg/regulation-best-interest#Introduction.

PREPARED STATEMENT OF KEVIN O'LEARY

INVESTOR

DECEMBER 14, 2022

Chairman Brown, Ranking Member Toomey, and Members of the Committee, thank you for inviting me to testify about crypto and the collapse of FTX.

I am the Chairman of O'Shares, an ETF indexing firm and also a private equity and venture investor. I support entrepreneurs at every stage of their journeys. I have dozens of family-run businesses in our investment portfolios. My extensive social media platform enables me to tell the stories of their products and services to help reduce their customer acquisition costs. It is a model that has worked well for over a decade and helped support so many small American businesses, which create over 60 percent of jobs in the American economy.

In 2017, I was a public critic and skeptic of crypto and blockchain technology. After observing the extraordinary advances in these technologies and watching the amount of intellectual capital that was being invested in them and the innovation they were producing, I completely reversed my position. I am now of the opinion that crypto, blockchain technology, and digital payment systems will be the twelfth sector of the S&P within a decade. Today, I am a shareholder in multiple companies involved in crypto technology, including WonderFi/BitBuy, the largest and first regulated broker/dealer crypto exchange in Canada, Immutable Holdings, a developer of NFT technology, and Circle, the company that brought USDC stablecoin to market. I have also invested in multiple crypto tokens, infrastructure and Level 1 and Level 2 blockchains.

Many of these technologies are going to disrupt the existing financial services sector with faster, more efficient, more productive and more secure ways of investing, paying, transferring and tracking assets. If properly regulated and implemented, they will undoubtedly make the entire American economy more competitive and productive.

As you are aware, Bitcoin—a store of value—is not a coin, it is software. Ethereum is software. Blockchain is software. In the last 30 years every American enterprise has driven major efficiencies using various versions of enterprise software and crypto is no different. The potential of these crypto technologies is astronomical in scale.

In August of 2021, nearly 3 years after I started allocating capital to the crypto sector, I entered into an agreement with FTX to be a paid spokesperson. I was paid approximately $15 million for these services; plus approximately $3 million to cover a portion of the taxes due. Of the remaining amount approximately $1 million was invested in FTX equity and approximately $10 million in tokens held in FTX wallets. The equity is now most likely worthless and the accounts have been stripped of their assets and financial records. I have written them off to zero. Because I was a paid spokesperson, I never invested any capital from our partners or LPs. The capital lost was from an operating company that I had 100 percent ownership in.

I am using my own capital to pursue record recovery of the FTX accounts so that I can conduct a forensic audit. The truth of this situation will be discovered by following the transaction trail after obtaining the records. I have applied for membership on the FTX creditors' committee, in connection with the bankruptcy proceedings, because I feel obligated to pursue the facts on behalf of all stakeholders and believe my perspective of this situation will be helpful to the other creditors' committee members.

The collapse of FTX is nothing new. While this situation is painful for shareholders, employees and account holders, in the long run, it does not change this industry's promise. Enron came and went and had no impact on the energy markets. Bear Stearns and Lehman Brothers demise had no impact on the long term potential of American debt and equity markets.

I am only one of many investors that has experienced this loss. However, this changes nothing in terms of the potential of crypto. In fact, the recent collapse of crypto companies has a silver lining. This nascent industry is culling its herd. Going or gone are the inexperienced or incompetent managers, weak business models and rogue unregulated operators. Hopefully, these highly publicized events will put renewed focus on implementing domestic regulation that has been stalled for years. Other jurisdictions have already implemented such policies and are now attracting both investment capital and highly skilled talent. In the U.S., we are falling behind and losing our leadership position.

I guest lecture graduating cohorts of engineers all across the country because approximately a third of each class will start their own company. Where do they want to work? On blockchain technology and the new emerging digital economy. These are the best and brightest hands over keyboards. I ask you to consider this: how is it possible to invest this much intellectual capital into a sector, and not expect extraordinary outcomes in the future? Now is the time to embrace the potential of crypto, regulate it, and allow its potential to be fully realized for the benefit of the entire economy.

I understand why many leaders in the banking industry are open skeptics, calling for the banning of these new crypto software technologies. Disruption is always uncomfortable at first, and entrenched businesses abhor new competition, but it has been proven time and time again that disruption is absolutely necessary in advancing the economy.

There is the risk of investing in crypto and there is also the risk of not investing in it and letting others accrue its benefits first, essentially gifting them a competitive advantage that could be hard to recapture.

So where to start? We need clear policy and regulation for the crypto industry, its entrepreneurs, its developers and its users. Congress should start by passing bipartisan legislation that creates a sensible regulatory framework for digital stablecoins backed by the U.S. dollar. Why? A well-regulated stablecoin backed by the U.S. dollar and other high quality, liquid assets could become the global default payment system over time.

The U.S. dollar already denominates the price of oil and other commodities, why not everything else? What could be more bipartisan?

Let me close with this: we need to get to the bottom of what happened at FTX, but we can't let its collapse cause us to abandon the great promise and potential of crypto.

PREPARED STATEMENT OF JENNIFER J. SCHULP

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Testimony
Before the United States Senate Committee on Banking, Housing, and Urban Affairs
Hearing on "Crypto Crash: Why the FTX Bubble Burst and the Harm to Consumers"

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December 14, 2022

Chair Brown, Ranking Member Toomey, and distinguished members of the United States Senate Committee on Banking, Housing, and Urban Affairs, my name is Jennifer Schulp, and I am the Director of Financial Regulation Studies at the Cato Institute's Center for Monetary and Financial Alternatives.

I thank you for the opportunity to take part in today's hearing entitled, "Crypto Crash: Why the FTX Bubble Burst and the Harm to Consumers."

The focus of my testimony is on the regulatory lessons to be learned in the wake of the FTX bankruptcy.

Background

On November 11, 2022, FTX Trading Ltd. (and approximately 130 related entities) filed for bankruptcy protection, after a series of events beginning in late October 2022 exposed numerous issues with the crypto exchange platform and resulted in the platform's inability to meet demand for customer withdrawals. FTX, established in 2019 and currently headquartered in the Bahamas, was a platform that allowed users to exchange cryptocurrencies, including via leveraged and margined crypto trading.[1] FTX also offered its own crypto token, FTT, which offered certain holders discounts on FTX trading fees.[2] FTX offered crypto trading to U.S. customers via a separate entity, West Realm Shires Services Inc., doing business as FTX US, which was registered as a money services business with the Treasury Department's Financial

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[1] When used herein, FTX generally refers to the group of companies that facilitated the services provided by the crypto marketplace operating from FTX.com. To the extent that the name of a particular company is relevant to the discussion, it will be separately identified by its name.

[2] Robert Stevens, "What Is an Exchange Token," *CoinDesk* (November 9, 2022), available at https://www.coindesk.com/learn/what-is-an-exchange-token/.

Crimes Enforcement Network and conducted business in most states as a money services business.[3]

In brief, the common narrative about the events directly precipitating the bankruptcy petition begins with a tweet from Sam Bankman-Fried (co-founder and CEO of FTX) critical of the CEO of a rival cryptocurrency exchange. That exchange, Binance, held a significant amount of FTT from a now-exited investment in FTX. Shortly thereafter, it was reported that Mr. Bankman-Fried's crypto trading firm, Alameda Research, held significant amounts of FTT, raising questions about the relationship between FTX and Alameda.[4] Following these reports, Binance's CEO announced that Binance would liquidate its FTT. FTX customers, concerned about what a drop in price of FTT would mean for FTX in light of the potential relationship between Alameda and FTX, began to increase asset withdrawals from FTX. The price of FTT declined significantly, and FTX was unable to meet the demand for customer withdrawals. By November 10, the Securities Commission of the Bahamas froze the assets of FTX in the Bahamas, and despite assurances about the liquidity of the U.S. exchange (FTX US) by Mr. Bankman-Fried, FTX commenced voluntary bankruptcy proceedings on November 11 for almost all related entities, including the U.S. exchange. Documents filed in the bankruptcy proceeding indicate that FTX Trading owes its creditors at least $3.1 billion.[5] At a minimum, FTX customer assets were commingled with Alameda assets and Alameda used client funds to engage in margin trading, resulting in massive losses.[6]

This is an oversimplification, of course, because the facts surrounding FTX's demise continue to develop. Follow-on effects are continuing, including the bankruptcy of BlockFi, a crypto company that offered exchange and interest-bearing custodial services, which had received a credit facility from FTX after its own liquidity crisis earlier in 2022.[7] Many aspects of FTX's relationship with Alameda and the actions of both enterprises in the crypto market also

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[3] FTX US, which supported U.S. customer cryptocurrency trading, was not registered with either the Securities and Exchange Commission or the Commodity Futures Trading Commission. Other FTX entities engaged in other lines of business were registered with the CFTC (LedgerX LLC, doing business as FTX US Derivatives) and the SEC (FTX Capital Markets LLC and Embed Clearing LLC).

[4] Ian Allison, "Divisions in Sam Bankman-Fried's Crypto Empire Blur on His Trading Titan Alameda's Balance Sheet," *CoinDesk* (November 2, 2022), available at https://www.coindesk.com/business/2022/11/02/divisions-in-sam-bankman-frieds-crypto-empire-blur-on-his-trading-titan-alamedas-balance-sheet/.

[5] Khristopher J. Brooks, "Bankrupt FTX Trading owes creditors more than $3 billion," *CBS News* (November 21, 2022), available at https://www.cbsnews.com/news/ftx-bankruptcy-3-billion-crypto-sam-bankman-fried/.

[6] Testimony of John J Ray III, House Financial Services Committee (December 13, 2022) at 6, available at https://financialservices.house.gov/uploadedfiles/hhrg-117-ba00-wstate-rayj-20221213.pdf; *see also* Alexander Osipovich, "FTX Founder Sam Bankman-Fried Says He Can't Account for Billions Sent to Alameda," *Wall Street Journal* (December 3, 2022), available at https://www.wsj.com/articles/ftx-founder-sam-bankman-fried-says-he-cant-account-for-billions-sent-to-alameda-11670107659.

[7] MacKenzie Sigalos and Rohan Goswami, "Crypto firm BlockFi files for bankruptcy as FTX fallout spreads," *CNBC* (November 28, 2022), available at https://www.cnbc.com/2022/11/28/blockfi-files-for-bankruptcy-as-ftx-fallout-spreads.html.

are under investigation.[8] Indeed, investigations into aspects of these events are being conducted by the Department of Justice, the Securities and Exchange Commission (SEC), and the Commodity Futures Trading Commission (CFTC), in addition to congressional inquiries, state regulatory investigations, and private litigation.[9]

Given the evolving situation, it is premature to definitively diagnose the causes of FTX's decline and the appropriate regulatory remedies. Courts of law should determine what crimes and violations took place here, and claims of fraud and contractual breaches—wherever ripe—should be vigorously pursued.

But, for policymakers, two relevant things seem clear. First, the issues with FTX do not appear to be intrinsically tied to cryptocurrencies or other blockchain technologies. John J. Ray III, who was hired to replace Mr. Bankman-Fried as FTX's CEO to shepherd the company through bankruptcy, described the state of FTX as follows: "Never in my career have I seen such a complete failure of corporate controls and such a complete absence of trustworthy financial information as occurred here."[10] These risk management failures—whether the result of intentionally fraudulent practices or the product of gross negligence—should reflect on the perpetrators themselves, not on the crypto ecosystem.

Second, the types of problems at play here—lending customer assets to an affiliated entity and hiding such transfers[11]—are risks of a particular type of cryptocurrency exchange, a *centralized exchange*, which custodies customer assets and maintains non-public ledgers. Indeed, several other noteworthy crypto bankruptcies this year, including of hedge fund Three Arrows Capital and lenders Voyager Digital and Celsius Network, were of entities more akin to traditional centralized financial entities than to software applications facilitating decentralized finance (DeFi), a capability made possible by the advent of crypto.[12] DeFi, which includes

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[8] *See, e.g.,* Patricia Kowsmann, Alexander Osipovich, and Caitlin Ostroff, "Rivals Worried Sam Bankman-Fried Tried to Destabilize Crypto on Eve of FTX Collapse," *Wall Street Journal* (December 9, 2022), available at https://www.wsj.com/articles/rivals-worried-sam-bankman-fried-tried-to-destabilize-crypto-on-eve-of-ftx-collapse-11670597311; David Voreacos, Neil Weinberg, and Ava Benny-Morrison, "US Probes FTX Founder for Fraud, Examines Cash Flows to Bahamas," *Bloomberg* (December 9, 2022), available at https://www.bloomberg.com/news/articles/2022-12-10/us-probes-ftx-founder-for-fraud-examines-cash-flows-to-bahamas.

[9] Chris Prentice, "U.S. authorities probe FTX collapse, executives' involvement -sources," *Reuters* (November 14, 2022), available at https://www.reuters.com/technology/manhattan-us-attorneys-office-investigates-ftx-downfall-source-2022-11-14/; Jody Godoy, "FTX's Bankman-Fried, Tom Brady and other celebrity promoters sued by crypto investors," *Reuters* (November 17, 2022), available at https://www.reuters.com/legal/ftx-founder-bankman-fried-sued-us-court-over-yield-bearing-crypto-accounts-2022-11-16/.

[10] Declaration of John J. Ray III In Support Of Chapter 11 Petitions and First Day Pleadings, *In re FTX Trading LTD*, Case No. 22-11068 (Bankr. D. Del.) at 2, available at https://pacer-documents.s3.amazonaws.com/33/188450/042020648197.pdf.

[11] *See id.* at 23 (describing "unacceptable management practices" including "the use of software to conceal the misuse of customer funds").

[12] Although they traded in DeFi tokens or borrowed from DeFi protocols, each was a traditional firm, and the stories of their bankruptcies are familiar: Lenders Voyager and Celsius facilitated the hedge fund's leveraged crypto

decentralized crypto exchanges, seeks to mitigate these risks related to recordkeeping and asset custody through technology that affords, for example, public transaction data and the ability to self-custody assets. Policies designed to mitigate risks posed by centralized financial intermediaries should not be blindly applied to decentralized projects.

The Path Forward

With this in mind, I suggest three takeaways for policymakers in the wake of the FTX bankruptcy.

Differentiate Decentralized Projects from Centralized Exchanges

First, there are important distinctions to be drawn between a centralized entity, like FTX, and decentralized projects that seek to minimize the role of human financial intermediaries. Lawmakers should draw clear lines between centralized and decentralized exchanges, not subject them to rules that are not tailored to relevant risks.

Cryptocurrencies are innovative because they allow users to store and send value all over the world without the intermediation of trusted third parties. Cryptocurrencies seek to address the risks of financial frauds like unauthorized transfers and false bookkeeping by offering alternatives to the banks and brokers traditionally relied on to faithfully hold and transfer assets and to keep honest ledgers. In broad strokes, cryptocurrencies replace "the books" with a public digital ledger for recording and verifying transactions with cryptographic proof (a "blockchain"). They also replace "the bookkeepers" with software running on computers that check each other's work.

DeFi takes this innovation a step further, disintermediating not only token transfers but also a variety of other financial transactions—from making and taking out loans, to trading different types of crypto tokens, to creating novel insurance arrangements.[13] In lieu of financial

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asset trading. When asset prices plummeted, the hedge fund failed to meet margin calls and defaulted on loans. When faced with depositor withdrawals during the downtown, combined with the hedge fund's nonpayment of its loans, the lenders faced insolvency. Joanna Ossinger, Muyao Shen, and Yueqi Yang, "Three Arrows Founders Break Silence Over Collapse of Crypto Hedge Fund," *Bloomberg* (July 22, 2022), available at https://www.bloomberg.com/news/articles/2022-07-22/three-arrows-founders-en-route-to-dubai-describe-ltcm-moment; Stacy Elliott, "Voyager 'Shocked, Disgruntled, Dismayed' by FTX Bankruptcy as Crypto Lender Searches for Another Buyer," *Decrypt* (November 16, 2022), available at https://decrypt.co/114886/voyager-shocked-disgruntled-dismayed-ftx-bankruptcy; Steven Zeitchik, "Hope for depositors dwindles as crypto lender Celsius files for bankruptcy," *Washington Post* (July 13, 2022), available at https://www.washingtonpost.com/business/2022/07/13/crypto-bankruptcy-celsius-depositors/; Justin Lee, Muyao Shen, and Ben Bartenstein, "How Three Arrows Capital Blew Up and Set Off a Crypto Contagion," *Bloomberg* (July 12, 2022), available at https://www.bloomberg.com/news/features/2022-07-13/how-crypto-hedge-fund-three-arrows-capital-fell-apart-3ac.

[13] *See* Jennifer Schulp and Jack Solowey, "DeFi Must Be Defended," *CoinDesk* (October 26, 2022), available at https://www.coindesk.com/layer2/2022/10/26/defi-must-be-defended/; Jack Solowey, "Crypto's Useful Future Was Vivified By the Correction," *RealClearMarkets* (August 23, 2022), available at

middlemen, DeFi uses self-executing software programs ("smart contracts") deployed on cryptocurrency blockchains to deliver financial instruments when specified conditions are met.[14] DeFi has revolutionary potential because it is permissionless and composable, allowing for projects to be more creatively adapted and recombined.

Situations like FTX can cause people to question crypto's ability to mitigate risks by removing the middleman. But without greater context, such questioning can mischaracterize FTX, which is at its heart a traditional middleman. Like a traditional bank or broker, FTX took possession of peoples' assets, including both cash and crypto by controlling customers' "private keys."[15] And FTX kept the books, however poorly.

Such centralized exchanges are a continuation of traditional intermediated exchanges for financial instruments. They allow users to exchange cryptocurrencies for fiat currencies and typically custody assets on users' behalf. Centralized exchanges typically organize sales with central limit order books, which match willing buyers and sellers at the best price (i.e., the highest bid and lowest ask touchlines), and their backend software and transaction histories are not inherently public. Centralized exchanges maintain the capacity to list or delist tokens and permit or block users' ability to trade.

Decentralized exchanges, or DEXs, are alternatives to such centralized marketplaces.[16] DEXs break with history by replacing intermediaries with open-source software. While designs vary, in their purest form, DEXs decentralize core exchange services: custody, market making or order book matching, and settlement. DEXs allow users to self-custody their tokens[17] and employ different solutions to organize sales, including automated market maker pools (AMMs) and on-chain order books.[18] DEXs composed of auditable smart contracts written in open-source code also are public by design and document transactions directly on a public

https://www.cato.org/commentary/cryptos-useful-future-was-vivified-correction. *See also, generally,* Alyssa Hertig, "What Is DeFi?," *CoinDesk* (November 16, 2022), available at https://www.coindesk.com/learn/what-is-defi/.

[14] *See* "Introduction to smart contracts," *Ethereum*, available at https://ethereum.org/en/smart-contracts/.

[15] A private key is a unique alphanumeric string that, in essence, unlocks the line on a cryptographically secure digital ledger documenting crypto holdings and allows them to be transferred. *See* Benedict George, "A Crypto Must-Know: Public vs. Private Keys," *CoinDesk* (August 5, 2022), available at https://www.coindesk.com/learn/a-crypto-must-know-public-vs-private-keys/.

[16] *See* Benedict George, "What Is a DEX? How Decentralized Crypto Exchanges Work," *CoinDesk* (November 16, 2022), available at https://www.coindesk.com/learn/what-is-a-dex-how-decentralized-crypto-exchanges-work/.

[17] *See* Staff, "Decentralized Exchanges vs. Centralized Exchanges," *Cryptopedia* (May 19, 2021), available at https://www.gemini.com/cryptopedia/decentralized-exchange-dex-crypto.

[18] AMMs avoid order books entirely; instead of matching buyers and sellers, they incentivize the creation of standing liquidity pools composed of pairs of exchangeable tokens (e.g., USD Coin and Ether), the prices of which are determined automatically. On-chain order books match buyers and sellers, but unlike traditional exchanges, they host offers in smart contracts that make transactions transparent and do not rely on the good faith of middlemen for execution.

blockchain ledger.[19] DEX protocols generally allow users to list their own tokens—provided the tokens' underlying blockchain infrastructure is compatible with the relevant DEX smart contracts. While the providers of certain front-end graphical user interfaces for DEX protocols can effectively delist certain tokens from their front ends, because DEX smart contracts can be freely copied and iterated on, the choices of one front end do not determine the capabilities of an entire DEX protocol.

DEXs do not solve every problem or eliminate every risk. For example, they let users swap between certain cryptocurrencies but do not let them buy cryptocurrencies with debit or credit cards. Smart contracts also can be vulnerable to hacking. But while DEXs do have human programmers, DEXs do not rely on a middleman keeping his word because they are composed of smart contracts that are open and auditable. In addition, because bona fide DEXs are written in open-source code, if users do not like every nuance of one DEX version, they can iterate on it and start anew.

This is not to say that DeFi is always preferable to centralized finance. Such a determination will almost certainly vary by a user's needs. Nor is it to predict the success of DeFi, centralized finance, or any particular project. Rather, the point is to help elucidate DeFi's unique capabilities, so that policies looking to address financial risks understand the differences between centralized firms and DeFi projects. This means not only understanding the risks of decentralized exchanges—including complex (if public) transaction histories, and cybersecurity vulnerabilities[20]—but also understanding decentralization's capacity to counteract other risks by opening up transaction data and allowing individuals to self-custody digital assets. Different risks ought to be treated differently.

Understanding these risks also means understanding that forcing DEXs to comply with one-size-fits-all rules designed for traditional intermediaries undermines what makes DEXs unique.[21] It also is counterproductive because, unsurprisingly, complying with rules designed for intermediaries tends to require delegating tasks to intermediaries, reintroducing some of the very risks that DEXs seek to mitigate.

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[19] *See* "What is a DEX?," *Coinbase*, available at https://www.coinbase.com/learn/crypto-basics/what-is-a-dex.
[20] *See, e.g.*, Fabian Schar, "DeFi Is Transparent, Unless You Look Closely," *CoinDesk* (April 13, 2021), available at https://www.yahoo.com/now/defi-transparent-unless-look-closely-160458441.html; Michael J. Casey, "CeFi Broke. But DeFi Is Not Without Blame," *CoinDesk* (July 15, 2022), available at https://www.coindesk.com/layer2/2022/07/15/cefi-broke-but-defi-is-not-without-blame/; David Z. Morris, "Why DeFi Might Be Safer Than Traditional Finance," *CoinDesk* (July 22, 2022), available at https://www.coindesk.com/layer2/2022/07/22/why-defi-might-be-safer-than-traditional-finance/.
[21] *See* Jennifer Schulp and Jack Solowey, "DeFi Must Be Defended," *CoinDesk* (October 26, 2022), available at https://www.coindesk.com/layer2/2022/10/26/defi-must-be-defended/.

Establish Clear Rules for the Regulation of Crypto Marketplaces and Token Issuers

Second, whether one believes that the SEC was asleep at the switch or that FTX's operating out of the Bahamas meant that no U.S. regulation could have prevented its collapse,[22] the lack of clarity in U.S. regulation continues to be a problem that leaves known risks unaddressed and can drive innovation offshore to jurisdictions where regulatory requirements are less ambiguous.[23]

For both crypto exchanges and token issuers, a rational regulatory framework should distinguish between projects that reproduce the risks of traditional finance and those that mitigate those risks through disintermediation.

Crypto Marketplaces: With respect to exchanges, modern exchange regulation in the United States seeks to address the "intermediary risks" posed by the middlemen that make up secondary markets for financial instruments.[24] To this end, regulations under the Commodity Exchange Act of 1936, as amended by the Commodity Futures Trading Commission Act of 1974, and the Securities Exchange Act of 1934, require, among other things, exchanges to register with and comply with the rules of their primary federal regulator (e.g., the CFTC or SEC) and to surveil and police members' conduct. Both regulators seek to address risks related to asset custody, market transparency, market manipulation, and fraud. These risks, however, are not the same across centralized and decentralized marketplaces.

Outright fraud should be prohibited regardless of the type of marketplace in which it occurs. Securities laws and regulations already address this, making it unlawful to defraud or make untrue statements or misleading omissions of material fact in connection with the purchase or sale of any security.[25] The same is effectively true in the commodities context, where it is unlawful to intentionally or recklessly defraud or make any untrue or misleading statement or omission of material fact in connection with a contract of sale of any commodity in interstate commerce.[26]

Beyond anti-fraud authorities, however, applying legacy securities and commodity futures exchange rules to crypto marketplaces creates regulatory uncertainty, which

[22] *Compare* Sander Lutz, "Congressman Calls for Investigation Into Gensler, SEC's Rule in FTX Collapse," *Decrypt* (December 7, 2022), available at https://decrypt.co/116686/congressman-ritchie-torres-calls-investigation-gensler-sec-role-ftx, *with* Casey Wagner, "SBF-Backed Crypto Bill Could Have Prevented FTX Catastrophe, CFTC Chair Says," *Blockworks* (December 1, 2022), available at https://blockworks.co/news/sbf-cftc-crypto-bill.
[23] *See* Jennifer J. Schulp, "The SEC's Consistent Ambiguity," *National Review (Online)* (September 28, 2022), available at https://www.nationalreview.com/2022/09/the-secs-consistent-ambiguity/.
[24] *See* Kristin N. Johnson, "Decentralized Finance: Regulating Cryptocurrency Exchanges," *William & Mary Law Review* 62, no. 6 (2021): 1922, 1925-1926, 1933-1934, and 1961, available at https://scholarship.law.wm.edu/cgi/viewcontent.cgi?article=3901&context=wmlr.
[25] 17 C.F.R. § 240.10b-5; *see also* 15 U.S.C. § 78j.
[26] 17 C.F.R. § 180.1; *see also* 7 U.S.C. § 9(1).

undermines those marketplaces and fails to distinguish between centralized and decentralized exchanges. Regulations to address intermediary risks do not make sense for software designed to achieve disintermediation.[27] For example, requirements to hold customer property in a manner that minimizes the risk of loss are not relevant to DEXs where users self-custody their tokens. Similarly, requirements to make information regarding trading data public are, at best, superfluous when applied to DEXs, and, at worst, counterproductive, potentially requiring information to be provided in formats achievable only with more active management of DEX projects.

To provide rules that are narrowly targeted to relevant risks, Congress should provide a pathway for centralized marketplaces to register with their relevant regulator, the CFTC for crypto commodities marketplaces and the SEC for crypto securities marketplaces. Congress should also define decentralized exchanges and permit qualifying DEXs to voluntarily register with their relevant regulator. Voluntary, as compared to mandatory, DEX registration recognizes the capacity of DEXs to address intermediary risks through technology; promotes innovation in DEX design, including with respect to consumer protections; is adapted to the rapid pace of DEX iteration; and provides a wide berth for the capabilities of DEXs (e.g., their openness and interoperability).

Token Issuers: Addressing regulation of marketplaces, though, is only part of the task. It also is important to draw clear lines with respect to whether crypto projects trigger securities regulation to determine which regulator has jurisdiction over the trading of such instruments, as well as to determine what customer protections are appropriate. If a crypto project is not subject to regulation as a security, it should be considered a commodity.

Much like in the exchange context, decentralization plays an important role in determining whether crypto projects should be subject to the existing federal securities law regime. At a high level, federal securities law seeks to ensure that public representations regarding potential investment opportunities are accurate. Securities laws evolved in no small part to address the risks posed to investors by a managerial body's ability to possess information that investors do not and its capacity to act at odds with investors' best interests.[28] Securities rules are therefore appropriately applied to address the specific risks of fraud,

[27] *See* Jennifer J. Schulp and Jack Solowey, "DeFi Must Be Defended," *CoinDesk* (October 26, 2022), https://www.coindesk.com/layer2/2022/10/26/defi-must-be-defended/.

[28] These problems often are labeled an information asymmetry and agency problem. *See* Paul G. Mahoney, "The Economics of Securities Regulation: A Survey," working paper, Law and Economics Research Paper Series 2021-14, University of Virginia School of Law, August 2021, pp. 8–9, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3910557.

deception, and manipulation by developers, sellers, or promoters who remain active managers of a crypto project.[29]

Congress should clarify that securities laws do not apply to decentralized crypto projects. This means that securities laws would not apply to tokens where the developer, seller, or promoter does not promise to undertake efforts necessary to deliver the token and its benefits, i.e., act like a manager. For example, such efforts could include building software or promoting its adoption by users or merchants. Where developers promise to do these things, the crypto project is centralized, and it is appropriate to apply securities safeguards. However, if the project can work as intended without managers' efforts, it is decentralized, and securities laws would not apply to sales of its tokens.

Where a cryptocurrency project is on the path to decentralization but is not sufficiently decentralized to avoid application of the securities laws, Congress should provide a streamlined disclosure option that covers information relevant to crypto purchasers. Even SEC Chair Gary Gensler, who has been averse, to say the least, to providing further guidance relating to crypto, has acknowledged that crypto projects may warrant different disclosure requirements than traditional securities like stocks.[30]

It is necessary to clearly define when the securities laws apply to crypto projects in order to achieve effective regulation in this space. Without clear and rational answers, legal uncertainty will continue to confound developers and users, stifling innovation or driving it offshore and leaving unaddressed risks comparable to those addressed by existing law.

The Market Should Decide Crypto's Promise

Finally, following FTX's bankruptcy, there have been the usual calls to "protect consumers" from risks by banning crypto, by subjecting crypto, without differentiation, to onerous regulations designed for the traditional banking sector, or paradoxically, by declining to regulate crypto in order to delegitimize it.[31] This type of "protection"—premised on a value

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[29] *See* Jack Solowey and Jennifer J. Schulp, "Practical Legislation to Support Cryptocurrency Innovation," *Cato Institute*, Briefing Paper No. 140 (August 2, 2022), available at https://www.cato.org/sites/cato.org/files/2022-07/BP140.pdf.

[30] *See* Gary Gensler, "Kennedy and Crypto," *Securities and Exchange Commission*, speech (September 8, 2022), available at https://www.sec.gov/news/speech/gensler-sec-speaks-090822; *see also* Jack Solowey, "The Hard Thing About Crypto Purgatory," *Cato At Liberty* (September 12, 2022), available at https://www.cato.org/blog/hard-thing-about-crypto-purgatory; Lydia Beyoud and Yueqi Yang, "SEC Weighs Waiving Some Rules to Regulate Crypto, Gensler Says," *Bloomberg* (July 14, 2022), available at https://www.bloomberg.com/news/articles/2022-07-14/sec-weighs-waiving-some-rules-to-regulate-crypto-gensler-says.

[31] *See, e.g.,* Joseph Zeballos-Roig, "A Republican joins the crypto backlash in Congress," *Semafor* (December 2, 2022), available at https://www.semafor.com/article/12/02/2022/roger-marshall-kansas; Rob Nichols and Dennis Kelleher, "FTX crash shows cryptocurrency market needs bank-like regulation," *CNBC* (December 5, 2022), available at https://www.cnbc.com/2022/12/05/op-ed-ftx-crash-shows-cryptocurrency-market-needs-bank-like-

judgement about the worth of the crypto ecosystem—takes the choice to engage in technological innovation out of the hands of consumers, investors, and entrepreneurs, and instead places it squarely into the hands of the government, where it does not belong.

While circumspection around a novel class of asset and technology is more than fair, it is entirely different from actively preventing individuals from accessing an instrument that approximately one in five Americans by some measures already have chosen to use for diverse purposes, from trading to sending remittances.[32] Investment in cryptocurrencies has been disproportionately popular with underrepresented populations, who may be looking for solutions to problems not offered by the traditional financial system.[33] That crypto has yet to meet all of the goals that it—or others—have set for the ecosystem is not a reason to limit access to it. Regulatory interventions should not bias outcomes by stunting an industry's natural development.

Moreover, the risk that some people will lose money by investing in crypto does not justify harsh regulation. Risk is a natural component of markets, and failure is often necessary for development. The government should not seek to protect people from loss. Americans should be able to participate in that process—for better and for worse—without the government's attempts to protect them facing any risk of loss.[34]

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Thank you for the opportunity to provide this information, and I welcome any questions that you may have.

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regulation.html; Stephen Cecchetti and Kim Schoenholtz, "Let Crypto Burn," *Financial Times* (November 17, 2022), available at https://www.ft.com/content/ac058ede-80cb-4aa6-8394-941443eec7e3.

[32] Thomas Franck, "One in five adults has invested in, traded or used cryptocurrency, NBC News poll shows," *CNBC* (March 31, 2022), available at https://www.cnbc.com/2022/03/31/cryptocurrency-news-21percent-of-adults-have-traded-or-used-crypto-nbc-poll-shows.html; Editor, "Crypto Fast Becoming a Preferred Payment for Remittances," *NASDAQ* (October 26, 2021), available at https://www.nasdaq.com/articles/crypto-fast-becoming-a-preferred-payment-for-remittances-2021-10-26; *see also* David Benoit, "JPMorgan Chase Institute: 13% of Americans Have Bought Into Crypto," *Wall Street Journal* (December 12, 2022), available at https://www.wsj.com/livecoverage/stock-market-news-today-12-12-2022/card/jpmorgan-chase-institute-13-of-americans-have-bought-into-crypto-95WWrtsUXnzRJpvcwrYi.

[33] Leda Alvim and Lulit Tadesse, "Cryptocurrencies attracting Black, Latino investors and fans," *ABCNews* (February 10, 2022), available at https://abcnews.go.com/Business/cryptocurrency-attracting-black-latino-investors-fans/story?id=82684748; Lorie Konish, "Why U.S. minority communities may turn to cryptocurrencies to pay their bills," *CNBC* (February 8, 2022), available at https://www.cnbc.com/2022/02/08/-research-shows-cryptocurrency-adoption-among-hispanics-is-high.html.

[34] Jennifer J. Schulp, "Yellen, Crypto, and Risk of Loss," *Cato At Liberty* (May 13, 2022), available at https://www.cato.org/blog/yellen-crypto-risk-loss.

PREPARED STATEMENT OF BEN MCKENZIE SCHENKKAN

ACTOR AND AUTHOR

DECEMBER 14, 2022

Chairman Brown, Ranking Member Toomey, and Members of the Committee:

Thank you for your invitation to testify before the Committee on matters relating to the growth of crypto trading and lending, as well as the recent collapse of FTX/Alameda and the broader implosion of the cryptocurrency markets.

A little over a year ago I embarked on a journey to explore the inner workings of the cryptocurrency industry. My initial reaction was one of confusion. I am an actor, and therefore words are the tools of my trade. I also hold a degree in economics. When I began to look at the cryptocurrency industry, many of the words used did not correlate to their functional reality, economically or otherwise.

"Cryptocurrencies" are not currencies by any reasonable economic definition, as they are unable to fulfill any of the three functions of money. They are a poor medium of exchange, unit of account, and store of value. Bitcoin cannot work as a medium of exchange because it cannot scale. The Bitcoin network can only process 5 to 7 transactions a second. By comparison, Visa can handle tens of thousands. To facilitate that relatively trivial amount of transactions, Bitcoin uses an enormous amount of energy. In 2021, Bitcoin consumed 134 TWh in total, comparable to the electrical energy consumed by the country of Argentina. Bitcoin simply cannot ever work at scale as a medium of exchange.

Other blockchains are more efficient, but suffer from other problems, such as hacks and periodic outages. Even amongst cryptographers, blockchain technology is considered to be of limited use, only potentially applicable in small systems requiring low throughput. Some view it even more dimly. Bruce Schneier is one of the leading cryptographers in the field, a lecturer at the Harvard Kennedy School and a board member of the Electronic Frontier Foundation:

> What blockchain does is shift some of the trust in people and institutions to trust in technology. You need to trust the cryptography, the protocols, the software, the computers and the network. And you need to trust them absolutely, because they're often single points of failure.
>
> I've never seen a legitimate use case for blockchain. I've never seen any system where blockchain provides security in a way that is impossible to provide in any other way.

Blockchain technology is at least 30 years old, not some new invention with a still-promising future.

I interviewed cryptographer David Chaum recently. Chaum's work in the early 1980s laid the intellectual foundation for blockchain, and he is widely credited with being a pioneer of cryptographic methods of payment. Even he referred to blockchain as "primitive".

Cryptocurrencies are similarly unable to serve as an adequate unit of account or store of value, primarily because of their volatility. For a currency to be consistently useful, it must remain relatively consistent over time. Bitcoin and all other cryptocurrencies have never been able to do so. Despite the industry's insistence to the contrary, their volatility has not lessened over time. The precipitous collapse of the entire cryptocurrency market over the last year provides a good example. Imagine a scenario in which the U.S. dollar lost 70 percent of its value in less than a year. Pandemonium—and a global recession—would ensue.

Unfortunately, the problems with crypto as money run even deeper than that. What cryptocurrency wants to be is private money, unencumbered by interference from a Nation-State issuer. We have tried private money before, during the Free-Banking Era (1837–1864) when banks were allowed to issue their own notes. It did not work very well. In many States, banks failed at alarming rates, often due to fraud.

The need for a trusted third party to backstop the banks was the impetus behind the creation of the Federal Reserve in 1913, as well as the Federal Deposit Insurance Corporation. Since the FDIC's creation in 1933, not a single penny of insured deposits has been lost. People trust that when they put their money in a licensed U.S. bank, it will be there when they need it, and the Federal Government provides that assurance in times of crisis. In exchange for that FDIC license, banks must comply with a litany of regulations.

Crypto's stated goal of creating a "trustless" form of money by removing all intermediaries between individuals wishing to transact directly holds understandable appeal. Everyone is aware of the myriad flaws in our current financial system, and banks are rarely looked upon favorably by the general public. There are many reasons for this, not the least of which is their complicity in the debacle that was the subprime crisis.

However, that does not mean that cryptocurrency is any better. In fact, it cannot function as a currency, and for a very simple reason. You cannot create "trustless" money because money is trust. We made it up; it's a social construct. Like all social constructs, money relies on trust forged through social consensus. You can no more create a "trustless" money than you can a governmentless Government or a religionless religion. The applicable words are anarchy and cult.

What "trustless" means in practice in crypto is placing your trust in the people who run the exchanges, or issue the coins, or anyone else who takes your real money in exchange for lines of computer code stored on ledgers called blockchains. Code does not fall from the sky; people write it. I believe few of the people in the cryptocurrency industry have earned the trust of the public.

Cryptocurrencies are not currencies, and they are not used like them. Alongside my colleague, journalist Jacob Silverman, I visited the only country in the world trying to use cryptocurrency as money: El Salvador. It is not working. The Chivo wallet system set up by the Government is largely ignored. According to the Government's own figures, less than 2 percent of remittances use Chivo. Instead, El Salvador's president, Nayib Bukele, has reportedly gambled some of his Government's money—meaning his people's money—on Bitcoin. If this is true, then much like the overwhelming majority of cryptocurrency investors, Bukele has lost money on his wager.

How are cryptocurrencies used by the wider public? Tens of millions of Americans, and supposedly hundreds of millions of people worldwide, have bought and sold crypto primarily through centralized exchanges such as Binance and until recently, FTX. To state the obvious, transacting through a centralized exchange run through shell corporations in the Caribbean and elsewhere is the antithesis of the stated goal of cryptocurrency to create a peer-to-peer currency that would avoid all intermediaries.

The cryptocurrency industry is in fact heavily centralized, and a few key players wield enormous power. For example, according to recent reporting from the *New York Times* and *The Wall Street Journal*, a small group of elite crypto executives communicate via the encrypted app Signal. It would be wise to remember the words of Adam Smith:

> People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices.

Because cryptocurrencies don't really do anything in the real world they are at best an exercise in a zero-sum game of chance, much like online poker. Fittingly enough, several key players in the cryptocurrency industry cut their teeth in the online poker craze of the late 2000s. Chairman Gensler of the SEC has referred to stablecoins as "the poker chips in the casino" and I believe his metaphor is apt. The largest stablecoin in crypto by a country mile is Tether. Stuart Hoegner, Tether's general counsel, was once the compliance officer for Excapsa, which was the holding company of Ultimate Bet, an online poker website from the era. Ultimate Bet was ultimately revealed to have a secret "god mode" where insiders could see the other players cards so as to cheat them.

Working alongside Mr. Hoegner at Excapsa/Ultimate Bet was Daniel Friedberg, former general counsel of FTX and now its chief regulatory officer. Stuart Hoegner's company Tether counts as its biggest client Alameda Research, the sister company of FTX. According to reporting from crypto media company Protos, Alameda purchased some $36.7 billion worth of Tether coins. Given Alameda's current insolvency, it would be wise to ask where this money came from and what arrangement existed between the two companies.

So if cryptocurrencies are not currencies, then what are they? Well, what do they do? How do they function in the real world? People put money into them and expect to make money off of them, through no work of their own. As Members of this Committee well know, that is an investment contract under American law. More precisely, it is a security: (1) an investment of money (2) in a common enterprise (3) with the expectation of profit (4) to be derived from the efforts of others. To my mind, every coin or token easily satisfies the four prongs of the Howey Test.

The rapid rise of cryptocurrency both in purported value and number of tokens issued should give us all pause. There are now over 20,000 cryptocurrencies, more than all the securities offered for sale through the major U.S. stock exchanges. An estimated 40 million Americans have bought or sold cryptocurrency at some point. According to the industry's own polling, the majority of investors who have ever purchased Bitcoin did so in 2021. Given the recent collapse in the price of Bitcoin, it is reasonable to assume most of them have lost money.

When added to the millions already locked out of their accounts at places like FTX and Celsius those numbers soar even higher. A nonexhaustive list of crypto players who have stopped or paused withdrawals just this year includes BlockFi, Voyager Digital, Genesis, CoinFlex, Gemini, Three Arrows Capital, Hodlnaut, Poolin, Digital Surge, Orthogonal Trading, AAX, Hoo, SALT, Babylon Finance, Nuri, Bithumb, Upbit, Coinone, Babel Finance, WazirX/CoinDCX, Bexplus, AEX, Vauld, 2gether, Finblox, and well, you get the point.

There are many reasons that so many customers cannot get their money back, but the simplest one is that much of it was never there to begin with. The prices of these speculative so-called 'digital assets' were bid up/manipulated far beyond the actual real money backing them.

You don't have to take my word for it. In March of this year, I asked Alex Mashinsky, CEO of the now failed crypto lending firm Celsius, how much real money was in crypto and he estimated: "10 to 15 percent. The rest is speculation." Given crypto's market cap at the time (about $1.8 trillion), that would imply only a few hundred billion dollars of actual money was backing these assets. When I asked Sam Bankman-Fried the same question in July of this year, he broadly concurred with Mashinsky, estimating around $200 billion was left in crypto. Personally, I suspect the true number to be far, far lower, but even taking these assessments at face value there is no denying that the amount of nominal value of crypto far exceeds the actual dollars in the crypto "ecosystem."

Leverage accounts for some of this disparity, and is not unique to crypto. It exists in our regulated markets as well. But as Professor Hilary Allen points out, with crypto the potential leverage in crypto is far higher:

> The amount of leverage in the system can also be increased by simply multiplying the number of assets available to borrow against. That is a significant concern with DeFi, where financial assets in the form of tokens can be created out of thin air by anyone with computer programming knowledge, then used as collateral for loans that can then be used to acquire yet more assets.

Of course leverage is not the sole culprit behind the collapse of crypto. One of the other contributing factors is fraud. Cryptocurrency has attempted to assemble a parallel financial universe that in some ways mirrors our regulated one, only absent meaningful regulations. Be careful what you wish for. The simple truth is that in an unregulated market, at every juncture where value is transferred from one party to another, not only is there nothing preventing one or more parties from committing fraud, there is often very little even disincentivizing them from doing so. If you can rip people off and get away with it, why not do it?

If you lose money in cryptocurrency, advocates proudly state the only person you have to blame is yourself. DYOR (Do Your Own Research) is their motto. The system cannot fail; you can only fail the system. The language of crypto is eerily reminiscent of multilevel marketing schemes. Words such as "community" obscure the financial nature of these endeavors, cloaking them in a false sense of shared purpose. The illegal version of multilevel marketing schemes are called pyramid schemes.

Now that tens of millions of Americans have lost money in crypto, and millions more have been prevented from withdrawing their money as crypto companies shut down, seemingly on a daily basis, we are left with an obvious question: is any of this worth it?

Our securities laws have been on the books since the 1930s. They were written broadly on purpose; ever since there has been money, people have been interested in gathering quantities of it and putting it to productive use so as to make more of it. Most of these endeavors are well-intentioned, if not always successful. But some are nothing more than lies designed to separate people from their money.

Securities that have no underlying value are often described as Ponzi schemes. As such, under American law Ponzi schemes are regulated by the Securities and Exchange Commission.

I submit to you today that the entire cryptocurrency industry resembles nothing more than a massive speculative bubble built on a foundation of fraud. In my opinion, it is the largest Ponzi scheme in history by an order of magnitude.

Cryptocurrency is in fact only a story, or rather a constellation of stories that form an economic narrative. As Nobel prize-winning economist Robert Shiller has observed, an economic narrative can be defined as:

> a contagious story that has the potential to change how people make economic decisions, such as the decision to . . . invest in a volatile speculative asset.

Shiller's first example? Bitcoin.

If cryptocurrency is only a story then it is fitting that I am here, for I am a storyteller at heart. I know a few things about money and lying. I learned about money from my economics degree, as well as by making a bit of it during my two decades spent in showbusiness. I know about lying because as an actor I do it for a living.

Unfortunately for the tens of millions of Americans who have lost money in cryptocurrency, the reality behind the story has become apparent to all who care to see it. The economic narrative surrounding cryptocurrency is untrue. In fact, it is a story meant to deceive.

We should give the SEC, DOJ, OFAC, and other relevant agencies the resources and support they need to enforce laws already in existence today. They should act swiftly before more Americans are hurt.

Let the chips fall where they may.

RESPONSES TO WRITTEN QUESTIONS OF CHAIRMAN BROWN FROM HILARY J. ALLEN

Q.1. Professor Allen, some have claimed that FTX, and other failed crypto platforms, collapsed because they were centralized. Your written testimony addressed that issue, explaining that decentralized platforms share the same problems as centralized ones. Can you elaborate on why the problems in crypto are so fundamental that they impact both decentralized and centralized platforms?

A.1. The issue here is that most so-called "DeFi" or "decentralized" offerings are not, in fact, decentralized from an economic perspective (research from the BIS has therefore labelled DeFi's claims of decentralization as an "illusion").[1] If the offering is technologically decentralized, it will rely on software to operate: if power over that software is concentrated in the heads of one or a few individuals, there is no reason to expect those individuals to behave any better than the individuals operating more openly centralized crypto platforms. The people who control DeFi platforms have the same incentives and opportunities as the operators of centralized platforms to take advantage of investors—in fact, they may have more opportunities as the technological complexity of decentralized offerings may confuse investors and obfuscate who is in charge. This complexity and obfuscation may also make it more challenging (although by no means impossible) for regulators to enforce existing law against the operators of DeFi platforms. DeFi's increased technological complexity also offers many opportunities for hacks and other operational problems.[2] Finally, as I explore at length in my law review article "DeFi: Shadow Banking 2.0?", there are plenty of opportunities for leverage and automation in DeFi that make DeFi inherently fragile and susceptible to runs—just as more openly centralized crypto is.[3]

Q.2. Many crypto advocates have talked about the potential of blockchain technology to revolutionize financial services. You testified that the Australian Stock Exchange tried to use this technology, but found it unworkable. Are there other examples where blockchain technology has been deemed not fit for purpose? Please discuss if there potential applications for the blockchain in financial services that you believe are improvements over current processes.

A.2. With regard to your question "are there potential applications for the blockchain in financial services that you believe are improvements over current processes," respectfully, I think a better question to ask is "are there potential applications for the blockchain in financial services that you believe are improvements over other existing technological alternatives?" There are certainly places where our current financial infrastructure needs updating—sometimes, the need is so acute that almost any change might be an improvement. When choosing a solution, though, we can choose between the blockchain and many other available technological solutions (in other words, the blockchain isn't the only alternative to our status quo). Given the menu of technologies currently avail-

[1] *https://www.bis.org/publ/qtrpdf/r-qt2112b.pdf*
[2] See *https://web3isgoinggreat.com* for examples.
[3] *https://papers.ssrn.com/sol3/papers.cfm?abstract-id=4038788*

able, it would be rare (if ever) that a blockchain is the best technological solution. As I have written previously, "it does not seem possible that a technology that has been intentionally made more complex (in order to nominally decentralize) could ever be more efficient than a simpler, centralized alternative." [4]

To elaborate some more on the technological limitations of blockchains, no matter which consensus mechanism is chosen for a decentralized ledger (proof-of-work, proof-of-stake, or something else), it must always be slower and more cumbersome than validation by a centralized intermediary. Otherwise it will be too easy for a bad actor to take over: costly computations are the sinequanone of decentralized consensus mechanisms. This expense and inefficiency mean that it is very challenging for decentralized services to scale up—one illustration of this is the significant increases in gas fees users of the Ethereum ledger experience when it's busy. Decentralized ledgers also face limitations because it is not possible for software to cater for all possible eventualities: intermediaries are often needed to resolve unanticipated situations (for example, reversing erroneous or problematic transactions). As I mentioned in response to Senator Warren's question at the hearing, blockchain technology's main contribution to efficiency is avoiding the anti-money laundering checks that slow down the processing of traditional financial transactions.

The inefficiencies of blockchain technology ultimately led to the Australian Stock Exchange abandoning its blockchain project. [5] It was also recently announced that IBM and Maersk are abandoning their logistics blockchain. [6] In 2020, one report from Deloitte indicated that the vast majority (85 percent) of corporate blockchain projects had failed, while 93 percent of user led blockchain projects had failed. [7] While most useful technologies have bumps in the road, blockchain technology is not just experiencing teething pains: hundreds of technologists have warned that blockchain technology is not fit for the use cases its proponents espouse. [8]

RESPONSES TO WRITTEN QUESTIONS OF SENATOR TESTER FROM HILARY J. ALLEN

Q.1. *Taxpayer Protection*—Is it clear enough to investors that making bets in the cryptocurrency space is at their own risk? And that the U.S. taxpayers won't be stepping in to bailout this industry?

A.1. It appears that, for many investors, crypto assets seem like reasonable alternative investments that are on par—in terms of risk—with many other types of investments. For example, letters submitted to the judge in the Celsius bankruptcy paint a picture of customers who genuinely believed their money was safe with Celsius. [1] Even after the crypto failures of the last year, one recent

[4] DeFi: Shadow Banking 2.0?
[5] *https://cointelegraph.com/news/aussie-stock-exchange-abandons-blockchain-plans-leaving-170m-hole*
[6] *https://www.coindesk.com/business/2022/11/30/ibm-and-maersk-abandon-ship-on-tradelens-logistics-blockchain/*
[7] *https://www2.deloitte.com/us/en/insights/industry/financial-services/evolution-of-blockchain-github-platform.html*
[8] *https://concerned.tech*
[1] *https://blog.mollywhite.net/celsius-letters/*

survey suggests that many investors still believe crypto investments to be safe and well-regulated.[2] According to this 2022 survey, Black investors are more likely than White investors to believe that this is the case: "Black investors are also more likely than White investors to believe investments in cryptocurrency are both safe (33 percent vs. 18 percent) and regulated by the Government (30 percent vs. 14 percent)."[3] In short, even after what has happened in 2022, it appears that there are still some investors who underestimate the risks of making bets in the cryptocurrency space. Some members of the public even believe that the FDIC protects crypto investments. This confusion has sometimes been encouraged by members of the crypto industry—in August of 2022, the FDIC issued Cease and Desist Letters to five crypto businesses (including FTX.US) for making false or misleading representations about deposit insurance.[4]

As for U.S. taxpayers bailing out the crypto industry, I would note that since I testified before the Committee in December, it has been reported that Silvergate Bank (which provides payment and other services to the crypto industry) significantly increased its reliance on loans from the Federal Home Loan Bank of San Francisco in the last quarter of 2022. To quote one report, "FHLB borrowings funded only 5 percent of $13.9 billion in total funding (deposits plus borrowings) as of Sept. 30 . . . the current industry norm is for FHLB borrowings to provide about 5 percent to 6 percent of funding. But that ballooned to 41 percent of total funding as of Dec. 31."[5] This increased borrowing occurred at the same time as FTX's failure—if banks were to more fully integrate with the crypto industry, we could reasonably expect to see more Government funding being used to indirectly support the crypto industry.

Q.2. *Contagion*—It is clear that there was poor corporate governance, and it appears flat-out fraud, at FTX. But over this last year we've seen a series of failures and challenges in the industry. There may be benefits to some of the related technologies, but there have been numerous problems—even just in recent months—for cryptocurrency companies and, more importantly, investors.

How could this or other failures in the cryptocurrency industry have spread to our other financial institutions and systems in the U.S.? What has protected them so far?

How would this crash have been different if Federal financial regulators had allowed our banking institutions in this country to do more in the cryptocurrency space?

A.2. As we learned from 2008, problems in traditional financial markets can be transmitted both through contractual counterparty relationships and through metastasizing loss of confidence in similarly situated firms. The events of 2022 indicate that those same channels of contagion exist in the crypto industry. Fortunately, there were few contractual interconnections between the crypto industry and the traditional financial system, and the general public had little reason to think that the traditional financial industry

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[2] *https://cepr.net/crypto-and-building-black-wealth/*

[3] *https://www.schwabmoneywise.com/tools-resources/ariel-schwab-survey-2022*

[4] *https://www.fdic.gov/news/press-releases/2022/pr22060.html*

[5] *https://www.marketwatch.com/story/cryptocurrency-bank-silvergate-has-lost-68-of-its-digital-deposits-heres-what-we-know-about-its-predicament-11672946903*

had significant exposure to the crypto industry. As a result, the spillover effects from crypto failures have largely remained contained within the crypto industry.

There are many possible explanations for why the banking industry was not significantly exposed to crypto. Many people believe the narrative that crypto is trying to disrupt banks, and that banks therefore see the crypto industry as a kind of adversary—and so banks did not invest in crypto for that reason. Others believe that banks thought crypto was too risky, and avoided investing out of a sense of self-preservation. In my view, both narratives are overstated. I believe that many traditional financial firms would have integrated more fully with the crypto industry had regulators allowed them to do so. Even with financial regulators' strong admonitions to be wary of crypto, we have seen some integration. For example, the Department of Labor provided guidance that strongly cautioned against administrators of 401k plans including crypto assets to their investment menus:[6] Fidelity created a Bitcoin option regardless.[7] Banking regulators have been reasonably strict about separating banking from crypto,[8] but have allowed Bank of New York Mellon to custody crypto assets for its clients.[9] They also appear to have acquiesced in banks like Silvergate and Signature Banks providing services to the crypto industry, at least for a time.

These kinds of banking activities did not create direct crypto exposure for banks. Had banks accepted crypto as collateral for loans or invested directly in crypto assets (particularly if they had used leverage to do so), then the events of 2022 would no doubt have had repercussions for the banking industry. Still, even indirect exposure to crypto could conceivably cause problems in the future because of how important confidence is to the banking industry. For example, if a bank's revenue were dependent on providing services to the crypto industry or crypto custody services to its clients, then implosions in the crypto industry might raise concerns about the viability of the bank's business model. Or if a bank were to make loans secured with traditional assets to large institutional customers, and then those customers were to incur significant crypto exposure and default on their loans, that might raise concerns about the bank's solvency. Or if a bank were holding the reserves of a stablecoin on deposit and there were a run on that stablecoin, the bank would see those reserves withdrawn. Could that be enough to raise liquidity concerns about the bank, exposing the bank to the risk of a run itself? This is not an exhaustive list of possible contagion channels; instead it is a list of examples provided here to bolster the case for a complete separation of banking and crypto.

Q.3. *Regulation*—What are the benefits and drawbacks from creating additional regulation, and with it perhaps perceived or real Government endorsement, for a product with no inherent value?

[6] *https://www.dol.gov/newsroom/releases/ebsa/ebsa20220310*

[7] *https://www.cnbc.com/2022/11/04/fidelity-forusall-offering-401k-investors-access-to-cryptocurrency.html*

[8] *https://www.fdic.gov/news/press-releases/2023/pr23002a.pdf*

[9] *https://www.wsj.com/articles/americas-oldest-bank-bny-mellon-will-hold-that-crypto-now-11665460354*

A.3. There is a risk that applying any regulatory framework to crypto, other than a ban, could legitimize it. However, as I outlined in my testimony, I believe concerns about perceptions of Government endorsement must be balanced against the need for investor protection, and that if lawmakers do not wish to enact a ban, then these perceptions can be managed in an investor protection regime like the one administered by the SEC. It is critical, though, that banking regulation not be applied to crypto. While securities regulation does not suggest that any investment is a good investment—and it is well understood that a share in a corporation, for example, could lose all of its value—banking regulation puts Government backing behind certain assets (like deposits) in order to ensure that people retain confidence in those assets. This kind of regulation and Government backing would be extremely dangerous if applied to a product with nothing concrete behind it, that serves no real capital formation function.

It is also critical that no bespoke regulatory regime is devised for crypto. The creation of a bespoke regulatory regime would communicate to the public that there is something special about crypto that is worth accommodating. During the hearing, witness Kevin O'Leary mentioned several times that the crypto industry wants this kind of regulation so that it can attract money from institutional investors. This would allow the crypto industry to grow—but in my view, if crypto cannot comply with existing securities regulation (and much of it probably cannot) then it should not exist.

Q.4. *National Security*—Are there benefits that outweigh the facilitation of crime that we've seen from these products and this industry?

A.4. Proponents of blockchain technology rarely claim it can do something new—instead, they claim it can do existing things in decentralized ways. However, as I described in my testimony, even if the technology is decentralized, it does not operate in a decentralized way because economic control of the technology is so concentrated. There therefore seem to be few social benefits of the technology, except that some people seem to enjoy tinkering with blockchain technology on an intellectual level. If this tinkering had no social cost to it, I would see no reason for regulation to intervene, notwithstanding that I see little real decentralization or utility in blockchain technology. Unfortunately, this technology creates significant negative externalities—from a national security perspective, as well as from the perspective of harm to consumers, the environment, and the stability of our financial system. In other situations, it might be difficult to decide how to respond to an innovation that has real promise and real peril: this is an easy case, though, given the lack of significant benefit and the obvious harm associated with the blockchain.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR WARNOCK FROM HILARY J. ALLEN

Q.1. According to press reports, FTX Trading Ltd. (FTX) collateralized billions of United States dollars in loans using the FTX Token (FTT), which functioned similarly to a form of stock in

FTX. If FTX were a traditional bank, this practice would seem to be prohibited under the National Banking Act of 1864. [1]

In your view, is there a conflict of interest for a cryptocurrency exchange to issue its own token, given the lack of public markets and other methods of ensuring transparency and price discovery?

A.1. In general, crypto exchanges are vertically integrated, offering multiple services that are typically disaggregated in traditional finance. For example, while stock exchanges do not do not take proprietary trading positions opposite their customers, this kind of practice is common in crypto exchanges. Housing brokerage, exchange, clearing, and proprietary trading services in one business inevitably creates conflicts of interest.

With that said, there is not an inevitable conflict of interest in an exchange issuing its own token. As an analogy, the owner of the New York Stock Exchange is International Clearing, a publicly traded company (meaning anyone can buy shares in the parent company of the New York Stock Exchange). Conflicts of interest can arise, however, if the exchange is trading in its own token against its customers, or manipulating the supply of tokens that its customers have invested in (conflicts of interest may also arise if the exchange misleads its customers about the relationship between acquiring the tokens and accessing exchange functionality).

In the absence of mandated disclosures and market transparency, these kinds of activities can easily go undetected. As I stated in my written testimony, "when assets have no fundamentals and trade entirely on sentiment, traditional checks on fraud (like valuation methodologies and financial accounting) will inevitably break down." Using wash trading to manipulate the value of a token is a particular concern when it comes to exchanges issuing their own tokens. Wash trading involves "simultaneously selling and buying the same financial assets to create artificial activity in the marketplace, which is known to distort price, volume, and volatility, and reduce investors' confidence and participation in financial markets," and this practice has been found to be rife in unregulated crypto exchanges. [2]

Q.2. How does allowing cryptocurrency exchanges to issue their own tokens affect fair competition?

A.2. I am not an expert in competition law, and do not feel qualified to speak to this issue.

Q.3. How does allowing cryptocurrency exchanges to issue their own tokens affect systemic risk in financial markets?

A.3. We know from past experience with the traditional financial system that excessive leverage makes the system more fragile and susceptible to booms and busts, increasing systemic risk. One way of increasing the amount of leverage in a system is to multiply the number of assets available to borrow against. That is a significant concern with crypto, where assets in the form of tokens can be created out of thin air by anyone with computer programming knowl-

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[1] 12 U.S.C. §83(a) ("No national bank shall make any loan or discount on the security of the shares of its own capital stock.").

[2] *https://www.nber.org/papers/w30783*

edge. This concern applies to all tokens, including those issued by exchanges.

In addition, when cryptocurrency exchanges accept their own tokens as collateral for margin loans to others, that creates wrong-way risk. Bloomberg journalist Matt Levine analogized FTX accepting FTT as collateral to a bank accepting its own stock as collateral for a loan:

> If you go to an investment bank and say "lend me $1 billion, and I will post $2 billion of your stock as collateral," you are messing with very dark magic and they will say no. The problem with this is that it is wrong-way risk . . . If people start to worry about the investment bank's financial health, its stock will go down, which means that its collateral will be less valuable, which means that its financial health will get worse, which means that its stock will go down, etc. It is a death spiral. In general it should not be possible to bankrupt an investment bank by shorting its stock. If one of the bank's main assets is its own stock—is a leveraged bet on its own stock—then it is easy to bankrupt it by shorting its stock. [3]

A practice that makes it easy to bankrupt an exchange is likely to have systemic ripples in crypto, where the events of 2022 have demonstrated that crypto exchanges and other intermediaries often lend to and borrow from one another and thus are tightly interconnected.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR TESTER FROM KEVIN O'LEARY

Q.1. *Taxpayer Protection*—Is it clear enough to investors that making bets in the cryptocurrency space is at their own risk? And that the U.S. taxpayers won't be stepping in to bailout this industry?

A.1. It is generally understood that investing in the cryptocurrency space carries a high degree of risk and that there is no guarantee of returns. Additionally, most participants now realize that it is unlikely that the U.S. Government will step in to bailout the cryptocurrency industry, as it is not considered a traditional financial sector. However, it is always important for investors to conduct their own research and understand the risks involved before making any investment decisions.

Q.2. What steps need to be taken to protect everyday investors from schemes like this?

A.2. An Individual considering investing in crypto should follow some pragmatic common sense rules, such as:

1. Educating yourself about the basics of cryptocurrency and how it works, as well as the risks involved.
2. Investing only what you can afford to lose and diversifying your portfolio. When asked, I suggest starting by investing $100 in a centralized wallet like Coinbase and $100 in a de-

[3] *https://news.bloomberglaw.com/banking-law/matt-levines-money-stuff-ftx-had-a-death-spiral*

centralized one like Metamask. Working with them both is educational and not alot of capital is at risk if mistakes are made.

3. Being cautious of projects or companies that lack transparency or have a history of fraud or misconduct.
4. Checking the credentials and regulatory compliance of any cryptocurrency exchange or platform you plan to use.
5. Staying informed about current events and regulatory developments in the cryptocurrency space.
6. Consider consulting with a financial advisor or professional for guidance.

Q.3. What additional resources do institutional investors or more experienced investors like yourself need to have adequate information about investing in companies like FTX?

A.3. Institutional investors or more experienced investors looking to invest in crypto companies like FTX may benefit from a variety of additional resources. These can include:

1. Company financial statements and regulatory filings, which can provide insight into the company's financial performance, management team, and overall business strategy.
2. Research reports from reputable financial institutions and industry experts, which can provide in-depth analysis of the company and its market position.
3. Market data and analytics, such as trading volume, price movements, and trading metrics, to gain insight into market trends and the overall performance of the company.
4. Industry news and events, to stay informed about developments in the crypto space, regulatory changes, and other important news.
5. Networking and connecting with other experienced investors in the crypto space, to share knowledge, insights, and ideas.
6. Understanding the legal and regulatory aspects of the crypto industry in the country and worldwide.
7. Having a solid knowledge of the technology behind the coin or token that is being considered for investment.

It's important to note that even with these resources, investing in the crypto space still carries a high degree of risk, and investors should always conduct their own research and seek professional advice before making any investment decisions.

Q.4. *Regulation*—What are the benefits and drawbacks from creating additional regulation, and with it perhaps perceived or real Government endorsement, for a product with no inherent value?

A.4. Benefits of regulation:

- Increased investor protection: Regulation can help to protect investors from fraud and other types of financial misconduct by requiring companies to disclose information and adhere to certain standards.

- Improved market integrity: Regulation can help to promote fair and orderly markets by preventing manipulation and other types of market abuse.
- Greater legitimacy: By being regulated, a product can be perceived as more legitimate, which can increase the overall trust and confidence in the market.

Institutional investors would have greater interest in crypto assets if they were regulated. They have a fiduciary duty to their clients, which means they are legally obligated to act in their clients' best interests. As a result, they may be more likely to invest in crypto assets if they feel that the market is more secure and less prone to fraud or other types of financial misconduct.

Regulation can provide investors with the transparency and oversight needed to assess the risks and potential returns of crypto assets. It can also help to create a more stable and predictable environment, which is often more appealing to institutional investors who are looking for long-term investments.

Additionally, institutional investors are subject to strict regulations and compliance requirements, so they are more comfortable investing in an asset class that is also regulated.

It's important to note that the crypto market is rapidly evolving and the regulatory landscape is still developing, so it's hard to predict how it will affect institutional investors' interest. However, as crypto assets continue to mature, it is likely that we will see increased institutional interest and investment in the crypto space if regulations are put in place to protect the investors.

I don't think there will be material appreciation in the value of crypto assets until they are regulated and sovereign wealth and pension funds begin to allocate to this new asset class.

Drawbacks of regulation:

- Increased compliance costs: Companies may face higher costs in order to comply with regulatory requirements.
- Reduced innovation: Regulation can create barriers to entry, making it harder for new companies to enter the market, which could stifle innovation.
- Slower adoption: Heavy regulation can discourage some investors from entering the market, slowing adoption and limiting its growth.
- Possibility of Government intervention: Advocates of decentralized finance view Government regulation as the Government's attempt to intervene or control the crypto market. They do not agree that regulation would attract institutional capital.

It's important to note that there is no one-size-fits-all solution when it comes to regulating a product like cryptocurrency, as the appropriate level of regulation will depend on a variety of factors, such as the specific risks associated with the product, the overall maturity of the market, and the objectives of regulators.

While many advocates of decentralized finance abhor the concept of Governments regulating crypto assets, I believe the majority of participants are now fatigued by the almost weekly bankruptcy of poorly managed unregulated crypto companies and exchanges and are becoming open to a more structured and regulated version of the crypto market

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RESPONSES TO WRITTEN QUESTIONS OF SENATOR CORTEZ MASTO FROM KEVIN O'LEARY

Q.1. Please list the cryptocurrencies you have invested in over the past decade. Please note any you currently hold.

A.1. ETH, BTC, HNT, MATIC, AVAX, FTM, ALGO, SX, MER, SBR, ATLAS, AUDIO, USDC, DOGE, LHC, USDC, HBAR.

I currently hold: ETH, BTC, MANIC, USDC, HBAR, DOGE, LHC.

Q.2. Please list any cryptocurrencies, crypto companies or projects that have provided compensation to you.

A.2. FTX.

Q.3. As a frequent contributor on financial topics, how do you draw the line between opinion and financial advice? When you provide financial advice, do you include a disclaimer in your videos and media appearance that you received compensation by crypto firms or own the crypto assets you are discussing?

A.3. If I'm a paid spokesperson for a company's product or service I disclose it. When asked about any potential investment I talk about how I manage my own money and encourage diversification across sectors. Network, cable broadcasters usually include standard disclaimers at the head or end of programming for almost all contributors, I am no exception.

Q.4. Have you ever shorted your position in a digital asset with a digital asset you have promoted? If so, when and which one?

A.4. No

Q.5. Prior to becoming a sponsor of FTX, had you invested in FTX? If so, how much did you invest—please include all compensation including any product you may have received, taxes paid on the compensation, etc.?

A.5. No, I was not an investor in FTX prior to entering into a partnership and endorsement services agreement. FTX had already closed their most recent round of financing and I insisted they open it up and allow me to purchase equity. In most paid spokesperson deals I enter into with companies I ask for equity participation so that my interests are transparently aligned with shareholders. FTX accommodated my purchase of equity in FTX International and FTX.US Prior to becoming a paid spokesperson to FTX I had been investing in various crypto positions on multiple centralized and decentralized wallets.

I disclosed the details of the FTX contract in previous testimony. I also invested in FTX equity. Details of this investment were also disclosed in my prior testimony.

Q.6. What did you see as your role as a sponsor of FTX?

A.6. I saw my role as an endorser and a spokesperson for FTX. Because of my business background, my investments in multiple companies involved in crypto technology, and my extensive work supporting entrepreneurs at every stage of their journeys, I had some calls with FTX regarding the features that institutional investors would require in any crypto platform.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR WARNOCK FROM KEVIN O'LEARY

Q.1. According to press reports, FTX Trading Ltd. (FTX) collateralized billions of United States dollars in loans using the FTX Token (FTT), which functioned similarly to a form of stock in FTX. If FTX were a traditional bank, this practice would seem to be prohibited under the National Banking Act of 1864. [1]

In your view, is there a conflict of interest for a cryptocurrency exchange to issue its own token, given the lack of public markets and other methods of ensuring transparency and price discovery?

A.1. It is possible for a cryptocurrency exchange to have a conflict of interest if it issues its own token. One concern is that the exchange may have an incentive to promote its own token over other tokens listed on the platform, which could be perceived as unfair to other projects and potentially lead to a lack of trust in the exchange. Additionally, if the exchange has significant control over the supply and demand of its own token, it could potentially manipulate the price to its own benefit.

To ensure transparency and price discovery, it would be beneficial for there to be multiple, diverse sources of demand for the token, such as from external investors or through use cases within the exchange's ecosystem. It would also be important for there to be clear and transparent information about the token's distribution and economic model, as well as any potential conflicts of interest that may exist.

Why do unregulated exchanges issue tokens? Because they can. Operating in multiple jurisdictions with no one regulator having control over their activity, creating tokens out of thin air is easy to do. An equally important question is why would anyone buy them? Traditionally, unregulated exchanges use them as incentives to give account holders reduced trading fees. If you open an account and buy and hold the exchange's token in it, you pay less trading fees. Sometimes the more you hold the less fees you pay. So there is a rational economic reason for account holders to convert currencies into the exchange's token and leave it sitting there while the exchange holds the real cash.

These tokens are a form of "faux" equity because they hold no relevant rights other than trading discounts. They should be thought of as discount coupons.

For example the Binance exchange (symbol BNB) token has a fully diluted market capitalization of approximately $61 Billion however it is tightly held. The top two wallet holders own 97 percent of the float. Who are these owners? Unknown. If there is a run on BNB and one of these wallets wants to immediately convert back to $USD are there sufficient reserves? Unknown. Meanwhile this token could be ascribed a $60 Billion plus value to the Binance balance sheet. Who audits this and where is it held? Unknown.

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[1] 12 U.S.C. §83(a) ("No national bank shall make any loan or discount on the security of the shares of its own capital stock.").

Q.2. How does allowing cryptocurrency exchanges to issue their own tokens affect fair competition?

A.2. Allowing cryptocurrency exchanges to issue their own tokens can potentially affect fair competition in a number of ways.

First, an exchange's own token may have an advantage over other tokens listed on the platform due to the exchange's ability to promote it more heavily. This could lead to a distortion of the market and an unfair advantage for the exchange's own token.

Second, if an exchange has significant control over the supply and demand of its own token, it could potentially manipulate the price to its own benefit. This could lead to unfair competition with other projects and potentially harm investor confidence in the market.

Overall, it is important for exchanges to be transparent about their operations and any potential conflicts of interest that may exist, in order to promote fair competition and maintain trust in the market.

Q.3. How does allowing cryptocurrency exchanges to issue their own tokens affect systemic risk in financial markets?

A.3. Allowing cryptocurrency exchanges to issue their own tokens can potentially affect systemic risk in financial markets in a number of ways.

First, if an exchange's own token becomes widely used and is tightly integrated into the exchange's operations, a failure or problem with the exchange could have a cascading effect on the value of the token and potentially create losses for token holders. This could increase the systemic risk of the overall market, as the failure of a single entity could have wider implications.

The FTX exchange token (Symbol FTT) had a material role in the collapse of FTX itself. Prior to November 2022 FTX had repurchased approximately $2.1 billion of its equity from Binance a global competitor also unregulated. A material amount of this transaction may have been done using FTT tokens as currency. In addition to alleged inappropriate transfers of cash between FTX and Alomedia that could have weakened FTX balance sheet, Binance attempted to "dump" approximately $550 million of FTT tokens onto the market the week of Nov. 7, 2022. It was the proverbial "straw that broke the camel's back" as FTX did not have the reserves to back that transaction and subsequently filed for bankruptcy November 11, 2022.

Why would FTX deplete its balance sheet of $2.1 billion of assets, including FTT tokens, to buy back its own stock from Binance? According to FTX management it was to clear regulatory hurdles in new geographies where FTX was seeking licenses to operate. Apparently, according to FTX management, Binances 20 percent ownership in FTX made it a material participant in the licensing process. However, according to FTX management Binance was becoming less and less cooperative in proving the level of transparency that regulators required and FTX license applications were getting rejected because of is 20 percent held by "opaque ownership". Who owns Binance? Unknown. This became an insurmountable problem for FTX and, according to FTX management, they had no choice but to repurchase their stock. What valuation was this transaction done at? Records have not been released yet but it is alleged by FTX management and also detailed in Business cable interviews of Binance management to have been done at a 15 percent discount to a $23 billion FTX valuation. It seems that at least $550 million of the clearing price was done in FTT tokens, which is the block that Binance attempted to put to the market the week of Nov. 7th 2022 that forced FTX into bankruptcy.

From my perspective this was a battle royal between two giant global unregulated exchanges that together owned over 90 percent of global crypto market liquidity. One put the other out of business. The highly effective weapon of choice? The FTT exchange token.

If an exchange has significant control over the supply and demand of its own token, it could potentially manipulate the price to its own benefit. This could lead to market instability and increase systemic risk, as investors may not have a clear understanding of the true value of the token.

It is not clear what the long term value of an exchange token is. If an exchange wants to raise capital why does it not just sell its equity into the highly regulated equity markets. If it wants to provide discounts on trading fees why not just provide discounts? There is no need for a token for this purpose. On the regulated online stock trading platforms competition has driven trading fees to $0. Undoubtedly as regulated broker/dealer crypto exchanges emerge fee structures will also be determined by the market.

It is important for exchanges to be transparent about their operations and any potential conflicts of interest that may exist, in order to minimize the potential impact on systemic risk in financial markets. To date this has not been the case in the global crypto exchange market. The lack of definitive regulation allows these exchanges to continue to operate in the "wild west" and they will continue to fail when stress tested by accelerated liquidations.

Solving this problem may not be as complex as some have suggested. Crypto has one unique attribute as an asset class. It does not trade by geography or by schedule. Unlike a stock or bond Bitcoin is not listed on the London or NYSE stock exchange. It trades freely everywhere 24/7. However, what is valuable to exchanges that seek licenses are the on and off ramps into and out of the regulated banking system in each region.

One good example of this solution is the highly regulated crypto broker/dealer/exchange Canadian market. The OSC order that allows exchanges to obtain licenses and operate there restricts which tokens can be traded and held in accounts. To date approximately 33 are permitted but no exchange tokens. Exchanges in good standing can transfer funds in and out of regulated bank accounts after appropriate KYC (know your client) protocols have been satisfied. The regulatory controls come from restricting which tokens can be traded, which can be staked or lent and how regulated currency comes on and off the exchanges. There is also proof of reserves, audit and ownership transparency requirements that must be met and maintained in order for the broker/dealer/exchange to continue to operate.

Regulators in all markets already cooperate together developing and maintaining policy in the equity and debt markets. Crypto trades everywhere with no regard to political or economic borders so the best way to regulate it is to control how it's converted into local currencies on and off regulated broker/dealer/exchange platforms with a "passport" issued by the local regulator. Under a Passport Program regulated banks in the region could only transfer capital to broker/dealer/exchanges that have and maintain a Passport.

The Golden Passport would quickly become the one issued by U.S. regulators that would allow its owner to operate within the U.S. banking system. To accommodate the global liquidity of Crypto regulators that standardized on the cooperative Passport system could fast track the issuance of licenses if the operator already had a Passport issued in a cooperating jurisdiction. There are a handful of markets that make up the majority of global liquidity. To reconstruct a regulated global exchange under the Passport system, you would need to obtain North American, British, Euro, UAE, and Asian Passports. To maintain operations operators would need to remain compliant in all regions simultaneously. Getting a passport revoked in any one region would cause operations to be suspended in all licenced markets until the breach was remedied in the market the infraction occurred. Passported operators would gain an advantage over "rogue" exchanges that continued to operate free of regulation because the majority institutional capital would flow through the regulated exchanges to remain compliant.

Cutting off unregulated exchanges from dealing with regulated banking entities for fiat to crypto fund transfer is no different than cancer therapies that cut off blood flow to tumors and starve them to death.

This is not a new policy. Many international trading agreements, in multiple asset classes, operate under mandates similar to these.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR TESTER FROM JENNIFER J. SCHULP

Q.1. *Taxpayer Protection*—Is it clear enough to investors that making bets in the cryptocurrency space is at their own risk? And that the U.S. taxpayers won't be stepping in to bailout this industry?

A.1. Investors should understand the risks associated with investing in the cryptocurrency space. There is certainly an opportunity for better investor education about cryptocurrency investment and usage, and private market solutions have been growing to address this need.[1] Where individuals or entities have misrepresented those risks or misrepresented the availability or applicability of Federal Government backstops, like deposit insurance, such misstatements should be subject to appropriate liability either through private causes of action or through Government enforcement action.

It is unfortunate that some investors have the expectation that the Government, and by extension taxpayers, will act to bail out any industry. Market forces should be permitted to drive the success—or failure—of the industry.

[1] See, for example, the work being done by the Blockchain Foundation (*https://theblockfound.com/*) and educational resources that are provided by popular crypto marketplaces (*https://www.coinbase.com/learn* and *https://www.gemini.com/cryptopedia*).

Q.2. *Contagion*—It is clear that there was poor corporate governance, and it appears flat-out fraud, at FTX. But over this last year we've seen a series of failures and challenges in the industry. There may be benefits to some of the related technologies, but there have been numerous problems—even just in recent months—for cryptocurrency companies and, more importantly, investors.

How could this or other failures in the cryptocurrency industry have spread to our other financial institutions and systems in the U.S.? What has protected them so far?

A.2. It is difficult to predict the impact of any particular event on other actors within the financial system. Not surprisingly, the effects of FTX's bankruptcy have first been felt by entities that engaged directly with now-bankrupt FTX-related entities. This includes customers of the crypto trading operation and those who invested in FTX, as well as companies that lent to or borrowed from FTX. Second order effects were felt by entities that engaged with those who had direct contact with FTX. And so forth. The magnitude of FTX's failure means that effects were significant. But not all effects were catastrophic, and protection from such effects could come in many forms, including a variety of good risk management practices on the part of the entities that interacted with FTX and its connections. The goal should not be to legislate to prevent failure.

Q.3. How would this crash have been different if Federal financial regulators had allowed our banking institutions in this country to do more in the cryptocurrency space?

A.3. This counterfactual is difficult to answer because it requires a host of assumptions about what regulation would look like and what effect such regulation would have on both banking institutions and cryptocurrency projects. On the one hand, allowing additional touchpoints between banking institutions and crypto may have limited the extent to which FTX and other crypto entities were engaging in poor risk management practices (or outright fraud), including by allowing for customer crypto assets to be custodied by regulated banking institutions. In this way, more integration between the banking and crypto spaces may have limited the impact of the crash. On the other hand, allowing additional touchpoints may have also imported some risks from FTX's crash to the traditional financial sector. But risks by themselves do not mean catastrophic failure, and the purported benefits of isolating the banking industry from cryptocurrencies must be examined in connection with the costs of doing so.

Q.4. *Regulation*—What are the benefits and drawbacks from creating additional regulation, and with it perhaps perceived or real Government endorsement, for a product with no inherent value?

A.4. This question, at least as stated, begs the question that crypto—writ large—has no inherent value. This assumption is not warranted. In addition, it treats "crypto" as a monolith and does not take into account the wide variety of projects that can be generally grouped under the "crypto" banner. Moreover, the Government's role is not to determine whether crypto has value; rather, regulation should do no more than support the free market's ability to determine whether a project succeeds or fails. Thus, regulation should not be understood as a Government endorsement of any kind. The benefits and drawbacks of additional regulation are highly dependent on the type of regulation that is created; such regulation should seek to neither advantage nor disadvantage crypto projects vis-a-vis more traditional financial products.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR WARNOCK FROM JENNIFER J. SCHULP

Q.1. According to press reports, FTX Trading Ltd. (FTX) collateralized billions of United States dollars in loans using the FTX Token (FTT), which functioned similarly to a form of stock in FTX. If FTX were a traditional bank, this practice would seem to be prohibited under the National Banking Act of 1864. [1]

A.1. Before addressing the specific questions below, I note that it's not clear that FTX Trading is easily analogized to a "national bank" to which the National Banking Act is applicable. FTX engaged in a number of lines of business, the primary of which was serving as a cryptocurrency exchange specializing in leveraged and derivative products. Other services offered, including yield-bearing accounts, look more akin to traditional banking, but it is difficult to generally characterize FTX Trading's business as bank-like.

Q.2. In your view, is there a conflict of interest for a cryptocurrency exchange to issue its own token, given the lack of public markets and other methods of ensuring transparency and price discovery?

A.2. Regardless of whether a token issued functions like a form of stock in the exchange, the mere issuance of a token does not signal a conflict of interest. Using such a token as collateral for an exchange's borrowing or lending activities, or for other purposes, may raise conflict of interest questions, particularly where there is a lack of methods for ensuring reliable rice discovery or assignment of value to such a token. Such activity also raises questions about the exchange's risk management practices.

Q.3. How does allowing cryptocurrency exchanges to issue their own tokens affect fair competition?

A.3. There is nothing inherently anticompetitive in allowing token issuance by cryptocurrency exchanges. To the extent such tokens function as stock in the exchange itself, allowing such issuance is akin to allowing the public ownership of stock exchanges, which is currently how most major stock exchanges are owned in the United States.

Q.4. How does allowing cryptocurrency exchanges to issue their own tokens affect systemic risk in financial markets?

A.4. The issuance of tokens by cryptocurrency exchanges does not itself necessarily have a systemic effect on financial markets. As noted above, where such a token is used inappropriately as collateral by the exchange or by others, there may be broader implications relating to risk management.

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[1] 12 U.S.C. §83(a) ("No national bank shall make any loan or discount on the security of the shares of its own capital stock.").

RESPONSES TO WRITTEN QUESTIONS OF CHAIRMAN BROWN FROM BEN MCKENZIE SCHENKKAN

Q.1. Many crypto advocates have talked about the potential of blockchain technology to revolutionize financial services and other industries. Based on your research, do you agree?

Are there any uses that you believe are on the horizon?

A.1. I do not agree. Blockchain technology is old, dating back at least 30 years. It has not gained widespread adoption because it suffers from several fundamental weaknesses. Distributed ledger technology has thus far been unable to scale without significant costs attached. Similarly, the irreversibility of the blockchain, which advocates promote as a selling point, makes it unsuited to human interaction. People make mistakes, and tying the fate of our financial system to an append-only ledger is unwise in the extreme.

The only use for blockchain technology on the horizon that I have found in my research is potentially for small systems with low throughput such as the wholesale side of the banking system. But even there, it is unclear if the benefits outweigh the drawbacks. More than 30 years after its invention, blockchain is a still searching for a use case that does not involve speculation and criminal activity.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR TESTER FROM BEN MCKENZIE SCHENKKAN

Q.1. *Risks of Crypto Products*—As I've discussed in this Committee previously, I have long had concerns that aspects of the crypto market reminded me of synthetic financial products ahead of the Global Financial Crisis. I'm glad that our Federal financial regulators have focused on safety, soundness, and fairness in approaching these new products—I think taxpayers could be in a much different position right now if regulators had handled it differently in recent years.

On this and other occasions in the Banking Committee I have discussed my concerns around these similarities with synthetic products, which Professor Allen and I have discussed: What concerns do you have about the risk posed to institutions and individuals who invest in these products?

A.1. I have myriad concerns, but first and foremost it troubles me that the cryptocurrency market is opaque to the point of incomprehensibility to those not within the small circle of meaningful players in the industry. Institutions and individuals are at a severe disadvantage when investing in these products. Prior to the last bull market in 2017, the cryptocurrency industry was incredibly small. Since then it has ballooned in size, in part because I believe regulators did not properly classify cryptocurrencies as securities and regulate them and the exchanges that sell them robustly. Investors have little understanding of what transpires behind the scenes to inflate the purported value of these cryptocurrencies, and even less recourse to get their actual money back should they lose it.

Q.2. *Taxpayer Protection*—Is it clear enough to investors that making bets in the cryptocurrency space is at their own risk? And that the U.S. taxpayers won't be stepping in to bailout this industry?

A.2. It is not. Investing in cryptocurrency is extremely risky, but it is not marketed as such. In fact, many claims by cryptocurrency companies appear to be deliberately misleading. Multiple players in cryptocurrency, including the now defunct FTX, implied their accounts were FDIC-insured when they were not. Cryptocurrency has been sold as a bet on technology and innovation. It has been described as "the future of money", a way of building generational wealth, and a method of banking the unbanked. Unfortunately, none of those stories are true. Investing in cryptocurrency is at best a zero-sum game of chance, much like its predecessor, online poker. And much like the early days of online poker, fraud is rampant.

Similarly, investors in cryptocurrency should be aware that it is highly unlikely that the majority of taxpayers who have not invested will be willing to bail out those who have been defrauded. The blame lies with those who have committed fraud, and no one else.

Q.3. *Contagion*—It is clear that there was poor corporate governance, and it appears flat-out fraud, at FTX. But over this last year we've seen a series of failures and challenges in the industry. There may be benefits to some of the related technologies, but there have been numerous problems—even just in recent months—for cryptocurrency companies and, more importantly, investors.

How could this or other failures in the cryptocurrency industry have spread to our other financial institutions and systems in the U.S.? What has protected them so far?

A.3. The bright red line between our regulated banking sector and the wild west of cryptocurrency has thus far spared the majority of the public from suffering a fate similar to the majority of those who have invested in cryptocurrency. That said, if cryptocurrency were to ever become embedded in our regulated financial systems despite not following the same laws as other financial products, the damage to our economy could be immense.

Q.4. How would this crash have been different if Federal financial regulators had allowed our banking institutions in this country to do more in the cryptocurrency space?

A.4. It is not hyperbole to imagine that a subprime crisis 2.0 could emerge from a cryptocurrency crash in the future were it infect our banking institutions. At a minimum, cryptocurrency must not be allowed to avoid laws that have served the public well for nearly a century.

Q.5. What steps need to be taken to protect everyday investors from schemes like this?

A.5. We need to properly classify the nearly 20,000 cryptocurrencies as securities and enforce laws applicable to them. Additionally, anti-money laundering laws and know your customer laws should be enforced. Lastly, American customers should not have access to cryptocurrency exchanges registered overseas that do not comply with U.S. laws.

Q.6. What additional resources do institutional investors or more experienced investors like yourself need to have adequate information about investing in companies like FTX?

A.6. All investors need the same protections afforded by robust enforcement of our securities laws. We should also consider a marketing ban on risky investment products sold to the general public.

Q.7. *Regulation*—What are the benefits and drawbacks from creating additional regulation, and with it perhaps perceived or real Government endorsement, for a product with no inherent value?

A.7. Despite industry claims to the contrary, cryptocurrency is not unique as an investment product. In fact, it is a repetition of several failed ideas of the past. The United States tried what cryptocurrency purports to be—private money—in the 19th century during what has become known as the free-banking era. It did not work very well. Similarly, the drawbacks of selling unregulated securities to the general public became clear during the stock market crash of 1929 to 1932 and the ensuing Great Depression, which led to the passage of Federal securities laws in 1933 and 1934.

Rather than creating unnecessary additional regulation, we should rigorously enforce the laws on the books so as to protect the public.

Q.8. *National Security*—Are there benefits that outweigh the facilitation of crime that we've seen from these products and this industry?

A.8. No.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR WARNOCK FROM BEN MCKENZIE SCHENKKAN

Q.1. According to press reports, FTX Trading Ltd. (FTX) collateralized billions of United States dollars in loans using the FTX Token (FTT), which functioned similarly to a form of stock in FTX. If FTX were a traditional bank, this practice would seem to be prohibited under the National Banking Act of 1864. [1]

In your view, is there a conflict of interest for a cryptocurrency exchange to issue its own token, given the lack of public markets and other methods of ensuring transparency and price discovery?

A.1. Yes. Conflicts of interest abound in cryptocurrency, but overseas exchanges with little transparency issuing their own tokens is problematic to say the least. The public is largely unaware of how the price of those tokens may be manipulated by the exchanges issuing them.

Q.2. How does allowing cryptocurrency exchanges to issue their own tokens affect fair competition?

A.2. Because the cryptocurrency exchanges issuing their own tokens are largely domiciled overseas, it's virtually impossible to know whether they are complying with applicable U.S. laws. The fair competition American investors have become accustomed to in domestic regulated markets is largely absent in cryptocurrency, where the majority of the volume flows through those overseas exchanges.

[1] 12 U.S.C. §83(a) ("No national bank shall make any loan or discount on the security of the shares of its own capital stock.").

Q.3. How does allowing cryptocurrency exchanges to issue their own tokens affect systemic risk in financial markets?

A.3. Thankfully, the exchanges that issue these tokens are domiciled overseas. Thus far, they are largely isolated from our regulated markets. That said, the more cryptocurrency becomes intertwined with our regulated financial markets, the more the systemic risk to them grows.

ADDITIONAL MATERIAL SUPPLIED FOR THE RECORD

Letter submitted by National Association of Federally Insured Credit Unions

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NAFCU
National Association of Federally-Insured Credit Unions

December 13, 2022

The Honorable Sherrod Brown
Chairman
Committee on Banking, Housing,
and Urban Affairs
United States Senate
Washington, DC 20510

The Honorable Pat Toomey
Ranking Member
Committee on Banking, Housing,
and Urban Affairs
United States Senate
Washington, DC 20510

Re: Tomorrow's Hearing – Crypto Crash: Why the FTX Bubble Burst and the Harm to Consumers

Dear Chairman Brown and Ranking Member Toomey:

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, "Crypto Crash: Why the FTX Bubble Burst and the Harm to Consumers." NAFCU advocates for all federally-insured not-for-profit credit unions that, in turn, serve 134 million consumers with personal and small business financial service products. We would like to thank you for this opportunity to provide input on credit unions' thoughts regarding digital assets and stablecoins.

Recent developments in the digital asset and stablecoin space have proven both the enormous potential of these innovations and the need for regulation. Distributed ledger technology and other technologies that support a broad ecosystem of digital assets offer an array of potential operational efficiencies. For example, the ability to facilitate payment transactions integrated with smart contracts, either through use of stablecoins or other digital assets, may help members with specific business needs and potentially reduce credit unions' operational costs. Most importantly, digital asset technologies can be designed with strong auditability features, which can enhance regulatory compliance and reduce instances of human error, fraud, and other misconduct. However, the absence of a clear regulatory environment and appropriate supervisory framework poses risks to the adoption of these otherwise promising technologies. NAFCU supports innovation with these technologies, but the absence of a clear regulatory framework that supports safety and soundness, transparency, and appropriate disclosure of risk to investors and consumers brings with it inherent risks. 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 with new and emerging financial technology. As you do so, we urge you to ensure the needs of credit unions are considered in any legislative approach you undertake in the future.

We thank you for the opportunity to share our thoughts and look forward to continuing to work with you on this important issue. 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@nafcu.org.

Sincerely,

Brad Thaler

Brad Thaler
Vice President of Legislative Affairs

cc: Members of the U.S. Senate Committee on Banking, Housing, and Urban Affairs

Letter submitted by AFR, et al.

The Honorable Sherrod Brown
Chairman
U.S. Senate Committee on Banking,
Housing and Urban Affairs
534 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Patrick J. Toomey, Jr.
Ranking Member
U.S. Senate Committee on Banking,
Housing and Urban Affairs
534 Dirksen Senate Office Building
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The Honorable Maxine Waters
Chairwoman
U.S. House Comm. on Financial Services
2129 Rayburn House Office Building
Washington, DC 20515

The Honorable Patrick McHenry
Ranking Member
U.S. House Comm. on Financial Services
4340 O'Neill House Office Building
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The Honorable Debbie Stabenow
Chairwoman
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Nutrition, and Forestry
328A Russell Senate Office Building
Washington, DC 20510

The Honorable John Boozman
Ranking Member
U.S. Senate Committee on Agriculture,
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The Honorable David Scott
Chairman
U.S. House Committee on Agriculture
1301 Longworth House Office Building
Washington, DC 20515

The Honorable Glenn Thompson
Ranking Member
U.S. House Committee on Agriculture
1010 Longworth House Office Building
Washington, DC 20515

December 15, 2022

Dear Congressional Committee Leadership,

We write to you today, in the wake of the FTX collapse, to ask you to take a more deliberative and systemic approach to advancing policies to regulate digital assets. We urge you to resist pursuing legislative proposals that are either compromised by industry influence or do not adequately address the systemic problems found within the digital asset industry. Instead, we believe Congress should seek to empower regulators to use their existing authorities and prioritize consumer and investor protection over the digital asset industry's largely unproven promises.

We offer the following recommendations for how we believe the ongoing debate around crypto policy should be framed going forward.

Policymakers should recognize there are widespread systemic problems within the digital asset industry, and not characterize this incident as a case of a 'few bad apples.'

Some policymakers and digital asset industry voices claim the actions of Sam Bankman-Fried and others within FTX were those of outliers - bad actors who misled others for their own gain. Thus, they claim, FTX's collapse does not represent the digital asset industry as a whole. It is true that the behavior of FTX's leadership fits a pattern of reckless, unethical, and potentially fraudulent activity. But it is a mistake to see this pattern as exceptional.

Only months ago, the digital asset industry faced major financial losses as the result of the mismanagement and questionable actions of several other crypto platforms and their chief executives. The collapse of Terra/Luna, Celsius, Voyager, Three Arrows Capital and other firms laid bare a network of interconnected actors whose shady deals and insular management approach disrupted the digital asset marketplace and generated major financial losses for customers and firms alike. The FTX collapse has only reinforced this picture, suggesting a system-wide fragility that raises concerns about the resiliency of the market overall. It has also exposed due diligence failures by the private investors providing critical funding to FTX and many other digital asset firms as well.

Even prior to the collapse of FTX, digital asset industry critics have long pointed to a myriad of risks and concerns present within the digital asset marketplace - the ubiquitous scams; predatory marketing; volatility; hacks, thefts and use of digital assets and platforms for illicit finance, to name a few. Not only are these harms problematic, they arguably create a 'criminogenic' environment where bad behavior is not only tolerated but often encouraged. This is particularly problematic given that crypto has been presented as a tool for financial inclusion, when in fact evidence suggests that digital assets do not further financial inclusion but jeopardize and strip wealth from communities of color and push them further behind. Not all actors in the digital asset space fit this pattern, but it is frequent enough that it is deeply intertwined with the industry's culture and business models.

As such, calls for policy responses or accountability measures for FTX alone may have some value, but are insufficient to address these broader systemic problems.

Congress should prioritize protecting consumers, investors, and financial stability over promises of innovation from a technology that has yet to deliver lasting, widespread, scalable use cases.

The industry has made ambitious claims about what they see as the nearly unlimited potential of digital assets and blockchain technology to transform not only finance, but the web itself and more. This rhetoric, fueled by a flood of lobbying and public relations campaigns, created an atmosphere where it was easy for some policymakers to buy the rhetoric, and believe their role was to move policies that fostered such purported innovation.

We have seen this before. Private market actors, major banking institutions, fintech ventures, payday lenders and others have made similar arguments; namely, that promising new technological advances can make a meaningful contribution to financial inclusion, capital formation or economic development, if only regulators can waive their usual oversight and accountability measures to allow such innovation to thrive. In reality, however, these arguments usually amount to little more than a deregulatory push for less accountability and oversight for products and services that provide little new benefit, but plenty of real risks to consumers, investors, and the financial system itself.

Given this context, we believe policy makers should view claims from the digital asset industry regarding its innovative potential with skepticism. Rather than lowering the bar, the path forward should instead include robust and consistent regulatory oversight that protects consumers and investors while also fostering innovation from actors that can meet these existing standards.

Congress should bolster regulators' existing authority and capacity to oversee the digital assets industry, instead of pointing fingers. Any legislative efforts should first 'do no harm.'

Though there is still more to learn from the FTX collapse and its fallout, some lessons appear clear: basic consumer and investor protections that exist in traditional finance can help prevent, mitigate, or remedy harms like those we have observed within the digital asset marketplace. They are effective because in large part they are meant to apply to a wide range of financial products and services, regardless of the technology used to provide them or the way in which they are marketed and sold and apply as much to activities and actors as they do the assets themselves.

Regulators already have many of the tools, powers and standards needed to provide these protections and accountability measures; Congress should be supporting their efforts to use them. Indeed, there is a case to be made that, despite political pressure and the limitations of jurisdiction, some federal regulators were able to use these powers to prevent the FTX collapse from spreading further, in part by distancing risky crypto firms from the more traditional banking and finance sectors.

Unfortunately, some in Congress, egged on by voices in the crypto industry, are now trying to blame the same regulators they spent months or years criticizing for being too heavy handed with digital asset firms. Instead of obstructionism and investigations looking for scapegoats, Congress should urge regulators to accelerate their oversight and coordination efforts and should provide regulators with emergency funding to bolster their capacity at this critical moment in time, as well as consider providing more sustainable long-term funding.

Previous legislative proposals offered during this Congressional session to create or clarify regulatory standards for digital assets have largely advanced approaches that would have created more permissive, less rigorous oversight and accountability standards for digital assets, actors, and activities, and would have threatened to undermine existing regulatory authority for federal regulators and regulatory standards for traditional finance as well.

Members of Congress should be focused on getting the policy right, as opposed to just getting it done. There is a real opportunity here for Congress to reset crypto policy discussions and focus on first principles. But that can only happen if Members see the FTX collapse for what it is: not a random hiccup, but the inevitable outcome of a speculative bubble built more on hype than on tangible value.

We hope that as Congress concludes this session with these oversight hearings and begins to develop its agenda for the coming session, that Members take these recommendations to heart and begin a new chapter for digital asset regulation and consumer protection. Our organizations are willing and ready to contribute to those discussions and look forward to our continued engagement with the Committees on this critical issue.

Sincerely,

Organizations

Action Center on Race and the Economy
Americans for Financial Reform
California Reinvestment Coalition
Center for Popular Democracy
Consumer Action
Demand Progress
Electronic Privacy Information Center (EPIC)
Groundwork Data
Institute for Agriculture and Trade Policy
Media Alliance
National Community Reinvestment Coalition
National Consumer Law Center (on behalf of its low-income clients)
Public Citizen
Public Justice Center
Revolving Door Project
Virginia Citizens Consumer Council
Woodstock Institute
20/20 Vision DC

Individuals
Art E. Wilmarth, Jr. – Professor Emeritus of Law, George Washington University Law School
Lee Reiners – Policy Director, Duke Financial Economics Center

CC: Chairman Rostin Behnam, Commodity Futures Trading Commission
Director Rohit Chopra, Consumer Financial Protection Bureau
Chair Gary Gensler, Securities and Exchange Commission
Secretary Janet Yellen, Department of the Treasury

Letter submitted by North American Securities Administrators Association

NASAA

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November 30, 2022

The Honorable Debbie Stabenow Chairwoman U.S. Senate Committee on Agriculture, Nutrition, and Forestry 328A Russell Senate Office Building Washington, D.C. 20510	The Honorable John Boozman Ranking Member U.S. Senate Committee on Agriculture, Nutrition, and Forestry 328A Russell Senate Office Building Washington, D.C. 20510
The Honorable Sherrod Brown Chairman U.S. Senate Committee on Banking, Housing, and Urban Affairs 534 Dirksen Senate Office Building Washington, D.C. 20510	The Honorable Patrick J. Toomey Ranking Member U.S. Senate Committee on Banking, Housing, and Urban Affairs 534 Dirksen Senate Office Building Washington, D.C. 20510

Re: NASAA Calls on Congress to Learn the Right Lessons from the FTX Bankruptcy

Dear Chairwoman Stabenow, Chairman Brown, and Ranking Members Boozman and Toomey:

On behalf of the North American Securities Administrators Association ("NASAA"),[1] I write in support of efforts underway to uncover the facts that led to the bankruptcy of FTX Trading Ltd. and its affiliates ("FTX").[2] Your oversight and investigatory efforts will help inform the ongoing regulatory policy discussions related to digital assets occurring at the state and federal levels of government.[3] In addition, I write to urge you and your colleagues to help us learn the right lessons from the FTX bankruptcy. As explained below, high on the list of reforms should be the need to (1) maintain strong state regulatory authority, (2) strengthen the disclosures and corporate governance of large private companies, and (3) strengthen coordination among regulators.

I. Congress Should Preserve the Authority of State Securities Regulators

For over a century, state securities regulators have been on the frontlines of innovations that have made our capital markets safer, more efficient, and more inclusive. Today, we continue

[1] Organized in 1919, NASAA is the oldest international organization devoted to investor protection. NASAA's membership consists of the securities administrators in the 50 states, the District of Columbia, Canada, Mexico, Puerto Rico, and the U.S. Virgin Islands. NASAA is the voice of securities agencies responsible for grassroots investor protection and responsible capital formation.

[2] *See, e.g.*, Letter from Chairman Raja Krishnamoorthi (D-IL), U.S. House Committee on Oversight and Reform, Subcommittee on Economic and Consumer Policy, to Mr. Bankman-Fried and Mr. Ray (Nov. 18, 2022).

[3] *See* Jeremy Hill, Enron's Liquidator to Oversee FTX's Massive Crypto Bankruptcy, BLOOMBERG (Nov. 11, 2022).

to work hard to ensure that the latest innovations occur within the well-established regulatory framework for supporting investor protection and responsible capital formation. Among other activities, we license firms and their agents, investigate violations of the law, file enforcement actions when appropriate, and educate the public about investment fraud.

State securities regulators have a strong record of protecting and educating investors in matters involving digital assets. About a decade ago, NASAA began warning investors about scams tied to digital assets.[4] The first state enforcement actions against a fraudulent digital asset scheme occurred soon thereafter when state regulators issued orders to stop an initial coin offering ("ICO") by BitConnect. This work evolved into Operation Cryptosweep, which was a task force comprised of U.S. and Canadian NASAA members who produced significant enforcement results related to ICOs and other cryptocurrency-related investment products.[5] Most recently, state regulators have been at the forefront of cases involving the unregistered offerings of securities in the form of interests in so-called crypto-lending programs like those offered by BlockFi, Celsius, and Voyager.[6]

The FTX collapse is yet another reminder of how important it is to preserve the existing authority of state securities regulators. As highlighted above, long before the FTX collapse made news around the world, state securities regulators were hard at work investigating alleged violations of the law in the digital assets space and moving quickly to protect Main Street investors. We can assure you that the extent of the harm in the digital assets space right now would be worse if only the federal government had authority to act.[7]

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[4] *See* NASAA, Informed Investor Advisory: Virtual Currency (Apr. 2014). For additional NASAA advisories, *see, e.g.*, Informed Investor Advisory: Decentralized Finance (DeFi) Defined (Dec. 6, 2021); Informed Investor Advisory: Protecting Your Online Accounts (Sept. 16, 2021); Informed Investor Advisory: Social Media, Online Trading and Investing (Apr. 1, 2021); Informed Investor Advisory: Initial Coin Offerings (Apr. 16, 2018); Informed Investor Advisory: Cryptocurrencies (Apr. 13, 2018); Informed Investor Advisory: The Next Big Thing (Nov. 9, 2015).

[5] *See, e.g.*, NASAA, Operation Cryptosweep Results as of 2018. Upon the indictment of the founder of BitConnect in 2022, the U.S. Department of Justice ("DOJ") described the ICO as a "massive cryptocurrency scheme" that defrauded investors of more than $2 billion. *See* DOJ, Founder of Fraudulent Cryptocurrency Charged in $2 Billion BitConnect Ponzi Scheme (Feb. 25, 2022).

[6] *See, e.g.*, NASAA Letter to the Senate and House Agriculture Committees Regarding the DCCPA (Sept. 9, 2022); Written Testimony of NASAA President and Maryland Securities Commissioner Melanie Senter Lubin delivered to the U.S. Senate Committee on Banking, Housing, and Urban Affairs (July 28, 2022); NASAA, NASAA and SEC Announce $100 Million Settlement with BlockFi Lending, LLC (Feb. 14, 2022).

[7] *See, e.g.*, Alex Nguyen, Cryptocurrency Firm FTX, Billionaire CEO Focus of Texas Securities Investigation, THE TEXAS TRIBUNE (Oct. 17, 2022); Francis Yue, 'I Just Wake Up and Cry': Voyager and Celsius Bankruptcies Have Destroyed Some Crypto Investors' Confidence in Centralized Platforms, MARKETWATCH (July 15, 2022); Maria Ponnezhath and Tom Wilson, Major Crypto Lender Celsius Files for Bankruptcy, REUTERS (July 14, 2022); Cheyenne Ligon, Texas, Other States Open Investigation Into Celsius Network Following Account Freeze (June 16, 2022); Five States File Enforcement Actions to Stop Russian Scammers Perpetrating Metaverse Investment Fraud (May 11, 2022); Sand Vegas Casino Club Located in the Metaverse Is Soliciting Investors to Invest Real Money in Un-Registered Investments (Apr. 13, 2022); New Jersey Bureau of Securities Orders Cryptocurrency Firm Celsius to Halt the Offer and Sale of Unregistered Interest-Bearing Investments (Sept. 17, 2021). *See also* NASAA Reveals Top Investor Threats for 2022 (Jan. 10, 2022); NASAA Announces Top Investor Threats for 2021 (Mar. 3, 2021); NASAA Announces Top Investor Threats for 2020 (Dec. 23, 2019).

II. Congress Should Restore Additional Oversight and Transparency to the Private Securities Markets

As state securities regulators, we regularly advocate for Congress to join us in our longstanding efforts to restore oversight and transparency to the private securities markets. Among other such efforts, NASAA recently endorsed S. 4857, the Private Markets Transparency and Accountability Act. This legislation would extend reporting and disclosure requirements of the U.S. Securities and Exchange Commission ("SEC") to companies that have (i) a valuation of $700 million (excluding shares held by insiders) or (ii) 5,000 employees and $5 billion in revenues.

In a nutshell, we believe the FTX collapse should remind all of us of the importance of ensuring that no private company can hide fraud or other misconduct from legislators, regulators, or investors. As background, the law governing private securities offering disclosure is weak. Generally, private companies do not have to make their offering disclosures accessible to the SEC. Instead, they can submit an 8-page form notice ("Form D notice") to the SEC and the applicable states where securities have been sold without registration under the Securities Act of 1933 in an offering based on a claim of a qualifying exemption. The notice is published in a public database called EDGAR and includes basic information regarding the securities issuer, the offering, the investors, and related fees. It also includes a disclaimer that the notice may contain inaccurate or incomplete information. As further background, the law governing periodic reporting by large private companies is also weak. Presently, Section 12(g) of the Securities Exchange Act of 1934 ("Exchange Act") requires a company to report publicly after reaching 2,000 "holders of record." This trigger is easily avoidable because a single broker or investment fund is counted as one recordholder, while holding securities on behalf of thousands of underlying investors.[8]

In the case of FTX, there is no doubt that stronger disclosure and corporate governance requirements in the private securities markets would have made it easier for all of us to spot or prevent the alleged fraud and other misconduct earlier. By way of illustration, under existing law, FTX Trading Ltd. submitted Form D notices to the SEC after raising over $1.4 billion in capital from dozens of investors. Moreover, in these notices, the corporation only had to disclose basic information regarding it, the offering, the investors, and related fees.[9] Had the law required more timely and fulsome disclosure, regulators and other market watchers may have identified the gaps and weaknesses in FTX's corporate governance earlier.[10] Another way the SEC and

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[8] *See* former SEC Commissioner Allison Herren Lee, Going Dark: The Growth of Private Markets and the Impact on Investors and the Economy (Oct. 12, 2021).

[9] On August 5, 2021, Samuel Bankman-Fried submitted a Form D to the SEC on behalf of FTX Trading Limited. The notice disclosed that the company had relied on a securities offering exemption in order to offer $1 billion of equity in his company without first registering the securities with the SEC. The notice disclosed that seventy-seven (77) investors had already invested in the offering. View the Form D filing on EDGAR. On November 2, 2021, Mr. Bankman-Fried submitted another Form D to the SEC. In this one, he notified the SEC that FTX Trading Limited had relied on a securities offering exemption in order to offer $415,341,812 of equity in his company without first registering the securities with the SEC. The notice disclosed that eighty-five (85) investors had already invested in the offering. View the Form D filing on EDGAR.

[10] *See generally* David Yaffe-Bellany, New Chief Calls FTX's Corporate Control a 'Complete Failure', N.Y. TIMES (Nov. 17, 2022).

others may have detected the alleged misconduct earlier is through Exchange Act reporting. Under existing law, FTX apparently did not have to submit Exchange Act reports, such as a Form 10-K, to the SEC. If the law had required large private companies such as FTX to submit Exchange Act reports, the government and other market watchers would have had access to the corporation's financial statements and, depending on the size of the corporation, those statements would have been audited. Such reporting also would have necessitated the identification of a senior executive at FTX to serve as the primary or chief financial officer.[11]

III. Policymakers Should Foster Better Coordination Among Regulators

We, as state securities regulators, work with the SEC and the U.S. Commodity Futures Trading Commission ("CFTC"), as well as other federal agencies and offices, on many issues and matters. Among other ways of coordinating and collaborating, we serve alongside our federal regulators on various regulatory working groups. For example, since 2010, a state securities regulator has served as a non-voting member of the Financial Stability Oversight Council ("FSOC"). To FSOC, we bring the insights of a 'first responder' who can see trends developing at the state level that may affect the larger financial system.[12]

Despite existing regulatory coordination, we believe the FTX collapse should teach us all to find new and better ways to work together to prevent investor harm before it occurs. As background, limited processes presently exist for regulators to exchange information that has been provided to them by market participants regarding the same or similar matter. Often, the other regulator learns of the development by searching the other regulator's website or reading about it in the press. Moreover, market participants generally are aware of these regulatory communication challenges. While many do not, some participants take advantage of the challenges to secure outcomes that are more favorable to them or their clients.

In addition to other solutions, Congress could improve communication among regulators by passing legislation that requires the federal government to invite state securities regulators to participate in any federal advisory council, committee, task force, or similar working group convened to examine some aspect of the U.S. securities regulatory framework. At present, state securities regulators must review all federal legislation and seek textual changes where lawmakers inadvertently excluded state regulators from a working group. For example, NASAA has asked the staff of Rep. Patrick McHenry (R-NC) to make clear that the CFTC and SEC must invite state securities regulators to participate in the digital assets working group that would be established by H.R. 1602, the Eliminate Barriers to Innovation Act of 2021.[13]

In closing, I want to commend you and your colleagues for the bipartisan steps taken in 2022 to advance policy discussions related to digital assets. Ultimately, investors and taxpayers

[11] *See* SEC, Exchange Act Reporting and Registration (last updated Apr. 28, 2022).

[12] *See* NASAA, State Regulators Announce Representatives for the Financial Stability Oversight Council (Sept. 23, 2010); NASAA, Maryland Securities Commissioner Lubin To Represent NASAA on Financial Stability Oversight Council (Oct. 12, 2015).

[13] *See* H.R. 1602, the Eliminate Barriers to Innovation Act of 2021. To date, no change has been made to the legislative text. However, NASAA has no reason to believe that the present leadership of the CFTC and SEC would exclude state securities regulators from the digital assets working group contemplated by this legislation.

benefit when we all work together in a positive and effective manner. If NASAA can be of assistance at any point in these discussions, please do not hesitate to contact me or Kristen Hutchens, NASAA's Director of Policy and Government Affairs, and Policy Counsel, at khutchens@nasaa.org.

Sincerely,

Joseph Brady

Joseph Brady
Executive Director

CC: Members of the U.S. Senate Committee on Banking, Housing, and Urban Affairs
Members of the U.S. Senate Committee on Agriculture, Nutrition, and Forestry
Members of the U.S. House Committee on Financial Services
Members of the U.S. House Committee on Agriculture

Letter submitted by Alliance for Innovative Regulation

air Alliance for Innovative Regulation

December 15, 2022

The Honorable Sherrod Brown	The Honorable Patrick Toomey
Chair	Ranking Member
U.S. Senate Committee on Banking, Housing,	U.S. Senate Committee on Banking, Housing,
and Urban Affairs	and Urban Affairs
534 Dirksen Senate Office Building	534 Dirksen Senate Office Building
Washington, DC 20515	Washington, DC 20515

Dear Chair Brown, Ranking Member Toomey and members of the Senate Banking, Housing, and Urban Affairs Committee:

We appreciate the opportunity to submit this letter with regards to your full committee hearing on December 14 to examine the failure of the cryptocurrency exchange FTX.

Please note that some of our comments address issues that are broader than the specific problems that have arisen directly from the FTX failure, because the FTX controversy is sparking dialogue on a range of concerns about cryptoassets and other crypto-related financial activities.

Since FTX declared bankruptcy on November 11, lawmakers, regulators and other observers have been scrutinizing weak governance structures and risk management systems that were in place at the crypto exchange when it failed and the fraud these weak controls enabled. More broadly, critics have also pointed to this episode as a further sign of dangerous risks posed by the crypto sector as a whole. The intense public policy focus on internal controls at crypto exchanges and throughout the crypto industry is necessary and appropriate. As the digital-asset sector grows, so too does the risk of harm to consumers and financial stability.

At the same time, however, we should be careful not to overreact and throw the baby out with the bathwater. Not surprisingly, the FTX incident has triggered calls for greater regulation of crypto exchanges to limit future episodes and the potential negative impact on the entire financial system. New regulations often result from a consensus among government officials that they must address market failures — where an unregulated market has failed to produce social outcomes consistent with the public interest. While this response is appropriate and necessary, policymakers should also recognize that crypto-related innovations — including various forms of cryptoassets, cryptocurrency, crypto exchanges, and broader uses of distributed ledger technologies (DLT) and tokenization — hold significant promise for improving both financial services and other realms of activity.

Properly designed, governed and regulated, these new activities and technologies have the potential to reduce costs, capture efficiency, expand economic inclusion and promote competition. Well-managed and sufficiently capitalized crypto exchanges with proper risk management in place are particularly useful in converting fiat currency into (onramp) and out of (offramp) cryptoassets. Crypto trading via an exchange is also more user-friendly than other trading methods. Furthermore, some have argued that exchanges and custodians are necessary to increase institutional participation and greater acceptance of crypto. The goal for policymakers should be a balanced response to failures like that of FTX, resulting in regulatory reforms protecting customers and investors but stopping short of stifling innovation.

We recommend that lawmakers and regulators consider the following recommendations:

Ensure that crypto exchanges adhere to sound governance practices: The FTX bankruptcy was not caused by the underlying technology, namely distributed ledger technology, but rather by a lack of sound governance and extremely poor risk management. The recently appointed CEO of FTX, John Ray III, in his filing to the bankruptcy court, cited the need for "accounting, audit, cash management, cybersecurity, human resources, risk management, data protection and other systems that did not exist, or did not exist to an appropriate degree, prior to my appointment."[1] The necessary postmortem on FTX's failure should focus heavily on these weaknesses, which are not unique to crypto exchanges except to the degree that these exchanges, as relatively new forms of commerce, have not been subject to sufficient government scrutiny. Policy responses should not ignore the benefits of the exchange model to the safety and soundness and viability of the crypto sector.

Address the risk of crypto exchanges commingling and misusing customer funds: A key aspect of FTX's operations that is being investigated is the use of the exchange's customer funds to support proprietary trading at Alameda Research, an FTX-affiliated company. According to the *Economist*, of the $14 billion of customer funds held by the exchange, $8 billion was lent to Alameda.[2] In addition, this loan was secured with FTT, a cryptoasset issued by FTX that was the single biggest asset on Alameda's balance sheet. The largest crypto exchange, Binance, announced it was liquidating its holdings of FTT because of these revelations, which came to light in a November 2 *CoinDesk* article reporting on details about Alameda's balance sheet.[3] The token's price fell by 94% to $1.60 over a 16-day period.[4]

The run on FTX was similar to what happens in a bank run. As soon as trust and confidence in the institution erodes, creditors seek to withdraw their funds en masse. Furthermore, the run on one institution may impact other institutions that may be forced to suspend withdrawals. This played out following FTX's failure: the crypto lenders BlockFi and Genesis suspended withdrawals because of the run on FTX.[5] BlockFi has subsequently declared bankruptcy. Meanwhile, as of late November, FTX and its affiliates owed their 50 largest creditors $3.1 billion.[6]

The dual risks of harm to customers and this kind of systemic contagion call for strengthening regulatory oversight to ensure that exchanges are subject to laws and regulations that cover similar financial activities. Under U.S. securities law, for example, commingling customer funds with counterparties and trading them without explicit consent from customers is illegal.[7] Former SEC Chairman Jay Clayton and former CFTC Chairman Timothy Massad recommend that regulators apply current statutes that exist for similar types of financial activity to ensure appropriate segregation of customer assets, exercise

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[1] https://www.cnbc.com/2022/11/17/ftx-ceo-shreds-bankman-fried-never-seen-such-a-failure-of-controls-.html.
[2] The Economist, "Crypto's downfall," November 19-25, 2022, p. 13.
[3] https://www.coindesk.com/business/2022/11/02/divisions-in-sam-bankman-frieds-crypto-empire-blur-on-his-trading-titan-alamedas-balance-sheet/
[4] The Economist, "Hold on for dear life," November 19-25, 2022, p. 64.
[5] https://www.coindesk.com/markets/2022/11/23/ftx-contagion-revives-dreaded-2022-crypto-knell-the-withdrawal-halt/.
[6] https://www.reuters.com/business/finance/collapsed-ftx-owes-nearly-31-bln-top-50-creditors-2022-11-20.
[7] https://www.cnbc.com/2022/11/13/sam-bankman-frieds-alameda-quietly-used-ftx-customer-funds-without-raising-alarm-bells-say-sources.html.

prohibitions against fraud and manipulation, and impose governance requirements.[8] This legal principle should apply to crypto exchanges, regardless of whether they are ultimately classified as securities or not.

Ensure that crypto exchanges maintain appropriate reserves: Regulators should also require an appropriate level of reserves to back cryptoassets held by exchanges to protect against bank-like runs. Determining what these levels should be is complex, impacted by factors such as whether the funds involved are in stablecoins and the reasonable expectations of customers who are investing in various kinds of cryptoassets. Regardless of the levels set, regulators should require full, prominent, and clear disclosure and transparency of these risks, so that customers can fully understand their exposure.

Scrutinize claims that are "too good to be true": One efficient and effective way to protect the public from dangerous digital-asset activity is to target regulatory resources on providers that promise unrealistically high returns and/or zero risk of loss. Such claims have been fairly common in crypto investing and have contributed to the "get rich quick" hype that has surrounded digital assets, fueling speculation and market bubble phenomena. As noted above, this space needs a range of regulatory solutions, some of which are likely to require changes to law and regulation. In the meantime, however, regulatory bodies that have jurisdiction over crypto exchanges and other digital asset activity generally have existing legal authority to monitor markets and to zero in on misleading claims. This process can essentially provide a shortcut to identifying and addressing problems, and better yet, preventing them.

Address the global nature of digital assets and other crypto-related financial activity: U.S. policymakers should bear in mind that digital financial services, and particularly those related to crypto activities, can readily cross the borders of nations. This means that Americans can be exposed, via internet connection, to risks from activities occurring outside the legal jurisdiction of the U.S. government. Furthermore, harms from these activities can fall heavily on consumers who lack the information and financial knowledge to protect themselves effectively without the assistance of regulatory tools and guardrails set by their government. The failures at FTX demonstrate this risk.

This challenge argues for development of a U.S. regulatory strategy designed to enable a thriving and well-regulated crypto industry in the United States. Markets generally learn from experience. The failure of FTX and its ripple effects will leave many investors seeking safer, higher-quality options. The U.S. should, in general, seek to enable crypto activities that have legitimate purposes and should subject them to sound regulation that can make the U.S. an attractive marketplace for investors, both in America and beyond.

Adopt data-driven, digital methodologies for overseeing crypto-related financial activities of all kinds: Congress and the regulatory agencies should strengthen the monitoring of cryptoassets and other crypto-related financial activities (and, for that matter, tech-focused financial services in general) by addressing the digital capability of the regulatory sector. Outdated agency processes should be replaced with smarter data solutions to allow regulators to move as quickly as the financial sector that they oversee. Regulators should use both on-chain and off-chain real-time data analysis to detect patterns of potential risk, as well as money laundering and other illegal activities. Regulators also should better understand the interconnectedness between new financial products and their networks. They should seek to better identify and mitigate the risks of contagion and other hazards to the broader financial

[8]https://www.wsj.com/articles/how-regulate-cryptocurrency-markets-11670110885?st=yda83wf6r2ndkut&reflink=article_imessage_share.

system. In addition, regulators should leverage artificial intelligence and machine learning to develop advanced predictive models of financial products, institutions and systems.

Securities regulators in the U.S. and other parts of the world already use artificial intelligence to monitor markets for red flags that suggest misconduct, false claims and other problems. In the U.K., the Financial Conduct Authority has developed web-crawling tools that search for inappropriate claims made by financial providers. Such methods could be helpful in protecting investors in a range of crypto services.

Be alert to risks of unintended consequences: As the crypto industry and other digital innovations continue to transform financial services, regulators should guard against the human tendency to deal with new and uncertain risk through containment alone. Technology is neither good nor bad. Its implementation can both offer profound benefits and create new and dangerous risks. We encourage regulators to consider these issues and develop nuanced understandings with a desire to embrace the best of what new tech can offer, while identifying and seeking to mitigate the potential harms to consumers and markets. We should be mindful of the risk of trying to extrapolate the overall risks posed by crypto exchanges from individual events like the failure of FTX. We also should not squander the opportunity afforded by new technology to enable a more accessible and efficient financial system.

The FTX debacle should lead to a prudent regulatory response to ensure that crypto exchanges practice better risk management and that financial market overseers are in a stronger position to combat bad actors. The collapse of FTX did not lead to systemic consequences, and some financial firms will fail no matter what regulators do. On the other hand, that does not absolve governments of the obligation to protect consumers from specific risks. Christopher Woolard, former Executive Director of Strategy and Competition at the U.K.'s Financial Conduct Authority once stated: "When it comes to other people's money, or safeguarding against terrorist financing, corner cutting is simply not an option."[9]

Regulators should certainly be focused on risks to the financial markets. However, a regime built to eliminate all risk stifles innovation in the short and medium terms and ultimately fosters situations that will present profound risk in the long term. The goal should not be zero failures, but rather sufficient investor protections and the ability to unwind failures without systemic consequences.

Sincerely,

Jo Ann Barefoot

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[9] https://www.fca.org.uk/news/speeches/regulating-financial-innovation-going-behind-scenes.