

**Hearing on The Future of Digital Assets:
Identifying the Regulatory Gaps in Digital Asset Market Structure**

**Before the U.S. House of Representatives Committee on Financial Services
Subcommittee on Digital Assets, Financial Technology, and Inclusion**

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Prepared Statement

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Chairman Hill, Ranking Member Lynch, 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 am also a member of the CFTC’s Technology Advisory Committee, although I have prepared this testimony on my own behalf and not on behalf of either of these organizations. I teach courses in corporate law and financial regulation, and my research focuses on financial stability regulation and financial technologies. 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.

Table of Contents

1. Executive Summary	2
2. Why we regulate financial services	3
3. Bespoke crypto legislation as Trojan Horse	7
4. Coverage by existing financial regulation	9
A. Banking regulation	9
B. Investor protection regulation	11
C. Consumer protection regulation	15
5. Possible legislative reforms	15
A. Banking regulation	15
B. Investor protection regulation	16
C. Operational risk regulation	16
D. A ban	16

1. Executive Summary

We regulate financial services to protect investors and our broader financial system from harm. Our existing body of financial regulation reflects hard-earned knowledge about how financial service businesses can inflict these kinds of harm, and we should not dispense with that financial regulation lightly. The emergence of blockchain technology has not meaningfully altered the economic incentives of the people using that technology to provide financial services. Those people still have incentives to centralize economic control, and once centralized, they have the same incentives that providers of financial services have always had to exploit and profit from that control. While the idea of decentralizing finance is certainly very appealing, we would need to find a way to decentralize *economic* power in finance in order to achieve that ideal – blockchain’s technological decentralization cannot achieve that.

Many in the crypto industry, however, either misunderstand or are willfully blind to the fact that economic incentives will impact how blockchain technology is used. There is a stereotypically Silicon Valley mindset that perceives everything as a pure technology problem, and ignores the incentives of the people who use that technology and the broader context of the problem to be solved. Lawmakers and financial regulators, however, are better attuned to this broader context. While we often hear that lawmakers and regulators need to learn more about blockchain technology, I would submit that the crypto industry needs to learn about the fundamentals and history of finance and economics. I do recommend, though, that lawmakers and regulators learn more about blockchain technology so that they can critically interrogate whether it is even possible for blockchain innovation to deliver on the crypto industry’s promises of efficiency, decentralization, and financial inclusion. I would submit that it is not possible, and that is important context for lawmakers deciding how to proceed.

Members of the crypto industry often claim that existing regulation is incompatible with their technology. This is a misdirection: it is entirely possible for a blockchain-based technology business to comply with existing investor protection and financial stability regulation. However, for many crypto businesses, it may be true that existing regulation is incompatible with the economics of their business model, especially if their business model depends on doing things that we have learned, over the years, tend to harm people.

Most of the crypto-specific legislation that has been proposed so far in the United States is designed to peel back protective laws in order to let these crypto business models thrive. Because the crypto industry, rather than the public, is likely to be the primary beneficiary of this type of legislation, these bills are inferior to the regulatory status quo. As this testimony will explain, existing financial regulation is already well-suited to dealing with many of harms associated with crypto business models. More robust enforcement would certainly be desirable: in particular, Congress should support the SEC’s enforcement of securities and broker/dealer registration requirements with increased funding and political support. But many of the fundamentals are already there. If Congress wishes to explore other legislative possibilities, this testimony recommends a ban as the most effective way of protecting investors and our financial system from the harms associated with crypto business models. Short of a ban, this testimony suggests the following desirable legislative reforms: a “Glass-Steagall 2.0” separation of banking and crypto; an amendment to the definition of “security” to clarify that all crypto assets are subject to the SEC’s jurisdiction; and a legislative direction for increased focus on technology-related operational risks.

2. Why we regulate financial services

While blockchain provides a new kind of technological infrastructure for delivering financial services, it is important to note that this technology does not operate in a vacuum. The impacts of technology are inextricably intertwined with the people who use it, and the existence of blockchain technology does nothing to change the economic incentives of those deploying it. If the primary motivations of the people and businesses deploying blockchain technology are rent-seeking, predation, or externalization of costs, then those are harms that the law must address. The crypto industry often demands that lawmakers and regulators understand the intricacies of blockchain technology before creating or enforcing law or rules, but many in the crypto industry lack basic domain knowledge about economics and finance. Silicon Valley historian Margaret O'Mara has observed that “[t]he Valley’s engineering-dominated culture...often paid little attention to the rest of the world...Why care about history when you were building the future?”¹ The crypto industry needs to learn more about the history of harms that financial regulation seeks to protect against.

We have decades, sometimes centuries, of experience with financial predation and destabilizing crises, and financial regulators are often much better versed in this kind of knowledge than the technologists are. Our existing body of financial regulation reflects hard-earned knowledge about how financial services businesses can harm people, and we should not dispense with that regulation lightly. Following SEC Chair Gary Gensler’s testimony before the House Financial Services Committee last week, the CEO of the Blockchain Association commented that the SEC is “ultimately blind to the harm its regulation by enforcement strategy is doing to lawful companies in this country.”² But the primary purpose of financial regulation is to protect the public from harm, not the crypto industry – and the crypto industry is (at best) blind to the harm its business models are inflicting on the public.

The securities laws were created in the wake of the stock market collapse of 1929. In adopting the Securities Act of 1933, Congress outlined the kinds of harms that the legislation sought to protect against:

During the postwar decade some 50 billion of new securities were floated in the United States. Fully half or \$25,000,000,000 worth of securities floated during this period have been proved to be worthless. These cold figures spell tragedy in the lives of thousands of individuals who invested their life savings, accumulated after years of effort, in these worthless securities. The flotation of such a mass of essentially fraudulent securities was made possible because of the complete abandonment by many underwriters and dealers in securities of those standards of fair, honest, and prudent dealing that should be basic to the encouragement of investment in any enterprise.

Alluring promises of easy wealth were freely made with little or no attempt to bring to the investor’s attention those facts essential to estimating the worth of any security. High

¹ Margaret O’Mara, THE CODE: SILICON VALLEY AND THE REMAKING OF AMERICA, 7 (2019).

² Paul Kiernan, *Republicans Pummel SEC’s Gary Gensler Over Crypto Crackdown*, WALL ST. JOURNAL (Apr. 18, 2023).

*pressure salesmanship rather than careful counsel was the rule in this most dangerous enterprise.*³

These harms, outlined by Congress almost one hundred years ago, resonate today. People losing their life savings after investing in worthless assets supplied by unscrupulous dealers who did not provide any meaningful disclosure – that would sound very familiar to those who invested using centralized crypto platforms like Celsius and FTX, and using DeFi platforms like Terra/Luna. And while these are the most catastrophic crypto failures we’ve seen so far, losses have been widely distributed among other crypto investors as well. For example, recent research by the Bank for International Settlements on bitcoin, which is widely viewed as a “blue chip” crypto investment, has found that “[i]n nearly all economies in our sample, a majority of investors probably lost money on their bitcoin investment,”⁴ and that a few large investors tended to profit at the expense of smaller investors.⁵

Securities regulation is primarily focused on protecting investors from harm. Financial regulation also seeks to protect the stability of the financial system, which in turn protects everyone. Because the broader economy relies on the financial system for payments services, to manage risks, and to amass and allocate capital, financial system failure has significant implications for the people and businesses that make up the broader economy, as we saw in 2008. Recent research from the Bank for International Settlements has concluded that “while the crypto collapse may have affected individual investors, the aggregate impact on the broader system was limited.”⁶ This is good news, and it was not an inevitable outcome. Despite the narrative of crypto “disrupting” traditional banks, it is quite possible that crypto and banking would already have integrated had regulators permitted it – and if crypto *had* integrated with the traditional financial system prior to 2022, then the fallout from the failures of Terra/Luna, Celsius, FTX might not have been limited to investors. All of us would have been harmed if there had been a crypto crash-inspired financial crisis.⁷

I note that this Subcommittee is charged with considering financial inclusion, as well as digital assets and other financial technologies. Financial inclusion is a real and pressing problem in the United States, in large part because of a persistent racial wealth gap.⁸ Ultimately, people lack access to financial services and means for building wealth for structural and political reasons, not because we lack the necessary technological tools. If the root causes of financial exclusion are not resolved, then the economic incentives that have resulted in “predatory inclusion” like payday

³ H.R. Rep. No. 85, 73d Cong., 1st Sess. 2 (1933).

⁴ Giulio Cornelli, Sebastian Doerr, Jon Frost, and Leonardo Gambacorta, *Crypto Shocks and Retail Losses*, BIS BULLETIN No. 69, 4 (Feb. 20, 2023), available at <https://www.bis.org/publ/bisbull69.pdf>.

⁵ “[L]arger investors probably cashed out at the expense of smaller holders. The data reveal that owners of large wallets, the “whales”, reduced their holdings of bitcoin in the days after the shock episodes.... Medium-sized holders, and even more so small holders (“krill”), increased their holdings of bitcoin. The price patterns suggest that larger investors were able to sell their assets to smaller ones before the steep price decline. As discussed in Auer et al (2022), large holders thus profited at the expense of smaller investors.” *Id.* at 3.

⁶ *Id.* at 4.

⁷ However, if crypto were more intertwined with the real economy and the traditional financial system, the aggregate impact of a shock in the crypto world could have been much larger. *Id.*

⁸ *See, for example*, Mehrsa Baradaran, *HOW THE OTHER HALF BANKS: EXCLUSION, EXPLOITATION, AND THE THREAT TO DEMOCRACY* (2018).

lending and exploitative subprime mortgages will continue to manifest in new business models, including crypto business models.⁹

Unfortunately, excitement about new technologies can sometimes distract us from focusing on or addressing their harms, or the harms of the business models built using those technologies. This is particularly likely to happen in the early days of a technology, where regulators and lawmakers may want to wait and see how the technology plays out before taking any action. In the early days, the technology is all shiny potential and any attendant harms have yet to materialize, which can make regulation that restrains the technology challenging as a matter of political economy. We are well past the early days of blockchain technology, though, and we have seen crypto's harms in vivid detail during the first ICO bubble and again during 2022's "crypto winter." It seems clear that the crypto industry is not generating win-wins: because there is no productive capacity behind crypto assets, it is inevitably a zero-sum game where any profits that the crypto industry and crypto "whales" make are at smaller investors' expense.¹⁰ The most recent investors are likely to be the ones left holding the bag, and recent survey results from Pew suggest that Black and Hispanic investors are disproportionately likely to have entered the crypto markets in the last year.¹¹

And so the crypto industry's harms are no longer hypothetical. We have abundant evidence that the economic incentives of crypto entrepreneurs ensure that the use of the technology will never match its idealist rhetoric. To be sure, that idealist rhetoric can sometimes be tempting. Given the sometimes dubious track record of traditional financial institutions, the idea of eliminating reliance on these institutions by decentralizing finance is certainly a very appealing one. To achieve that ideal, though, we would need to find a way to decentralize economic power in finance – but blockchain technology cannot alter the economic incentives of the people using it.

Unfortunately, all of blockchain's technological decentralization (and all the unavoidable inefficiencies and limitations that stem from that technological decentralization) are for naught if the various nodes in the system conglomerate together for economic reasons – and that is precisely what has happened with Bitcoin, Ethereum and other blockchains. As leading crypto cybersecurity experts Trail of Bits have found, even when the cryptography used is robust, "a subset of participants can garner excessive, centralized control over the entire system."¹² In fact, the Trail

⁹ 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/>.

¹⁰ Cornelli *et al.*, *supra* Note 4 at 3.

¹¹ "Black users (27%) are more likely than White users (12%) to say they first used cryptocurrency within the past year. Roughly two-in-ten Hispanic users (21%) say the same. (There were not enough Asian American cryptocurrency users to be broken out into a separate analysis.) And about three-in-ten users from lower-income households report first investing in cryptocurrency within the past year, compared with about one-in-ten adults from middle- or upper-income households." Michelle Faverio and Olivia Sidoti, *Majority of Americans aren't confident in the safety and reliability of cryptocurrency*, PEW RESEARCH CENTER (Apr. 10, 2023), available at <https://www.pewresearch.org/short-reads/2023/04/10/majority-of-americans-arent-confident.-in-the-safety-and-reliability-of-cryptocurrency/>

¹² Trail of Bits, *Are Blockchains Decentralized? Unintended Centralities in Distributed Ledgers*, 3 (Jun. 2022), available at https://blog.trailofbits.com/wp-content/uploads/2022/06/Unintended_Centralities_in_Distributed_Ledgers.pdf.

of Bits report (which was completed before Ethereum’s shift to a proof-of-stake consensus mechanism) found that “the number of entities sufficient to disrupt a blockchain is relatively low: four for Bitcoin, two for Ethereum, and less than a dozen for most PoS networks.”¹³ Nodes get paid for the transactions they verify, so it’s not surprising that control over nodes has concentrated in just a few hands. To repeat, blockchain technology does nothing to change the economic incentives of the nodes, who are understandably seeking to maximize their profits from verification. Proof-of-stake blockchains “allow validators to stake more of their coins so that they have a higher chance of “winning” the next block and receiving compensation. Since the associated operational costs are mostly fixed, this setup naturally leads to concentration.”¹⁴ The costs of engaging in “proof-of-work” mining have also become prohibitive for most people: while anyone can participate in theory, “unless you have access to powerful computers known as ASICs (that’s “application-specific integrated circuits”), your chances of winning a Bitcoin reward are pretty low.”¹⁵ No less than internet pioneer Tim O’Reilly has noted that “history teaches us that there will always be new avenues for power to become centralized”, and that “Blockchain turned out to be the most rapid recentralization of a decentralized technology that I’ve seen in my lifetime.”¹⁶ And so these blockchains are economically centralized, but the computational cost associated with their technological decentralization has made them inefficient and impedes their ability to scale up. In many ways, they offer the worst of all worlds.

Centralization of control repeats throughout the crypto industry. We see centralization of control among those who maintain the software that runs the blockchains,¹⁷ we see it in the many centralized crypto exchanges that have proliferated in the crypto ecosystem, we see it in the control of so-called “decentralized autonomous organizations” that operate on blockchains.¹⁸ As I have written previously, crypto users “have to trust in some combination of ISPs, core software developers, miners, wallets, exchanges, stablecoin issuers, oracles, providers of client APIs used to access distributed ledgers, and concentrated owners of governance tokens.”¹⁹ An “inescapable need for centralized governance”²⁰ arises because it is very challenging for decentralized services to scale up,²¹ and because it is impossible for software to address all possible eventualities in advance (and so an intermediary is often needed to resolve unanticipated situations).²²

¹³ *Id.* at 4.

¹⁴ Sirio Aramonte, Wenqian Huang, and Andreas Schrimpf, *DeFi Risks and the Decentralization Illusion*, BIS QUARTERLY REVIEW, 28 (Dec. 2021), available at https://www.bis.org/publ/qtrpdf/r_qt2112b.pdf.

¹⁵ Andy Rosen, *How Bitcoin Mining Works: Explanations and Examples*, NERDWALLET (Dec. 21, 2022), available at <https://www.nerdwallet.com/article/investing/bitcoin-mining#:~:text=Learn%20More-.Can%20anyone%20mine%20Bitcoin%3F,Bitcoin%20reward%20are%20pretty%20low.>

¹⁶ Dan Patterson, *Internet guru Tim O’Reilly on Web3: “Get ready for the crash”*, CBSNEWS (Feb. 10, 2022).

¹⁷ Paul Kiernan, *Bitcoin’s Future Depends on a Handful of Mysterious Coders*, WALL ST. JOURNAL (Feb. 16, 2023).

¹⁸ “DeFi’s voting rights are highly concentrated, and the exercise of these rights is very low”; “minority rule is the probable consequence of tradable voting rights plus the lack of applicable anti-concentration or anti-monopoly laws.” Tom Barberau *et al.*, *Decentralized Finance’s Unregulated Governance: Minority Rule in the Digital Wild West* (Feb. 8, 2022), <https://ssrn.com/abstract=4001891>.

¹⁹ Hilary J. Allen, *DeFi: Shadow Banking 2.0?* (forthcoming, William & Mary Law Review).

²⁰ Aramonte *et al.*, *supra* Note 14 at 22.

²¹ In its discussion of drawbacks to Dapps, Ethereum notes that “scaling is really hard” and that “When one dapp uses too many computational resources, the entire network gets backed up.” Ethereum Explanatory Document, *Introduction to Dapps*, <https://ethereum.org/en/developers/docs/dapps/>.

²² Aramonte *et al.*, *supra* Note 14 at 27.

Streamlining unwieldy decentralized services for users provides opportunities to profit, and so the evolution of centralized intermediaries is inevitable.²³ Because this centralization is ultimately an economic issue, and not a technological one, it is not something that further technological innovation can eliminate. While software itself has no motivations, those who program, maintain, and implement the software do. When we are told, for example, that DeFi doesn't involve intermediaries and therefore doesn't need regulation, we are essentially being asked to believe that those who participate in DeFi are simply more altruistic and better behaved than other participants in financial markets. Instead of focusing our attention on whether traditional intermediaries are being eliminated, we should be asking whether users of DeFi are susceptible to the same kinds of harms they can suffer at the hands of traditional intermediaries. If the answer is yes (which it clearly is, as amply demonstrated by Terra/Luna's failure and many other DeFi scams),²⁴ then we can "follow the money" to find those who actually control DeFi apps and platforms (be it the founders, their funders, or a "whale"), and require them to operate in a way that minimizes harm to the public.

In sum, when we hear from the crypto industry that existing regulation is incompatible with their technology, I believe that that is a misdirection. It is entirely possible for a blockchain-based technology business to comply with existing investor protection and financial stability regulation. However, for many crypto businesses, it may be true that existing regulation is incompatible with the economics of their business model, especially if their business model depends on doing things that we have learned, over the years, tend to harm people. Like a hedge fund that profits by trading against the customers of an affiliated crypto exchange without those customers knowing. Or an exchange that profits by commingling its own assets with customer assets, and using those commingled assets to trade. Or a stablecoin that has some kind of undisclosed quid pro quo relationship with an affiliated exchange that looks like payment for order flow. Or an issuer that profits by making up assets out of thin air at almost zero cost, engaging in some wash trades to inflate their market price, hyping the assets on social media, and then dumping them on unsuspecting investors. To use this last scenario as an example, while securities registration requirements can be complied with for any crypto asset, they would concededly be economically prohibitive for the crypto assets colloquially referred to as "sh*tcoins," which have limited demonstrable value and can currently be produced at almost zero cost. But we have little to lose as a society from limiting the profitability of this kind of business model.

3. Bespoke crypto legislation as Trojan Horse

As the Subcommittee is well aware, the legislative process is always a compromise. However, the end result will be very different (and inevitably more crypto-industry friendly) if legislators start from the position that blockchain innovation is inherently beneficial, rather than asking preliminary questions about whether blockchain technology can ever accomplish what crypto lobbyists say it can. Given the industry's demonstrated harms, I would humbly submit that this Subcommittee should start its legislative process by interrogating whether it is even possible for blockchain innovation to deliver on the crypto industry's promises of efficiency,

²³ As tech veteran David Rosenthal puts it "economics forces successful permissionless blockchains to centralize." David Rosenthal, *EE380 Talk*, (Feb. 9, 2022), <https://blog.dshr.org/2022/02/ee380-talk.html>.

²⁴ For a running catalogue of DeFi scams, see Molly White's blog *Web3 is Going Just Great*, <https://web3isgoinggreat.com>.

decentralization, and financial inclusion. The European Union may have skipped this step in formulating its Markets in Crypto Assets regulation (known as MiCA), which will become effective in 2024. MiCA’s Explanatory Memorandum includes statements like: “One of the strategy’s identified priority areas is ensuring that the EU financial services regulatory framework is innovation-friendly and does not pose obstacles to the application of new technologies.”²⁵ The Explanatory Memorandum also refers to a joint declaration from the European Commission and the Council that they “are committed to put in place a framework that will harness the potential opportunities that some crypto-assets may offer.”²⁶ But because blockchain technology cannot adjust people’s economic incentives, and because blockchain technology is inherently less efficient than available centralized alternatives, the industry’s promises of increased efficiency, decentralization, and financial inclusion seem destined to remain unfulfilled.

Most of the crypto-specific legislation that has been proposed so far in the United States is predicated on a misunderstanding of these preliminary matters: as a result, it proposes to peel back laws designed to protect the public from harm in order to let crypto business models thrive. Take the example of two bills introduced in the Senate last session; the Lummis-Gillibrand Responsible Financial Innovation Act, and the Digital Commodities Consumer Protection Act (“DCCPA”) proposed by Senators Stabenow, Boozman, Booker, and Thune. Both of these bills sought to make the CFTC the crypto industry’s primary regulator, instead of the SEC. The CFTC is widely regarded to be the crypto industry’s preferred regulator.²⁷ It is a much smaller agency with a much smaller budget than the SEC, and unlike the SEC, it has no statutory investor protection mandate and limited experience regulating retail-dominated markets.²⁸ Section 4 of the DCCPA would also have implemented a new Section 5i(d) of the Commodity Exchange Act that expressly authorized the CFTC to allow self-certification for crypto assets (in a self-certification regime, the exchange is permitted to certify to the CFTC that an asset complies with the Commodity Exchange Act, rather than putting the onus on the CFTC to ensure compliance).²⁹ The SEC does not allow for self-certification.

In short, these bills were designed to offer fewer investor protections than the existing securities laws, and they were intentionally designed in this way in order to accommodate existing crypto business models. These kinds of bills, intentionally or not, will also give crypto assets a veneer of legitimacy, making it easier for fiduciaries operating pension funds and 401k plans to invest in them. Also, the deregulation facilitated by these kinds of bills can run both ways: by providing the crypto industry with “lighter touch” regulation than traditional finance, they encourage traditional financial institutions to refashion their services as crypto services in order to be able to take advantage of the lighter touch regime.³⁰ However, as already discussed, there are

²⁵ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>

²⁶ *Id.*

²⁷ As one illustration of this, FTX endorsed the DCCPA. 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.

²⁸ *Id.*

²⁹ 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).

³⁰ For more on this issue, see Hilary J. Allen, *Beware the proposed US crypto regulation — it may be a Trojan horse*, FINANCIAL TIMES (Nov. 17, 2022).

no compelling justifications for accommodating or legitimizing crypto and its attendant harms with a lighter-touch, bespoke regulatory regime. This is a particular concern with regard to stablecoin legislation, as I will discuss in the next Section.

Because the crypto industry – rather than the public – is likely to be the primary beneficiary of bespoke crypto legislation, this kind of legislation is inferior to the regulatory status quo. I am concerned that the European Union may have set a trap for itself in this regard with MiCA. Just as FTX’s Sam Bankman-Fried supported the adoption of bespoke crypto legislation in the United States, Binance’s Changpeng Zhao (better known as CZ) has praised MiCA as a potential “global standard for the industry.”³¹ Some European policymakers have already expressed concerns about MiCA’s inadequacy, and MiCA’s loopholes may attract unscrupulous crypto businesses seeking legitimacy to the EU.³² Because crypto-specific legislation can be a Trojan horse for deregulation and legitimization, the next Section will identify *existing* regulation that can help contain the harms associated with crypto business models within the United States. The following Section will go on to consider types of new legislation that would be helpful in reducing harms associated with crypto business models.

4. Coverage by existing financial regulation

A. Banking regulation

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. By and large, banking regulation has succeeded in preventing banks from being exposed to the crypto industry’s risks *ex ante*. In a Joint Statement issued on January 3, 2023, banking regulators confirmed their position that:

*Based on the agencies’ current understanding and experience to date, the agencies believe that issuing or holding as principal crypto-assets that are issued, stored, or transferred on an open, public, and/or decentralized network, or similar system is highly likely to be inconsistent with safe and sound banking practices. Further, the agencies have significant safety and soundness concerns with business models that are concentrated in crypto-asset-related activities or have concentrated exposures to the crypto-asset sector.*³³

³¹ *Id.*

³² “I have serious doubts that Mica would have prevented what happened [i.e. FTX]” said Spanish MEP Ernest Urtasun during a hearing held by the European parliament’s economic and monetary affairs committee in late November.” Scott Chipollina and Laura Noonan, *EU frets over crypto rules after FTX blow-up*, FINANCIAL TIMES (Jan. 12, 2023). Mica’s limitations include that it does not cover DeFi, crypto lending or staking – this allows for significant arbitrage opportunities. Geographical arbitrage opportunities may also arise as the result of different treatment of crypto assets in different countries with the European Union. *Id.*

³³ Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, and Office of the Comptroller of the Currency, JOINT STATEMENT ON CRYPTO-ASSET RISKS TO BANKING ORGANIZATIONS (Jan. 3, 2023), available at <https://www.federalreserve.gov/newsevents/pressreleases/files/bcreg20230103a1.pdf>.

Although banking regulation with regard to crypto has by and large been a success, *ex post* government support from the Deposit Insurance Fund was made available to uninsured Signature Bank depositors upon its March 12, 2023 failure. Silvergate Bank had voluntarily liquidated four days earlier:

*Like Silvergate Bank, Signature Bank had also focused a significant portion of its business model on the digital asset industry. Signature Bank began onboarding digital asset customers in 2018, many of whom used its Signet platform, an internal distributed ledger technology solution that allowed customers of Signature Bank to conduct transactions with each other on a 24 hours a day/7 days a week basis. As of year-end 2022, deposits related to digital asset companies totaled about 20 percent of total deposits, but the bank had no loans to digital asset firms. Silvergate Bank operated a similar platform that was also used by digital asset firms. These were the only two known platforms of this type within U.S. insured institutions.*³⁴

Investigations into potential supervisory failures with respect to Silvergate and Signature Banks are ongoing. Given the known volatility of the crypto markets, it may turn out that supervisors should have been more alert to the safety and soundness risks associated with these banks' business models. Critically, though, US banks do not have direct exposures to crypto assets.

In the normal order of things, financial investments should be allowed to fail. Banking regulation, however, is the exception that 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 crypto assets are primarily used for speculation rather than investment. Crypto assets should therefore 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 crypto assets, people could potentially fabricate crypto assets out of thin air and then have them bailed out by the Federal Reserve.

Bespoke crypto legislation that confers access to such government safety nets could create a market for crypto assets that the industry cannot create on its own. That is one of my concerns about proposed stablecoin legislation. Stablecoins are rarely used for payments, in part because there isn't significant market demand for payments infrastructure that doesn't allow mistaken or fraudulent transactions to be reversed, or for payments infrastructure that cannot scale up because it needs to involve wasteful computations in order to discourage attacks. As Ranking Member Lynch noted at this Subcommittee's hearing last week, stablecoins are instead used to facilitate

³⁴ Remarks by Chairman Martin J. Gruenberg on Recent Bank Failures and the Federal Regulatory Response before the Committee on Banking, Housing, and Urban Affairs, United States Senate (Mar. 27, 2023), available at <https://www.fdic.gov/news/speeches/2023/spmar2723.html>.

speculative cryptocurrency trading and investments, and they are fragile because of their susceptibility to runs. Recent survey evidence indicates that the vast majority of Americans are skeptical of crypto assets,³⁵ but specialized laws could legislate a position for these fragile and inefficient stablecoins in our economy. Each of the stablecoin legislative proposals that I have seen would extend stablecoins some form of government safety net, bringing crypto closer to the core of our financial system and 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). Such an approach seems ill-advised, particularly since we have already seen that stablecoins can “break the buck” (for example, Tether broke the buck in May 2022, and USDC did so in March 2023). Because crypto assets should be allowed to fail, the crypto industry should not be regulated like banks.³⁶

B. Investor protection regulation

The securities laws have long been applied to an odd array of investments – ranging from orange groves to payphones³⁷ – 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.³⁸ People generally understand that corporate stock, for example, can lose a lot of value and even become worthless.

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. 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.³⁹ Unfortunately, the securities laws have so far been underenforced in 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 crypto assets 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. Given that the crypto industry offers little by way of financial inclusion or efficiency to counterbalance the increased potential for consumer harm,

³⁵ “Roughly four-in-ten adults who have heard about cryptocurrency (39%) say they are not at all confident and an additional 36% are not very confident in the reliability and safety of cryptocurrencies. On the other end of the spectrum, few of these adults are extremely (2%) or very (4%) confident in cryptocurrencies. About one-in-five (18%) say they are somewhat confident.” Faverio and Sidoti, *supra* Note 11.

³⁶ For further discussion of issues related to regulating stablecoins, see 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).

³⁷ Securities and Exchange Commission v. W.J. Howey Co., 328 U.S. 293 (1946); Securities and Exchange Commission v. Edwards, 540 U.S. 389 (2004).

³⁸ 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).

³⁹ “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.” Gary Gensler, *Kennedy and Crypto*, Remarks at SEC Speaks (Sept. 8, 2022), available at <https://www.sec.gov/news/speech/gensler-sec-speaks-090822>.

Congress should throw its support behind the SEC’s enforcement efforts, particularly its enforcement of registration requirements.

Securities registration requirements

Section 5 of the Securities Act of 1933 prohibits the offer or sale of a security without first registering with the SEC, unless an exemption from registration is available. The most widely-used exemptions in the Securities Act restrict who is eligible to purchase the securities in question, and restrict resales of those securities.⁴⁰ However, crypto assets (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 crypto assets through resale restrictions, is therefore unlikely to be an appealing avenue for crypto issuers. Issuers of crypto assets who wish to access retail investors will need to register their offering in accordance with Section 5.

In 1933, Congress chose disclosure as the primary means of protecting investors from harm. 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 crypto assets. Right now, there are virtually no costs involved in creating most crypto assets. If the registration requirement is enforced, it will discourage the creation of crypto assets unless they have some long-term value creation potential that justifies the expense of the registration process. The required audit of financial statements and review of the registration statement by the SEC will also help weed out any fraud. This will further the SEC’s investor protection mandate; an incidental financial stability benefit is that the reduced supply of crypto assets will also reduce the amount of leverage in the crypto ecosystem. While some might worry that limiting the supply of crypto assets 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.⁴¹ Any crypto asset that *can* meet the same registration requirements as other securities would be allowed into the market.

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 FTX⁴² (FTX’s bankruptcy filing described FTX’s “unprecedented” “concentration of control in the hands of a very small group of inexperienced,

⁴⁰ 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.

⁴¹ “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.” 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/>.

⁴² Erin Griffith and David Yaffe-Bellany, *Investors Who Put \$2 Billion Into FTX Face Scrutiny, Too*, N.Y. TIMES (Nov. 11, 2022).

unsophisticated and potentially compromised individuals,”⁴³ and noted that many entities had never even held board meetings).⁴⁴ 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.⁴⁵ 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 capital 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.⁴⁶ However, this practice is 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.”⁴⁷ 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

Many crypto exchanges perform brokerage, exchange, and clearing services for their customers, and some marry these services with proprietary trading activities. As a result, these exchanges may need to register as exchanges, market-makers, and broker/dealers under existing

⁴³ 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).

⁴⁴ *Id.* at 16.

⁴⁵ 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).

⁴⁶ “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 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.*

⁴⁷ Pinter v Dahl, 498 U.S. 622 (1988).

securities laws.⁴⁸ My 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 1934,⁴⁹ and as such be required to comply with 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”).⁵⁰ A broker/dealer is also subject to a duty of fair dealing which requires full disclosure of any conflicts of interest,⁵¹ 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.”⁵²

As with securities registration requirements, it is possible that robust enforcement of broker/dealer registration requirements against crypto exchanges will keep some of those exchanges out of the markets – not because it is technologically impossible for those exchanges to comply with the law, but because the economics of their business models depend on trading with customer funds or aggregating functions that must typically be disaggregated to prevent conflicts of interest. Once again, if exchanges are only economically viable because they exploit their consumers, then the public will not suffer if they disappear. For those exchanges that do register, investors will have more information about conflicts of interest, and their assets will be segregated and therefore more secure.

⁴⁸ 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.

⁴⁹ 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.”

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

⁵⁰ *Id.*

⁵¹ *Id.*

⁵² 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>.

C. Consumer protection regulation

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.⁵³ 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.

5. Possible legislative reforms

As the previous Section demonstrated, existing financial laws and regulations provide financial regulators with tools that can effectively address many of the harms associated with crypto business models. Robust enforcement of these laws and regulations is key to curbing the crypto industry's harms. If lawmakers are contemplating new legislation, however, there are some reforms that would further assist in this regard.

A. Banking regulation

As discussed above, banking regulation has performed reasonably well in protecting the traditional financial system from the fallout of crypto industry implosions. However, legislation that formally recognizes the separation of banking and crypto – a type of “Glass-Steagall 2.0” – would be helpful. Such legislation should prohibit banks from investing in any crypto assets, 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. For the reasons articulated above, insured depository institutions should also be prohibited from issuing their own stablecoins. Congress may also wish to reconsider the wisdom of allowing banks to custody crypto assets,⁵⁴ or to perform trades on permissionless blockchains.⁵⁵

With regard to banks providing traditional banking services to crypto businesses, I do not believe that it is appropriate for a statute to prohibit banks from doing so. For a point of comparison, after the enactment of Glass-Steagall, commercial banks were still able to make loans to unaffiliated investment banks. However, any services that banks provide to crypto businesses must be provided in a safe and sound way. Following the failure of Silvergate and Signature Banks, it should be abundantly clear to bank supervisors that relying too heavily on crypto industry deposits is an unsafe and unsound practice for banks, and there may also be other reputational concerns for supervisors to consider when banks work with crypto businesses. To be clear, no legislative reform is needed in this regard: banking regulators already have sufficient authority to address unsafe and unsound practices.

⁵³ Dodd-Frank Act, Title X, Subtitle C, Secs. 1031; 1036 (July 21, 2010).

⁵⁴ Stephen Alpher, *BNY Mellon Starts Crypto Custody Service*, COINDESK (Oct. 11, 2022).

⁵⁵ Brayden Lindrea, *JPMorgan executes first DeFi trade on public blockchain*, COINTELEGRAPH (Nov. 2, 2022).

B. Investor protection regulation

If new crypto legislation is adopted, it should reaffirm the SEC’s jurisdiction over crypto assets. Legislation that amends the definition of “security” in the Securities Act of 1933 and the Securities Exchange Act of 1934 to categorically provide that all crypto assets are securities would mean that the Howey test would no longer be relevant to determining whether a crypto asset is a security. The crypto industry would know with absolute certainty that the securities laws apply to them, and that the SEC is their regulator. In particular, these definitions could clarify that stablecoins are also “securities,” recognizing the reality that stablecoins serve a speculative investment rather than a payments function.

C. Operational risk regulation

This testimony has focused on regulating the economic incentives of those using blockchain-based technologies. However, if these technologies are used to provide financial services, then there are some novel technology-specific operational risks that any applicable regulatory regime should also address.⁵⁶ As part of its “BitLicense” framework, the New York Department of Financial Services has identified a number of blockchain-associated operational issues that should be addressed, including cybersecurity risk, and “[r]isks relating to code defects and breaches and other threats concerning any new coin and its supporting blockchain, or the practices and protocols that apply to them.”⁵⁷ Indeed, financial regulation in general would be improved by a legislative direction to focus more specifically on the potential systemic dimensions of technological problems,⁵⁸ and by a Congressional commitment to providing the resources needed for financial regulators to hire more software engineers and data scientists.⁵⁹

D. A ban

The legislative reforms outlined so far seek to utilize and improve existing regulatory frameworks to curb the harms associated with crypto business models. However, the most effective way to protect both the stability of our financial system and individual investors would be to ban the issuance and trading of crypto assets. As this testimony has already explored, we have much to gain and little to lose from a ban on crypto (and the gains would go beyond investor protection and financial stability – they would also include limiting environmental damage and preventing ransomware attacks).⁶⁰ It is sometimes said that such a ban would be impossible to enforce

⁵⁶ For a discussion of the 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).

⁵⁷ New York Department of Financial Services, *Guidance Regarding Adoption or Listing of Virtual Currencies*, available at https://www.dfs.ny.gov/industry_guidance/industry_letters/il20200624_adoption_listing_vc

⁵⁸ For more on systemic risks associated with technology problems, see Hilary J. Allen, *Reinventing Operational Risk Regulation for a World of Climate Change, Cyberattacks, and Tech Glitches*, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4347577.

⁵⁹ For more on building the technological capacity of financial regulatory agencies, see Hilary J. Allen, *Resurrecting the OFR*, 47 J. Corp. L. 1 (2021).

⁶⁰ “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

because of the decentralized nature of crypto. However, this testimony has already identified many people against whom such a ban could be enforced. Most obviously, centralized exchanges serve as important gateways to the crypto markets. If they were banned from listing crypto assets, then the market for those assets would most likely diminish significantly. Alternative exchanges do exist that are operated by DAOs rather than a single entity, but a ban could still be enforced against such exchanges. As already explored, DAO governance tokens are held by real people and those real people could be prohibited from holding governance tokens in a DAO operating a prohibited business. Practically speaking, ownership of these tokens tends to be reasonably concentrated with founders, venture capitalist funders, and crypto whales, so enforcement efforts would only have to target a limited number of holders to be effective.⁶¹ A ban is therefore feasible, and can be effective even if not 100% impermeable.

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).

⁶¹ Barberau *et al.*, *supra* Note 18.