



Testimony of Sam Bankman-Fried

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“Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of
Financial Innovation in the United States”
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Introduction

Chair Waters, Ranking Member McHenry, members of the committee and distinguished guests, thank you for inviting me to testify before this committee today. It is an honor and a privilege to be before you to share some information and insights into the digital-asset industry as this committee, this chamber and the Congress as a whole deliberate on a variety of key topics stemming from this exciting space. Along with my colleagues and teammates, I am pleased to provide you with as much information as you need in order to ensure a fully informed and robust debate around whether and how this committee should address some of these key topics.

Background on FTX

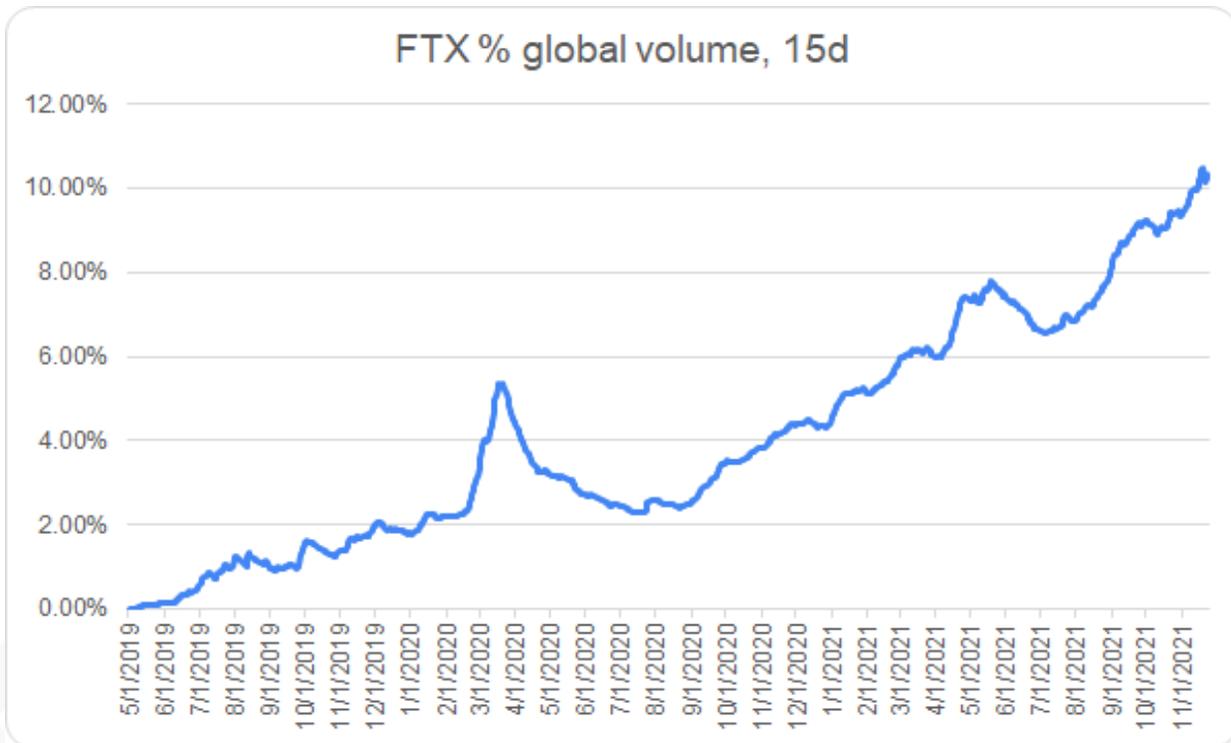
The FTX group of companies (FTX Group or FTX) was founded in 2019 and began as an exchange or marketplace for the trading of crypto assets. In the U.S., the company is a federally regulated exchange operator with licenses from the Department of Treasury (as a money services business) and the U.S. Commodity Futures Trading Commission (CFTC). FTX was established by three Americans, Samuel Bankman-Fried, Gary (Zixiao) Wang and Nishad Singh, with operations commencing in May 2019. It was established in order to build a digital asset trading platform and exchange for the purpose of a better user experience, customer protection, and innovative products. FTX built the FTX.com exchange to develop a platform robust enough for professional trading firms and intuitive enough for first-time users.

The core founding team had unique experience to develop an exchange given their experiences in scaling large engineering systems at Google and Facebook, combined with trading experience on Wall Street. This brought to the effort an understanding of how to build the best platform from scratch, as well as what that platform should look like, unencumbered by legacy technology or market structure. FTX has aimed to combine the best practices of the traditional financial system with the best from the digital-asset ecosystem.

Early Success. The FTX.com exchange has been extremely successful since its launch. This year around \$15 billion of assets are traded daily on the platform, which now represents approximately 10% of global volume for crypto trading. The FTX team has grown to over 200 globally, the majority of whom are responsible for



compliance and customer support. The FTX Group's primary international headquarters and base of operations is in the Bahamas, where the company is registered as a digital asset business under The Bahamas' Digital Assets and Registered Exchanges Act, 2020 (DARE).



In addition to offering competitive products, the FTX platforms have built a reputation as being highly performant and reliable exchanges. Even during bouts of high volatility in the overall digital asset markets, FTX.com exchange has experienced limited downtime and technological performance issues when compared to its main competitors. We believe this dual-track focus on customers and reliability are key reasons why FTX has also experienced the fastest relative volume growth of all exchanges since January 2020.

The core product consists of the FTX.com web site that provides access to a market place for crypto assets and tokens. Platform users also can access the market through a mobile device with an FTX app. The core product also consists of a vertically integrated, singular technology stack that supports a matching engine for orders, an application programming interface or API, a custody service and wallet for users, and a settlement, clearing and risk-engine system. In a typical transaction, the only players involved are the buyers, sellers, and the exchange.

The FTX Group has operations in and licenses from dozens of jurisdictions around the world, including here in the U.S. At the time of this writing the FTX platforms have millions of registered users, and the FTX US platform has around one million users. For FTX.com, roughly 45 percent of users and customers come from Asia, 25 percent from the European Union (EU), with the remainder coming from other regions but for the U.S. (also excluding persons from sanctioned countries). Nearly all users of FTX.us are from the U.S.



U.S. Operations. FTX services U.S. customers through the FTX US platform, which also includes FTX US Derivatives. FTX US is a separate corporate entity and company with a similar governance and capital structure to the overall corporate family, and also has its own web site, FTX.us, and mobile app. As with FTX.com, the core product is an exchange for a spot market for digital assets that, like other crypto-platforms in the U.S., is enabled through money-transmitter licenses. FTX US is headquartered in Chicago with a few other satellite offices in other US cities.

FTX US Derivatives was formed through the acquisition and re-branding of LedgerX, and is now a business unit that offers derivatives products such as futures and options contracts on digital commodities to both U.S. and non-U.S. persons. FTX US Derivatives has four licenses from the U.S. Commodity Futures Trading Commission (CFTC): a Designated Contract Market (DCM) license, a Swap Execution Facility (SEF) license, a Designated Clearing Organization (DCO) license, and a Commodity Pool Operator (CPO) license. Prior to its acquisition, this business was the first crypto-native platform issued a DCO license by the CFTC in 2017, which was a milestone for the agency and the crypto industry. That license was later amended in 2019 to permit the clearing of futures contracts.

Commitment to a Diverse Workforce. We are proud of our workforce at FTX and believe that one of our key strengths is a culture of mutual respect and cooperation. This type of culture is borne from the diversity of our team, which necessitates a spirit of empathy, understanding and humility. These traits in our workforce are good for business and are much of the reason we have been successful at understanding our customers and their needs, and executing on products that meet their needs. FTX has employees from all over the world with diverse ethnic backgrounds, and 60 percent of women in our workforce are in senior management positions.

Commitment to Mitigating Climate Impacts. FTX is very serious about minimizing our impact on the global environment where we live and work, and as a company we have taken several important steps to ensure this. Here, I would like to share several key points to explain why FTX's environmental impact is de minimis, but nonetheless explain the additional steps the company has taken to reduce even further this impact. *First*, FTX has no factories or physical products and therefore does not leverage global shipment networks, a substantial source of energy consumption. FTX has a small workforce with a small physical-office footprint, renting only a few small offices spread out around the world, and operates online. FTX corporate operations, therefore, do not have direct impacts on climate change at a globally relevant scale.

Second, digital asset deposits to and withdrawals from FTX platforms in fact require energy consumption as public blockchains facilitate and record those transactions, but on FTX over 80 percent of deposits and withdrawals use low-cost, carbon-efficient Proof of Stake (PoS) blockchains. These PoS networks contrast with Proof of Work (PoW) blockchains such as the Bitcoin blockchain, which consume significant amounts of energy to maintain the network. By using PoS blockchains for the vast majority of FTX deposits and withdrawals, FTX massively reduces the overall climate impact of blockchains. To facilitate the remaining approximately 20 percent of deposits and withdrawals, energy consumption is relatively small, but FTX subsidizes the blockchain network fees to share in paying the costs of that energy consumption. Separate from deposits and withdrawals, on-exchange transactions and transfers (the overwhelming majority of our user activity) do not require public blockchain activity and require only the amount of energy needed to run a web-based trading venue.



Third, FTX also has endeavored to take ownership of our portion of the environmental costs of mining associated with public blockchains and has purchased carbon offsets to neutralize those costs. Estimating the costs of energy consumption and carbon output associated with blockchain mining is difficult because mining is decentralized, and discerning how much energy is coming from which source is elusive. Nonetheless, FTX estimates that it costs \$1 million to take ownership of those costs, and has purchased a total of 100,000 tons of carbon offsets through two providers for \$1,016,000. Additionally, FTX through its affiliated arm, FTX Climate, created a comprehensive program to focus on the most impactful solutions to climate change possible. In addition to achieving carbon neutrality, our initial program funds research that we believe can have an outsized impact, as well as supports other special projects and carbon-removal solutions. FTX plans to spend at least \$1 million per year through FTX Climate. Those interested in learning more about these initiatives can find more information at <https://www.ftx-climate.com>.

Fourth, FTX believes energy consumption by PoW blockchains and its impacts should be assessed within the appropriate context, which we believe should include consideration of their benefits, an understanding of their differences with PoS networks and how each type of network is being leveraged and growing, as well as a comparison to other energy-consuming activities or even industries. For example, BTC has delivered benefits to many as measured by access to financial products, asset transmission, and wealth creation, which should be weighed against the network's energy costs.¹

Additionally, while PoW networks attract attention for their energy consumption, transactional activity on PoS networks is growing substantially due to their superior ability to process a greater number of transactions in a shorter period of time at a lower cost. FTX believes these PoS networks will become increasingly important over time, which will continue to minimize the overall climate impact of blockchains over time. And finally, the energy consumption by PoW blockchains is relatively small when compared to other industries that the BTC network in particular is often compared to.² Of assets whose futures trade on CFTC-regulated venues, BTC actually ranks fairly low in terms of environmental impact, relative to traditional, physically mined commodities, oil, livestock, and other environmentally impactful assets.

Commitment to Giving Back. FTX is committed to improving the lives not just of our customers through superior products, but also the lives of those in the broader global community. Toward this end, FTX created the FTX Foundation, which was founded with the goal of donating to the world's most effective charities. FTX has pledged to donate one percent of net revenue from fees to the foundation. FTX, its affiliates, and its employees so far have donated over \$10 million to help save lives, prevent suffering, and ensure a brighter future.

¹ See "Everything We Want Costs Energy, Including Bitcoin," by Benjamin Powers, *CoinDesk*, Apr. 22, 2021; <https://www.coindesk.com/tech/2021/04/22/everything-we-want-costs-energy-including-bitcoin/>; see also "The Bitcoin Mining Network: Trends, Average Creation Costs, Electricity Consumption & Sources," *CoinShares Research*, June 2019 Update, <https://coinshares.com/assets/resources/Research/bitcoin-mining-network-june-2019-fidelity-foreword.pdf>

² See "On Bitcoin's Energy Consumption: A Quantitative Approach to a Subjective Question," *Galaxy Digital Mining*, May 2021, Rachel Rybarczyk, Drew Armstrong, Amanda Fabiano. <https://docsend.com/view/adwmdeeyfvqweej2>.



Discussion

In this discussion I will address the following topics: (1) an overview of the products offered by FTX and their role in the digital asset economy; (2) stablecoins and how to address risks associated with these instruments; and (3) the current regulatory landscape and principles to guide policy makers toward good policy outcomes. Throughout this discussion I distinguish our non-U.S. and U.S. businesses by referring to FTX International and FTX US, respectively, where relevant.

There are several key themes in my testimony as it addresses the various topics. The first is that *FTX empowers the individual investor and consumer because we offer products that are easily accessible and inexpensive, so investors and consumers can make simplified choices to achieve their economic goals*. Easy access to financial products all in one place, in many cases on a mobile phone, without multiple gatekeepers assessing risks and posing risks to the investor along the way, is how the digital-asset ecosystem is impacting the real everyday lives of those involved, and helping them achieve economic security along the journey. A supportive and accommodating policy environment for this easy access to financial tools (balanced with other policy goals) will only empower the individual investor even further.

The second theme is that *FTX has designed and offered a platform with a market structure that is risk reducing*. To be sure, there are irresponsible actors in the digital-asset industry, and those actors attract the headlines, but FTX is not one of them and in fact has built a resilient, risk-reducing platform *as a competitive advantage*. As a result, the FTX model should be able to fit into any regulatory framework with the highest of risk standards around the world, so long as policy makers are willing to be flexible and allow a risk-reducing, 24/7, direct-to-investor market structure, and dispense with any *requirements* for a legacy, intermediated market structure that has not always best served the individual investor.

The final theme is that *FTX already is subjected to U.S. federal regulatory supervision of the highest standards*, including that of the U.S. Commodity Futures Trading Commission (CFTC) and the U.S. Department of Treasury, as well as stringent supervision by other global and state regulators. As discussed below, FTX embraces and would prefer to operate under one, federal, unified regulatory regime. In any case, FTX views its official-sector supervisors as stakeholders and partners with whom a consistent, active dialogue is necessary, and this viewpoint applies equally to the U.S. Congress. We at FTX are always available and eager to share our insights into the digital-asset industry and how it can continue to improve people's everyday lives.

The future, of course, is difficult to predict, but FTX believes that digital assets and blockchain technology more generally are very likely to endure and continue to present exciting opportunities for consumers, investors and entrepreneurs. FTX believes the U.S. should continue to lead in presenting those opportunities here in this country. FTX fully supports a regulatory framework for the trading of digital assets that protects investors and delivers on the hallmarks of orderly markets. To maintain U.S. leadership, policy makers will need to continue leveraging the best features of existing policy, but also accommodate the best features of the digital-asset industry, which we believe are empowering to the consumer and risk-reducing to markets.



1. FTX Products and Their Role in the Digital Asset Economy

Core Product: Digital Asset Exchange. As briefly explained above, FTX's core products are its digital asset exchanges, FTX.com and FTX.us. On both platforms, users can spot trade digital assets with other users for cash, stablecoins and other digital assets. On the spot exchange, users can set a variety of different order types on a central limit order book (CLOB). Users are able to offer orders at a specific price (limit order) or trade on the book at the best price shown. A robust matching engine sits in between these orders to connect buyers and sellers and display the best available prices.

Futures and volatility contracts related to digital assets also are listed on the platforms as well, with or without leverage. On FTX.com, leverage is limited to 20x; as of now it is not available to users of FTX.us (although there is facilitation of other forms of credit to Eligible Contract Participants -- see below). The platforms have listed quarterly-settled (as well as perpetual futures contracts only on FTX.com) that are cash settled. Additionally, MOVE volatility contracts are offered on FTX.com and are similar to futures except, instead of expiring to the price of a digital asset, they expire to the USD amount that the price of BTC has moved in a day, week or quarter. FTX.com also lists Bitcoin (BTC) options for trading. Finally, FTX US Derivatives offers to U.S. users both BTC and Ethereum (ETH) options, futures and swaps.

To cover initial and maintenance margins, derivatives and leveraged products users post collateral in the form of cash, stablecoins or other digital assets held on their account. The exchanges also have integrated risk-management and back-office systems to perform clearing and settlement of trades, which includes updating records of ownership of the digital asset or digital asset futures and options contracts traded (clearing), and transferring value between users' accounts (settlement), using either delivery versus payment or delivery versus delivery.

Market events last last week showed how effective the risk-reducing attributes of the FTX core product are. Multiple digital assets declined in value in a short time period late Friday (December 3, 2021), increasing substantially the trading volumes for those assets on the FTX platforms, particularly as the FTX risk engine was activated and began liquidating relevant customer positions on the platforms. The market decline began very late in the day, long after trading hours ended for U.S. markets. But with 24/7 trading hours for digital assets, the FTX risk engine was able to respond immediately to the decline in asset prices, and began liquidating positions immediately before any customer account became net negative. In traditional markets, had a material market event began at the same time, risk-management systems would not have responded until markets re-opened more than two days later, a period of time when customer positions could have declined dramatically before an opportunity to stem losses in the customer account. Importantly, FTX's risk model avoids the systemic warehousing of such risks over a weekend or other period of market closure, and instead addresses at-risk positions and accounts immediately, in real time.

Off-exchange Portal for Arranging and Matching User Orders. FTX.com also offers an off-exchange portal that enables users to connect with other, large users, enabling them to request quotes for spot digital assets and trade directly. This facility forwards requests for quotes to large users, returning prices offered and



enabling users to then place an order. The portal is similar to other facilities found in traditional markets where a central limit order book is not used to match trades.

Margin Lending. FTX platform users can lend their digital assets to those who need them for spot trading. Users (including eligible users on FTX.us) wishing to trade digital assets they do not have may borrow them from users willing to lend them by posting collateral in the form of cash, stablecoins or other digital assets held in their account. The FTX platform maintains a borrow/lending book and matches users wanting to borrow with those willing to lend.

NFT Marketplace. FTX operates a marketplace for users to mint, buy and sell non-fungible tokens (NFTs). NFTs are tokens that are not fungible with any other tokens. They can take a number of forms and, for example, can be redeemed for a physical object, or an experience (such as a movie or phone call), or can be linked to a digital image, etc. FTX's NFT marketplace is conducted through an auction system. Alternatively, users can purchase directly at the prevailing selling price set by the seller. Users can choose to display their NFT collection on the FTX NFT marketplace portal, and/or to continue to buy or sell on the NFT marketplace. An NFT market is available to users of both FTX.com as well as FTX.us.

FTX Pay. FTX Pay is a service offered to merchants to accept payments in digital assets or fiat. Users have the option to top up their FTX accounts with ACH or credit cards, which are then used to make payments to enrolled merchants. For digital asset payments, the relevant user's FTX account would be debited by an amount in the chosen digital asset that is equivalent to the amount that is payable to the merchant. FTX facilitates the payments to the merchant by providing the payment infrastructure.

Staking. FTX.com offers the ability for users to "stake" certain supported digital assets on the platform. By staking such digital assets, users can earn staking rewards; in addition, for some tokens, users can receive and unlock certain benefits on FTX, such as reduced trading fees, withdrawal fees, as well as other rewards. Generally, users can "unstake" their digital assets at any time, subject to an unstaking or unbonding period. For certain digital assets, FTX may allow the user to unstake the digital asset immediately by paying an unstaking fee.

Types of Digital Assets on FTX Platforms. FTX has developed listing standards and a framework for determining which digital assets to list on the platforms. Part of that framework entails evaluating the assets to assess factors such as security, compliance risk, legal risk, technological risk and other factors. On FTX.com, which again is unavailable to U.S. users, FTX has listed approximately 100 stablecoins and other digital assets on its spot exchange. Digital assets include tokens such as Bitcoin (BTC), Ether (ETH), , Uniswap Protocol Token (UNI), Chainlink token (LINK), Solana (SOL), and Aave (AAVE). Non-pegged stablecoins include tokens such as USDT (USD Tether) and DAI.

On FTX.us, the company has taken what we believe to be a conservative approach to listing digital assets for trading. Consequently, there are far fewer tokens listed for trading on FTX.us due to much stricter listing standards for this platform. Care has been taken to avoid listing assets with features viewed to be similar to securities in the U.S. The assets and tokens listed more closely resemble BTC and ETH, two tokens expressly addressed by the CFTC to be commodities subject to its jurisdiction.



In sum, a quick review of these products will lead to the conclusion that the products available now in the digital-asset economy and on the FTX platforms are very similar to ones found in the traditional finance space. This reflects a maturing of the industry as more and more sophisticated investors enter the space and demand products and solutions familiar to them from traditional finance.

Again, one of the defining features of these products that is different from traditional finance is that the investors can get access to all of them on one platform, and without going through multiple intermediaries for access. In addition, all market data is made public and free -- all users are given full knowledge of the orderbook and trades. Easy access to financial products and solutions on one, easy-to-use platform is a powerful feature that empowers investors, consumers and entrepreneurs. By simplifying access to these tools, users of the products can focus more on the core of their everyday financial goals and needs -- ultimately this is what FTX believes will promote financial inclusion and economic security for more people.

2. The Benefits of Stablecoins and Addressing Their Risks

FTX believes that stablecoins are one of the most important payment innovations to come from the digital-asset industry, and users on our platforms rely heavily on their use for payment and settlement of transactions. FTX acknowledges the important work of the *President's Working Group on Financial Markets* and we read with interest the recently released "Report on Stablecoins." FTX has shared its recommendations on how best to ensure the safety and soundness of stablecoins, which I include here as an exhibit to this written testimony and can also be found at <https://www.ftxpolicy.com/stablecoins>.

In addition to our recommendations for stablecoin supervision, FTX believes two other key points are worth making to this committee for your consideration. *First*, this committee should understand that FTX believes that without banking-type federal supervision of stablecoin issuers today, FTX allows their use on our platforms and indeed leverages them for our own corporate money transfer because we believe they are *risk reducing*. Indeed, FTX has opted to use stablecoin transmission for very large money transfers, including for our merger-and-acquisitions activity, rather than the traditional banking system's payment rails.

While it might seem counterintuitive to some that using stablecoins would be viewed as less risky than the heavily regulated payment rails of the banking system, the reason is because stablecoin transfers have nearly instantaneous settlement, and settlement can be easily confirmed by both counterparties by viewing the deposit into a wallet on a public blockchain. Contrast this with the process for a typical wire transfer, a process that includes multiple intermediaries standing between the transferor and transferee, each of which poses counterparty risks; takes days to complete and settle; and is costly compared to a stablecoin transfer. Other payment systems such as ACH or credit-card networks also suffer from size limitations as well as costliness, even if hidden to users.

FTX, therefore, is skeptical that bank-like supervision for *all* stablecoin issuers is the best solution for consumers. Our concern is that bank-like supervision in every case might inadvertently introduce the risks that stablecoins currently sidestep. We recognize, however, that minimum standards for certain core requirements should be met by both the issuer and the stablecoin it issues. These core requirements include:



- Daily attestations of what assets (cash, bonds, etc.) are backing a stablecoin
- Periodic audits to confirm the asset backing is as claimed
- Haircuts for assets with moderate risk
- An open line for law enforcement to blacklist address and persons associated with financial crimes

These core requirements could be met in a variety of regulatory contexts, including ones other than the federal banking supervisors such as the CFTC or the Securities and Exchange Commission (SEC). Indeed, members of this chamber have introduced legislation with these regulators in mind.

Second, FTX believes that the continued use of stablecoins with appropriate standardized safeguards **will protect** the hegemony of the U.S. dollar as the world's reserve currency, not threaten it. Again, this viewpoint might seem counterintuitive, but today the most widely used stablecoins are pegged to the U.S. dollar, and so ultimately those stablecoins settle to U.S. dollars themselves. This system promotes the continued reliance worldwide on the U.S. dollar, rather than threatens it. In fact, FTX's concern is that an overly onerous approach to supervising stablecoins is what will pose a risk to the U.S. dollar's reserve-currency status, because stablecoin issuers might be compelled to shift to other jurisdictions and focus their efforts on stablecoins that are pegged to fiat currencies other than the U.S. dollar.

To be sure, consumers will benefit most from having some level of competition among payment-service providers, which U.S. policymakers have allowed or promoted before. FTX believes that it should be instructive to policymakers that new innovations, including stablecoins in the payments space, often materialize outside of a defined regulatory perimeter, which typically means that service providers within that same perimeter are not offering what a market is demanding, usually for a variety of reasons. To allow innovation to continue and healthy competition to persist, however, policymakers should take care to strike the appropriate balance and not insist on moving all innovators to within the same regulatory perimeter. FTX commends this committee for holding this hearing to educate itself first on the benefits of new innovations like stablecoins before moving to act on the recommendations of the PWG's report.

3. U.S. Market Regulation of Crypto Platforms and Challenges to Operations

This committee in the past has asked thoughtful questions about the best way to provide supervisory oversight of crypto platforms that offer trading, and some members of this committee indeed have introduced legislation addressing this topic. Other members have questioned whether federal legislation is necessary at all. We appreciate all of these questions and efforts.

Last week FTX released *FTX's Key Principles for Market Regulation of Crypto-Trading Platforms*, which can be found on the FTX.com web site at <https://ftxpolicy.com> and is included here as an exhibit to my testimony. This document was designed and released to assist with this committee's and other



policy makers' deliberations about how best to protect investors and serve the public through sensible market supervision of crypto platforms.

FTX's *Key Principles* document goes into some amount of detail but here I would like to focus on a few highlights for this committee to consider. *First*, in considering a framework for supervising spot and derivatives crypto trading markets, policymakers should take a principles-based approach and leverage the existing policy goals that apply to traditional capital and derivatives markets. These goals essentially are universal to all markets and include: ensuring customer and investor protection, promoting market integrity, preventing financial crimes, and ensuring overall system safety and soundness. FTX believes that any new policies related to crypto platforms also should be in service to these goals, which also necessarily means that much of the principles reflected in the Commodity Exchange Act (CEA), Securities Act of 1933, and Securities Exchange Act of 1934 are relevant to our industry. FTX believes it makes sense to leverage these goals as well as the experience and expertise of the CFTC and the SEC as appropriate.

Second, FTX and other crypto platforms have brought important innovations to trading, and a sound policy framework should preserve these innovations where possible. This is because these innovations help to minimize risk, promote capital efficiency and protect investors, all of which better serve the public. As referenced above in this testimony, some of the key innovations include: (1) automated risk-management systems that ensure customer accounts trading multiple different assets do not go net negative across customer positions; (2) 24/7 trading hours, which also reduces risk by allowing markets and their systems to manage risks without interrupting and lengthy time gaps between market hours; (3) permissioning a non-intermediated market structure that gives all investors the same equal access to the market and helps minimize conflicts of interest; and (4) access to market data for all platform users free of charge, which aligns the platform operator's interest with the investor's.

Third, a successful policy framework would allow crypto platforms to offer both spot and derivatives trading on crypto assets under one unified system, with one rule book and one technology platform to manage risks related to all trading activity in customer accounts. In jurisdictions with mature markets such as the U.S., regulatory frameworks were developed in response to fragmented markets for securities, commodities, and derivatives on those assets. FTX has demonstrated that bringing together markets for both the assets and derivatives for those assets delivers key benefits to market participants. Those benefits come from having one rule book that applies to all trading, having one collateral and risk-margin program, and a single technology stack for the front end (the user interface), to the back end (settling and risk managing positions). Public policy should permit this one-rule-book model due to its risk-reducing and customer-protection attributes.

To accomplish this, and where there is more than one market regulator such as in the U.S., regulators should work together cooperatively and use their authorities where applicable to accommodate this model for crypto assets. Our *Key Principles* document proposes a scheme where a crypto-platform operator could opt into a program of joint supervision by the CFTC and SEC, with one of the two market regulators serving as the primary regulator, and the other as the secondary regulator. This type of paradigm is familiar to market regulators globally and requires joint responsibilities and cooperation between regulators. A hallmark of this paradigm would be having one primary regulator, which is likely necessary to ensure the accommodation of one rule book, one matching engine and risk engine supported by one technology stack. It is these features that again are risk reducing.



Under this paradigm, which FTX believes largely could be created under existing CFTC and SEC authorities, there might remain some other policy gaps, which include the proper treatment and disclosures for certain types of crypto assets that are not precisely securities, or whose function and purpose can change over time, but in any case would fit the definition of a commodity under the CEA.³ While some of these tokens are securities, the classification of others is unclear under existing definitions, and therefore it may be appropriate to establish more definitional refinements as well as a different disclosure framework for certain assets. In any case, *FTX's Key Principles* again envisions all tokens and derivatives referencing them trading on the same platform, under the same rule book, and with a unified system to manage risks related to all trading activity in customer accounts.

Fourth, an appropriate policy framework for market regulation of crypto assets should remain market-structure neutral and expressly allow non-intermediated markets. While FTX believes the U.S. market regulators have authorities to accommodate this type of market structure today, it nonetheless is not the market structure generally contemplated by the CFTC and SEC regimes. FTX is quite familiar with the CFTC regime as the owner and operator of a registered futures market and clearinghouse, and believes the CFTC's principles-based approach to supervising those functions makes a lot of sense. This regime requires disclosed and approved policies and procedures created by the platform operator to address key issues such as custody of assets, key features related to the lifecycle of a trade, reporting of market activity to supervisors, provisioning market data to platform users, ensuring adequate financial resources, and protecting against cyber-attacks and financial crimes. Given the nascency of the digital-asset class, this type of approach especially makes sense as it affords flexibility to the CFTC and the platform operator to address new market developments through expeditious changes to the platform's rule book, policies and procedures.

Conclusion

FTX is grateful to this committee for the opportunity to share information about the digital-asset ecosystem and suggest ways the benefits and promise of the industry can continue to be realized, and in a responsible way. FTX believes most or many of the products and tools we offer on our platforms could continue to be offered to U.S. customers within the regulatory paradigms in place today, although in some instances with some careful modifications or productive interpretations by our supervisors. We believe that new policy affecting the digital-asset industry and FTX's business should build on the best features of existing policy, and our suggestions on stablecoin and marketplace supervision are informed with this in mind. By using this approach, FTX believes that the best aspects of traditional finance and digital assets will be combined, and consumers will continue to have access to the empowering tools they seek for economic security, all in one place, and from a singular, risk-reducing platform.

³ FTX observes that the definition of a "commodity" under the CEA is very expansive, and securities also meet that definition.



Exhibit A

Stablecoin Regulation

Note: As global regulators continue to consider whether and how to regulate various components of the digital asset ecosystem, we think it is important to share our perspective on how a practical, responsible, and thoughtful approach to regulation might look. This post is not a comment on the current regulations surrounding stablecoins, a legal interpretation of them, or advice on the suitability of transacting in or owning a given stablecoin. This post is an exploration of what a hypothetical new regulatory framework for stablecoins could look like, engineered towards solving for key regulatory priorities and preserving critical usability features.

Context on stablecoin regulation

As the cryptocurrency industry matures, it's vital that a robust regulatory regime grows alongside it which takes seriously its duty to protect consumers, ensure transparency, and prevent illicit activity, while still allowing for innovation and growth.

Stablecoins play a crucial role in the cryptocurrency ecosystem; the majority of all transactions in crypto are settled via stablecoins, and they are one of the most promising payment tools for the broader financial sector. It is also, as of now, unclear exactly what regulatory regime stablecoins will end up being placed in.

What is a stablecoin?

Let's start with the core question: what exactly is a stablecoin?

There are a wide variety of stablecoin designs that have been utilized in the cryptocurrency ecosystem. For illustrative purposes, in this article we will assume a stablecoin on the US Dollar, although parallel assets do exist on EUR, GBP, and other currencies. We will also imagine that it is 1:1; that is, 1 token represents 1 US Dollar. We will imagine that the token's ticker be STBC.

In this construct, this imaginary stablecoin, STBC, is a blockchain-based asset that can be exchanged for a US Dollar. That would typically be accomplished through the following mechanics and arrangements:

Reserves: typically a stablecoin is backed by one or more USD accounts or other similar assets, generally held at a bank, in an account under the name of the stablecoin sponsor, issuer, or other similar body. The USD value of the assets should be at least the supply of the stablecoin.

Token: a blockchain-based token, STBC, where one token represents \$1 (as supported by the creation / redemption process, described below). These could be issued by a private company, a central bank, or a decentralized protocol.



Creation/Redemption: In order to create 1 STBC token, an eligible user must send \$1 to the reserve account. In return, the protocol mints 1 new STBC token and sends it to the user.

Similarly, an eligible user may send 1 STBC token back to the protocol to redeem it for \$1. The protocol destroys the token and sends \$1 back to the user.

What are the benefits of stablecoins?

We believe that stablecoins are one of the most important innovations of the cryptocurrency industry.

Let's say you want to send \$20 to a friend. What are your options?

- a) You could hope that both you and your friend use the same peer-to-peer transfer app (e.g. Venmo), and then separately each of you figure out how to send money to/from that app.
- b) You could send a \$20 wire transfer to your friend. This would likely take a day and cost \$5+ in fees; and if it's international, it might take a week and cost substantially more in fees.
- c) You could send \$20 via ACH, if both you and your friend use US-based USD bank accounts. Then, the transfer would not fully settle for months, exposing both parties to "chargeback risk".
- d) You could go to an ATM, withdraw \$23 paying a \$3 fee, and hand \$20 to your friend, who would then have to find a way to use the physical dollar bills.
- e) You could send 20 STBC to your friend's cryptocurrency wallet; if you use an efficient blockchain (or both use the same exchange), it will arrive in less than a minute, costing a tiny fraction of a penny in fees.

Option (e), the stablecoin, has a compelling case here as an efficient means of transfer.

Taking our real world use case a step further, consider that a user wants to build a blockchain based application. How should the application's users contribute and withdraw assets?

Here, the users face the same potential options and cost structures as before; once again, stablecoins are the cheapest, safest, fastest way for a user to engage with that application.

What are the risks of stablecoins?

There are three major intertwined risks associated with stablecoins.



Reserve volatility risk

If the stablecoin is backed by something other than US Dollars in a bank account, the asset might depreciate against USD. If, for instance, you were to back a stablecoin with 1,000,000 tokens issued with \$1,000,000 of the SPY (S&P500) ETF, and stock markets decreased 5% in price, you would be left with only \$950,000 backing 1,000,000 stablecoins—meaning that the “stable” token had in fact fallen in value, at least in regards to the reserves it is purported to be redeemable for!

Unlike investment products where customers gain from appreciation in the assets backing the product, there is generally no way for a stablecoin to be worth more than \$1, as customers can always create more for \$1 each. This means that the core philosophy behind the assets backing a stablecoin should be to focus on assets with low volatility which are very similar to USD. US Treasury bonds may be an appropriate asset for a stablecoin’s reserves; if Bitcoin is used, it has to be overcollateralized to an extent that there is very little risk of loss to the stablecoin holders. Backing 100 stablecoins with \$101 of BTC is untenably risky: a mere 2% decrease in bitcoin markets would cause the stablecoin to be under-backed and no longer fully redeemable for \$1. Backing 100 stablecoins with \$400 of BTC, on the other hand, is substantially more defensible, as there is very little risk of a 75% move before the reserves would have a chance to de-risk. Any stablecoin issuer or designer must have a transparent, robust risk model to mitigate the volatility of its reserves, including determining which assets are appropriate for its reserves.

Redemption risk

A related worry is that a user might own 1,000 STBC, go to the issuer to redeem their STBC, and be denied.

This might happen if the reserves had in fact run out of dollars and so there was nothing left to redeem STBC for; this would likely imply the reserves had not been in USD, and had fallen in value.

Alternately, this could happen if the issuer arbitrarily decides to block your redemption, possibly to try to keep more impressive metrics for STBC.

Either way, the lack of ability to redeem (or a lack of transparency related to redemption process and requirements) presents a risk to the user.

Financial crimes

One final risk of stablecoins is that they could be used for financial crimes, or to finance illicit activities.

Any stablecoin issuer or designer must include creation, redemption, and use mechanics that, in harmonization with regulation, address and avoid this use case.



What is a sensible stablecoin regulatory framework?

As noted above, we believe that stablecoins have presented a significant positive use case to the world, and they continue to hold the potential to revolutionize the payments and remittances industry. Stablecoins could in the future revolutionize the payments industry, drastically reducing friction and transaction costs, delivering to many around the world the benefits that come with having access to reliable and usable value transmission. As such, we think it is important to ensure that the ongoing regulatory discussions around the approach to a framework for stablecoins be based on a practical structure that solves equally for usability, reliability, transparency, consumer protection, and the identification and prevention of financial crimes.

We look forward to engaging with regulators on examples of what such a framework might look like. There are many different approaches and we remain open and excited for feedback and engagement from regulators and from other participants in the cryptocurrency industry.

As outlined above, there are real risks associated with stablecoins, and any framework should work to mitigate those.

As such, while we look forward to continuing dialogue on the details, we would be in favor of a proposal for a transparency-based reporting and registration regime for stablecoins.

A proposed framework might look like the following:

- a) All stablecoins issued to US users must be registered on an official list of “regulated stablecoins” under the oversight of one or more US regulatory department(s).
- b) The registration itself would be focused on transparency and reporting, on a notice filing basis, coupled with clear obligations on recordkeeping, reporting, and regular examination. The regulatory departments authorizing the program would have the ability to decertify registered stablecoins.
- c) The registration would involve publishing a daily Reserves List which details what the total net value of the stablecoin’s reserves are, and breaks that down into exact quantities of specific categories (e.g. “100 USD in Bank XYZ; \$95 of short-term US treasury bills; \$50 of Tier-1 commercial paper of US companies; \$30 of Tier-1+ commercial paper of European companies; \$10 of [other suitable assets as permitted by the regulation and by that stablecoin’s registration document]”)
- d) The registration would require that the issuer maintain “sufficient” reserves. This could be defined by a set of haircuts on various types of reserves. E.g., perhaps a 0.10% haircut on USD in an FDIC insured bank account; a 1% haircut on short-term US treasury bills; a 10% haircut on Tier-1+ commercial paper; a 15% discount on Tier-1 commercial paper; a 20% haircut on EUR, GBP, JPY, CHF, CAD, AUD, SGD, HKD, etc.; and a 50% haircut on bitcoin.



e) The registration would require semi-annual audits by an accounting firm to confirm that the reserves are as represented.

f) The registration would require stablecoins to have clear and transparent redemption requirements (e.g. based on Know Your Customer documentation) and a clear customer complaint process if a redemption is denied.

g) To address financial crimes, all registered stablecoins would have to be on a public ledger, and the creation and redemption process must be sufficiently structured in order to ensure that stablecoins associated with illegal activity (as observed via on-chain surveillance and analytics tools, via a suite of standard blockchain surveillance software) cannot be redeemed.

As noted above, this is a basic strawman framework for how the key components of a potential stablecoin registration program might look. Each of these points are designed to preserve the usability of stablecoins while solving for regulatory considerations that need addressing. If designed in the right way, this framework could enhance the ultimate usability of stablecoins. We very much look forward to engaging with policymakers, regulators, and market participants on these concepts.



Exhibit B

FTX's Key Principles for Market Regulation of Crypto-Trading Platforms

In this piece we identify a series of ten principles (and in some instances, proposals) that should guide policy makers and regulators as they build the regulatory framework for spot and derivatives crypto markets. FTX does not propose specific legislation here but rather principles and proposals that could be reflected in policy making, whether in the form of legislation, rulemaking or other regulatory action. Many of these principles are familiar to traditional securities and derivatives markets, but some of the principles reflect market-structure choices made by FTX and other crypto-platform operators that we believe lead to superior outcomes for investors and, indeed, the public. FTX therefore believes public policy should not only permit these choices but promote those that lead to such outcomes. Some of the discussion here focuses on the U.S. marketplace but the principles and proposals are applicable in any jurisdiction globally. FTX appreciates being able to engage in this dialogue with policy makers and regulators, and we are always happy to pursue follow-up discussions with interested parties. See our prior policy blog posts at <https://www.ftxpolicy.com>.

1. Proposing One Primary Market Regulator with One Rule Book for Spot and Derivatives Listings

In the U.S. regulatory ecosystem, spot markets and derivatives markets are subject to different regulatory programs, and this can lead to inefficient and non-optimized market structures. In this post we propose as a solution an alternative regulatory approach that would provide market operators the ability to opt in to a unified regulatory regime for spot and derivatives marketplaces, through a primary regulator model.

As many know, the CFTC is the primary regulator of commodity derivatives marketplaces, while the SEC is the primary regulator of cash securities marketplaces, and the two agencies share oversight responsibility for certain aspects of security derivatives marketplaces.

In parallel, there is a further regulatory split for spot markets (sometimes called “cash markets” in the traditional commodities or securities context), where the applicable regulatory program depends on whether the product being traded is categorized as a security (where the SEC regulates) or a commodity that is not a security (where the states largely regulate, via money transmitter or money services business licensing).

Against that backdrop, and particularly outside of the U.S., we observe that many crypto-native trading-market operators offer for trading both spot transactions on crypto assets as well as derivatives on those assets, under a



unified rule book, one collateral and risk-margin program, and a single technology stack. This model is generally not found in the U.S. given the jurisdiction's historically fragmented approach to markets regulation. Nonetheless, we believe that for traded crypto markets, the key principles for market regulation (customer and investor protection, market integrity, preventing financial crimes, and system safety and soundness) generally apply equally across spot and derivatives markets, and commodities and securities markets. That is, the regulatory label on a given product or market need not change the core goals of regulation, and the same rulesets should generally apply across all markets. For that reason, we strongly support offering a single unified regulatory program for crypto market operators.

Specifically, in jurisdictions where there is a primary derivatives-market regulator separate and distinct from a primary cash-markets regulator (such as in the U.S.), policy makers and regulators should seek to permit qualified crypto markets operators to run a single rule book, risk program, and technology stack, approved and overseen by a primary regulator (perhaps chosen by the marketplace on an opt-in basis and supported thereafter by inter-regulator cooperation and information sharing, with the possibility of the primary regulator shifting if the underlying product mix evolves in a certain way), that governs the listing and trading of both spot cash transactions in crypto assets as well as derivatives on crypto assets.

Much of this can be achieved today under existing statutory authority and with creativity and cooperation by and among market regulators. With some specific issues, however, clarity might be needed from legislation. Under the current U.S. paradigm, for example, we acknowledge that it is unlikely to be absolutely clear at any given moment, absent legislation, whether all of the crypto products listed on such a venue are definitively "within" or "without" the jurisdiction of either of the markets regulators. However, between two possible regulatory solutions under this paradigm - which are (1) that regulators can prohibit the marketplace altogether (via indecision, decree, or a combination of the two), or (2) that regulators can innovate and cooperate to ensure that key regulatory and policy goals are met in a clear and robust way while also permitting the marketplace to operate - we think the second approach offers a compelling option.

Said more explicitly, in jurisdictions where there are two mature market regulators, FTX proposes the permissibility and adoption of a reasonable and rigorous framework that would allow a crypto-markets platform operator to elect one market regulator as its primary regulator for a unified spot and derivatives trading book, subject to adherence to a cooperative framework in which the other market regulator acts a secondary regulator while maintaining appropriate visibility into the platform's operations, but not day-to-day supervisory responsibilities. (Indeed, a similar approach is used today when a market regulator from one jurisdiction "recognizes" the framework of a different jurisdiction where a primary, "home" regulator resides, and then defers to that primary regulator's regulations and rulesets so long as they are sufficiently comparable.)

We propose a functional-based approach, where the regulation and the trading venue rule books that comply with that regulation should be largely modeled after existing market regulations for securities and derivatives markets, on the basis that most jurisdictions will follow this same approach. FTX believes that there is a unique current opportunity for U.S. regulators to take a leadership position in the global crypto markets regulatory discussion, and we believe that modelling a primary regulator model on existing market regulation will foster standardization and harmonization of regulation globally, paving the way for international adoption and reciprocal jurisdictional recognition.



To underscore why we are so focused on these regulatory issues - it is because we believe that getting crypto market regulation appropriately calibrated is critical for the continued development of healthy, transparent, and well functioning global crypto markets, which we believe will deliver knock-on positive effects to the global economy as a whole. And we think our proposed approach, in addition to solving for regulatory uncertainty and fragmentation, would also reduce operational complexity by allowing matching engines for both spot and derivatives transactions to operate on the same platform with the same user interface. This in turn would reduce operational risk to the platform, and promote capital efficiency by allowing collateral in support of both order books to rest on the same platform. In the rest of this piece, we discuss in more detail various additional practical benefits of crypto market place operators being subject to unified primary regulator oversight.

2. Full-Stack Infrastructure Providers and Maintaining Market-Structure Neutrality

Regulation should be market-structure agnostic, provided that the core regulatory issues (identified above as customer and investor protection, market integrity, preventing financial crimes, and system safety and soundness) are addressed. Technology has enabled any capable entity to perform the various functions involved with the pre-trade, execution, and post-trade phases of the lifecycle of an asset trade or transaction in a single regulatory stack - in fact, to split up those functions, from a technology perspective and when building a market from the ground up, would require a forced and artificial deconstruction.

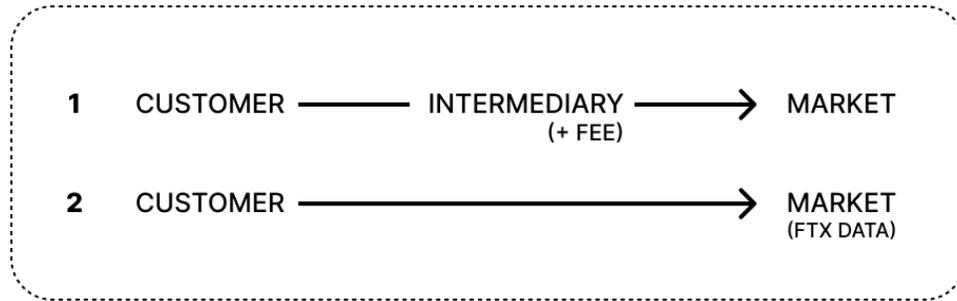
However, one of the things that prohibits an entity from taking on any or all of these functions can be the specifications of a regulation. To say it another way, much of current market structure is a creation of regulatory artifact rather than a reflection of a thoughtful and holistic approach to marketplace design, efficiency, transparency, and risk management. FTX built and continues to evolve its trading ecosystem with the latter approach in mind.

We believe that so long as the various needed functions necessary to the lifecycle of a transaction are being met, policy makers would do well to remain otherwise neutral on how a market is structured (so long as appropriate customer protections also are in place, discussed below). For one example, most market regulation today envisions an intermediated market place where an intermediary such as a broker interfaces directly with a customer (think back to calling in, or mailing in, your order to a broker that had access to the physical exchange floor). In contrast, crypto-asset platforms largely dispense with this mode in favor of a direct-membership market structure, where end investors onboard directly to the platform for trading, and not through an intermediary or broker (although service providers such as Internet and data-center providers are involved).

A non-intermediated market allows all users to get the same access to market data (consider that FTX's data is free, globally, versus much of the global trading venue industry where data fees are a material commercial component of the business), connectivity, and key features related to functionality and risk management, regardless of the sophistication of the user. The positive implications of this are potentially enormous, and are only just beginning to be seen, interestingly, around the direct-to-consumer crypto marketplace models. The



public is better served if the barrier to entry to transact competitively with global markets is an internet connection, rather than a \$100,000 (or more) data-subscription fee and a costly fee- or commission-based relationship with a broker that merely plugs you into the trading venue's technology. Non intermediated markets create a more level playing field that's often lacking in many traditional financial systems, whose market structures have created a number of challenges including real and perceived conflicts of interests between intermediaries and their customers.



Consequently, a direct membership market structure should be expressly permitted (not required, but permitted) so long as the relevant customer protections continue to be afforded, in this case by the platform provider.

3. Custody of Crypto Assets -- Key Functional and Disclosure Requirements

For crypto assets, the asset is safekept in a wallet, where custody can be performed by the asset owner or by a wallet holder on the customer's behalf. Where custody is performed on a customer's behalf by a platform operator or intermediary, appropriate safeguards should be disclosed in policies and procedures of the custodian. Key areas of focus and disclosure should include: wallet architecture; whether insurance is provided by the custodian; how private keys are kept secure, managed and transferred; managing risks related to insider collusion or fraud; and physical security of data centers.

Importantly, in the case of platform operators, consideration should be given to the increasingly common practice of using third-party providers for data centers (i.e., cloud-service providers) as well as custodial services. In these instances, the platform operator will not itself perform these functions but nonetheless will be held responsible by users for them, and users should be given visibility into how third parties will address the aforementioned issues. Market supervisors should require regulated platform operators to perform regular diligence on their vendors and to have sufficient business continuity and disaster-and-recovery programs in place in connection with their vendor suite.

4. Full-Stack Market Infrastructure Providers and the Lifecycle of a Trade -- Addressing Risk Related to Token Issuance and Asset Servicing, Orderly



Markets and Settlement of Trades, Cross Margining and Risk Management of Positions

Again, native crypto-trading platforms integrate into a whole the system for custody, issuing tokens, settlement of trades, and risk managing positions with one technology stack. In creating or fine-tuning a regulatory framework for these platforms, policy makers should ensure that market supervisors understand this system through well developed and clear policies and procedures disclosed by the platform operator. The framework should address the following key issues related to the lifecycle of a spot or derivatives trade.

Token Issuance and Asset Servicing

Token issuers who have access to the platform for purposes of issuing a token should be governed by disclosed policies and procedures that explain the listing standards for tokens. In some cases, existing securities laws will apply, in which case the policies and procedures should explain how such laws are complied with by the platform as it relates to issuing the security tokens.

This document does not address whether existing securities laws should be amended to account for distributed-ledger technologies and new methods of issuing securities in tokenized form. Suffice it to say here that some of the traditional requirements for central securities depositories might not be appropriate for platforms that offer these services, but others will be.

To the extent a token is not a security but has some security-like features at some point in time, and policy makers otherwise have not addressed whether such tokens should be treated as securities, a platform operator in any case should be required to disclose, or otherwise facilitate disclosure of (i.e., most material information for a token can be easily found on the Web, and a platform could direct a platform user to this information), key material information about the token issuer as part of the platform's listing standards.

Likewise, in the case of all tokens, the platform operator should develop and disclose policies and procedures for how a token issuer will interact with the platform for purposes of facilitating asset servicing, so that supervisors and platform users both can understand and assess the risks to the platform posed by token-issuance functionality. This would be especially relevant in the case of security tokens, where dividend payments and changes in ownership, for example, would impact the token and the owner of the token.

Market Surveillance

Good public policy would require that a crypto-platform operator has policies and procedures concerning the practices and technology used to perform market surveillance of the platform's trading environments in order to curb market manipulation and promote orderly markets. This is standard policy for traditional supervised markets and should be carried over to supervised crypto markets as well.



Settlement

With regard to settlement, our recommended policy would require the platform operator to have clear and transparent policies and procedures that explain when settlement of a transaction becomes final, and the conditions and circumstances under which the platform provider would reverse settlement due to errors, etc. By and large, regulated venues do this today in their terms of service, etc., and we think it is important they continue to do so.

One of the hallmarks of the FTX trading experience is to allow users to pair in a transaction nearly any combination of assets for purposes of settlement -- for example, a user could exchange BTC for USDC or for SOL. Sound policy would allow the platform to settle transactions by pairing the assets with any of the others listed on the platform, including stable coins or cash fiat currencies (see below for discussion of stable coins) but also other crypto assets, so long as the platform otherwise made clear how and when settlement becomes final.

Another hallmark of full stack trading experiences is access to credit to ensure and promote liquidity on the platform. Public policy should allow platform operators to facilitate the provisioning of credit to platform users so long as this service and function are well documented and explained to the supervisor and market participants on the platform. This is a clear example of where services previously provided by intermediaries can be solved by the trading venue itself.

Because crypto platforms have led the way in exchange innovation, public policy should anticipate that crypto firms will become more and more integrated with traditional payment rails and similar systems. Policy makers should consider whether and when to expressly delineate under what circumstances these platforms could access government-sponsored payment systems created for the settlement of securities, for example. Other policy initiatives will address whether and under what circumstances securities, including government-issued securities, can be reflected in tokenized form, but if such tokenization is permitted, an otherwise properly supervised platform operator should be allowed to access existing payment systems to facilitate settlement of such securities, even if interaction with that system is not on a real-time basis. Such a policy is recommended because otherwise access to this payment system would involve an intermediary, introducing various types of counterparty, operational, and credit risks to the platform that would not be in the interests of the participants on the platform (which itself would be highly supervised under our proposed framework).

Cross Margining and Risk Management

The regulatory framework for crypto should clearly allow for the cross-margining of both derivatives and spot positions on the platform with any and all assets permitted in the customer wallet and account, subject to appropriate risk weights and haircuts, as applicable. For the settling and risk management of crypto asset transactions on a crypto platform, the settlement and risk systems are automated and the relevant software interacts with the wallet and account that contain customer assets.



A well-designed regulatory framework would allow a single platform to perform all risk functions, and require the appropriate standards on those functions. For example, in addition to the custody requirements mentioned above, the settlement and risk-management systems should be appropriately explained to the market supervisor through the platform's rule book, and the regulator should be made aware of major changes to the system.

Sound policy also should ensure that risk-management systems used by a platform operator are configured to prevent customer accounts from going net negative across positions. A risk-management system that effectively performs this function with this goal, including through liquidations of customer positions, should not be allowed to do so in an arbitrary manner. Instead, the rules, risk parameters and business logic that trigger any actions taken by the customer platform as it relates to customer assets should be clearly disclosed and appropriately explained to the supervisor as well as the platform users in the platform's rule book, which should be approved by the primary market supervisor.

In permissioning the use of a risk-management system for clearance and settlement, policy makers should take care to remain technology and methodology neutral, so long as the platform operator can effectively demonstrate its responsibilities can be adequately met.

5. Trading Platform Providers -- Ensuring Regulatory and Market Reporting

Regulatory reporting of transactional activity should be required in order to provide market supervisors appropriate visibility into the trading platform, and to better allow supervisors to police for market manipulation and other unfair trade practices.

Policy makers should consider carefully how best to provide this data -- a requirement should be considered that would mandate that trading platforms create an API for the beneficial use of market supervisors to directly ingest data from the platform itself, rather than require a separate entity to undertake reporting responsibilities.

With respect to market reporting, a hallmark of the crypto-asset industry (as previewed above) is the provisioning of market data to users free of charge. Policy makers should carefully consider the standards under which platforms are permitted to charge users a fee for the provisioning or use of market data related to trading that takes place on said platform along with the implications of that activity for market access, transparency, and fairness policy initiatives. The right standards could incentivize the platform operators to focus on risk management, user experience, and product innovation for competitive advantage rather than fees based on trading activity brought to the platform by the user.

6. Ensuring Customer Protections

As suggested, crypto-asset platforms have ushered in an evolution of market structure in favor of a non-intermediated model, where entities separate from the platform are not needed in order to access the platform and the trading environment.



In this market structure, however, key customer protections should remain in place. From a policy perspective, one approach could be a very general and non-prescriptive one that requires that platform providers or intermediaries develop and disclose policies and procedures to ensure the best interests of all customers are protected at all times, and leave it to the entity's discretion. This would allow investors to choose a platform provider based on the robustness of those policies and procedures.

If a more detailed or prescriptive approach is favored, such an approach should consider whether specific requirements related to practices impacting platform customers such as front-running trading activity, market manipulation, general risk disclosures related to the assets and instruments listed for trading, appropriate and non-misleading communications with customers, and avoidance of entering into conflicts of interest with customers. Again, appropriate customer-protection requirements can be borrowed from the traditional finance space -- the key is to ensure that the platform provider can provide them rather than insisting that an intermediary perform the function. FTX believes that market place operators are properly positioned (perhaps best positioned) to deliver these types of disclosures and materials to users in a way that can be built directly into the trading venue user interface/user experience.

7. Ensuring Financial Responsibilities are Met

As with traditional markets, ensuring that customer assets are protected to the maximum extent possible should be a principle for regulating crypto-asset markets.

Again, the prominence of the wallet as a tool for storing assets is key to the crypto-asset space, and apart from requirements to ensure that the wallet itself is safely maintained and secured, policy makers should ensure that customers have access to real-time information about their account levels at all times (and redundant access paths, in the event of disruptions on one access path), particularly if and when a platform operator commingles customers' assets in an omnibus manner. If a platform provider elects to provide this infrastructure, operational complexity can be substantially reduced while customer assets are meaningfully protected.

In the case of a platform operator or an intermediary, policy makers should consider whether to adopt a minimum capital requirement (or other financial wherewithal condition) to ensure there are adequate resources to address operational and other types of risks that could jeopardize customer assets in custody. For platform operators, this could take the form of ensuring operational resiliency but in addition also ensuring adequate resources to address defaults and liquidations performed by a risk-management system (see above discussion on platform risk management). The goal should be to ensure platform operators need not depend on off-platform resources for settlement and risk management.

With respect to margining customer accounts, there should be a policy that expressly allows portfolio margining of all customer positions in all assets on the platform. This risk-management approach promotes capital efficiency and reduces operational risks to the platform or intermediary managing the customer account.



8. Ensuring Stable Coins Used on Platform Meet Appropriate Standards

A platform operator that permits the use of stable coins for settlement of transactions should be required to explain the standards the platform operator uses in deciding which stable coins it permits for such purposes. FTX has articulated and explained its policy recommendations for stable coin issuers (see <https://blog.ftx.com/policy/context-stablecoin-regulation/>).

The reason such a policy is recommended is that stable coins are exposed to reserve-volatility as well as redemption risk, and platform users should be entitled to some understanding of whether and to what extent those risks could impact their activity on the platform, including their impact on settlement of transactions (which might not be direct, but nonetheless indirect).

For example, a stable coin backed by risky and volatile assets and not transparently backed by an adequate amount of such assets with appropriate haircuts, could become exposed to price risk. This price risk could interfere with settlement finality on the platform, insofar as the value of the stable coin delivered as payment for the crypto assets in a transaction on the platform are suddenly not equal. Ensuring that stable coins allowed for use on the platform meet adequate standards set by the platform operator (or by public policy makers if applicable) mitigates this risk, and should better protect the users of the platform.

9. Full-Stack Infrastructure Providers -- Ensuring Appropriate Cybersecurity Safeguards are Kept

Market regulators in recent years have developed comprehensive cybersecurity requirements for market infrastructure providers. Policy makers should either apply the relevant safeguards already in place for exchanges, or otherwise require that the platform provider develop and disclose to market participants its policies and procedures regarding cybersecurity safeguards. In the case of platform operators already licensed by a market regulator, system-safeguard requirements already will be in place. In the case of platform operators not already licensed, one consideration for policy makers is to adopt a policy that helps facilitate standardization of these safeguards domestically as well as globally.

10. Full-Stack Infrastructure Providers -- Ensuring Anti-Money Laundering and Know Your Customer Compliance

Platform operators must perform appropriate KYC as part of user onboarding and must conduct regular anti-money laundering surveillance of user activity (both on the trading venue and via the scrutiny of related on-chain transfers in and withdrawals out). Many platforms, including FTX, use a combination of vendors and internal compliance personnel to assist with these functions today. However accomplished, it is critical that crypto market place regulation continues to require significant focus on the performance of KYC and AML



obligations. To ensure this, market place operators should be performing periodic self-audits and should also be subject to regular review and exam by their primary regulator on these requirements.