THE FTX IMPLOSION SHOULD NOT STAND IN THE WAY OF THE ADOPTION OF BLOCKCHAIN SOFTWARE BY CORPORATIONS

Steven E. Russell, Esq.

Portfolio Manager
Emerald Finance & Banking Innovation Fund

WHITE PAPER | NOVEMBER 28, 2022

EMERALD
DRIVEN BY RESEARCH
SINCE 1992

FTX is the latest centralized company in the digital asset industry to commit what appears to be fraudulent activity, which has resulted in a daisy chain of companies failing and filing for bankruptcy. Unfortunately, because of the alleged frauds, client assets will be lost and withdrawals have been halted. FTX's downfall to many was swift but to those who believe in the adoption of distributed ledger technology, often referred to as blockchain, it was like a slow-motion train wreck. Once again, the focus will be on coins and tokens as well as "bad people doing bad things." We believe this is another example of a centralized institution making the same mistakes that have taken down many traditional financial services firms in the past. These firms may have either fraudulently or negligently utilized too much leverage, had a mismatch between asset and liability management and/or poor risk management.

FTX fell apart quickly, and there is still a lot to learn about its stunning collapse. But it is clear that Alameda Research used FTT to make speculative bets on other cryptocurrencies and complex financial products. So, what happened?

Nov. 2 **9:45AM -** CoinDesk publishes an article revealing that at least a third of Alameda's $14 billion balance sheet is in FTT (the FTX token).

Nov. 6 **9:32AM -** Alameda clarifies that Alameda has assets not reflected in CoinDesk's reporting.

Nov. 6 **10:47AM -** Binance CEO tweets that "due to recent revelations that have come to light," his firm will be liquidating at least $584 million worth of FTT, received as part of Binance's exit from FTX last year.

Nov. 6 **11:30AM -** Alameda CEO offers to buy all Binance's FTT holdings for $22.

Nov. 6 **4:49PM -** Binance CEO reinforces their intent to sell all FTT holdings.

Nov. 6 **6:28PM -** FTX CEO, known as SBF, clarifies FTX is solvent.

Nov. 7 **7:38AM -** SBF claims "a competitor is trying to go after us with false rumors. FTX is fine. Assets are fine," he writes in a now-deleted tweet. FTX sees massive withdrawals.

Nov. 7 **9:45PM -** FTT price breaks below $22.

Nov. 8 **6AM to 7AM -** Last outgoing withdrawal from FTX identified addresses on Ethereum, Solana and Tron.

Nov. 8 **8:53AM -** The Block publishes article on FTX halting withdrawals on-chain.

Nov. 8 **11:03AM -** FTX CEO SBF announces strategic transaction with Binance.

Nov. 8 **11:09AM -** Binance CEO announces letter of intent to acquire FTX.

Nov. 9 Binance backs out of the acquisition, stating FTX's liquidity "issues are beyond our control or ability to help." Bankman-Fried reportedly seeks emergency funding to cover a shortfall of up to $8 billion.

Nov. 10 Reuters publishes a report suggesting that FTX had sent at least $4 billion, including customers' funds, to Alameda to help the trading firm cover its losses from crypto implosions in May and June. Stablecoin tether slips below its $1 peg.

Nov. 11 FTX, FTX US and Alameda Research file for bankruptcy.

We believe the uncertainty around these events and their ultimate resolution also has ripple effects throughout the broader digital asset ecosystem, with implications for the development of the industry, crypto asset prices, and publicly traded companies with exposure to crypto assets and services, including companies that do not own or involve crypto currencies in their business models but are utilizing distributed ledger technology as part of their business model.

The collapse of FTX will and already have had an impact in the digital asset market and will slow adoption and capital flow into the industry. Further, we have already witnessed an impact on businesses both directly and indirectly exposed to FTX.

- Institutional trading firm Genesis announced on November 11 that it had $175 million in locked funds within the firm's trading account on FTX.
- Crypto.com recently assured his customers that the $1 billion worth of assets that the exchange moved to FTX was fully recovered and the exposure to the firm is under $10 million.
- Venture capital firm Multicoin Capital reportedly has around $863 million in assets frozen on FTX.
- Investment firm Pantera Capital noted that it had suffered some risks and losses from the FTX collapse.
- Nexo admitted to having a small loan to Alameda Research. The firm highlighted that the amount was less than 0.5% of its total assets.
- Galaxy Digital recently disclosed its $76.8 million exposure to FTX.
- Venture capital company Sequoia Capital announced that its $213.5 million investment in companies FTX and FTX US.
- CoinShares noted that it was able to reduce its overall exposure to $31.5 million.
- Amber Group stated that their exposure is limited to less than 10% of its total trading capital.

The key question now is how bad the contagion is and how long they will take to play out, but we note that the digital asset industry is still in its early innings, and our view is that any disruption to the ecosystem is temporary at this stage and can be overcome. Accordingly, we continue to believe in the long-term potential application for distributed ledger (blockchain) technology as we continue to move toward a more digital economy.

Despite the distraction of the crypto currency market, we continue to believe in the adoption of distributed ledger technology (DLT) by the banking and financial services industry. DLT or Blockchain is simply software that transforms everything from payments transactions to how money is raised in the private market. Will the traditional banking industry embrace this technology or allow fraudulent or negligent management teams such as those associated with FTX, Celsius, Three Arrows Capital and Voyager delay the adoption of DLT and the efficiencies inherent in its adoption? We think not and highlight below the ongoing use cases that are currently in the process of being adopted by the financial industry.

Blockchain technology provides a way for untrusted parties to come to an agreement on the state of a database, without using a middleman. A blockchain could provide specific financial services, like payments or securitization, without the need for administration by a centralized entity. Additionally, blockchain allows for the use of tools like smart contracts. Smart contracts allow for self-executing contracts based on the blockchain, which could potentially automate manual processes from compliance and claims processing to the distribution of content from a will.

We believe blockchain technology has a massive opportunity to disrupt the $7 trillion plus financial services industry by disintermediating the "middleman." We believe the following "low hanging fruit" are "ripe" for disruption.

PAYMENTS — By establishing a decentralized ledger for payments, blockchain technology could facilitate faster payments at lower fees than banks.

CLEARANCE and SETTLEMENT SYSTEMS — Distributed ledgers can reduce operational costs and bring the industry closer to real-time transactions between financial institutions.

FUNDRAISING — Tokenized Equity Offerings are experimenting with a new model of financing that unbundles access to capital from traditional capital-raising services and firms.

SECURITIES — By tokenizing traditional securities such as stocks, bonds, and alternative assets, and placing them on public blockchains, blockchain technology could create more efficient, interoperable capital markets.

LOANS and CREDIT — By removing the need for gatekeepers in the loan and credit industry, blockchain technology can make it more secure to borrow money and provide lower interest rates.

TRADE FINANCE — By replacing the paper-intensive bills of lading process in the trade finance industry, blockchain technology can create more transparency, security, and trust among trade parties globally.

CUSTOMER KYC and FRAUD PREVENTION — By storing customer information on decentralized blocks, blockchain technology can make it easier and safer to share information between financial institutions.

We believe the future of blockchain is near, and banking isn't the only industry affected. While it remains to be seen to what degree the traditional financial services industry embraces distributed ledger technology, one thing is clear, however: blockchain will indeed transform the industry and it has nothing to do with the price of various "scam" tokens and the fraudulent companies "pumping" them.

IMPORTANT DISCLOSURE

This report is furnished for the use of Emerald Advisers, LLC, its affiliates and its clients and does not constitute the provision of investment, legal or tax advice to any person. It is not prepared with respect to the specific investment objectives, financial situation or particular needs of any specific person. The information contained in this report was obtained from sources deemed reliable. Such information is not guaranteed as to its accuracy, timeliness or completeness by Emerald. Any opinions contained in this report represent the judgment of the authors as of the publication date. The information contained in this report and the opinions expressed herein are subject to change without notice. Past performance is no guarantee of future results. Neither the information in this report nor any opinion expressed herein constitutes an offer nor recommendation to buy or sell any security or financial instrument. Accounts managed by Emerald's affiliated advisory firms may take positions from time to time in securities discussed in its reports.

Steven E. Russell, Esq.
Portfolio Manager
Emerald Finance & Banking Innovation Fund

Mr. Russell is a Co-Manager of the Emerald Finance & Banking Innovation Fund and a Senior Research Analyst for Emerald Advisers, LLC. Prior to joining Emerald in 2005, Mr. Russell founded Greenwood Advisers, LLC, a registered investment adviser. Previously, he served as Managing Director of iNetworks, LLC, a private equity firm located in Western Pennsylvania. Prior to joining iNetworks, LLC, Mr. Russell served as Senior Vice President and Portfolio Manager of Emerald Advisers from 1998 - 2002, where he served as Manager of the Emerald Technology Fund and co-manager of the Emerald Select Banking Fund. He was also a Principal and Founding Partner of Emerald Venture Capital. Mr. Russell served as Senior Private Equity Analyst for the Pennsylvania Public School Employees' Retirement System (PSERS), where he administered PSERS' $1.2 billion commitment of private investments, including leveraged buyouts, distressed investments, mezzanine and growth equities. From 1996 to 1997, he administered PSERS' $400 million Developmental Fund and $100 million Absolute Return Program. Mr. Russell serves on the Board of Arbitrators for the Financial Industry Regulatory Authority (FINRA), and has appeared on CNBC, Bloomberg Television and other investment-oriented programs. He has been quoted in various international media, including The Wall Street Journal, Smart Money Magazine, Bloomberg Business News, Dow Jones News Service and Market Watch. Mr. Russell received both his JD and MBA degrees from Temple University and a BA degree in Banking and Finance from Morehouse College. Mr. Russell is licensed to practice law in the State of New Jersey and has passed the NASD Series 63 exam.

CONTACT US

Phone: 1-800-722-4123
info@teamemerald.com

3175 Oregon Pike | Leola, PA 17540
King of Prussia, PA | Pittsburgh, PA | Cleveland, OH

TO LEARN MORE ABOUT THE FUND, PLEASE VISIT:
WWW.TEAMEMERALD.COM
WWW.EMERALDMUTUALFUNDS.COM