Southeast Bankruptcy Workshop

Consumer Session

Tales from the Crypto: A Guide and Discussion

Jane H. Downey, Moderator
Baker, Donelson, Bearman, Caldwell & Berkowitz, PC | Columbia, S.C.

Ido J. Alexander
AlignX Law | Fort Lauderdale, Fla.

Neil C. Gordon
Taylor English Duma LLP | Atlanta

CONCURRENT SESSION

2023

"CRYPTO" FOR CONSUMER ATTORNEYS

Presented by Ido Alexander and Neil Gordon
ABI Southeast | Amelia Island, Florida | July 20-23, 2023

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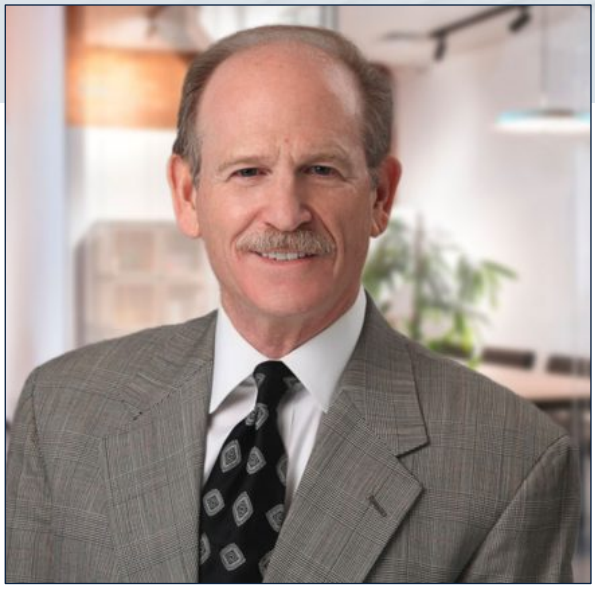
NEIL GORDON



Partner, Atlanta

404.640.5917
ngordon@taylorenglish.com

Neil C. Gordon is a partner in the Atlanta office of Taylor English Duma LLP. He served for two years as a law clerk in Atlanta for United States District Court Judge Robert L. Vining, Jr. followed by 42 years in private practice, with the last 39 years being exclusively in the areas of bankruptcy, business reorganization, fraud investigations, and creditors' rights. Mr. Gordon represents trustees and receivers throughout the country, including in Delaware litigation that recently settled for approximately $40 million. Mr. Gordon chaired the Bankruptcy Law Section of the Atlanta Bar Association from 1992 to 1993, and has been a panel trustee since 1994, and also serves as an SEC Receiver. Mr. Gordon was first elected to the Board of the National Association of Bankruptcy Trustees in 2000. He held every office including President (2011-2012) and for eight years chaired its Amicus Committee. For 2021 -2023, Mr. Gordon has been named as one of the Lawdragon 500 Leading Bankruptcy & Restructuring Lawyers in the country. Mr. Gordon has authored or co-authored over 80 scholarly articles and book chapters on bankruptcy law related topics and is making his 200th seminar presentation. He served for three years ending in April 2015 as the Co-Chair of the ABI's Legislation Committee and served on the Chapter 7 Sub-committee for the ABI Commission for the Reform of Consumer Bankruptcy Law in 2017-2018. He also served on the Steering Committee for Professor Lois Lupica's published study on the Costs of BAPCPA commissioned by ABI and NCBJ. He is a Lifetime Member of the ABI, a Master of the Bench in the W. Homer Drake, Jr., Georgia Bankruptcy American Inns of Court, a Full Member of the National Association of Federal Equity Receivers, and a Fellow of the American College of Bankruptcy.

JAMES ZHONG: A $3.4 BILLION CRYPTO STORY

- 2009 Zhong is a crypto currency pioneer mining hundreds of bitcoins per day
- They are not yet worth much
- By the time he enters college less than two years later, he converts some of his digital wealth into $700,000 in cash

JAMES ZHONG: A $3.4 BILLION CRYPTO STORY

- In December 2012, Zhong is now a 22-year-old UGA computer science student
- He wants to buy cocaine using his account at Silk Road: an online market-place used to hide criminal dealings behind the anonymity of blockchain transactions and the dark web.

JAMES ZHONG: A $3.4 BILLION CRYPTO STORY

- In doing so, he accidentally double-clicks the withdrawal button and discovers a software bug ---
- It is allowing him to withdraw double the amount of bitcoin he had deposited

JAMES ZHONG: A $3.4 BILLION CRYPTO STORY

- Zhong feverishly begins creating a multitude of new accounts.
- After a few hours, he has stolen 50,000 bitcoins then worth about $600,000

JAMES ZHONG: A $3.4 BILLION CRYPTO STORY

- Feds close Silk Road a year later and seize computers holding the transaction records
- Feds have not yet mastered how to track people and groups hidden behind blockchain wallet addresses
- So, Zhong's theft is not revealed at first

JAMES ZHONG: A $3.4 BILLION CRYPTO STORY

- For 5 years, Zhong sits on his digital stash
- In 2017, he spends $16 Million to buy friends by chartering boats and planes for various trips, attending exclusive sporting events, etc.
- But he continues to live in his small Athens home and is still wearing t-shirts and shorts

JAMES ZHONG: A $3.4 BILLION CRYPTO STORY

- 12/16/20, Zhong combines crypto funds the IRS had linked to the Silk Road theft with legitimate funds he kept in a cryptocurrency exchange
- IRS goes to the bitcoin exchange and gets an IP address, which Zhong's ISP confirms Zhong has been using since 2016

JAMES ZHONG: A $3.4 BILLION CRYPTO STORY

- 11/20/21, Feds conduct a surprise raid with a search warrant for the home
- They discover the digital keys to the crypto stash in a basement floor safe and in a popcorn tin in his bathroom
- 50,000 bitcoin seized worth about $3.4 Billion
- Zhong pleads guilty to mail and wire fraud

JAMES ZHONG: A $3.4 BILLION CRYPTO STORY

- Private and government investigators can now identify wallet addresses (earlier thought to be anonymous) associated with:
  - terrorists
  - drug traffickers
  - money launderers
  - cyber criminals

JAMES ZHONG: A $3.4 BILLION CRYPTO STORY

- They work with crypto exchanges and block chain analytics companies to map the flow of crypto transactions across criminal networks worldwide
- Past 2 years, the U.S. has seized over $10 Billion of digital currency through successful prosecutions – by following the $$$$$

JAMES ZHONG: A $3.4 BILLION CRYPTO STORY

- Government investigators look at the blockchain's on-line ledger – open to anyone to see
- Chainalysis, based in New York, says it has mapped more than a billion wallet addresses, separating out legitimate and questionable holdings and identifying the exchanges where cryptocurrencies are converted to cash
- Blockchain apparently preserves evidence perfectly

JAMES ZHONG: A $3.4 BILLION CRYPTO STORY

- USDOJ executed a financial seizure and retrieval of $3.6 Billion from a New York couple: The proceeds of a 2016 hack of the Bitfinex exchange
- As it is getting harder for criminals to convert their spoils to cash, SOME OF THEM WILL BECOME OUR DEBTORS

JAMES ZHONG: A $3.4 BILLION CRYPTO STORY

- Once government officials publish wallet addresses connected to criminal activity, legitimate exchanges won't do business with them
- In 2/23, FBI published a list of wallet addresses linked to the $100 Million Horizon Bridge theft, effectively stonewalling hackers from withdrawing cash through legitimate exchanges

JAMES ZHONG: A $3.4 BILLION CRYPTO STORY

- The founders of Chainalysis were brought in to investigate the 2014 collapse of Mt.Gox, once one of the most popular crypto exchanges
- It took 3 months to learn Mt.Gox held fewer bitcoin in reserve than believed
- Today, that kind of investigation would take 30 seconds

JAMES ZHONG: A $3.4 BILLION CRYPTO STORY

- Chainalysis has today over 200 clients, including the IRS, FBI, DEA, crypto exchanges, large banks, etc. flagging mostly risky sources of funds
- Many other block chain-analytics companies have formed such as Elliptoc and CipherTrace (owned by MasterCard)
- Bankruptcy trustees will also become clients in larger cases

JAMES ZHONG: A $3.4 BILLION CRYPTO STORY

- In 2022, $457 Million was paid by ransomware victims to criminally controlled bitcoin addresses
- Feds are recovering more and more of the stolen funds leading to a slow down in such payments

JAMES ZHONG: A $3.4 BILLION CRYPTO STORY

- A Santa Clara County, California prosecutor uncovered over $2 Million in stolen funds last year in an online scam
- Off-shore criminals were befriending victims via text and persuading them to put $$$ into phony crypto investments

A TRUSTEE'S TALES FROM THE CRYPTO

- The old Romance Scam is back !!
- Recall the Dateline special on this about 15 years ago where lonely men were sending presents and wiring money to a girlfriend who they had never met –just on-line photos
- Dateline tracked the source to Lagos, Nigeria

A TRUSTEE'S TALES FROM THE CRYPTO

- BBC Podcast: Love Jenessa – has exposed it again.
- The scam has been updated to the cryptocurrency world
- Lonely men think they are engaged to a woman they have never met named Jenessa
- Last 45 days Neil got one of these plus two other scams as trustee or attorney for the trustee

A TRUSTEE'S TALES FROM THE CRYPTO

- **CASE No. 1**
  - Debtor (73) thinks he is engaged to a woman he has not met
  - At the direction of his "fiancé" in 1/2023 he:
    1. Deposits $400K from his 401(k) into a new Coinbase acct.
    2. Gives "her" the IP address and digital key for the wallet
  - Later that same day, bitcoin for the full amount is withdrawn
  - Never hears from her again

A TRUSTEE'S TALES FROM THE CRYPTO

- Other victims of the same named fiancé demand millions from debtor not knowing he was just another victim
- One victim alone had deposited over $3 Million
- **Good luck!!**

A TRUSTEE'S TALES FROM THE CRYPTO

- **CASE No. 2**
  - Debtor is a surgeon
  - Wants to invest in cryptocurrency
  - Finds a "broker" through LinkedIn
  - Checks him out, speaks with him, and checks with several references
  - But broker and references were all part of the scam

A TRUSTEE'S TALES FROM THE CRYPTO

- Turns over to broker $415,225 to open a Coinbase account
- Broker opens it for himself and steals the funds
- Debtor pays another $15K to an SLC/Private investigation firm (plus 20% contingency)
- They hire a law firm in, yep, Lagos, Nigeria
- **Good luck!!**

A TRUSTEE'S TALES FROM THE CRYPTO

- **CASE No. 3**
  - Debtor made millions in a Michigan real estate flipping scam – never accounting for the $$
  - Files pro se
  - Trustee bluffs saying he sees Debtor has crypto investments
  - Debtor is afraid to deny it, so admits he DID--but says "not any longer."
  - BINGO!! Hire Ido

Ido Alexander

- Blockchain Investigations and Advisory
- *Cryptocurrency Tracing Certified Examiner* by CipherTrace
- Regularly represents trustees, debtors, and creditors — in Chapter 11 and 7 bankruptcy cases.
- Author: Crypto in Your Everyday Bankruptcy Case: Trustee's Introductory Guide, NABT Journal 2023

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Crypto Assets

- Who?
  - 2022 = 13%
  - Millennials – 22% of population
  - Gen X – 20% of population
  - Small amounts but growing
  - Crypto in criminal enterprise
- What?
  - Crypto Assets
  - NFTs
  - DAOs
- Where?
  - Wallets
  - DEX
  - CEX

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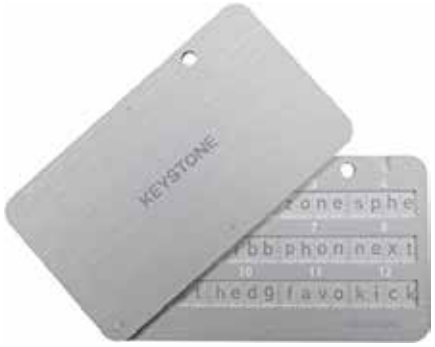
Wallets v. CEX Accounts

- Exchange or Decentralized Exchange (who owns)
- Wallets
  - Types (Hot, cold, multi-key, custodian)
  - Where?
- Keys (Public and Private) / Seed Phrase
- Key Considerations:
  - Security
  - Ease of Use
  - Control & ownership



Investigation: Detecting and Discovering Crypto Assets
On Ramps / Off Ramps

Detecting:

- Readily available information
  - Schedules, tax filings, bank statements, credit card statements, estate planning documents
- Other information:
  - e-mails, password managers, 2FA methods
- Familiarity with:
  - Popular CEX, formatting of charges
- Questions, questions and questions (broad to narrow)
  - Interview
  - 341 Meeting
  - 2004 Exam & RFP
- Information requested should include:
  - All transaction history from CEX
  - 2FA, Keys (public and private)

Crypto tracing techniques

- Blockchain explorers – allows to see the transfers
- Key Tracing Techniques
  - Mapping – Visualizing transactions
  - Clustering – looking at multiple addresses
  - Blockchain Forensics
    - Wallet address v. account
    - Transaction ID
    - Amounts
- Other:
  - Attribution data – knowns (addresses and exchanges)
  - IP Addresses
- Coinjoins (maintain custody) / Mixers

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Issues to consider…

Valuations considerations

- How/where to sell
- Liquidity of assets
- Any secured amounts (i.e. Nexo)

Taking possession

- Procedure
- Safekeeping
- Liquidation
- Taxes (basis)

Jurisdiction and responsiveness

- Compel
- Contempt
- KYC
- Overseas? Subpoena powers
- Mareva injunction
- Recognition of orders v. time v. size of case

Volatility

- Risks of holding cyber- currencies
- Risks of selling

Cooperation

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QUESTIONS TO ASK

- Have you or any entity you controlled, ever owned any bitcoin or any other cryptocurrency, virtual coins or tokens?
- Have you ever owned any ETF or other funds that holds cryptocurrency?
- Have you ever opened any account at an online website to trade or hold cryptocurrency?
- Have you ever owned any hardware wallet or cold storage for cryptocurrency?
- Have you ever reported anything to the IRS regarding Cryptocurrency gain or loss?
- Is anyone else holding any cryptocurrency on your behalf?
- Have you held cryptocurrency in any family member's name?
- Have you ever bought cryptocurrency for anyone else?
- Have you ever sold or transferred cryptocurrencies to anyone else?
- Have you conducted any virtual currency transactions on anyone else's behalf?
- Does anyone owe you any cryptocurrency or money from a cryptocurrency transaction?

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IF THE PERSON TESTIFIES THAT HE/SHE HAS OWNED CRYPTOCURRENCY:

- When and why did you start using virtual currency?
- What was the purpose of your initial and subsequent Crypto transactions?
- In the last 2 years, what was the highest amount of cryptocurrency you held?
- What exchanges/payment processors do you use?
- What email address did you use to create digital wallets?
- Where do you retain your digital wallet?
- Is the digital wallet on a USB drive or written down on paper?
- Where is any cold storage wallet located?
- Where is your private key stored right now?

PRESS RELEASE

U.S. Attorney Announces Historic $3.36 Billion Cryptocurrency Seizure And Conviction In Connection With Silk Road Dark Web Fraud

Monday, November 7, 2022

For Immediate Release

U.S. Attorney's Office, Southern District of New York

In November 2021, Law Enforcement Seized Over 50,676 Bitcoin Hidden in Devices in Defendant JAMES ZHONG's Home; ZHONG Has Now Pled Guilty to Unlawfully Obtaining that Bitcoin From the Silk Road Dark Web in 2012

Damian Williams, the United States Attorney for the Southern District of New York, and Tyler Hatcher, the Special Agent in Charge of the Internal Revenue Service, Criminal Investigation, Los Angeles Field Office ("IRS-CI"), announced today that JAMES ZHONG pled guilty to committing wire fraud in September 2012 when he unlawfully obtained over 50,000 Bitcoin from the Silk Road dark web internet marketplace. ZHONG pled guilty on Friday, November 4, 2022, before United States District Judge Paul G. Gardephe.

On November 9, 2021, pursuant to a judicially authorized premises search warrant of ZHONG's Gainesville, Georgia, house, law enforcement seized approximately 50,676.17851897 Bitcoin, then valued at over $3.36 billion. This seizure was then the largest cryptocurrency seizure in the history of the U.S. Department of Justice and today remains the Department's second largest financial seizure ever. The Government is seeking to forfeit, collectively: approximately 51,680.32473733 Bitcoin; ZHONG's 80% interest in RE&D Investments, LLC, a Memphis-based company with substantial real estate holdings; $661,900 in cash seized from ZHONG's home; and various metals also seized from ZHONG's home.

U.S. Attorney Damian Williams said: "James Zhong committed wire fraud over a decade ago when he stole approximately 50,000 Bitcoin from Silk Road. For almost ten years, the whereabouts of this massive chunk of missing Bitcoin had ballooned into an over $3.3 billion mystery. Thanks to state-of-the-art cryptocurrency tracing and good old-fashioned police work, law enforcement located and recovered this impressive cache of crime proceeds. This case shows that we won't stop following the money, no matter how expertly hidden, even to a circuit board in the bottom of a popcorn tin."

IRS-CI Special Agent in Charge Tyler Hatcher said: "Mr. Zhong executed a sophisticated scheme designed to steal bitcoin from the notorious Silk Road Marketplace. Once he was successful in his heist, he attempted to hide his spoils through a series of complex transactions which he hoped would be enhanced as he hid behind the mystery of the 'darknet.' IRS-CI Special Agents are the best in the world at following the money through cyberspace or wherever our financial investigations lead us. We will continue to work with our partners at the US Attorney's Office to track down these criminals and bring them to justice."

According to the allegations contained in filings in Manhattan federal court and statements made during court proceedings:

ZHONG's Scheme to Defraud

Silk Road was an online "darknet" black market. In operation from approximately 2011 until 2013, Silk Road was used by numerous drug dealers and other unlawful vendors to distribute massive quantities of illegal drugs and other illicit goods and services to many buyers and to launder all funds passing through it. In 2015, following a groundbreaking prosecution by this Office, Silk Road's founder Ross Ulbricht was convicted by a unanimous jury and sentenced to life in prison.

In September 2012, ZHONG executed a scheme to defraud Silk Road of its money and property by (a) creating a string of approximately nine Silk Road accounts (the "Fraud Accounts") in a manner designed to conceal his identity; (b) triggering over 140 transactions in rapid succession in order to trick Silk Road's withdrawal-processing system into releasing approximately 50,000 Bitcoin from its Bitcoin-based payment system into ZHONG's accounts; and (c) transferring this

Bitcoin into a variety of separate addresses also under ZHONG's control, all in a manner designed to prevent detection, conceal his identity and ownership, and obfuscate the Bitcoin's source.

While executing the September 2012 fraud, ZHONG did not list any item or service for sale on Silk Road, nor did he buy any item or service on Silk Road. ZHONG registered the accounts by providing the bare minimum of information required by Silk Road to create the account; the Fraud Accounts were merely a conduit for ZHONG to defraud Silk Road of Bitcoin.

ZHONG funded the Fraud Accounts with an initial deposit of between 200 and 2,000 Bitcoin. After the initial deposit, ZHONG then quickly executed a series of withdrawals. Through his scheme to defraud, ZHONG was able to withdraw many times more Bitcoin out of Silk Road than he had deposited in the first instance. As an example, on September 19, 2012, ZHONG deposited 500 Bitcoin into a Silk Road wallet. Less than five seconds after making the initial deposit, ZHONG executed five withdrawals of 500 Bitcoin in rapid succession — *i.e.*, within the same second — resulting in a net gain of 2,000 Bitcoin. As another example, a different Fraud Account made a single deposit and over 50 Bitcoin withdrawals before the account ceased its activity. ZHONG moved this Bitcoin out of Silk Road and, in a matter of days, consolidated them into two high-value amounts.

Nearly five years after ZHONG's fraud, in August 2017, solely by virtue of ZHONG's possession of the 50,000 Bitcoin that he unlawfully obtained from Silk Road, ZHONG received a matching amount of a related cryptocurrency — 50,000 Bitcoin Cash ("BCH Crime Proceeds") — on top of the 50,000 Bitcoin. In August 2017, in a hard fork coin split, Bitcoin split into two cryptocurrencies, traditional Bitcoin and Bitcoin Cash ("BCH"). When this split occurred, any Bitcoin address that had a Bitcoin balance (as ZHONG's addresses did) now had the exact same balance on both the Bitcoin blockchain and on the Bitcoin Cash blockchain. As of August 2017, ZHONG thus possessed 50,000 BCH in addition to the 50,000 Bitcoin that ZHONG unlawfully obtained from Silk Road. ZHONG thereafter exchanged through an overseas cryptocurrency exchange all of the BCH Crime Proceeds for additional Bitcoin, amounting to approximately 3,500 Bitcoin of additional crime proceeds. Collectively, by the last quarter of 2017, ZHONG thus possessed approximately 53,500 Bitcoin of total crime proceeds (the "Crime Proceeds").

The Government's Seizure of Forfeitable Property

On November 9, 2021, pursuant to a judicially authorized premises search warrant (the "Search"), IRS-CI agents recovered approximately 50,491.06251844 Bitcoin of the Crime Proceeds from ZHONG's Gainesville, Georgia, house. Specifically, law enforcement located 50,491.06251844 Bitcoin of the approximately 53,500 Bitcoin Crime Proceeds (a) in an underground floor safe; and (b) on a single-board computer that was submerged under blankets in a popcorn tin stored in a bathroom closet. In addition, law enforcement recovered $661,900 in cash, 25 Casascius coins (physical bitcoin) with an approximate value of 174

Bitcoin, 11.1160005300044 additional Bitcoin, and four one-ounce silver-colored bars, three one-ounce gold-colored bars, four 10-ounce silver-colored bars, and one gold-colored coin.

Beginning in or around March 2022, ZHONG began voluntarily surrendering to the Government additional Bitcoin that ZHONG had access to and had not dissipated. In total, ZHONG voluntarily surrendered 1,004.14621836 additional Bitcoin.

Forfeiture Actions

In connection with ZHONG's guilty plea, on November 4, 2022, Judge Gardephe entered a Consent Preliminary Order of Forfeiture as to Specific Property and Substitute Assets/Money Judgment forfeiting ZHONG's interest in the following property:

- ZHONG's 80% interest in RE&D Investments, LLC, a Memphis-based company with substantial real estate holdings;
- $661,900 in United States currency seized from ZHONG's home on November 9, 2021;
- Metal items, consisting of four one-ounce silver-colored bars, three one-ounce gold-colored bars, four 10-ounce silver-colored bars, and one gold-colored coin, all seized from ZHONG's home on November 9, 2021;
- 11.1160005300044 Bitcoin seized from ZHONG's home on November 9, 2021;
- 25 Casascius coins (physical Bitcoin) with an approximate value of 174 Bitcoin, collectively, seized from ZHONG's home on November 9, 2021;
- 23.7112850 Bitcoin provided by ZHONG on April 27, 2022;
- 115.02532155 Bitcoin provided by ZHONG on April 28, 2022; and
- 4.57427222 Bitcoin provided by ZHONG on June 8, 2022.

Today, in *United States v. Ross Ulbricht*, S1 14 Cr. 68 (LGS), the Government filed a motion for entry of an Amended Preliminary Order of Forfeiture, seeking to forfeit approximately 51,351.89785803 Bitcoin traceable to Silk Road, valued at approximately $3,388,817,011.90 at the time of seizure, as follows:

- 50,491.06251844 Bitcoin seized from ZHONG's home on November 9, 2021;
- 825.38833159 Bitcoin provided by ZHONG on March 25, 2022; and
- 35.4470080 Bitcoin provided by ZHONG on May 25, 2022.

* * *

ZHONG, 32, of Gainesville, Georgia, and Athens, Georgia, pled guilty to one count of wire fraud, which carries a maximum sentence of 20 years in prison.

The maximum potential sentence in this case is prescribed by Congress and is provided here for informational purposes only, as any sentencing of the defendant will be determined by the judge. ZHONG is scheduled to be sentenced by Judge Gardephe on February 22, 2023, at 3:00 p.m.

Mr. Williams praised the outstanding work of the Internal Revenue Service, Criminal Investigation's Western Cyber Crimes Unit of the Los Angeles Field Office. Mr. Williams also thanked the Athens-Clarke County Police Department in Athens, Georgia, for its support and assistance with the case.

The prosecution of this case is being overseen by the Office's Money Laundering and Transnational Criminal Enterprises Unit. Assistant U.S. Attorney David R. Felton is in charge of the case.

Contact

Nicholas Biase
(212) 637-2600

Updated November 7, 2022

Attachments

ecf_394_motion.pdf [PDF, 384 KB]

ecf_394-1_proposed_order_for_the_court.pdf [PDF, 158 KB]

ecf_394-5_agent_affidavit.pdf [PDF, 617 KB]

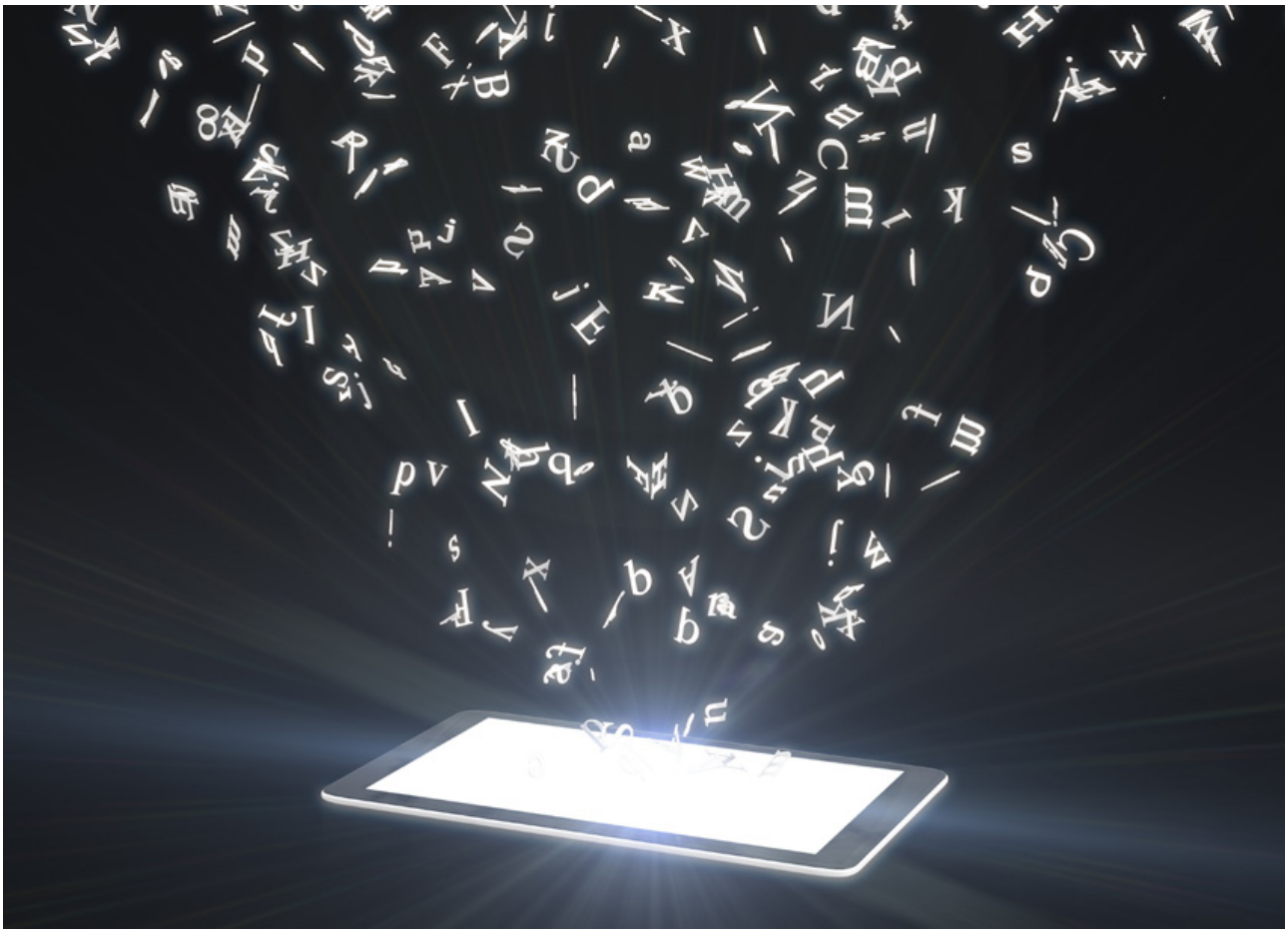
Topic

FINANCIAL FRAUD

Component

USAO - New York, Southern

Press Release Number: 22-347



DIGITAL GLOSSARY

By Michael Cianfrani, Senior Program Manager,
Coinbase, Inc. and Wendy Owens, Esq., Trustee, Savannah, GA

GENERAL CRYPTOCURRENCY TERMS

Term	Description
Address	A string of letters and numbers from and to which cryptocurries can be sent
Airdrop	The manner of distribution of a token to multiple users' digital wallets, usually for free
Altcoins	Any token or cryptocurrency that operates on a blockchain network or decentralized application that is not Bitcoin.
Attack Surface	The number of places where a malicious user may be able to gain access to a system
Bitcoin	The means by which value may be sent from one person to another without the need for a trusted third party such as a bank
Cold Wallet	A type of of wallet that exists on a hardware device like a USB drive and is not connected to the internet. Like a hot wallet, a cold wallet also allows you to store, send and receive tokens.

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GENERAL CRYPTOCURRENCY TERMS (CONTINUED)

Contract Address	The public key address responsible for deploying an NFT contract on the blockchain. The contract address can be found on the home page of the NFT collection or next to a particular NFTs token ID and other metadata
Cryptocurrency	A digital currency that is rewarded to miners or validators on a blockchain in exchange for correctly validating network transactions.
Cryptography	the use of mathematics to secure information. Cryptography is used to create and secure wallets, sign transactions, and verify the blockchain.
Custodial Wallet	A wallet that is custodied by a centralized entity like an exchange that holds its private keys.
Double Speed	When a user is able to spend the same tokens in their wallet more than once. It is a potential flaw that can occur with digital currencies that are setup without proper security features.
ERC-20	Ethereum Request for Comments (ERC) 20 is the token standard that allows users to issue tokens that are fungible, meaning each token has the same value and can be exchanged one for one.
ETH	The native currency of the Ethereum blockchain. It is used to pay for gas fees, which are fees paid to miners in order to process and validate a transaction on the blockchain.
Ethereum	A blockchain network for launching tokens and decentralized applications (or DApps) using smart contracts.
Ethereum 2.0 (ETH2)	An upgrade to the Ethereum blockchain that aims to solve scalability challenges. ETH2 plans to implement a host of upgrades, including the migration from a proof-of-work mining model to proof-of-stake. The Merge (executed on September 15, 2022) completed Ethereum's transition to proof-of-stake consensus, officially deprecating proof-of-work and reducing energy consumption by ~99.95%.
Hot Wallet	A type of wallet that is connected to the internet and allows you to store, send and receive tokens.
Ledger	A physical or electronic log book containing a list of transactions and balances typically involving financial accounts.
Liquidity Pool	Protocols that pool together 2 or more tokens into a smart contract for the purpose of providing enough liquidity reserves for buyers and sellers to trade each token at the most efficient price possible.
Miner	An individual or entity that manages a node (or group of nodes) which are responsible for adding new transactions to blocks and verifying blocks created by other miners. Miners collect transaction fees and are rewarded with newly issued cryptocurrencies (e.g bitcoin or ETH) for their services.
Multi-Signature Wallet	A wallet that requires more than one private key to sign a transaction in order to move funds from the wallet
Node	A computer that runs the software of a blockchain network, enabling the node to store and validate transactions on the network and earn cryptocurrency rewards.
Private Key	A string of letters and numbers that is used to access and spend cryptocurrencies or NFTs stored in a wallet. A Seed Phrase represents your private keys within a wallet.
Public Key	A string of letters and numbers that a wallet owner sends to people in order to receive cryptocurrencies or NFTs. Like sending someone your email address, a public key can be provided to others that wish to send you cryptocurrencies or NFTs.

…continued on next page

About the Authors

Michael Cianfrani is a Senior Program Manager at Coinbase, Inc., where he collaborates with insanely creative and intelligent individuals and teams from all over the world. Product, ENG, Compliance, Legal, CX, Privacy, Security, Threat Assessment... Everyone building and iterating to safely unlock crypto for the next billion people worldwide.

Wendy A. Owens attended Tulane Law School in New Orleans, Louisiana. During law school, Ms. Owens served as a staff clerk for the New Orleans District Attorney's Office, and volunteered with the New Orleans chapter of CASA and the Family Legal Advice Clinic.

Prior to founding The Law Office of Wendy A. Owens, P.C., Ms. Owens practiced real estate law with the law firms of Hunter, Maclean, Exley & Dunn and Morris, Schneider & Prior. While at Morris, Schneider & Prior, Ms. Owens helped develop and manage the mobile home title clearance team which handling the clearing of mobile home titles in Alabama, Georgia, Mississippi, North Carolina, Tennessee, South Carolina, West Virginia and Virginia.

GENERAL CRYPTOCURRENCY TERMS (CONTINUED)	
Satoshi	The smallest divisible unit of one bitcoin. There are 100 million satoshis (8 decimal places) in one bitcoin. One satoshi = 0.0000001 bitcoins.
Recovery (or Seed) Phrase	A 12-word secret phrase that gives access to a digital wallet and allows the owner to authorize cryptocurrency and NFT transactions from your wallet.
Self-Custody Wallet	A wallet for which the owner holds the private keys therefore controls.
SHA-256	The specific hash function used in the mining process to secure bitcoin transactions.
Signature	Signing is an important action taken in the process of a cryptocurrency or NFT transaction that proves that the owner of the private key has approved the transaction.
Stablecoins	A cryptocurrency that is pegged to the price of a dollar or some other fiat currency, e.g., USDC, UST, USDT
Ticker	A ticker is a symbol representing a token or cryptocurrency, e.g., Bitcoin: BTC; Ethereum: ETH; Solana: SOL.
Token ID	The unique identifier code for an NFT. It is a key data point that is used to distinguish one NFT from another on a blockchain.
Wallet	A digital wallet that is used to store and manage cryptocurrencies and NFTs. Wallets are accessed using a seed phrase or private key, which gives the owner permission to transfer tokens from that wallet.
Wallet Address	A string of letters and numbers from and to which cryptocurrencies or NFTs can be sent or received. A wallet address is also known as a Public Key.
Web3	Abroad category of technologies that are defined by their use of internet protocols built on top of open source, decentralized and distributed systems. Examples of Web3 technologies include blockchain networks, cryptocurrencies, NFTs and smart contracts.
Wrapped ETH (WETH)	Wrapped ETH is a form of ETH that is wrapped in a smart contract in order to make it function like an ERC- 20 token and become compatible with DApps on the Ethereum blockchain. 1 WETH and 1 ETH are equal in value.

BLOCKCHAIN, NETWORK AND TRANSACTIONAL TERMS

Block	A batch of transactions that have occurred on a blockchain within a period of time. If a blockchain is thought of as a ledger book, a block is like one page from the book. When a user's transaction is included in a block that is added to the blockchain, this is called a block confirmation. A user's transaction must receive several block confirmations (meaning it must be included in a series of blocks) before it can be accepted by the network as valid. This ensures that multiple nodes have essentially signed off on the transaction being included in each block that was added to the chain, making it more likely that the transaction is correct
Blockchain	A **decentralized ledger** (or record book) that is shared across a distributed network of peer-to-peer computers (or "nodes").
Confirmations	The inclusion of a transaction in a block. A bitcoin or ethereum transaction is considered unconfirmed until it has been included in a block on the blockchain, at which point it has one confirmation. Each additional block is another confirmation.
Consensus Mechanism aka Protocol	The process in which a group of distributed nodes come to an agreement on a single 'state' of a blockchain network. State primarily refers to the latest record of token transfers and wallet address balances on the ledger.
Decentralized Application (Dapp)	An application that is built on top of a blockchain network and operates using decentralized protocols.
Decentralized Autonomous Organization (DAO)	A Decentralized Autonomous Organization or DAO is an organization that operates based on rules that are encoded on a blockchain and executed through smart contracts.
Decentralized Exchange (DEX)	An exchange that leverages blockchain technology and smart contracts to allow traders and investors to buy and sell cryptocurrencies peer to peer.

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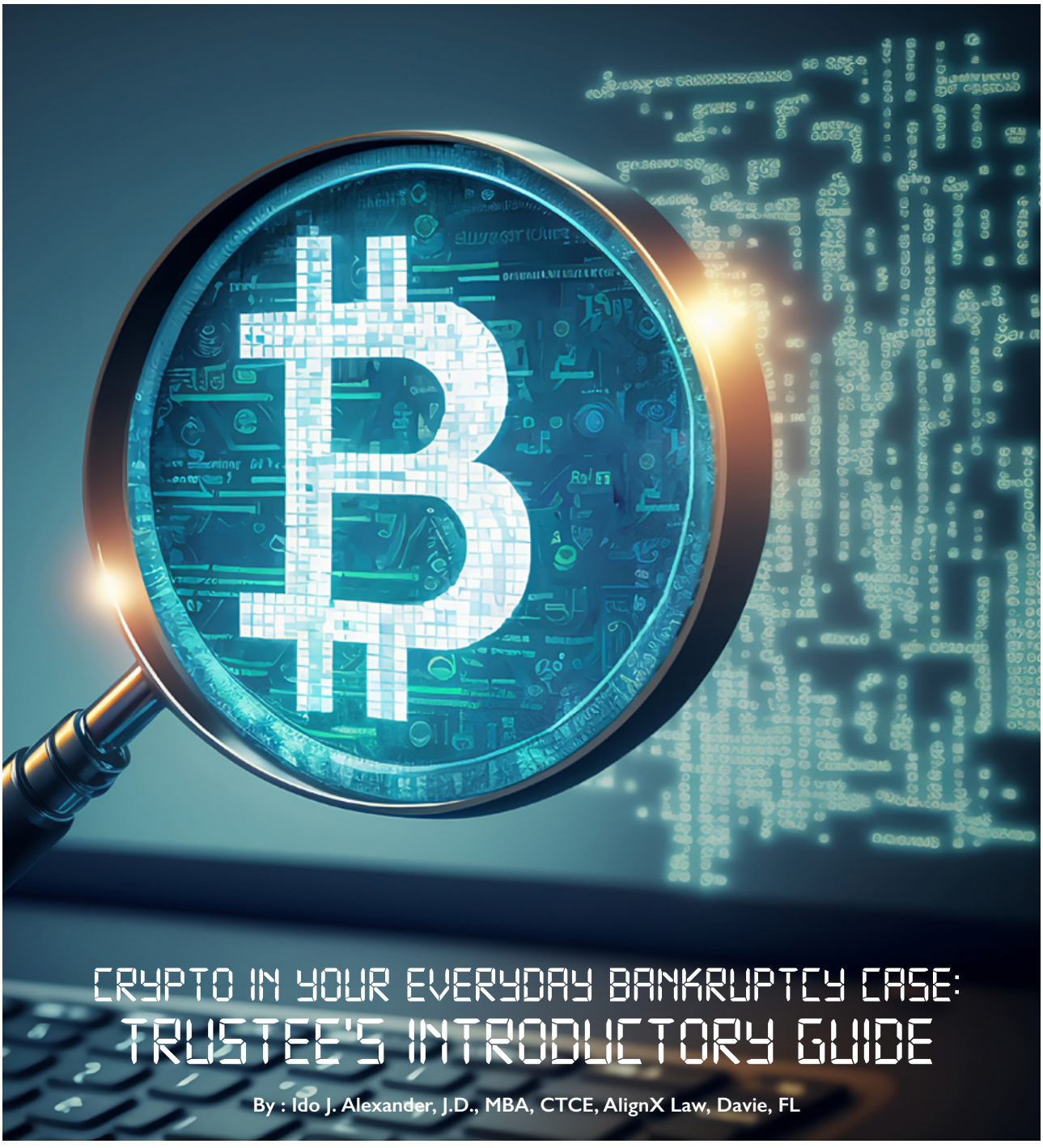
BLOCKCHAIN, NETWORK AND TRANSACTIONAL TERMS (CONTINUED)	
Decentralized Finance (DeFi)	An emerging sector of Web3 that leverages blockchain technology to replace intermediaries in traditional financial services like lending, trading and insurance with peer to peer decentralized protocols.
Digital Signature	A number that is generated from a private key using the Elliptic Curve Digital Signature Algorithm (or ECDSA). A digital signature is used to prove that a person owns the private key associated with a certain public key and that she has authorized a transaction.
Distributed Network	A distributed network is designed so that there is no central server or entity that others must connect to. Instead, network participants connect directly to each other. Bitcoin and Ethereum are examples
Etherscan	An analytics platform for observing transactions and wallet addresses on the Ethereum blockchain.
Fork	An upgrade to a blockchains underlying protocol (or set of programmable rules) that sometimes results in the chain splitting into two separate chains; one that runs the previous protocol and another that runs the new upgraded protocol. There are two kinds of forks; a Soft Fork and a Hard Fork.
Gas Fee	Fees paid to miners in order to validate a transaction on the Ethereum blockchain.
Hash	A data set of any length and size that has been converted into a unique sequence of numbers and letters using a hash function. Altering any part of the data set will also alter its hash.
Layer 2	Layer 2 (L2) is a network or channel that sits on top of a Layer 1 (L1) network like Bitcoin or Ethereum. L2's are designed to enhance the speed and reduce the cost of performing transactions on a blockchain. L2s improve blockchain scalability by reducing the number of nodes or participants required to validate transactions within the L2 network, thereby reducing the time it takes to achieve consensus.
Peer to Peer	A type of network where participants communicate directly with each other rather than through a centralized server. The Bitcoin and Ethereum network are peer to peer.
Proof of Stake (PoS)	An alternative consensus mechanism that is less energy intensive than proof of work. With proof of stake, there are no miners but instead validators. Validators must stake a certain amount of the network's cryptocurrency in a smart contract in order to validate transactions.
Proof of Work (PoW)	A consensus mechanism adopted by the Bitcoin and Ethereum network where miners compete to solve complex math puzzles which require energy expended from computers to increase the odds of success.
Smart Contract	A type of computer program that enables functions written in code and published on the blockchain to execute automatically based on predetermined conditions.
Staking Pool	Staking pools consolidate multiple PoS (Proof of Stake) validators into one pool in order to increase the rewards earned through staking.
Transaction Fee	Also known as a miner's fee, a transaction fee is an amount of a blockchains native cryptocurrency that a sender pays to miners in order to incentivize them to add their transaction to the next block in the blockchain.
Validator	a node on a proof of stake blockchain that is responsible for securing the network, storing the history of transactions and confirming the validity of new transactions added to the next block in the chain.

NFT SPECIFIC TERMS

Ape In	Buyers who rush to buy into a NTF project with little or no research or due diligence.
Blue Chips	The most expensive and most valuable NFTs.
BTD	Translates to “Buy the Dips” which means when the price drops for an NTF project, a person buys more NTFS during that drop in price or “dip”.
Delist	To remove the NTF from the open market for sale.
Diamond Hands	Holders of NTFs that have high risk tolerance, hold on to NFTs for long durations and rarely sell.

NFT SPECIFIC TERMS (CONTINUED)	
Discord	Platform for online gaming, which is used for NFT projects to communicate, create whitelists and roadmaps for projects. Whitelists allow for sales for the NFT project before it is open for public sale.
Floor Price	Lowest price shown for the NFT project at any given time.
Floor Sweeping	The purchase of all lower priced NFTs in a project to bring out the price for the project.
FUD	Defined as "fear, uncertainty and doubt". Term used to stop panic sales so the price is not lower on the NFT project.
GWEI	Nanoether or simply referred to as nano, which is the ninth power of the fractional ETH and used to gauge gas fees.
HODL	Defined as "hold on for dear life" which means do not sell your NFTs within a project.
Listings	A listing is an NFT that has been put up for sale via an auction or as a 'Buy Now' listing.
Metamask	Type of cryptocurrency wallet that is used to pay for NFTs for certain projects. It does not hold the actual NTFs. It holds cryptocurrency which is used to purchase the NFTs.
Metaverse	Generally refers to the concept of a highly immersive virtual world where people gather to socialize, play and work. Many NFT projects have game play and/or social projects set up in the metaverse that part of the NFT project roadmap.
Mint	Minting is the process of issuing a new NFT on the blockchain, which can be attached to a piece of art, a recording, or some other asset. When an NFT is minted it is automatically assigned a unique token ID.
Moon	Common phrase used which means wanting the price of an NTF project to skyrocket.
NFT	Non-fungible tokens or NFTs are digital tokens created with a unique identifier code that attests to their only being one of that token in existence. Because each NFT is unique, NFTs can be used to authenticate ownership of digital assets like artwork, recordings, and virtual real estate or pets.
Paperhands	Holders of NFTs that are typically nervous and often sell quickly, which results in panic sales, lowering the price of the overall project.
Reveal	Reveal day is the date which the NTF (jpegs) are revealed to all holders. Purchasers of the NFTs do not know what their NTF looks like or its rarity until reveal day.
Rug Pull	When the team behind the NTF project abandons the project and runs away with investor funds after the sales are made.
Secondary Market	Later sales made after the original purchase of the NTFs. These sales can be private or through secondary markets such as OpenSea.
Staking	Essentially allows for an owner (or fractionalized owners) to receive a yield of cryptocurrency or a fractionalized ownership of more valuable NTFs in exchange for banking their NFT within the project.
Whale	Individuals or entities that own large quantities of a specific cryptocurrency or NFT. This is typically done by a large purchase at public sale for NFT projects.



CRYPTO IN YOUR EVERYDAY BANKRUPTCY CASE: TRUSTEE'S INTRODUCTORY GUIDE

By : Ido J. Alexander, J.D., MBA, CTCE, AlignX Law, Davie, FL

The year 2022 was quite a tumultuous year for the broader financial markets, but for the crypto markets it was a catastrophe - an implosion on the heels of massive exponential growth. A "tulip" gold rush came to an end.[1] Crypto sector's implosion was highlighted by the collapse of centralized crypto exchanges such as FTX, Celsius, Blockfi, and other cases. These exchanges were at the heart of the average users' adoption of crypto assets; providing a

convenient and easy to use "on-ramp" to facilitate the conversion of fiat currency (standard currency such as USD) to crypto assets. Just like any other gold rush in history, it did manage to expand the Crypto user base as the prices increased to new heights. By late 2021, with Bitcoin prices reaching $60,000+, an influx of new crypto users made their first transaction.[2] The number of users who transacted in crypto rose from approximately 3% of the population to over 13% by mid-2022. The demographics that underlie this increase are predominantly among Millennials (who make up 22% of the U.S. population)[3] and Generation X (who make up close to 20% of the population)[4] men.[5] And, while crypto holdings for most individuals are relatively small, "higher income individuals transferred more money into crypto accounts."[6] These numbers will continue to grow as these two generations mature.

While the U.S. insolvency community focuses on these massive Chapter 11 reorganization cases, Chapter 7, 11, and 13 trustees that deal with the run-of-the-mill "everyday" cases now recognize that crypto assets are appearing more and more in their cases and require them to gain better knowledge and understanding of how to address these assets.[7] They must be positioned to investigate the existence of crypto assets in a case, determine the value to the estate, and ultimately recover them for the benefit of the creditor body, if indeed present and would provide such benefit. All the while, this process is often conducted by a trustee of an otherwise insolvent bankruptcy estate. The limited resources available to the trustee further highlights the need to adopt a process that is suitable not for a deep-pocket large reorganization, but a common situation involving crypto assets appearing in a bankruptcy case. The purpose of the article is to focus on what your "everyday" trustee needs to and should know to gain a better understanding of issues and possible solutions when confronted by crypto assets in their bankruptcy cases.

Satoshi Who? An Overview Of Basic Crypto Knowledge

As is typical in these types of articles about crypto-blockchain, some foundational background is necessary. To start, crypto assets are based on blockchain technology, and at its core is based on ledger – a method of tracking transactions that are often times financial in nature.[8] Ledgers provide: (1) record keeping of transactions - keeping a history of transactions; (2) accuracy of transactions - employing a consistent and standardized method; (3) transparency – providing accessibility to those permitted to view the transactions and thereby establish trust, a key component; and (4) security – as long as certain access and control is maintained, it prevents unauthorized changes or tampering to the underlying transactions being tracked. Although digital ledgers have developed alongside the adoption of computers and the internet, it was not until 2008 that a true digital, decentralized payment system based on blockchain technology at its core was conceived. In the now famous white paper written by Satoshi Nakamoto (who no one knows who he is) and titled "Bitcoin: A Peer-to-Peer Electronic Cash System",[9] key characteristics of blockchain technology were established. Table 1 shows the key characteristics as identified by Nakamoto.

Table 1

Characteristics	Explanation
Decentralization	A blockchain ledger is decentralized, as it is not controlled by any single entity or authority. It is distributed across a network of computer nodes that work together to maintain the integrity and security of the ledger. This ensures that the network is resilient and cannot be easily hacked or shut down.
Immutability	Once data has been recorded on a blockchain ledger, it cannot be altered or deleted without the consensus of the network. This ensures that the integrity of the data is maintained and prevents fraud or tampering.
Transparency	Every transaction on a blockchain ledger is recorded on a public ledger that is visible to all network participants. This enables a high level of transparency and accountability, as every transaction can be traced and audited.
Security	A complex cryptographic system is used to ensure that transactions on a blockchain ledger are secure and private. This provides a high level of security and prevents unauthorized access or tampering.
Consensus Validation	A consensus mechanism is used to validate transactions and ensure that the ledger remains in sync across all nodes on the network. This ensures that the ledger is reliable and accurate.

Not Your Key, Not Your Coin: Wallets and Exchange Types

Prior to its bankruptcy, Celsius Networks LLC billed itself as a crypto lending bank and exchange.[10] Similarly, FTX Trading Ltd. billed itself as an advance exchange for crypto currency trading.[11] The basic feature that these companies and others provided was ease of use for those wishing to buy, sell, trade, and most importantly hold onto crypto.

Holding and owning crypto, while not difficult, involves some basic understanding of the fundamentals of how one goes about

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About the Author

Ido Alexander, JD, MBA, CTCE, is the Founder of AlignX Law located in Davie, Florida. He has 15 years of experience in bankruptcy law representing debtors, creditors and Chapter 7 trustees, and has developed an expertise in crypto asset investigations and recovery. He is a Certified Tracing Crypto Examiner by CipherTrace, and a regular on the speaking circuit for this topic that he has developed a personal and professional passion for.

holding it, and transacting with it. As detailed above, security of the blockchain ledger is paramount to protect against unauthorized access and use. To accomplish this function, cryptography is employed as a security measure.

Cryptography is like a secret code that keeps your messages or information safe from people who aren't supposed to see it. Just like a secret code has a key that unlocks it, cryptography uses a secret key to unlock the code and read the message. This helps keep important information safe.

In the context of crypto assets, cryptography is used extensively in crypto wallets to provide secure storage and access to cryptocurrency assets. A crypto wallet is a digital application that stores the private keys needed to access, manage and control crypto assets on a blockchain network (whether Bitcoin Network, Ethereum Network, Solana Network, etc.).[12] The private keys are encrypted using cryptographic algorithms, which prevent unauthorized access to the wallet and ensure the integrity and security of the stored crypto assets. When a user creates a crypto wallet, the wallet generates a pair of cryptographic keys, a public key (like a street address) and a private key (like the keys to the house).[13] The private key is kept secret since it allows access to the blockchain for the user to effectuate a transaction by signing the transactions, and to access the crypto assets. The public key, on the other hand, is shared with other users to receive crypto asset transactions and associate it with the wallet. The private key is encrypted using a hash function, which generates a unique and irreversible code that can only be decrypted using the corresponding public key. This ensures that only the owner of the private key can access the wallet and its contents. If the private key is lost, it can be recreated using a "SEED" phrase. Typically, a 12-24 set of four-letter words. These words are effectively the "keys to the kingdom." Anyone that comes into possession of these words and/or the private key is in control of the crypto assets.

The process of transacting with a crypto wallet is not very efficient, but instead maintains control and security. Wallets can come in two main varieties "hot" or "cold". It's not a reference to their temperature, but rather whether they are connected to a network of computers, thereby exposing the private keys to potential cyberthreats, which are ever more prevalent.

In a hot wallet, the application containing the private key resides on a computer (as an independent application, or a plug-in on a web browser) that is connected to the network, mainly the internet.[14] Alternatively, a cold storage wallet, one of the more secure methods of storage, maintains the private key air-gapped from any physical computer.[15] It is stored on a physical device akin to a USB memory stick, a credit card size card with an embedded chip, or even as a QR code printed on a paper. These devices can be stored anywhere (inside desk drawer, safe deposit box, or under the mattress). Moreover, the accompanying SEED phrase (whether hot or cold storage) can be stored either as an image of the words in physical form or even online (although not recommended).

Although transfer of crypto assets between wallets is not challenging for those who familiarize themselves with the process and software, it is still not a simple process designed for the masses. Ease-of-use is further hampered by cumbersome processes required to transact in various type of crypto assets, which may require their wallet and key for each blockchain network sought to be transacted with. A user can attach their wallets to a decentralized crypto exchange (DEX), a platform that operates on a decentralized network that allows users to buy and sell crypto assets directly with each other without the need for an intermediary or central authority. A DEX provides greater control - users retain full control of their crypto-asset holdings.[16]

Conversely, a centralized exchange (CEX)[17] is a platform that is operated and managed by a central authority, a company (such as Coinbase, Binance, Celsius, FTX, et al.), to facilitate the buying and selling of crypto assets, and to convert fiat currency to crypto assets. It acts as an intermediary between buyers and sellers and may hold custody of the crypto in its own wallets, keeping an account in the name of the owner to track that user's holdings.[18] Although a hot wallet can be connected[19] to a CEX, in many instances given their overall ease of use, user-friendly interface, various trading tools, various features, ability to transact with many types of crypto assets, and most importantly their ability to offer fiat currency conversion to crypto (an "on-ramp"[20] and off-ramp), the user opts to forego the use of a wallet. Instead, the user is provided with a password protected account, after having undergone a verification process in compliance with KYC/AML requirements.[21] However, the user does not hold or own the private key. The crypto industry uses the popular adage "***not your key, not your coin.***" As was exhibited by the recent large crypto exchange bankruptcy filings that exhibit the issue of ownership and control, as discussed below.

Where Do Most Crypto Asset Holders Transact? CEX An On-Ramp to the Crypto Highway

The primary considerations between a wallet, DEX or CEX are: (1) security; (2) ease of use; and (3) control and ownership. All issues that a trustee involved in a case must consider when evaluating "where" a debtor is holding his crypto asset, or alternatively, as will be discussed later, the location for the trustee to safekeep recovered crypto assets from a pure security aspect. Although a CEX can offer good security measures when compared to potential cyber threats that plague DEX's, that higher perceived security does come at a cost - control.[22]

The control consideration has come to the forefront as exchanges have collapsed. Bringing to the forefront the issue of custody associated with the CEX's control. A trustee must consider that the crypto asset held by a CEX may in fact not be owned by the bankruptcy estate at all, but by the CEX. According to a case of first impression, *In re Celsius Networks, et al.*, the judge ruled that Celsius was vested with full control and ownership that was transferred by, and based on the terms of use (which were revised on an ongoing basis) executed by the users.[23] The terms of use agreement is interpreted based on state contract law, which can yield differing results. In that instance, users of the CEX who thought they had full ownership of the crypto asset held in their account, with the CEX serving as a custodian, discovered that they had a mere bankruptcy claim against the bankruptcy estate. Accordingly, a trustee must be diligent in evaluating what terms of use govern the crypto assets held by the bankruptcy estate, given "not your key, not your coin."

Over 95% of crypto transactions are done through a CEX, and while there is an increase in use of DEX's, CEX's are by far more

dominant considering the ease-of-use factor.[24] Included in ease-of-use is not only the customer interface but the critical ability of a user to convert fiat currency (e.g. U.S. Dollar) to crypto – effectively serving as an on ramp to the Crypto "highway." Of the over 600 CEX's, there are a few that dominate the overwhelming amount of transactions: Binance, Coinbase, Kraken, KuCoin, and Gemini.[25] Knowledge of popular exchanges is key for the trustee in discovering crypto assets in everyday bankruptcy cases.

Does A Case Have Crypto? Detecting and Discovering Existence Of Crypto Assets

A trustee has a duty not only to safekeep assets, but also to investigate the existence of additional assets, including potential crypto assets. When attempting to detect the existence of crypto assets the process begins with the debtor's own disclosures of assets owned or previously owned. The existence of crypto wallets or CEX accounts should be disclosed. In such cases where the debtor did disclose, the task is made easier. However, in the absence of disclosure, the detection of existence of crypto is based on telltale signs that will either be directly present in documents disclosing the existence of such assets: IRS tax filings (Form 1040, Schedule D, and Form 8949, if filed)[26] or even estate planning documents. Additionally, a close examination of bank statements and credit card statements can reveal the existence of crypto assets.

Since the on-ramp to the crypto highway requires the conversion of fiat currency to crypto, direct charges by a CEX (by debit card, ACH) or use of third-party payment processors (such as Paypal, bitpay, moonpay, etc) appearing on bank statements are indicative of the existence of crypto assets. Credit card statements are another avenue for information that may reveal potential crypto assets. While certain CEX's permit credit card use, others do not. A trustee should be aware of which CEX's do offer credit card purchases and which do not as part of their overall request and review of documents provided by a debtor.[27]

Further, it is critical to gain a better understanding of which CEX's are most popular as it is important in understanding the formatting of such charges as they appear on bank and credit card statements, but also where a debtor is likely to transact in crypto assets.[28] Although there are many CEX's and processors, there are those used by most, such as Binance, Coinbase, Kraken, Crypto.com, KuCoin and Gemini, to name a few.[29]

Additional information from the debtor can further the detection of crypto. Direct questions at either a 341 Meeting of Creditors or Rule 2004 Examination deuces tecum. In requesting documents and information, a trustee is in a well-suited position to obtain indirect information that may lead to the discovery of crypto. Since crypto wallets and CEX accounts often require high cybersecurity measures, requests for information about password managers (such as Keeper, LastPass, Google Chrome password manager, Apple password manager) can be another indicator.[30] Requests can include demand to review authenticator applications (such as Microsoft Authenticator, google authenticator or others) as those applications are often associated with 2FA (two factor authentication) that are used with highly secure website customer portals, such as those offered by a CEX or by certain wallet applications. Additionally, requests can also include browsing history or lists of favorite websites on internet browsers. These avenues offer a wealth of potential information about a debtor's potential holdings.

Prior to advancing to requests of the foregoing type of information, the trustee should first prioritize focusing on direct questions at a 341 Meeting or even at a Rule 2004 Examination that may reveal the existence of crypto in the present or past. Use of the funnel question approach provides a great opportunity to develop whether crypto assets exist. Begin with broad direct questions about the existence of crypto, CEX's and wallets, followed by specific questions regarding types of wallets and CEX's, that would offer the debtor an opportunity to provide the truth or commit him to responses that may be utilized later in efforts to compel and contempt. In essence the trustee is throwing multiple specific "arrows" with the idea that one could potentially yield a positive outcome. In doing so, the trustee can cause doubt in the mind of the debtor (believing that the trustee knows more than he actually does) that may evoke cooperation or commit the debtor to a negative response (claiming no crypto exists) that may ultimately serve as a basis for contempt proceeding.

In requesting information from the debtor or even a third party such as a CEX, particular attention should be made toward specific information to request. While requests for a public address or CEX user crypto assigned address is appropriate, the method of disclosure of passwords, private keys and SEED phrase should be carefully thought through. Specifically, the request for such information should include a cybersecure process/mechanism for sharing it with and safekeeping it by the trustee and their professionals.

Requests for the debtor's CEX transaction history made to either debtor or a CEX directly, should include the entirety of the transactions on the CEX. The purpose is to determine the balance of crypto assets, transfers to third party wallets public addresses or other user accounts at other exchanges, and whether a CEX account or wallet was used to transfer crypto to another wallet or a CEX account owned and controlled by a debtor. With wallets, it is enough that a public address is provided. Given the transparency of the blockchain, the entire history of transaction made by that wallet can be readily ascertained.

The debtor's cooperation is paramount in this process. While the trustee can issue subpoenas to a CEX to obtain the information, this process is hampered when dealing with a CEX located outside the United States. Delayed responses to a subpoena or no response at all is common by those CEX's that do not cater to U.S. residents. It's an issue that is worth considering when determining the path to undertake, and whether to seek debtor's cooperation, as discussed below.

Wallet Or CEX Account Discovered: Tracing Transactions

One of the fundamental benefits of blockchain technology is that the entire history of transactions by a wallet is transparent and can be directly gleaned from the blockchain. However, since the CEX operates its own wallets, in order to obtain transactions within the CEX, the trustee needs to obtain either a subpoena or the debtor's cooperation. Once a wallet or CEX account transaction history is received a trustee can use off-the-shelf web application solutions that are inexpensive and targeted at

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tax preparation for crypto users in order to conduct a relatively fast analysis of the transactions.[31] Further, analysis of transactions between wallets can be performed using publicly available blockchain explorers to perform rudimentary crypto asset tracing. These blockchain explorers, such as Etherscan.io or blockchain.com/explorer, provide a wealth of information to perform basic blockchain tracing on the most popular blockchain networks, Ethereum or Bitcoin, respectively.

More advanced crypto asset tracing techniques involve (1) mapping a network of relationships between wallets; (2) clustering various transactions passing through different intermediary wallet addresses to disguise their control by the same owner; and (3) blockchain forensics (focusing on wallet address/transactions ID/amounts). These methods are typically performed by blockchain investigators that utilize advanced software platforms, which aggregate substantial data on activities on the blockchain and mesh with other external data. [32] There are limitations to such investigations: crypto mixers and scramblers. These are tools utilized primarily by criminal actors to reduce the investigator's ability to trace crypto transactions. A debtor utilizing such tools must be very intent on hiding their crypto transactions.

So Crypto Assets Are Found! What Now?

There are over 23,000 crypto assets all of which have in excess of $1.2 trillion in combined market cap - of which Bitcoin represents over 47% and Ethereum represents 19%.[33] But not all crypto assets are created equally. Some have substantial value such as Bitcoin and Ethereum, while others are obscure crypto assets with no market value.

There are three classes of crypto assets: (1) value tokens (non-fungible tokens or NFTs that typically represent art or music); (2) utility tokens (tokens that perform a service, providing the user the right to perform actions on a particular blockchain network); and (3) security tokens (representation of ownership in an asset).[34] From a trustee perspective, it is critical to be aware of the mainstream types of crypto assets as it pertains to their valuation and volatility. Both would directly influence the trustee's business judgment with respect to its liquidity, and the speed at which the trustee should opt to liquidate the holding to ensure preservation of value by the bankruptcy estate. Further understanding of the underlying risks of volatility is important.

Stablecoins, a type of crypto asset that is intended to be stable in value as it is pegged to an external stable value, such as a U.S. Dollar, can present risks given the underlying method by which it maintains its peg to that value. There are many types of stablecoins, some more popular than others. The last year alone has shown two examples of stablecoins, UST and USDC that lost their peg. Each maintained its peg to the U.S. Dollar using a different method (algorithmic and asset backed, respectively) and yet both lost their peg overnight.[35]

The regulatory framework governing and classification of each crypto asset (whether a security, commodity, currency or otherwise) is at flux at the present time. Whether it is a commodity, currency, or security may impact the value recovered by an estate from a fraudulent transfer perspective.[36] But moreover, such regulatory framework may influence the trustee's compliance with applicable laws if such crypto assets are deemed unregistered securities.[37]

Once crypto assets are found by the trustee in a wallet or a CEX (whether transferred to the bankruptcy estate custody or liquidated), the preferred approach is with the debtor's cooperation and assistance. Absent such assistance, the process becomes costly, delayed, and otherwise may subject the bankruptcy estate to needless risks given crypto asset price volatility.

Trustees must also take into account potential secured interest over crypto assets. In many instances, crypto assets serve as collateral as part of a smart contract that self-liquidates upon default. Whereas, traditional secured interests are perfected by virtue of possession of the keys or one key of multi-signature private key set.[38] Currently there is a legislative effort underway to codify and provide clarity to secured interests over crypto assets, with the proposed model UCC12 which is in its early stages of adoption.[39] Overall the trustee needs to be ready to request immediate authority to compel transfer of control over the keys and/or seek court authority to liquidate the same given the volatile nature of the crypto asset.

Considerations Going Forward

Given the ever-increasing ubiquity of crypto assets, trustees must not only educate themselves on what crypto assets are, where to look for them, how to look for them, and when to liquidate them, but also formulate a plan of action for handling this class of assets in a systematic fashion. Processes and procedures must be put in place to detect, investigate, recover and liquidate these assets. Setting in place key addresses of popular CEX's for subpoenas and for turnover of assets is important.[40] Further, establishing a crypto holding account just as the trustee has trustee bank accounts is another step that should be undertaken. Lastly, heightened cyber security protocols in accordance with NIST[41] is critical given the potential handling of sensitive passwords, private keys, and/or SEED phrases.[42] Paramount to it all is education of the foregoing for the staff and professionals assisting the trustee. Crypto assets are ever evolving and require a designated person by the trustee to keep up with the basics to ensure that as crypto assets appear in ever more cases, a trustee knows how to address them. 🏛

ENDNOTES:

1 The Tulip Gold Rush, also known as the Tulip Mania, was a speculative bubble that occurred in the Netherlands in the early 17th century, where the prices of tulip bulbs reached extraordinarily high levels before collapsing dramatically. The demand for tulip bulbs grew rapidly, and prices skyrocketed due to speculation and the belief that the bulbs' value would continue to increase. Many people mortgaged their homes and land to buy tulip bulbs, and a trading market emerged, where bulbs were bought and sold for exorbitant prices. However, the bubble burst in February 1637, causing panic and a market crash that left many investors ruined. The Tulip Gold Rush remains one of the most famous examples of a speculative bubble in history.

2 *See* Wheat, Chris, George Eckerd. 2022. "The Dynamics and Demographics of U.S. Household Crypto-Asset Use." JPMorgan Chase Institute. Available at: https://www.jpmorganchase.com/institute/research/financial-markets/dynamics-demographics-us-household-crypto-asset-cryptocurrency-use.

[3] Millennials are those born between 1981 to 1996. They are considered the digital generation. Those who were born into a digital world. https://www.statista.com/statistics/296974/us-population-share-by-generation/.

[4] Generation X are those born between 1965 to 1980. They are considered an analog-digital generation. They grew up in an analog world that transitioned to digital during their early adulthood years. Id. Available at: https://www.statista.com/statistics/296974/us-population-share-by-generation/.

[5] See *Id*. Wheat, Chris, George Eckerd. 2022. "The Dynamics and Demographics of U.S. Household Crypto-Asset Use." JPMorgan Chase Institute.

[6] See *Id.*

[7] This article will utilize the term crypto assets to refer to traditional cryptocurrency recognizing they are assets, whose legal definition as a security, currency, or commodity is in flux at the present time. However, the term crypto assets can refer to any blockchain type assets, as they are broad in scope: from traditional cryptocurrency such as Bitcoin and Etherium, to NFT's and other assets utilizing blockchain technology.

[8] Ledgers developed over millennia, from early cuneiforms in ancient Babylonia that listed receipt and trade in grain, to double entry bookkeeping in the days of 15th century Venice, and through the present.

[9] Satoshi Nakamoto, "Bitcoin: A Peer-to-Peer Electronic Cash System," available at bitcoin.org./bitcoin.pdf.

[10] In re *Celsius Networks, et al.*, Lead Case No. 22-10964 (MG) (Bankr. S.D.N.Y. July 13, 2022).

[11] In re FTX Trading Ltd, Lead Case No. 22-11068 (Bankr. D. Del. Nov 11, 2022).

[12] The use of the word network is deliberately utilized to explain that each blockchain is a digital record ledger copies of which are maintained on each computer that is part of the network, all computers on this network run the same application, and the computing power or application (depending on the method of authentication – proof of stake model or proof work model) is used to authenticate the transactions on the particular blockchain. As each transaction group of transactions is authenticated, another block of data is added to the particular type of blockchain (i.e. Bitcoin, Ethereum, et. al.).

[13] See Loïc Lesavre, Priam Varin, and Dylan Yaga, "Blockchain Networks: Token Design and Management Overview, at 22 (February 2021), Nat'l Inst. of Standards and Technology, U.S. Dep't of Commerce, available doi.org/10.6028/NIST.IR.8301.

[14] List of common hot wallets are available at: https://cryptoslate.com/products/category/wallets/.

[15] List of common cold wallets are available at: https://cryptoslate.com/products/category/hard-wallets/.

[16] This article does not focus on DEX given their overall limited, albeit growing popularity. An entire article can be dedicated to crypto assets traded on DEX.

[17] Not to be read out-loud in public, as it is pronounced with a soft C and may be NSFW.

[18] Such user account tracking was highlighted in the Celsius and FTX bankruptcy casea, which highlighted instances of inadequate and negligent user account tracking and maintenance by these companies.

[19] Depending on the CEX, there are only certain types of hot wallets that can be connected to said CEX platforms.

[20] See Frank Edwood, "Cryptocurrency On-Ramps and Off-Ramps, Explained", August 2020. Available at https://cointelegraph.com/explained/cryptocurrency-on-ramps-and-off-ramps-explained.

[21] All U.S. based CEX's and overseas CEX's who wish to transact with U.S. residents must comply with the U.S. Bank Secrecy Act and related regulations, including anti-money laundering ("AML") and know your customers ("KYC") programs, to prevent financial crimes, such as money laundering and terrorist financing.

[22] Helen Partz, Hodlers prefer centralized exchanges over DeFi for security: Chainalysis, CoinTelepgraph.com, October 13, 2022. Available at https://cointelegraph.com/news/hodlers-prefer-centralized-exchanges-over-defi-for-security-chainalysis.

[23] See In re *Celsius Networks, et al.*, 647 B.R. 631, 637 and 660 (Bankr. S.D.N.Y. 2023). Also see, Justin Bernbrock, Jennifer Nassiri and Pouneh Almasi, "Ownership Issues in Crypto Cases," ABI Journal, Vol. XLII, No. 4, April 2023.

[24] Cryptopedia Staff, "The State of Centralized Exchanges." April 6, 2021. Available at https://www.gemini.com/cryptopedia/centralized-exchanges-crypto#section-trading-on-a-centralized-exchange.

[25] See https://www.coingecko.com/en/exchanges.

[26] See IRS.gov. Also, James Royal, "Need to report cryptocurrency on your taxes? Here's how to use Form 8949 to do it." Bankrate.com, April 6, 2023. Available at https://www.bankrate.com/investing/form-8949-reporting-capital-gains-and-losses/.

[27] Sarah Brady, "Can you buy crypto with a credit card? Yes, but it might cost you in fees and interest", Fortune Recommends. December 2, 2022. Available at: https://fortune.com/recommends/credit-cards/can-you-buy-crypto-with-a-credit-card/.

[28] Charges are typically formatted in certain way for each CEX or third-party processor.

[29] See https://coinmarketcap.com/rankings/exchanges/. As of April 30, 2023, there are 619 tracked exchanges on Coinmarketcap.com.

[30] Such requests must be carefully drafted to ensure that the underlying passwords are not compromised.

[31] Cointracking.info is one example, offering a relatively inexpensive method to upload raw transaction data received from .CSV files, which can be uploaded and quickly analyzed. This platform offers relatively simple instructions for downloading said information from many of the popular wallets and CEX's. However, there are other platforms as well. All offer trustees efficient solutions to quickly analyze transaction data received.

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Del. 2016)). In the present case, the creditor had not taken necessary steps to formally become a member of the debtor-entity and, therefore, the blocking provisions was void and unenforceable as a matter of public policy.

Ability to Compel Subchapter V Election

In re Roberson Cartridge Co., LLC, No. 22-20192, 2023 WL 2393809 (Bankr. N.D. Tex. Mar. 7, 2023). The United States Bankruptcy Court for the Northern District of Texas denied a creditor's motion to convert the debtor's chapter 7 case to subchapter V of chapter 11 over the debtor's objection. The court found no provision in the Bankruptcy Code or Bankruptcy Rules that allows conversion from a chapter 7 to a subchapter V case without the debtor's consent. Likewise, the court found no authority for a court to direct the debtor to elect subchapter V.

Motion to Dismiss Granted

In re East Coast Diesel, LLC, No. 22-80197, 2022 WL 19078763 (Bankr. M.D.N.C. Dec. 29, 2022). The United States Bankruptcy Court for the Middle District of North Carolina granted the Bankruptcy Administrator's motion to dismiss the subchapter V case for continuing loss to and diminution of the estate without likelihood for rehabilitation under Code section 1112(b)(4)(A) and gross mismanagement under Code section 1112(b)(4)(B) where the debtor failed to: (1) "break-even" on post-petition operations and could not meet an upcoming payroll; (2) file accurate projections; (3) comply with court orders, reporting requirements, and requests for information from the Bankruptcy Administrator; (4) make adequate protection payments; (5) accurately project post-petition performance; and (6) correct known deficiencies in internal controls. The debtor additionally experienced high employee turnover, both pre- and post-petition. The court concluded that dismissal was preferable to conversion where a chapter 7 trustee would not be likely to reach any valuable assets for the benefit of creditors.

Payment of Subchapter V Trustee Fee on Dismissal

In re East Coast Diesel, LLC, No. 22-80197, 2022 WL 19078763 (Bankr. M.D.N.C. Dec. 29, 2022). Notwithstanding the agreement of the debtor and Bankruptcy Administrator that the subchapter V trustee should get paid, the United States Bankruptcy Court for the Middle District of North Carolina declined to condition dismissal of the subchapter V case on the condition that the debtor pay the subchapter V trustee's fees and certain post-petition income taxes. The Court refused to include these conditions because it was concerned that there could be post-petition wage claims that would have payment priority superior to the income taxes. The court offered no discussion on why payment of the subchapter V trustee fees would be improper in light of the possibility of post-petition wage claims.

Plan Injunction Extending to Guarantors

In re Central Florida Civil, LLC, No. :22-bk-01736-BAJ, 2023 WL 2400183 (Bankr. M.D. Fla. Feb. 17, 2023). The United States Bankruptcy Court for the Middle District of Florida approved a plan injunction protecting co-debtor guarantors of the subchapter V debtor where: (1) the debtor relied almost exclusively on the "human capital" of the co-debtors who performed the work that the debtor contracted to perform; (2) co-debtor contributed $25,000 to the debtor's creditors under the plan; (3) the injunction was essential to reorganization because ongoing litigation would detract from the co-debtors' performance of their services to the debtor; (4) a sufficient number of impaired classes had accepted the plan; and (5) with respect to dissenting creditors, the court noted that the injunction was temporary and the included a tolling provision.

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[32] Chainnalysis, CipherTrace, and others provide software platforms primarily to law enforcement agencies and CEX AML compliance departments. The undersigned author is a Certified Tracing Cryptocurency Examiner by one such software provider, CipherTrace.

[33] See https://coinmarketcap.com/. These figures are applicable as of April 30, 2023.

[34] Coryanne Hicks and Michael Adams, "Different Types of Cryptocurrencies", Forbes Advisors, March 13, 2023. Available at: https://www.forbes.com/advisor/investing/cryptocurrency/different-types-of-cryptocurrencies.

[35] See Muyao Shen, "How $60 Billion in Terra Coins Went Up in Algorithmic Smoke", Bloomberg.com, May 21, 2022. Available at: https://www.bloomberg.com/graphics/2022-crypto-luna-terra-stablecoin-explainer/ . Also see, Arjun Kharpal, "Stablecoin USDC nearly regains $1 peg after Circle says $3.3 billion held with SVB will be available", CNCB.com, March 13, 2023. Available at: https://www.cnbc.com/2023/03/13/usdc-nearly-regains-1-peg-after-circle-says-svb-deposit-is-available.html.

[36] See 11 U.S.C. § 550.

[37] The state of the regulatory framework governing crypto assets is an entire topic onto itself.

[38] Multi-signature wallets issue X number of private keys associated with a public address of a wallet. The wallet is programed to authorize transactions with Y (number of keys) of X number of keys issued. Similar to a safe with multiple locks, requiring a minimum number of keys to open.

[39] At present, four states have passed versions of the model law or are in the process of adoption of the same.

[40] Coinbase offers a handy trustee guide, found at: https://help.coinbase.com/en/coinbase/other-topics/other/bankruptcy-trustee-guide.

[41] See https://www.nist.gov/cyberframework.

[42] Cheyenne DeVon, Crypto hackers have stolen nearly $2 billion this year—Here's why it's a growing problem", CNBC.com, August 19, 2022. Available at: Crypto hackers have stolen nearly $2 billion this year—Here's why it's a growing problem.

Faculty

Ido J. Alexander, CTCE is the founder of AlignX Law in Fort Lauderdale, Fla., and is a bankruptcy and restructuring attorney with experience representing corporate and individual debtors, creditors and bankruptcy trustees in chapter 11 and 7 proceedings. In the last four years, he has focused on crypto/blockchain issues, representing bankruptcy trustees dealing with crypto-related assets, assisting crypto/blockchain companies in efforts to restructure debts, and advising and assisting in court proceedings that include crypto assets. Mr. Alexander is a Cryptocurrency Tracing Certified Examiner by CipherTrace and is trained in locating/tracing crypto assets. He also is a certified mediator and has presided over 200 cases. Mr. Alexander is a member of the Florida Bar Business Law Section's Blockchain & Cryptocurrency Task Force. Before forming AlignX Law, he co-founded Alexander + Somodevilla, PLLC, which became Leiderman Shelomith Alexander + Somodevilla, PLLC. As the managing attorney of the firm, he regularly represented clients — including trustees, debtors and creditors — in chapter 11 and 7 bankruptcy cases. Prior to that, he focused on federal equity receiverships at Damian & Valori, LLP in Miami, and began his career at the the firm of Markowitz, Ringel, Trusty & Hartog, PA, also in Miami. Mr. Alexander served as an officer of the Bankruptcy Bar Association of the Southern District of Florida from 2011-17 and served as president from 2016-17. Fluent in English and Hebrew, he received his B.B.A. from Emory University Goizueta Business School, and his M.B.A., with an emphasis on finance and commercial bankruptcy law, and his J.D. from the University of Miami.

Jane H. Downey is Of Counsel with Baker, Donelson, Bearman, Caldwell & Berkowitz, PC in Columbia, S.C., and has represented clients both in and outside of formal proceedings. She has experience in corporate restructurings, representing debtors, secured lenders, unsecured creditors and other parties in connection with bankruptcies, receiverships, out-of-court workouts and other related bankruptcy litigation. Ms. Downey has led corporate clients, landlords, doctors, car dealerships, farmers, realtors and developers, among others, through financial restructurings and reorganizations under chapters 7, 9, 11, 12 and 13. Ms. Downey is certified by the South Carolina Supreme Court as a mediator and arbitrator, and is currently on the U.S. Bankruptcy Court for the District of South Carolina's list of mediators. She is a frequent speaker and author on bankruptcy topics and very active in her community. In 2022, Ms. Downey was voted as the "Best Bankruptcy Lawyer" in Lexington County, South Carolina by the readers of the *Lexington County Chronicle*. She also was selected to *Lawdragon*'s 500 Leading U.S. Bankruptcy and Restructuring Lawyers list in 2020, 2022 and 2023, and she has been included in *South Carolina Super Lawyers* in bankruptcy since 2008. Ms. Downey has more than 30 years of experience in representing individual and business debtors and creditors in commercial and consumer bankruptcy matters. She is Board Certified in Business Bankruptcy Law by the American Board of Certification. Ms. Downey received her undergraduate degree in 1987 from Furman University and her J.D. in 1990 from Emory Law School.

Neil C. Gordon is a partner in the Atlanta office of Taylor English Duma LLP. He previously clerked for two years in Atlanta for U.S. District Court Judge Robert L. Vining, Jr. followed by 42 years in private practice, with the last 39 years being exclusively in the areas of bankruptcy, business reorganization, fraud investigations and creditors' rights. Mr. Gordon represents trustees and receivers throughout the country, including in Delaware litigation that recently settled for approximately $40

million. He chaired the Bankruptcy Law Section of the Atlanta Bar Association from 1992-93, has been a panel trustee since 1994, and also serves as an SEC receiver. Mr. Gordon was first elected to the board of the National Association of Bankruptcy Trustees in 2000. He has held every office, including president (2011-12), and for eight years chaired its Amicus Committee. For 2021-23, Mr. Gordon has been named as one of *Lawdragon*'s 500 Leading Bankruptcy & Restructuring Lawyers in the country. He also has authored or co-authored more than 80 scholarly articles and book chapters on bankruptcy law related topics and is making his 200th seminar presentation. Mr. Gordon previously co-chaired ABI's Legislation Committee and served on the Chapter 7 Subcommittee for the ABI Commission for the Reform of Consumer Bankruptcy Law from 2017-18. He also served on the Steering Committee for Pro. Lois Lupica's published study on the Costs of BAPCPA, commissioned by ABI and NCBJ. Mr. Gordon is a Lifetime Member of ABI, a Master of the Bench in the W. Homer Drake, Jr., Georgia Bankruptcy American Inns of Court, a full member of the National Association of Federal Equity Receivers, and a Fellow of the American College of Bankruptcy. He received his B.B.A. with a focus on real estate and urban land studies in 1976 from the University of Florida and his J.D. in 1979 from the University of Georgia School of Law.