Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Crypto Culture

What do we mean by Crypto Culture?

crypto and blockchain technology, holistically referred to as Web3

The subculture bred from the crypto community should not be ignored because it reflects the attitudes and behaviours of a growing class of young millennials and late Gen Z across the world. Most importantly, crypto represents their source of generational wealth.

(Reference #1)

While blockchain transactions are said to be immutable, there is one big asterisk next to that statement: A 51% attack, which allows anyone who gains control of more than half of the computing power used to mine rewards by adding a new block of transactions to a blockchain to seize control. This would let them double-spend funds used in transactions, making payments via Monero untrustworthy.

The problem is that one of the Monero mining pools — individual miners who pool computing power and rewards — has grown to control 44% of that computing power, known as hash power, putting it far too close to a majority stake for comfort.

It's argued that it would make no sense for a mining pool successful enough to gain 51% of the hash rate to kill the golden goose by double-spending it. That said, the point of decentralizing mining is so that no government can interfere with or censor a blockchain.

But a mining pool, almost by definition, is centralized. There's someone running it, and that someone lives somewhere. This means there's someone who a bad actor could conceivably coerce. But again, that remains theoretical.

This is one of the problems with converting from Proof of Work to Proof of Stake for validating blockchain transactions.

Proof or Stake – What Is It? How Does It Work?

Definitions

"Proof of work" and "proof of stake" are the two major consensus mechanisms cryptocurrencies use to verify new transactions, add them to the blockchain, and create new tokens. Proof of work, first pioneered by Bitcoin, uses mining to achieve those goals. Proof of stake — which is employed by Cardano, the ETH2 blockchain, and others — uses staking to achieve the same things.

The exact details vary by project, but in general proof of stake blockchains employ a network of "validators" who contribute — or "stake" — their own crypto in exchange for a chance of getting to validate new transaction, update the blockchain, and earn a reward.

- The network selects a winner based on the amount of crypto each validator has in the pool and the length of time they've had it there literally rewarding the most invested participants.
- Once the winner has validated the latest block of transactions, other validators can attest that the block is accurate. When a threshold number of attestations have been made, the network updates the blockchain.
- All participating validators receive a reward in the native cryptocurrency, which is generally distributed by the network in proportion to each validator's stake.

https://www.coinbase.com/learn/crypto-basics/what-is-proof-of-work-or-proof-of-stake

And remember, Crypto Exchanges do not participate in insurance programs like banks do. This means if they go bankrupt, so do YOU!

FBI Warns Fake Crypto Apps Are Stealing Millions

More than 200 victims have lost \$42 million to apps only built to line scammers' pockets with bitcoin over the past year.

https://gizmodo.com/fbi-fake-crypto-apps-steal-millions-investors-bitcoin-1849191776

To repeat from another talk I gave on cryptocurrencies:

https://blogs.worldbank.org/psd/addressing-consumer-risks-fintech-maximize-its-benefits

[T]he benefits of fintech (financial technology) and digital financial services have never been so evident. But fintech doesn't come without risks to consumers.

Increased instances of digital fraud, peer-to-peer lending platform collapses, and borrower distress as a result of irresponsible digital microcredit lending practices illustrate such risks.

In other words, there are none of the safeguards of the regulated world of traditional banking or lending companies. If you get a fintech account hacked, or if money disappears from the account, you may have no recourse to recover the loss. There is no insurance program for fintech apps or platforms.

This includes cryptocurrency exchanges, where your cryptocurrency holdings actually reside. Your Crypto Wallet is only worth what you can cash it out for. Usually, this means whatever someone will pay for it. Exchanges do not offer cash for Crypto. They do not act like banks.

But what about "crypto mixers"?

What is a cryptocurrency mixer and how does it work?

https://cointelegraph.com/explained/what-is-a-cryptoc urrency-mixer-and-how-does-it-work

I'm not sure crypto mixing is actually illegal. But the IRS certainly does not like it, and it could be pursued as money laundering if anyone ratted you out. And some exchanges would do just that.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Crypto Culture

What do we mean by Crypto Culture?

Beneath calls to dismiss crypto as a Ponzi scam, a money laundering tool or an environmental evil, there undeniably exists a very real and powerful subculture bred from within the crypto community, with the potential to drive a shift in future urban lifestyles and consumption patterns – not unlike the emergence of streetwear and urban culture rooted in the countercultures of the 1980s and 1990s.

(Reference #1)

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Crypto Culture

What do we mean by Crypto Culture?

Like street culture, crypto represents anti-establishment and liberation in:

Capital & Wealth – by creating an alternative to traditional financial systems that are controlled by governments, allowing every person in the world with internet access to transact on shared networks.

Community & Identity – by presenting a new social structure for like-minded individuals to organize themselves around capital and digital asset ownership, unconstrained by geographic borders. Crypto allows for individuals to literally put their chips down and have skin in the game in their convictions.

Creativity & Consumption – by enabling each individual with the ability to create, own and monetize digital assets autonomously, and also build future utility into them through smart contracts. This departs from the economics of Web 2.0 where creators are subject to the management and control of tech monopolies.

(Reference #1)

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Crypto Culture

What do we mean by Crypto Culture?

There are further characteristics which have been identified in Crypto Culture. In the interest of time I will skip these. Also, I want to avoid pointing people to subscription or paywalled content for the purpose of this presentation.

(See Reference #1.)

So how does the emergence of a culture or community around certain crypto assets affect the behaviors and attitudes of people who invest in (or reject) these types of assets?

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Example #1: Crypto Is People and Culture. It's Time the Media Saw It That Way (2021) Reference #2 (The story is told in the First Person, of a reporter's experiences.)

The mainstream media still doesn't really get crypto, only writing about it seriously when "numbers go up" (or down). It misses the bigger story, which is about community.

Going through the crypto winter of 2018-2019 as a reporter was one of the most valuable experiences I could've wanted.

What was going on as ether was trapped under \$300 as though being drowned was that people never stopped believing in it.

It wasn't clear at all in 2019 that the Ethereum blockchain would gain the traction it promised.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Example #1: Crypto Is People and Culture. It's Time the Media Saw It That Way (2021) Reference #2 (The story is told in the First Person, of a reporter's experiences.)

But crypto don't die, remember? It has now re-created three pillars of traditional finance and culture, but in a peer-to-peer uncensorable distributed fashion.

The first was capital formation with initial coin offerings.

The second, collateralized lending.

And the third, digital scarcity through NFTs and a possible answer to one of the trickiest decentralized puzzles: digital identity in the form of profile pictures.

This is an amazing amount of innovation in a short time, let's not forget. And, of course, there have been the scams and hacks and frauds and everything else that has dogged crypto from day one.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Example #1: Crypto Is People and Culture. It's Time the Media Saw It That Way (2021) Reference #2 (The story is told in the First Person, of a reporter's experiences.)

Crypto's combined market value is over \$2 trillion. I don't have time for people still doubting all of this. They can shout at someone else's cloud.

Because what that leads to, at the end of the day, is a dismissal of the people creating this new industry. And that does upset me.

(Regarding Ethereum's founders:) They're good people, for the most part. They truly believe they can make the world a better place, and in today's political and cultural moment I will take all of that I can get.

So here's to the culture of crypto, one of the most vibrant and remarkable and never-predictable places to be. It's also resilient, and it's here to stay. Hopefully, I can play a small role to help capture its dynamic true to form.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Example #2: Why so many bought into the global cult of crypto (2022) Reference #3

I cannot prove it, but I am convinced that the people who waited in queues for a whole night to buy an expensive (Apple) phone were also among the first to buy Bitcoin. Today, as cryptos collapse, I wish to present a brief history of how cryptos became mainstream, and what it reminds us of human nature.

In 2008, the Western financial system collapsed, giving greed a bad name. In the aftermath of the crisis, someone who called himself Satoshi Nakamoto put out a paper that showed how a financial transaction does not require the inconvenience of trusting an intermediary, like a bank or a government.

This is not the origin of cryptocurrency. Crypto emerges from government paranoia. (Examples are cited from before Bitcoin.)

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Example #2: Why so many bought into the global cult of crypto (2022) Reference #3

Slowly, Bitcoin attracted Beautiful Losers, if I may borrow a term from the title of musician Leonard Cohen's unsung novel. These were the underdogs of America who lived in the hope of favorable anarchy...What they saw was revolution against evil banks, paper trails and the end of paying protection money to the government.

It is people who don't know too much—dilettantes, enthusiasts, fans—who infect the world with their enthusiasm for ideas that are new to them. They were the first evangelists of Bitcoin.

The anonymity of the founder, and his vanishing, contributed immensely to the cult of Bitcoin. It gave Bitcoin a degree of delinquency, anarchy and selflessness. It was all so Bohemian, the exact opposite of global banking. People who were susceptible to believing began to believe.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Example #2: Why so many bought into the global cult of crypto (2022) Reference #3

As the cult of Bitcoin grew very powerful, the price of Bitcoin soared.

Cons are usually very poor transmitters of ideas. It is the delusional who can infect. And they infected millions. Many cryptocurrencies came to be. One spoof token was created, with the face of a dog, to lampoon the craze for cryptos. This spoof crypto, too, became valuable. (Thanks in large part to the current owner of Twitter!)

Cryptos promised anonymity of financial transactions and diminished the power of legal tender. In that way, cryptos promised a form of hyper-democracy that reduced the nuisance of government in the lives of people. It is a surprise that governments across the world allowed cryptos to grow so big.

A government-approved crypto is not a crypto, it is just a fancy form of fiat money. We are today in a phase where governments are slowly transforming cryptocurrency into something more familiar and old.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Example #3: Inside the World's biggest bitcoin party: Two million Britons now own crypto... we head to Miami to meet the true believers (2022)

Reference #4

(April, 2022)

The price of Bitcoin has soared by more than 3,500% over the past five years.

(A chart would be nice here. Ask Harry to include this for various Crypto and conventional assets. 2015-2022 or current would be nice.)

But the cryptocurrency is highly volatile having slipped 27% in the past year.

Many experts say its value is overstated and it is a bubble waiting to burst.

More than 25,000 believers from across the world descended on Miami Beach last week for what was billed as a 'four-day pilgrimage'.

Yet the sweltering U.S. city, with its neon lights and palm trees, was not hosting a typical religious gathering, but a celebration for the church of cryptocurrency.

The most famous digital money, bitcoin, as I found out, is all about belief.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Example #3: Inside the World's biggest bitcoin party: Two million Britons now own crypto... we head to Miami to meet the true believers (2022)

Reference #4

In the lobby of the Miami Beach Convention Center, a huge screen shows the live price of bitcoin.

Pilgrims stop to have their photo taken with it and others clap and cheer it on as they pass by. Unfortunately, for the 'bitcoiners' here the price fell by more than 8 per cent last week.

But believers are used to the rocky ride.

Despite existing only in the ether, bitcoin is hugely popular and has given rise to thousands of other cryptocurrencies since it was created by an unknown person or group in 2009.

Volatility is just a test of faith to those here in Miami who believe bitcoin will one day empower the poor to spend and store their money outside of the grip of governments and corporations.

But to many economic experts, bitcoin's value is hugely overstated. It is a wobbly bubble waiting to burst.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Example #3: Inside the World's biggest bitcoin party: Two million Britons now own crypto... we head to Miami to meet the true believers (2022)

Reference #4

Bitcoin is today being sold as the answer to rocketing inflation which has hit a 40-year high in the US at 8.5 per cent.

David Bailey, the chief executive of the firm behind the Bitcoin 2022 conference, tells his eager audience they are at 'the biggest party on the planet.'

(Miami, FL, April, 2022) Now, the mayor wants the city to be the crypto capital of the world, and on day one of the conference he unveils a statue (he hopes) will rival the iconic Wall Street bull. (This is also the city which named a stadium after FTX Exchange. More on FTX later.)

Attendance at the Miami conference is now twice what it was in 2021, and visitors tell me there are more big businesses here this year.

Miami's mayor takes his salary in bitcoin and wants to be able to pay government workers with it too.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Example #3: Inside the World's biggest bitcoin party: Two million Britons now own crypto... we head to Miami to meet the true believers (2022)

Reference #4

A gigantic exhibition center hosts 200 cryptocurrency companies that are dishing out free T-shirts and hats. At one stand there's even a bar.

There's also a market where you can buy merchandise and paintings using only the digital money. You can even get tattooed with the iconic bitcoin logo.

Alongside the fun and games, there are serious companies offering you the chance to 'retire with crypto', get a mortgage using cryptocurrency and sort out your tax affairs. It's become big business.

(And there are celebrity evangelists talking up crypto "investing".)

The worrying word for me was 'invest'. Bitcoin peaked at more than \$64,000 a coin last April, but hasn't been close since.

(In mid-April, 2022) it was trading at around \$40,000. (Current value is \$18,000 on Dec. 16, 2022.)

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Example #3: Inside the World's biggest bitcoin party: Two million Britons now own crypto... we head to Miami to meet the true believers (2022)

Reference #4

I soon find there's no such thing as a typical Bitcoiner.

I meet people who just want to play around and make some extra cash and I meet people who sincerely want to make money work better for everyone.

I also find there's a die-hard, poisonous, angry faction.

I ask (a crypto investor, a judge) why I've not heard a word against bitcoin in two days. "It's a party," he says.

"People are tribal."

I meet a young woman from El Salvador with a more altruistic view of the digital money.

She tells me her country's adoption of bitcoin means the poor can quickly move money across the border without facing fees.

And she says her people have found out that buying with bitcoin means your phone always needs to be fully charged and you cannot afford to forget your passcode.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Example #3: Inside the World's biggest bitcoin party: Two million Britons now own crypto... we head to Miami to meet the true believers (2022)

Reference #4 (Also told in First Person, by a Briton.)

Critics also point out that processing bitcoin consumes a huge amount of energy, and its lack or control or oversight makes it a gift to criminals and warlords.

The phenomenon has also been fueled by the 'fear of missing out' (Fomo) as stories spread of those who have effortlessly made a fortune.

(In Britain) Gambling charities tell me they've seen a rise in calls from investors who have lost huge amounts of money to cryptocurrency — including those who staked house (down payments.)

As I found out at the conference, there's a schism within the bitcoin movement.

Followers cannot seem to decide whether it is a currency to be spent, or an investment to hold on tight to.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Example #3: Inside the World's biggest bitcoin party: Two million Britons now own crypto... we head to Miami to meet the true believers (2022)

Reference #4

Bitcoin's value, at the moment, is purely speculative. It's only worth what people are willing to pay.

Bitcoin has clearly become a powerful force that is driving innovation, but I find myself wondering who will be the real winners from this new technology.

It's easy to forget that governments and banks also provide us with protection from fraud and losses. The bitcoin future is financial anarchy.

It has been easy to see the opportunity in bitcoin, but not the risk. For now, those backing Miami's bull are in for a rough ride.

Discussion Time.

What are the Group's experiences with crypto evangelists and doubters?

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

<u>Crash Case #1:</u> FTX Exchange and Newton native Caroline Ellison. (Reference #5)

Ellison is now very much the subject of attention. In a few stunning days, FTX went from being a darling of the crypto industry to filing for bankruptcy — and its close relationship with Alameda is at the center of the collapse.

A Nov. 2 story from CoinDesk showed that much of Alameda's assets were held in FTT, the trading token issued by its sister company. That sparked liquidity concerns and a series of cascading events, with investors withdrawing some \$5 billion from FTX and a bailout from investors falling through.

FTX, Alameda, and other subsidiaries filed for bankruptcy protection on Nov. 11, and (Sam) Bankman-Fried resigned as CEO of FTX. The same day, The Wall Street Journal reported that FTX lent customer funds to Alameda, which was against the exchange's terms of service agreement. Ellison was fired as CEO of Alameda, and investigators in the United States and the Bahamas are trying to determine what happened.

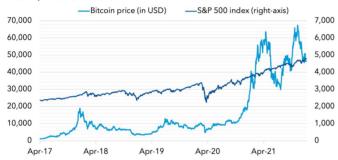
Now, those who knew the 28-year-old from Massachusetts wonder how she got involved in the Wild West of the crypto industry in the first place.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

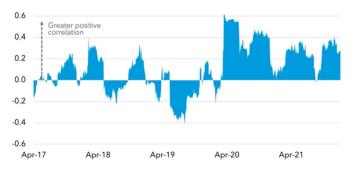
Stronger correlation

Bitcoin and U.S. stocks have moved together more closely during the pandemic.

Bitcoin price and S&P 500 index



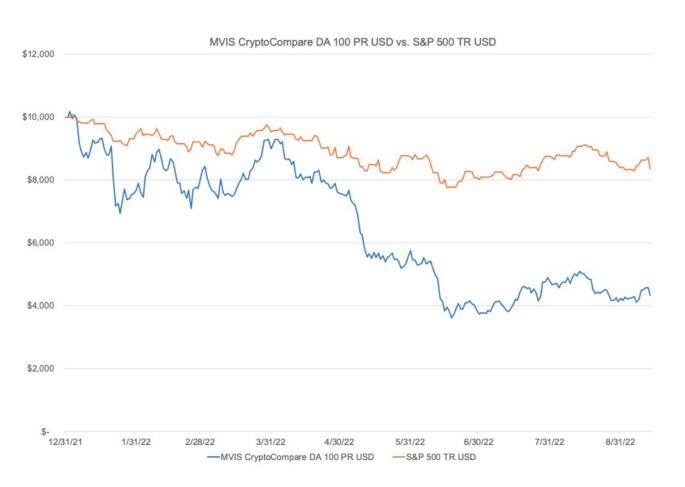
Correlation between Bitcoin returns and S&P 500 index



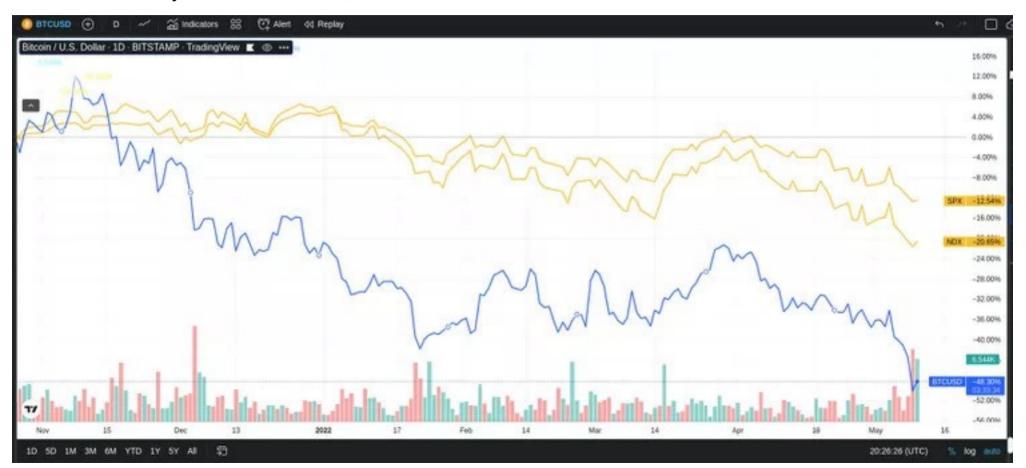
Source: CryptoCompare, Yahoo Finance, and authors' calculations. Note: Bottom panel shows rolling 60-day correlation coefficient.



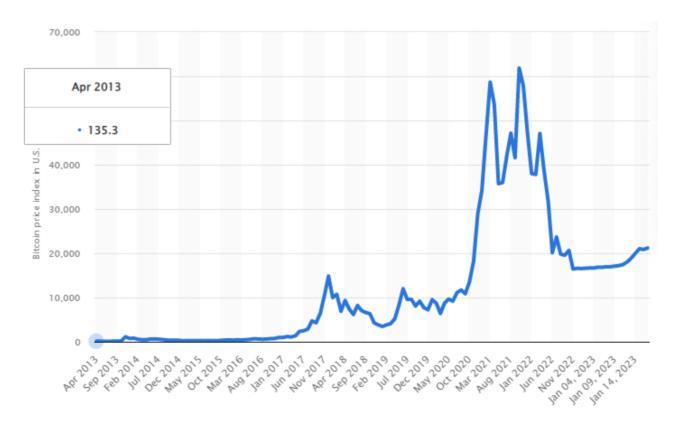
Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.



Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.



Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

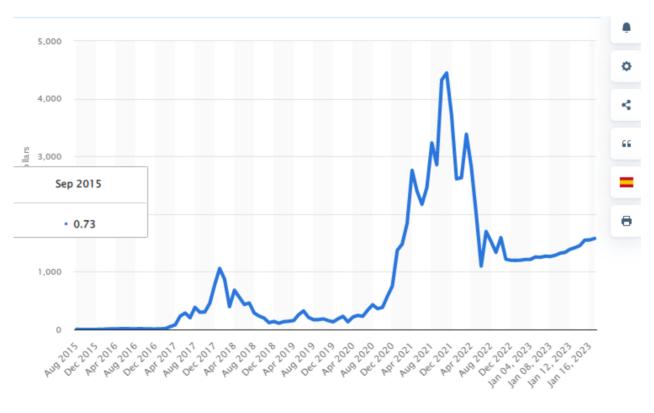


BITCOIN PRICE HISTORY

© Statista 20

Show sou

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.



ETHEREUM PRICE HISTORY

© Statista 2023 🏚

Show source 🐧

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

<u>Crash Case #1:</u> FTX Exchange and Newton native Caroline Ellison. (Reference #5)

A child of two members of the faculty at MIT, Ellison sailed through high school, won accolades for her excellence in math, attended Stanford University, and worked on Wall Street.

What is known about her comes from conversations and online exchanges with more than a dozen people who knew her, her Tumblr blog and podcast interviews she's given in recent years.

Lena Golick, 29, who took Chinese classes with Ellison, remembered her as "incredibly smart, super nice, [and] quiet."

"Most things came naturally to her," Golick said. "It did not surprise me that she ended up a CEO so young." What surprised her was that Ellison would be associated with a scandal. "She never cheated, that was definitely not her," Golick said.

Ellison attended Stanford University, where she studied mathematics and joined a club for effective altruism, a philosophical movement that encourages people to use logic and reasoning to figure out how to do the most good. After graduating in 2016, Ellison got hired as a quantitative trader at Jane Street Capital in New York. There she met Bankman-Fried.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

<u>Crash Case #1:</u> FTX Exchange and Newton native Caroline Ellison. (Reference #5)

(Quantitative Trader -- a specialized trader who applies mathematical and quantitative methods to evaluate financial products or markets. Per: https://careers.imc.com/eu/en/blogarticle/what-is-quantitative-trading#:~:text=What%20is%20a%20quant%20trader,evaluate%20financial%20products%20or%20markets.)

On one podcast, Ellison said Bankman-Fried first told her about the business over coffee in Berkeley, Calif., where Alameda was originally headquartered.

"I didn't just randomly decide to do crypto on my own," she said on an FTX podcast in July 2020.

In 2019, Bankman-Fried founded the crypto exchange FTX in the Bay Area, relocating first to Hong Kong and then the Bahamas in search of a more favorable regulatory environment. Alameda also shifted operations to Hong Kong, and Ellison moved there in 2019.

Amid concerns about a potential conflict of interest between his trading firm and crypto exchange, Bankman-Fried stepped down as chief executive of Alameda and in October 2021 named Ellison and MIT grad Sam Trabucco, also a trader at Alameda, co-CEOs.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

<u>Crash Case #1:</u> FTX Exchange and Newton native Caroline Ellison. (Reference #5)

Months before she was named co-CEO, she wrote on her blog that she didn't "have that much responsibility" at work. "What do CEOs of real companies do?" she wrote. In a podcast, Ellison claimed to only need "elementary school math" to do her job, a comment that raised eyebrows.

"Anyone that's in the trading industry that has seen those interviews, their jaw hits the floor," said Matt Walsh, founding partner of Cambridge-based Castle Island Ventures, which invests in blockchain startups.

In August of this year, Trabucco resigned from Alameda, leaving Ellison as the firm's sole leader.

According to a report in The Wall Street Journal, which cited anonymous sources, Ellison told Alameda employees in a video call that she knew FTX sent customer funds to Alameda, and that her company used the money to cover its liabilities. She said Bankman-Fried and other top FTX executives knew about the decision, as well.

Since the rapid collapse in November, Ellison has been quiet. By contrast, Bankman-Fried has been anything but. In several interviews or public appearances, he has made eye-popping statements about the internal operations of the firms, and what role he did — or did not — play in their demise.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

<u>Crash Case #1:</u> FTX Exchange and Newton native Caroline Ellison. (Reference #5)

For example, in a virtual interview at The New York Times DealBook Summit last week, Bankman-Fried said he didn't try to commit fraud or knowingly send FTX customer funds to his trading firm.

"I wasn't running Alameda, I didn't know exactly what was going on," he said in the interview. "I haven't been making those decisions."

While much remains to be pieced together, a quip Ellison made about the crypto industry on her blog earlier this year may have more of a ring of karma to it than she intended.

"Yeah, it's mostly scams and memes when you get down to it," she wrote.

(End of Boston Globe content.)

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

<u>Crash Case #1:</u> FTX Exchange and Newton native Caroline Ellison. (Reference #5)

Effective Altruism (Reference #6) (Paywall)

A little-known figure outside crypto circles, Ms. Ellison claimed repeatedly that Mr. Bankman-Fried's empire was on stable financial footing. On Twitter, she sparred with Changpeng Zhao, the chief executive of Binance, who was voicing doubts about FTX and Alameda.

But her words weren't enough to keep FTX alive. A run on deposits, prompted partly by Mr. Zhao's comments, left the company owing \$8 billion. Within less than a week, FTX and Alameda had filed for bankruptcy. Now the companies are facing investigations by the Justice Department and the Securities and Exchange Commission, focused on whether FTX's shortfall arose because it had illegally lent its customers' deposits to Alameda.

Ms. Ellison was deeply involved in the effective altruism movement — a community that has become increasingly influential in technology circles. At times, the pair were romantically involved.

Effective altruism is a global philanthropic movement in which donors seek to maximize the impact of their giving for the long term. But the tight-knit community — driven by online forums, blogs and mailing lists — is also a hothouse for all sorts of other ideas outside the mainstream, from polyamorous living to the possibility that artificial intelligence will one day destroy humankind.

(Reference #7) (Paywall)

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Crash Case #1: FTX Exchange and Newton native Caroline Ellison. (Reference #5)

Alameda made fast profits by exploiting inefficiencies in the Bitcoin market.

A review of a talk I gave previously about high-speed trading might be advisable here. This talk should be available on thew LCTG site and at You Tube, via links. I submitted a document: High-Frequency Trading, The Flash Boys and Network Fast Lanes (https://www.youtube.com/watch?v=qzm3QI-wyPg). I can post to Chat the PDF version of my slides from that talk.

Basically, Alameda was engaged in high-frequency trading on the crypto market. This is a form of arbitrage which exploits small, temporary price differences on different exchanges. Often such arbitrage is done in virtual or actual rooms which are not monitored (much) by regulators and are not open to the public or traders who are not specifically invited to participate.

Ms. Ellison and another trader, Sam Trabucco, were appointed as joint chief executives of Alameda. Mr. Trabucco stepped down earlier this year, leaving Ms. Ellison in sole charge.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

<u>Crash Case #1:</u> FTX Exchange and Newton native Caroline Ellison. (Reference #5)

Alameda traded heavily on the FTX platform, meaning it sometimes benefited when FTX's other customers lost money, a conflict of interest that Mr. Bankman-Fried sometimes seemed [to acknowledge.]

According to a recent bankruptcy filing, the company's quarterly financial statements were never audited. One business partner, who requested anonymity to describe private business discussions, ended work with Alameda after a call with its executives raised red flags late last year. The business partner asked about a line representing \$2 billion of investments on Alameda's balance sheet — a sizable chunk of the firm's overall assets — and the Alameda representatives couldn't explain what it was.

Then, on Nov. 2, the crypto news site CoinDesk published an article based on a leaked Alameda balance sheet that appeared to show that a large portion of the company's assets consisted of FTT, the cryptocurrency that FTX invented.

On Nov. 6, Mr. Zhao announced plans to sell an enormous supply of FTT. At the time, the token was worth about \$22; if its price dropped too much, FTX would be in trouble.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

<u>Crash Case #1:</u> FTX Exchange and Newton native Caroline Ellison. (Reference #5)

Mr. Zhao's tweets set off the crypto equivalent of a bank run, and customers rushed to withdraw their holdings from FTX.

In a meeting with employees the next day, Ms. Ellison admitted that Alameda had taken customer funds from FTX to make up for shortfalls in its accounts.

FTX now owes creditors \$8 billion, and the amount it lent to Alameda is as high as \$10 billion, according to people familiar with the firm's finances.

The Alameda staff were shocked. As the news sank in, they commiserated, discussing plans to leave Hong Kong and seek legal help.

Ms. Ellison was not included.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

<u>Crash Case #2:</u> Terra/Luna -- The Fall of Terra: A Timeline of the Meteoric Rise and Crash of UST and LUNA Reference #8

The Terra network and its leader, Do Kwon, rose to the highest tier of the crypto world thanks to big-shot investors, only to fall apart within a few days in May 2022.

On May 7, the price of the then-\$18-billion algorithmic stablecoin terraUSD (UST), which is supposed to maintain a \$1 peg, started to wobble and fell to 35 cents on May 9. Its companion token, LUNA, which was meant to stabilize UST's price, fell from \$80 to a few cents by May 12.

CoinDesk followed and reported on the rise and the ultimate demise of the Terra ecosystem.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

<u>Crash Case #2:</u> Terra/Luna -- The Fall of Terra: A Timeline of the Meteoric Rise and Crash of UST and LUNA Reference #8

This is a timeline article. Best to just go over to the article and go down the list of events.

https://www.coindesk.com/learn/the-fall-of-terra-a-timeline-of-the-meteoric-rise-and-crash-of-ust-and-luna/

What is a crypto airdrop?

A crypto airdrop is a method by which you can earn free crypto from a crypto project. There are several ways to receive these tokens. Many times an airdrop is associated with free cryptocurrencies, but this is not necessarily true. You have to put in time and effort or you may have to deal with transaction fees. However, it is also possible to participate in an airdrop for free!

https://cointelegraph.com/news/what-is-a-crypto-airdrop-and-how-does-it-work

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

<u>Crash Case #3:</u> (Reference #9) Black Thursdays: Bitcoin's 5 Worst Crashes June 2011:

"Hey guys, it's Nick. I just witnessed a very dramatic price crash in bitcoin," a YouTuber with the handle BookofNick told his followers in a video. Bitcoin (BTC), the only cryptocurrency that was circulating back then, had crashed from \$17.50 to 1 cent.

The crash occurred when an exchange called Mt. Gox, which in the early years of crypto was handling over 70% of all bitcoin transactions, got hacked. Mt. Gox eventually filed for bankruptcy in 2014 after losing almost 750,000 of its customers' bitcoins.

On other exchanges, bitcoin's low that year was around \$2, and the cryptocurrency ended the year at around just under \$5.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Crash Case #3: (Reference #9) Black Thursdays: Bitcoin's 5 Worst Crashes

December 2013: China FUD

Michael Saylor, then CEO of software vendor MicroStrategy, tweeted on Dec. 13, 2013: "#Bitcoin days are numbered. It seems like just a matter of time before it suffers the same fate as online gambling."

(Yes, this is the same Michael Saylor who's now one of bitcoin's biggest evangelists.)

The year 2013 was also when China made its first mark on bitcoin: The Chinese central bank issued a warning against using bitcoin as legal tender. The price of bitcoin dropped over 50%, from a then-all-time high of \$1,200 to less than \$600.

(For many people, including many in the financial press) the fact that the bitcoin price was constantly crashing just added to the fascination.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

<u>Crash Case #3:</u> (Reference #9) Black Thursdays: Bitcoin's 5 Worst Crashes December 2017: Just before crypto winter (Actually, one of many crypto winters.)

If you look at the current price of bitcoin (\$19,592 as of press time) and its price five years ago, some skeptics might argue that no progress has been made.

But back in December 2017, when bitcoin's value topped \$20,000 for the first time, traders were astounded – and many early buyers of the original cryptocurrency were suddenly very rich.

But what goes up must come down. Just 12 days later, the crypto asset crashed to \$12,840.

And this time, it wasn't just bitcoin that was hit by the crash. Other established crypto assets, such as Ethereum's ether (ETH) and Bitcoin Cash's BCH, lost value, too.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Crash Case #3: (Reference #9) Black Thursdays: Bitcoin's 5 Worst Crashes

March 2020: The pandemic shock

As a result, the stock market lost 13% on March 16, nicknamed "Black Monday," as the pandemic's potentially devastating impact on the economy suddenly became undeniable. The growing uncertainty caused a crash in crypto assets, considered among the riskiest assets of all.

Bitcoin fell by 57% to a low of \$3,867 after having traded near \$10,000 in the previous month. Ether, the second-largest cryptocurrency by market value after bitcoin, fell 46% that week.

In a strange epilogue, the pandemic ultimately helped crypto gain more mainstream attention. Over the next several months, Wall Street banks and investment firms including BlackRock, AllianceBernstein, Morgan Stanley and Tudor Investment started buying billions of dollars' worth of bitcoin. PayPal announced it would allow 346 million customers to hold bitcoin. JPMorgan Chase CEO Jamie Dimon, a longtime bitcoin naysayer, said that cryptocurrency had "considerable" price upside.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Crash Case #3: (Reference #9) Black Thursdays: Bitcoin's 5 Worst Crashes

May 2022: the Terra meltdown

After a 2021 that was arguably the most successful year for the crypto industry, the reckoning came swiftly.

First came the crash of Terra, a blockchain with its own dollar-linked stablecoin, UST. The UST token was supposed to retain a value of \$1, but the price came unpegged – and soon traders also lost confidence in the blockchain's native cryptocurrency, LUNA, whose price eventually would tumble 99%.

The implosion dragged digital-asset markets lower, including bitcoin's price. It didn't help that the U.S. Federal Reserve was rapidly raising interest rates to slow the pace of inflation – putting downward pressure on prices for all assets considered to be risky, from stocks to cryptocurrencies.

Casualties of the rapid market sell-off included Three Arrows Capital, which was once considered one of the savviest crypto hedge funds.

Then, on June 12, Celsius Network, one of the biggest and most successful crypto lenders, informed users that it had frozen their assets due to "extreme market conditions." Bitcoin lost nearly 37% in June alone, dropping from \$32,000 to below \$18,000. Ether dropped 44%.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Other Crypto Crash Cases: (References #10, #11, #12)

Ethereum and its coin Ether, is a much more complicated case. I won't try to get into the several crashes Ether has experienced, let alone the wild fluctuations in value of NFTs and other derivative tokens which sit atop the Ethereum blockchain. I am including references for those who want to follow these crypto crashes in more detail.

So now we come to the "fun part" of this presentation. Discussion, beginning with what some within the financial press have concluded about crypto investing, crypto culture and crypto crashes. After this, I hope we have time for our group to discuss what I have presented, if we wish to do so.

(We could discuss crypto crashes at this point.)

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Crypto Conclusions: Expert Opinions

JPMorgan: Lessons Learned From the Crypto Crash Reference #13

The recent market slump highlights the risks stemming from regulatory shortcomings, the bank said. (Nov 8, 2022)

Despite the recent crash in cryptocurrency markets, the technology behind stablecoins – a type of cryptocurrency whose value is pegged to another asset, such as the U.S. dollar or gold – will continue to play an important part in the evolution of the monetary system, JPMorgan (JPM) said in a research report Thursday.

The technologies, tokenization of securities and assets, smart contracts and cryptography, will "transform the future of financial systems," the report said.

As with any new development, "the challenge is to find the right balance between fostering innovation and maintaining financial stability and protection for consumers and investors," JPMorgan said. The roles of the public and private sector still need to be clearly defined, according to the note.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Crypto Conclusions: Expert Opinions

Policymakers will need to address financial stability risks by improving investor and consumer protection, and by enhancing know-your-customer (KYC) and "identity issue regulation" to stop money laundering and terrorist financing.

"A blue sky regulatory framework is hard to achieve in light of political and technological realities," the note said. The recent crypto market crash highlights the risks originating from such regulatory shortcomings, it added.

This 'crypto winter' is unlike any downturn in the history of digital currencies. Here's why (CNBC, July, 2022)

Reference #14

Cryptocurrencies have suffered a brutal comedown this year, losing \$2 trillion in value since the height of a massive rally in 2021.

While there are parallels between today's meltdown and crashes past, a lot has changed since the last major bear market in crypto.

The crypto market has been flooded with debt thanks to the emergence of centralized lending schemes and so-called "decentralized finance."

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Crypto Conclusions: Expert Opinions

The collapse of the algorithmic stablecoin terraUSD and the contagion effect from the liquidation of hedge fund Three Arrows Capital, highlighted how interconnected projects and companies were in this cycle.

the current crash began earlier this year as a result of macroeconomic factors including rampant inflation that has caused the US Federal Reserve and other central banks to hike interest rates. These factors weren't present in the last cycle.

Bitcoin and the cryptocurrency market more broadly has been trading in a closely correlated fashion to other risk assets, in particular stocks.

(The 2022) sharp reversal of the market caught many in the industry from hedge funds to lenders off guard.

Another difference is there weren't big Wall Street players using "highly leveraged positions" back in 2017 and 2018, according to Carol Alexander, professor of finance at Sussex University.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Crypto Conclusions: Expert Opinions

So how did we get here?

Stablecoin destabilized

This sent shockwaves through the crypto industry but also had knock-on effects to companies exposed to UST (Terra), in particular hedge fund Three Arrows Capital.

The nature of leverage

The nature of leverage has been different in this cycle versus the last. In 2017, leverage was largely provided to retail investors via derivatives on cryptocurrency exchanges.

In contrast, the leverage that caused the forced selling in Q2 2022 had been provided to crypto funds and lending institutions by retail depositors of crypto who were investing for yield.

There was a lot of unsecured or undercollateralized lending as credit risks and counterparty risks were not assessed with vigilance. When market prices declined in Q2 of this year, funds, lenders and others became forced sellers because of margins calls.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Crypto Conclusions: Expert Opinions

The inability to meet margin calls has led to further contagion.

High yields, high risk

At the heart of the recent turmoil in crypto assets is the exposure of numerous crypto firms to risky bets that were vulnerable to attack, including terra.

We have seen in this presentation how some of these situations happened, and what the fallout has been so far.

Celsius, a company that offered users yields of more than 18% for depositing their crypto with the firm, paused withdrawals for customers last month. Celsius acted sort of like a bank. It would take the deposited crypto and lend it out to other players at a high yield. Those other players would use it for trading. And the profit Celsius made from the yield would be used to pay back investors who deposited crypto.

But when the downturn hit, this business model was put to the test. Celsius continues to face liquidity issues and has had to pause withdrawals to effectively stop the crypto version of a bank run.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Crypto Conclusions: Expert Opinions

"Players seeking high yields exchanged fiat for crypto used the lending platforms as custodians, and then those platforms used the funds they raised to make highly risky investments – how else could they pay such high interest rates?," said Alexander.

Contagion via 3AC

One problem that has become apparent lately is how much crypto companies relied on loans to one another.

We saw this issue when looking into the collapse of FTX Exchange.

The Contagion continued further.

Alameda and 3AC were lending to each other, which did not help at all.

It is now apparent that nearly every large centralized lender failed to properly manage risk, which subjected them to a contagion-style event with the collapse of a single entity. 3AC had taken out loans from nearly every lender that they were unable to repay following the wider market collapse, causing a liquidity crisis amid high redemptions from clients.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Crypto Conclusions: Expert Opinions

Is the shakeout over?

The next dominoes to fall could be crypto exchanges and miners.

Even established players like Coinbase have been impacted by declining markets.

Meanwhile, crypto miners that rely on specialized computing equipment to settle transactions on the blockchain could also be in trouble, Butterfill said.

"We have also seen examples of potential stress where miners have allegedly not paid their electricity bills, potentially alluding to cash flow issues," he said in a research note last week.

"This is likely why we are seeing some miners sell their holdings."

The role played by miners comes at a heavy price — not just for the gear itself, but for a continuous flow of electricity needed to keep their machines running around the clock.

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

Time now for discussion from our group.

-- Bob Primak --

For the Lexington Computers and Technology Group (LCTG)

Slides prepared Friday, December 16, 2022 at 12:51 PM EST

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

References: Crypto Culture

- 1)
- https://www.warc.com/newsandopinion/opinion/crypto-the-new-counterculture-that-cannot-be-ignore d/en-gb/5705
- 2) https://www.coindesk.com/layer2/2021/12/13/crypto-is-people-and-culture-its-time-the-media-saw-it-that-way/
- 3) https://www.livemint.com/opinion/columns/how-the-global-cult-of-crypto-found-so-many-believers-11 669572592906.html
- 4) https://www.coindesk.com/layer2/2021/12/13/crypto-is-people-and-culture-its-time-the-media-saw-it-that-way/

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

References: Crypto Crashes

- 5) https://www.bostonglobe.com/2022/12/06/business/caroline-ellison-math-whiz-newton-native-was-bound-success-then-she-got-into-crypto/
- 6) https://www.nytimes.com/2022/11/23/business/ftx-caroline-ellison-sbf.html
- 7) https://www.nytimes.com/2021/02/13/technology/slate-star-codex-rationalists.html
- 8) https://www.coindesk.com/learn/the-fall-of-terra-a-timeline-of-the-meteoric-rise-and-crash-of-ust-and-luna/9)https://www.coindesk.com/layer2/2022/10/24/black-thursdays-bitcoins-five-worst-crashes/
- 10) https://gizmodo.com/ether-proof-of-stake-merge-crypto-mining-1849502453
- 11) https://futurism.com/the-byte/ether-price-falls-after-merge-to-cut-its-environmental-toll
- 12) https://futurism.com/the-byte/ether-fork-merge-pollutes-crashes

Presented For Lexington Computers and Technology Group (LCTG) By Bob Primak. Feb. 1, 2023.

References: Crypto Conclusions

13) https://www.coindesk.com/tech/2022/11/08/jpmorgan-lessons-learned-from-the-crypto-crash/

14)

https://www.cnbc.com/2022/07/14/why-the-2022-crypto-winter-is-unlike-previous-bear-markets.html

For Lexington Computers and Technology User Group By Bob Primak Feb. 1, 2023