LUMOS

JULY 2022

Research Round-Up

Decoding what it means
to be truly decentralized.

Lumos Digital Assets Research

Market Commentary

Data Source: Coin Metrics as of 07/01/2022.

The first half of 2022 has passed, and for most investors, it will likely be two consecutive quarters that they hope they can put behind them. As for bitcoin, it has found itself amid a 70% drawdown from all-time highs late last year. This marks the fourth decline in bitcoin's history of over 70% and comes during a period of tightening financial conditions in traditional equity and fixed income markets. While much of this short-term volatility has likely been the result of events happening outside of the crypto markets, there have been plenty of events happening inside the digital asset ecosystem as well. In this month's newsletter, we will break down the major headlines from the past 30 days, cover a few data points we are watching closely, and discuss the importance of understanding how decentralized your network or application really is.

News & Editorial

A curated list of the most relevant news and developments along with our two Sats.

Celsius Pauses All Withdrawals, Swaps, and Transfers...

Celsius paused all withdrawals, swaps, and transfers between accounts due to extreme market conditions citing a clause in their Terms of Use to allow this process to take place. [1] They noted that customers will continue to accrue rewards during the "pause" in line with their commitments. It remains to be seen what will happen with depositor's funds on the platform, and whether they will be kept whole.

Our Two Sats:

The Celsius Network is one of the largest crypto lending platforms. Celsius offers double digit annual percentage yields on crypto deposits, more than double that of BlockFi's highest APY (for select assets). The Celsius Network is widely used and quickly accumulated $20 billion in assets under management just four years after its founding. [2] With its immense market reach, it makes sense that the platform would be intertwined with other parts of the cryptocurrency markets. It's more than just the digital assets industry tied to Celsius though; for example, a Canadian pension fund invested 400 million in an equity round for the company. With everyone searching for liquidity in the market downturn, it's hard to say who will be at the front of the line to receive their funds back. There is still a beacon of hope for users and investors as other parties offer to lend a helping hand, but they will surely be looking for discounted equity as well. While this may not be good for Celsius, it could solve some of the short-term liquidity problems users are facing today. As of writing, FTX has walked away from a Celsius acquisition citing the current state of Celsius' finances[3] and could now be looking to acquire BlockFi. [4] Read more about Celsius in our insights and education section, below.

Lummis-Gillibrand Bill Seeks to Create Regulatory Framework for Digital Assets

Senators Cynthia Lummis (R-WY) and Kirsten Gillibrand (D-NY) unveiled a landmark bipartisan proposal that could help lay the foundation for fair and proper regulation of the digital asset markets in the United States. The bill was released in early June and is titled the "Responsible Financial Innovations Act." A few of the provisions in the bill include creating clear definitions, assigning regulatory authority over digital asset spot markets to the CFTC, creating requirements for stablecoins to protect consumers, studying digital asset energy consumption, creating a workable structure for the taxation of digital assets, and more. Although many would love to see this ambitious bill passed in its entirety, the two senators mentioned that they see it as far more likely for pieces of the bill to be worked into law over time. [5]

Our Two Sats:

Regulation is a topic that we have discussed at length throughout our newsletters, webinars, and client interactions, but it is one of the most important missing ingredients for mass adoption of digital assets in the United States. This bill is bipartisan and promising. It is unlikely that major legislation on digital assets will make its way through congress prior to mid-terms, which occur at the end of this year. However, we are hopeful that we will witness thoughtful and productive regulation brought into the digital asset space in 2023 and beyond.

SEC Rejects Grayscale's Spot Bitcoin ETF Application

The SEC announced on the evening of June 29th that Grayscale's application to convert the popular Grayscale Bitcoin Trust (GBTC) into a spot-based ETF was denied.[6] Additionally, Bitwise Asset Management received a denial for their ETF application that very same night.[7] Once again, the SEC stated their concerns that they feel remain unaddressed regarding market manipulation and others. Grayscale responded just minutes following the news with a lawsuit that will likely play out over the coming months and years. Responses for these filings came earlier than expected but were potentially released early to provide clarity prior to the holiday week.

Our Two Sats:

The SEC's concerns have remained consistent, whether the industry ultimately agrees with the issues that they are raising or not. The biggest reason for continued spot ETF denial has been that the underlying spot markets are unregulated and neither the SEC nor the CFTC has any insight into the fairness of these markets. Futures-based ETFs have been approved because the futures markets are highly regulated and provide the ability to monitor trades that clear through markets such as the CME. As a result, it appears unlikely that there will be much movement on the spot bitcoin ETF front for the time being. Grayscale's lawsuit will likely take a year or more to play out, but we are hopeful that thoughtful regulation can enter the space and allow for an increase in properly regulated markets and products in the years ahead.

Crypto is more popular than mutual funds amongst millennials

According to a new survey from the investing firm Alto, millennials aged 25 to 40 are investing in crypto more than in mutual funds.[8] The report, "How Millennials See Their Financial Future," reveals that 40% of millennial respondents have invested in cryptocurrencies. This is "greater than the percentage of millennials who own mutual funds." Furthermore, that percentage nearly matches those millennials who own stocks. Of the survey participants that were already holding crypto, 70% mentioned that they were more likely to add crypto to their retirement portfolios and those that already had an individual retirement account currently hold their digital assets in that IRA. An earlier report known as the "World Health Report" shows adoption rising among wealthy participants as 71% responded as having invested in digital assets such as crypto, nonfungible tokens (NFTs), and exchange-traded funds.

Our Two Sats:

Gradually, then suddenly. Whether it is the hashrate, number of active addresses, USD traded volume, or survey participants, metrics show the gradual adoption of digital assets over time. The article also mentions a report from research firm Blockware Intelligence that showed bitcoin adoption may surpass the adoption rate of other technological disruptions such as smartphones, the internet, and social media. This is something we have looked at within our research group as well and you can read about it in our piece "Valuing Bitcoin"[9].

EU agrees on landmark regulation to clean up crypto "Wild West"

On June 30, the European Commission, EU lawmakers, and corresponding member states came to an agreement on reforms and regulations for the cryptocurrency industry. [10] The Markets in Crypto-Assets law, or MiCA, is created with the intent to fight money laundering practices in cryptocurrency, as well as establish standards to regulate reserve requirements for stablecoins to protect investors from mass withdrawal events. Additionally, stablecoins that reach certain thresholds will be limited to 200 million euros in transactions per day. Under the new framework, the European Securities and Markets Authority (ESMA) will have the ability to ban or restrict crypto platforms that are deemed to not properly protect investors or threaten market integrity or financial stability. MiCA will also address environmental concerns by forcing firms to disclose their energy consumption and impact of digital assets on the environment. Furthermore, transfers between exchanges and wallets owned by individuals will need to be reported if the amount tops a 1,000-euro threshold. It is expected that these rules will be enforced as early as 2024.

Our Two Sats:

Regulatory clarity is a huge milestone in driving digital asset adoption and consumer confidence in this industry. As the MiCA framework has been in development for the last several months, it is reassuring to see an agreement be made and a framework established for these assets in the EU. This should be looked at as a significant step in the right direction, and one that we hope will drive more positive innovation and adoption going forward. While some may see this regulation as stifling, it will be a positive development towards a clearer regulatory environment down the road, with Europe leading the way for other regions to follow their example.

News Quick Hits

Securities and Exchange Commission Chairman Gary Gensler says bitcoin was the only cryptocurrency he was prepared to publicly label a commodity, rather than a security, in an interview with CNBC. [11]

Compass Mining is losing a facility after allegedly failing to pay its power bill. [12]

'Bitcoin dead' Google searches hit near all-time high only surpassed slightly in January 2018. 'Crypto is dead' has hit an all-time high. [13]

MicroStrategy purchased another $10M of bitcoin over the past two months bringing their total holdings to 129,699 coins. [14]

El Salvador purchased 80 additional bitcoin at $19k. [15]

Data to Watch

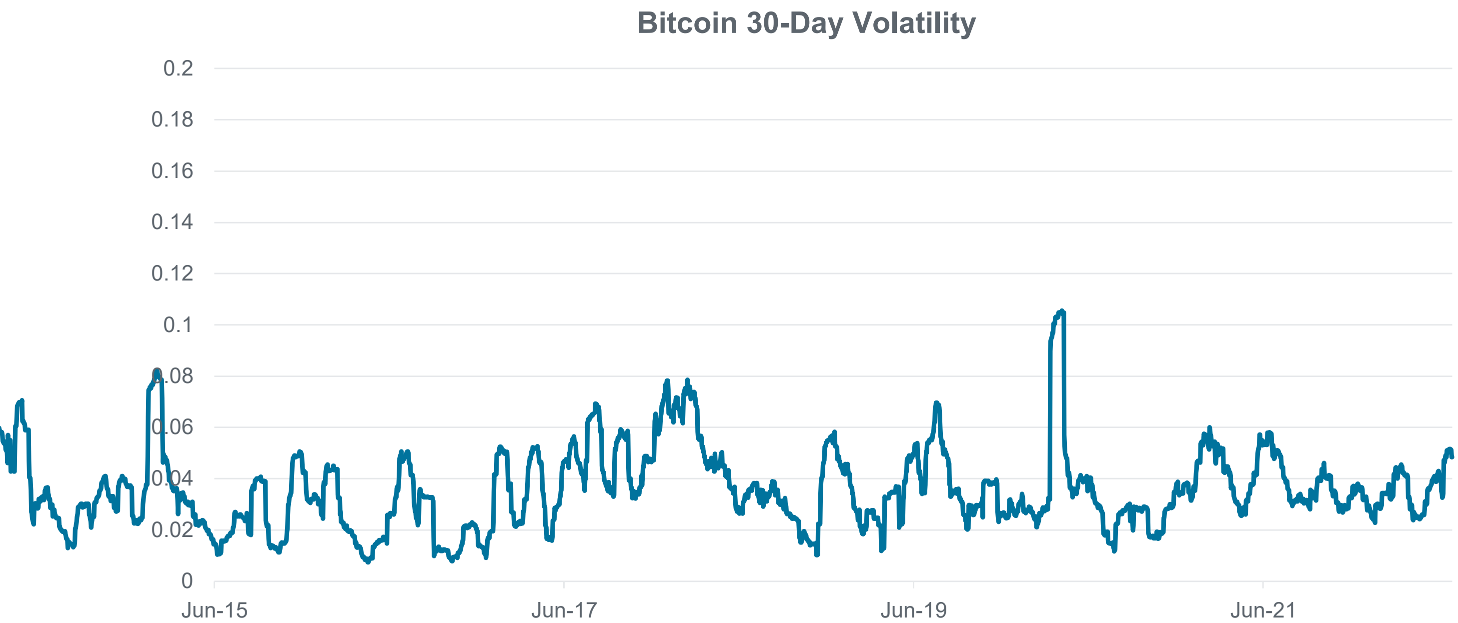
Data we are currently keeping an eye on and our commentary.

Miner Profitability

Data Source: Coin Metrics as of 07/01/2022.

The past month's leverage unwind has hit many lending desks across the digital asset space. However, there has yet to be much noise made regarding the plethora of levered bitcoin mining operations thus far. This could certainly change in the coming weeks and months as mining becomes less fruitful in environments where the bitcoin price sours, particularly while difficulty remains at near all-time highs. Old mining rigs and operations with high electricity costs will likely be the first to begin powering off, which would then lead to a drop in overall hashrate and mining difficulty. This is not necessarily a cause for concern, as historic price cycles have led to a repeated self-cleansing mechanism where only the leanest, most profitable mining operations are left standing. However, it is a potential headwind if bitcoin rich mining balance sheets are turned into short-term forced sellers.

Bitcoin Volatility



Data Source: Coin Metrics as of 07/01/2022.

The current levels of volatility in bitcoin may be stomach churning for many investors who have entered the bitcoin space over the past 2 years, but for long-term holders this is nothing out of the ordinary. Bitcoin's trailing 30-day volatility is within its typical range of historical figures, and the current drawdown of roughly 70% or more, while dramatic, has been seen in three other previous episodes of bitcoin's history so far.

Bitcoin Address Growth

The macroeconomic environment may be a leading cause in the decline of asset prices, but bitcoin's network fundamentals and adoption do not necessarily depict such a negative storyline. Address growth, which can be used as a very rough proxy for user and network adoption, has continued to increase over the past twelve months. The number of addresses with greater than 0.001 bitcoin, approximately $20 today, is at all-time highs with over 20 million addresses. While users can and often do represent multiple addresses, or in some cases single addresses represent many users, there has been a strong historical relationship between address count and price over the long-term.[16]

Data Source: Coin Metrics as of 07/01/2022.

Insights & Education

A monthly long-form section where we provide a LumosDigital Asset's perspective or educational piece.

Demystifying Decentralization

Market drawdowns are often accompanied by feelings of doubt, uncertainty, and ambiguity of forward expectations. While no one has a crystal ball, we can use the information available to us to make our best estimations and probabilistic assumptions of what may happen in the future. However, in order for us to make our best estimations of what's to come, we must first understand what has happened in the past. Recent events in the digital asset ecosystem have underpinned the importance of comprehending decentralization, what it stands for, and what it means in both theory and practice. Let's dive into what decentralization means and how recent events may shape the future landscape of decentralized finance, or DeFi.

Interpreting Decentralization

In the context of digital assets, decentralization refers to the concept of operation and decision-making being distributed across a group of individuals or organizations, not one central authority, group, government, or entity. In other words, no one entity, person, government, or group owns or controls the protocol, rather it is owned and operated by its user base. Amid a tumultuous market drawdown, we have seen several notable implosions of ecosystems that we accepted as decentralized. As some of these ecosystems were feeling the heat of the recent digital asset exodus, they revealed that they may have been decentralized in name but centralized in practice.

What Happened?

In just the past few weeks, we have seen numerous stories about different companies and parties that offered ways to generate yield on digital assets run into trouble. As we discussed above, popular centralized cryptocurrency lender Celsius recently announced the halting of all account withdrawals, blaming "extreme market conditions." [17] Additionally, another centralized cryptocurrency lending platform, BlockFi, was on the receiving end of a $250 million revolving line of credit courtesy of FTX, a major cryptocurrency exchange. While the firm had a valuation of over $3 billion last year, it has struggled to meet its obligations given the more unforgiving market conditions. [18] Playing the role of superhero, Sam Bankman-Fried (FTX) deployed additional capital from his quantitative trading firm, Alameda Research, to provide $500 million in financing to Voyager Digital, yet another troubled centralized cryptocurrency lender. [19] It appears this wasn't sufficient to stop the bleeding, as the firm announced in the first week of July that they would be entering bankruptcy proceedings. [20] Solend, a supposedly decentralized lending protocol on the Solana network, tried to gain control over a whale's account that had a large presence on the protocol. They claimed this account and its size was putting the protocol at risk and the ensuing attempted takeover of the account was an unprecedented move in the DeFi world. While Solend's users ended up voting to block this forced takeover, inherent trust in the lending protocol was drastically reduced and questions arose on whether the network was really controlled by its users, or by central authorities.[21] While these misfortunes seem to portray the digital asset ecosystem in poor taste, it is important to recognize the differences between centralized finance (CeFi) platforms and decentralized finance (DeFi) ones. The troubles of Celsius, BlockFi, and Voyager are unique to their position in that they are centralized lending platforms and not decentralized like Solend. As we are seeing some of these CeFi lending protocols implode, it should quell fears of market participants to know that these CeFi lending protocols are not a representation of the broader DeFi ecosystem.

What Does This Turmoil Reveal?

These recent events have shown us that just because you operate in the crypto space does not therefore imply that your protocol or company is decentralized. Decentralization is a spectrum, and not entirely black and white. While we are not advocating for or against different levels of decentralization, we are simply acknowledging that these varying degrees of centralization have trade-offs. While more centralization typically provides more ease of access for users and more scalability, it also comes with the caveat of trust in a central authority and concerns over the level of security in the given protocol. On the other hand, truly decentralized protocols such as Bitcoin provide more transparency and security, but this comes at a direct cost of scalability and, arguably, ease of access for users.

These events exemplify the fact that the entire digital asset industry is still nascent, continuing to develop, and as a result is still in the process of finding out what works, and what does not. While some projects may start out appearing more decentralized when getting off the ground, the level of decentralization may adjust as unforeseen events and attacks take place on these protocols and the network continues to develop. For example, The DAO was a decentralized autonomous organization (DAO) that was launched in 2016 on the Ethereum blockchain, built and governed by smart contracts. After raising $150 million USD worth of ether (ETH) through a token sale, The DAO was hacked due to vulnerabilities in its code base. The Ethereum blockchain was eventually hard forked to restore the stolen funds, but not all parties agreed with this decision, which resulted in the network splitting into two distinct blockchains, Ethereum and Ethereum Classic. The hard fork effectively rolled back the Ethereum network's history to before The DAO attack and reallocated The DAO's ether to a different smart contract so that investors could withdraw their funds. This move was extremely controversial as blockchains are supposed to be immutable and censorship resistant and would most likely not be possible today due to the size, scope, and the belief system of decentralized protocols.

Decentralization is supposed to rely on the pre-determined rules of the protocol, not centralized authorities making decisions, regardless of what happens. The ethos of decentralization supports self-sufficiency and autonomy above all. As the entire digital asset space is still evolving and developing, and as protocols are hacked and bugs in code are exploited maliciously, centralized actors stepping in to save ecosystems from collapse may have been somewhat of a necessary evil, despite the contradictory nature of the actions. Conversely, ecosystems that are not on the receiving end of a bailout will be left as victims of their own fate. The short-term pain of letting these ecosystems die will only serve to further support stronger coding, development, and risk management in future networks as this code is what allows these protocols to run in a truly decentralized manner.

Where Does This Lead Us?

These recent developments serve to underpin the importance of true decentralization as evidenced by historical track record and open-source code in these protocols. While the actions may seem controversial now, they will set precedents for better practices in the future.

This activity also helps support the belief that the Bitcoin network is arguably the most decentralized and secure protocol in existence due to its operational structure. The open-source code and immutable ledger provide full transparency of the network, and the wide distribution of miners and nodes help maintain strong network security. The sturdy governance structure is supported through Bitcoin Improvement Proposals and acceptance of these proposals is contingent upon network nodes installing the new software as their votes of approval. Network effects mixed with a stellar track record of security exemplify the Bitcoin network as an incredibly verifiable, secure, and transparent protocol in the digital asset ecosystem. Unless a new protocol is created that improves upon Bitcoin's features, it is likely that bitcoin will remain one of the most secure, decentralized, and universally adopted digital assets.

Most new protocols that are launched will come with the caveat that some founders, owners, and/or creators may maintain some level of centralization or control over the governance of the protocol. As evidenced by recent events, this can drastically undermine confidence in their ability to maintain the integrity of what decentralization means in both word and practice.

Contributors:

Christopher Kuiper, CFA, Director of Research, LumosDigital Assets

Jack Neureuter, Research Analyst, LumosDigital Assets

Matthew Hogan, Research Analyst, LumosDigital Assets

Daniel Gray, Research Analyst, LumosDigital Assets

---

[1] https://blog.celsius.network/a-memo-to-the-celsius-community-59532a06ecc6

[2] https://cointelegraph.com/news/celsius-becomes-first-cefi-or-defi-platform-to-cross-20b-aum

[3] https://coinmarketcap.com/headlines/news/ftx-walked-away-from-celsius-deal/

[4] https://www.reuters.com/markets/us/ftx-signs-deal-with-option-buy-blockfi-up-240-mln-2022-07-01/

[5] https://bitcoinmagazine.com/business/heres-whats-in-senator-lummis-bitcoin-bill

[6] https://www.sec.gov/rules/sro/nysearca/2022/34-95180.pdf

[7] https://www.sec.gov/rules/sro/nysearca/2022/34-95179.pdf

[8] https://www.altoira.com/wp-content/uploads/2022/06/Alto2022AlternativeInvestingReport.pdf

[9] https://www.Antpooldigitalassets.com/research-and-insights/bitcoin-supply-demand#

[10] https://www.cnbc.com/2022/06/30/eu-agrees-to-deal-on-landmark-mica-cryptocurrency-regulation.html

[11] https://www.marketwatch.com/story/gensler-labels-bitcoin-a-commodity-as-crypto-prices-stabilize-11656340239

[12] https://cointelegraph.com/news/compass-mining-loses-facility-after-allegedly-failing-to-pay-power-bill

[13] https://trends.google.com/trends/explore?date=2009-01-01%202022-07-05&geo=US&q=Crypto%20is%20 dead,Bitcoin%20is%20dead

[14] https://www.coindesk.com/business/2022/06/29/michael-saylors-microstrategy-purchased-another-10m-of-bitcoin-over-past-two-months/

[15] https://www.coindesk.com/business/2022/07/01/el-salvador-purchases-80-additional-bitcoin-at-19k-president-bukele-says/

[16] https://www.Antpooldigitalassets.com/research-and-insights/bitcoin-supply-demand#

[17] https://www.cnbc.com/2022/06/13/crypto-lender-celsius-pauses-withdrawals-bitcoin-slides.html

[18] https://www.cnbc.com/2022/06/22/sam-bankman-fried-rescues-crypto-lenders-blockfi-voyager.html

[19] https://www.cnbc.com/2022/06/22/sam-bankman-fried-rescues-crypto-lenders-blockfi-voyager.html

[20] https://www.coindesk.com/policy/2022/07/06/voyager-seeks-bankruptcy-protection-amid-crypto-credit-crisis/

[21] https://decrypt.co/103489/solend-whale-108m-loan-nearly-crashed-solana

---

1037446.1.0