

LP Update - Q2 2022

With the Fed continuing to raise interest rates since the start of the year, risk-on asset prices have unsurprisingly come down significantly. Crypto as a risk-on asset has been exposed both to the macro effects of rising interest rates as well as to adverse industry events that triggered additional sell pressure and uncertainty.

The rise and fall of Terra / Luna

What kicked off a chain reaction of events was Terra's stablecoin, UST, losing its peg to the dollar in early May.

Terra's UST is an algorithmically backed stablecoin. In crypto, there are three main types of stablecoins: fiat backed (USDC, USDT), crypto backed (DAI), and algorithmically backed (UST). UST was designed to maintain its peg through the expansion and reduction of its sister asset LUNA, which would absorb supply and demand movements of UST to ensure parity with the dollar. For brevity we won't dive into the full mechanism design, but you can read [this primer by our advisor Luca](#) if interested.

Previously, there had been unsuccessful attempts to bring stablecoins with similar designs to market, but Luna in the last year managed to gain significant market share. While there were many concerns as to whether Terra's mechanism would maintain the peg in the long term, the strong momentum coming from its retail-friendly marketing and support from the largest industry players such as Jump Crypto and Alameda led to large parts of the industry turning a blind eye. Terra's founder, Do Kwon, also [didn't do his project any favours by dealing with questions from sceptics in an aggressive and controversial style](#).

At the beginning of May, Terra started to dip below its \$1 peg. To combat Terra's drop in price, additional Luna was minted to maintain the peg. For a mechanism like Terra's to work, however, users need to retain confidence in Terra's ability to return to the peg. The big drawback of Terra's design is that its mechanism was prone to downward spirals if enough pressure was put on it. When there is blood on the wall, people run for the exit, which turned out to be the case for Terra. More and more, Luna was minted as UST holders sold off by redeeming into Luna. At the end of May, the supply of Luna tokens had increased from 350m to about 6.5 trillion. UST currently sits at \$0.04 and has a market cap of \$350m, down from its all-time high of \$20b.

Terra's collapse sent shockwaves through the industry as the implosion of a top ten token not only caused the loss of a large number of retail users' funds but also deflated the public's confidence in crypto as a whole. However, what was more worrying than simply Terra's demise to its own users, was its connection to the rest of the industry. Many companies and funds had held UST and Luna and it soon became clear some were now swimming naked.

stETH / ETH decoupling

Immediately after the Terra collapse unfolded, stETH began to trade at a widening discount to ETH. stETH is a tokenised representation of staked ETH—which cannot yet be unstaked or transferred—created through the Lido protocol. Users deposit 1 ETH into Lido and get 1 stETH in return. After Ethereum completes its transition to proof of stake later this year, referred to as “the merge”, users will soon be able to redeem 1 stETH for 1 ETH as early as mid-2023. Although redemptions are currently not possible, stETH's architecture allows it to be traded today just like any other token.

Historically, stETH traded at or very close to parity with ETH but the spread came under pressure and started to widen. There were several factors that contributed to this.

First, there was downwards pressure from the broader market selloff. Celsius locked billions of their depositor's ETH in stETH that they needed to offload quickly to service a flood of withdrawal requests (more below). 3AC ran a similarly structured forward carry trade on both GBTC and stETH—both eventually-redeemable derivatives of an asset with discounts or yield but with uncertain timelines on enabling full redemption.

Secondly, rumours circulated that Ethereum's merge (more below) would be delayed which meant that stETH redemptions for ETH would also be delayed. This uncertainty worried holders who sold their stETH back to ETH, enacting even more sell pressure on stETH.

All of the above is coupled with the human psychology of not wanting to be the last to hold an asset with forced sellers and anxious holders, especially after witnessing what happened to the ever-falling peg of UST just weeks prior. At one point stETH was trading at a 7% discount to ETH although it has now 3 recovered back to within 2%.

Further contagion: Celsius and 3AC

Culminating from these events and less than a month after the Terra collapse, in mid June crypto lender Celsius paused customer withdrawals.

At its core Celsius is a banking-like entity that takes in short-term deposits from largely retail customers and lends them long to other borrowers, usually institutions and funds. It operated with no regulatory oversight or transparency and offered customers guaranteed 10-18% interest on their token deposits.

If something is too good to be true, it always is. That turned out to be the case with Celsius. After pausing customer withdrawals, Celsius eventually filed for bankruptcy at the end of June.

What's important to note is that Celsius is not DeFi but a centralized entity that operated in crypto (CeFi). DeFi is built entirely on open-source software and is grounded in transparency and trust-minimization. Every transaction is open for anyone to see on the blockchain and executed by software that is designed to require as few governing bodies or intermediaries as possible.

Celsius operated as a black box controlled entirely by its founders. It masqueraded as the antithesis to traditional banks in its outward messaging but was more of the same with the added kicker that it wasn't as regulated as banks are. Its loan book was opaque and so were the rest of its operations. Customers were told to trust Celsius to deliver its promised returns but could not verify for themselves how those returns were generated. Ultimately Celsius was a victim of poor risk management practices and too much leverage. The lack of transparency and dwindling trust in the company triggered a classic bank run by depositors that Celsius could not withstand.

Three Arrows Capital (3AC), one of the largest investment firms in the industry, entered liquidation proceedings in June. The fund had significant exposure to bets that turned sour such as Luna / Terra and other arbitrage positions such as stETH and GBTC. After suffering significant losses from their involvement with Luna / Terra, they took on more leverage to try and make back their losses quickly. They failed to meet margin calls as the market selloff continued into June.

Similar to Celsius, what brought down 3AC was poor risk management and overleveraging. To make matters worse, 3AC had borrowed a huge amount of capital with little or no collateral from centralized lending platforms who as a result suffered huge losses on their balance sheets. Their situation was eerily reminiscent of what happened to Bill Huang's Archegos and its creditors last year. This furthered the spread of the contagion and contributed heavily to the insolvency of Voyager Digital, amongst other centralized crypto lenders. It was later revealed 3AC had originated loans between \$500m to \$2.3b from multiple separate centralized lenders.

DeFi remains resilient

Perhaps the most important observation throughout the market contagion was that DeFi, and DeFi lending protocols such as Aave, Maker, and Compound in particular, performed remarkably well. In contrast to their centralised counterparts, they did not suffer any downtime or pause in withdrawals.

DeFi lenders are completely transparent: loan books, addresses of borrowers / lenders, collateralization type, and leverage ratios are all open for anyone to see. Transactions are executed by software and not subject to human subjectivity. Risk management requirements are baked into the code. There are no arbitrary bailouts or backroom dealings.

DeFi ensures that people don't need to trust the word of a founder or company. Rather, they can look at the code and transaction history to verify the health of the platform themselves.

Ethereum merge updates

The merge is one of the most hotly anticipated technological milestones that will complete Ethereum's transition from proof of work consensus to proof of stake. Beyond the technical challenges, what makes this transition so difficult is that there is no margin for error. Ethereum is a multi-billion dollar network that supports an ecosystem of applications that additionally secure billions of dollars of value. The Ethereum Core Development team, the leading force behind the transition, does not have the luxury of trial and error.

In appreciation of this reality, the approach taken over the past couple of years has been gradual and consisted of multiple meticulously executed steps.

This quarter, the Ropsten test network was successfully merged to proof of stake on June 8th. This is the first public testnet to complete the merge and will provide valuable information to core developers on Ethereum. After the Ropsten testnet merge, the Core Development team has two more testnets to merge later this summer - Sepolia and then Goerli, before the final mainnet merge (Paris upgrade).

European regulation

At the end of June, the EU reached a provisional agreement under the MiCA proposal, which provided for the first time in Europe a harmonized crypto asset regulatory framework. Some EU member countries had previously rolled out their own specific legislature but there had never been an EU-wide framework. Crypto assets, crypto asset issuers, and crypto asset service providers (CASPs) will be regulated under MiCA.

Discussing the proposal in its entirety would encompass a separate writeup in itself, so we decided to focus on what we believe are the most important parts:

Supervision

Member states will be individually tasked to supervise CASPs and enforce requirements under MiCA. CASPs are defined as "any person whose occupation or business is the provision of one or more crypto-asset services to third parties on a professional basis." The European Securities and Markets Authority (ESMA) will have an "intervening power" with respect to the dealings of large CASPs, which are defined as those with more than 15 million active users.

Stablecoins

Unsurprisingly after the events of last quarter, stablecoins were thoroughly addressed by MiCA. Under the framework the European Banking Authority (EBA) will supervise stablecoins that have more than 10 million users or a reserve of assets that are worth more than €5 billion. Stablecoin issuers will be obliged to maintain reserves 1:1 to cover all claims and provide permanent redemption rights to holders. Reserves need to be fully protected in case of insolvency. This could lead to stablecoins like DAI not being able to get a EU licence, which would cease their listings on EU exchanges.

DeFi, NFTs and Climate

DeFi protocols and NFTs have largely been left out of MiCA. However, there is a review clause baked into the rulebook that will likely lead to specific regulatory regimes at a later date, if needed. There is no ban on proof of work, but CASPs will have to disclose information on the sustainability of the crypto-assets (& their consensus mechanisms) they provide services for.