# Reviving Terra Classic

## Foreword

The goal of this whitepaper is to provide the Terra Classic community with a logical and achievable approach to re-pegging the price of USTC and every other Terra Stablecoin in the Terra Classic ecosystem. On top of the already lofty goal of re-pegging every Terra Stablecoin, this whitepaper further aims to provide a path to reduction of supply of LUNC in a such a manner that ultimately culminates in a complete revival and restoration of the Terra Classic ecosystem by addressing longstanding issues with both LUNC and the Terra Stablecoins that LUNC collateralizes.

With that said, let's get started.

## How to Achieve a Successful Revival

In order to successfully revive the Terra Classic ecosystem, we need to ensure that every Terra Stablecoin is able to not only regain it's peg, but also be able to keep them regardless of the wider market conditions. LUNC plays a key role in ensuring Terra Stablecoins are able to maintain their peg by absorbing the price volatility that occurs within Terra Stablecoins by use of the Market Module.

That said, LUNC alone will not always be enough to absorb this price volatility if the liquidity outflows overwhelm liquidity inflows, and when the design breaks down, it breaks down in an exponentially destructive and hyper inflationary manner. This behaviour is a result of trade offs in the design of the Market Module algorithm. When the algorithm works, it works great. But when the algorithm breaks, it breaks in horribly destructive ways.

New mechanisms to address these original flaws in the algorithm as well as an **entirely new algorithm altogether** are needed. "$1 LUNC for 1 USTC" will fundamentally not work as a Market Module algorithm, because it will always be prone to hyperinflation risk no matter what additional protective layers we add on top of it, and the effectiveness of the current arbitrage based incentives that the current algorithm creates are questionable at best. These are flaws we will look to resolve in the new algorithm.

On top of an entirely new algorithm, a change in mindset and approach by the community is also needed. As a community we really need to take a moment here and ask ourselves, which of the two scenarios below is more desirable?

1. If LUNC or a Terra Stablecoin ever goes significantly below their peg, the entire system collapses and all value is lost?
2. If LUNC or a Terra Stablecoin ever goes significantly below their peg, the entire system continues to operate in a reduced manner and people are inconvenienced for a period of time but their money eventually recovers and no value is lost?

When presented with these two scenarios, it's clear that people would choose the second scenario, even though we intuitively think we want the first scenario. This is the mindset change that the wider crypto community has here when we think about stablecoins. We *think* we want stablecoins that are always at $1 no matter what, when in reality what we *actually* want is a stablecoin that can *inherently always recover back to $1 if it were to go below $1 by design, just in case it happens again*.

We want this ability for a stablecoin ecosystem to be **resilient** and able to **self heal** because it is a much better outcome for when things go wrong, and as we already know things will *always* go wrong, and to pretend otherwise is to invite future disaster to come in a different form then that which caused the first crash for Terra Classic back in May of 2022.

This change in mindset and approach is best exemplified by the questions:

- How can we make bank runs profitable events in such a manner that the bank run doesn't have a chance to really start?
- How can we make attacks on the chain profitable events for the chain and it's holders in a way that nullifies the attack?
- How can we make it so that the chain's "failure state" is also it's "rescue state"?

This thinking sounds unintuitive and certainly a bit crazy at first glance, but this kind of self healing and fault tolerance based approach already exists in production software deployed everywhere in a slightly different form. Companies like Netflix utilize these approaches to their distributed systems to ensure that the systems will continue to run and eventually recover back to it's normal operations even when it's been attacked by malicious actors (or even mistakes made by their own programmers). All we are looking to do here is apply this same kind of thinking to an economic system instead of a video streaming service.

Utilizing this kind of thinking means that instead of us hoping and praying that ecosystem failures never happen, that we instead embrace that they *will* happen and actively seek those failures out from a design perspective and properly plan for them, so that when failures *do* happen a mechanism is already in place that ensures that the ecosystem *will be recovered* because market participants *are*

*incentivized to do so* as a direct result of the chain's "failure state" also being it's "rescue state".

This is how resilient systems are built - not by avoiding the problems or edge cases and hoping that they never happen, but by confronting the problems and edge cases head on and having a plan in place to ensure that problems are solved before they have a chance to *truly become a problem*.

That said, it is not enough to just build this new resilient system from a technical and architectural perspective, we also need to *provide value to the wider crypto market* by realizing Terra Classic's original vision of creating a decentralized economy and regain our product market fit in the eyes of the market as a decentralized economy that mirrors the real world economy.

In summary, in order to achieve a true revival of Terra Classic we need to fulfill the following requirements:

- Create mechanisms to repeg Terra Stablecoins and keep them there.
- Create mechanisms to reduce LUNC and Terra Stablecoin supply and ensure supply can't be hyper-inflated again by design.
- Create mechanisms that report collateralization ratios and level of backing of LUNC to Terra Stablecoins at all times.
- Create mechanisms to ensure that more liquidity is always incentivized to flow into Terra Classic then liquidity flowing out.
- Create mechanisms to help mitigate and reduce liquidity flight in LUNC and Terra Stablecoins in emergency situations.
- Set up multiple USTC testnets with manual testing and automated test agents to verify that new mechanisms work as intended in a data driven manner in a safe environment before anything ever gets deployed to Terra Classic's mainnet.
- Reduce oracle price update times for Terra Stablecoins from every 30s to reduce window of opportunity for exploits.
- Address the flaws in the original Market Module algorithm with an entirely new Market Module algorithm.
- Architect a resilient economic system that has it's "failure state" as it's "rescue state".
- Accept and embrace that things go wrong and have strategies to handle when they do so their impact is mitigated.
- Reclaim Terra Classic's product market fit by pushing the decentralized economy vision beyond what we had before.

Easier said then done, but not impossible.

## Product Market Fit

The original vision of Terra Classic was to create a true decentralized economy. It remains an extraordinary vision and goal to this day, and it is why everyone in Terra Classic is here. The Terra Classic chain being in the state it's currently in is not a failing of that original vision, but a failing of the algorithm that was used as the focal point of trying to realize that decentralized vision. The need for a true decentralized economy will always exist, and Terra Classic is uniquely positioned to be able to learn from its previous failings and come back stronger than ever before and realize the full potential of it's vision and product market fit within the wider crypto market.

For those who weren't around before the crash, Nicholas Platias (Head of Research at Terra) published a blog post on his Medium called "On Swap Fees: The Greedy and the Wise" that explained their original rationale for wanting to keep Terra Classic focused on low-friction cross-border currency exchange, but that they wanted to discourage Forex and speculative trading as it created collateralization risk for LUNC holders if profits from Forex trading were to exit the ecosystem.

We believe with the benefit of hindsight that this was a well intentioned misstep by the team, and that the Terra Classic blockchain would have been better utilized if it were to instead embrace the emergent Forex use cases that emerged on it's platform as a result of the many Terra Stablecoins deployed on Terra Classic.

We understand a large factor in the team's original decision to discourage Forex trading on Terra Classic was due to the 30s delay in oracle prices on chain relative to the global forex market, but we think it'd be best to seek to reduce that delay instead so that the oracle exploit risk is properly mitigated and the protocol has a chance to partake in earning revenue from enabling Forex trading.

This would give Terra Classic a means to provide a compelling Forex use case that doesn't currently exist in the crypto space while also giving the blockchain exposure to the largest financial market in the world that sees a reported $6.6 trillion in trading volume *per day* as of 2019.

Aside from Forex, there is also a compelling use case for retail users to be had for offering a crypto native alternative of services like Wise (Formerly Transferwise) to serve as "The Decentralized International Crypto Account". For context with Wise's Market Cap being 7.86 billion GBP as of the writing of this post, this is clearly a very retail user friendly use case that we could be tapping into that also has a demonstrably sizeable total addressable market that perfectly aligns with the value proposition the Terra Classic blockchain already offers.

Fully accepting and embracing the original vision of Terra Classic and the Decentralized Stablecoin economy also opens up many more use cases then we have room to mention in this whitepaper, because the possibilities outside of Forex and a “Decentralized International Crypto Account” for retail users becomes truly endless when you start thinking in terms of a robust Decentralized Stablecoin economy and the dapps that could be built on top that.

Some such possibilities being:

- Virtual Cards that use Terra Stablecoins
- Lending of Terra Stablecoins
- Leverage trading via Terra Stablecoins

Finding product market fit is usually by far the hardest part of starting any new business or service, and Terra Classic is not only fortunate enough to be in the situation where not only has it already found it’s product market fit, *but also that despite the crash the need for Terra Classic’s value proposition of a Decentralized Stablecoin Economy still exists* ***and*** *that Terra Classic is still to this day the system best suited to be able to capitalize on that need and reclaim it’s product market fit*.

All we have to do is be bold enough as a community to do so.