Project Trinity

Project trinity is focused on creating a stable coin that will work as a competitor to dollar and other currencies across the world. With the hyperinflation coming, it is necessary that there is a store of value which is relatively volatile but inherently stable. Also as it is being hypothesized that due to excessive printing of dollars by Federal reserve in USA and ending of long term debt cycle could result in excessive depreciation of dollar and loss in its purchasing power. Our stable coin will capture that purchasing power and will work as a hedge against loss in dollar value.

The project has 3 components as mentioned below

1. Stablecoins

2. Collateral options

3. Decentralized CDS (Credit Default swaps)

These 3 will work together to maintain the peg of stable coin, manage collaterals and defaults.

Existing collateralized lending protocols suffer from few issues.

1. These protocols have a low capital efficiency — DeFi lenders will require collateral over the value of loan so that if the value of borrowed asset drops or the value of the collateral drops, the lender

still have cushion in form of excess collateral allowing lender to retain their initial principal. This helps in saving the protocol from insolvency but it also limits the amount of the capital that can be borrowed

2. Protocols need to constantly monitor market to set an efficient Liquidation discount — Some protocols like Maker and dYdX use an auction mechanism where liquidators bid with increasing amounts of the protocol currency/borrowed asset to liquidate under-collateralized accounts. These bidders will be able to get the collateral at a discount named a LD (Liquidation discount) and then sell the collateral back in the open market at the market price and thus pocketing the profit. However, there occurs slippage in the decentralized exchanges like Uniswap which varies with the Liquidation size. This slippage might lower or eliminate the arbitrage while selling the collateral. Thus, these protocols need to constantly monitor the market and re-evalute there Liquidation discount (LD) to both ensure overpaying of collateral when the market rate is lower as well as ensure not underpay when the market rate is higher which will lead to no one bidding for Liquidation leading to insolvency risks

The Project Trinity will aim to solve these issues and many more.

As said earlier there are 3 components to our protocol:

- Stablecoin – The first part of trinity are Stablecoins issued/minted upon locking of collateral like ETH. Initially

LTV (Loan to Value) ratio is 60%. A typical scenario will look like this

A user will deposit $1000 worth of Eth as collateral in locked vault. User will be able to borrow $600 worth of stablecoin against that by paying a borrowing fees.

There are 2 scenarios which can happen here:

1. The protocol will take $400 of Ethereum and mint $400 worth of stablecoin which is automatically staked on behalf of user in a staking vault. The $400 stablecoin is used to take a short position on ETH/USD derivatives exchange. If ETH value decreases then our position will be increased with the corresponding amount. If ETH value increases then our position will be decreased with the corresponding amount but since ETH value increases so our position will remain neutral. Thus, we can create a market neutral position with periodic funding payments. This funding payments can balance out the borrowing fees paid if ETH value is increasing.

2. Taking $400 and submitting in a pool created where borrower will take a short position. The long position is taken by Credit Default swaps position holders as mentioned in next point

🞦 *Collateral options* – The second part of trinity is collateral options. Borrowers can increase the borrowing amount by

paying a collateral option premium like $10 option premium for $100 worth of increase in borrowing amount against the same collateral. Right now, borrower is only able to borrow at 60% LTV but by paying a option premium, the user can increase its LTV to 100%. This option premium will go to Credit Default Swaps owners who will lock a corresponding amount of collateral. The option premium value will change based on demand and supply so both the borrowers and CDS owners can speculate on option premium based on their projection of underlying collateral overtime. For this we need to create a decentralized exchange based on Constant Function Market maker (CFMM) with option price and collateral amount as the 2 assets. Here, option price of collateral option is dependent on the supply of collateral by CDS owners and demand of excessive borrowing LTV% by borrowers.

⨮ *Credit Default swaps* — The third part of trinity are Credit Default Swaps. Depositors can enter in CDS with the protocol and can get regular funding payments apart from the interest rates which they earn by depositing their stable coins on protocol. By using these, participants can earn more than 100% APY over and above the meagre interest rates they receive from just depositing their assets. The CDS owners can also avail the service of option premiums by which their assets will be readily available in case of default by the borrower. They will be compensated with option premiums in return for the same.

Other functionalities which can be included

· *Perpetual options* — The perpetual options are the source of funding payments. The idea behind perpetual options is to give an option to borrower for creating lossless strategies. In traditional finance, people buy options to hedge their downside and create a limited loss strategy. The same ideology will be used here but with the difference that your upside will potentially increase over time on showing favorable or credible behavior towards the protocol. As the borrower enters into the contract with the protocol and takes loan against Ethereum or any other collateral then simultaneously another contract will get active where upon paying an upfront option price, the borrower can hedge the downside risk.

· *Interest Tokens* — The protocol collateralization ration starts with 150% but will slowly decrease to 50% over time after accumulation of interest tokens over time. These interest tokens are accumulated every time borrower pays the interest and later can be used as a collateral to borrow stable coin. Initially, we will restrict till 50% collateralization ratio but later on as interest tokens keep on accumulating the ratio will be decreased further till zero collateral is reached.

Maintaining a Stable coin peg

Stable coin peg can only be maintained if all the external variance due to demand and supply scenarios is captured by another protocol token. Also, Stable coins issued to borrowers will have a couple of factors maintaining the soft peg w.r.t dollar.

· Change in interest rates in order to bring the peg back to a dollar

· Change in option prices which can affect the number of vaults and the supply of stablecoin in market

· Change in collateral price will also affect the number of vaults and the supply of stablecoin in market

All these changes needs to absorbed by protocol token which can be the governance token.