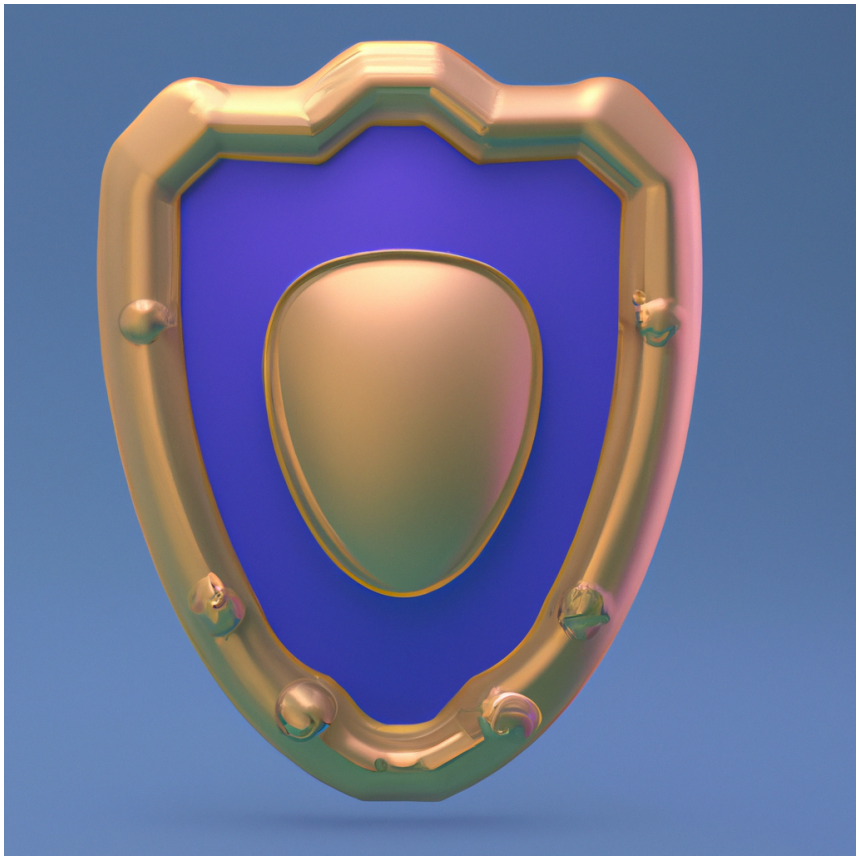
TRUSTPOOLER.XYZ



Trust Pooler
A solution for crypto credit default risk

The failure of FTX, among others, has drawn into sharp focus the need for credit default risk protection in crypto. This need extends not just to centralised exchanges but also to Defi - for instance smart contract protocol hacks and other failure. There is ultimately no guarantee that a smart contract does not contain vulnerabilities.

When there is systemic disruption to markets, market price risk also needs to be managed - the plight of Terra and Luna are good examples. In times of market stress correlations increase and head towards unity..

The Trust Pooler project offers a solution to these problems.

Background - the Parimutuel Pool

A parimutuel pool is a system in which all risks of a particular type are placed together in a pool; taxes and the Pool Manager fees are deducted, and payoff odds are calculated by sharing the pool among all winning risks.

In the case of credit default risk, there are only two events for a reference entity 1) default and 2) no default. We refer to this as a Mutex Pool as the outcomes are mutually exclusive. Each pool has an expiry date. The outcome is binary, either a default has occurred or has not. In a parimutuel pool - it is winner takes all. If a default has not occurred, the non-defaulting party wins and vice versa if no default occurs. The capital of the losing risks is used to fund the return of the winning risks. Typically there is no ambiguity about whether a credit default event has occurred or not - consensus algorithms are applicable.

The pricing of buying or selling credit protection is determined by the market and the weight of money.

Natural liquidity generation

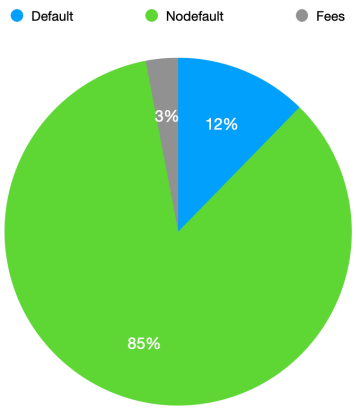
Parimutuel pools naturally generate liquidity due to the effects of mis-pricing. Should a pool mis-price, capital enters the pool to take advantage of the mis-pricing and until the pricing anomaly is arbitraged away.

A simple worked example

Let's assume that an investor with some Ethereum requires a 10% return for 12 months. Let's assume that we have a credit default pool for XYZ CEX and that the default risk over the 12 month period is 1%. Let's further assume that the Pool Manager fees are 3%.

First we need to calculate the required risk adjusted payoff for the investor. In this case it is $1.1454 taking pool fees into account and $1.1111 ignoring pool fees. Next, solving backwards - we ask what pool allocation is required to deliver this return to the investor - in this case it is 12.7% . The payoff for the credit default protection buyer is therefore $7.69. In other words for each 1 ETH allocated by the protection buyer, they will receive 7.69 ETH in the event of a default over the period. This means that say a depositor has an exposure of 100 ETH to XYZ Exchange, they can protect their deposit against default at a cost of 12.99 ETH for each 100 ETH protected all while permitting disinterested investors to earn their risk adjusted return.

The allocation of capital in the pool is set out in the following chart. The details are attached in a worked example.



Design

Trust Pooler has been designed to facilitate crypto credit protection and to maximise transparency. This means eliminating all other practical risks. A number of approached have been implemented - these include :

- one pool, one address policy
- no accruals
- no re-staking, no re-hypothecating, no lending
- no early withdrawal
- no third party payments
- full autonomy

One pool - one address

Each pool has its own unique Ethereum address. This address is not used for any other purpose. Pool balances can be independently validated on the blockchain. Participants can have confidence that all pool assets are available to meet their claims.

No accruals

The Pool Manager deducts its fee on subscription - typically 3%. This means that all amounts in the pool are available to meet claims on the pool.

No re-staking, No re-hypothecating, No lending

The pool assets remain unencumbered for the life of the pool. Pool assets are not re-staked, otherwise encumbered or lent.

No early withdrawal

To ensure that pool assets are available to meet claims at expiry, pool assets cannot be withdrawn until the pool is liquidated.

No third party payments

Pool assets are only redistributed to the crypto addresses from which they came. The only exception to this is on a lawful direction by a court of competent jurisdiction or an appropriate regulatory order.

Full autonomy

The pools are, to maximum extent possible - fully autonomous.

Credit default swaps

In fiat finance, it has been common to use a credit default swap ('CDS') to manage and mitigate credit risk. The United States Federal Reserve has published some interesting work on the CDS market - see for instance Antulio Bomfin - "Credit Default Swaps"[1]. The CDS market has not really grown in relation to crypto, despite entities such as Binance being of comparable scale to some systemically important banks.

We believe that Trust Pooler provides a credible realistic alternative.

More to come

Trust Pooler has extended its approach and methodology to managing market price risk of crypto coins. This is the subject of another paper.

Conclusion

Trust Pooler addresses the urgent need for credit default risk management in the crypto market by leveraging the proven parimutuel pool mechanism, ensuring transparent fee structures, and providing blockchain-based validation. This innovative solution offers a robust and reliable way to manage and mitigate the risks associated with crypto credit defaults, fostering greater confidence and stability in the crypto financial ecosystem.

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[1] https://www.federalreserve.gov/econres/feds/credit-default-swaps.htm .
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