

Prizm: Ethereum's First Decentralized Staking Stablecoin

Gavin Mai

Stanford - gavinmai@stanford.edu

Marcus Gomez

Stanford - mvgomez@stanford.edu

September 7, 2017

Abstract

The biggest roadblock to mainstream adoption of cryptocurrencies is the volatility in the value of said currencies. On a daily basis, cryptoassets can fluctuate 10%-20% in either direction. In more extreme scenarios, widely adopted cryptocurrencies have dropped by as much as 70%¹. Despite the enormous benefits of low transaction costs, a decentralized global ledger and a global market-cap of over \$150 billion, cryptocurrencies as a whole have not captured the benefits of the blockchain while maintaining price stability. Prizm aims to allow cryptocurrency and cryptotoken holders to trustlessly peg ERC20 stablecoins using collateral deposits and reserve tokens.

Prizm is Ethereum's First Decentralized ERC20 staking stablecoin. We are a full crypto-assets backed stablecoin project whose core algorithms incentivize price stability on the blockchain. Unlike Tether and other similar "stablecoin" projects, Prizm allows users to create custom pegged stablecoins (USD, ETF assets and any worldly asset that has traceable value), and do not rely on fiat/gold/physical reserves to ensure price stability. These stablecoins are enabled through an in-network reserve token (called Prizm - for which we are holding a coin offering) and a separate decentralized backend reserve. For the purposes of this abstract we will not be sharing the inner mechanics. The technical implementation will be described in our whitepaper (set to release September 10), along with the public announcement of our team and project.

We have two main innovations.

1. A network that allows users to create custom pegged stablecoins which are backed by an $n:1$ reserve.
2. A medium that allows users to stake stablecoins on Ethereum's Proof of Stake protocol (Caspar)².

Most stablecoin projects in the past have tried to maintain stability by keeping 1:1 ratio between their issued stablecoins and a fiat-backed reserve; however, these projects have largely failed primarily due to banking regulatory issues³. Additionally, tokens backed by fiat and non-blockchain assets (gold, silver etc) cannot be staked on Ethereum (because of static reserve supply), nor can they scale as easily as a pure crypto-implementation. Other non-fiat-backed solutions like MakerDAO, Seigniorage Shares and Hayek Money, have been thought experiments with little execution (both on a theoretical and functional level), have relied too heavily on centralized holders of tokens (e.g. DAO tokens in the case of MakerDAO), or are impossible to implement (e.g. elastic coin supply in Seigniorage Shares). With Prizm, we take innovations from both classes of solutions and take advantage of reserve ratio indexing and decentralized smart contracts to incentivize better price stability. This foundational backend will enable any user, pending consensus from the crypto-community, to submit custom pegged stable coin requests and mint new tokens.

¹<http://www.latimes.com/business/hiltzik/la-fi-mh-the-bitcoin-crash-20131207-story.html>

²<https://themerkle.com/what-is-casper/>

³<https://cointelegraph.com/news/tethers-bank-problems-create-unease-as-token-value-slides-below-1>

The ramifications of a well executed true stablecoin are massive. Vitalik of Ethereum has said many times a stablecoin would enable mass adoption of cryptocurrencies as it would allow non-investors to participate on the blockchain⁴. Our plan of mass adoption hinges on our team, and more importantly, our personal connection to 1Protocol⁵ — upon its launch with Ethereum's Caspar Protocol, Prizmcoin will be the first staking stable coin available, providing a non-volatile staking method (predicted 5-8% trustless interest annually⁶). With a foundation of custom pegged stablecoins, theoretically, scalable online commerce via cryptocurrencies can finally become a reality along with creation of other financial service sectors like futures, options, ETF portfolio management and large scale finance on the blockchain. In our opinion, a good stable coin will be the holy grail of all future cryptocurrencies.

We believe the stablecoin with the highest liquidity will succeed and given our highly capable developer team, and high-potential project, we consider it worthwhile to test this stablecoin concept. The details of the Initial Coin Offering (ICO) are yet to be determined.

Team:

Gavin Mai - Stanford (www.linkedin.com/in/gavinmai)

Marcus Gomez - Stanford (www.linkedin.com/in/mvgomez1)

Tony Jiang - Yale (www.linkedin.com/in/jiangtony)

Samuel Trautwein - Stanford (www.linkedin.com/in/samuel-trautwein-3767ba97)

Benton Case - Stanford (www.linkedin.com/in/bentoncase)

⁴<https://blog.ethereum.org/2014/11/11/search-stable-cryptocurrency/>

⁵<http://1protocol.com/>

⁶https://www.reddit.com/r/ethtrader/comments/61hvp1/projected_earnings_for_staking_ether/