Ant Finance Protocol Token

AFPT

The Money Market &
Ant Finance **Protocol**

v1.2
June 2, 2022
AFPT Community

Abstract: Ant Finance Protocol ("AFP") is an algorithmic-based money market system designed to bring a complete decentralized finance-based lending and credit system onto Binance Smart Chain. AFP enables users to utilize their cryptocurrencies by supplying collateral to the network that may be borrowed by pledging over-collateralized cryptocurrencies. This creates a secure lending environment where the lender receives a compounded interest rate annually (APY) paid per block, while the borrower pays interest on the cryptocurrency borrowed. These interest rates are set by the protocol in a curve yield, where the rates are automated based on the demand of the specific market, such as Bitcoin. The difference of AFP from other money market protocols is the ability to use the collateral supplied to the market not only to borrow other assets but also to mint synthetic stablecoins with over-collateralized positions that protect the protocol. These synthetic stablecoins are not backed by a basket of fiat currencies but by a basket of cryptocurrencies. AFP utilizes the Binance Smart chain for fast, low-cost transactions while accessing a deep network of wrapped tokens and liquidity.

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Introduction

The Ant Finance Protocol is designed to enable a complete algorithmic money market protocol on Binance Smart Chain. The protocol designs are architected and forked based on Compound[1] and MarkerDAO[2] and synced into the Ant platform giving the benefits of both systems into one.

Problems

The evolution of decentralized finance has created a diverse financial ecosystem built directly on blockchains, which are transparent/verifiable through cryptography and pre-defined coding known as smart contracts. These platforms are redefining the structure of money markets without the need for a central authority or third-party decision-makers. In today's traditional world, users will need to provide creditworthiness, provable income, and other factors for a lender to make a decision even when the user provides collaterals such as homes or cars. Traditional lenders do not enable digital assets and cryptocurrencies to be pledged and used to receive loans or earn interest rates for providing them to the lenders and banks.

AFP is not the first protocol to help bridge these gaps between traditional financial lending into decentralized protocols on top of blockchains. There have been protocols that achieved this with billions in assets locked into the protocols. However, these protocols are primarily built on Ethereum, which has become costly, slow, and has caused pain points in user experience. These protocols also lack higher market cap assets such as XRP and Litecoin.

The current protocols are also heavily centralized such as Compound, where stakeholders and private equity funds seem to be able to control most of the decision-making and do not have a variety of other control mechanisms. Their distribution plan does not equate to decentralization. Also, over $1 billion in Ether[3] are locked up in MakerDao Contracts that earn no value but come at a cost to those minting assets.

Lastly, in today's landscape, a user who wants to use their assets to mint stablecoins must remove it from a money market protocol and lock it up in a smart contract with no benefit of the underlying asset as collateral.

Solution

Creating a protocol that enables a traditional money market tied into synthetic stablecoin generation will lead to accessibility and benefit of locked collateral. AFP will enable anyone to utilize a high-speed and low transaction cost blockchain by leveraging Binance Smart Chain[4] to supply collateral, earn interest on that collateral, borrow against that collateral, and mint stablecoins on-demand within seconds. These solutions all happen directly on the blockchain and may be utilized using a GUI. This protocol unlocks billions of dollars in value that are currently on-chains that have no lending markets such as Bitcoin, XRP, Litecoin, and more while enabling the participant to access liquidity in real-time.

Use Cases

Alice wants to buy her new dream house, but the bankers have declined her application. Alice has been a cryptocurrency advocate for years and has a good portfolio, but doesn't want to expose herself to capital gains tax to sell the asset and not earn any potential appreciation. Then again, Alice believes in the underlying technology of cryptocurrencies as she believes in the mid and long-term growth of the asset class. So what does Alice do? She can't use her bank to borrow money from her asset class. She can't sell at the moment and expose herself to taxes and missing opportunities.

Alice turns to the AFP by using the token canal project to move her XRP from the XRP Ledger to the Binance Smart Chain with no fees. She then utilizes her browser and the internet to access the AFP Dashboard and supplies her XRP to the protocol. She is now benefiting from the potential price appreciation of her XRP while earning a modest APY on her supply. She then prepares to take a loan in USDC by calculating how much she needs, then utilizing the dashboard to take the loan. Without any bankers or third parties involved, the protocol will calculate her collateral value and let take an over-collateralized loan on it. She borrows USDC instantly and uses her crypto exchange account to convert it into local fiat currency. Now Alice has enough funds to buy her dream house while waiting for the markets. She is not obliged to any monthly payments, and her collateral appreciation can be used in her favor. She can make payments at any time and pay no additional interest as interest rates are compounded per block.

Lastly, Alice has been paying attention to DeFi and all the new yield farming high APY returns that she could be earning. These potential earnings may be short-lived but are real for the time being. How does Alice take advantage of this? Does she want to jump through hurdles to get some of her collateral out to mint a stablecoin in another protocol? No - Alice wants a one-stop-shop solution so she can participate in yield farming quickly. Within the dashboard or the smart contracts, she can mint stablecoins without any central authority and use those newly minted stablecoins onto the latest DeFi yield farming project with ease.

Ant Finance Protocol

The Money Market & Synthetic Stablecoin platform.

Key Features:

- Borrow cryptocurrencies and stablecoins with no credit check and fast origination directly on Binance Smart Chain.
- Supply cryptocurrencies and stablecoins and earn a variable APY for providing liquidity the protocol that is secured by over-collateralized assets.
- Mint stablecoins from your supplied collateral that can be used at over 60 million locations worldwide through the Swipe platform and more.
- Controlled by the Ant Finance Protocol Token, a governance token designed to be a fair launch distribution for the community.
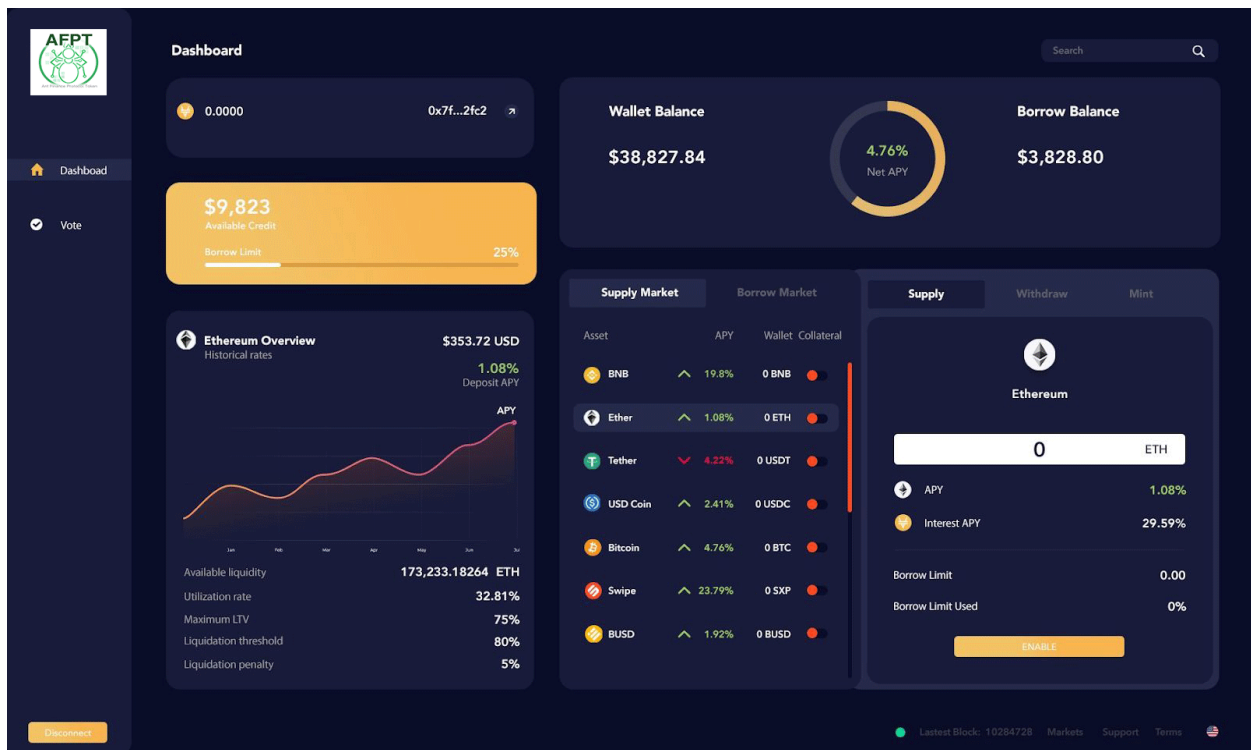
Supplying Assets

Ant Finance Protocol users may supply various supported cryptocurrencies or digital assets onto the platform, which can be used as collateral for loans, supply liquidity and earn an APY, or to mint synthetic stablecoins.

Supplying assets such as cryptocurrencies or digital assets to AFP gives the users the ability to participate as a lender while maintaining the security of collateral in the protocol. Users will earn a variable-based interest rate depending on the yield curve utilization of that specific market. All user assets are pooled into smart contracts so that users can withdraw their supply at any time, given that the protocol balance is positive.

Users who supply their cryptocurrency or digital asset to Ant will receive a **AFPT**, such as *BTC*, which is the only token that can be used to redeem the underlying collateral supplied. This will enable users to use these tokens to hedge against other assets or move them into cold storage wallets that support Binance Smart Chain.
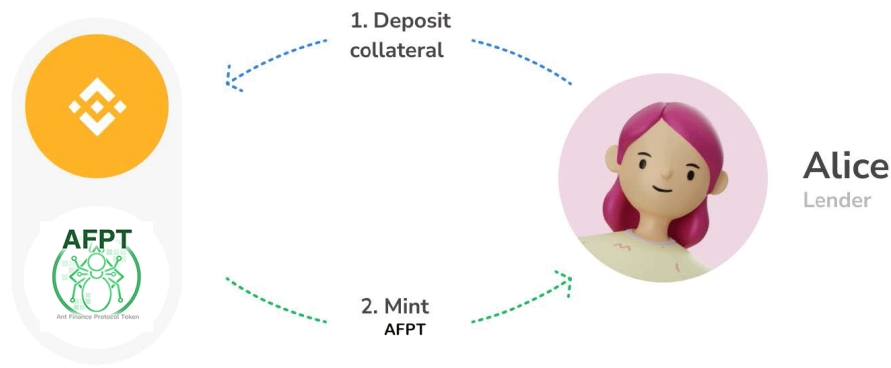
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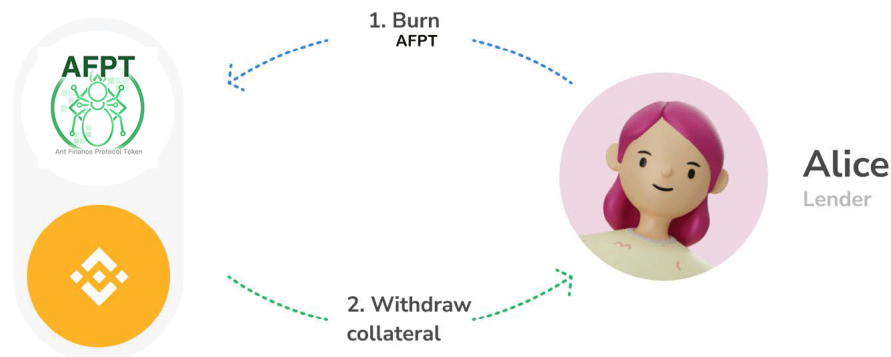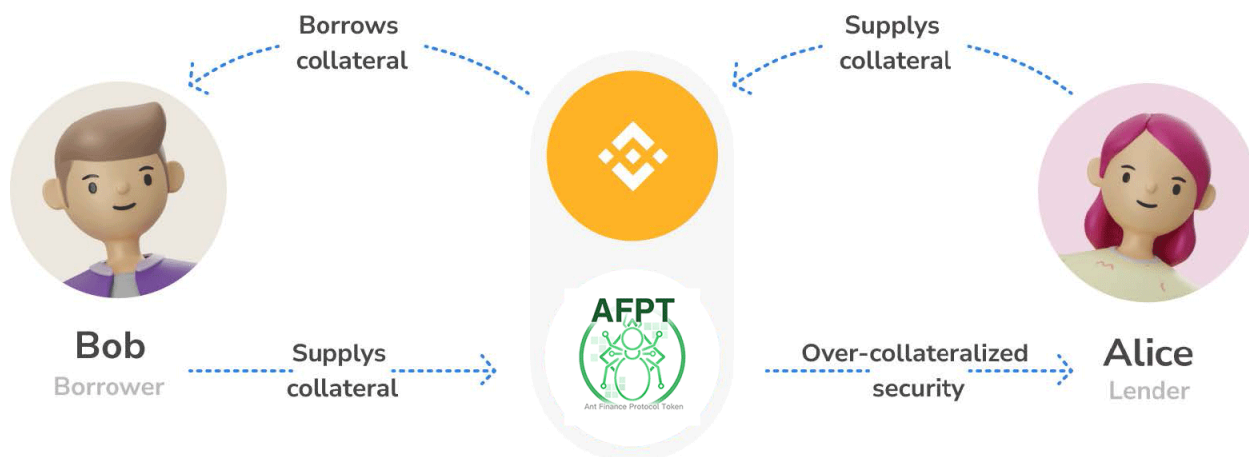

Example: Withdrawing Collateral

Borrowing Assets

Users who want to borrow any of the supported cryptocurrencies, stablecoins, or digital assets from AFP must pledge collateral that will be locked on the protocol. These assets must be over collateralized and will enable up to 75% of that collateral value borrowed. These collateral ratios are determined by the protocol and are controlled through the Governance process, which is documented in this Whitepaper.

Once these assets are supplied, you can borrow based on the collateral ratio of the asset. Typically collateral ratios are set anywhere from 40% to 75%. For example, if Bitcoin has a collateral value of 75%, that means you can borrow up to 75% of the value of your BTC. If the user has $100,000 in BTC supplied to the Ant Finance Protocol, that means they can borrow up to 75% of the value. However, if a user's collateral value drops below 75%, or whichever collateral ratio percentage that a certain asset has, it could cause a Liquidation event, which will be discussed later.

Users will have a compound interest rate that will be applied per block on these assets and have no monthly payment obligations. To return the collateral, the user must pay off their origination balance and compounded interest back to the protocol.

Market interest rates are determined by the specific yield curve that is designated in the contract. Depending on the market utilization, it will determine what the interest rate will be for that specified market.

Example: Borrowing on supplied collateral

Synthetic Stablecoins

The Ant Finance Protocol, to start, will enable users to mint VAI (VAI), a synthetic stablecoin based on the price of $1 USD, by using the AFPT from the underlying collateral that they have previously supplied to the protocol. Users can borrow up to 50% of the remaining collateral value they have on the protocol from their AFTP to mint VAI.

Stablecoins on the Ant Finance Protocol can be synthetically designed through Governance and added as a proposal. VAI will be the protocol's default stablecoin that can be minted by collateral already pledged in AFP.

These stablecoins will not have yielded curves that determine their interest rates, which in other protocols are known as stability fees. Interest rates will be determined by the Governance process within the Ant Finance Protocol.

Pricing Mechanisms

Since no underlying fiat reserves are guaranteeing the value of the synthetic stablecoin on the Ant Finance Protocol, it will rely on market forces, the basket of collateral, and safety mechanisms to maintain its peg to the fiat currency it is designed to synthesize. As an example, VAI will originally maintain a peg of 1:1 per VAI:USD.

The market is encouraged to maintain this peg so that programmatic mechanisms designed to protect the peg will not be initiated by the protocol.

If there becomes a point where VAI or another synthetic stablecoin loses its peg value, the protocol can use the Governance process to initiate the Price Adjustment Module. This module will enable the change of parameters within the stablecoin system AFP to disattach the peg and create a change in supply and demand to bring the stability back to its original peg.

This system will enable two main points. A benefit to hold/buy a synthetic stablecoin, or mint/borrow a synthetic stablecoin. This is determined whether the price peg has become negative or positive due to external market conditions.

Stablecoin Parameters

Users who have the protocols native tokens can create proposals to change specific parameters of the synthetic stablecoins on the platform by utilizing the on-chain Governance system. These parameters are set up from a protocol-risk perspective to protect the interest of the users and the platform. The parameters that users can control are the following:

- **Max Supply:** This determines the maximum number of synthetic stablecoins units can be minted at any given point to determine the synthetic stablecoins maximum supply.
- **Interest Rate:** The interest rate parameter controls how much in interest fees the user pays for minting these synthetic stablecoins.These interest rates go directly into the Reserve Factor community funds.
- **Collateral Ratio:** Each synthetic stablecoin will be a liquidation price. These liquidation prices are controlled by the Collateral ratio for each synthetic stablecoin.
- **Penalty Ratio:** If a liquidation occurs, there will be a penalty percentage you must pay the protocol. This penalty ratio is set by the protocol.

Stablecoin Redemption

Synthetic stablecoins on the Ant Finance Protocol are created by supplying and locking a single or basket of cryptocurrencies. Users can redeem BUSD for other assets by trading with them in the Any Wallet platform. BUSD is exchangeable to all supporting assets, including USD, which can be redeemed directly to your bank account for verified users.

Ant Finance Protocol Token (AFPT)

The Ant Finance Protocol is governed by the Ant Finance Protocol Token (AFPT), which is designed to be a "fair launch" cryptocurrency. There are no founder, team, or developer allocations, and the AFPT can only be earned through the Binance LaunchPool project or through providing liquidity to the protocol.

There will be an initial 20% of the total supply of 30,000,000 (6,000,000 AFPT) allocated to the Binance LaunchPool project where users can mine (farm) these tokens alongside 1% of the total supply (300,000 AFPT) placed aside for the Binance Smart Chain ecosystem grants. The remainder of the supply will be exclusively available for the protocol, which will result in 23,700,000 AFPT mined over a period of approximately four years, which begins after the Binance LaunchPool event at a rate 0.64 AFPT per block (18,493 per day). The distribution of AFPT is based on liquidity mining, where 35% of the daily rewards get distributed to borrowers, 35% to suppliers, and 30% for stablecoin minters.

AFPT

The protocol-created pegged assets when collateral is supplied are called **AFPT.** AFPT represent the unit of the collateral supplied and can be used as a redemption tool. AFPT are created and implemented by Governance processes and voted by Ant Finance Protocol Token holders.

Protocol Architecture

The protocol has been designed as a fork codebase of MakerDAO and Compound and modified to enable both features into one.

Controller Contract

The Controller smart contract deployed on Binance Smart Chain is the decentralized version of a processor. This smart-contract creates all the interactions between other associated smart contracts. Ant Finance Protocol does not natively support tokens by default. It will rely on specific markets to be whitelisted within the Controller contract. The protocol has access to whitelist markets by utilizing the admin function: supportMarket with parameters for address and interest rate models. For an asset to have a functional marketplace, there must be a valid price feed from the Value Oracles alongside a Collateral Factor. Every interaction with the protocol will be verified and validated through the Controller smart contract, which validates liquidity and collateral before a function is executed.

Collateral Value

When a user supplies, borrows, or mints from the Ant Finance Protocol, they are using an underlying asset to the first bond to AFPT. These underlying assets held as collateral in the platform have dollar values that are tied to the AFPT as well. For this system to work properly, collateral values are pulled from market rates. To pull these market rates efficiently, we will be utilizing Band Oracles to grab market prices and update the protocol on-chain.

Value Oracles

Collateral Values are propagated from price feed Oracles, such as Chainlink, which pull market price data and send these values on-chain, so they are transparent and verifiable. Due to the fast speed and architecture of the Binance Smart Chain, these price feeds are easily ascertainable with low cost and high efficiency directly on-chain. Currently, there is a hurdle of bottleneck issues from oracles, such as Chainlink, which are provided on Ethereum. With rising gas costs and congestion, these pricing oracles are not updating prices as efficiently or economically.

Governance

Ant Finance Protocol has been designed to enable community control in its core. Since there are no pre-mines for the team, developers and founders, this means the protocol will be controlled by those who decide to mine Ant Finance Protocol Tokens. To create a proposal, a proposer will need 300,000 AFPT and the proposal must reach at minimum 600,000 AFPT quorum to be approved..

Governance features include:
- Adding new cryptocurrencies or stablecoins to the protocol
- Adjusting variable interest rates for all markets
- Setting fixed interest rates for synthetic stablecoins
- Voting on protocol improvements/proposals
- Delegate protocol reserve distribution schedules
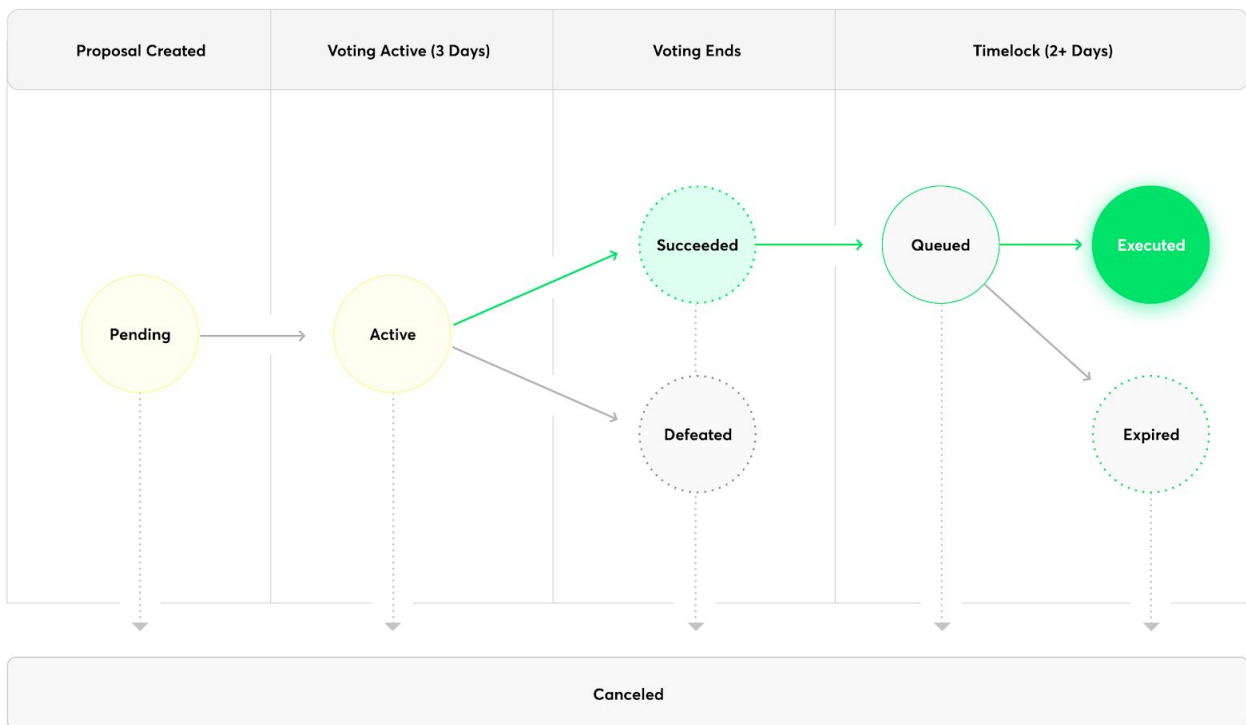
Example: Ant Finance Protocol Governance Proposals[5]

Liquidations

A user's collateral may be liquidated if it falls below the thresholds required for the borrow or stablecoin side of a specific coin market. These liquidations are subject to a liquidation fee and to satisfy the outstanding debt. The remaining collateral, if any, is then returned to the user. A liquidator can stand to benefit from liquidating a collateralized position.

Interest Rates

The protocol has interest rates that are designated per market from both the supply side and the borrowing side. Interest rates are also applicable for synthetic stablecoins that are created on the Ant Finance Protocol such as BUSD.

The interest rates provided for markets that can be borrowed or supplied are dynamic and have a yield curve that varies based on utilizations. These interest rates are also set from a floor to ceiling based on the Governance process of the protocol.

For synthetic stablecoins, the interest rates to mint these are fixed. There is no variable interest rate design in these interest rates. However, through the Governance process, users are able to control.

Reserve Factors

Each AFPT contract and underlying collateral will have a reserve factor from a basis of 0-90%. This means there will be reserves that the protocol captures between the spreads of borrowing and supplying. These reserve factors are added to the protocol and can be used for community development, improvements, protections, and more. These Reserve Factor funds are controlled by the Governance process and can be used in a variety of protocol security distributions or rewards mechanisms.

Conclusion

The Ant Finance Protocol has been designed to give platform users a decentralized and secure marketplace to take loans, earn interest, and mint synthetic stablecoins. The protocol runs entirely on the Binance Smart Chain, which removes current pain-points on the Ethereum blockchain in terms of congestion, lack of cross-chain compatible assets, and high transaction fees. These standards are coupled to give a scalable solution on a money market that will be completely controlled by the community through its governance token AFPT. AFPT is distributed via a fair-launch mechanism with no founder and team allocations, backed by an already well-funded organization and the team over at Swipe, a Binance portfolio company[6].

References

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