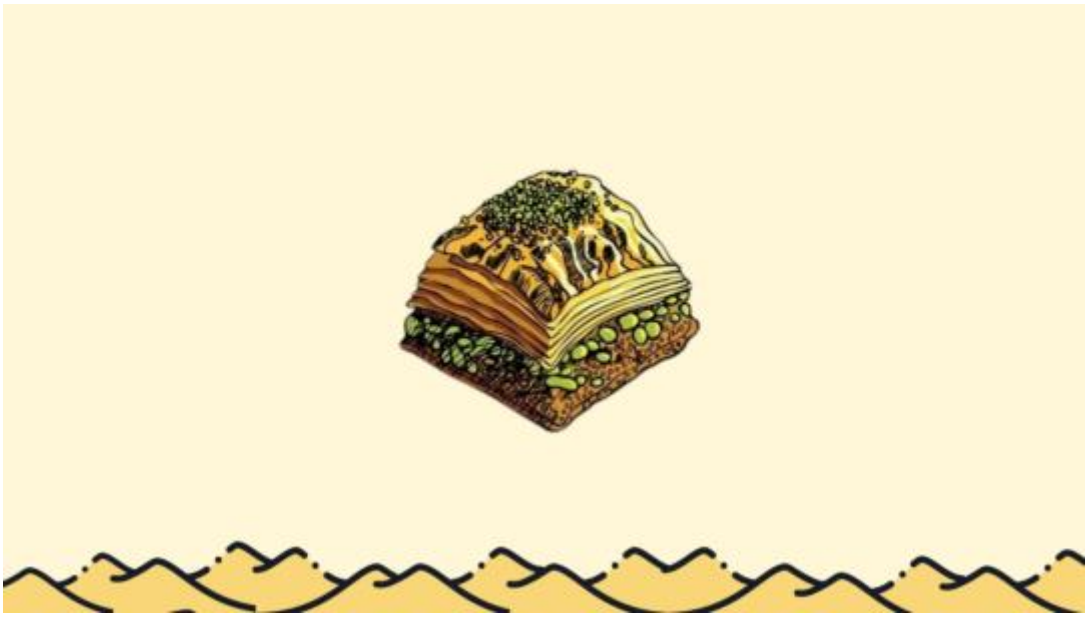
Litepaper – Baklava Space

Minting Synthetic Real World Assets and Offering Compounding Yield to crypto holders



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This Litepaper will be periodically updated.

Executive Summary

Baklava's mission is to let crypto holders extract the most value from their existing crypto assets through minting synthetic assets and compounding.

Our core team has been in the crypto space since 2017, having built a number of successful projects and been through the crypto bear cycle. We summarise our views of the future development and how our ambition falls in line with our views as follow:

- Total value locked in the total Defi ecosystem has grown rapidly over 2020 and 2021. Crossing $200 billion in total value locked. Defi is expected to continue to grow stronger and this market represents funds searching for yields.

- While Defi has skyrocketed, most defi are trading assets within the crypto ecosystem – one coin to another coin. We want to expand the value of the whole Defi ecosystem and make the pie bigger. Baklava aims to expand defi to capture some of the value traded in real world assets.

- Baklava is a combination of cryptocurrency and synthetic asset project. This concept will make Baklava Space >1000x larger than the existing cryptocurrency market. The global market for cryptocurrency is at about $2 trillion. This is tiny compared to the global stock market at $73 trillion and derivatives at $544 trillion.

- Many Layer 1 solutions are rolled out to compete with ETH network. Community will be spread across multiple networks and while some will grow better than others, none will dominate 100% of the market share.

- Baklava aims to be in networks that the community are in, starting from Avalanche.

Introduction

One fundamental nature of defi and crypto transactions is that the transaction fees are dependent on transaction count and not on the transaction value. Whether you are transferring $1 or $1million, the same fees apply. This is very unlike traditional finance where you usually pay a percentage of the amount transferred. Therefore, one of the keys to unlocking value in the crypto-centric world is to consolidate and perform less transactions.

Let's illustrate with a hypothetical example. Suppose you deposit $100 in a protocol, and the protocol gives you 1% interest or $1 each day. You can enjoy a compounded return if you re-deposit the $1 interest back into the protocol. However, the transaction fee for re-depositing also cost $1. Therefore, it does not make sense to redeposit $1 as it will take 100 days to breakeven the transaction fee.

The scenario is different if we can consolidate hundreds of $100 deposits into a $10,000 deposit. In this case, the daily interest is still 1% and represents $100. Iif we re-deposit this daily interest amount of $100 back into the protocol, it cost $1 in transaction fee as well. Now this make sense, as it take just 1 day in interest fee to recover the transaction fee.

This is exactly what is happening in the Defi world. Defi protocol pays you daily or even hourly for staking and providing liquidity. Users with large funds are able to compound as they have no issue with covering the transaction fees. The smaller holders don't get to enjoy compounding yield. As the transaction cost as a % of their funds are too high to make compounding work.

Baklava Space aims to bring the benefits of yield compounding to the masses. For each person that joins our protocol, you are also helping all the rest of the small holders to benefit together.

The above is the first offering by the Baklava Space. The next offering, or our core offer is introduced below.

We believe in the growth of traditional assets derivatives in the blockchain world. And that asset derivatives will be an important application for defi protocol. Derivatives is a huge $544 trillion market. Why is the derivatives market so huge? Whether it is in physical commodities, like gold, or in credit derivative swaps, the nature of the market is such that the derivatives market is always larger than the underlying product. For example, the physical gold market is $12.5 trillion while the gold derivatives market is estimated at $1.1 quadrillion, which is 88 times larger compared to the physical gold market. This also happens in the crypto markets where you can see that the ETH-perps volume is also higher than the ETH volume.

The addition of traditional asset derivatives to decentralized finance (DeFi) will unlock billions of dollars in value that we intend to capture as part of the Baklava Space.

To get there, Baklava will allow on-chain minting of synthetic traditional assets. For example, minting of synthetic Tesla that is marked to the price of Tesla stock. We allow users to enjoy the upside price potential of real world assets without having to convert their crypto assets into fiat.

Our protocol token - Bava will be used in the minting and un-minting of the synthetic assets. In summary, we hope to bring the magic of compounding and synthetic asset ownership to the masses and holders.

Baklava Story

The community have asked why is the protocol named Baklava.

Baklava project is named after a Turkish dessert with multiple layers of deliciousness. This, in essence, is what the Baklava Space aims to offer. Layers of benefits all rolled up into one protocol. We aim to be a protocol where you get to retain all the original benefits of owning existing crypto assets, such as LP, staking, delegation.

On top of that, you get the compounded yield automatically.

On top of that, you get Baklava tokens as rewards.

On top of that, you get to mint synthetic assets and enjoy the upside potential of other assets.

In summary, Baklava let’s you enjoy multiple layers of benefits without having to leave the platform.

Baklava Product

Product 1: Auto Compounding

How does auto-compounding work?

Baklava Space will perform automation to continually invest and reinvest the deposited LP, which helps to achieve high levels of compounded interest. By using Baklava Space to compound gains, the user saves thousands of transactions with gas costs, your effort and time. Instead of manually harvesting and selling rewards, buying more tokens, and reinvesting that continuously, Baklava Space does it for the user, automatically.

User staking AVAX-WETH.e LP will result in more AVAX-WETH.e LP over time as the reward is being reinvested into the same pool, effectively growing your share in the liquidity pool and thus allowing for more and more rewards over time. When the user withdraws this portion of profit might be in the form of extra LPs and/or in the form of BAVAs.

For example, If a user has 100 AVAX-WETH.e LP from TraderJoe with 3.65% APY yield, he/she will get at an optimal rate 103.65 LP by the end of the year. By using Baklava Space, the protocol will perform the automation to reinvest the deposited LP. By the end of the year, he/she will get at least 103.71 LP excluding the $BAVA rewards. The user will save time, fee, and effort to do it manually because Baklava Space covers it all.

Product 2: Minting synthetic asset

Minting synthetic assets is a way for users to get exposure to the price movement of other asset types. Minted assets do not confer actual ownership to the underlying asset. For example, if a synthetic Tesla is minted, this asset does not give any rights to vote or rights to the dividends of Tesla stock. Minted asset is just a change in the reference price of the collateralized asset. Therefore if a 1,000 USDC is minted into $500 worth of synthetic TSLA, the new reference prices of the new asset portfolio will be $500 in Tesla stock price and $500 in USD.

How does minting work?

The steps for minting in Baklava goes like this:

- Users put in crypto assets that Baklava accepts, such as LP, single token staking, as collateral.
- Users get a token (BavaLP) as a receipt that he has deposited the collateral.

- Users choose an asset type to mint as synthetic asset, e.g. TSLA. Paying the minting fee of 1.5%.

$$mintFee = 1.5\% \; x \; mintedAssetValue$$

- This synthetic asset price and position and its unrealized gain/loss can be seen in the protocol.
- Users close the position of the minted asset, taking any profits and losses based on the price difference. Paying a burning fee of 1.5%.

$$burnFee = 1.5\% \; x \; mintedAssetValue_{currentValue}$$

- Where the collateral value over the minted asset value crosses a certain threshold, the protocol will automatically liquidate the positions by burning the minted asset and releasing the remaining collateral value to the users.

Why do we need collateral when minting synthetic asset?

When minting synthetic assets, the protocol does not collect upfront USD from the users. Instead, the collateral is put up in place of the USD.

Let's say you put in US$1,000 as collateral and mint a synthetic asset of TSLA at $1,000. What happens when the TSLA price drops to $900, who is going to pay for this loss? This is where the collateral comes in. The collateral is primarily used to absorb any losses in the synthetic asset prices. With a full $1,000 collateral to back the synthetic asset, even if TSLA stock drops from $1,000 to zero, the collateral value can be used to pay out the losses. In summary, you have converted your collateral asset into a new asset type whose price is referenced to some other asset, e.g. TSLA prices.

Why would you want to mint assets instead of just outright buying the shares?

In the same way that you re-mortgage your fully paid property to get a loan to invest, the collateralized property still belongs to you and you get to enjoy all the benefits and risks that comes along with the asset such as rental income. Similarly in the case of defi assets, you still get to enjoy the high APY from holding on to the Liquidity Provider (LP) tokens that are pledged as collateral. While at the same time, you get to additional benefit from the asset movements in other assets.

What if collateral is not in USD stablecoin but in another volatile asset?

If the collateral is not USD stablecoin but in another defi asset, such as LP, the collateral value itself will be volatile depending on the market prices. In this case, instead of allowing a $1000 of collateral to mint $1000 worth of synthetic TSLA, the protocol requires additional collateral to cover the risk of the collateral value itself dropping. Hence a collateral ratio of, say, 200% is required for such non-stablecoin collateral. This means that to mint $1,000 worth of TSLA, a collateral value of $2,000 worth of LP tokens is required. This is to make sure that the collateral value is sufficient to cover for any losses from the minted asset price movement.

Initial collateral requirement

In Baklava Space, there are two collateral types accepted to mint synthetic asset:

1. Collateral in stablecoins.

Collateral Ratio (cR) in stablecoins must be greater or equal to 100% of minted asset value (vA), in this case $cR_{min} = 1$

$$cR = \frac{vC}{vA} \text{ and } cR \geq cR_{min}$$

Minted asset can consist of several synthetic assets, therefore the Asset Value will be the total of all minted assets.

$$vA = v_{sA1} + v_{sA2} + \ldots$$

$$sA = synthetic\ asset$$

Collateral Liquidation will be triggered if the *collateralRatio* is less than 1, meaning that users are borrowing more than the Collateral Value. Hence, we suggest users to borrow at maximum *70%* of the Collateral Value to avoid the liquidation.

$$cR = 0.7$$

2. Collateral in LP (staked on Baklava Space).

For LP, there is another risk from LP value decrement. Because of this risk, we initially set the Collateral Ratio in LP must be greater or equal to 200% of minted asset value. This ratio is subject to change and can be voted by governance voting once the platform is up.

$$cR_{min} = 2$$

Collateral LP Liquidation will be triggered if the *collateralLPRatio* is less than 2, meaning that users are borrowing more than the Collateral LP Value.

How to maintain the collateral value?

After the asset is minted, both the Asset Price and the Collateral Value will be moving in the market.

Any unrealized gains in the minted asset will help cushion any potential losses of the minted asset and the chance of having to use the collateral is minimized. On the other hand, unrealized losses in the minted asset poses more risk to the protocol.

As the collateral (or LP) will likely have to be sold off to cover for the losses. Therefore, any unrealized gain will be added to the Adjusted Collateral Value(vC_a).

Any unrealized losses in the minted asset will be deducted from the Adjusted Collateral Value.

Unrealized Gain and Loss will be calculated from all the minted asset value.

$$uG = uG_{a1} + uG_{a2} + \ldots$$

$$uL = uL_{a1} + uL_{a2} + \ldots$$

In addition to the Unrealized Gain/Loss, users are allowed to add and reduce Collateral (vC') as long as the position is open ($cR \geq cRmin$)

$$cR = \frac{vC_a}{vA} \text{ and } cR \geq cR_{min}$$

Where,

$$vC_a = (vC + vC') + uG_t$$

and

$$vC_a = (vC + vC') - uL_t$$

Users are required to maintain $cR \geq cRmin$, otherwise the collateral will be subject to liquidation.

Liquidation

Liquidation (vL) happens when the collateral value is not sufficient to meet the minimum collateral cover ratio.

If the collateral ratio falls below the required percentage, the protocol will automatically reduce the position risk by liquidating the minted assets. Losses from the minted asset will then have to be deducted from the collateral and the balance of the collateral value will be returned to the users (vC_r) .

$$vL = (cR_{min} - cR)\ x\ vA$$

$$vC_r = vC_a - vL - vA$$

Protocol will also liquidate if the minted asset value drops more than 50% $(aR = minted\ asset\ ratio, aR < 0.5)$ from the borrowed amount. The minted asset ratio can be calculated by divide the current value of minted asset (vA_{ct}) to the borrowed amount / minted asset value (vA)

$$aR = \frac{vA_{ct}}{vA} \text{ and } aR \geq 0.5$$

Illustration table: Assuming initial collateral of $2,000 worth of LP is collateralized to mint $800 of synthetic Tesla.

Scenario	Collateral Value	Borrowing limit	Amount borrowed to mint Tesla	Value of synthetic Tesla minted	Current value of synthetic TSLA	Collateral ratio (Collateral value / amount borrowed)	Action by protocol
Starting position	$2,000	$1,000	$800	$800	$800	250%	No action
LP asset value drops by 21%	$1,580	$790	$800	$800	$800	198%	Liquidated. LP is liquidated to repay the $800 borrowed amount + liquidation fees. Rest of LP is returned. Users keep the synthetic Tesla position.
LP asset value drops by 10%	$1,800	$900	$800	$800	$800	225%	No action

No change in collateral value, TSLA price increase	$2,000	$1,000	$800	$800	$1,000	250%	No action
No change in collateral value, TSLA price decrease	$2,000	$1,000	$800	$800	$399	250%	Liquidate. as unrealised loss position is greater than 50%, protocol will liquidate the syn Tesla position and collateral position to pay back the borrowed amount $800.
Collateral value increase while TSLA price decreases	**$2,200**	$1,100	$800	$800	$450	275%	No action

Baklava Token

The Baklava Token (BAVA) is the governance, reward and minting token for the Baklava Space.

Baklava Space is a fair launch. There is no pre-sale nor pre-farm. The only way to get BAVA tokens during early stage is via:

- Airdrop.
- LP Farming.
- Buying tokens from the liquidity pool.
- Farming on a partner's protocol.

Governance

Baklava is envisaged to be community owned and we will begin the progressive decentralization.

BAVA token holders will be able to create and vote on proposals to govern the underlying protocol. This may include:

- Adding/removing mintable assets
- Determining what fees are charged by the protocol

- Determining what incentives (e.g. Bava rewards for providing liquidity) are offered on an ongoing basis
- Determining which network to rollout Baklava protocol

Note that decentralized governance privileges will not apply to the centralized maintain parameters used for risk management, e.g. collateral ratio.

Rewards

BAVA will be used as reward tokens to early users of the platform including minters, LP depositors, stakers and holders.

Minting fee

Users creating or burning synthetic asset in the Baklava platform are called minters. Minting will require Bava tokens. Part of these tokens will be kept by the protocol to pay out as rewards for liquidity providers and part of these tokens used in fees will be burned.

Founding Team

The team is focused on developing the solution and for the time being is anonymous. Being anonymous, we can focus on providing better product quality and experiences to our users.

As of February 2022, we have a team of six, one of the core team members is Keith Yong who has extensive experiences in traditional finance and blockchain. Keith wears two hats - another is the Director of Operations of Litecoin Foundation. The next core team member will be announced in Q2 2022. More about Keith: https://medium.com/@baklavaspace/baklava-core-team-introduction-keith-yong-c0b02d6e675c

Conclusion

Derivatives and synthetic assets are complex subjects to understand, even in the traditional asset world. Throw into the mix blockchain and defi, and the added complexity may cause many users to stay away from synthetic assets. We want to make Baklava simple and easy to use for the everyday crypto holder.

We believe that simplicity is the best design and we are in a good position to unlock billion-dollar opportunities by tapping into the derivative market.

While we are starting with users in Avalanche network, in the coming upgrades, our offering will cross the networks and our ambition is to offer our compounding and minting solution to everyone in every network.

Stay in touch for more updates from the Baklava Space.