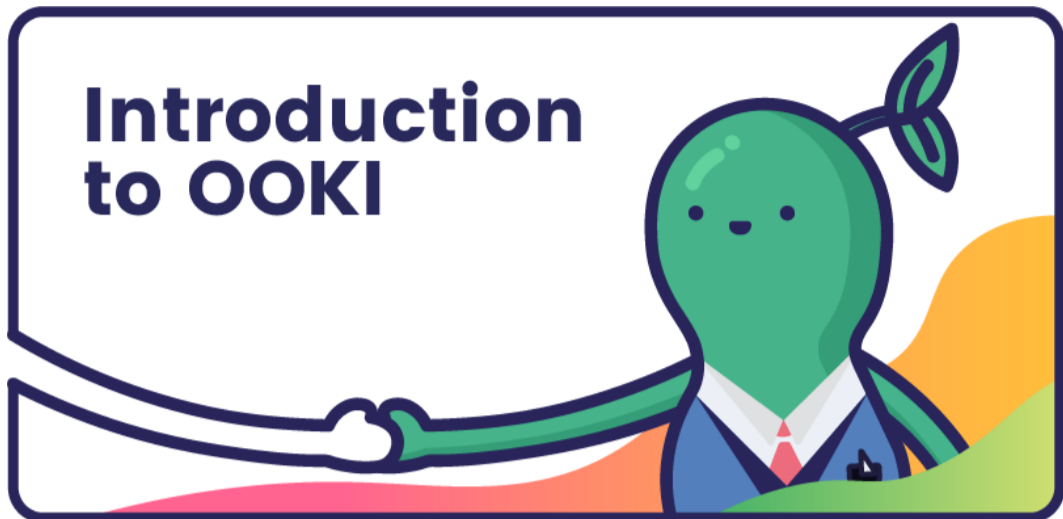




Introduction to Ooki



Ooki is a protocol for tokenized margin trading and lending. It is a financial primitive for shorting, leverage, borrowing, and lending that empowers decentralized, efficient, and rent-free blockchain



Ooki Protocol allows anyone to build applications that enable lenders, borrowers, and traders to interact with the most flexible decentralized finance protocol on Ethereum. Ooki is a community-run project, governed by the community vote for all major changes to the protocol.



No KYC

Ooki is a decentralized margin trading platform. There is no need for any verification or KYC.

Non-Custodial

Whether lending or trading, maintain control of your own keys and assets with our non-custodial solution.





Minimal Liquidation Penalties

Positions that become undercollateralized are only liquidated enough to bring margin maintenance from 15% to 25%.

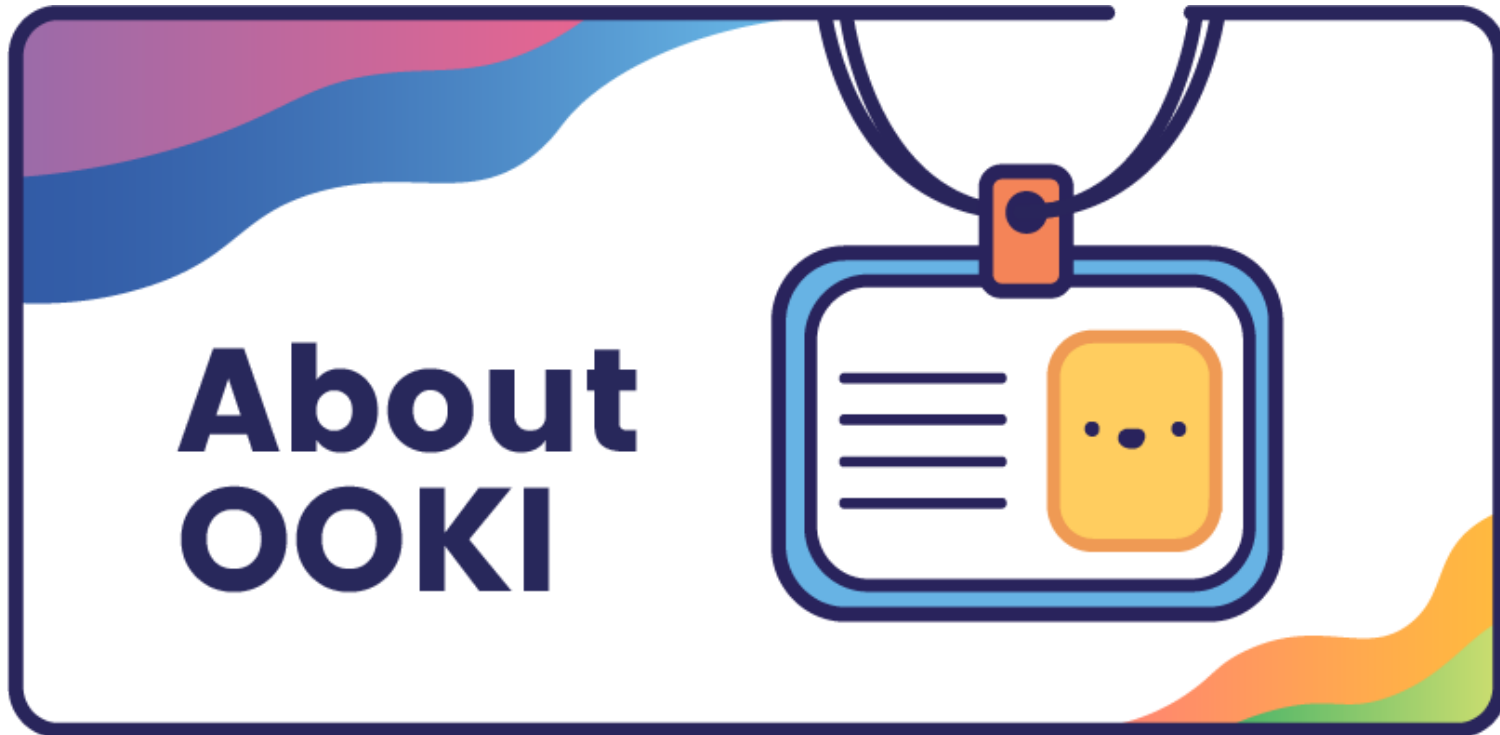
Perpetual Positions

Enjoy a frictionless trading experience with positions that automatically renew and zero rollover fees.

There are a few core products that make up Ooki's ecosystem and each of these products serves a different purpose within the ecosystem:

-  Trade
-  Borrow
-  Lend
-  Stake

📖 About Ooki



Mission Statement

Delivering financial independence by reinventing financial services for a decentralized future.

Core Values

1. **Be Friendly:** Emphasizing kindness towards the community and our peers.
2. **Constantly Innovate:** Through bull and bear market Ooki is consistently driven to develop and innovate relentlessly.
3. **Do the Right Thing:** Maintaining a high moral standard.

? FAQ

:

Get answers to frequently asked questions about Ooki Protocol.



What can users do on Ooki?

Ooki users can engage in **margin trading** with up to 15x leverage using a fully decentralized trading platform.

Ooki users can **lend** out funds and earn interest on their capital, and also borrow funds against collateral.

Ooki users can **Stake** their Ooki Tokens in order to earn a portion of fees generated by the platform.

Ooki users can **participate in platform governance** through the OOKI DAO, and use their OOKI tokens to vote on proposals, submit new proposals, and participate in platform governance.

How safe is Ooki?



Governed by DAO

Ooki is governed by the Ooki DAO which votes on proposals via the Ooki DAO governance mechanism.

Secure Oracles

Chainlink's **decentralized oracle network** is used for price information.

Insurance Fund

If undercollateralized loans are not properly liquidated, lenders are repaid from a pool funded by 10% of the interest paid by borrowers.

Open source

As one of the founding principles of DeFi, we're committed to interoperability and the development of open source code.

Fully Audited

Ooki's code has undergone audits by leading Auditing firms.

What are the fees involved when opening a loan on OOKI?

When opening a loan there is a 0.09% origination fee on the principle. Interest is also paid for the life of the loan.

Which Chains is Ooki Deployed on?

Ooki is currently deployed on Ethereum L1, Optimism, Arbitrum, Polygon, and Binance Smart Chain.



Glossary



An explanation of terms used in Ooki Protocol.

Term	Description
Ooki Protocol	The open set of smart contracts created by Ooki DAO enabling users to interact with products and services offered by Ooki DAO.
OOKI	The protocol native governance token of the Ooki Protocol that allows stakers to participate in Ooki DAO governance.
Leverage	Leverage is a trading mechanism investors can use to increase their exposure to the market by allowing them to pay less than the full amount of the investment. Consequently using leverage in a transaction, allows a trader to take on a greater position without having to pay the full purchase price.
Liquidation	Liquidation happens when an exchange closes out a trader's position because it can no longer meet margin requirements . Margin is the percentage of the total trade value that must be deposited with the exchange to open and maintain a position.
Margin	Margin is the money borrowed to purchase a token and is the difference between the total value of an investment and the loan amount.
Margin call	If the risk ratio falls below the minimum requirement for a particular asset to maintain the leveraged position, a trader will risk having their position liquidated. A margin call is a notification that additional collateral should be added to protect against liquidation.
Delegate	Owners of digital assets can do more than simply hold their assets in a wallet. One of their options is to delegate crypto tokens — a process of contributing them to an address and giving that address control over the tokens voting power.
Flash Loan	Flash Loans allow you to borrow any available amount of assets without putting up any collateral, as long as the liquidity is returned to the protocol within one block transaction. To do a Flash Loan, you will need to build a contract that requests a Flash Loan. The contract will then need to execute the instructed steps and pay back the loan + interest and fees all within the same transaction.
APY	APY is calculated on a yearly basis and shown as a percentage. APY, which stands for Annual Percentage Yield , is the rate you can earn on an account over a year and it includes compound interest.
APR	The Annual Percentage Rate (APR) is the cost you pay each year to borrow money, including fees, expressed as a percentage. The APR is a broader measure of the cost to you of borrowing money since it reflects not only the interest rate but also the fees that you have to pay to get the loan.

Margin Trading made simple with Ooki

OOKI makes DeFi fully decentralized margin trading easy for novices. Users can enter long or short margin positions with up to 15x leverage. Trading positions are managed through the Ooki Trading Interface. Unlike centralized exchanges, on fully decentralized exchanges like Ooki, users retain custody of their funds.

What is Margin Trading?

Margin trading has two main aspects: leverage and shorting. When trading with leverage, a trader borrows assets to increase the amount of assets they are trading. By doing so, traders magnify the gains or losses of their trade.

The borrowed assets in a margin trade are known as a **margin loan**. To obtain the margin loan, the trader puts up assets that serve as **collateral**. The terms of the margin loan specify a collateral-to-loan ratio. If the trade falls below the specified ratio, the trade is liquidated and the lender gets repaid using the trader's collateral.

Margin trading also includes **shorting**. When shorting, a trader essentially sells assets they do not own. The short investor borrows an asset and sells it with the expectation that the asset will lose value, and profit from the difference between the margin short entry price and the short cover price.

Opening A Trade



With Ooki traders can enter margin long or margin short positions. When entering a position, a user deposits collateral and can utilize leverage by borrowing against the position in order to magnify gains.

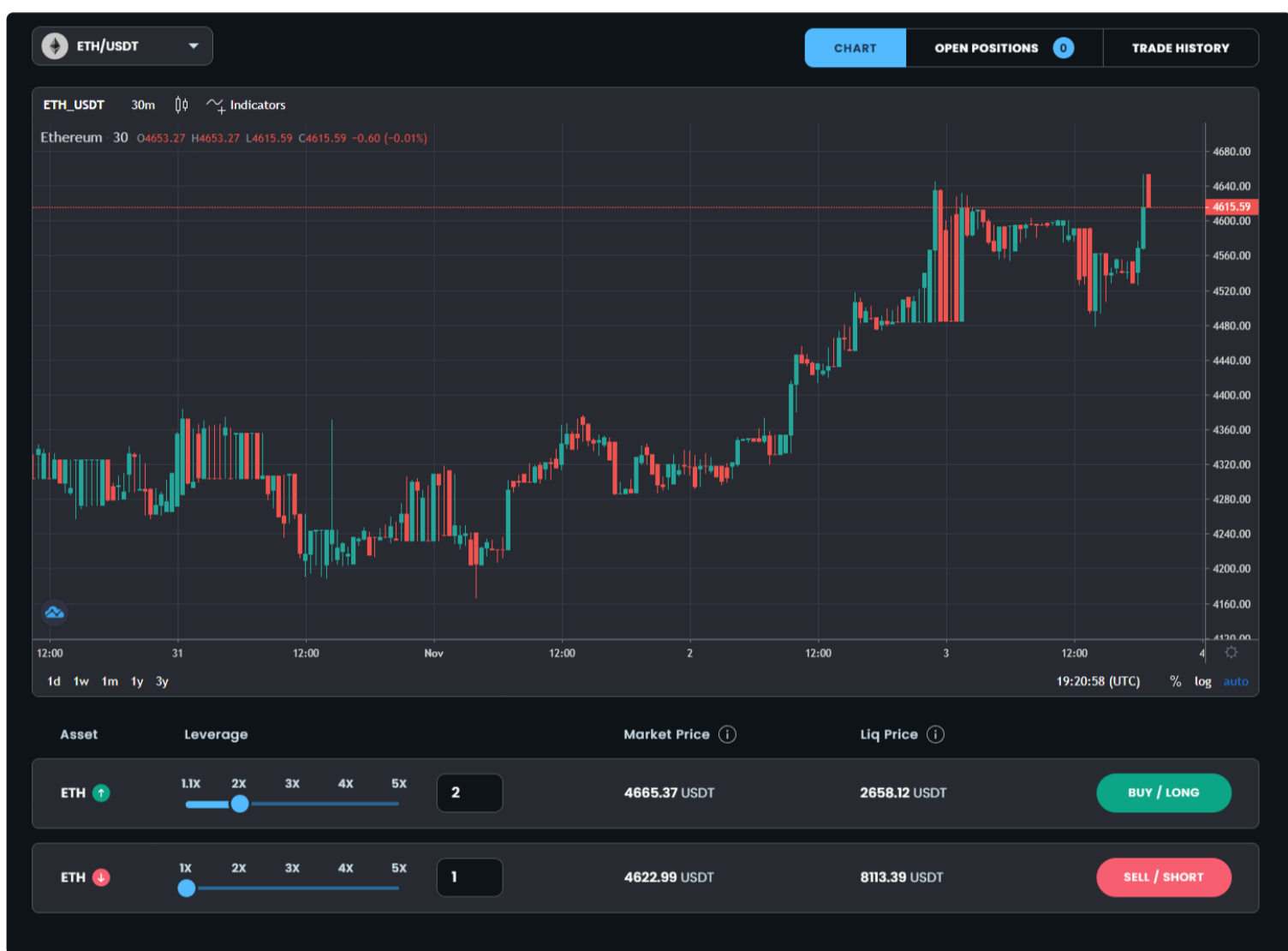
When a user enters a short position, they can profit from the decline in price of the underlying asset. Conversely when opening a long position, a trader profits from an increase in price in the position.

Opening a position

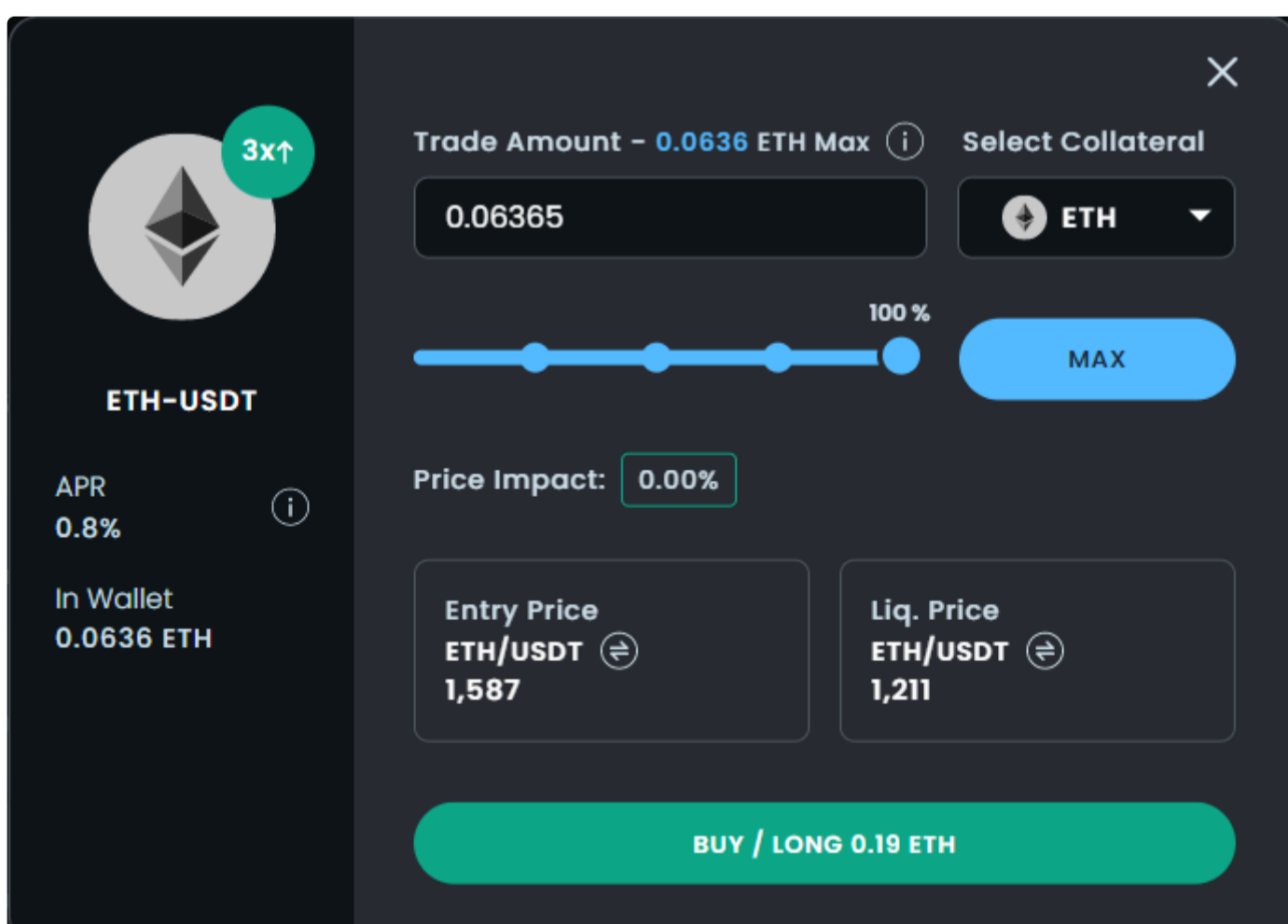
To begin trading a user must first connect their web3 wallet:



Then a user must select their desired trading pair, leverage, and whether to open a short or long margin position:



Lastly, the user must then select the amount to purchase and click the Buy/Long button.



This popup window above also displays the following useful information:

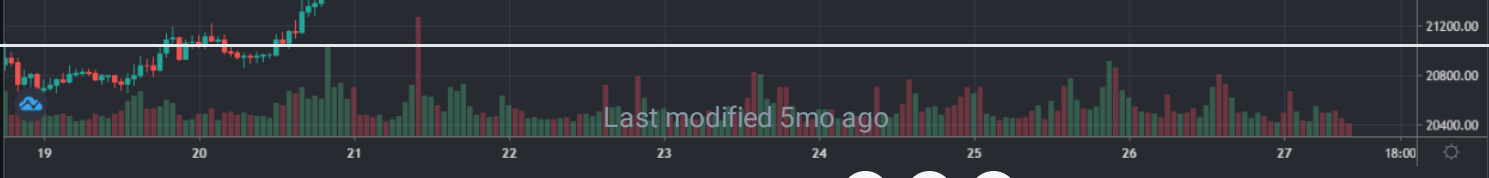
- **APR:** Refers to the percentage rate that the trader pays per year to maintain the long position.
- **Entry Price:** is the estimated price at which the order will be filled.
- **Slippage:** Refers to the maximum change in execution price allowable.
- **Liquidation Price:** (When reaches this level, the position will be liquidated.)

After selecting the trade amount, clicking buy, the user will see a Metamask pop up window asking them to confirm the transaction with their web3 enabled wallet.

Once you have opened a trade it will appear in the open positions section (see below).



Protocol - Previous Trade Next Managing/Closing Trade



1d 1w 1m 1y 3y WAS THIS PAGE HELPFUL? (sad face) (neutral) (happy face) 10:49:19 (UTC) % log auto

Asset	Leverage	Index Price	Liq Price	Action
WBTC ↑	1.1X 2X 3X 4X 5X	22,904 USDT	15,269 USDT	BUY / LONG
WBTC ↓	1X 2X 3X 4X 5X	22,904 USDT	30,538 USDT	SELL / SHORT

Open Positions

3x LONG ↑
WBTC/USDT Share

Entry Price 22,959 USDT	Market Price 22,904 USDT -0.243%
Collateral 0.00201 WBTC 58.6%	Liquidation Price WBTC/USDT 16,605
Position Size 0.00542 WBTC	Profit -0.000043 WBTC

WBTC USDT

CLOSE POSITION

Managing/Closing Trade

Managing your Trading Position with Ooki.

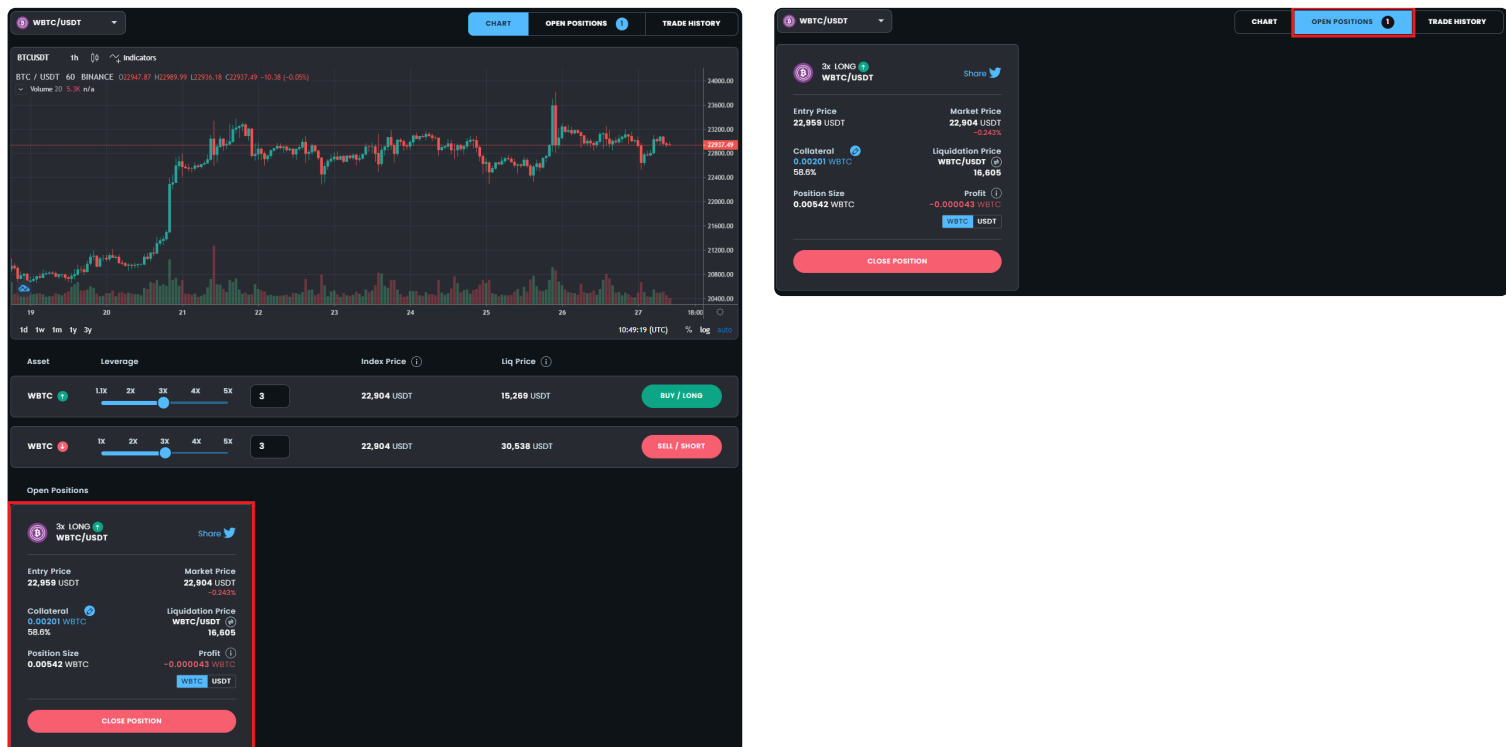
OOKI enables easy management of open long or short margin positions through the open positions tab. Below we will explain how you can easily adjust your open margin position.

Managing a position

To begin managing your position a user must first connect their web3 wallet:



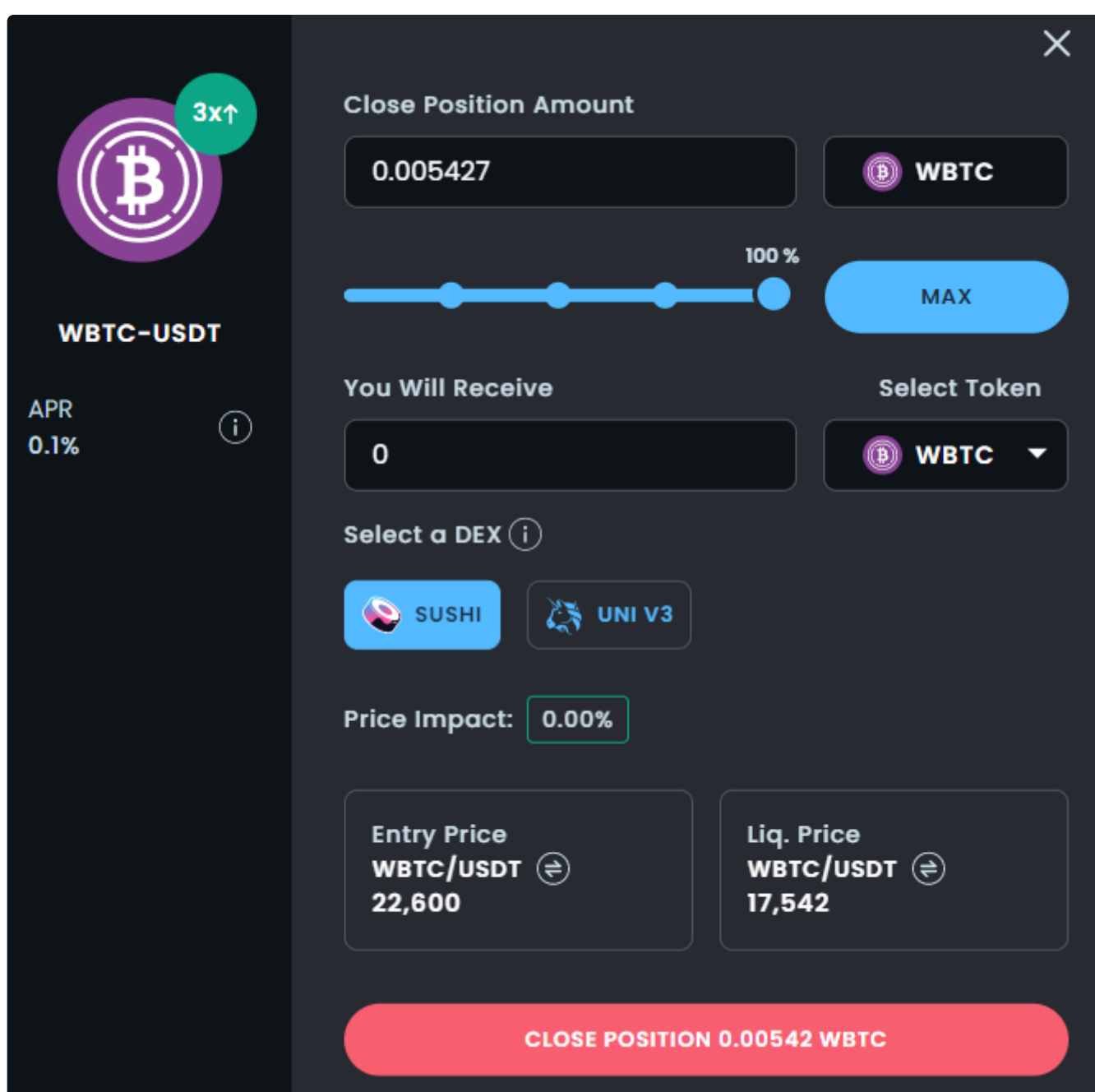
Then a user will be able to view all open positions:



The user can view open positions in two places: The open position for a given trading pair at the bottom of the "Chart" Tab, or view all open positions across all different trading pairs under the "Positions" Tab. The open position box displays the users relevant position information, including:

- Trading Pair
- Open Price
- Collateral Value
- Position Size
- Profit
- Liquidation Price
- Market Price

To Close the Position the user must click Close Position and a Modal popup window appear:



Here the user can select how much of the position they wish to close and then click Close Position.

Trade History



The Trade History page gives you an overview of all your trades. This way you can easily keep track of all your trades.

WBTC/USDT					
		CHART	OPEN POSITIONS	1	TRADE HISTORY
<input type="checkbox"/> Get old history ⓘ					
Date	Pair	Position Size	Trade Price	Value	Fee
Jan 26, 2023	WBTC/USDT 2.7x LONG ↑	0.00542 WBTC	22,959 USD	125 USD	-
Profit	Last event				
-	Opened				
Date	Pair	Position Size	Trade Price	Value	Fee
Jan 26, 2023	WETH/USDT 2x SHORT ↓	0.0512 WETH	1,609 USD	82.43 USD	-
Profit	Last event				
1.83 USD	Closed ↓				
Date	Pair	Position Size	Trade Price	Value	Fee
Jan 25, 2023	WBTC/USDT 3x LONG ↑	0.00644 WBTC	22,313 USD	144 USD	-
Profit	Last event				
-4.49 USD	Closed ↓				

Leverage



On Ooki you can use up to 15x leverage (for stablecoins) by adjusting the leverage slide. Increasing the leverage amount up to 15x allows traders to magnify potential gains. However increasing leverage will also tighten the liquidation price.

The screenshot displays the Ooki trading interface for USDC. It features two rows of controls for buying/long and selling/short positions. Each row includes an asset selector (USDC), a leverage slider with a numeric input field, an index price, a liquidation price, and a trade button.

Asset	Leverage	Index Price	Liq Price	Action
USDC ↑	15	1 USDT	0.933 USDT	BUY / LONG
USDC ↓	7	1 USDT	1.14 USDT	SELL / SHORT

Liquidation

Using leverage in a margin trading long/short position may cause a position to be liquidated when the maintenance collateral falls below a certain level. See [Liquidation Table](#) for details.

Short Selling

:

What is short selling?

Short selling is a trading strategy that speculates on the decline in a tokens price. It can be used to hedge downside risk, or to speculate on a price decline.

How does short selling work?

A seller opens a short position by borrowing tokens, selling the tokens at the market. When a trader is ready to close a position, he then buys back those tokens hopefully at a price less than what he borrowed it for and returns the tokens to the lender. The difference representing the traders profit/loss on the trade.

Ooki enables anyone with tokens to lend them to shortsellers/borrowers and earn competitive interest on their crypto that would otherwise be sitting idly in their wallet.

On Ooki, with the upcoming launch of Interest Rates 2.0, the lending rates are determined by the market demand for borrowing/shorting.

What are some of the risks involved in short selling?

A trader who is long a token can only lose 100% of their outlay if the stock moves to zero. However, a trader who has shorted a token can lose much more than 100% of their original investment. The risk comes because there is no ceiling for a tokens price.

Timing short selling can also be very difficult, but it is a crucial component when it comes to short selling. Cryptomarkets historically decline much faster than they increase, and a sizeable gain in a token may be wiped out in a matter of days or weeks on bearish development.

Short squeezes can push up the price, and make short sellers cover their shorts for a loss prior to a large price decline.

Complex Orders



Decentralized Limit Orders are coming soon

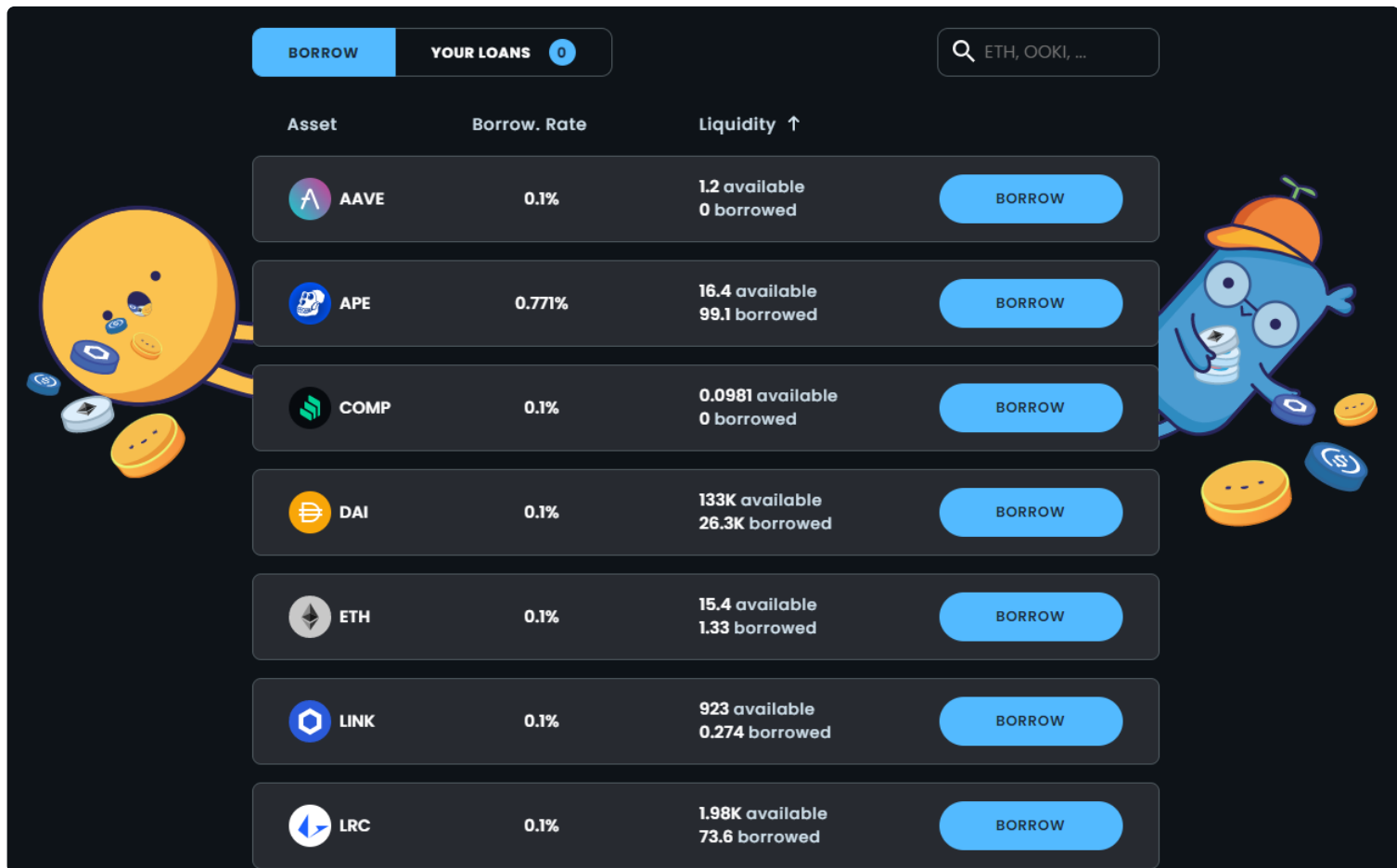
Complex Orders are coming soon on Ooki!

Decentralized Limit Order and Stop Limit Orders

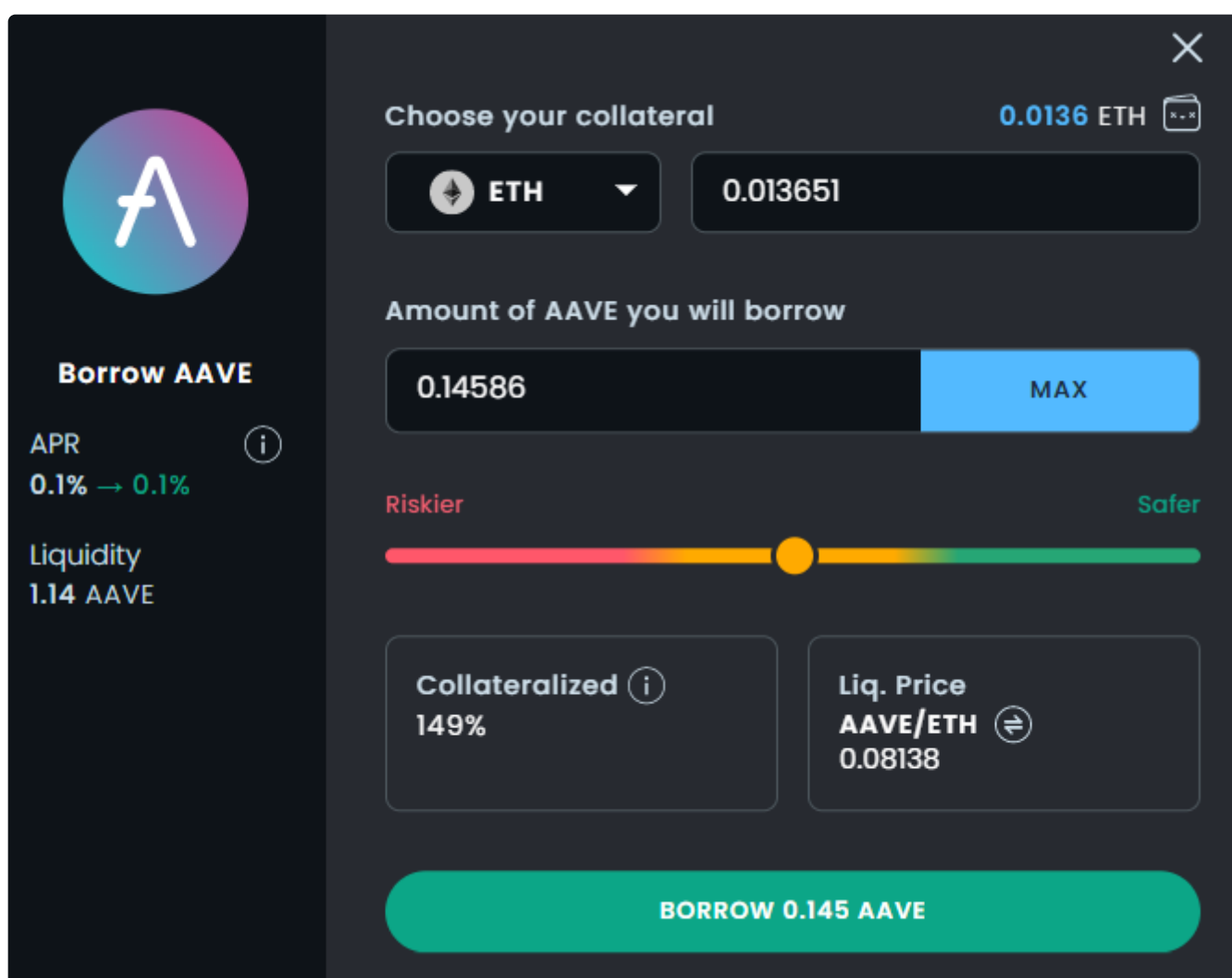
Ooki is the first decentralized margin trading platform to offer fully decentralized limit orders. Limit orders are an advanced trading feature which unlock amazing new trading features allowing traders to specify exact entry and exit points, as well as stop losses.

Borrowing

On Ooki, users can borrow funds against deposited collateral. The first step to start borrowing on Ooki is to visit the [borrow page](#), and then select which asset you would like to borrow.



Once you've selected which assets to borrow, then click the borrow button and deposit collateral and choose the amount you would like to borrow.



Repaying

Borrowers repay loans by visiting the "Your Loans" Tab, and click on the repay button for the asset you borrowed and want to repay. Select the amount to pay back and confirm the transaction.

How Borrowing Rates are Determined

Borrowing rates are dynamic and adjust in real time based on the current demand and supply for any given asset. Learn more about interest rates:



Fees

What are the fees involved when opening a loan on OOKI?

When opening a loan there is a 0.09% origination fee on the principle. Interest is also paid for the life of the loan. Learn more about Ooki Fees:

Liquidation

Many leading lending protocols have poorly optimized risk parameters that are based solely on the collateral being liquidated. This has resulted in massive capital inefficiency since many loans are overcollateralized far in excess of the actual risks at play. Instead of setting risk parameters on the basis of collateral, the protocol sets risk parameters on the basis of trading pairs.

Liquidation Table

The table below lists the **margin maintenance** requirements for each trading pair on Ooki. If the margin falls below the levels listed below the position will be liquidated.

Trading Pair	Markdown	Initial Margin	Margin Maintenance
ETH - wBTC	7%	135%	130%
ETH - LINK, YFI, AAVE	7%	120%	115%
ETH - Stablecoin	7%	120%	115%
ETH - MRK, KNC	7%	130%	125%
ETH - BZRX	7%	210%	200%
Stablecoin - Stablecoin	7%	105.5%	105%
ERC20 - ERC20	7%	250%	245%
wBTC - Stablecoin	7%	135%	130%
YFI/LINK/AAVE - Stablecoin	7%	120%	115%
MKR, KNC -Stablecoin	7%	130%	125%
BZRX - Stablecoin	7%	250%	245%

How are positions liquidated? Is there liquidity risk?

Positions that become undercollateralized are only liquidated enough to bring margin maintenance above the threshold for a given pair.

Loans are liquidated if the position goes below margin maintenance. But only partially, enough to bring margin up 10% above margin maintenance. Only liquidating as much as necessary reduces the risk of slippage from large liquidations.

Anyone can initiate a margin call: the process is permissionless and incentivized. The incentive to liquidators is a refund of your gas * 2. There's also no capital costs or risks like those experienced when liquidating positions on other protocols. This ensures redundancy in the margin calling process. Moreover, there is an insurance fund which protects lenders. In the case that a lender would lose their principal, the insurance fund will automatically disburse funds to the lender. This insurance is funded by a smart contract holding 10% of all interest that is paid by borrowers to lenders.

The liquidation engine is a two-tiered system designed to maximally capitalize on the efficiency of DEX liquidations, keeping dollars in the hands of users rather than miners and capital intensive liquidation bots.

Tier 1: The first line of defense. Tier 1 allows users to delegate calling the close() function on their position to a contract that anyone can call permissionlessly. If the position is not at margin maintenance, the transaction reverts. Anyone can call the close() function near margin maintenance to receive a bounty. This bounty is in the form of both a flat and percentage-based fee that is taken out of collateral. The flat fee is intended to cover gas, while the percentage-based fee is intended to preferentially attract liquidators to larger positions. The payout is ultimately determined by the borrowers and traders opening positions. While it is possible to opt out or change the bounty to zero, doing so puts users at risk of incurring much larger liquidation costs if their position is forced to undergo a collateral auction.

Tier 2 (Collateral Auction): If a position is below margin maintenance and Tier 1 (described above) has failed to close the position, anyone who calls liquidate() will be entitled to purchase the collateral from the insolvent account at a discount. The collateral is valued using Chainlink price feeds. Each collateral has its own discount factor depending on the risk parameters of the asset. Both the volatility and depth of liquidity will be considered when determining the discount factor for any given collateral. Liquidators face two main risks when liquidating collateral: that the price changes while they hold it (volatility risk), and that the slippage turns the liquidation unprofitable (liquidity risk). Generally, the discount applied during the collateral auction will reflect the overall depth of liquidity available to that asset across all exchanges. Since liquidation penalties from collateral auctions can be significant, it is in the best interest of borrowers and traders to either close the position in a timely manner or enable Fulcrum Saver.

Calling Liquidations

The following code can be used to call all active loans

```
/// @dev get current active loans in the system
/// @param start of the index
/// @param count number of loans to return
/// @param unsafeOnly boolean if true return unsafe loan only (open for liquidation)
/// @param isLiquidatable boolean if true return liquidatable loans only
function getActiveLoansAdvanced(
    uint256 start,
    uint256 count,
    bool unsafeOnly,
    bool isLiquidatable
) external view returns (LoanReturnData[] memory loansData);
```

Then you can use the function below to liquidate the loan:

```
/// @dev liquidates unhealthy loans
/// @param loanId id of the loan
/// @param receiver address receiving liquidated loan collateral
/// @param closeAmount amount to close denominated in loanToken
/// @return loanCloseAmount amount of the collateral token of the loan
/// @return seizedAmount seized amount in the collateral token
/// @return seizedToken loan token address
function liquidate(
    bytes32 loanId,
    address receiver,
    uint256 closeAmount
)
    external
    payable
    returns (
        uint256 loanCloseAmount,
        uint256 seizedAmount,
        address seizedToken
    );
```

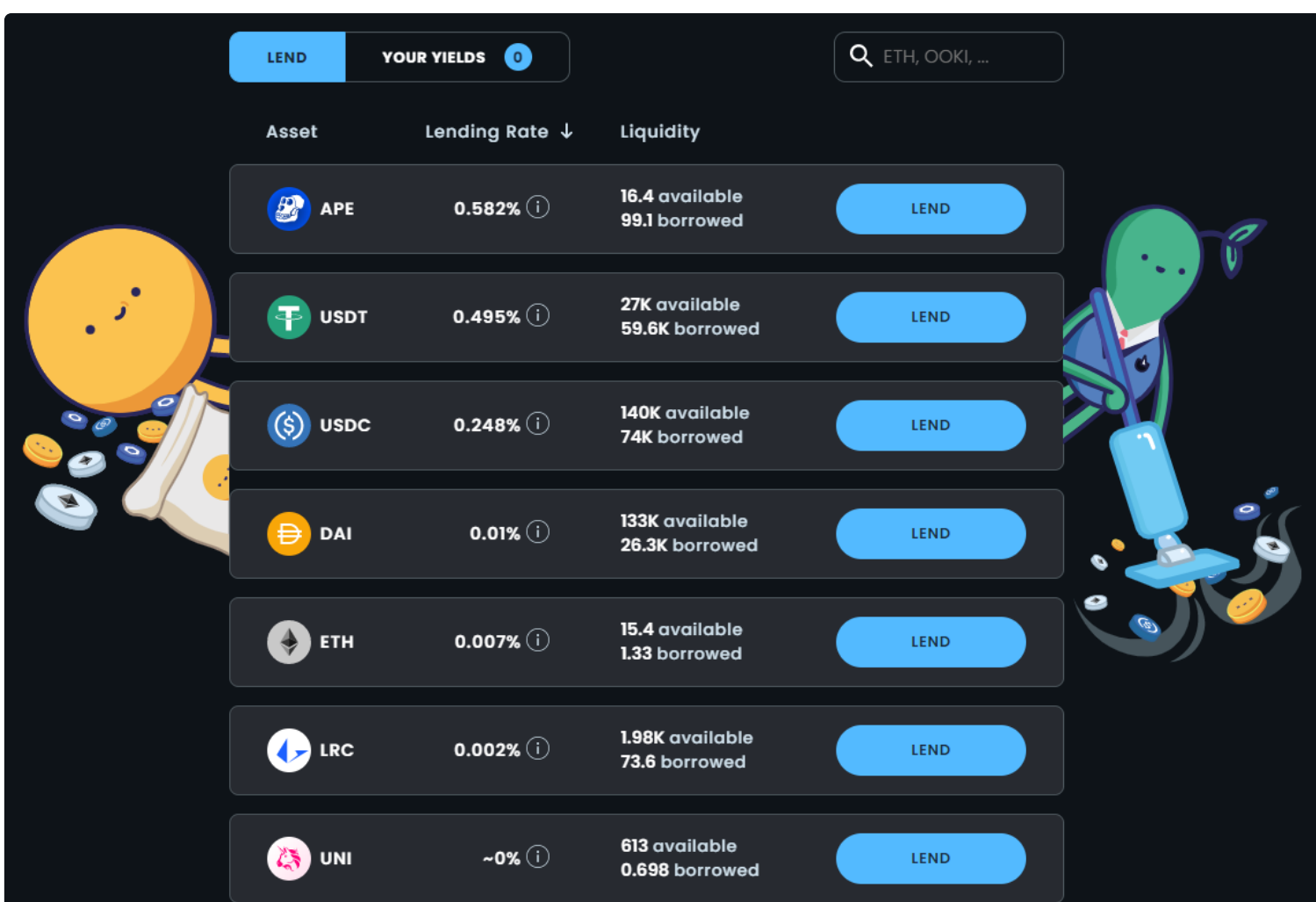
The liquidator is given the following reward for liquidating the loan:

- Any remaining collateral margin maintenance - 100% as a reward for liquidating the loan.

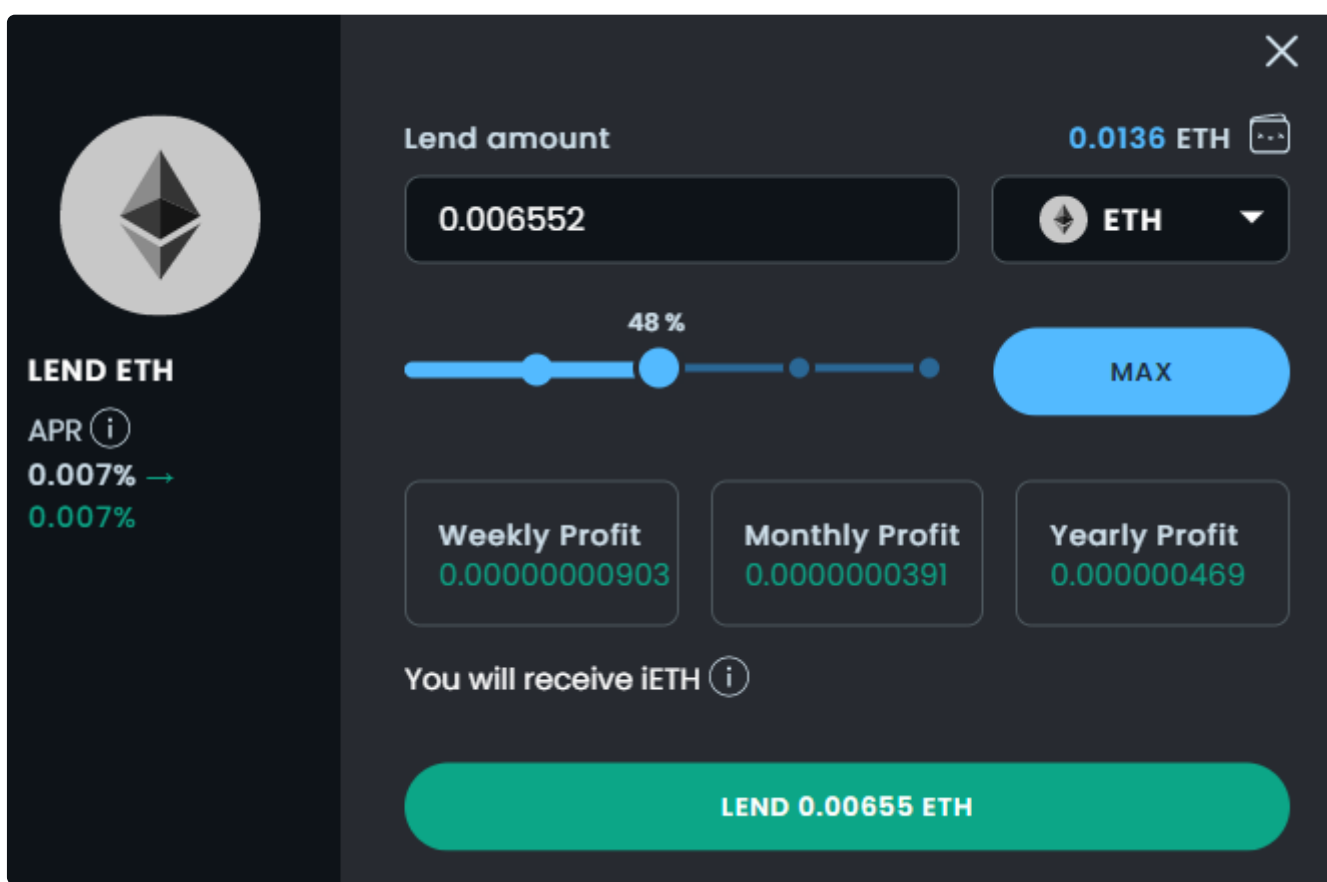
Ooki Protocol is a fully decentralized non custodial lending protocol which allows lenders to easily lend out and earn return on their cryptocurrency assets.

Opening a Loan

- Visit the lending page at ooki.com/lend
- Connect your wallet



- Select which asset you want to lend and Click Approve Spending and Confirm in MetaMask
- The lending page displays the total liquidity and lending rate for each asset currently available to lend on the platform.



- Once a user select which asset they want to lend out, a modal popup will prompt the user to enter the total funds that they want to lend out, and calculates the anticipated Weekly/Monthly/Yearly Profile based on the current lending APR.
- After selecting the total assets to lend out, the user must confirm and approve the transaction in Metamask.

Closing a Loan

Closing a loan is similar to the process of opening a loan.

- Visit the lending page at ooki.com/lend
- Connect your wallet
- View all your open loans and then select which loan you would like to close.
- Once a user select which loan they want to close, a modal popup will prompt the user to enter the total funds that they want to close on the loan.
- After selecting the total assets to close out on the loan, the user must confirm and approve the transaction in Metamask.

Best Lending Rates

Users can view the highest lending rates across all blockchains by visiting the dashboard and viewing the Best Rates box.



How Lending Rates are Determined?

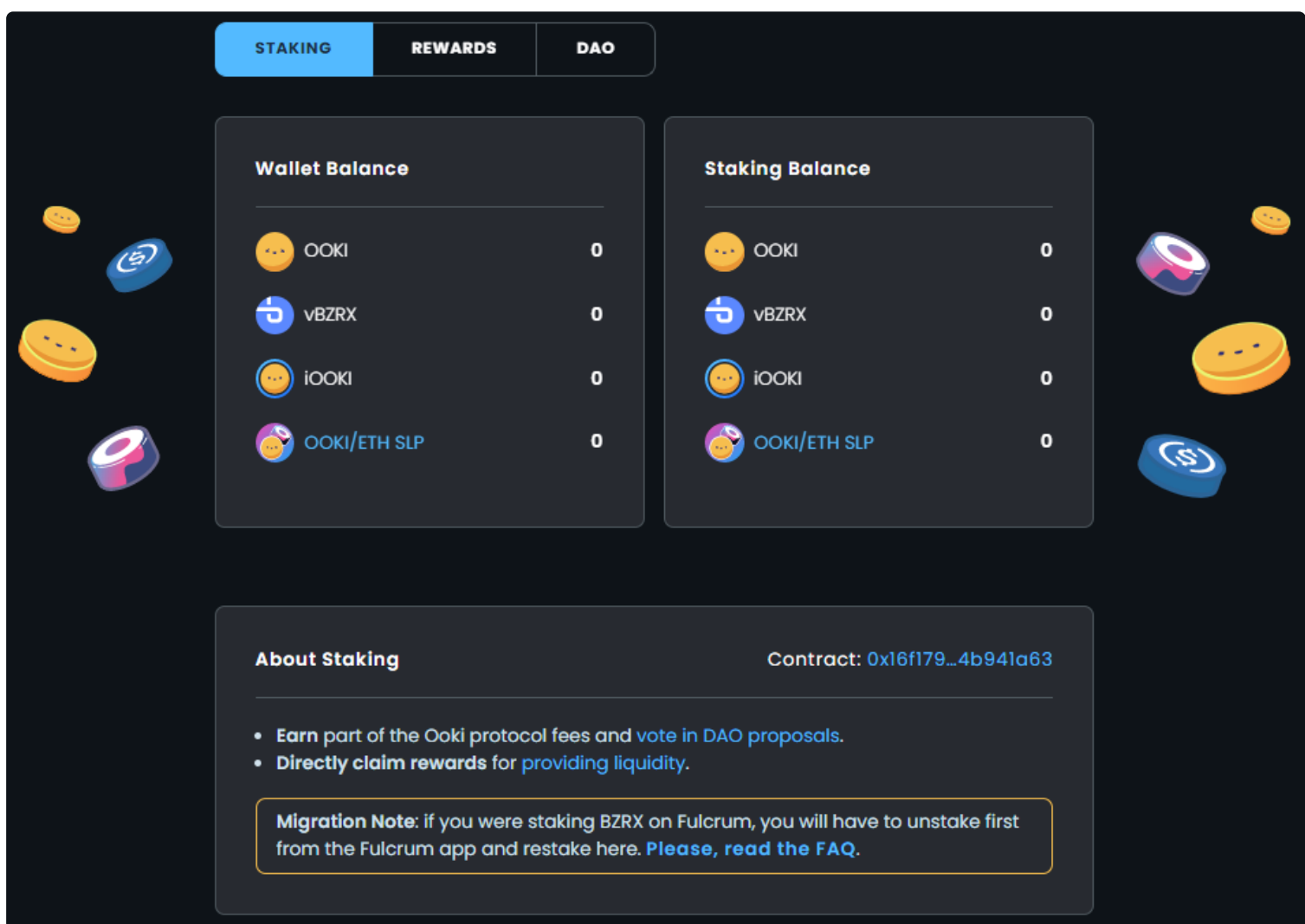
Lending rates are dynamic and adjust in real time based on the current demand and supply for any given asset.

In this section we explain the overall Ooki Staking Model

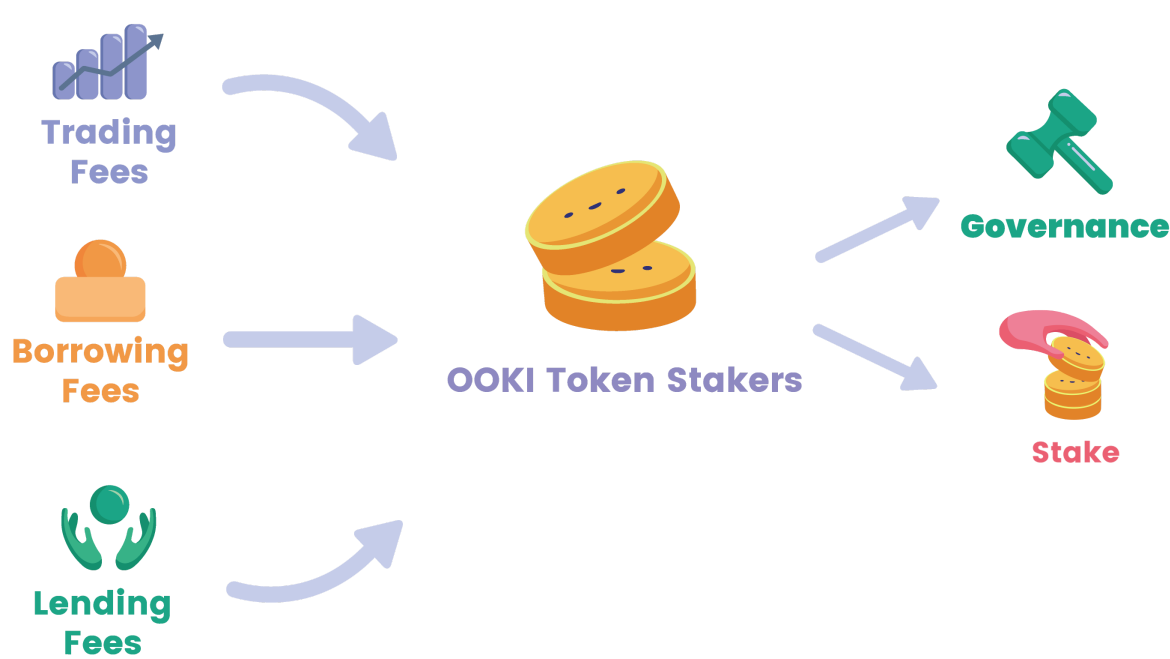
About Staking

Holders of OOKI tokens can stake OOKI to **earn** part of the Ooki protocol fees. Staking is only possible on Ethereum. However, the fees generated on all the different Ooki Protocol deployment chains will be earned by OOKI stakers on Ethereum.

- On **Ethereum** users can visit the Staking page within the Ooki App. Ooki stakers on Ethereum earn fees generated on all chains that Ooki Protocol is deployed on.



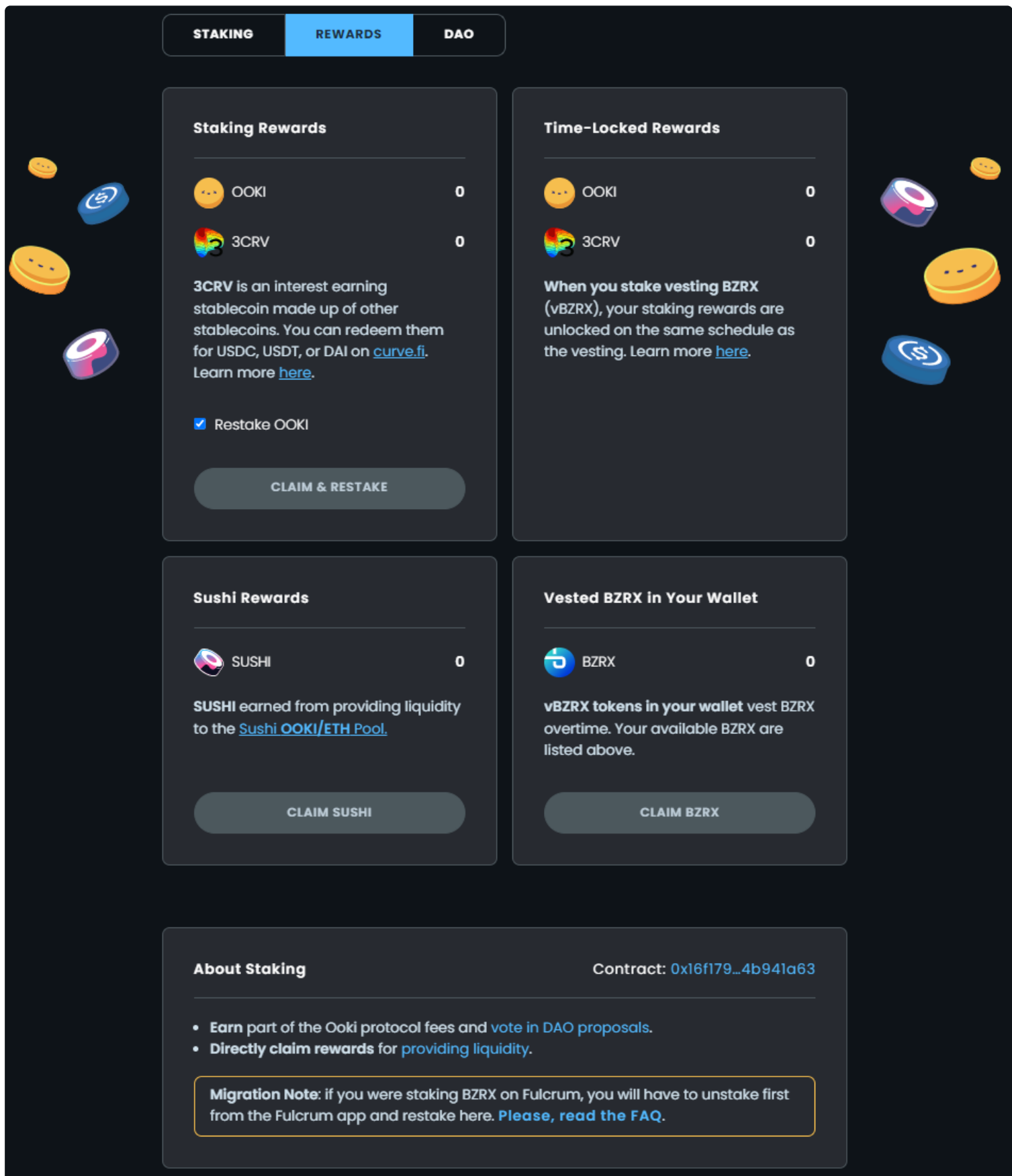
How it works



OOKI token holders can stake their OOKI tokens to earn a portion of fees generated by the platform. The calculation of staking fees is as follows:

- 50% of fees go to treasury contract.
- 50% are distributed to Stakers.
 - Staking rewards are distributed to all users proportionally to how much they have staked of the total OOKI staked supply.
 - Total unstaked amount goes to OOKI/ETH LP providers on Sushiswap
 - Everything else goes to iOOKI, vBZRX, and OOKI.
 - Example: if 10% of total supply of OOKI is staked, then Sushi ETH/OOKI LP's gets 90% of fees.
 - Example: if 90% of total supply of OOKI is staked, then Sushi ETH/OOKI LP's get 10% of fees.
- Users will soon be able to visualize how much OOKI is staked in the UI.
- Statistics on current staking is also coming soon.

Staking Rewards



The rewards tab of the staking page allows users to perform the following:

- Users can view the total rewards they've earned
- Users can claim and restake the rewards they've earned.
- Users can View Time-Locked Rewards.
- Users can claim 3CRV, and OOKI rewards earned as well as SUSHI rewards from providing liquidity.
- 3CRV rewards which are distributed to stakers of OOKI, are earned by the protocol from trading fees on stablecoins traded on the platform. The stablecoin earned from trading fees are then converted to 3CRV and distributed to OOKI Stakers.
- Fees generated on the platform from non stablecoin trading pairs are sold and used to buy OOKI and then distributed to OOKI Stakers as rewards.



Fees



List of fees for various activities undertaken on Ooki Protocol:

Activity	Fee	Blockchain
Opening a Loan (Origination Fee)	0.0%	All
Lending (From Profits)	10%	All
Flash Borrow	0.03%	All
Trading	0.15%*	All

*Trading fee listed above does not include DEX fees used to execute trade.

With Ooki's Dex Selector, Ooki allows users to select the DEX they prefer when executing trades. Currently Ooki supports the following DEX's: sushi, uni v3, and pancake.

Other dexes are planned integrations as of now: Kyber, Curve, Uniswap v2.

Discounts for OOKI Token Holders

Users of the OOKI protocol receive a discount on trading fees listed above simply by holding OOKI tokens in their wallet (applicable to all chains):

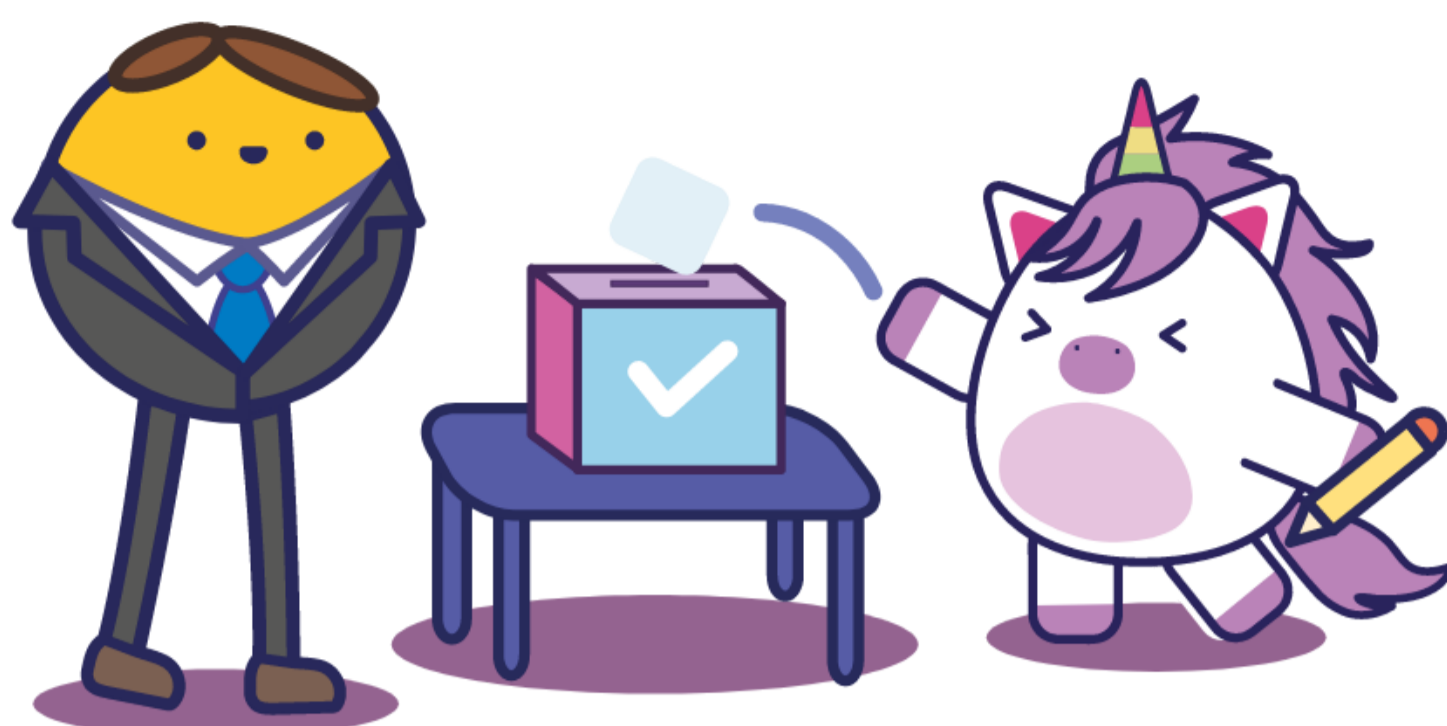
OOKI Amount	Discount Amount
100,000 OOKI	10% Discount
1,000,000 OOKI	15% Discount
10,000,000 OOKI	20% Discount

Pay with OOKI Discount

Paying with OOKI gets another 30% discount. Paying with OOKI may not always be exactly 30% discount due to price fluctuations and discrepancies between feed and current market price though.

Example: If a user has \$10 in fees and opts to "**Pay with OOKI**" and also has 10m OOKI in their wallet. The users discount amount would be the following: $\$10 \times 0.8 \times 0.7$. So the users total fees would be reduced to \$5.6 from \$10.

With Ooki, power is shared by all and incentives are aligned. Find all the details regarding governance of the Ooki protocol below.



How does the OOKI Dao Governance Work?

Stage 1: Forum Discussion

Proposals will be initiated in the [Ooki Forum](#) for community discussion, input and buy-in. During this stage new suggestions and changes will be discussed and debated by anyone in the community. Proposals should be outlined and discussed at this stage until community consensus and buy-in is reached. After a OOIP is submitted on the forum it undergoes a period of discussion for a least three days.

Stage 2: Snapshot Vote

Upon receiving community input during a discussion period in stage 1, the proposal moves to stage 2 where there will be a [snapshot vote](#). During this stage, token holders can voice their support for or against a proposal by voting with OOKI Tokens. Depending on the results of this vote, whether it is approved or rejected, the proposal will either be tabled, go back to the forum for further discussion, or proceed to the next stage. This phase requires the following:

- Prior discussion in the forum.
- 0.5% to propose
- Greater than 50% of votes in favor to pass a proposal

Stage 3: Ratification

If the proposal passes with a majority it can then proceed to on chain vote. On Chain voting takes place on Etherscan. After the prior two stages have been completed successfully, the third stage of governance is the on-chain governance portion. A fork of the [Compound Bravo Governance Module](#) will be utilized to manage the operation of the DAO. In the future the community may at its discretion choose to utilize a different governance module.

After a proposal is submitted to the Governance module, there will be a formal voting period. At the end of the period the proposal will be either approved and implemented or rejected.

In order to create and submit a proposal to the governance module, an address must have at least 0.5% of the total supply worth of voting power staked in the staking module, to create and submit a governance proposal for voting.

When a governance proposal is created, it enters a 2 day review period, after which voting weights are recorded and voting begins.

Voting lasts for 3 days; if a majority, and at least 3% of the total supply are cast for the proposal, it is queued in the Timelock, and can be implemented 1 day later. In total, any change to the protocol takes at least one week.

In summary, the on chain governance phase requires the following:

- 2 day Review period
- 3 day Voting period
- 1 day Timelock waiting period
- 0.9% of the total supply of OOKI to submit an on chain voting proposal.
- 3% quorum needed of the total supply of OOKI.
- Greater than 50% of votes in favor to pass a proposal

How do I create a OOIP?

To create an Ooki Improvement Proposal (OIP) follow the template on the [forum](#) and simply post it. Once the proposal has been discussed for three days. It will reach community consensus and proceed to the next step of community snapshot proposal vote.

What types of proposals can be created for DAO approval?

Various ecosystem parameters can be decided on by the community. As the governance process formalizes and evolves, these parameters will grow. A few examples:

- Funding proposals
- Fee proposals
- Token proposals
- Ecosystem parameters
- Marketing initiatives
- Development roadmap and feature prioritization
- Salaries and personnel changes

The proposals are generally intended to give high level guidance for team members to implement, and not to control granular decision making processes.



Proposals and Voting

OOKI Token Holders have the opportunity to vote and participate in governance in multiple ways.

- Create Forum Proposals Ooki Improvement Proposals (OOIP)
- Participate in Forum Discussion about Existing Proposals
- Vote on Snapshot Proposals
- Vote for On-Chain Votes through Etherscan.

Where can I vote?

For the first step, you will vote on the official [Snapshot page](#).

Voting power is given by **staking** your OOKI tokens. For the on chain voting, you can use Etherscan.

Following the Snapshot vote, the proposals proceed to on chain voting. Users can vote for proposals that are in the on chain vote stage by visiting the Tally UI:

<https://www.tally.xyz/governance/eip155:1:0x3133b4F4dcffc083724435784fEFAD510FA659c6>

How to vote on chain through Etherscan?

First, you need to go to the governance contract page on Etherscan, on the "Write as Proxy" tab. Here is a [direct link](#). Then connect your wallet.

On this page, locate the "castVote" function (14). You will have to fill `proposalId` and `support`.

- For `proposalId` : At the moment, ask the team for the right proposalId.
- For `support` , you either put `1` or `0` . "1" means you are in favor, 0 means you are against the proposal.

What is an OOIP?

Ooki Improvement Proposals (OOIPs), are the main form of governance. They are written proposals made by a team or community member who desires changes made to the protocol or products. They are posted on the forum and their main objective is to engage discussion with the community and look for its approval.

Can I vote on a snapshot using deposited/staked OOKI?

Yes.

Once a proposal has passed Snapshot vote it then proceeds to onchain voting. Once a proposal has passed onchain voting then the team will consider and implement it.

Who can participate in the OOKI DAO Voting?

Token Holders with DAO voting rights is not limited to OOKI token holders. Ability to vote and participate in Ooki DAO governance is extended to holders of: OOKI, iOOKI and vBZRX. All of these tokens can be staked on the staking dashboard and will factor in to a user's voting power.



Delegating



Users who have staked OOKI, SLP, etc. can easily delegate their voting power to another address.

Benefits of delegating:

- If you otherwise weren't planning to vote, your vote will be used to vote on Ooki DAO Proposals by the person you've delegated to.
- If you don't have time to remain active, or participate in governance, you can choose an active community member to vote for you.
- If you have a small amount of tokens, delegating voting power is a less expensive way of participating in governance because when you Delegate your vote, you don't need to pay gas fees each time you vote for a proposal.

Who to delegate to?

Voting power can be delegated to any Ethereum address. We submitted a request for community feedback about who they would like to see included in a list of recommended delegates. We compiled a list of a few recommended active Ooki community members based on this feedback. This list is meant to serve as a starting point for people who want to delegate voting power but are not sure who to delegate it to. Delegated voting power can be revoked at any time. There is no requirement to delegate voting power to anyone from the list below.

Ooki Team Wallet

You can delegate voting power to the Ooki core team:

Ooki Core Team

Address: 0x02c6819c2cb8519aB72fD1204A8A0992b5050C6e

Active Community Members

Here are community members who have been actively participating in the evolution of the protocol who you can delegate your voting power to. We will provide more details about each one of them soon.

BadriNat

Address: 0x3fda2d22e7853f548c3a74df3663a9427ffbb362

Plumbus

Address: 0x9030b78a312147dba34359d1a8819336fd054230

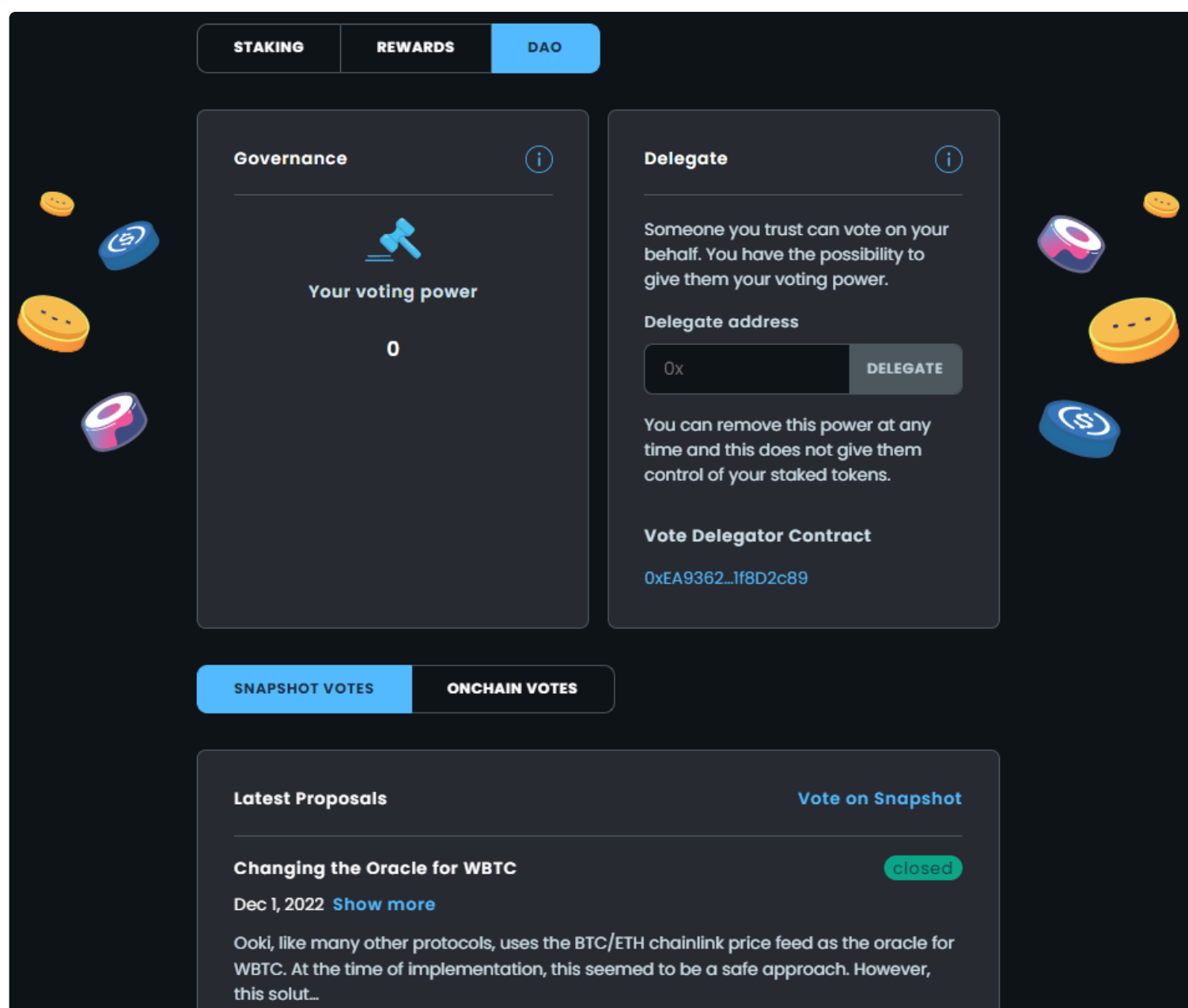
Manish

Address: 0xDC24DbB72A27873eDf011787b00e43Cbc64Db624

Hennadii

Address: 0x101ffd37d33b3df6e4c3824362b7486a56d2e45e

How to Delegate



Under the Delegate section, enter the address of the user who you would like to delegate your voting power to then click delegate and confirm the transaction in Metamask.

You can always choose to delegate to a new address by updating or removing the delegate address. You can also unstake and you will automatically undelegate.

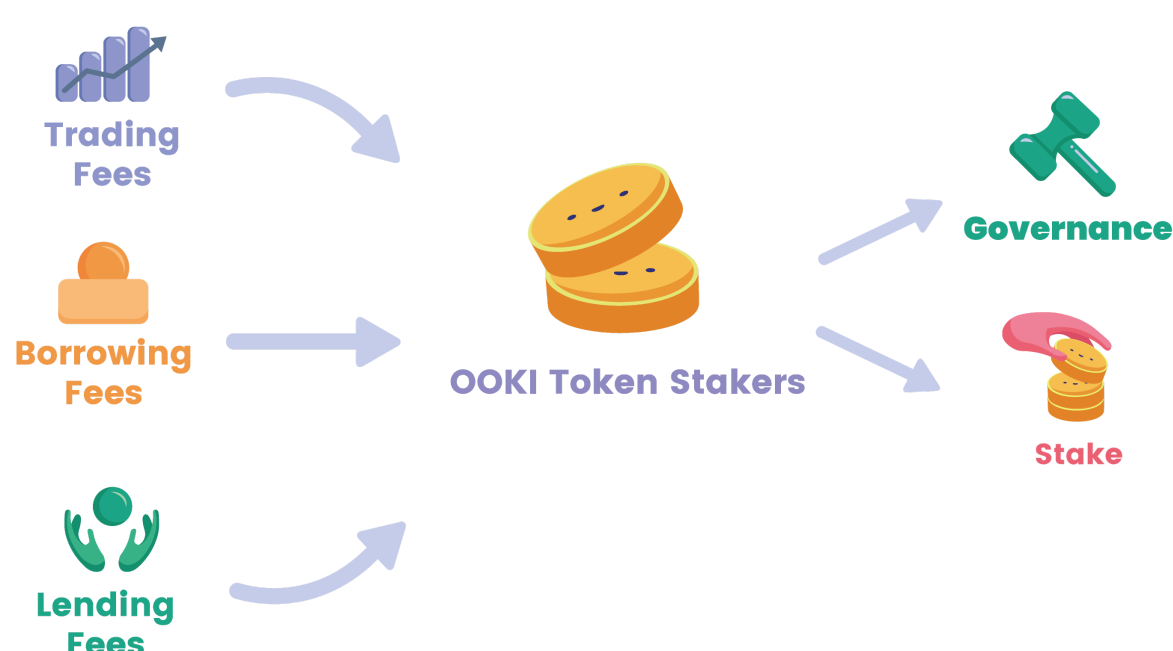


Ooki Protocol has two primary tokens:

- **OOKI:** OOKI is the primary token of the platform. The current maximum supply of OOKI is 10.5bn.
- **iTokens:** iTokens, such as iDAI or iUSDC, are interest accumulating tokens that continuously go up in value as you hold them.

We have a third token, called **vBZRX**. This token is a vesting token. It slowly releases tokens that can be claimed for OOKI. The amount of vBZRX emissions is declining over time as they are converted to OOKI. The **vBZRX** token also results in increased voting power as it can be used for voting as all unvested vBZRX has voting power.

OOKI



OOKI Token Contract: `0x0De05F6447ab4D22c8827449EE4bA2D5C288379B`

OOKI is a governance token first and foremost. An active and vibrant community of stakeholders collectively advancing the protocol is at the heart of Ooki.

Users who stake OOKI tokens are eligible to earn fees generated by the protocol and are able to vote for representatives responsible for approving upgrades to the protocol.

OOKI is designed to kickstart liquidity, and network effects by aligning stakeholders long term interests.

The current maximum supply of OOKI is 10.5bn OOKI Tokens.

vBZRX

vBZRX Token Contract: `0xb72b31907c1c95f3650b64b2469e08edacee5e8f`

OOKI tokens can be claimed over time from vBZRX.

iTokens

iTokens, such as iDAI or iUSDC, are interest accumulating tokens that continuously go up in value as you hold them. They represent a share in a lending pool that grows in size as borrowers pay interest into them. iTokens can be traded, used as collateral, composed by developers into structured products, or sent to cold storage for safety.

iTokens constantly accrue value and increase in price because its underlying assets are loaned out to borrowers. Two notable features of iTokens are that they compounds each second (as opposed to per block) and that their exchange rate is capable of falling if the underlying pool suffers a loss. This makes them well suited for risk management derivatives to be built on top.

Minting an iToken

When the iToken contract for an asset is first deployed, it creates on-chain base protocol order objects corresponding to each level of leverage. The initial margin of the order object defines the level of leverage, and each order object has margin maintenance set at 15%. The length of the loan in the order object is defined as 28 days. When a lender wants to create a loan, they invoke the function `mintWithEther` when loaning ETH, or if loaning an ERC20, approve a token allowance and invoke the function `mint`.

Anyone can borrow directly against the iToken to execute a typical base protocol loan with a fixed interest rate. Alternatively, loans can be taken by calling the `borrowTokenFromEscrow` function through a pToken contract, which will then mint pTokens using the loan. Calling either `borrowTokenFromEscrow` or `borrowToken` causes the iToken liquidity to be added to the appropriate order object corresponding to the level of leverage specified by the borrower. The interest rates on loans initiated by the pToken contracts are dynamic, reacting in real-time to the supply and demand of lending and borrowing as described in the section below titled Interest Determination. When the loan is taken by a borrower, the 28 days begins. Once a loan has been initiated, each subsequent borrower at that level of leverage partially fills the loan order but does not refresh the expiration date.

Closing an iToken

Lenders are able to divest themselves of an iToken position in two ways: burning the token (Via our UI or the directly through the smart contract) or selling it on the open market. When an iToken holder burns the iToken, the funds they deposited are returned to their address immediately, assuming doing so does not bring loan utilization over 100%. In the case that burning the iToken brings loan utilization over 100%, as much of the funds that can be returned are returned. When a redemption does not result in a full refund due to the pool reaching maximum utilisation, the remaining iTokens are returned to the users wallet for later redemption.

It is most likely that loan utilization will not stay near 100% for any substantial period of time, as the interest rate mechanics are designed to incentivise liquidity in the lending pools. When loan utilization is near 100%, the interest rate will be high, attracting loan interest, and discouraging existing borrowers from continuing with their positions. This will create liquidity for lenders wanting to exit their iToken positions. Lenders continue to earn interest on any funds not returned to them, even if all their iTokens are burnt.

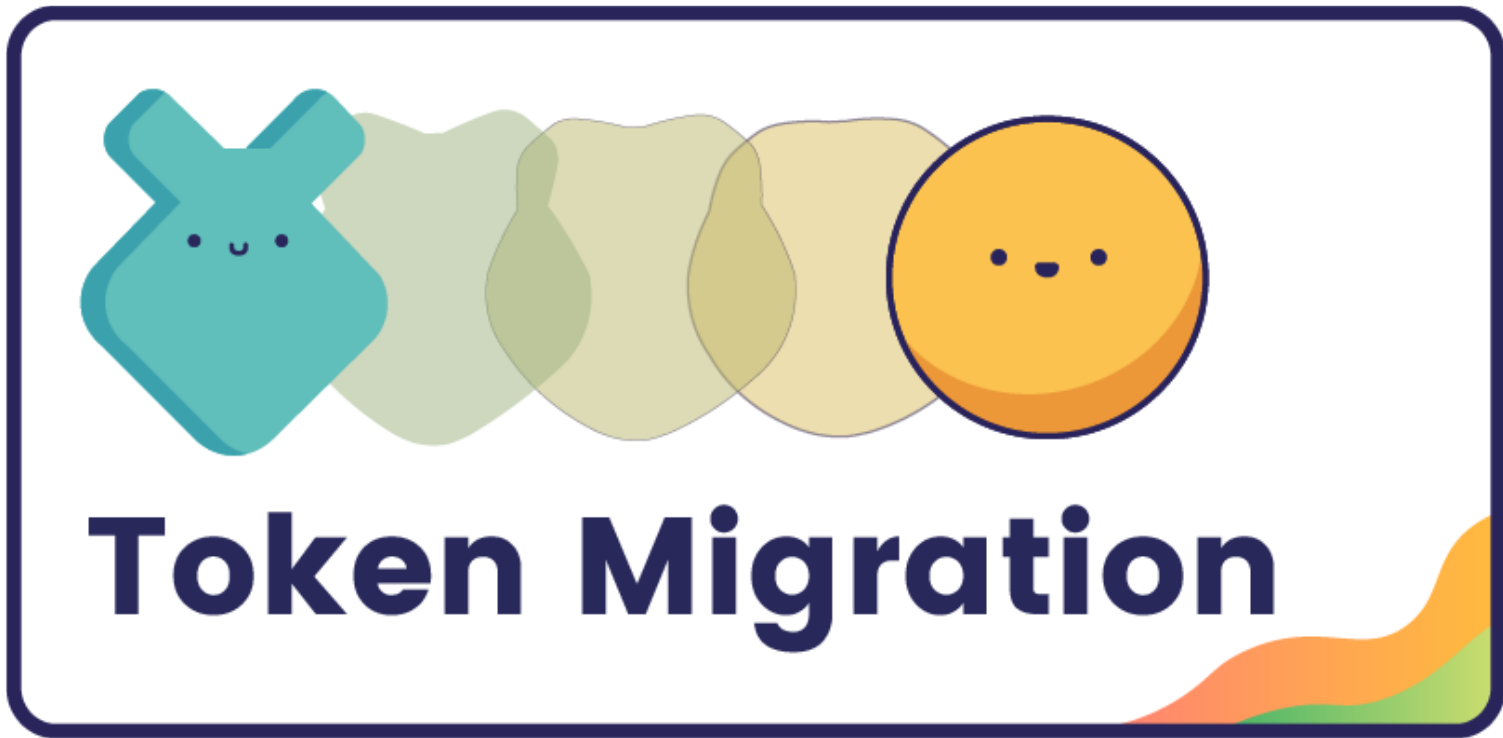
For each token listed on OOKI, there is an equivalent ltoken contract.



Token Migration



This page guides BZRX holders to convert BZRX to OOKI. See migration instructions below:

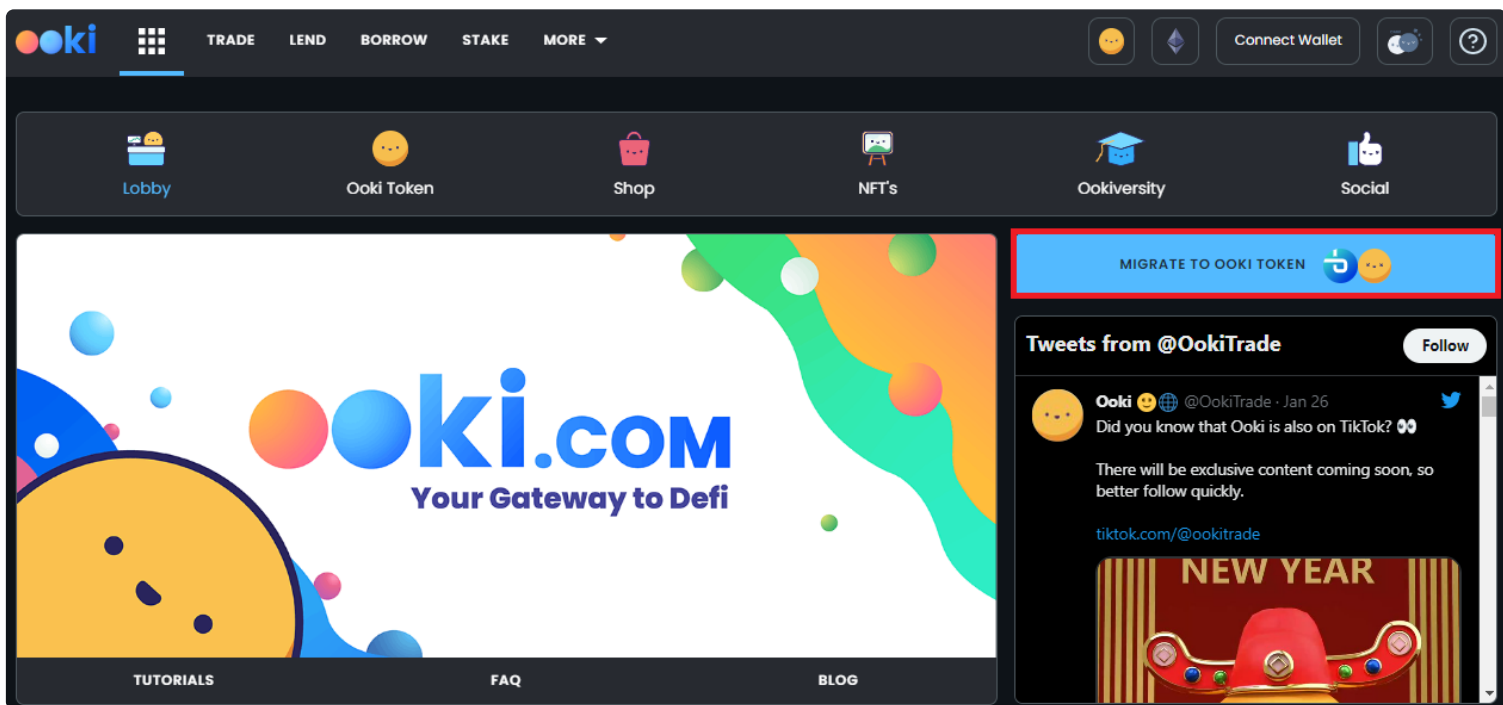


When To Migrate?

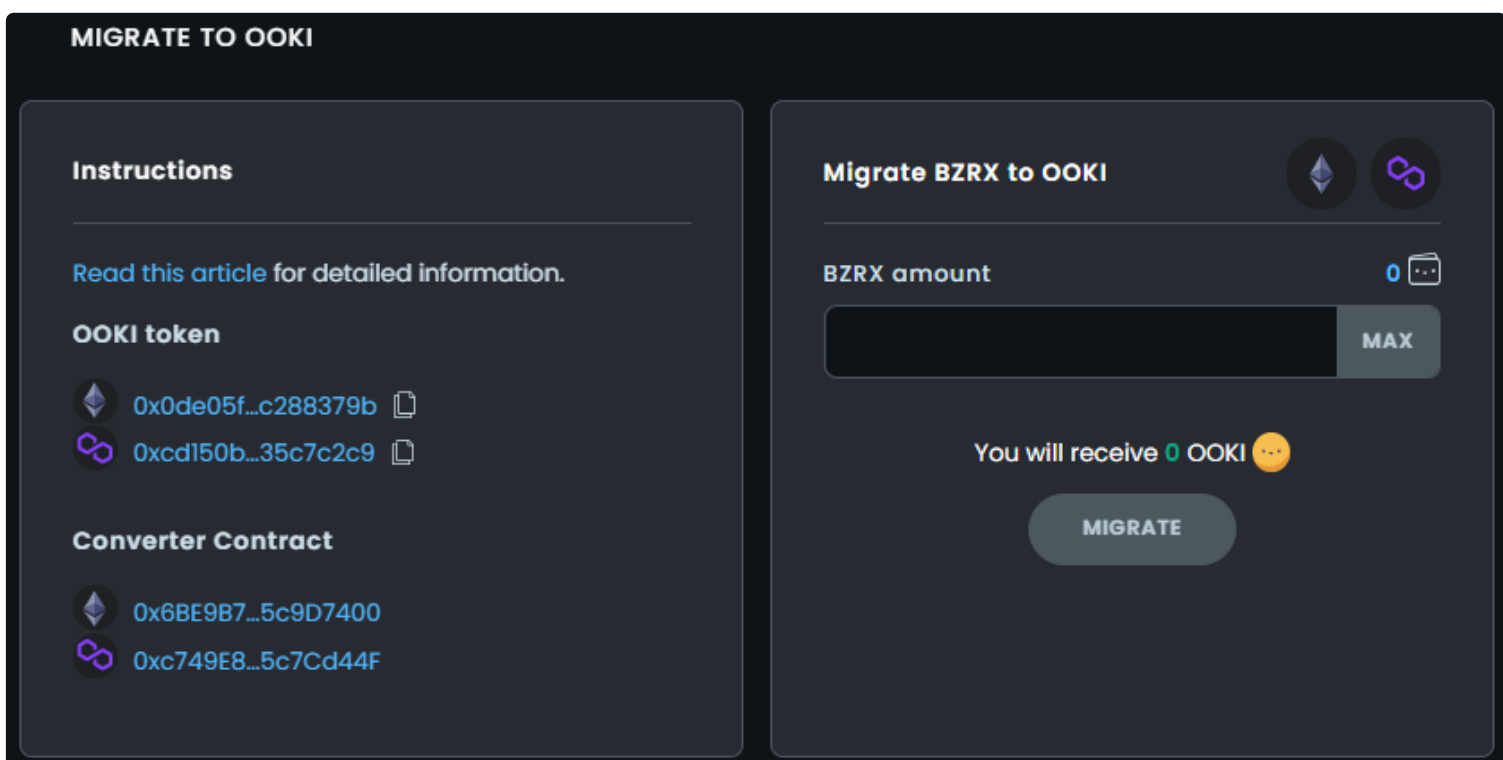
Token migration will start on December 18, 2021.

How to Migrate?

To begin Migrating your Token Click the Migrate Button on the Ooki App Dashboard Page:



Then Click Select the Chain and the Token that you wish to migrate and from there Click the Migrate Button and Approve the transaction in MetaMask.



BZRX

BZRX Token is migrating to OOKI token. Below is relevant information to help you to achieve a smooth migration.

- Users can only migrate BZRX to OOKI when tokens are on the Ethereum network.
- No deadline to convert your tokens from BZRX to OOKI.
- BZRX to OOKI conversion rate is 1 BZRX = 10 OOKI.
- The UI to migrate can be found on the Ooki Platform.

PGOV / BGOV

- Holders of PGOV/BGOV must convert to BZRX first on polygon/bsc.
- After converting, then bridge the BZRX to Ethereum and Convert to OOKI using the converter linked above.
- Users can perform the migration of PGOV/BGOV following the instructions in this link: <https://bzx.network/blog/gov-token-migration>

Other

- **vBZRX:** For staked vBZRX, the part of BZRX that has vested is auto migrated to OOKI when user claims rewards. For vBZRX in your wallet, you must claim the vested BZRX (in the [staking rewards section](#)) and manually migrate from BZRX to OOKI.

⚡ Flash Borrow



Flashborrow has the following arguments:

```
iToken.flashBorrow(uint256 borrowAmount, address  
borrower, address target, string signature, bytes  
data)
```

Example can be found



GitHub - bZxNetwork/flashloan-sample

GitHub

Sweep Fees ⋮

What is Sweep Fees?

Calling the sweep fees function will sweep any accumulated rewards generated from trading fees and distribute the fees to OOKI token stakers.

How to call sweep fees

There are no restrictions on minimum fee accrual as well as incentive for calling on Ethereum. Here are the list of contracts which can be used to call sweep fees:

BSC sweep fees: `0xC9726942C732fa048dC56f0DeBea7fB2c596bA8C`

Polygon sweep fees: `0x8c02eDeE0c759df83e31861d11E6918Dd93427d2`

Arbitrum sweep fees: `0xcbDE8C5603D4bA855a162A450B1d054A02D8448f`

Ethereum receiver/converter: `0xcbDE8C5603D4bA855a162A450B1d054A02D8448f`

Ethereum sweep fees: `0xfFB328AD3b727830F9482845A4737AfDDDe85554`

The process for calling the function remains the same: Call `sweepFees()` or `sweepFeesByAsset(address[])`.

In order to call the function there is a minimum amount of fees that must be reached. The minimum amount is the following: BSC and Arbitrum \$1, Polygon \$1,428, and Ethereum \$0



Interest Rates



Ooki utilizes an innovative interest rate formula. Rates are reactive and are optimized for 80% utilization. A utilization rate of 80% is targeted and parameters adjust in realtime to target this rate depending on total utilization of lending pools. The main goal of Ooki's interest rate mechanism is to ensure borrowers and lenders receive optimal rates when opening new positions on Ooki.

Guardians

Guardian multisig contracts are used for emergency pauses to the protocol. A 'multisig' contract generally requires multiple signatures from different addresses for a transaction to be executed. The Guardian multisig used on Ooki uses 3 of 4 signatures for protocol transactions and 2 of 3 for infrastructure transactions.

Ooki is governed by a DAO on Ethereum. Each deployment on L2 (BSC, Polygon, etc) is currently controlled by multisig contracts controlled by Guardians. Later this year these deployments will be managed by the Ooki DAO on a single chain.

ETH and L2 Guardians are used in the very unlikely event of an emergency where a temporary intervention of the Guardians is required to stop limited functions from working, e.g. minting or trading, as a failsafe in the event of malicious activities. Below is a list of properties of Guardian contracts:

- Guardians can't deploy or change the protocol.
- Guardians can only be replaced by a DAO vote.
- All Guardians are using hardware wallets to increase security further.
- Each Guardian multisig contract is controlled by three or more individual Guardians.
- BSC and Polygon Guardians have the power to deploy new code and change anything. We trust the Guardians, for now, to deploy only what has been voted and act in the best interest of the protocol.
- All deployments were switched to being managed by Guardian multisig.
- Guardian multisig has the power to stop the protocol.
- Infrastructure multisig is used for handling the regular course of business payments approved by the Ooki DAO.

The contract addresses for Ooki Protocol Guardian are listed below:

Polygon Guardian multisig:

```
https://gnosis-safe.io/app/matic:0x01F569df8A270eCA78597aFe97D30c65D8a8ca80/transactions/queue
```

ETH Guardian multisig:

```
https://gnosis-safe.io/app/eth:0x9B43a385E08EE3e4b402D4312dABD11296d09E93/transactions/queue
```

BSC Guardian multisig:

```
https://gnosis-safe.io/app/bnb:0x82cedB275BF513447300f670708915F99f085FD6/transactions/queue
```

Infrastructure Multisig

```
https://gnosis-safe.io/app/eth:0x2a599cEba64CAb8C88549c2c7314ea02A161fC70/balances
```

Arbitrum Multisig

```
https://arbiscan.io/address/0x111F9F3e59e44e257b24C5d1De57E05c380C07D2
```



Audits



Ooki is committed to ensuring the security of funds on the protocol. Here's how Ooki keeps the platform safe:

We value the work of white hat hackers who help us maintain the security of our platform. As the TVL of the protocol scales, we will scale these figures upward. It is our goal to have the most favorable bug bounty to asset locked ratio in the industry. If you have a bug report reach out to a mod in our Telegram group: <https://t.me/OokiTrade>

Scope

This bug bounty program is focused on the prevention of negative impacts to Ooki protocol and covers smart contracts and app and is focused on preventing:

<https://github.com/OokiTrade/contractsv2>

- Exploits resulting in the locking, loss, or theft of user funds.
- Governance manipulation.
- Exposure of infrastructure private keys and/or PII.
- Direct theft of any user funds, whether at-rest or in-motion, other than unclaimed yield
- Permanent freezing of funds
- Insolvency
- Loss of user funds by freezing, theft, or manipulation of price
- Unable to call smart contract
- Thefts and freezing of principal of any amount
- Thefts and freezing of unclaimed yield of any amount
- Theft of governance funds

Assets in scope

Only the in the Assets in Scope table are considered as in-scope of the bug bounty program.

Rewards by Threat Level

Rewards are distributed according to the impact of the vulnerability. Critical smart contract and blockchain bug reports are further distributed according to the following tier system:

- Tier 1 - Critical \$50k
- Tier 2 - High \$25k
- Tier 3 - Medium \$5k

Submission Requirements

All smart contract and bug reports must come with log components, reproduction, and data about vulnerabilities to support learnings and bug fixes. This can be satisfied by providing relevant screenshots, docs, code, and steps to reproduce the issue.

All bug bounty hunters to complete the program's KYC requirements if they are submitting a report and wanting a reward. The information needed is an ID photo along with a scan of a utility bill to show residency proof.

Out of Scope

- Any testing with mainnet or public testnet contracts; all testing should be done on private testnets
- Any testing with pricing oracles or third party smart contracts
- Attempting phishing or other social engineering attacks against our employees and/or customers
- Any testing with third party systems and applications (e.g. browser extensions) as well as websites (e.g. SSO providers, advertising networks)
- Any denial of service attacks
- Any violation of privacy of network users, other bounty hunters or Wormhole Foundation
- Automated testing of services that generates significant amounts of traffic
- Public disclosure of an unpatched vulnerability in an embargoed bounty

The following activities are prohibited by this bug bounty program:

- Theoretical vulnerabilities without any proof or demonstration
- Content spoofing / Text injection issues
- Self-XSS
- Captcha bypass using OCR
- CSRF with no security impact (logout CSRF, change language, etc.)
- Missing HTTP Security Headers (such as X-FRAME-OPTIONS) or cookie security flags (such as "httponly")
- Server-side information disclosure such as IPs, server names, and most stack traces
- Vulnerabilities used to enumerate or confirm the existence of users or tenants
- Vulnerabilities requiring unlikely user actions
- URL Redirects (unless combined with another vulnerability to produce a more severe vulnerability)
- Framing sensitive pages leading to financial loss (ClickJacking)
- Lack of SSL/TLS best practices
- DDoS vulnerabilities
- Attacks requiring privileged access from within the organization
- Feature requests
- Best practices

Websites and Apps

- Network denial of service on Guardians is not eligible for bug bounty rewards
- Frontrunning, including backrunning and sandwich attacks.
- Incorrect data supplied by third party oracles
- Not to exclude oracle manipulation/flash loan attacks
- Basic economic governance attacks (e.g. 51% attack)
- Lack of liquidity
- Best practice critiques
- Sybil attacks
- Centralization risks
- Bugs in dependencies (unless they lead to equivalently direct attacks on Wormhole).
- Any secret data checked into the repository. Such as API/AUTH tokens.

Smart Contracts and Blockchain

- Attacks that the reporter has already exploited themselves, leading to damage
- Attacks requiring access to leaked keys/credentials
- Attacks requiring access to privileged addresses (governance, strategist)

The following vulnerabilities are not eligible for a reward:

- Exploits that require access to the Timelock admin keys or Price Feed admin keys
- Cases involving risks of losses to the pool in case the assets in the pool decrease in price
- Cases involving price manipulation on exchanges
- Exploits that are not economically practical to execute
- Exploits due to delays or sizes of price feed updates
- In general, we assume that the fees earned from swaps and leverage trading over a period of a few months will be larger than any potential losses from price updates, we will be analyzing past data to adjust the fees and parameters for this.



Price Oracle



Oracles are one of the cornerstones of a decentralized financial application. Without reliable, secure oracles, user funds could be at risk of an attack. Chainlink's decentralized oracle infrastructure, high quality data, and security-reviewed node operators fetch and aggregate market data from numerous premium data aggregators.

This provides the Ooki protocol extensive volume adjusted market coverage across all DEX and CEX trading environments, ultimately arriving at a price feed that is highly available, accurate, and tamper resistant. Chainlink oracles are used at three critical junctures in the protocol:

- opening a loan/trade
- liquidating a loan/trade,
- dispensing protocol rewards.

When opening a loan/trade and liquidating a loan/trade, it is critical to verify that the collateral after the liquidation incentive exceeds the borrowed amount and/or meets the parameters for closure.

When dispensing tokens in exchange for activity, it is critical that the disbursement does not exceed the payment. Since the protocol is not natively aware of the price of its own network token, Chainlink oracles provide the most fitting solution.

Benefits of Using Chainlink for Decentralized Price Feeds

- Chainlink does not suffer from an insufficiently decentralized oracle, and the security of its infrastructure is able to scale with the value in our contracts.
- Chainlink provides access to high quality data, due being able to access credentialed APIs. As a result, they avoid low quality data sources, such as those pulled from a single source that doesn't provide the actual market price across various market conditions.
- Chainlink provides high quality node operators, maintains high quality control standards around their nodes, and provides unprecedented transparency regarding their node operators, strengthening the oracle's reliability in producing consistently trusted oracle reports. Their solution does not rely on security through obscurity to create a false sense of security, or provide almost no provable information about the nodes we'd actually be relying on to provide price data to our smart contracts.

Avoiding Frontrunning

⋮

BetaRPC is the most feature-rich RPC endpoint for DeFi wallets. By aggregating majority of public+private RPC endpoints as well as MEV relays(like FlashBots) and leveraging smart routing between them it provides numerous benefits to its users:

1. Mitigates negative externalities of MEV(like front-running or sandwiches)
2. Protects against failed transactions via MEV bundles when necessary(don't pay gas fee for failed NFT mints)
3. Back-runs all eligible transactions and provides full rebate to its users
4. And you receive all benefits above for free without sacrificing speed of transaction confirmation when MEV protection isn't necessary like simple ETH or token transfers.

Why BetaRPC?

Using betarpc.io provides advantages on following fronts:

- (I) Speed of transaction confirmation
- (II) Mitigating payment for failed transactions
- (III) Uncle insurance fund[EXPERIMENTAL]
- (IV) No extra fees and minimal logging

Learn More at: <https://github.com/mevalphaleak/BetaRPC-setup>

Using Brownie you can interact with the Ooki contracts. Below is an explanation for using each function. See our github for additional references: <https://github.com/bZxNetwork/contractsV2>

OOKI Token Contract

```
0x0De05F6447ab4D22c8827449EE4bA2D5C288379B
```

cOOKI/vBZRX Contract

```
0xb72b31907c1c95f3650b64b2469e08edacee5e8f
```

MintCoordinator

```
0x93c608Dc45FcDd9e7c5457ce6fc7f4dDec235b68
```

IToken Contract

Router Contract

Functions

Load protocol

- ```
BZX = Contract.from_abi("BZX",
"0xfe4F0eb0A1Ad109185c9AaDE64C48ff8e928e54B", interface.IBzx.abi)
```

### Load iTokens

- ```
iUSDTAddress = BZX.underlyingToLoanPool(USDT.address)
```
- ```
iUSDT = Contract.from_abi("iUSDT", address=iUSDTAddress,
abi=LoanTokenLogicStandard.abi)
```

### Approve

- ```
WMATIC.approve(iUSDT, 2256-1, {'from': accounts[0]})
```
- ```
USDT.approve(BZX, 2256-1, {'from': accounts[0]})
```
- ```
WMATIC.approve(BZX, 2**256-1, {'from': accounts[0]})
```

Open Long 5x MATIC/USDT (using matic as collateral)

```
iUSDT.marginTrade('0x0000000000000000000000000000000000000000000000000000000000000000', 5e18  
loan =BZX.getLoan(history[-1].return_value[0])  
Loan has structure  
  
struct Loan {  
    bytes32 id; // id of the loan  
    bytes32 loanParamsId; // the linked loan params id  
    bytes32 pendingTradesId; // the linked pending trades id  
    uint256 principal; // total borrowed amount outstanding  
    uint256 collateral; // total collateral escrowed for the loan  
    uint256 startTimestamp; // loan start time  
    uint256 endTimestamp; // for active loans, this is the expected loan end time, for  
    uint256 startMargin; // initial margin when the loan opened  
    uint256 startRate; // reference rate when the loan opened for converting collate  
    address borrower; // borrower of this loan  
    address lender; // lender of this loan  
    bool active; // if false, the loan has been fully closed  
}
```

Deposit collateral

- ```
BZX.depositCollateral(loan[0], 10e18, {'from': accounts[0]})
```

### Close loan with swap

- ```
BZX.closeWithSwap(loan[0], accounts[0], loan[5], True, b'', {'from':  
accounts[0]})
```

Close loan with deposit

- ```
BZX.closeWithDeposit(loan[0], accounts[0], loan[4], {'from':
accounts[0]})
```

### Get loans

- ```
loans = BZX.getActiveLoansAdvanced(0,100,True,True)
```
- ```
loan = loans[0]
```

### Returning loan and getting collateral:

```
BZX.liquidate(loan[0], accounts[0], loan[13], {'from': accounts[0]})
```

### Rollover

```
BZX.rollover(loan[0], b'', {'from':accounts[0]})
```

### Flash loans/Flash borrow

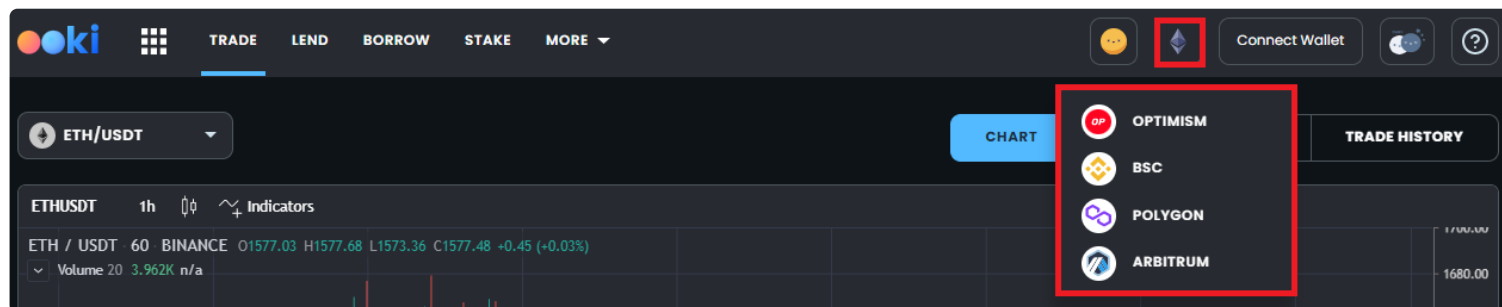
- Flashborrow has the following arguments:
  - ```
flashBorrow(uint256 borrowAmount, address borrower, address target,  
string signature, bytes data), it should be call from contract layer.
```
- Example can be found <https://github.com/bZxNetwork/flashloan-sample>

☞ Multichain



OOKI is dedicated to supporting the latest advancements in blockchain technology. OOKI is constantly growing its ecosystem of supported blockchain protocols in order to further its mission of remaining the industry leader in decentralized margin trading, borrowing and lending.

Currently Ooki supports margin trading borrowing and lending on the following blockchains: **Ethereum, Binance Smart Chain, Polygon, Arbitrum, and Optimism.**



Users can switch between supported blockchains by clicking the blockchain icon within the app UI.

WAS THIS PAGE HELPFUL?



Brand Assets ⋮


Please find Ooki logo below. These are the only official logos. Feel free to use them for any press material!


Please don't use our name, logos, or screenshots ("brand materials") in ways that may be confusing, misleading, or suggest our sponsorship, endorsement, or affiliation. Please check in with us before using our logo on websites, products, packaging, manuals, or for other commercial or product use.

You can use our brand materials for educational and instructional purposes, but please remember that it shouldn't be confusing or misleading, or suggest our sponsorship. We generally don't allow use of our logos or screenshots on book covers, for example.

Ooki Logos


When using logos, keep all of its proper elements intact and do not alter them in any way. This means that distorting, stretching, changing colors, changing fonts, adding or removing any part of the logos, cobranding with another company or addition of extra effects are forbidden.

 **image_2023-01-16_23-26-28.png** 59KB
Image

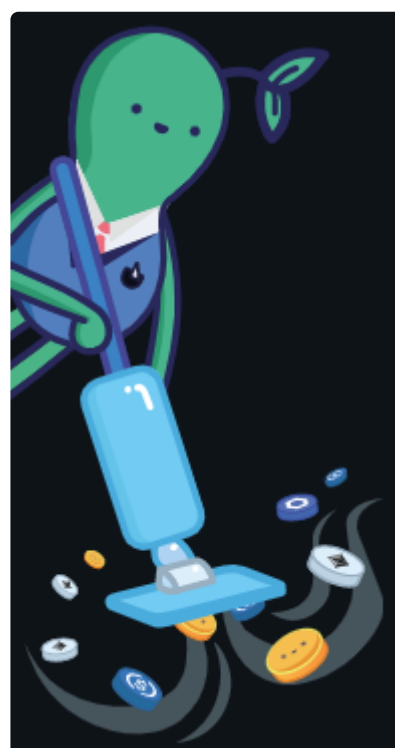
 **ooki-01.svg** 3KB
Image

Ooki Token Logo

 **Ooki Token.svg** 1KB
Image

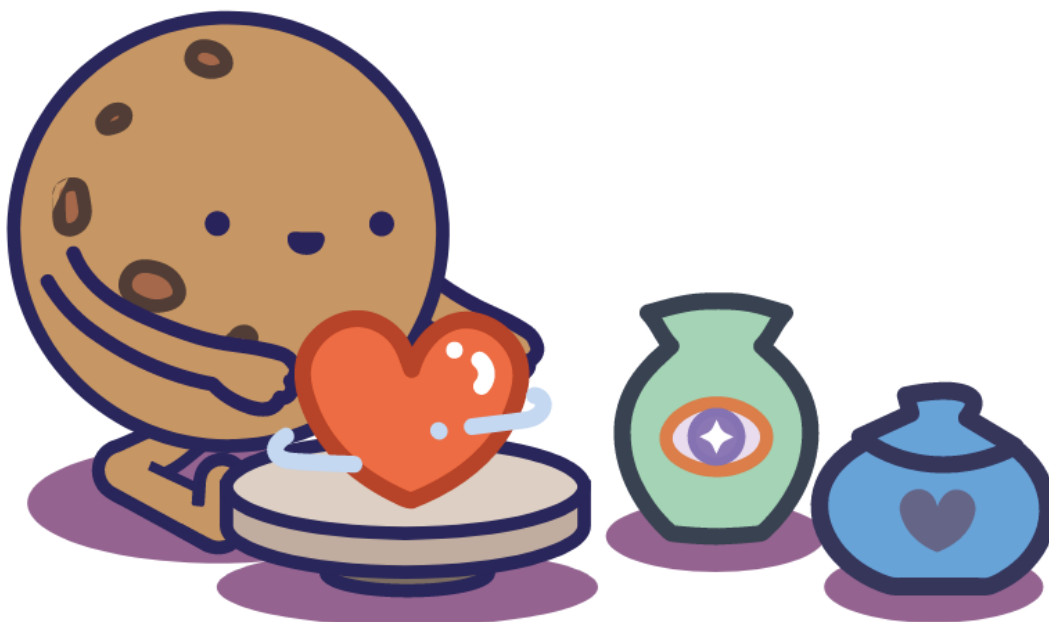
 **Ooki Token.png** 75KB
Image

Mascots



Style Guide ⋮

Below find the Ooki brand book and Mascot Style Guide



Ooki Brand Book



Ooki Brandbook.pdf 3MB

PDF

Mascot Style Guide



Ooki Mascot Guide.pdf 2MB

PDF