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- (c) does not represent or confer on the token holder any right of any form with respect to the Company, the Distributor (or any of their respective affiliates), or their revenues or assets, including without limitation any right to receive future dividends, revenue, shares, ownership right or stake, share or security, any voting, distribution, redemption, liquidation, proprietary (including all forms of intellectual property or licence rights), right to receive accounts, financial statements or other financial data, the right to requisition or participate in shareholder meetings, the right to nominate a director, or other financial or legal rights or equivalent rights, or intellectual property rights or any other form of participation in or relating to NAVI protocol, the Company, the Distributor and/or their service providers;
- (d) is not intended to represent any rights under a contract for differences or under any other contract the purpose or intended purpose of which is to secure a profit or avoid a loss;
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Overview

What Is NAVI?

NAVI is the first Native One-Stop Liquidity Protocol on Sui. It enables users to participate as liquidity providers or borrowers within the Sui Ecosystem.

Liquidity providers supply assets to the market, earning interest income by lending digital assets to other borrowers which require these digital assets for their activities, while borrowers have the flexibility to obtain loans in different digital assets. With its focus on providing essential DeFi infrastructure, Navi aims to be a key player in the rapidly evolving world of DeFi in the Sui Ecosystem.

The protocol's innovative features, such as Automatic Leverage Vaults and Isolation Mode, enable users to leverage their existing assets and access novel trading opportunities with minimized risks. NAVI's design provides support for digital assets at different risk levels based on specific strategies selected by the user, while its advanced security features ensure the protection of user funds and the mitigation of systemic risks.

The name "NAVI" finds its roots in the original Indian language, meaning "Be Kind to People." This philosophy is reflected in the NAVI team's commitment to fostering mass adoption of DeFi by emphasizing the simplicity and security offered by the Move programming language.

Key Offerings:

Earn interest

Borrow

Bluechip Pool & LP-based Pool

Why NAVI?

Navi's offering includes a decentralized liquidity protocol. It allows users to lend and borrow cryptocurrency assets without intermediaries, using a shared liquidity pool system.

Navi's liquidity pools are created for each supported digital asset, and users can deposit their assets into these pools. They receive Navi receipt tokens in return, which represent their share of the pool (i.e. nSUI). These tokens can be used as collateral to borrow other assets from the pool. The collateralization ratio determines the amount that can be borrowed, and it is adjusted dynamically based on supply and demand. More in-depth information can be found in Developer Docs.

NAVI token

Navi has a governance system that allows Navi token holders to vote on proposals and changes to the protocol. This includes setting interest rates, adding new assets to the protocol, and changing the collateralization ratio.

Check out the NAVI token page for a detailed overview of Tokenomics.

Glossary

If you are unsure about any specific terms feel free to check the Glossary.

Overall, Navi's architecture provides a decentralized and efficient way for users to lend and borrow assets, without the need for traditional financial intermediaries.

In the following pages, we'll go in-depth into how the NAVI liquidity protocol works in all its aspects, from high-level mechanics to granular risk management features we've implemented

If you still have any questions or issues, feel free to reach the Navi team over the live chat within the app or in the discord or telegram channel.

Get Tokens on SUI

Start your all-in-one DeFi experience at Navi Protocol

Get your first SUI token

For those who haven't interacted with the SUI ecosystem before, it's necessary to have some SUI tokens in your wallet before starting your DeFi journey in Move community. Below are some tips for you to get your first SUI tokens.

Bridge tokens to SUI Network

If you want to get Tokens on SUI Network through the bridge, you can use the .

Connect. Wormhole is a general-purpose messaging protocol that connects to multiple chains, including Ethereum, Solana, Terra, Binance Smart Chain, Polygon, SUI, Avalanche, and Oasis.

You can get started in minutes with our simple guide below:

Visit on Navi platform or visit the .

First choose which chain you want to transfer assets from, select SUI Network as the destination and connect your Metamask Wallet.

Select the token you want to bridge (WBTC, WETH, USDC or USDT) and the amount.

Connect your SUI wallet, pay the gas on SUI and confirm the transactions of sending and claiming.

Wormhole Connect

Get tokens through DEX

If you want to get Tokens on SUI Network through the AMM, you can use , .

1) Cetus:

Cetus

2) Turbos:

Turbos

Get tokens through CEX

You can also buy SUI tokens from centralized exchanges and withdraw it to your on-chain wallet. Mainstream CEXes like , , all support SUI token withdrawal now.

1) Bybit:

Bybit

2) Kucoin:

Kucoin

3) Binance:

Binance

Supply & Earn

Connect Wallet

Head over to app.navigrprotocol.io to access our APP.

To interact with NAVI, you will need an SUI-compatible wallet.

Click the "Connect Wallet" button at the top right corner of the screen and select your preferred wallet.

You can switch between SUI Mainnet and Testnet using the button on the top right corner. Remember to switch your wallet to the corresponding one before connecting.

Deposit/Supply

First, let's go to the dashboard page where you can supply assets and earn interest yield.

At the "Assets To Supply" list on the left of the page, you can view the available lending markets.

Once the wallet is connected, you can continue to the next step. By clicking the "Supply" button of the asset you owned, you will be able to deposit your assets in the navigational window on the right side. Click the "Details" button, you can view the asset information page.

Select the asset that you will want to supply as collateral.

Input the amount that you would like to deposit using manual input, max, or the slider.

Check the APY, Gas Fee, and Health Factor, then click on confirm to supply.

Check out Protocol Parameters to get a better understanding of these terms.

Once the transaction is confirmed, your supply is successfully registered and you will begin to earn interest.

How to Calculate My Earnings?

nTokens holders receive continuous earnings that evolve with market conditions based on:

The interest rate payment on loans - Suppliers share the interests paid by borrowers corresponding to the average borrow rate times the utilization rate. The higher the utilization of a reserve grows, the higher the interest for suppliers will be. Check out Lending & Borrowing to see the borrow interest rate model in action.

Each asset has its own market of supply and demand with its own APY (Annual Percentage Yield) which evolves with time. We suggest you check the average annual rate over the past 30 days to evaluate the rate evolution. Besides, more historical data can be found on the overview of each asset reserve in the home section of the app.

Is there a minimum or maximum amount to supply?

You can supply any amount you want, there is no minimum or maximum limit. However, it's important to take into account that for small deposits, it is possible that the transaction cost of the process is higher than the expected earnings. It is recommended that you consider this when depositing a small amount.

How do I withdraw?

To withdraw, you need to go to the "Dashboard" section and click on "Withdraw". Select the amount to withdraw and submit the transaction. Be careful, withdrawals may reduce your health factor and increase the risk of liquidation.

Borrowing

What is Borrow?

The key feature NAVI offers is overcollateralized lending/borrowing. This means you can supply an asset as collateral and borrow out another type of asset (check out the section for more info). Please see the below steps for the details

Borrowing

Before borrowing, you need to make sure you have deposited assets as collateral. The maximum amount that users are eligible to borrow depends on the value of deposits, asset type, and the assets' available liquidity.

Once depositing your assets as collateral, select the assets to borrow from the .

Click on "Borrow" at the bottom of the panel, and input the amount to borrow using number input, max, or the slider.

Click on "Confirm" and approve the transaction on the pop-up wallet. Please be aware that the transaction is finalized after approval in the wallet. Sui wallet does not have the 2-step(approve and proceed) process as the majority of EVM wallet does.

Max Borrow

The assets supplied by the user will affect the maximum loan value. The loan amount is limited based on the health factor. When the max button is clicked, the minimum health factor that the user can achieve will be calculated, formula is:

How do I repay my loan?

You repay the loan in the original format of the asset one borrowed. For example, if you borrow 1 Sui initially, you need to pay back 1 Sui + interest accrued(in Sui). You can only repay with your wallet balance, not collateral.

Repay process

If you have debts, the debt amount and "Repay" button will appear at the top of the operation area. Click the Repay button to the next step.

Enter the amount to repay, the tokens will be deducted from your wallet balance.

Click on the "Confirm" button and approve the transaction in Sui compatible wallet

Once the transaction succeeded, the loan is repaid at the input amount.

Liquidations

Introduction

Liquidation is the process that occurs when a borrower's health factor goes below 1 due to their collateral value not properly covering their loan/debt position. This might happen when the collateral decreases in value or the borrowed debt increases in value against each other.

In a liquidation, up to 35% (depending on the token) of a borrower's debt is repaid and that value plus liquidation fee is taken from the collateral available, so after a liquidation that amount liquidated from your debt is repaid.

What is the health factor?

The health factor is the numeric representation of the safety of your deposited assets against the borrowed assets and their underlying value. The higher the value is, the safer the state of your funds is against a liquidation scenario. A Health Factor below 1 suggests that the collateral will enter liquidation phase.

The health factor depends on the liquidation threshold of collateral against the value of borrowed funds. You can find all of the collateral parameters in the Lending & Borrowing section.

If you would like to know more technical details about the health factor calculation, please read more details . We highly recommend to understand these parameters before conduct any borrow/lending activity.

Risk Parameters Safeguard Solvency

For each wallet, these risks parameters enable the calculation of the health factor:

* Liquidation Threshold

The liquidation threshold is the percentage at which a position is defined as undercollateralized. For example, a Liquidation threshold of 80% means that if the value rises above 80% of the collateral, the position is undercollateralized and could be liquidated.

The delta between the LTV and the Liquidation Threshold is a safety mechanism in place for borrowers.

For each wallet, the Liquidation Threshold is calculated as the weighted average of the Liquidation Thresholds of the collateral assets and their value:

* Loan to Value

The Loan to Value ("LTV") ratio defines the maximum amount of assets that can be borrowed with specific collateral. It is expressed as a percentage (e.g., at LTV=75%, for every 1 Sui worth of collateral, borrowers will be able to borrow 0.75 Sui worth of the corresponding currency). Once a borrowing occurs, the LTV evolves with market conditions.

* How much is the liquidation penalty?

The liquidation penalty (or bonus for liquidators) depends on the asset used as collateral. Once the user is liquidated, he will pay a penalty in proportion as a reward to the liquidator. You can find out the parameters for each assets in

* Liquidation Factor

The liquidation factor directs a share of the liquidation penalty to a collector contract from the ecosystem treasury.

What happens when my health factor is reduced?

Depending on the value fluctuation of your supplies, the health factor will increase or decrease. If the health factor increases, it will improve the borrow position by making the liquidation threshold more unlikely to be reached.

In the case that the value of collateralized assets against the borrowed assets decreases instead, the health factor is also reduced, causing the risk of liquidation to increase.

How do I avoid liquidation?

In order to avoid the reduction of your health factor leading to liquidation, you can repay the loan or deposit more assets in order to increase your health factor. Out of these two available options, repaying the loan would increase your health factor more.

Notifications

We are cooperate with to help users better detect changes in their health factors.

The user clicks the "NOTIFI" button to set up notifications. Supports notifications through three channels: Email, Telegram, and Discord. After filling in the email address and telegram username, open the discord connection button and click "Next", at this time, the wallet will pop up a signature request. Please click "Sign".

Now you can enter the main interface of notifications

Click the settings button in the upper left corner to enter the settings interface.

When setting up notification channels for the first time, you need to verify or bind them one by one.

Email

Verification Email

Telegram

Telegram Bot

Discord

After successful verification or binding, you will be reminded of the current health factor dynamics according to the reminder parameters you set (if you do not take any action, we will send you a reminder message every 7 hours)

Liquidation Mechanics & Walkthrough

The health of the NAVI Protocol is dependent on the 'health' of the loans within the system, also known as the 'health factor'. When the 'health factor' of an account's total loans is below 1, anyone can call the to the LendingPool contract, paying back part of the debt owed and receiving discounted collateral in return.

This incentivizes third parties to participate in the health of the overall protocol, by acting in their own interest (to receive the discounted collateral) and as a result, ensure loans are sufficiently collateralised.

There are multiple ways to participate in liquidations:

By calling the `liquidate` directly in the LendingPool contract.

By creating your own automated bot or system to liquidate loans.

For liquidation calls to be profitable, you must take into account the gas cost involved in liquidating the loan. If a high gas price is used, then the liquidation may be unprofitable for you. See the [section](#) for more details.

Prerequisites

When making a `liquidate` call, you must:

Know the account (i.e. the Sui address: `user`) whose health factor is below 1.

Know the valid debt amount (`debt_to_cover`) and debt asset (`debt`) that can be paid.

The close factor is 0.35, which means that only a maximum of 35% of the debt can be liquidated per valid `execute_liquidation`.

You can set the `debt_to_cover` to `uint(-1)` and the protocol will proceed with the highest possible liquidation allowed by the close factor.

You must already have a sufficient balance of the debt asset, which will be used by the `execute_liquidation` to pay back the debts.

Know the collateral asset (`collateral`) you are closing. I.e. the collateral asset that the user has 'backing' their outstanding loan that you will partly receive as a 'bonus'.

1. Getting accounts to liquidate

Only user accounts that have a health factor below 1 can be liquidated. There are multiple ways you can get the health factor, with most of them involving 'user account data'.

"Users" in the NAVI Protocol refer to a single Sui address that has interacted with the protocol. This can be an externally owned account or contract.

On-chain

To gather user account data from on-chain data, one way would be to monitor emitted events from the protocol and keep an up to date index of user data locally.

Events are emitted each time a user interacts with the protocol (deposit, repay, borrow, etc). See the contract source code for relevant events.

When you have the user's address, you can simply call `getHealthFactor` to read the user's current `health_factor`. If the `health_factor` is below 1, then the account can be liquidated.

2. Executing the liquidation call

Once you have the account(s) to liquidate, you will need to calculate the amount of collateral that can be liquidated:

Use on the contract with the relevant parameters.

Max debt that can be cleared by single liquidation call is given by the current close factor (which is 0.35 currently).

$\text{debtToCover} = \text{userVariableDebt} * \text{LiquidationCloseFactorPercent}$

For reserves that have `usage_as_collateral_enabled` as true, the `current_atoken_balance` and the `current` gives the max amount of collateral that can be liquidated

$\text{maxAmountOfCollateralToLiquidate} = (\text{debtAssetPrice} * \text{currentATokenBalance} * \text{liquidationBonus}) / \text{collateralPrice}$

3. Setting up a bot

Depending on your environment, preferred programming tools and languages, your bot should:

Ensure it has enough (or access to enough) funds when liquidating.

Calculate the profitability of liquidating loans vs gas costs, taking into account the most lucrative collateral to liquidate.

Ensure it has access to the latest protocol user data.

Have the usual fail safes and security you'd expect for any production service.

Calculating profitability vs gas cost

One way to calculate the profitability is the following:

Store and retrieve each collateral's relevant details such as address, decimals used, and liquidation bonus as listed here.

Get the user's collateral balance (`nTokenBalance`).

Get the asset's price according to the Navi's (`getAssetPrice()`).

The maximum collateral bonus you can receive will be the collateral balance (2) multiplied by the liquidation bonus (1) multiplied by the collateral asset's price in Sui (3). Note that for assets such as USDC, the number of decimals are different from other assets.

The maximum cost of your transaction will be your gas price multiplied by the amount of gas used. You should be able to get a good estimation of the gas amount used by calling `estimateGas` via your web3 provider.

Your approximate profit will be the value of the collateral bonus (4) minus the cost of your transaction (5).

Example Liquidation Scenario

A user deposits \$100 worth of SUI (70% LTV), and borrows \$50 worth of BTC.

Supply Balance: \$100

Borrow Balance: \$50

Health Factor = $100 * 0,7 / 50 = 1.4$

wBTC price goes up by 50%

Supply Balance: \$100

Borrow Balance: \$75

Health Factor = $100 * 0,7 / 75 = 0,9333$

User is now liquidate-able

Liquidate positions with a health factor below 1.

When the health factor of a position is below 1, liquidators repay part or all of the outstanding borrowed amount on behalf of the borrower, while receiving a discounted amount of collateral in return (also known as a liquidation "bonus"). Liquidators can decide if they want to receive an equivalent amount of collateral aTokens, or the underlying asset directly. When the liquidation is completed successfully, the health factor of the position is increased, bringing the health factor above 1.

Liquidators can only close a certain amount of collateral defined by a close factor. Currently the close factor is 0.35. In other words, liquidators can only liquidate a maximum of 35% of the amount pending to be repaid in a position. The liquidation discount applies to this amount.

In most scenarios, profitable liquidators will choose to liquidate as much as they can (50% of the user position).

To check a user's health factor, use

Supported Assets

One of the main selling points of our platform is the support for a variety of different assets that many traditional platforms won't support. Here, we outline what kind of assets we plan on allowing users to collateralise.

Blue Chip Assets

The platform supports lending and borrowing of the following assets:

USD Coin bridged from Eth mainnet through Wormhole (USDCet)

Tether USD bridged through Wormhole from ETH mainnet (USDTeth)

Sui Token (SUI)

wETH Wrapped Eth

Cetus Token

voloSUI (LST Token)

haSUI (LST Token)

Yield-Bearing Tokens

Yield-bearing tokens are tokens that have an in-built value accrual mechanism designed by the issuer of such tokens (for the avoidance of doubt, this is not NAVI protocol). Examples of these are Liquid Staked Derivatives (e.g. \$mSUI, \$stETH, etc.), which accrue in value over time by earning staking fees, or automated Market Maker (AMM) LP Tokens, which accrue in value by capturing trading fees.

The main interest in providing yield-bearing assets as collateral is their relative price stability, as well as their appreciation mechanics. This enables users to unlock different low-cost, high yield strategies such as hedging, looping, long, short, and more.

1. LP Tokens

Automated Market Maker platforms enable users to deposit tokens in liquidity pools, giving back users an LP token. Historically, if a user wanted to provide liquidity to an AMM, the user had no access to the liquidity in the LP token. However, NAVI protocol enable users to borrow against these LP tokens so users can access the liquidity locked in their LP token and come up with a variety of strategies like leveraged yield farming, hedged positions, or delta-neutral.

2. Liquid Staked Derivative Tokens

The platform will accept Liquid Staked Derivative tokens as collateral for borrowing. These tokens represent staked assets and can be used to obtain loans while still earning staking rewards, further increasing the capital efficiency of the DeFi ecosystem.

Long-tail and exotic asset support

Traditional money markets such as AAVE and Compound make it hard for long-tail and exotic assets to get listed on the platforms due to extensive liquidity thresholds in order to shield the protocol TVL. However, by introducing innovations such as Isolation Mode and a variety of granular risk management improvements such as Debt Ceilings, Supply Limits and Borrow Limits, these assets can be gradually added to the protocol without having an effect on its solvency risk.

This allows exotic and long-tail assets to participate in DeFi lending, which allows users to access the liquidity of these long-tail assets without the need to sell them.

It is important to reiterate that smart contract protocols and pools such as NAVI protocol simply comprise a set of autonomous blockchain-based smart contracts deployed on the relevant blockchain network, operated directly by users calling functions on it (which allows them to interact with other users and/or engage in trading or other activities in a multi-party peer-to-peer manner). There is no further control by or interaction with the original entity which had deployed the smart contract, which entity solely functions as a provider of technical tools for users, and is not offering any sort of securities product or regulated service nor does it hold any user assets on custody. As such, any token or other rewards which users potentially may earn from the protocol arise solely out of the user's involvement in the protocol by taking on the risk of interacting with other users and/or providing liquidity, and charging a fee for this work (e.g., liquidity provider fees).

Lending & Borrowing

Token Parameters

Asset

Collateral/ Borrowable

LTV

Supply Cap

Borrow Cap Ceiling

SUI

Yes/Yes

75%

45,000,000

90%

USDT

Yes/Yes

75%

20,000,000

90%

USDC

Yes/Yes

75%

40,000,000

90%

WETH

Yes/Yes

75%

3,000

90%

Cetus

Yes/Yes

45%

10,000,000

85%

vSUI

Yes/Yes

60%

2,000,000

85%

haSUI

Yes/Yes

60%

1,000,000

85%

Token Contract Address

USD Coin (Portal from Ethereum):

0x5d4b302506645c37ff133b98c4b50a5ae14841659738d6d733d59d0d217a93bf:coin:COIN

USDT (Portal from Ethereum):

0xc060006111016b8a020ad5b33834984a437aaa7d3c74c18e09a95d48aceab08c:coin:COIN

WETH

0xaf8cd5edc19c4512f4259f0bee101a40d41ebed738ade5874359610ef8eeced5::coin::COIN

CETUS

0x06864a6f921804860930db6ddbe2e16acdf8504495ea7481637a1c8b9a8fe54b::cetus::CETUS

voloSUI

0x549e8b69270defbfafd4f94e17ec44cdbdd99820b33bda2278dea3b9a32d3f55::cert::CERT

haSUI

0xbde4ba4c2e274a60ce15c1cff9e5c42e41654ac8b6d906a57efa4bd3c29f47d::hasui::HASUI

Borrow APY

Asset

Optimal Utilization

Base Interest

Multiplier

Jump_multiplier

SUI

55%

0%

30.9%

300%

USDT

50%

0%

34.0%

320%

USDC

50%

0%

34.0%

300%

WETH

50%

0%

40%

320%

Cetus

50%

0%

40%

320%

vSUI

50%

0%

40%

320%

haSUI

50%

0%

40%

320%

Risk parameters

Asset

Liq. Threshold

Liquidation Bonus

Reserve Factor

SUI

80%

10%

20%

USDT

80%

5%

20%

USDC

80%

5%

20%

WETH

80%

5%

20%

Cetus

55%

5%

20%

vSUI

65%

5%

20%

haSUI

65%

5%

20%

Platform Fees Structure:

10% of liquidation incentives

When a user has reached its liquidation threshold, up to 35% (in terms of market value) of the total borrowed asset is sold to the liquidator at a discounted price to repay a portion of the loan.

Glossary

Some terms used throughout the documentation may be unfamiliar to developers. Below we list some common terms that will help with your understanding.

Term

Description

APY

Some terms used throughout the documentation may be unfamiliar to developers. Below we list some common terms that will help with your understanding.

Loan To Value (LTV)

The maximum borrowing power of a specific collateral. If a collateral has a Loan to Value of 75%, for every 1 ETH worth of collateral the user will be able to borrow 0.75 ETH worth of principal currency. The Loan To Value is specified per collateral and expressed in percentage points.

Liquidation Threshold

The threshold of a borrow position that will be considered undercollateralized and subject to liquidation. If a collateral has a liquidation threshold of 80%, it means that the loan will be liquidated when the debt value is worth 80% of the collateral value. The liquidation threshold is specified per collateral and expressed in percentage points.

Liquidation Bonus

The bonus received by liquidators to incentivise the purchase of specific collateral that has a health factor below 1. The Liquidation Bonus is specified per collateral and expressed in percentage points.

Health Factor

Represents the ratio between total collateral multiplied by the liquidation threshold, and the borrowed principal. When the Health Factor goes below 1, the loan is undercollateralized and can be liquidated. Also see .

Ray Units

For internal calculations and to reduce the impact of rounding errors, the protocol uses the concept of Ray Math. A Ray is a unit with 27 decimals of precision. All the rates (liquidity/borrow/utilisation rates) as well as the cumulative indexes and the aTokens exchange rates are expressed in Ray. Please refer to the following for further details about this concept.

Market

The address of the underlying asset.

Lending Pool

The smart contract with which users interact to perform funding operations

Funding Operations

Operations such as borrow, repay, withdraw, deposit

Liquidity Rate

The interest rate currently being earned by the reserve

Liquidity Index

The Interest cumulated by the reserve during the time interval since the last updated timestamp

Automatic Leverage Vaults

By borrowing and lending, you are longing or shorting an asset. You can technically use the asset you borrowed to repeat the process a few more times, making it equivalent to a "spot leverage". We apply the same idea to Automatic Leverage Vaults and make this process straightforward for users.

Oracle Pricing

NAVI Oracle source prices from a variety of Oracle pricing source providers such as Supra, Pyth, and CEX (Binance, OKX, Bybit, and Coinbase) and designed TWAP-style Oracle to ensure secure, reliable, and scalable price feeds for all supported assets.

These oracles ensure accurate pricing information, which is essential for determining collateral value and enforcing platform security mechanisms.

Considering also our interest in supporting exotic assets, and yield-bearing tokens, we plan as well on integration with a variety of DEXes and develop custom oracles for these assets.

More details to come.

Granular Asset Risk Management

Supply Limits

These are limits to how much of the collateral asset can be used in the money market. This parameter is designed to protect the pool against specific, long-tail volatile assets to damage the pool integrity.

For a variety of smaller capitalisation tokens with high fully-diluted valuations that are traded with thin liquidity, having the ability to supply an infinite amount of such token poses structural risks. Were the capitalisation of such token to vary significantly, it is likely that positions backed by such assets could no longer be liquidate-able, posing the risk of bad debt being incurred in the system.

Debt Ceilings

These are limits on the total borrow amount of a market that is collateralized by another specific asset in the pool. The cap is measured as an amount of the borrowed markets underlying tokens.

Similarly to Supply Limits, debt ceilings enable further granular risk management of certain collateral assets, by making sure that certain tail assets cannot be used to collateralise positions that are too large.

Asset Blacklisting

You can blacklist specific collateral assets from borrowing individual assets in a pool. This decreases risk and reflexivity, enabling further isolation modes in pool.

For all intents and purposes, this is an extension of the Debt Ceiling: It essentially sets a Debt Ceiling to zero.

Borrow Limits

The platform enforces borrow limits for each user, calculated as a percentage of their collateral value. Borrow limits ensure users maintain a safe collateralization ratio and protect the lending pool from defaults.

Liquidation Mechanics

Reliable liquidation mechanics are enabled by tight integration with a variety of liquidity partners. We plan on leveraging the centralised liquidity of DeepBook to perform timely liquidations.

Liquidators can purchase under-collateralized assets at a discount on the DEX, providing an incentive to maintain the health and stability of the lending pool. Liquidations are permissionless, thus effectively creating a market for discounted collateral.

Audit Report

NAVI Protocol has been fully audited by OtterSec and Movebit.

Roadmap

[COMPLETE] Phase 1 (Q2 & Q3 2023)

Launch of liquidity protocol initially supporting SUI, USDT, USDC, wrapped ETH, and wrapped BTC.

Phase 2 (Q4 2023)

Optimize SUI, USDT, USDC, wrapped ETH, and wrapped BTC liquidity pool and achieve stable utilization rate of the token.

Integration with Sui Foundation's Deepbook to utilize deep liquidity and provide users an optimal trading experience.

Phase 3 (2024 Q1 & Q2)

DAO setup and governance functionality are available.

Staking available for NAVI tokens into liquidity protocol.

NAVI Token Launch

\$NAVI token

Tokenomics

The native cryptographically-secure fungible protocol token of NAVI protocol (ticker symbol **\$NAVI**) is a transferable representation of attributed governance and utility functions specified within the Navi Protocol ecosystem, and which is designed to be used solely as an interoperable utility token thereon.

\$NAVI does not in any way represent any shareholding, ownership, participation, right, title, or interest in the Company, the Distributor, their respective affiliates, or any other company, enterprise or undertaking, nor will \$NAVI entitle token holders to any promise of fees, dividends, revenue, profits or investment returns, and are not intended to constitute securities in Panama, Singapore or any relevant jurisdiction. \$NAVI may only be utilised on NAVI protocol, and ownership of the same carries no rights, express or implied, other than the right to use \$NAVI as a means to enable usage of and interaction within NAVI protocol. The secondary market pricing of \$NAVI is not dependent on the effort of the NAVI team, and there is no token functionality or scheme designed to control or manipulate such secondary pricing.

\$NAVI is utilised as the native governance token and economic incentives which will be distributed to encourage users to exert efforts towards contribution and participation in the ecosystem on NAVI protocol, thereby creating a mutually beneficial system where every participant is fairly compensated for its efforts. \$NAVI is an integral and indispensable part of NAVI protocol, because without \$NAVI, there would be no incentive for users to expend resources to participate in activities or provide services for the benefit of the entire ecosystem on NAVI protocol. Given that additional \$NAVI will be awarded to a user based only on its actual usage, activity and efforts made on NAVI protocol and/or proportionate to the frequency and volume of transactions, users of NAVI protocol and/or holders of \$NAVI which did not actively participate will not receive any \$NAVI incentives.

For the avoidance of doubt, neither the Company nor the Distributor deals in, or is in the business of buying or selling any virtual asset or digital payment token (including \$NAVI). Any sale or distribution of tokens would be performed during a restricted initial period solely for the purpose of obtaining project development funds, raising market/brand awareness, as well as community building and

social engagement; this is not conducted with any element of repetitiveness or regularity which would constitute a business.

Utility & Governance

Staking: The protocol does not provide any liquidity resources for utilisation, so users would need to be incentivised to stake/deposit their digital assets to provide liquidity for transactions on the protocol (to provide liquidity for peer to peer lending/trades on the perpetuals exchange and/or lending platform); accordingly they would receive \$NAVI rewards for actively engaging with the protocol proportionate to the amount of liquidity contributed, so as to incentivize long-term commitment to the ecosystem.

Governance: \$NAVI holders can participate in the governance of the Navi Protocol by voting on proposals, updates and protocol parameters, for example setting interest rates, adding new assets to the protocol, and changing the collateralization ratio. The governance process is decentralized, ensuring that the platform's development and future direction are driven by its users.

Fee Collection and Distribution: The Navi Protocol collects fees from both the perpetuals exchange and the borrowing and lending platform. A portion of these fees is allocated as rewards for active users which provide liquidity to support the protocol's activities, while the remaining fees are distributed to the platform's treasury and other purposes as defined by the platform's design.

Emissions

In the Navi Protocol ecosystem, \$NAVI plays a significant role in incentivizing liquidity provision and aligning user interests. An important aspect of this system is that \$NAVI token emissions directed towards liquidity providers (LPs) of a particular asset. The mechanism ensures that LPs are rewarded for their contribution to the platform, which in turn encourages more users to participate in the ecosystem.

Here' we'll outline the mechanics by which liquidity providers can benefit from the usage of the token in both the Perpetual DEX and Borrowing and Lending products.

Token Staking, Locking & Gauges, and Fee Discounts

Single-sided staking of the token allows users to take part in the decision-making of how emissions are directed across the protocol, and receive \$NAVI emission rewards for their activities and decision-making.

Borrowing and Lending

The Navi Protocol introduces the concept of vote-escrowed tokens (veNAVI) to enhance the emission allocation mechanism. When users stake \$NAVI, they receive veNAVI tokens that grant them voting power to determine the emission distribution for various assets in the liquidity pools. The amount of veNAVI received is proportional to the amount of NAVI tokens locked, as well as the duration of the time period for which those tokens are locked.

These veNAVI tokens can be used to vote on "gauges," which are essentially smart contracts that manage the emission rates for each liquidity pool or asset. When users cast their votes using veNAVI tokens on a specific gauge, they influence the allocation of token emissions to that asset or pool. The more veNAVI tokens a gauge has, the higher the emission rate for that particular asset.

This vote-escrowed token mechanism allows users to express their preference for certain assets or liquidity pools while also being rewarded with token emissions for staking \$NAVI. The system encourages users to provide liquidity for in-demand assets and ensures fair rewards distribution.

As more users stake \$NAVI and vote for a specific asset or pool using their veNAVI tokens, the emission rate for that particular asset increases. This creates a dynamic system where LPs of popular or in-demand assets receive higher rewards in the form of \$NAVI, encouraging more users to provide liquidity for those assets.

Token Utility: Fee Discounts

When users stake the native token to participate in the NAVI ecosystem, they would be able to unlock tiered fee discounts on trades within the perpetuals DEX. The more tokens a user stakes, the greater the fee discount they receive, thereby incentivizing users to stake more tokens and also to actively participate in trading activities.

FAQ

Why was Navi Protocol created?

Navi Protocol was created to build delightful user experiences on the fledgling Sui DeFi ecosystem and take advantage of the desirable features of the Move VM.

Who is behind Navi Protocol?

The team behind Navi Protocol is a seasoned team of founders and builders from the blockchain development space with many collective years of experience building and running protocols across DeFi and Web3 infrastructure.

What are the risks associated with Navi Protocol?

The Navi team takes security very seriously and no code will be deployed without extensive reviews, testing, and audits. However there are risks inherent to participating in any Web3 DeFi platform, including:

Smart contract risk due to unforeseen bugs that are not caught by our stringent security policies.

Oracle risk due to oracle manipulation.

Blockchain risk. If the underlying blockchain is somehow compromised, Navi Protocol cannot protect user funds.

Navi Protocol is to be treated as a Beta product as with any DeFi platform, so do not invest more than you are willing to lose!

Where can I find more information about Navi?