

# The Minterest Lending Protocol

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### Introduction

Minterest is a decentralised lending protocol with a unique economic model. It captures more fees than any other lending protocol and redistributes them as rewards back to users who contribute to its governance with the highest long term yields.

As a lending protocol, Minterest allows users to supply, or deposit, tokens to its token markets in order to receive interest in return. Users who supply tokens to a token market are known as liquidity providers.

Liquidity providers may also borrow tokens from any token market, but doing so requires collateral to be provided in the form of tokens supplied to token markets to secure the borrowed amount and the accrual of interest. Users earn Minterest's native governance token (MINTY) as emission rewards for supplying and borrowing token assets, which are known as Standard Rewards.

Borrowers, when interacting with the protocol, contribute fees from their token assets for functions undertaken on their behalf. Minterest captures 100% of the possible fee value contributed by its users; a unique approach to DeFi lending protocols with a purpose of creating a fairer financial experience for its users.

The fees contributed relate to interest rate markets, auto-liquidation events and flash loans. They are relatively:

- a percentage of the interest rate paid by the borrower for the provision of the token market;
- a percentage of the borrower's collateral which is liquidated if the borrower's position becomes insolvent, requiring the protocol to automatically repay the required amount of their loan balance on their behalf to restore solvency; and
- a percentage of the flash loan amount borrowed for the provision of flash loan liquidity.

Buyback processes swap the protocol's fees on-market for MINTY, which it distributes as rewards to users for their participation in governance, known as Governance Rewards. The protocol accumulates and retains a percentage of Governance Rewards in a Strategic Reserve, which acts as a sink of MINTY to be utilised by the DAO for future developments of the protocol. Together, this allows Minterest to optimise its utility, benefiting Minterest's primary value creators — its users.

Minterest's feature innovations deliver a breakthrough in token performance value, a critical and overlooked aspect of lending protocols detailed in this document, which maximises value to users over time. Feature innovations bestowing this include the solvency engine that automates liquidations, buyback mechanisms and dynamically weighted voting rights to reward long term governance participation.

Minterest's model can generate network effects more powerful than any sector incumbent. Doing so means the protocol can deliver the highest long term APYs to its users with a high degree of defensibility.

Minterest follows a robust cross-chain strategy that is crucial as it enhances liquidity, user access, and overall network security. By operating across multiple blockchains, Minterest not only diversifies its operational risks but also taps into

the unique user bases and liquidity pools of each network, driving broader adoption and integration within the DeFi ecosystem.

This document details how the protocol achieves such outcomes and outlines the features of Minterest intended to contribute to the future development of both DeFi and the broader blockchain economy.

## **Lending Protocol Architecture**

Architecturally, lending platforms are match marketplaces. Suppliers and borrowers are matched automatically without searching. The protocol focuses on the outcome of supplying and borrowing itself, rather than the individual parties involved, being suppliers and borrowers.

For any platform to develop and be sustainable, it must capture a portion of the value its users create. In traditional, non-crypto platforms this occurs through the monetisation of user interactions. Instagram uses advertising and eBay clips buyer transactions, with the surplus benefiting shareholders.

With Minterest, while its native governance MINTY token allows holders voting rights to participate in governance processes determining priorities regarding continuity and development, MINTY does not convey ownership. Protocols are publicly accessible code on the Internet, which is contributed, not owned.

## **Protocol Overview**

The Minterest protocol applies sophisticated smart contracts to enable a variety of token assets to be supplied or borrowed by users. The protocol dynamically computes interest rates in real time, based on the proportions of supplied and borrowed assets.

At its core, the Minterest protocol creates token markets with pools of varying token assets. Interest rates are algorithmically determined and managed via the interplay of lender supply and borrowing demand.

Unlike direct P2P lending, suppliers and borrowers of a token asset interact with the protocol's underlying asset pools, earning and paying interest based on demand and supply dynamics. This process bears similarities to traditional forex markets, but without requiring a trusted third-party mediator.

Given the decentralised nature of the protocol, each token market contains a public, transparent, and non-violable ledger which records each transaction and its applicable interest rates.

The Minterest protocol stands out from other lending protocols through innovations like its solvency engine where the solvency of under-collateralised borrower positions is managed by the protocol itself, which acts as liquidator. This ensures the solvency of each underlying asset pool while liquidation fees are captured by the protocol for the benefit of its governing user community.

To incentivise and reward user participation, the protocol issues its MINTY governance token to users, which allows MINTY holders to vote on governance proposals. Long term governance contribution is rewarded, with MINTY voting rights dynamically weighted to favour longer term user participation.

## **Current DeFi Limitations**

### **1. DeFi's New Reality**

Web3's bullrun of 2020-2021 allowed liquidity providers to maximise yields exploiting DeFi models with unsustainable inflationary emission rewards. Such projects' high yields attracted tens of billions in liquidity and super-returns became the 'new normal', fuelling further boom market speculation. Ever-more projects exploited the trend, launching tokenomics propagating relentless token inflation.

The poster child, Terra Network's Anchor Protocol total supply, also known as Total Value Locked (TVL), peaked at \$17B a year after launch.

The cascading impact of Terra's collapse did what contagions do – it spread across the entire crypto sector, with major CeFi players collapsing one after the other, culminating in the bankruptcy of Alameda and FTX.

The market crash served as a wake-up call that the super-yield party was over. The resulting hangover from unsustainable, hyper-inflationary models caused liquidity providers to fundamentally reassess how they deployed capital. In the aftermath, it has become apparent a protocol's sustainability is paramount, as is the foundation of what actually creates it — performance value.

This has led to the gradual maturation of the DeFi market, with a focus on sustainable yields, regulatory compliance, and real-world asset integration in 2024.

## 2. Performance Value

The key metric determining the performance of any lending protocol is the value of supplied liquidity or TVL. Borrowing is a subset of TVL, which in effective lending protocols fluctuates with market demand between 25% and 50%, so all things being equal, greater TVL equals higher value in total borrowing.

Performance value refers to a protocol's ability to impart its native token with underlying value from its performance, expressed as a range from none to high. High performance value occurs when a protocol captures a high proportion of the fee value created by its user interactions and imparts that value to its internal token economy via its governance token.

A governance token with no performance value is one in which the token's utility is very limited, often solely voting rights. Such a token cannot reflect a long term correlation between its value and protocol TVL, other than intermittently via

sentiment or speculation. Current lending protocols exhibit no or very low performance value, with commonly only a loose sentiment-based correlation between token performance and protocol TVL.

### 3. Emission Reward Structures

Emission rewards relate to the distribution of a protocol's native token to its users as reward for them for contributing value. They are considered fundamental for lending protocols to successfully attract liquidity and develop their user community.

This is especially true for a new entrant like Minterest, since emission rewards have become constituent in liquidity providers determining total APY. For liquidity providers the value of emission rewards is dependent on two factors:

1. the number of tokens they reasonably expect to receive over a given period
2. the value they can realise from such emissions in the future.

Reward structures lacking performance value cannot develop underlying value over time, other than that of voting rights. Rewarding users with ever more governance tokens with no performance value causes predictable inflationary impacts and undermines long term holding. These older reward structures miss the opportunity to create added value for liquidity providers by way of optimised APY. They also fail at the potential promise of such DeFi protocols, to provide alternative models to traditional finance which truly outcompete over the long term.

### 4. External Liquidators

External liquidators are third-party actors who scan the protocol for insolvent borrow positions, repay the pool the borrower borrowed from, and receive the same value in collateral supplied by the borrower. The process is incentivised by allowing liquidators to purchase the borrower's collateral at a discount to market

rates, with the discount acting as their liquidation fee. The liquidity required for liquidation events is commonly supplied via flash loans, so liquidators can make substantial profits without requiring capital. External liquidators fulfil an important role for the protocol; they maintain solvency of borrower positions, and so overall solvency of the protocol's token markets.

This model is effective but comes at a significant cost to liquidity providers and token holders. External liquidators require the value of liquidation events to be substantial enough to incentivise them to act. In lending protocols liquidation fees range around 40-50% of total fees, an amount measured in the hundreds of millions across the sector.

Such a model allows the favoured liquidator few to feast on the misfortunate borrower many. A select few extract extraordinary value from the protocol but forfeit its benefit to the whole user community.

## 5. Extraction Mindset

Current lending protocols exhibit an extraction mindset, where value created from the interactions of its user community are captured and syphoned off for the benefit of a select few. External liquidators are an obvious example, but the principle commonly applies across other protocol functions and their associated fees, and with it the resulting misalignment of user agendas. Missing is protocol value being fully captured and distributed for the egalitarian benefit of its user community, and so optimising value creation through fully empowering network effects.

## 6. Liquidity Fragmentation

The rapid acceleration of new Layer 1 and Layer 2 chain deployments leads to increasing liquidity fragmentation of key token assets. The result is a reduction in depth of liquidity and access to liquidity. The existing fix includes a series of third party on-chain messaging/bridging solutions. However, the approach can also lead

to further liquidity fragmentation with various derivative tokens now representing the same underlying token asset, like USDC. Lending protocols are innately built to bank vast concentrations of liquidity and are likely candidates for driving a unified liquidity solution.

## **Minterest's New Model**

Minterest improves on current DeFi lending protocols.

1. Using the interest rates, flash loan fees and Minterest's Solvency Engine to liquidate assets, Minterest captures 100% of fee value, unlike any other lending protocol.
2. Protocol value is transferred via buyback mechanisms to users as MINTY in the form of Governance Rewards, incentivising users to stake MINTY and contribute to governance. Longer-term participation is further incentivised with increased voting weight, which results in an increased proportion of rewards.
4. Increasing the value of emission rewards supports the attraction of further TVL, leading to greater opportunities for the protocol to further capture 100% of its fee value.
5. Unifying fragmented liquidity via cross-chain lending is a major piece of Minterest's roadmap to increase accessibility of liquidity to the wider Web3 space while minimising the end user friction points. The vision is for users to lend and borrow from wherever they prefer, and without needing to fumble with the complexities of blockchain via account abstraction methods.



## Fee Value Capture

The above features create high performance value in MINTY, and so closely connect TVL with token performance.

Liquidity providers create value for borrowers by supplying assets they wish to borrow. Borrowers create value by paying interest on loans from suppliers.

Minterest captures a small portion of this value in the form of fees contributed by users, enabling the protocol to sustain the management of its token markets.

Similar principles apply to the execution of liquidation events and the provision of flash loans. In the case of liquidations, the fee capture mechanism is highly significant and an industry first.

Fees are in the form of tokens used in the protocol's various markets. These tokens are swapped for Minterest's native MINTY token and distributed as Governance Rewards to users.

The protocol swapping fee value for MINTY via buyback mechanisms imparts value to its token economy. While many factors are influential, all things being equal, Minterest increasing TVL correlates to increased buyback value. Increased buyback value causes increased demand for MINTY, generating three positive outcomes for protocol users:

1. Supports the value of emission rewards, given the value of MINTY is supported by greater demand from buyback activity.
2. Boosts long term governance participation, through more valuable Governance Rewards.
3. Attracts TVL, given more valuable emission rewards for supplying and borrowing.

## A New Network Effect

For Minterest, each new liquidity provider benefits existing users through the increased fee capture opportunities created from the addition of their supply. Increased fee value allows for higher value buybacks, which in turn positively supports the value of MINTY. Supporting MINTY value supports the value of emission rewards, positively influencing user APY. More valuable emission rewards allows Minterest to attract new users and so more TVL.

This mechanism forms a network effect, the power of which is not found in other lending protocols. This network effect when underway allows Minterest a long term edge over rivals in its ability to deliver value to its user community.

## Platform Optimisation

Platform optimisation occurs when user and owner value are maximised. Minterest owners do not exist, there are only users, so optimisation occurs by benefiting the user community through yield farming returns. Yield farming returns are measured by total annual percentage yield (APY), being interest received for supply less interest paid for borrow, plus the annualised value of MINTY emission rewards.

Minterest maximises long term APY as it:

- captures 100% of its internal fee value
- swaps this value for MINTY, imparting it with high performance value
- rewards users with Governance Rewards who stake MINTY to participate in governance
- which supports the value of all emission rewards, maximising long term APY

## Supply-Borrow User Experience

Minterest operates similarly to other lending protocols with two key user activities – the supply and borrow of tokenised assets. As an example:

- a supplier of liquidity “Lenny” supplies an approved asset to a Minterest token market. The protocol lends the assets in the pool to borrowers. As long as Lenny continues to supply assets to the protocol’s token market, he earns a dynamic interest rate algorithmically determined by the proportion of total assets he has supplied versus the total assets borrowed from the pool.
- A borrower “Bob” supplies approved collateral to the protocol to borrow a set number of tokens. The protocol uses oracles for price feeds to determine current values for both the supplied and borrowed assets. To uphold the required utilisation ratios between the various token pools, the protocol ensures Bob maintains an over-collateralised position.
- While Bob maintains an open borrow position with the protocol he pays a dynamically determined interest rate. That rate is algorithmically determined by the proportion of total reserves of the asset type he has borrowed versus the total reserves of that asset he has supplied.
- Bob’s borrow position becomes insolvent if the token assets he supplied no longer meet a required threshold. If that occurs, the protocol automatically exchanges a portion of Bob’s collateral assets for the same token assets Bob has borrowed in order to reduce Bob’s outstanding loan and return him to a solvent position.
- Lenny and all other suppliers of the same asset receive the interest paid by borrowers of the token pool assets as compensation, in line with their portion of the pool. If there is a liquidation event, suppliers continue to receive their supplied assets and interest.

- When liquidity providers supply token assets to the protocol, corresponding receipt tokens are generated which represent their portion of the pool for that particular asset. The accrual of interest to be paid to suppliers by borrowers is calculated discretely i.e. per block, with the calculation automatically adjusting the exchange rate of the receipt token relative to the token asset supplied.

## **Core Protocol Functions**

This section outlines the core functionality of the Minterest protocol.

### **Supply**

Users supplying liquidity access the Minterest protocol through its user interface or by connecting via its API. They supply liquidity using signed transactions on the Ethereum blockchain.

### **Receipt Token**

The protocol directs the supplied assets to the correct pool and issues a receipt token, a fungible internal accounting mechanism. Its functionality never leaves the system, and operates as a bookkeeping tool enabling the tracking and recording of a liquidity provider's asset lifecycle within the Minterest protocol ecosystem.

### **Market**

Each token asset type supported by the protocol is in a separate pool, and each pool has its own distinct interest rate model, fully independent of all other pools. A pool of underlying assets, its receipt tokens and interest rate model form a unit called a market.

### **Withdraw**

When a user chooses to withdraw their supplied liquidity from a pool, the receipt token is used to calculate any additional interest based on the value of assets

supplied by the user. The protocol forwards the original assets, plus the additional interest balance accrued in the same assets, to their wallet address.

## **Transfer**

Users can transfer receipt tokens from one wallet to another. Doing so results in the transfer of ownership over all token assets associated with the receipt token.

## **Borrow and Repay**

The borrower must first supply the required amount of collateral to release the desired amount of assets from the pool of the borrowed underlying asset. When a borrower repays, the protocol returns the tokens to the appropriate asset pool and updates the borrower's supply/borrow Utilisation Ratio, described below.

## **Bridge assets among Minterest-supported networks**

Users can easily transfer their tokens across the networks supported by Minterest.

## **Use and transfer Minterest NFTs among Minterest-supported networks**

NFTs provide holders with substantially higher Minterest emissions rewards for lending and borrowing on the chain where their NFT is located — from 20 to 50% emissions boost depending on NFT rarity, pioneering a unique use case among DeFi protocols.

Users can seamlessly transfer NFTs across the networks supported by Minterest, allowing them to tailor their experience to their personal preferences.

## Key Protocol Settings

### Utilisation Factor

Borrowing from the Minterest protocol is over-collateralised, meaning the amount a user can borrow is less than the amount they supply as collateral. The maximum proportion is known as the Utilisation Factor. The Utilisation Factor is always a fractional proportion of the collateral supplied and expressed as a percentage e.g. a borrower may not borrow more than 80% of their supplied collateral.

Utilisation Factors are specific for each market and are applied for each token pair in supply and borrow pools. As an example, if Bob supplies 100 USD in USDC and 100 USD in WETH, with relative Utilisation Factors of 30% and 50%, the maximum borrow value available will be the sum of 30 USD in USDC and 50 USD in WETH, or 80 USD in total.

### Utilisation Ratio

The solvency of any borrow position depends on the Utilisation Ratio of a user. Again, if Bob borrows a value of 60 USD backed by collateral valued at 80 USD, the Utilisation Ratio will be  $80/60$  or 1.33. If the Utilisation Ratio falls below 1.0, Bob's position is no longer over-collateralised and is therefore insolvent. The protocol will auto-liquidate a portion of Bob's collateral assets to bring his portfolio back within the Utilisation Factor.

The Utilisation Ratio is also affected by price movements of assets and is adjusted block-by-block according to market values determined via the protocol's pricing oracle. If the Utilisation Ratio is below the required threshold, the borrower can repay a portion of the funds borrowed to regain the required threshold level, or the position will be liquidated.

Our borrower Bob is free to distribute his maximum loan value of 80 USD across as many assets as he wishes. All supplied assets are considered collateral and any

enabled asset may be borrowed against it, including the same as the asset supplied.

The total value of supplied liquidity supports the total value of all borrower positions, and vice versa. Every additional borrow position is apportioned against all previously supplied assets used as collateral. The internal logic, which may involve operations with two or more assets at a time, operates on a conversion of assets to USD amounts, using pricing provided by the protocol's oracle.

### **Interest Rate Calculation**

Interest rate calculation is an accrual, based on asset values in relation to their markets. The calculation is applied to all borrowers of a market uniformly and changes dynamically as the relationship between the amount supplied and amount borrowed in the market changes.

Interest rate calculations for a market are updated every time any transaction is undertaken. This includes, but is not limited to, the supply, borrow, redemption, repayment, or liquidation of borrowed assets.

### **Solvency Management**

The protocol compares the USD value of all borrower collateral positions to the Utilisation Ratio, with the USD value of all loans including accrued interest on supplying and borrowing. If the Utilisation Ratio is less than 1.0 the borrower's portfolio is insolvent and subject to liquidation.

### **Solvency Engine Driven Liquidations**

Liquidations in lending protocols occur when a borrower position becomes insolvent. This typically occurs when:

- the price of a borrowed asset increases, reducing the comparative value of collateral supporting the borrow position

- the price of collateral assets decreases, resulting in the same
- interest charges accumulate to consume too much collateral

Liquidation processes manage the solvency of individual borrow positions and protect the solvency of the protocol's various token markets. In all other lending protocols, liquidation events are executed by external liquidators who buy out under-collateralised borrow positions at discounts to market rates. Discount rates can range from 5% to 15%, and represent the liquidators' fee.

#### A simplified example:

- Bob wishes to borrow USDC from a lending protocol using WETH as collateral. If the Utilisation Factor for the WETH pool is 80%, Bob can borrow up to 80 USDC against \$100 worth of WETH collateral.
- Bob adds \$100 collateral in WETH and takes out a loan of 60 USDC, so his utilisation ratio is  $80/60 = 1.33$ .
- WETH's price then declines by 30%, so the value of Bob's collateral becomes 70 USD ( $\$100 * (1-0.3)$ ). This changes Bob's Utilisation Ratio, which now is lower than 1.0 i.e.  $(70*0.8)/60 = 56/60 = 0.933$ .
- For the USDC-WETH pair the liquidation discount is set by the protocol at 5%. Lenny, as liquidator, buys up Bob's WETH collateral at a fixed discount of 5% to market price, so he will pay 66.5 USDC to get 70 USD worth of WETH collateral, resulting in a 3.5 USDC surplus for Lenny.

DeFi protocols individually define liquidation fees for external liquidators and also set the minimum thresholds of borrower collateral liquidators may extract, with significant ranges of 30% to 50% being common.

With Minterest the protocol undertakes the role of liquidator, removing the role of third parties. This directly benefits borrowers, since algorithms do not require



economic incentives to act, meaning the protocol can economically liquidate smaller percentages of borrower collateral.

## Solvency Engine's Liquidation Flow

- An automated bot array scans protocol solvency, replacing the external liquidator function in identifying under-collateralised borrower positions. Each bot database mirrors the chain, with portfolio provisioning ensuring security and redundancy.
- Once an under-collateralised position is identified, the amount of collateral required to be sold and the most efficient sell pair are both algorithmically determined.
- The algorithm works with DEXes to define the best flash loan provider, as well as optimal swap routes to exchange the seized collateral asset and repay the taken flash loan.
- The off-chain sequence results in a packed call data, sent to the chain.
- The smart contract executes the transactions packed into the call data: take a flash loan, repay the insolvent loan, seize the collateral, swap the collateral into the borrowed asset, repay the flash loan and also swap the surplus into a stablecoin.
- If the smart contract determines any precondition or calculation to be invalid, the liquidation event is cancelled.
- Upon confirmation, the borrow position is again solvent and the liquidation event is complete.

The income generated by the liquidation flow is summed with the fees generated by markets. The total of the assets is used to buy back MINTY.

## **Fee Accumulation and Swaps**

The protocol accumulates fees in the form of tokens in its various pool reserves. The tokens are intermittently swapped for MINTY to be stored in the protocol's reserves for distribution as Governance Rewards.

Non-stablecoins accumulated in the protocol's reserves following liquidation events are swapped for stablecoins, thus avoiding price volatility. Assets accumulated from other functions are stored in their underlying pools, and if required also swapped for stablecoins.

## **Governance Reward Distribution**

MINTY from buybacks is accumulated over a predetermined period, approximately a calendar month, with a proportion distributed as Governance Rewards over the following period. Distribution to staked users occurs in a 'dripping sequence' on a near hourly basis instead of a singular large event to prevent users 'gaming' their behaviours.

## **NFTs**

Minterest NFTs are rewards issued to Minterest supporters in return for their contributing value. They enable holders to receive NFT Rewards, which are a set percentage boost of their Standard Rewards. Each NFT is unique and benefits only its holder, with the percentage boost of Standard Rewards determined by its tier as detailed in the table below. NFTs also allow access rights to Minterest's private access phase and give early access to new features of the protocol.

NFT Rewards initiate at Minterest's public launch and are earned until the expiry date determined by the NFT tier. Where more than one NFT is held in the same wallet and chain, the protocol assigns NFT Rewards for the highest-tiered NFT only.

NFTs are issued across 12 different tiers of rarity, with each NFT represented by 1 of 100 unique images. Rarer NFTs have fewer copies of each image and have higher rewards boosts and longer validity periods.

Users can trade NFTs via online markets or by directly interacting with the corresponding smart contracts. Transferring NFTs transfers ownership of the corresponding boost, with previously earned MINTY retained by the original owner.

Users can bridge NFTs across the supported chains. Emission boost associated with the NFTs is only applicable on the chain where the NFT is currently located.

### NFT Emission Details

| <b>Tier</b> | <b>Number of NFTs</b> | <b>Emission Boost</b> | <b>Expiry</b> |
|-------------|-----------------------|-----------------------|---------------|
| 1           | 1                     | 50%                   | May 2027      |
| 2           | 9                     | 45%                   | October 2026  |
| 3           | 15                    | 42.5%                 | August 2026   |
| 4           | 30                    | 40%                   | June 2026     |
| 5           | 60                    | 37.5%                 | April 2026    |
| 6           | 90                    | 35%                   | February 2026 |
| 7           | 120                   | 30%                   | December 2025 |
| 8           | 150                   | 27.5%                 | October 2025  |

|    |      |       |              |
|----|------|-------|--------------|
| 9  | 175  | 22.5% | April 2025   |
| 10 | 350  | 20%   | January 2025 |
| 11 | 960  | 20%   | October 2024 |
| 12 | 1040 | 20%   | July 2024    |

## **Governance**

As a decentralised protocol, Minterest will be governed by its Decentralised Autonomous Organisation (DAO). Governance functions will be initiated either during private launch or from public launch and will evolve alongside the protocol.

## **Voting Weight**

Voting rights are activated when users stake MINTY in the protocol. When a stake happens, a user is assigned a voting weight as well and placed into one of four Loyalty Tiers — depending on the amount of staked MINTY tokens and tenure of their staking.

Users receive a dynamically calculated multiplier benefit, or Loyalty Boost, applied to their voting weight based on the length of time they participate and the Loyalty Tier they are eligible for. The longer their MINTY is staked for the greater their voting weight becomes within the Loyalty Tier. Users may un stake MINTY at any time, but forfeit the accumulated voting weight. Unstaking may also lead to a migration of the user to a lower Loyalty Tier and loss of all or part of the Loyalty boost they have attained.

In order to maintain their voting weight users must vote, or delegate, on proposals a minimum of once every 6 months. Failing to do so results in a forced revocation of staked MINTY from governance, forfeiting their accumulated voting weight and loyalty reward.

## **Emission Rewards**

100% of Minterest token emissions are rewards issued to users in return for their contributing value to the protocol.

The distribution of all emission rewards is subject to a mathematical logic which vests every MINTY token over a 12-month period from when it was earned by the

user. Doing so provides users with the experience of a smooth vesting schedule while resolving the technical and financial improbability of tracking every MINTY token state on chain.

## Governance Rewards

Governance Rewards are earned by users who stake MINTY in the protocol and participate in governance. Voting weight determines the proportion of a user's Governance Rewards. The allocation of Governance Rewards depends on protocol accumulation of MINTY in any previous period and individual user voting weight. User voting weight is subject to a multiplying factor called a Loyalty Boost, which increases over time, resulting in a larger allocation of Governance Reward for longer term participation in governance.

## Allocation of Other Emission Rewards (by 2030)

|                         | <b>Total MINTY</b> | <b>Total Circulating Supply</b> | <b>Allocated to</b>                         |
|-------------------------|--------------------|---------------------------------|---|
| <b>Total Rewards</b>    | 12,534,520         | 19%                             |   |
| <b>Standard Rewards</b> | 7,825,890          | 12%                             | Users who supply and borrow                 |
| <b>NFT Rewards</b>      | 2,608,630          | 4%                              | Minterest NFT holders who supply and borrow |
| <b>Staking Rewards</b>  | 2,100,000          | 3%                              | Governance staking of MINTY                 |

## Standard Rewards

Standard Rewards are earned by suppliers and borrowers of liquidity. The number of Standard Rewards each supplier and borrower receives is relative to their proportion of either pool in each market they participate in.

The proportion of total Standard Rewards earned by each market, as well as for suppliers and borrowers within the market, is set independently from others, enabling optimisation of protocol outcomes.

## NFT Rewards

Minterest NFTs, detailed above, allow holders to receive a boost in rewards proportional to their Standard Rewards as determined by the NFT tier. MINTY equivalent to 50% of Standard Rewards is allocated into an independent MINTY bucket representing NFT Rewards. This separation of buckets ensures they do not reduce Standard Rewards for any user.

## Staking Rewards

Bootstrap Rewards subsidise Governance Rewards during the protocol's launch phases. They do so to incentivise users to stake MINTY and participate in governance when the user ecosystem and TVL are still developing, and buyback value is likely sub-optimal in acting as an incentive.

## Anti-Money Laundering Functionality

Anti-money laundering (AML) policies are determined by governance. Minterest functionality allows for compliance with the rapidly evolving AML regulatory environment.

Wallets deemed prohibited, where regulatory authorities identify involvement in illicit activity for example, can be prevented from participating in token pools and



new wallets matched against a predetermined prohibited list can be blocked from entry.

Extending beyond this, wallets deemed prohibited which are already supplying assets can have forced auto-liquidations enacted resulting in borrow positions being repaid. Any balance of supplied assets and staked MINTY is transferred to the wallet and no liquidation discount applied, with gas costs borne by Minterest.

## **Strategic Reserve**

The Strategic Reserve supports Minterest's token economy through the accumulation and retention of MINTY from the buyback process. Doing so develops a token surplus that can be utilised to support the future growth of the protocol.

The Strategic Reserve receives unused surplus from the NFT and Bootstrap Rewards.

A proportion of the Strategic Reserve is also continually staked to accumulate Governance Rewards, which compound long term but do not participate in governance proposals. This results in the Strategic Reserve losing accumulated loyalty rewards every 6 months, preventing it from disproportionately accumulating Governance Rewards at the cost of protocol users.

## Total MINTY Supply

|                     | <b>Allocated<br/>MINTY</b> | <b>Lock Up</b><br>(Mth from TTE) | <b>Unlock Schedule<br/>after Lock Up</b> |
|---------------------|----------------------------|----------------------------------|--|
| Standard Rewards    | 7,825,890                  | 0                                | 7 years                                  |
| NFT Rewards         | 2,608,630                  | 0                                | 4.33 years                               |
| Staking Rewards     | 2,100,000                  | 0                                | 6 years                                  |
| Public              | 3,970,838                  | Variable                         | Variable                                 |
| Private/ Strategic  | 12,299,380                 | Variable                         | 1 year                                   |
| Advisors            | 2,449,250                  | 8                                | 2 years                                  |
| Marketing           | 1,000,000                  | 8                                | 1 year                                   |
| Ecosystem           | 4,800,000                  | 8                                | 4 years                                  |
| Team                | 17,950,739                 | 9                                | 4 years                                  |
| Strategic Reserve   | 10,697,543                 | 8                                | 5 years                                  |
| Liquidity Provision | 200,000                    | 0                                | Fully vested                             |
| <b>Total Supply</b> | <b>65,902,270</b>          |                                  |  |