

# Eternal White Paper: Eternal Platform

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## **Abstract**

This paper provides an overview of Eternal's gaging platform. Due to the usage of gage-related jargon, readers are greatly encouraged to first begin with the *Introduction to Gages* white paper.

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# 1 Eternal

The white paper *Introduction to Gages* established the scope of the limitations relating to short-termism within traditional and, most importantly, decentralized markets. Gages are a critical step towards resolving these issues. However, to reach its maximum potential, this concept must first be concretized into a full-fledged solution. For this reason, we present Eternal: a unique and first of its kind gaging platform, decentralized autonomous fund and multi-purposed token. Eternal turns gages from an abstract concept to a tangible operation, enabling healthy changes within the domain of digital commodities.

## 1.1 Purpose

Eternal seeks to restore the balance between short and long-term strategies in both blockchain projects and investors. Specifically, Eternal’s goal is to popularize a new class of long-term investment vehicle by providing a unique platform fundamentally based on minimizing risks and maximizing returns, while striving for the modernization of finance and more prominent long-term culture in our markets.

## 1.2 Why Blockchain

The advent of blockchain gave rise to a collection of novel industries. One of which, Decentralized Finance (DeFi), valued at \$119 billion<sup>1</sup> at the time of writing of this paper, holds a high potential for absorbing a significant portion of traditional markets. The novelty of this sector reflects its importance as a center point for early adopters who always seek to push the boundaries of innovation. Eternal brings this community the ability to push these boundaries even further.

Moreover, there are benefits inherent to decentralization. The lack of necessity for a broker greatly decreases costs, of which the gains are redirected to users who help the platform function. Following this line of thinking, choosing to build on the Avalanche platform offers substantially lower fees relative to other blockchain platforms.

As such, the advantages of building Eternal on Avalanche’s decentralized markets are clear: improved likelihood of reception to novelty, no platform fees, and low internal fees relative to other chains. With this, Eternal can run in a fair and accessible-by-all manner, in which control and ownership does not lie in the hands of its creators but rather in those of its users.

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<sup>1</sup>See <https://www.coingecko.com/en/defi>

## 1.3 Structural Overview

### 1.3.1 High Level Overview

At a high level, the Eternal ecosystem is a long-termist, synergistic triangular ecosystem composed of the Eternal platform, fund and token. Some users spend their capital to interact with the platform’s long-term oriented instruments, which are characterized by their ability to yield risk-free profits given that the user acts with a long-termist approach. Eternal prizes itself in being able to offer the best risk-to-rewards compared to any other platform or financial instrument. Other entities, such as governments, companies and other legal structures will eventually also use Eternal’s services in newer gage-related applications which tackle other short-termist issues. The Eternal token (ETRNL) is a long-termist’s best friend, designed and structured to promote long-term sustainability of the system and ensure significant progressive increase of its intrinsic value. ETRNL holders can either passively stake it by simply holding their tokens in their wallet, or actively stake their tokens on the platform, by allowing them to be used in certain gages with zero risk of loss. Additionally, ETRNL holders can also vote on changes to the system carried through the Eternal fund, as well as manage the fund’s treasury reserves in a goal of maximizing the intrinsic value of the token. The fund’s treasury reserves accumulate a range of gaging fees, token fees, and LP tokens acquired through the transaction activity of the token and user activity on the platform.

### 1.3.2 Long-Term Sustainability

Although the yield/rewards offered by the Eternal platform are significantly greater compared to other systems, they are not unsustainable by any means. Eternal achieves long-term sustainability of value by maintaining a certain equilibrium, where every single one of its components works towards complementing the flaws of the other. Broadly, this is seen in that the high-yield financial instruments offered by Eternal are paid through its token, which will find its way back to the Eternal Treasury as users spend them due to token transaction fees (see Section 1.5). The ETRNL supply is not controlled by any rebase mechanisms, hence ETRNL is not subject to inflationary emissions. Most importantly, the entirety of the Eternal gaging market operates on the basis of mathematical equations which aim to maintain such long-term balance (see Section 1.4).

### 1.3.3 Low Level Overview

At a low level, Eternal contracts constitute the Eternal storage, factory, treasury, fund and token.

**Eternal Storage** All contracts have their logic and storage separated in order to ensure ease of upgrade-ability. Storage is shared by all contracts, which can modify each of their states through communication with the Eternal storage contract. The Eternal storage contract state can be viewed by anyone, but can

only be modified by the newest versions of any given contract. This prevents any safety issues concerning upgraded contracts. The storage is also capable of storing and deleting any variable and their dynamic variants for any given contract hash. This ensures that no two contracts have overlapping storage hashes and removes the need to ever upgrade or update the storage contract itself.

**Eternal Factory & Treasury** The factory and treasury make up the Eternal platform’s functionality. The Eternal factory deploys gage contracts and communicates with the treasury in order to finalize any gaging functionality related to the platform. All gage contracts are defined by their implementation of the gage blueprint, an abstract contract implementing most of the basic functionality of gages. Any contract deriving from this blueprint is explicitly required to implement an `exit()` function and implicitly required to implement an `initialize()` function. The Eternal treasury initializes and settles any deployed gage contracts for any given user. It is also responsible for calculating rewards and distributing them accordingly. Aside from gaging functionality, the treasury also provides all the staking and liquidity provision functionality related to the Eternal token.

**Eternal Token & Fund** The Eternal token contract implements the ERC20 standard with additional utilities such as deflation, reward redistribution, automatic liquidity provision and the ability to track the daily number of transactions subject to fees. Aside from being used on the platform, it is also used as the voting medium in the Eternal fund. The fund is implemented by a Compound-styled “Governor Bravo” contract, which communicates with a Timelock contract to queue, execute and cancel any proposals made by token holders. Proposals may edit, add, or remove any elements of all Eternal contracts, going so far as even replacing contracts altogether (with the exception of the Eternal storage).

**The Eternal token, gage and loyalty gage contracts are currently being audited by CertiK.**

## 1.4 Eternal Platform

Eternal’s primary function is to serve as the world’s first gaging platform. The platform begins solely offering liquid gages, catering to DeFi’s Liquidity-Provider dilemma. Several other gage-powered applications, designed for other use cases in industries yet to be announced, are being worked on by the team.

**Liquid Gages** At launch, liquid gages accepting either USDC.e or AVAX will be available.<sup>2</sup> These gages will offer users the opportunity to unilaterally pro-

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<sup>2</sup>For more information, please refer to the *Introduction to Gages* paper describing liquid gages.

vide liquidity to ETRNL-USDC.e and ETRNL-AVAX pairs, whilst earning an instantaneous 10% benefit in ETRNL upon entering the gage and a potential additional 10% bonus in ETRNL and liquidity provision rewards in the event the gage closes in favor of the user. Therefore, users will be able to provide liquidity at a 50% discount, whilst earning an instantaneous 10% profit on any given deposit, and additional chances for 10% more profit and 10% more liquidity rewards. This entails a risk-reward ratio of 20:1.

**Sustainability: Liquid Gage Limit** As previously mentioned, the Eternal ecosystem is long-term sustainable. With liquid gages, this is ensured by maintaining a balance with regards to the ETRNL flowing into the treasury as compared to that flowing out of it. Given  $T_e$ , the period of time during which liquid gages can be offered before the Eternal Treasury’s usable reserves run out,  $\alpha$ , the daily count of transacted ETRNL subject to fees,  $F_r$ , the ETRNL treasury funding rate (see Section 1.5.4),  $R_r$ , the ETRNL reward-redistribution rate (see Section 1.5.4),  $S_t$ , the present total supply of ETRNL, and  $\psi$ , the minimum ETRNL reserves to ever remain in the treasury, the total amount of ETRNL flowing in,  $A_{in}$  is given by:

$$A_{in} = T_e \alpha (F_r + \frac{\psi R_r}{S_t}) \quad (1)$$

Conversely, assume that not a single liquid gage closes in favor of the Eternal treasury. Taking the treasury’s total ETRNL reserves,  $R_t$ , the liquid gage’s treasury risk,  $r$  and the impermanent loss incurred by any given liquid gage,  $\beta$ , the amount flowing out of the treasury,  $A_{out}$  can be defined by:

$$A_{out} = \frac{(R_t - \psi)(\beta + r + \beta r)}{1 + 2r} \quad (2)$$

At all times, the Eternal Treasury maintains a  $\psi$  value such that  $A_{in} \geq A_{out}$ . Note that the equation does not take the gaging fee into account due to a lack of data regarding the number of individuals staking their ETRNL. Furthermore, as stakers also earn a fraction of this already relatively small fee, its overall effects on the inflow of the Eternal ecosystem can be considered negligible.

Hence, the limiting variable  $\psi$  establishes the desired equilibrium point of the treasury, implicitly placing a limit on the amount of ETRNL which can be gaged. Given the actual initial conditions:  $S_t = 10e9$  ETRNL,  $R_t = 4.25e9$  ETRNL,  $T_e = 90$  days,  $\alpha = 1e7$  ETRNL,  $\beta = 15\%$ ,  $r = 10\%$ ,  $R_r = 1.5\%$  and  $F_r = 1.5\%$ , this yields a value of 4.164e9 (rounded up to the nearest million) for  $\psi$ . Despite its limiting nature,  $\psi$  does not place a limit on the number of gages available, theoretically allowing for an infinity of concurrent gages. However, the treasury does not allow any given receiver to deposit any number of funds into a liquid gage if the payout of both rewards would bring the reserves below  $\psi$ . Therefore, we note that the treasury is pessimistic: it always assumes that a liquid gage will close in favor of the receiver.

**Liquid Gages: Scarcity** In future upgrades of Eternal’s gaging market, liquid gages will become a tradeable good. As such, it is in the best interest of all stakeholders to maximize the scarcity of the gage. Consequently, any given user can only enter up to one gage per asset supported by the platform. For instance, at launch, users may enter one USDC.e gage and one AVAX gage simultaneously but not two USDC.e gages.

**Liquid Gage: Percent Condition** A characteristic property of gages consists of its condition. Given the count of daily ETRNL transactions subject to fees  $\alpha$ , a token deflation rate  $d$ , a time constant  $t_c$  equal to an estimate of the number of days after which 70% of liquidity providers leave, and a time factor  $t_f$  whose product with  $t_c$  is equal to  $T_e$ , the amount of time liquidity providers are desired to provide liquidity for, then the percent condition,  $\%_p$  of ETRNL liquid gages is determined algorithmically by the system using the equation:

$$\%_p = \frac{d\alpha t_c t_f}{total\ token\ supply} \quad (3)$$

$\%_p$  dictates the amount by which a given token supply must change before a gage can close in favor of the receiver in a loyalty gage or any application thereof (i.e, liquid gages). Inflationary token supplies must see their total supply increase by  $\%_p$ , whereas deflationary token supplies must see their total supply decrease by  $\%_p$ .

**Gaging Fees** For any given gage, a 0.5% fee is taken on the actual amount of the deposit used in providing liquidity. Gaging fees are sent to the Eternal Treasury’s reserves. The fee is levied upon settlement of the gage in order to maximize liquidity rewards earned by both stakeholders. However, the fee is inclusive of impermanent loss. This entails that although it is deducted at the time of closing of the gage, the fee is based on the actual amount sent to Trader Joe’s<sup>3</sup> liquidity reserves and not the amount returned after removal of liquidity. Gaging fees ensure ETRNL is not only backed by AVAX-ETRNL LP tokens, earnings from the ETRNL held by the Eternal treasury and its allocation thereof, but additionally a diversified basket of goods earned through said gaging fees which support the intrinsic value of ETRNL. We note that in future applications, where ETRNL can be deposited to gages, the fee will only apply to deposits which are not valued in ETRNL.

**Gaging Rewards** The gaging reward is the amount of a deposited asset and ETRNL returned to both the distributor and the receiver in a liquid gage. In the event that the gage closes in favor of the receiver, the treasury transfers it

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<sup>3</sup>A decentralized exchange on the Avalanche network

two amounts equivalent to:

$$\begin{aligned} reward_{ETRNL} &= \gamma(ETRNL\text{ retrieved} + liquidity\text{ rewards}) \\ reward_{Asset} &= \mu(Asset\text{ retrieved} + liquidity\text{ rewards}) - (\delta Asset\text{ provided}) \end{aligned} \quad (4)$$

Where  $\gamma$  is the distributor risk,  $\mu$  the receiver risk,  $\delta$  the gaging fee,  $reward_{ETRNL}$  the half of the reward valued in ETRNL and  $reward_{Asset}$  the other half in terms of the asset. Note that the amounts used in calculation of rewards are not inclusive of impermanent loss. This implies that the rewards are based on the amounts retrieved after removal of liquidity.

**Future Plans** Eternal seeks to further achieve its goal in reducing short-termism in DeFi by continuously providing new ways for its users to maximize their returns and minimize risks. The option of liquid gages with more asset pairs and pairs not limited to ETRNL pairs is planned, with the release to be announced latest in Q2. This entails the onset of a brand new scarce liquid gage market. Following this, the option of yield gages will eventually be offered too, offering users the highest earning opportunities of all DeFi. These releases preface the release of the tokenization of gages, which will yield value to the gage contract itself. Recall that gage contracts are a scarce good, effectively synergizing with their perceived value. Ultimately, the tokenization of gages will allow users to further leave their gages to work for them through the trading, staking and other options yet to be announced, all applicable to this new abstract type of asset.

## 1.5 ETRNL

ETRNL (spelled out "Eternal") is fundamentally, one of the main three forces in the entire long-termist synergetic system contributing to the overall success of Eternal. Functionally, it is Eternal's governance token. ETRNL accepts up to 18 decimal points and is planned to offer future opportunities to events and other privileges on Eternal. Examples of such privileges include the absence of fees levied on ETRNL deposits used in gages.

### 1.5.1 Economic Value

The intrinsic value of ETRNL is guaranteed by seven factors:

**I/II. Gaging Fees and Buybacks** For all gages, regardless of centralized or decentralized applications, a small fee is taken on any deposited assets which are not ETRNL. This fee is transferred to the Eternal Treasury. This ensures that ETRNL is backed by a diversified basket of goods, which accrues in both variety and quantity over time. Furthermore, half of the fee is also sold back for ETRNL, placing upward pressure on the token's price.

**III. Automatic LP** On every transaction using ETRNL, a small fee is computed. ETRNL provides its own liquidity to decentralized exchanges using a fraction of this fee. As the LP-tokens received from this are only accessible by the Eternal Fund, this increases the token’s price resilience to changes, rendering it more stable.

**IV/V. Indefinite Deflation** One other fraction of the aforementioned ETRNL fee is sent to the Eternal Treasury, and another is redistributed to all holders of ETRNL. These two additional streams of revenue in ETRNL accumulate in the treasury over time. This leads to a long-term compounding of ETRNL reserves. The total ETRNL supply temporarily deflates as part of it remains unused in the Eternal Fund for an indefinite period of time. This percentage of the supply can be re-injected into the economy in the event that ETRNL’s rate of deflation becomes detrimentally high. Additionally, this particular income stream of the Eternal Treasury is also in part responsible for the sustainability of gages, leading to a recycling of the economy.

**VI. Allocation of Reserves** All of the Eternal Treasury’s reserves are to be allocated to diverse financial strategies by the Eternal Fund, in an effort of maximizing the economic value of said reserves. The strategies which the reserves undergo result in an increase of their value. The quantitative increase in value is also allocated by the Eternal Fund. Hence, the Eternal Treasury’s reserves (further) compound over time, while the supply decreases, leading to an exponential increase in intrinsic value of ETRNL in the long-term.

**VII/VIII. Definite Deflation** At present, most major currencies in our world’s economy are inflationary. This is also true of cryptocurrencies. With such contexts in mind, deflation leads to the increase of purchasing power of a given token. This is further reinforced by the idea that the other currencies, against which ETRNL is compared to, are inflationary. Therefore, their purchasing power compared to that of ETRNL decreases in the long-run. ETRNL is deflationary by standard due to having a fixed money supply. Additionally, ETRNL also burns its supply, which introduces a rate of deflation. This rate is modifiable and can therefore be deactivated in any event of economic distress.

### 1.5.2 Eternal Flywheel: The Virtuous-Cycle model

Taking the factors affecting the economic value of ETRNL and the *modus operandi* of the Eternal Treasury (see section 1.4), one particular observation quickly becomes clear: gaging fees and gages which close in favour of the treasury create an upward pressure on the price of ETRNL. Therefore, gaging activity creates upward pressure on the price of ETRNL. Simultaneously, gaging activity also leads to ETRNL flowing out. Some ETRNL flowing out finds its way back into the treasury, which consequently distributes more gages and further contributes to ETRNL’s upward price pressure. As this occurs, part of the



ETRNL supply deflates, further contributing to the value of ETRNL. These events keep repeating themselves unless  $\alpha$  (see Section 1.4) is 0. Thus, this leads to a virtuous cycle: the ETRNL Flywheel.

### 1.5.3 Supply Allocation

ETRNL has a total/max supply of 10 000 000 000. The entire supply will be minted at launch and allocated according to the following metrics:

- 42.5% reserved for a fair Initial Gage Offering
- 42.5% sent to the Eternal Treasury’s gaging reserves
- 5% reserved for the pre-seed sale
- 5% reserved for the seed sale
- 5% reserved for private sales

Any leftover ETRNL from the IGO and any other sales will be sent to the Eternal treasury, allowing holders to decide on its allocation.

### 1.5.4 Initial Gage Offering

An initial gage offering (IGO) is an initial liquidity offering (ILO) with the option of loyalty gages.

**IGO: Explained** In an ILO, individuals deposit a given asset and receive the blockchain project’s token in return. On the other hand, in an IGO the procedure remains the same, with the exception that individuals are given an alternative choice of gaining a large bonus percentage of the initial amount of tokens desired. This comes with the condition that the initial amount must be deposited in a loyalty gage between the user and the blockchain project. In either case, the deposited assets are used to provide liquidity to an asset-token pair on one or more decentralized exchanges.

**Eternal IGO** At launch, an IGO will be conducted, accepting both USDC.e and AVAX tokens. As the available supply of ETRNL reserved for the IGO decreases, the receiver risk, which starts at 30%, will decrease by a factor of 5% for every 25% decrease in available ETRNL. This entails that earlier users will have access to better gaging deals, earning them more ETRNL. Note that the percent condition will still be calculated according to equation (1) in section 1.4. Moreover, there will be a limit of one loyalty gage per user and users are limited to earning a maximum of 10 000 000 ETRNL through both gaging and depositing. This means that a single wallet can have one active loyalty gage and deposit USDC.e/AVAX for ETRNL an indefinite amount of times, until that

wallet’s 10 000 000 ETRNL limit is reached. The following example covers the unfolding of events regarding either choice a user may make when participating in the IGO.

**Example** Alice and Bob are investors taking part in Eternal’s IGO. They each own 100 USDC.e. Both investors are given the choice of either depositing their 100 USDC.e on the IGO contract in exchange for 150 ETRNL, or to deposit their 100 USDC.e on a loyalty gage with a 36% risk percentage and 35% bonus.

Alice chooses the first option, depositing 100 USDC.e and gaining 150 ETRNL. Bob chooses the second option, depositing 100 USDC.e and entering a loyalty gage contract with a deposit of 150 ETRNL, risk percentage of 36% and bonus of 35%. The gage’s percent condition rewards Bob as soon as the ETRNL token supply has decreased by 0.0015%.

Bob instantly gains 52.5 ETRNL, available for usage as soon as the 100 USDC.e are deposited. 150 ETRNL are held by the loyalty gage, available for withdrawal at any time. If the ETRNL is withdrawn before the percent condition is met, the gage closes in favor of the Eternal Treasury, and Bob pays 54 ETRNL (from the deposit) to the Eternal Treasury. Otherwise, Bob is rewarded an additional 52.5 ETRNL by the Eternal Treasury. Both Alice and Bob’s 100 USDC.e are added as reserves to a liquidity pair.

It is worth noting that while Alice gained 150 ETRNL through the regular choice, Bob can gain up to 255 ETRNL through the alternative choice, equal to a 70% increase relative to Alice’s gain.

### 1.5.5 Transaction Economics

Every transaction which uses ETRNL includes four fees. Members of the Eternal Fund may partake in voting on the modification of these rates. The four fees and their respective initial rates consist of:

1. Reward Redistribution (initially 2.5%)
2. Automatic Liquidity Provision (initially 1.5%)
3. Treasury Funding (initially 0.5%)
4. Supply Burn (initially 0.5%)

This adds up to an initial total rate of 5%.

### 1.5.6 Reward Redistribution

Reflection is a reward redistribution mechanism originally introduced by developer Morpheus from Reflect.Finance (RFI) ([Morpheus, 2020](#)).

**Mechanism** Reward redistribution instantly splits part of the transaction fees amongst all holders of ETRNL. This is performed by keeping track of reflected and true balances of users, and using a reflection rate to inter-convert between the two. This is similar to the cash reserve ratio used by central banks. The reflection rate follows the equation:

$$\text{Reflection Rate} = \frac{\text{Net Reflected Supply}}{\text{Net True Supply}} \quad (5)$$

Where the net supplies are supplies to which we deduct any balance excluded from fees or rewards. A reflection rate allows the token to artificially deflate its total supply simply by updating the rate rather than updating each user’s balance, which bypasses the gas-inefficient way of manually sending each user their part of the fee.

**Benefits** A unique quality of reward redistribution is that users are able to passively stake their tokens directly from their wallet simply by holding ETRNL. Reward redistribution also supports long-termist philosophy by incentivizing users to hold their funds in their wallets for extended periods and by discouraging high frequency trading (HFT) of ETRNL.

**Changes** Although the Eternal developer team inspired its implementation from RFI, the current framework has been thoroughly simplified and documented. This enables any external developer who would like to implement reward redistribution to refer to Eternal’s token contract if they wish to further understand this mechanism.

### 1.5.7 Automated Liquidity Provision

Automated liquidity provision (ALP) is the automatic generation of locked liquidity for the ETRNL/AVAX pair on decentralized exchanges. The LP tokens received through this mechanism are locked into the Eternal Liquidity contract handling this process.

**Mechanism** ALP has an on/off switch, manipulable by the Eternal Fund. The Eternal token contract accumulates ETRNL over time from fees. Once the ETRNL balance is equal to the *tokenLiquidityThreshold*, if ALP is on, the token contract sends its balance to the treasury which will swap half of its balance for AVAX and use it to add liquidity to the ETRNL/AVAX pair on Trader Joe.

**Benefits** The liquidity tokens owned by the treasury contract can only be withdrawn by the Fund. This acts as a liquidity floor for the ETRNL/AVAX pair, which increases the pair’s resilience to price impact. Consequently, this protects the pair’s exchange rate in the event of sizeable trades. Furthermore, this also increases the value of the ETRNL token in the long-run as the liquidity provision rewards accrue in the treasury’s reserves.

**Changes** While the idea of automatic liquidity provision was popularized by SafeMoon (Smith, 2021), the Eternal developer team ensured to resolve most issues raised by the CertiK audit (CertiK, 2021) for the current implementation. Other additional improvements include simplification of existing processes and thorough documentation to maximise future re-usability and comprehension.

#### 1.5.8 Burning

ETRNL automatically burns its supply over time. In the long-term, this results in a deflationary mechanism whereby the lowered supply creates a lower price equilibrium. This lower price equilibrium signifies a higher purchasing power for users.

**Benefits** Recall that ETRNL is backed by a basket of goods which is employed into different yield farming strategies. Therefore, as the intrinsic value of ETRNL rises, its supply decreases, making the good more scarce. This creates a long-standing, cumulative upward pressure on the value of ETRNL. Since the value of the currency has a propensity to increase over time, this further creates an incentive for holding, while simultaneously promoting a long-termist framework.

### 1.6 Eternal Fund

The Eternal Fund is the governing body of the Eternal ecosystem tasked with three main objectives:

**I. Allocation of Reserves** The Eternal Fund controls the Eternal Treasury, which holds all currency reserves earned through the numerous income streams of the Eternal ecosystem. The fund is tasked with allocating these reserves as it sees fit, always adhering to the goal of further contributing to the maximization of ETRNL’s economic value.

**II. Maintenance of Eternal** All Eternal contracts rely on multiple parameters related to the ecosystem’s mechanics. This includes rates, constants, factors and limiting variables, used in the functionality of gages and ETRNL. The fund is in charge of updating and maintaining these parameters in an effort of promoting the well-being and fluidity of the system.

**III. Evolution of Eternal** The best systems always adapt to new conditions. In a similar spirit, the Eternal Fund is capable of the addition, removal and manipulation of functionality in all Eternal modules so as to update the Eternal ecosystem. This follows the objective of ensuring evolution of the system and preventing its stagnation.

### 1.6.1 Treasury

The Eternal Treasury holds all the reserves earned through the various income flows of the Eternal ecosystem. Reserves have two main purposes: firstly, they ensure that ETRNL has a tangible representation of its intrinsic value which also grows in value in the long term. Second, reserves maintain sustainability of the Eternal platform. Gages which close in favor of the treasury, do not cost the platform any ETRNL. On the other hand, gages closing in favor of the individuals do. As ETRNL flows out of the platform to successful gagers, the ETRNL in the reserves recoups the lost ETRNL over time as a result of the token fees. Note, however, that if the treasury is the only stakeholder providing ETRNL for gages, this greatly limits the number of gages available. In the future, with the tokenization of gages, this will in fact turn into a positive attribute of gages. However, in the meantime, this presents itself as a potential negative due to it reducing the amount earned by gaging fees.

**Active Staking** In order to overcome this potential issue, Eternal presents the concept of active staking. ETRNL holders are given the opportunity to earn a percentage of the gaging fees and rewards normally limited to the treasury. This is done by giving up ETRNL passive staking and lending ETRNL to the treasury to support increased loads of gaging activity. Active stakers may cease to do so at any point in time. When active stakers decide to unstake a given amount of ETRNL, they may receive it in terms of any token held by the treasury.

### 1.6.2 Governance

Users holding ETRNL can vote on proposals to decide on numerous parameters regarding transactions. The following voting rights include but are not limited to:

- Updating ETRNL transaction fee rates
- Updating the gaging fee rate
- Updating the token liquidity threshold
- Updating any Eternal contract (apart from the storage contract)
- Updating constants
- Updating factors
- Updating limiting variables
- Toggling automatic liquidity provision
- Allocating token reserves of the Eternal Treasury
- Allocating LP-token reserves of the Eternal Treasury

## 1.7 Eternal Finance B.V.

Future developments and releases tackling short-termism in other areas such as in the healthcare system or the credit system in lesser developed countries require appropriate bridging of the centralized and the decentralized. This is necessary for governmental agreements or in some cases, due to a lack of technological infrastructure in certain countries. Therefore, Eternal Finance B.V. is the centralized structure which works with Eternal for these upcoming developments. In any case, Eternal Finance B.V. does not own Eternal. Note that neither the developers or Eternal Finance B.V. will hold any initial stake in Eternal. This is reserved only for seed/private investors. However, Eternal Finance B.V. will participate in regular buy-backs of the ETRNL token using the proceeds earned through future gaging applications planned for centralized entities such as governments or traditional financial institutions.

## 2 Summary

Eternal introduces the world's first gaging market on Avalanche, offering a financial instrument with the lowest risk/reward in the entire DeFi market. Users can participate in liquid gages and provide liquidity to ETRNL pairs at a 50% discount, whilst still earning additional rewards instantaneously. Future updates promise a liquid gage market for other tokens, yield gages and the tokenization of gages. Gage applications, including but not limited to the aforementioned, allow significantly greater revenue than any other presently existing means of passive income by adding a layer of revenue to current DeFi systems and simultaneously solving short-termist issues such as ephemeral liquidity provision. The ETRNL token allows users to participate in gages while earning them passive income from staking. It is backed by a basket of assets held by the ETRNL Fund's treasury. ETRNL token holders can vote on the Eternal Fund to decide and modify the ecosystem and manage its treasury. However, Eternal's debut in DeFi is no limit to upcoming updates: Eternal has already planned and began working on tackling short-termism in numerous other industries, through the offering of other gage-related services that are soon to come.

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