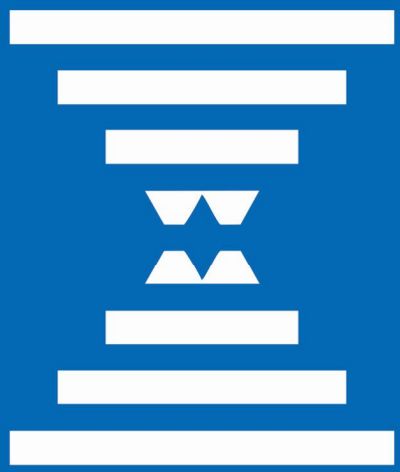


TLB staking

TLB staking is an ethical, community-driven cryptocurrency that rewards long-term investing with high-yield interest rates and weekly dividends.

WHITEPAPER

v 1.0

WHY TLB staking?

How Investors Favor TLB staking

An Investment Vehicle.

TLB staking offers a frst-of-its-kind blockchain powered venture capital fund alongside high interest time-locked savings deposits (stakes) that earn high interest via our smart contracts.

A Global Cryptocurrency.

TLB staking is a scaleable, spendable global currency - TLB. TLB staking's professional partnership allows for a true world class VISA-sponsored crypto credit card that works directly with TLB.

Orderly Passive Income.

Our innovative dividend mechanisms provide investors and TLB shareowners with rewards in Bitcoin and other top cryptocurrencies, which are immediately liquid while your TLB accrues interest upon its principal.

Why Investors Choose The TLB staking Network

Our Auction Platform.

Where TLB staking Network investors participate in separate avenues of bids and purchases on upcoming auctions in return for TLB and different bonuses.

Our Staking Platform.

Where TLB investors utilize their TLB tokens to earn SHARES by executing time-locked deposits, which in turn awards dividends over a period of time.

Our Rewards Mining Platform.

Where network participants can utilize liquidity mining mechanisms in return for real-time bonuses in TLB tokens.

TLB staking BY THE NUMBERS

- 212B+ Total Staked
- 452B+ Total Supply
- 78B+ Staked 5555 Days
- $2M+ BTC Paid to Stakers

As of March 25, 2021.

For up-to-date statistics visit TLB staking.network

Whitepaper Contents

Updated March 2021

02. Executive Summary

TLB staking offers a frst of its kind blockchain powered venture fund alongside high interest time-locked savings deposits (stakes) that earn investors high interest of ~8% plus additional dividends. TLB staking also acts as a scalable, spendable global currency with its native token TLB. Pay for anything in everyday life using TLB and BTC dividends with our strategic partnership with Connect Financial, who offer a true world class VISA-sponsored crypto credit card that works directly with our native digital token TLB, Bitcoin, and more.

TLB staking allows anyone to earn on their investment via venture capital auctions and time-locked deposits on the blockchain with the TLB token. Share rates in the TLB staking ecosystem are the most valuable asset as they determine the payouts drawn from reward pools / investment pools / dividend pools. Shares as they are in the TLB staking ecosystem are earned by staking TLB, with the share rate determined by the accumulation of users' share(s) divided by the total shares in the ecosystem multiplied by the payout for each day's reward cycle. Network participants earn higher share rate(s) by staking TLB for larger and longer periods of time (much like CDs) in order to accumulate more dividends/rewards.

Staking TLB tokens earns investors liquid dividends while simultaneously earning interest on their principal TLB that is staked on our platform. Our innovative dividend-producing mechanisms provide investors and TLB shareholders rewards in Bitcoin and other top cryptocurrencies, which are immediately liquid while their TLB accrues interest upon its principal via our smart contracts for the users' desired period of time, based on their stake length.

Trust and transparency in the TLB staking network is based on mathematical principles, blockchain technology, and smart contracts on the Ethereum network. Additionally, our highly experienced team and cooperative community members offer an unparalleled level of support to ensure a simplifed, safe, and secure process in understanding and participating in our decentralized platform.

TLB staking

03.

TLB staking 'S MISSION

is to build an ethical ecosystem designed for digital asset portfolio growth and a scalable passive-income solution

FOR ALL INVESTORS.

Welcome to a #betterwaytocrypto

04. Why TLB staking Exists

In the last few decades, adoption and growth of financial technology (FinTech) products and services have increased in a rather substantial and secular fashion - into the multiple trillions of dollars of market capitalization. FinTech is both the innovative technology, and the industry in which new financial service-based applications, business models, processes and operations, and products are created and utilized by corporations, entrepreneurs, and consumers. The digitization of financial instruments has proven to be ever more useful and prominent in more recent times, due to the global pandemic of ~2020-2021. Two examples of accelerated growth in FinTech services throughout the pandemic include the digitization of payments and otherwise conventional financial services being delivered digitally. From being unable to visit local bank branches in order to make deposits to obligatory work-from-home requirements, more often we see consumers and clients utilize services that are entirely digital.

QUICKSTATS:

Bitcoin Market Capacity

$912B

As of March 1, 2021
via coinmarketcap.com

Ethereum Market Capacity

$178B

As of March 1, 2021
via coinmarketcap.com

Number of Bitcoin wallets worldwide

68M

As of March 1, 2021
via statista.com

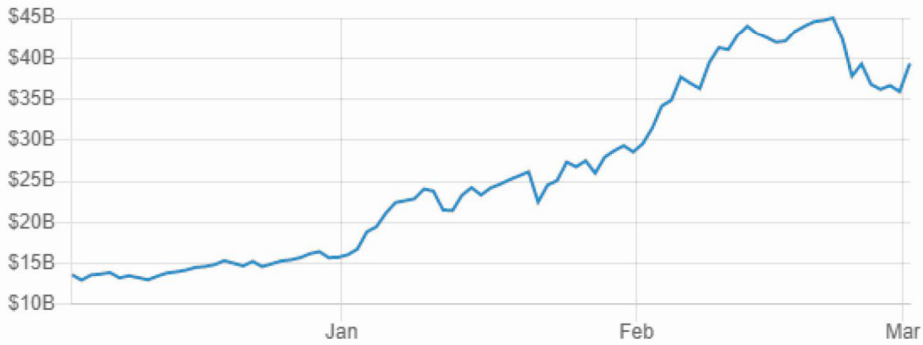
The emergence of blockchain technology has demonstrated disruption in centralized economies by introducing decentralized economies of scale, transparency, and of user control. The introduction and rise of Bitcoin illustrated the strength of distributed ledger technology (DLT) by showcasing and retaining immutable data and an unprecedented level of security on the blockchain - thus reducing fraud and maintaining global accessibility in a digital payments system; cryptocurrency.

Beyond Bitcoin there exist other blockchains and cryptocurrencies, most notably Ethereum - another decentralized, global ecosystem that not only introduces digital money and worldwide payments, but applications as well.

Building upon the foundational layers of financial services, systems, and blockchain technology has brought forth one of the most substantial and innovative growth economies on the Ethereum network - decentralized finance (DeFi). These particular applications utilize cryptocurrencies to offer a new paradigm in typical banking systems and products like lending, private payments, and earning interest.

DeFi had amassed over USD $39.11B on March 1st, 2021 from just roughly USD $1.01B exactly one year prior, exhibiting an exponential 39x growth in Total Value Locked (TVL).

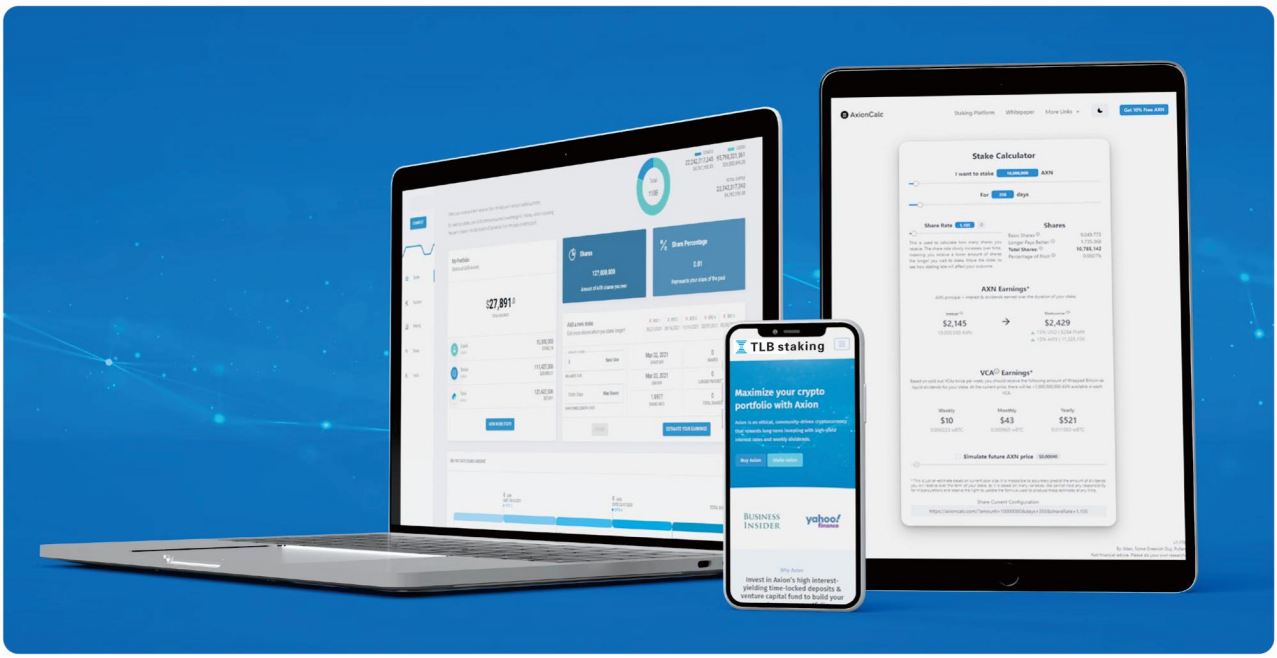
Total Value Locked (USD) in DeFi



As of March 1., 2021 Courtesy

Enter TLB staking. TLB staking is a decentralized fnance application and network that is designed to increase the purchasing power of its ecosystem participants through providing a mathematically viable interest accrual model (through infation) in its platform, executed via blockchain smart contracts.

While TLB staking provides ecosystem participants (stakers) with interest paid in its native digital token TLB at the end of mutually agreed upon staking period(s), it also utilizes Bitcoin's liquidity on the Ethereum network by awarding tokenized Bitcoin (wBTC) to stakers in the form of liquid dividends. TLB staking's "staker" class can earn and spend tokenized Bitcoin globally, effciently, and with trust and integrity on the blockchain, with the amount of both dividends and interest earned based on the aforementioned share rate that individual users have accrued by staking.



Pictured: the TLB staking Staking platform, calculator, and mobile website.

TLB staking is an ethical, community-driven cryptocurrency that rewards long-term investing with high-yield interest rates and weekly dividends.

05. The TLB staking Solution

TLB staking aims to solve common traditional fnance concerns and issues, which range from antiquated banking practices, centralized governance and authority, and immensely low interest rates and returns on investment(s).

THE PROBLEM

LOW INTEREST RATES

Interest rates, globally, are the lowest they have ever been in history and represent true economic fragility. Over several decades, there has been signifcant downtrend in interest rates and are expected to continue to stagnate. Even if interest rates begin to rise, the process of such would take several years, or even decades to be at sound investment levels .

LEGACY BANKING CD'S

A certifcate of deposit is a product traditionally offered by banks, brokerages, and credit unions worldwide, that provide their customers a favorable interest rate compared to a standard savings account. The premium is offered in return for the customer locking up their funds for an agreed-upon time period (months, years). Unfortunately, traditional CDs just don't offer any outstanding or appealing interest rates, with a majority of them well under 1.5–2%- yet the amount of capital invested in CDs worldwide is well into the trillions of dollars.

THE TLB staking SOLUTION

SUPERIOR INTEREST RATES

TLB staking generates an 8% interest rate directly to the network participants through fxed infation, in an optimized system built for scalability. This minimum 8% yield generates market-beating returns, in addition to the other token benefts such as liquid dividends.

CRYPTOCURRENCY CD'S

TLB staking's investment product is the crypto equivalent of a CD. TLB staking provides its network participants a CD- equivalent product at a minimum/baseline interest rate of 8%, on the blockchain, for maximum safety, security, and transparency. TLB staking also introduces similar traditional CD features such as emergency unstake/withdrawal penalties to incentivize successful, longer stake periods. The interest rate that TLB staking offers its stakers is far more than any traditional CD investment/lock-in period on the planet.

THE PROBLEM THE TLB staking SOLUTION

LEGACY FIAT DOLLARS

Fiat currencies are inherently locked to their representative governments and are subject to fscal policies infuenced by politics, changing administrations, and foreign policy. They also serve limited purposes, like the paying of goods and services, and are not reliable as stores-of-wealth and do not inherently offer any "smart" features or provide their owners opportunities for growth.

CRYPTO SMART CONTRACTS

TLB staking is a cryptocurrency that allows for important and benefcial functions that can be programmed into the smart contract(s) on and within the Ethereum Network. Your investment is secured by trustless blockchain technology, in addition to allowing unique, secure and verifable Smart Contracts to run on the network, giving your TLB staking the power to grow and develop over time as new features are expertly coded.

What are Smart Contracts?

TLB staking is a cryptocurrency that runs on the Ethereum network, which is a decentralized blockchain network that not only manages transactions from one currency to another, or one wallet to another, but also allows for unique code to be run on its network in a secure, verifable manner. Smart Contracts can be summarized as computer code that self-executes or automatically executes specifc function(s) or agreement to run on the decentralized network - the blockchain.

The functions of the TLB staking smart contract(s) include:

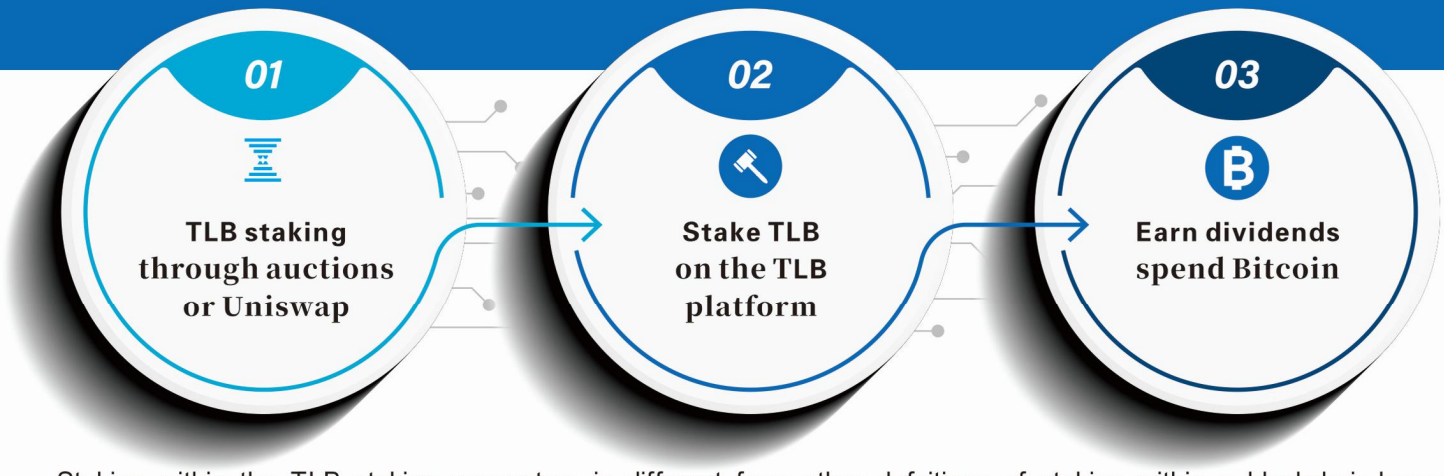
- Daily auctions.
- Token buybacks.
- Staking tokens from auctions.
- Early exit and withdrawal fees.
- Fixed infation rate.
- Network staking.
- Share distribution.
- Bonus multipliers.
- Implementation of longer stakes paying better.
- Calculation of payout pools.
- Automation of payouts.
- "BigPayDays" accruing yearly for stakers.
- Referral programs
- Payouts of wrapped Bitcoin (wBTC) dividends.

Within all of these functions exists complex code that has taken expert development over several months. The majority of the code is also public for transparency on GitHub. There has also been an independent economics audit to ensure the platform has infnite operability for decades to come. These are the benefts of TLB staking being a cryptocurrency on the world's most popular and trusted blockchain- Ethereum.

06. TLB staking's Business Model

TLB staking's business model can be explained in just a few steps. There is the act of acquiring TLB staking (TLB), staking it, and then receiving dividends based on how a user chose to stake.

In the most simple terms,
staking is locking up cryptocurrencies to earn rewards.



Staking within the TLB staking ecosystem is different from other defnitions of staking within a blockchain-based ecosystem. Traditionally, staking refers to the consensus algorithm that supports a blockchain network with regards to operability and security- referred to as Proof of Stake (PoS). TLB staking's network is already secured by the underlying blockchain, which at the moment is Ethereum- the most utilized blockchain in decentralized fnance.

Step 1: Acquiring TLB staking through auctions or Uniswap.

A user will perform one of two actions- purchase TLB staking by trading it from Ethereum (ETH) on Uniswap (a popular decentralized automated market maker) or by participating in the Auctions. There are two separate auctions, Regular Auctions and Venture Capital Auctions.

Regular Auctions

The regular auction "raffes" accumulated TLB staking tokens between users, in proportion to the participants' bid in Ethereum (ETH). Any leftover TLB from the auction rolls over into the next weekly auction. When a user places a bid in ETH, 80% of the received ETH is used to instantly buy back TLB on Uniswap and the received TLB is distributed as dividends to the staker class. 19% of the ETH is TLB staking Foundation proft whereas 1% goes to The Eden Reforestation Project where every $0.10 donated plants one tree. The TLB staking founder owns no TLB tokens and is paid directly through the TLB staking Foundation.

All TLB staking received from this auction including referral bonuses must be staked for a minimum of 60 days upon withdrawal. The stake length may be increased to 5555 days. By increasing the stake length, the more shares the user receives in return which results in more dividends received from the auction buybacks.

Venture Capital Auctions

There are two Venture Capital Auctions per week, on Tuesday and Friday. Each of these particular auctions have a maximum cap of 1B (billion) TLB, for a total of 2B per week. Venture Capital Auctions bring in a new dividend asset class in the form of wrapped Bitcoin (wBTC) which simply utilizes Bitcoin's liquidity on the Ethereum network. The Venture Capital Auction investor also receives an immediate 10% bonus in the form of liquid wBTC direct to their wallet, as soon as their bid transaction is confrmed.

The auto-stake period for VCA's are a minimum of 120 days- longer than the normal auctions in order to offset the additional reward paid in wBTC. VC auction investors may choose to stake for anything between 120 days up to a maximum of 5555 days by adjusting a sliding scale with the date attached. Longer auto-stake periods for purchased TLB beneft greatly due to the BigPayDays and LongerPaysBetter bonuses while also securing a better share rate.

The rewards for VCA's are wBTC, where 85% of all ETH raised is used to purchase wBTC and distribute it across the staker class- these dividends are liquid and withdrawable at any time. A further 10% is a wBTC bonus to the bidder, and 5% is TLB staking Foundation proft. In the near future, additional alternative coin (altcoin) dividends will be introduced.

Users can fnd the auction portal and more information

Step 2: Staking TLB staking on the TLB staking platform.

The TLB staking staking platform is where users lock up their TLB staking in exchange for shares to earn dividends over time. staking contract temporarily burns TLB in return for shares. Shares in the TLB staking ecosystem are the most valuable asset as they determine the payouts drawn from reward pools / investment pools / dividend pools. A user‘s share rate is determined by the accumulation of users' share(s) divided by the total shares in the ecosystem multiplied by the payout for each day's reward cycle. Network participants earn higher share rate(s) by staking TLB for larger and longer periods of time (much like CDs) in order to accumulate more dividends over time.

Users can fnd the staking portal and more information

Step 3: Earn dividends, spend Bitcoin

TLB staking shareholders that are staked in the ecosystem earn dividends in the form of tokenized Bitcoin (wBTC) which they can withdraw and spend, while the principal TLB accrues interest that is able to be withdrawn at the end of the stake period, alongside the principal amount of TLB. When a user ends their stake, their shares cease to exist and their TLB is minted and sent to their respective wallet.

07. Ecosystem Features

SHARES & INTEREST

Shares & Interest

The principle behind the staking system is to lock the TLB staking a mount for a period and convert it to Shares (on the StartDay of the stake) that rewards longer staking according to the L*ongerPaysBet er* bonus mechanism. These Shares are used to calculate a daily interest (in TLB staking) over the stake period. Each day a total interest to be shared among all stakeholders called TotPayoutTLB*(*Day*)* is calculated and given in equaon (1)

(1)

$$TotPayoutAxn(Day) = APD\ (TotLiquidAxn(Day-1) + TotStakedAxn(Day-1)) + AuctionBuyBackAxn(Day-1)$$

where the different parameters are

- *APD* is the daily interest APY/(100x365) = 8%/(100x365).
- *TotLiquidTLB*(*Day-1*) isthe total liquid TLB staking amount on the previous day.
- *TotStakedTLB*(*Day-1*) isthe total staked TLB staking amount on the previous day.
- *Auct onBuyBackTLB*(*Day-1*) is the payout from Regular Auc on events from the previous day.

Each stakeholder s daily interest PayoutTLB*(*Day*)* is calculated propor on al to the Stakehold*er-Share -Percentage* (SSP) {or PerCentage-of-Pool, PoP as in TLB stakingc.com }

(2)

$$PayoutAxn(Day) = \frac{1}{100}\ SSP(Day)\ TotalPayoutAxn(Day)$$

The *SSP* at the current Day is

(3)

$$SSP(Day) = \frac{100\ Shares(StartDay)}{TotShares(Day)}$$

where *Shares*(*StartDay*) *is calcu*lated at the start of the stake and is constant over the whole stake and *TotShares*(*Day*) is the sum of all stakeholders shares at the current Day. TotS*hares*(*Day*) will change from day-day depending on the added and subtracted shares from new stakes and unstakes.

At the end of the stake the stakeholder?sunstake amount *UnstakeTLB*(*EndDay*) iscalculated as the sum of all days of interest and the principal *StakeTLB*(*StartDay*)

(4)

$$UnstakeAxn(EndDay) = StakeAxn(StartDay) + \sum_{Day=StartDay+1}^{EndDay} PayoutAxn(Day)$$

In addieon each stakeholder will receive liquid dividends in form of wBTC from the Venture Capital Auctirons propor onal to the stakeholders SSP.

LONGER PAYS BETTER

Longer Pays Beer The idea behi

TLB staking's LOGO *ngerPaysBet er* (LBP) funcon ality is to reward users that stake for longer periods of me, muchlike that of a standard cerfi cate of deposit. The longer duraon of the stake, the more shares are earned as a bonus.

The total number of Shares earned at the StartDay of staking is given by the equaon

(5)

$$Shares(StartDay) = BasicShares(StartDay) + LpbShares(StartDay)$$

where Basic*Shares* is given by

(6)

$$BasicShares(StartDay) = \frac{StakedAxn}{GSR(StartDay)}$$

and L*pbShares* is given by

(7)

$$LpbShares(StartDay) = \frac{1}{1820}\ \frac{StakedAxn\ (NumDaysStaked - 1)}{GSR(StartDay)}$$

where the minus accounts for the minimum stake period of 1 day.

The GSR*(*StartDay*)* is the so-called Global-Share-Rate (seenext chapter for details) which is used to control the in fl aon, such that the number of Shares for a new stake is reduced over me by increasing the GSR factor a small amount every day. A new GSR update procedure was introduced on February 15 th 2021 with a start vue of 1.09 and with the current rate of change an esmate (equa on 14) gives a GSR value of 1.55 and 2.22 for stakes stareng one and two years later.

In order to illustrate the mulp licaon effect of Lo ngerPaysBee r we assume a stake of 1 TLB staking. Then we can define a BonusMultp*lier* by using equa on (5) and insert equa on (6) and (7) and get the equa on

(8)

$$BonusMultiplier(StartDay) = BasicMultiplier(StartDay) + LpbMultiplier(StartDay)$$

where BasicMultp *lier* is given by

(9)

$$BasicMultiplier(StartDay) = \frac{1}{GSR(StartDay)}$$

and L*pbMultp lier* is given by

(10)

$$LpbMultiplier(StartDay) = \frac{1}{1820}\ \frac{NumDaysStaked - 1}{GSR(StartDay)}$$

The number of Shares may thus alternatively be calculated using the *BonusMultiplier* (BM) equation

(11)

$$Shares(StartDay) = StakedAxn\ BonusMultiplier(StartDay)$$

The *BonusMultiplier* (BM) equation (8) is shown in figure 1 below for all staking days from 1-5555 where BM example values are shown every other year using the 3 GSR values of 1.09, 1.55 and 2.22 for stakes starong at February 15 the in 21,2022 and 2023 respectively. The maximum BM value at 5555 days (15.2 year) is 3.72,2.61,1.83 which is equivalent to a multiplier effect of 372%,261%and 183%.

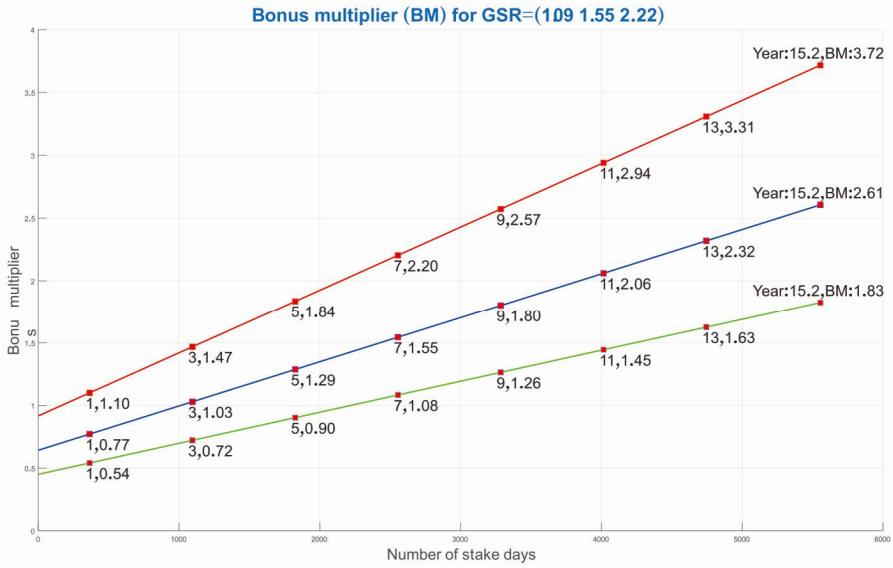


Figure 1 BonusMulplier vs. number of stake days for GSR values (1.09 red, 1.55 blue,2.22 - green). Red square markers show (number of staked years,BM).

In Figure 2 below we use the Bonus Mulplier example in Figure 1 and shows the number of *Shares versus the number of stake days* for a staked amount of 10 Million TLB. The same results may be derived from Figure 1 by directly mulplying the BM values by 10 Million.

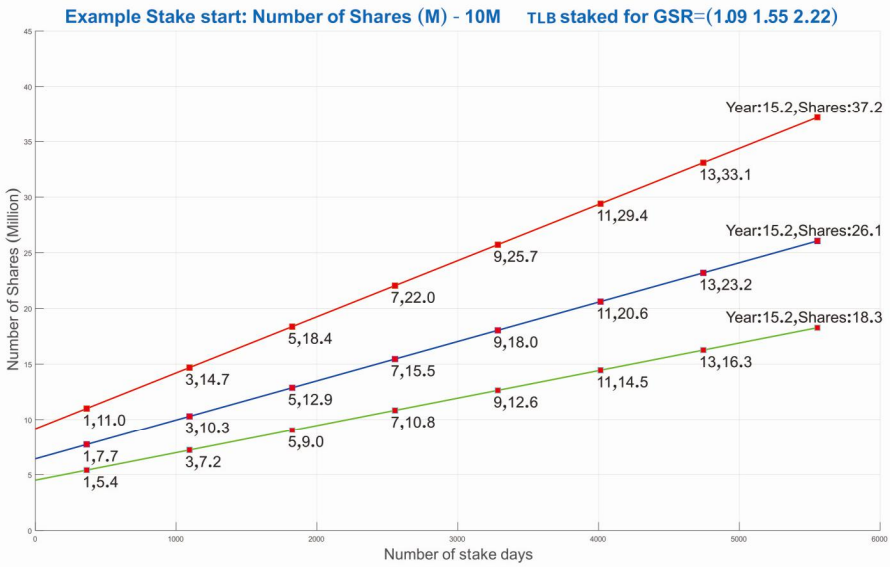


Figure 2 Example of Shares received from 10 Million TLB staking versus ber of stake days for GSR values (1.09–red, 1 .55- blue,2.22 -gr een). Red square markers show (number of staked years,BM).

LIQUIDITY MINING

TLB staking has created its own liquidity mining platform that allows participants to provide liquidity on Uniswap (TLB staking's preferred open marketplace to buy and sell TLB), to earn additional rewards in TLB. Users deposit Liquidity Provider (LP) tokens on Uniswap and get rewarded in liquid TLB rewards that are calculated on a block-by-block basis. On average, a new block is created every 13 seconds and therefore users can both see their rewards withdraw their rewards, in real time.

This initiative incentivizes liquidity trading pool provision for the TLB staking ecosystem where rewards are accrued on top of the standard fee generation from Uniswap.

In order to participate, users must deposit into a mine on our platform page found below, and then follow these simple steps:

- Purchase or own TLB tokens.
- Fund the Uniswap liquidity pool with TLB and an ETH equivalent.
- Upon adding liquidity, Uniswap generates you LP tokens as a proof of deposit.
- Deposit these LP tokens in the portal to earn rewards in TLB while supporting the ecosystem.

Within this platform, there exists three non-fungible tokens (NFTs) that interact directly with this particular contract- the OG 5555 2.5M V2, the OG 5555 100M V2, and the Liquidity Provision NFT. Each NFT provides a 10% bonus to the liquidity allocation if held in a user wallet.

All of the statistics of the rewards/liquidity mining platform can be found here.

GLOBAL SHARE RATE

Global Share Rate The TLB staking ecosystem has a

The TLB staking has a built-in infla on over me sinrce the total TLB staking volume $TotSupplyAxn(Day) = TotLiqu\ TLB(Day)+TotStakedTLB(Day)$ is increased for every unstake, aucon and BigPayDay event where addioonal TLB stakings are in. This means that the total interest $TotPayoutTLB(Day)$ *increases over me which in turn increases the daily* $PayoutTLB(Day)$ *per stake*. In order to control the inflaon, the anumber of Shares for a new stake is reduced over me by increasing the Global-Share-Rate (GSR) factoa small amount every day. This means that a new stake converts to fewer Shares if a user starts a new stake tomorrow or later instead of today with the same amount of TLB staking. Thisian efficient way to reward lo ng staking over gaming strategies with mul ple staking-unstaking-staking over short periods of me (see Appendix A 1.3 for details).

A new GSR update procedure was introduced on February 15.2021 with a start value of 1.09 and increased each day according to the following equa on

(12)

$$GSR(Day) = GSR(Day-1)\ (1 + ScalingFactor(Day)\ GrowthFactor(Day))$$

where the different parameters are

- $GSR(Day\text{-}1)$ is the GSR value on the previous day.
- $GrowthFactor(Day)$ *is the m*ain parameter used to automa cally control GSR increase
- ScalingFactor(Day) is an infla on rate change control parameter that may be used for addl onal decrease or increase rate of the GSR update amount. Currently fixed at 1.0.

The Growt*hFactor*(Day) *for the*current Day is calculated as

(13)

$$GrowthFactor(Day) = APD + \frac{AuctionBuyBackAxn(Day-1)}{TotLiquidAxn(Day-1) + TotStakedAxn(Day-1)}$$

The current $GrowthFactor(Day)$ measured over 15 days from February 15*th* is 0.0009733 where APD is fixed at 0.0002198 and the average contribu on from the auc on buybacks are 0.0007541.

In order to illustrate the effect of the Growt*hFactor*(Day) on GSR update, the current GSR update func on may t hus be wri en usi ng *DaysRelatve* to February 15. 2021 as

(14)

$$GSR_{example}(DaysRelative\_20210215) = 1.09\ 1.0009733^{DaysRelative}$$

This gives a small increase from day-day, but are 1 year and 2 years the GSR value is increased from 1.09 to 1.55 and 2.22 respecvely with a correspo nding decrease in number of Shares for the same amount of staked TLB staking.

Note that the GSR-example equa on above is assumi ng a constant Growth*Factor*(*Day*), but it will vary in the future due to the variaons ina the daily payout amounts from the aucons as shown in the Growth*Factor*(*Day*) equa on above.

When a user stake for a longer period, in addI on to increased number of Shares from the LongerPaysBee r mechanism, the total interest is also earned over a longer period resulyng in an exponenal effe ct on the interest versus *NumDaysStaked*.

In order to describe the relaonship we assume that TotS *upplyAxn* and A*uct onBuyBackTLB* are constant for each day and may thus simplify equar on (4) to

(15)

$$UnstakeAxn(EndDay) = StakedAxn(StartDay) + \frac{Shares(StartDay)\ (NumDaysStaked - 1)\ (APD\ TotSupplyAxn + AuctionBuyBackAxn)}{TotShares}$$

Inseryng equar on 6, 7 in 15 and simplify we get

(16)

$$UnstakeAxn(EndDay) = StakedAxn(StartDay) + \frac{1}{1820}\frac{StakedAxn\ (APD\ TotSupplyAxn + AuctionBuyBackAxn)\ NumDaysStaked^2}{TotShares\ GSR(StartDay)} + \frac{909}{910}\frac{StakedAxn\ (APD\ TotSupplyAxn + AuctionBuyBackAxn)\ NumDaysStaked}{TotShares\ GSR(StartDay)} - \frac{1819}{1820}\frac{StakedAxn\ (APD\ TotSupplyAxn + AuctionBuyBackAxn)}{TotShares\ GSR(StartDay)}$$

which shows a quadrac effect from the *NumDaysStaked*.

Equaoyn 16 is used in 2 examples toillustrate the effect of the start day of staking with the following assumpons:

- *TotShares*(*Day*) is fixed at 392 Billion
- *TotSupplyAxn*(*Day*) = *TotLiquidTLB*(*Day*) + *TotStakedTLB*(*Day*) is fixed at 264 Billion
- 3 Stakes of 10 Million TLB star ng at February 15th in 2021,2022 an 2023 (as in Figure 2 example) with GSR values of 1.09, 1.55 and 2.22
- **Case A**: **No aucon** buybacks
- **Case B**: **Re**gular aucon buyback, current 80 M illion 4 mes per week -> average 45.7 Million/day. No min ng and 60 days auto-staking effects of the buybacks are included that would further increase the inflaon by increasi ng T*otSupplyAxn*.

Case A: **Fi**gure 3 below depicts the TLB staking payout (principerrest) at the end of the stakes for 10 Million staked giving a net interest ranging from 6-305%, 4-214%and 3-150 % are 1 year to 15.2 year for the 3 different GSR values.

Case B: **Fi**gure 4 below depicts the TLB staking payout (principterest) at the end of the stakes for 10 Million staked giving a net interest ranging from 11-546 %, 7-383 % and 5-268 % are 1 year to 15.2 year for the 3 different GSR values.

These 2 examples illustrate that the Regular aucons buyback mechanism have a significant infla on effect that will be important to control over me. S ee Appendix A where all infla on effects and possible control mechanisms are simulated in detail.

Figure 3 Case A – No auction buyback TLB staking payout (principal+interest) received from a 10 Million TLB staking stake versus number of stake days and GSR as a function of start of stake date. GSR,Start date: (1.09,2021-02-15) -red,(1.55,2022-02-15)-blue,(2.22,2023-02-15)-green. Red square markers show (number of staked years,Unstake amount).

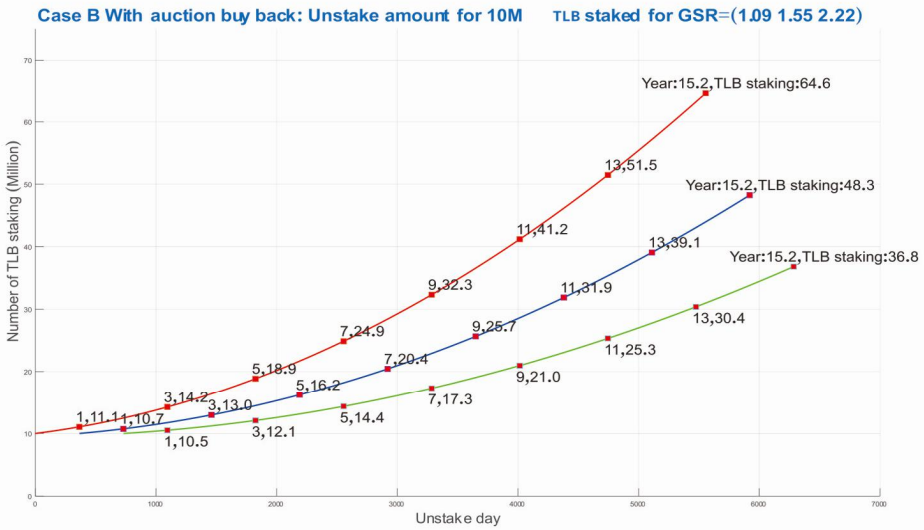


Figure 4 Case B – With auction buyback: Example of TLB staking payout (principal+interest) received from a 10 Million TLB staking stake versus number of stake days and GSR as a function of start of stake date. GSR,Start date: (1.09,2021-02-15) -red,(1.55,2022-02-15)-blue,(2.22,2023-02-15)-green. Red square markers show (number of staked years,Unstake amount).

BIG PAY DAYS

Big Pay Days (BPD) are a valuable reward mechanism that was built into the TLB staking ecosystem to incentivize longer stakes. There are 35,040,000 TLB tokens allotted to the Big Pay Days over fve years for stakes that are locked for the required amount of days or more. Users that stake at least 350 days will be eligible to receive the frst BPD reward allotment, and users that stake at least 700 days will be eligible for the second, and so forth, until the ffth BPD has been released.

The BPD contract holds the Big Pay Day tokens and releases them on the appropriate day(s) based on the stored information and user data within the contract.

The calculations for the amount of tokens distributed across the fve BPD's are:

- 100% of the tokens are distributed.

08. Ecosystem Penalties

EARLY UNSTAKES

The staking feature allows the user to unstake before the committed time in which they staked for, although the user will incur a penalty for this action. Once a user initiates an unstake, a warning will occur to inform the user that there will be a penalty inducted. The payout due to an early unstaker is calculated based on the days that they were staked for- thus the payout is their principal + the summation of the payout they've received per day.

The penalty is a percentage of how early the user unstaked versus their committed time frame- the number of committed days left of the stake / total committed days.

For example, a user stakes 100 TLB and receives 50 TLB as their share in the payout pools for the days that they are staked for.
The user commits to stake for 100 days, but unstakes early after day 20.
The payout penalty is 80/100 or 80% of the fnal payout.
The fnal payout is 20% of earned interest + the principal.
Only 30 TLB will be returned, which is 20% of 150 TLB.
All early unstake penalties for the day are tabulated and added to the auction pool the next day.

LATE UNSTAKES

The system penalizes a user for leaving their stake unattended after their committed period has ended, although there is a grace period of 14 days.

The fnal payout (principal + payout) is penalized at a rate of 0.143% per day, or 1% per week.

For example, if a user's payout of 100 TLB is available to claim at the end of a 50 day stake period, the grace period will be from day 51 to 64 (14 days). The penalty period initiates after day 64, whereas the 0.143% is deducted from the matured stake reward. In ~2 years, an unclaimed stake will have been lost entirely. All early unstake penalties for the day are tabulated and added to the auction pool the next day.

09. Token Technology

Token

The TLB staking (TLB) token is an ERC20 token on Ethereum, which is the technical standard for the network. The functionality of the token allows minting via Staking, Sub Balances, the Auction Manager, and the Auction Contract. It is important to note that minting tokens is only permitted for required function calls.

Staking

Briefy and on a technical level, staking within the TLB staking code can be presented as follows:

The Stake method allows a user to stake for a maximum of 5555 days. The Unstake method allows a user to unstake their TLB staking and Receive, based on the parameters below.
There are 2 main functions to calculate the staking interest; calculateStakingInterest & getAmountOutAndPenalty

Token buybacks (TLB) from the Auction are sent to the Staking contract. The Make Payout function is called once per day, which burns the bought back tokens. Once the tokens are burned, they are distributed to stakeholders via the payout variable within the contract. The staking contract holds data from the version 1 (V1) staking contract address to allow cross compatibility between V1 and V2 contracts. The staking contract also holds the total share supply and the total staked supply.

Auction Contract

The TLB staking Auction Contract operates with both Daily and Weekly auctions. Additional rewards to daily auctions are attributed from early and late stake penalties. The daily auctions are flled via the Auction Manager. Additional rewards for the weekly auctions are flled via previously undersold auctions, and are primarily flled via the Auction Manager. Ethereum deposited on regular auctions is used to buy back TLB from the open market in order to distribute them to stakeholders, and the Foundation, on an 80/20 basis.

The Venture Capital Auctions (VCA's) occur on Tuesday and Friday of every week. VCA's that simultaneously land on weekly auction days will disperse additional tokens as per the contract functionality. The Auction contract holds the data for all prior auctions in TLB staking's ecosystem.

Auction Manager

The Auction Manager fills BigPayDays (BPD's) with tokens (maximum 35,040,000) over five years. It also fills the Auction pools with a maximum of 200,000,000,000 tokens over five years. The Auction Manager is operated by the Foundation and secured with Gnosis Safe- the most trusted multisignature wallet on Ethereum.

BPD (Big Pay Day)

The BPD contract holds the BigPayDay tokens, and stores all of the requisite information about each of the five BigPayDays. On the day(s) of BPD, the contract transfers BPD tokens to the SubBalances contract.

SubBalances

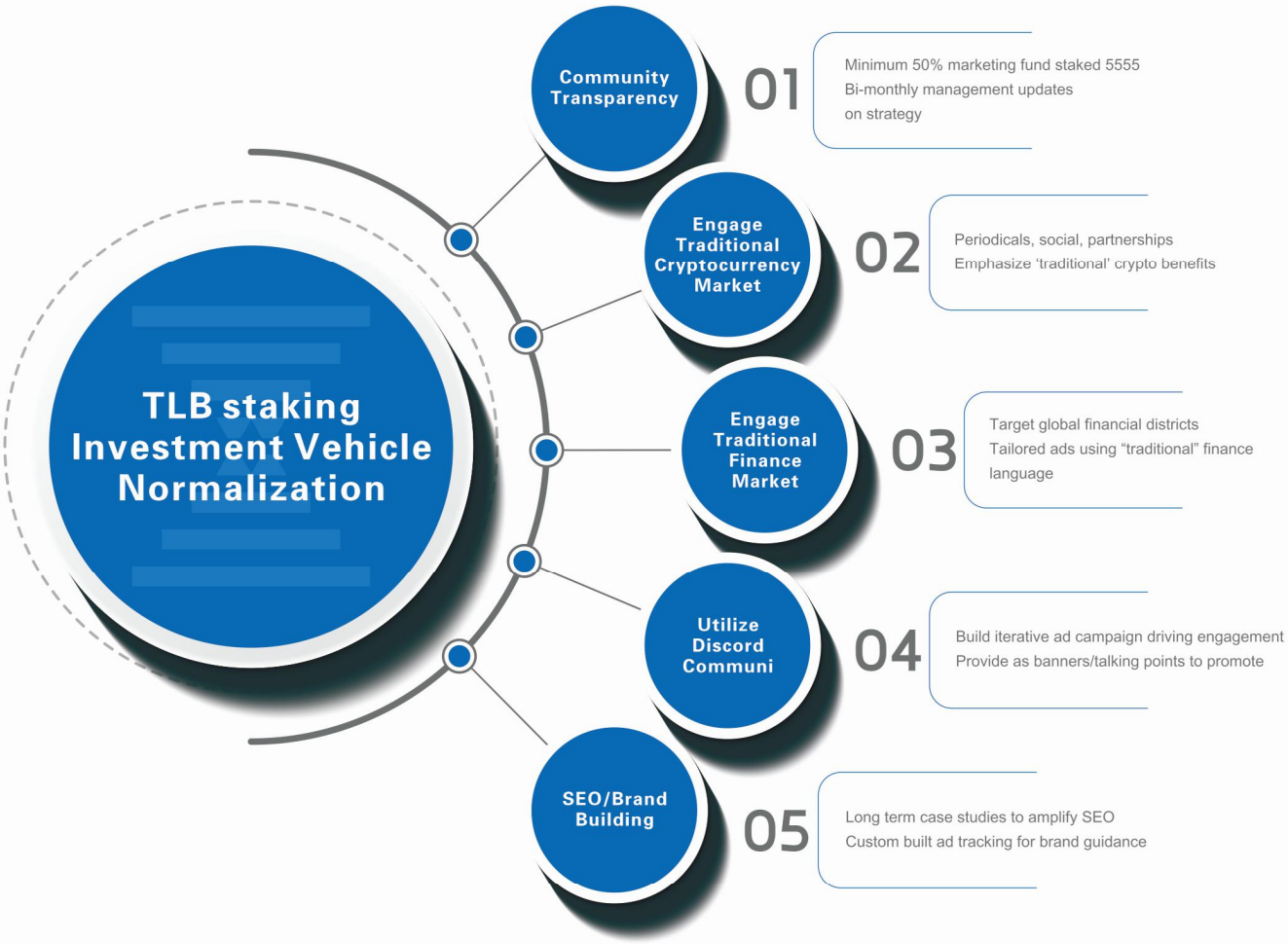
The SubBalances contract is utilized by the Staking contract to hold stake session information. The stake session information is used to calculate BPD rewards to stakeholders. SubBalances are what pays BPD rewards to users. The BPD rewards are only payable after stake(s) are withdrawn after the BPD (day) is over. SubBalances also hold data from the V1 staking contract address to allow for cross compatibility between V1 and V2 contracts.

10. Marketing & Branding

Marketing our community centered and ethical fnance approach is vital for TLB staking to achieve adoption. After the community approved a $50,000/month marketing budget from the development fund in December 2020, TLB staking hired a marketing team to roll out full scale marketing in January 2021. The Marketing team came from within the community, bringing a strong and diverse set of marketing skills. The team rolled out a 3 phase plan to promote TLB staking throughout the year 2021 with a steady increase in marketing spend. This came with core promises from the marketing team that:

1. The Administration fee of the marketing team would be 50% Staked to Max Shares.
2. New team member onboarding would work frst to build the team from within the community, and promote contracts that include long term investments by employees.
3. There would be full transparency of marketing spend available to the community.

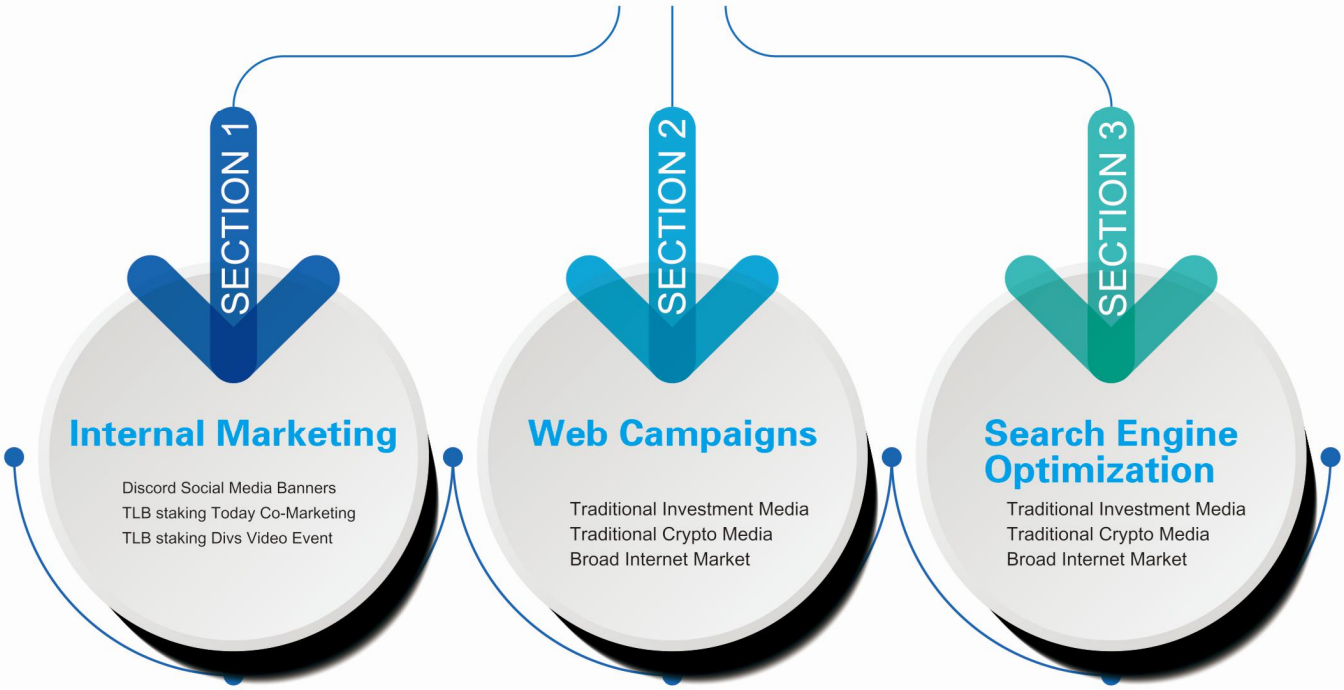
The underlying marketing strategy is about transforming TLB staking into a #BetterWaytoCrypto. This starts with branding TLB staking as an Ethical Finance, Community based investment vehicle. This strategy revolves around 5 pillars, presented here:



With these 5 pillars as our guide, TLB staking Marketing is split into 3 phases for 2021. Phase 1 is all about asset creation and team building, followed by our online campaign coinciding with the launch of VCA.

Phase 1: Q1 & Q2 2021

Build and Distribute



By focusing on our overall web presence, marketing set out to build a world class committed internal team to execute on this plan. In Q1, Marketing launched its initial campaign with a team of 5 to announce TLB staking VCA to the globe. Strategic Partnerships with Denver Digital for SEO, the onboarding of a creative director , and the formation of an internal marketing team built from TLB staking investors came together. The team not only produced and launched a full campaign in 8 weeks, but did so with a full revamp of the website and a fully released Branding Guide viewable by the entire community.

This Branding Guide lays out the Do's and Don'ts of TLB staking Marketing, including tone, audience, commitments, logo and brand look control. This branding book serves a compass to guide the Marketing efforts, making sure that it remains true to the ever-developing TLB staking brand. It is with documents like the brand book that helps separate and distinguish TLB staking from the noise.

TLB staking Brand Book

The brand book was developed as a proof-of-concept for the TLB staking brand. Many of the design principles and language in that book are present here in this whitepaper. We are including the Brand Book in its entirety in the following pages to showcase the thought the team put into the TLB staking brand.

01.

TLB staking'S MISSION

is to build an ethical ecosystem designed for digital asset portfolio growth and a scalable passive-income solution

FOR ALL INVESTORS.

Everything we do at TLBstaking should reflect these core values.
TLBstaking is here to provide an ethical, long-term investment platform for anyone.
We are here to provide a transparent, welcoming, and fruitful community dedicated to mutual growth.
We are a haven for tech-savvy day traders AND tech-illiterate first-time investors.
We are here to change how the world sees crypto investments and investing in general.

This is a #betterwaytocrypto.

02. Brand Foundation

The brand foundation expresses the essence of TLB staking and provides a compass heading for all design decisions and executions moving forward.

PURPOSE

TLB staking is an ethical, community-driven cryptocurrency.

POSITION

TLB staking rewards long-term investing with high-yield interest rates

and weekly dividends.

PROMISE

With TLB staking... you can.

...join an exciting new community.

...interact with a global currency.

...invest no matter how much or how little you have.

...watch your investment grow.

...find help along the way.

...be excited about your future

03. Personality Attributes

Our personality attributes express the tone and feeling of TLB staking to outside viewers.

AUTHENTIC.

Everything TLB staking does is real.
We don't sugarcoat or over-hype.
We don't make promises we can't keep.
NOT: Cheesy, fake, spurious, cheap

FORWARD-THINKING

We're grounded in the present but our eyes are to the future. We're playing the long-game, our sights set on 15 years.
NOT: Shortsighted, wandering, indecisive

ACCEPTING

We welcome all members to our community, no matter their race, gender, past experiences, or financial goals.
NOT: Close-minded, judgmental

ENTERPRISING.

We're re-imagining the financial investment world. We do everything with courage, passion, and excitement.
NOT: Aggressive, reckless, foolhardy

COMMUNITY FOCUSED

When TLB staking prospers, the individual prospers too. We're here to help anyone become investors and help them grow.
NOT: Self-centered, isolationist, haughty

ETHICAL

We strive to maintain transparency and longevity. We will make TLB staking valuable to all investors regardless of entry price.
NOT: Unprincipled, dishonorable

04. Narrative & Messaging

Our core messaging and the way we communicate about TLBstaking helps distinguish us in a noisy crypto marketplace.

NARRATIVE CORE VALUES

In everything we communicate, we should strive for authenticity, transparency, and confidence.
TLBstaking is a unique and powerful financial tool, part of a larger investment portfolio. We're about giving investors a unique growth opportunity in the cryptocurrency space with powerful smart contracts. We are excited about the future of TLBstaking and convey it regularly. We strive to be inclusive, whether an individual is a "crypto-bro" or a stay-athome mom, a college student or a CEO, TLBstaking is for everyone. We respect people's privacy, acknowledging that TLBstaking's founder and core members of the team are anonymous-by-choice. We don't shy away from TLBstaking's history, choosing instead to adopt the reality that our wounds make us stronger.
We believe, absolutely, that With TLBstaking, You Can.

PRIMARY MESSAGING

TLB staking offers a first of its kind blockchain powered venture fund alongside high interest time-locked savings deposits (stakes) that earn investors high interest of ~8% plus additional dividends. TLB staking also acts as a scalable, spendable global currency with its native token TLB.

TLB staking allows anyone to earn on their investment via venture fund auctions and time-locked deposits on the blockchain with the TLB token.

TLB staking is dedicated to making the onboarding process for new investors as efficient and accessible as possible with dedicated fiat to TLB staking onramp and support specialists available at any point through the TLB staking website

AD COPY:

With TLB staking, you can.
- Stake TLB staking, earn Bitcoin.
- Max shares, max dividends.
- Grow your investment with TLB staking.
- Grow your stack with Bitcoin divs.
- Upgrade your portfolio with TLB staking.
- Relax 'n Divs.

MESSAGING DO'S AND DON’TS

DO:

- Promote TLB staking as an investing tool
- Talk about 8% APY minimum yield
- Advertise longevity (5555 stakers)
- Emphasize Bitcoin dividends
- Describe TLB staking as a new cryptocurrency
- Promote our strong community
- Describe our ethical and transparent financing
- Use quality designs and professionalism in all advertising.
- Talk about a #betterwaytocrypto

Imply TLB staking should be anything more than a small part of a broader investment portfolio

- Encourage FOMO / overemphasize past APY
- Talk about retirement or getting rich quick
- Put in lots of hype/buzz words
- Compare TLB staking to other cryptos
- No sexually suggestive print or images
- No tribalism / excluding anyone for any reason

05. Visual Identity

With our logo and design elements, consistency is key. There are many moving parts with lots of community-created content and features being developed on a daily basis. What will help separate official TLB staking communication and development is the consistency of public-facing branding, fonts and colors across all mediums. All TLB staking Foundation websites, tools and content, whether created internally or by third-party vendors, should follow these approved guidelines when creating and delivering content.

PRIMARY LOGO

TLB staking

Use case:

In all TLB staking official content over a lighter background. The logo text is TLB staking Blue.

PRIMARY LOGO REVERSED

TLB staking

Use case:

In all TLB staking official content over a darker background. The logo text is white

Primary Logo usages to avoid:

Using the Reversed logo with the white text over white background

Using the logo with non TLB staking-branded colors

Putting the logo copy over visually dense areas

Rotating or slanting the logo and copy

Filling the logo with a solid color or changing the logo colors

Adding thick/soft drop shadows to make the logo more visible. See the next page for procedures with drop shadows.

Secondary Logos

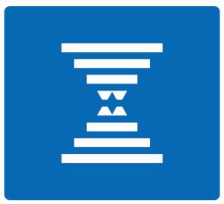
SECONDARY LOGO MARK

Use case:
Wherever the TLB staking logo needs to appear on its own

SECONDARY LOGO BLUE CUTOUT

Use case:
Whenever a simplified logo is needed. Note the white bands "cut out" of the logo.

SECONDARY LOGO WHITE CUTOUT



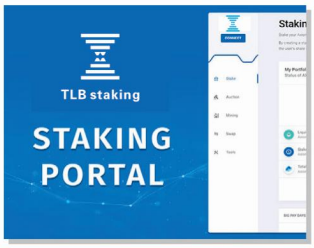
Use case:
Whenever a simplified logo is needed over a solid dark colored background.

Drop Shadows

Whenever drop shadows are needed, use a solid non-blurred drop shadow with minimal offset and a 33% opacity with a shadow color of black.

Design language

Beyond just logos and colors, the design language must be consistent. The current branding uses the "TLB staking Tech" look across all its graphic design, primarily noted by a graphic with dots connected by lines set into perspective with an "out of focus" look. This design element is blended with the TLB staking Blue color. When possible, all graphic design elements should use the following or similar graphic in some manner.



Note the subtle use of the TLB staking Tech asset in the background of each element

Colors

As above, consistency of colors helps a user/investor recognize they're in the right spot, as a part of the overall TLB staking ecosystem. Using only approved primary/secondary/accent colors is crucial to our brand. The color palette is blue, avoid all oranges.

PRIMARY COLOR "TLB staking Blue"

RGB: 0, 147, 221
HSL:
H 157
S 24
L 18

Use: All TLB staking themed elements including background, text, and logos.

SECONDARY COLOR

RGB: 23, 110, 191
HSL:
H 208.93
S 0.79
L 0.42

Use: Good for backgrounds, do not use for text.

ACCENT COLOR

RGB: 0, 0, 0
HSL:
H 0
S 0
L 0

Use: Useful as a contrasting color for TLB staking Blue. Primarily used in the Staking Portal.

Fonts

Just as with colors, using consistent fonts helps create brand stability. While it may be entertaining to use a wide selections of fonts to create variety, keeping within our selected font families helps keep the branding consistent across all our communication channels.

PRIMARY FONT

Fira Sans

Fira Sans Ultralight
Fira Sans ExtraLight
Fira Sans Book
Fira Sans Medium
Fira Sans Bold
Fira Sans Heavy

Use: all published text including this document, marketing, whitepaper, and professional communications.

Download Fira Sans here

Adobe Fonts link

HEADLINE FONT

BEBAS NEUE

BEBAS NEUE LIGHT

BEBAS NEUE book

Bebas Neue Regular

Use: all TLB staking display ads headline font and banner ads, alternate text.

Download Bebas Neue here

Adobe Fonts link

LOGO FONT

Inversionz Unboxed

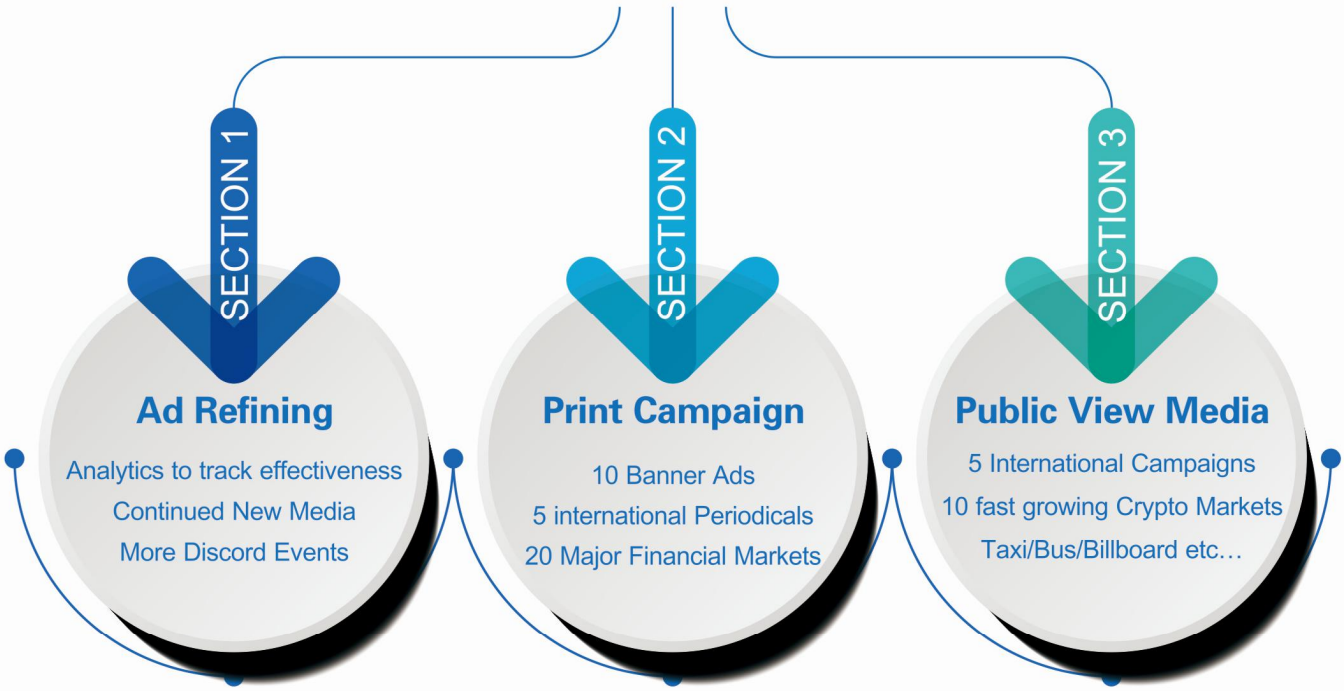
Use: The primary logo font. Should not be used in any other case. Should be used if needing to create an additional TLB staking "brand" like:

TLB staking Support
TLB staking ventures
TLB staking Founda

Download Inversionz Unboxed here

Phase 2: Q2 & Q3 2021

Global Growth Phase



Phase 2 will continue to refine our message and ads. This means branching into new media, building our megaphone to reach the full and expanded investor population beyond discord, and facilitate the building of TLB staking as a dynamic investment tool. This phase will target a minimum of 10 major financial districts and build on the ethical finance brand. This will include potential public media campaigns like buses, taxis, billboa.rds, etc...

Phase 3: Q4 2021 - Q1 2022

BPD Push/Bridge

Phase 3 will last from Q3 into Q1 2022, and comprise the build up to and execution of BPD 1. As we reach this important milestone, and dependent on the global travel situation, the team is building up for an international celebration event in Bali for community investors. This event will be a celebration of the tremendous work done by the entire community, and be the launching platform for the next very important phase of TLB stakings evolution, its Deflationary Mechanisms. This will be the announcement of the full plan for long term inflationary stability that the community will use to make TLB staking a truly permanent fixture in the world of cryptocurrency.

The TLB staking team also recognizes that marketing and cryptocurrency landscapes can change overnight. Since the marketing team is staffed, created, and funded by its community, it will always be flexible to make sure to deliver the absolute highest value to TLB staking Community investors.

11. Summary

We hope that this whitepaper has shown you, a potential TLB staking investor, the quality of the token that the team has created. TLB staking is pushing the boundaries of what's possible in the crypto community, and we hope that you will consider being a part of it.

From the incredible defationary tokenomics, to the twice-weekly Bitcoin dividends, the incredible community, and the rock-solid branding and marketing plan... There's something for everyone to get excited about. The following pages are packed-full of information, from a deep dive into the mathematical mechanics of the token itself, hypothetical investing scenarios to prove the benefts of the staking system, and a useful glossary featuring defnitions of all the crypto-lingo that you'll need as an investor.

We're incredibly excited about where TLB staking is going, and we're excited to have investors like you along for the ride.

Sincerely,
The TLB staking Team

TLB staking

Appendix

TLB staking ecosystem monitoring and control

1.1 Introducon

TLB staking unched on 13th November 2020. The ecosystem was iniy ly implemented using immutable contracts, but due to the lack of flexibility and some weaknesses discovered during the first month of operaon, it was decided to change the whole system to be mutable in the so-called Layer2 orupgrade on 17th December 2020. This decision was a gamechanger where the new system may be con nuously monitored and opmized for users profitab ility, and where new features and services may be added.

In this session we will explain how the TLB staking ecosyworks in more detail using real data from the launch and up to the current date. The data is fed into a simulaon system tha t has the following features:

- Playback of real data showing the history of main system parameters
- Cony nuous monitoring of the system performance using recent data
- Extracy ng stascs from historic data to simuer late and predict future behavior, and if needed use analysis and simulao ns to adjust parameters or funcon ality for opmized users profitability and system longevity

The staking system is a main feature of Axipo secosystem, which rewards longer staking using the *LongerPaysBeter* bo nus mechanism. The daily nterest payout to stakeholders can also be viewed as an inflaon on the to ken itself. It is jgt s vital to make sure that the rao bet ween liquid and staked tokens is in opmum b alance since this will have direct influence on the token exchange value which is central to make the system profitable.

Note that the opmum interest v alue is dependent on several parameters and will change overme as the ecosystem grows with more users and new services. In the next chape rs it will be shown examples on how the interest payout system works and how it can be con nuously monitored and controlled to ensure opmum balance for the investors lo ngterm profitability.

Note that the future predicon examples which spans over 6 years are based on staki ng stascs over a short period on me a nd may very well change in the future and the examples should therefore only be used as an illustraon. The main intenon is to show that the TLB staking ecosfdyhas the necessary instruments to connuously t une the system for opmum performance.

1.2 Retrospecve

1.2.1 Main day

TLB staking Layer1 was launched on 13th November 2020 which will be called Day0 throughout this session. All days in this session are referred relave to Day0. Main days are

- 16th December 2020 – Day33 = Day0+33. It was discovered during the first month of operation that the GSR update procedure was less robust to un-staking than intended and a large GSR jump occurred on the day before Layer2 launch from 1.08 on the previous day to 1.27 which clearly demonstrated the need for a procedure upgrade.
- 17th December 2020 - Day34 = Day0+34 the Layer2 ecosystem was launched. On the launch date GSR was set to 1.08.
- 19th December 2020 - Day36 = Day0+36 a new GSR jump from 1.09 on the previous day to 1.29 occurred. In order to ensure sufficient time for a robust procedure upgrade GSR was fixed at 1.09 from Day37
- 15th February 2021 – Day94 = Day0+94 the new GSR procedure was launched.
- 27th February 2021 – Day106 = Day0+106 is the last day for the real data playback used in this section for statistics and as a base for future prediction examples

1.2.2 Statstcs

Figure A.1 shows the stake statistics from Day0-Day106. The upper plot shows the stake amount distribution with an average of 25.0 Million and the largest group is from 0-50 Million. The lower plot shows stake length distribution with an average of 1036 days. The largest group is from 1-364 days, but a significant number is the group 5110-5555 days.

Figure A.2 and A.3 show the same statistics divided into 2 periods of Day0-Day33 and Day34-Day106. The proportions on both amount and staking days are quite equal apart from the staking days group of 5110-5555 day which has grown significantly between Day34-Day106. Note that the MaxShares5555 upgrade stakes are not included so the difference is expected to be even larger.

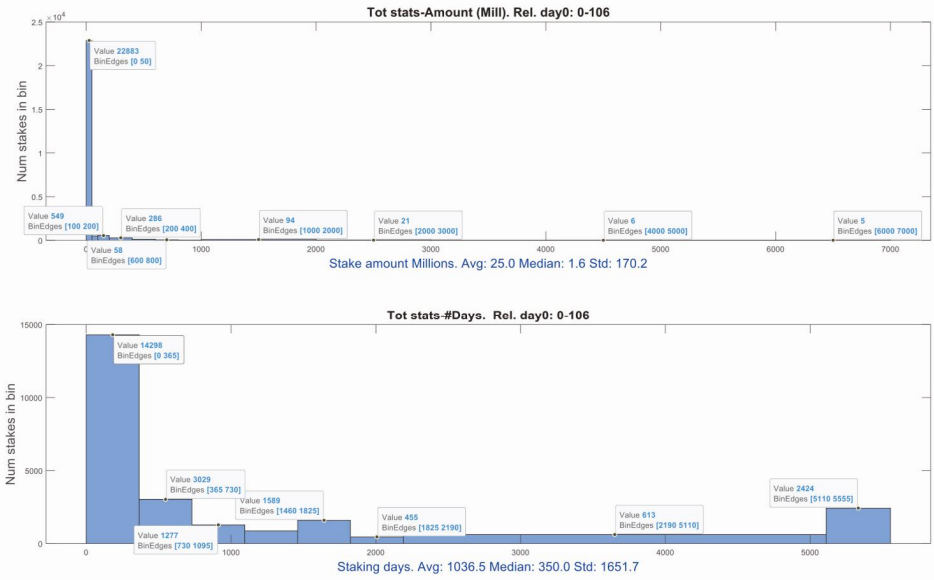


Figure A.3 Staking stascs Day 34-106 (17th December – 27th February)

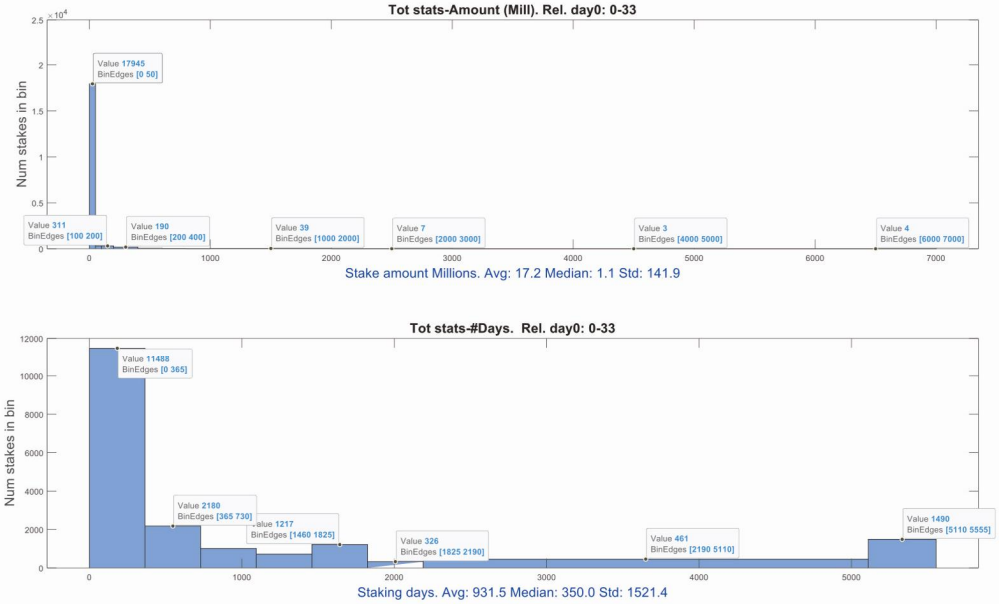


Figure A.2 Staking stascs Day 0-33 (13th November – 16th December)

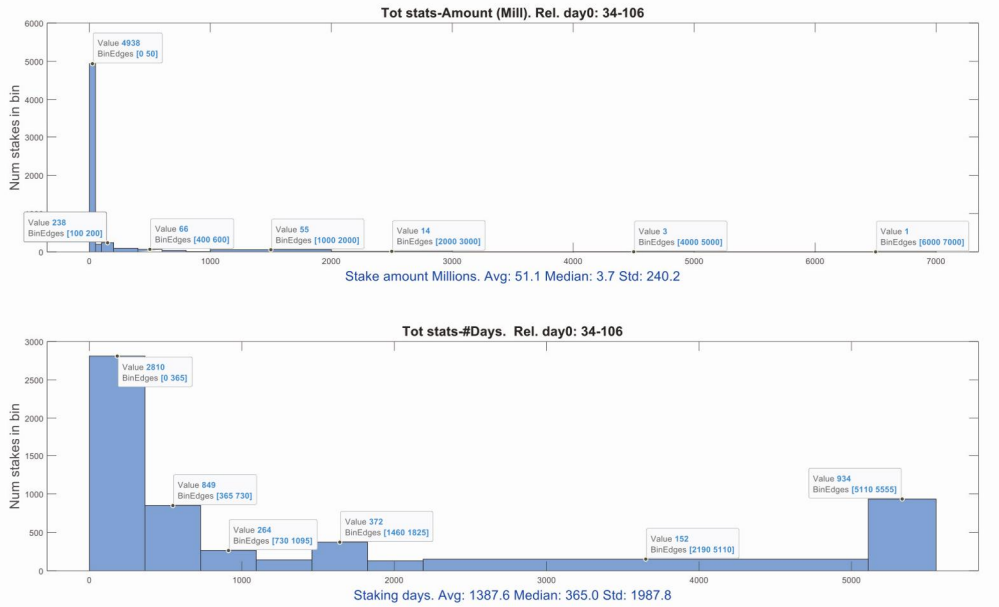


Figure A.3 Staking stascs Day 34-106 (17th December – 27th February)

1.2.3 Main system parameters

Figures A.4-A.9 show the main system parameters in the period of Layer1 (Day0-33), Layer2 launch (Day34) and new GSR procedure (Day 94).

- Figure A.4: Total supplies in the period
- Figure A.5: The Layer1 GSR procedure shows significant jumps at the so-called “Mega” aucons (Figure A.6) and 2 spikes at Day33 and Day36. At Day37 GSR was fixed at 1.09 and the current GSR procedure was launched on Day106.
- Figure A.6: Aucon amounts reduced significantly aer Day34
- Figure A.7: Same as Figure A.6 in percentage. Daily percentage much higher than APD=0.0219 %.
- Figure A.8: Figure A.6 accumulated. Day0-35 Avg 470.7 M/day, Day35-Day106 Avg 208.3/day
- Figure A.9: Figure A.7 accumulated. Day0-35 Avg 0.188 %/day -> 68.7 % /year, Day35-106 Avg 0.0833 %/day -> 30.4 % /year.

The main findings are

- Layer1: GSR procedure does not work well in Layer 1 and the Mega aucons give a very high interest equivalent to 68.7 %/year which is much higher than the minimum APY of 8 %/year.
- Layer2: GSR fixed to Day93 and new procedure works well from Day94-Day106. Interest is more than half relave Layer1 but ll equivalent to 30.4 %/year which is much higher than the minimum APY of 8 %/year.

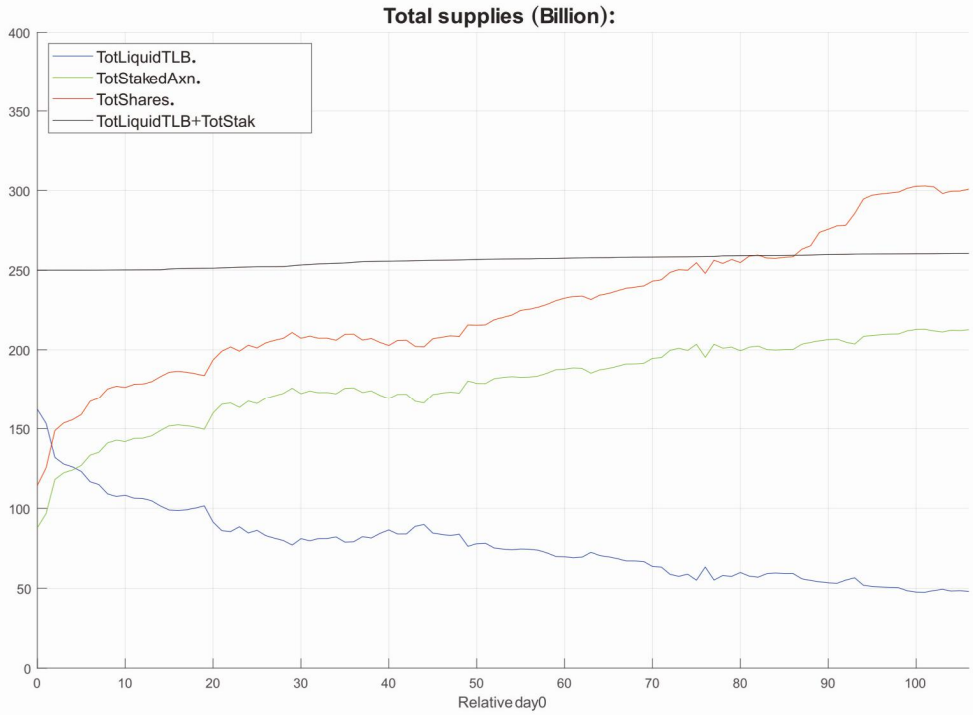


Figure A.4 Total supplies

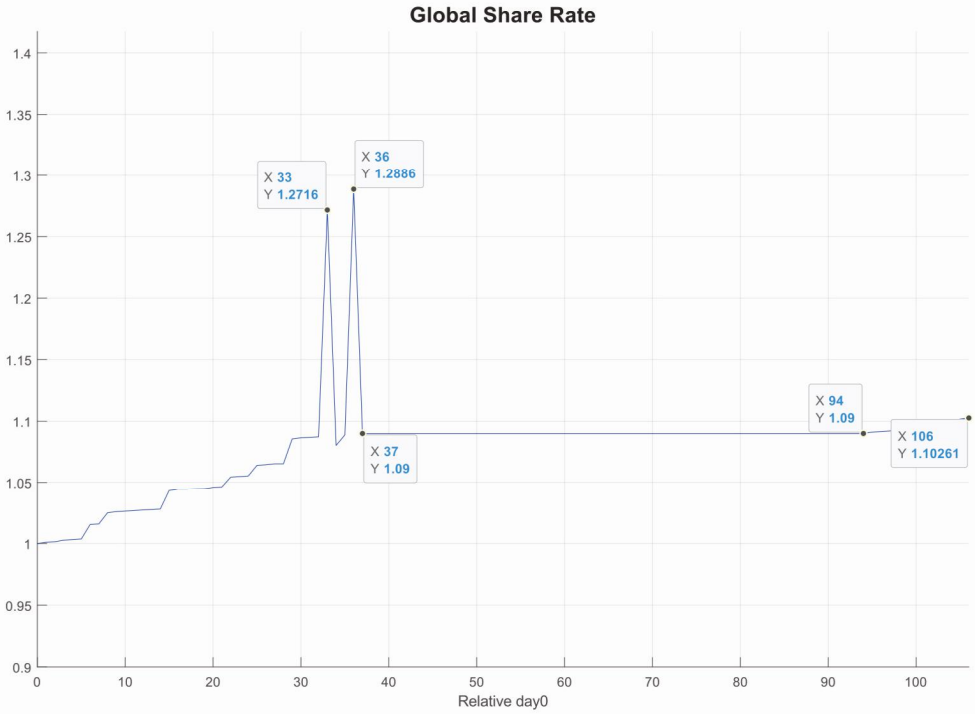


Figure A.5 Global Share Rate

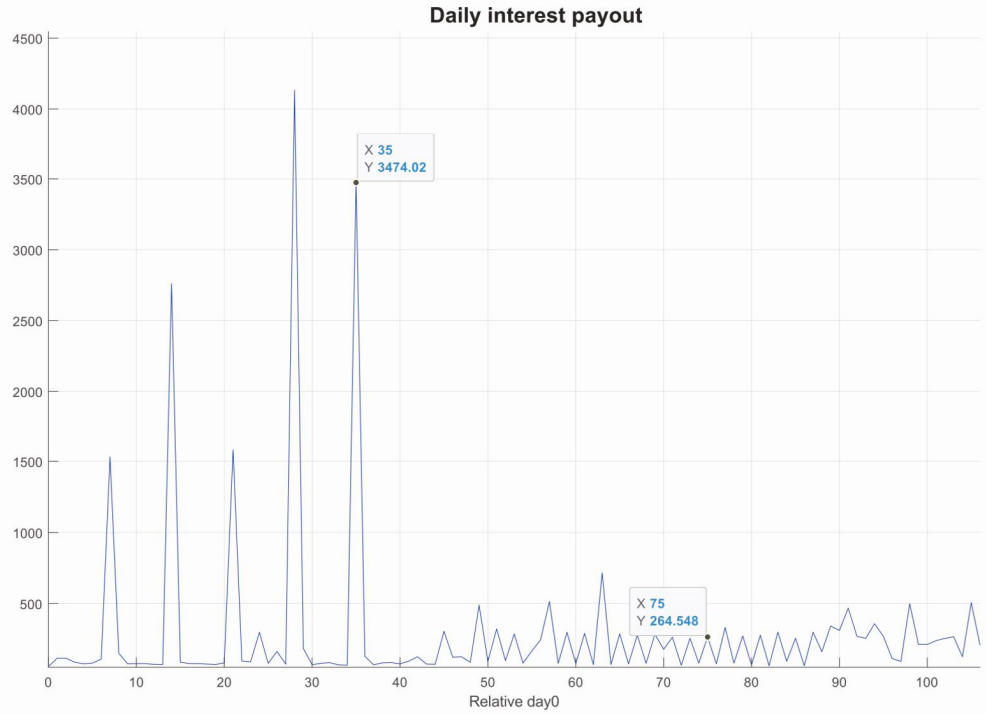


Figure A.6 Daily interest payout (TLB Mil lion)

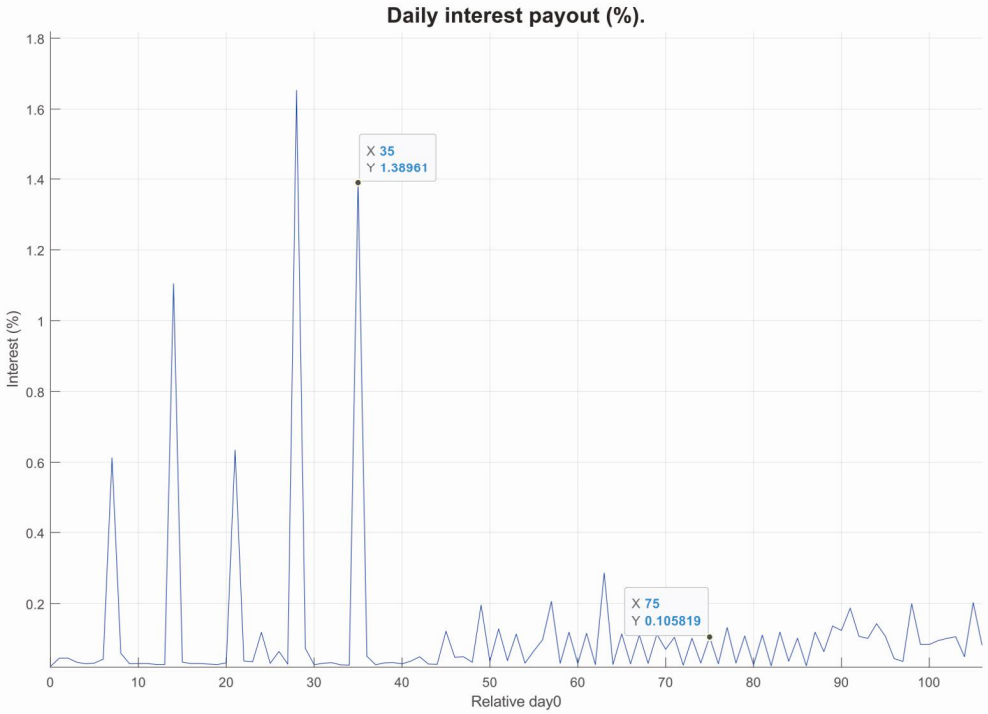


Figure A.7 Daily interest payout (%)

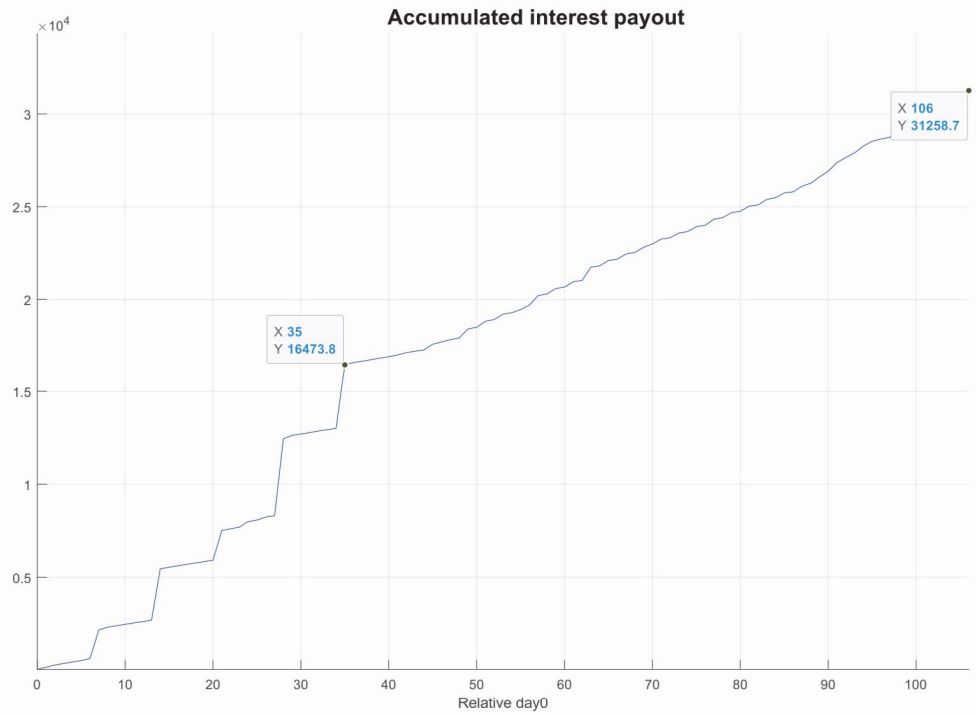


Figure A.8 Accumulated interest payout (TLB Million)

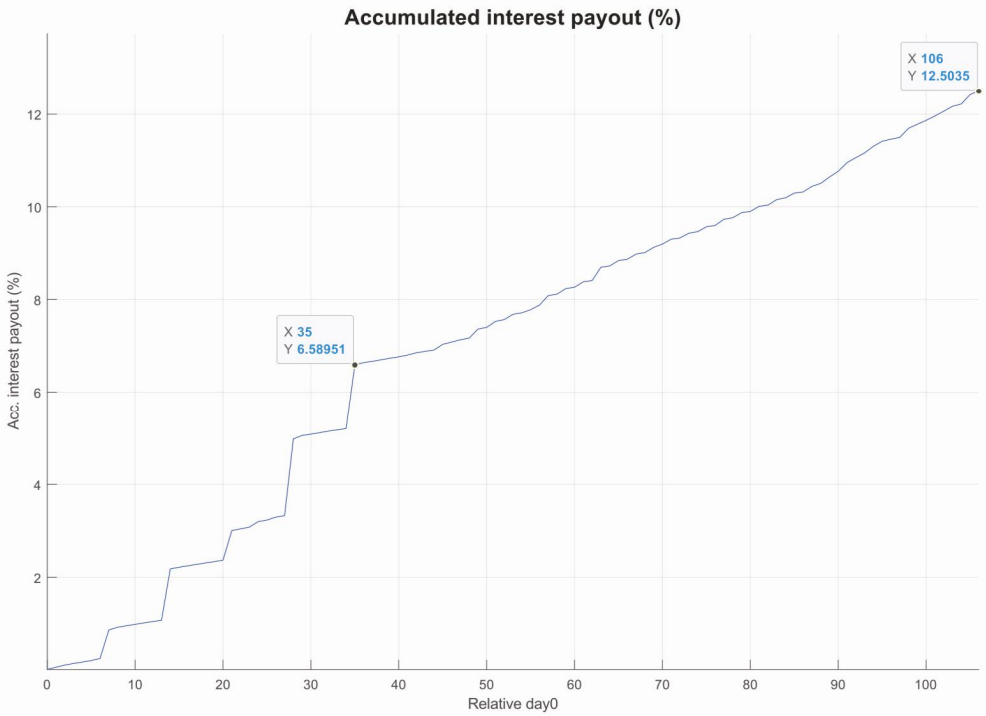


Figure A.9 Accumulated interest payout (%)

1.3 Interest effects and control

In this chapter we will show some simulation examples that illustrate how the ecosystem interest is influenced particularly by staking strategy, auctions and BigPayDays and how it can be controlled. In the simulations real data is included from Day0-Day106 (13th Nov.-27th Feb.) and Day37- Day106 (20th Dec. – 27th Feb.) is used to extract staking statistics which is used to drive the simulations from Day107 to the last simulation day with similar staking statistics. The extract period is set to start from Day37 atier the last big GSR jump on Day36 to have the most correct statistics for simulating future behavior.

The simulated stakeholders from Day107 are called:

- RealDataHolders: Random stakeholders with similar statistics as Day37-Day106
- FixedDataHolders: A set of 4 stakeholders which are used to show the interest depending on their different staking strategies.

The FixedDataHolders are all staking 10 Million TLB staking are described as:

- S1: Start stake Day107, stake 1800 days (4.93 years)
- S2: Start stake Day107, stake 300 days and the day atier unstaking, restakes the total amount (stake amount + interest) over a total of 1805 days
- S3: Start stake Day107, stake 30 days and the day atier unstaking, restakes the total amount (stake amount + interest) over a total of 1797 days
- S4: Start stake at Day472, stake 1800 days (4.93) (as S1, but start 1 year later)

Four scenarios are simulated and all contain Real data playback, RealDataHolders and FixedDataHolders and are described by:

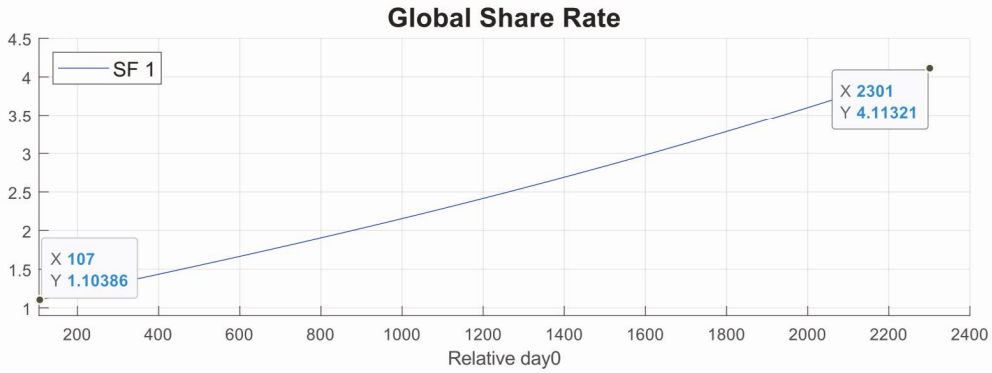
1. **Regular auctions** 300 Mill 6 days/week, buyback 240 Mill/auction 60 days autostaking. ScalingFactor = 1.0 (SF)
2. **Regular auctions** 100 Mill 4 days/week, buyback 80 Mill/auction 60 days autostaking + **Venture Capital auctions** 1 Billion 2 days/week, no TLB staking yback 120 days autostaking. ScalingFactor = 1.0 (SF)
3. **Regular auctions** 100 Mill 4 days/week, buyback 80 Mll/auction 60 days autostaking + **Venture Capital auctions** 1 Billion 2 days/week, no TLB staking back 120 days autostaking + 5 **BigPayDays** (**5**,**7.5**,**10**,**12.5**,15 Billion). ScalingFactor = 1.0 (SF)
4. **Regular auctions** 100 Mill 4 days/week, buyback 80 Mll/auction 60 days autostaking + **Venture Capital auctions** 1 Billion 2 days/week, no TLB staking yback 120 days autostaking + 5 **BigPayDays** (**5**,**7.5**,**10**,**12.5**,15 Billion). 3 dfferent ScalingFactors (equation 8): 0.999, 1.0 (current) and 1.001 which are used to control the rate of change of Global-Share-Rate.

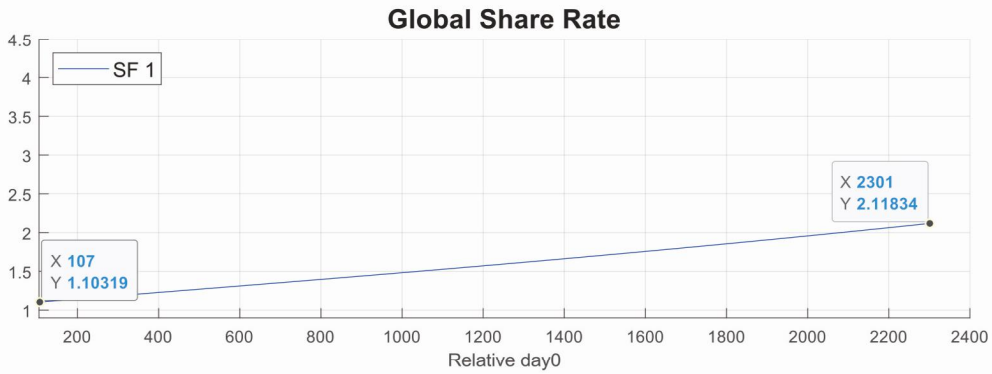
The following observations are noted from the figures:

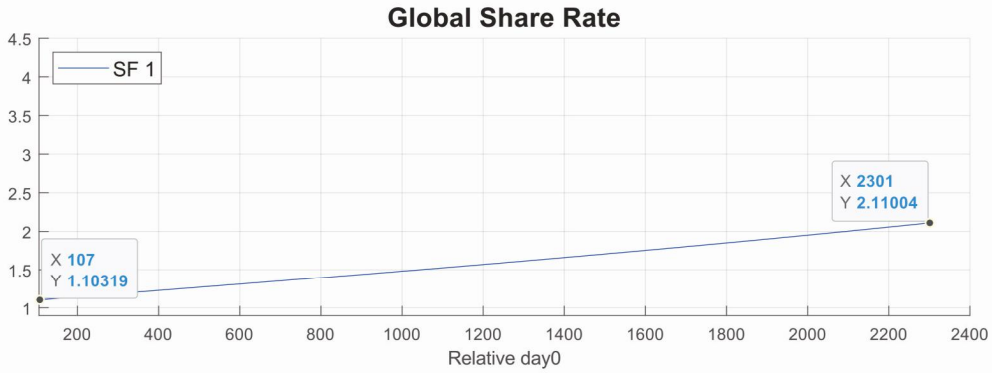
- **Figure A.10 GSR**: The minimum GSR growth (without auctions and BigPayDays and SF=1.0) from Day107-Day2301 is 1.103-1.784 Scenario 1 has the highest GSR of 4.11due to the large amounts of 1.8 Billion/week and 1.44 Billion/week buyback in the Regular auctions. Scenario 2 has 2.4 Billion/week in auctions but only 320 Mill/week buyback since VCA has no TLB staking buyback which reduces the GSR increase rate significantly to 2.12 at Day2301.The addition of BigPayDays in Scenario 3 has very litile impact on the GSR decreasing from 2.12 to 2.11 at Day2301 (due to increase in TotLiquidTLB(Day-1) in eq. 9) . In Scenario 4 we use Scenario 3 parameters and show that the ScalingFactor may be used to change the rate of GSR increase. An SF value of 0.999 gives a lower GSR at Day2301 than the minimum calculated of 1.784 with SF = 1.0.
- **Figure A.12 Yearly (Daily x 365)payout (%): The d**aily payouts in Figure A.11 are converted to equivalent yearly interest in order to illustrate the effect of the auctions and BigPayDays.
- **Figure A.13 Accumulated interest payout (%): The d**aily payouts in Figure A.12 are accumulated to show the interest over time. An approximated average yearly interest (calculated as the average of start and end value) in scenario 1-4 are 49.7, 28.5, 29.3 and 29.3 % respectively. The reduction in interest from Scenario 1 to 2 is significant and due to reduced buybacks from the 4 Regular auctions and no buybacks from the Venture Capital auctions. In scenario 3 the BigPayDays add 0.8 % interest. Note that in scenario 4 the different GSR developments has negligible effect on the total interest payout since the effect of GSR change only redistribute the payout proportion between stakeholders.
- **Figure A.14 4 different staking strategies**: **A**ll scenarios show that the best strategy is S1 - stake once for the wanted period since the Global-Share-Rate increases over time. Even S4 that starts one year later than S2 and S3 has a betier outcome at the end of the stake. Scenario 4 also shows how the scaling factor may be used to tune profitability of staking.

The main findings are:

- The auction amounts and buyback factors are the main inflation/interest drivers and reducing the Regular auctions and starting the Venture Capital auctions will reduce the inflation significantly but will still be high with the planned amounts. An obvious control mechanism is to reduce the auction amounts over time.
- Longer staking is a betier strategy for total outcome than repetitive staking-unstaking-staking.
- The scaling factor may be used as a control mechanism to change the rate of the Global Share Rate and thus balance the profitability of staking.







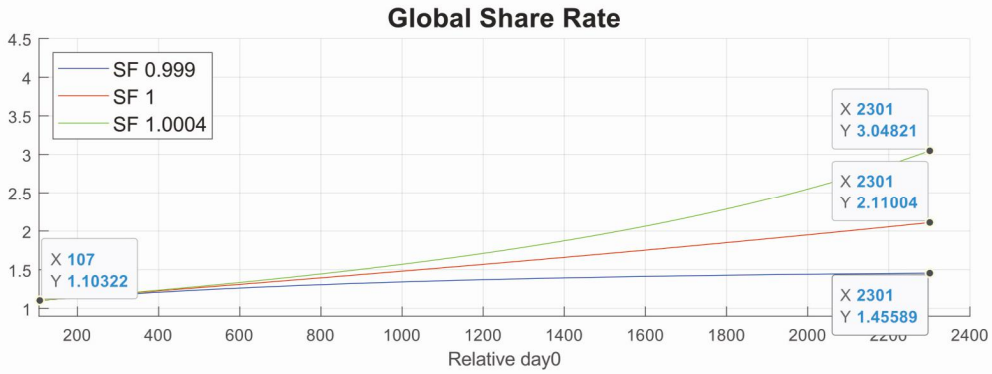
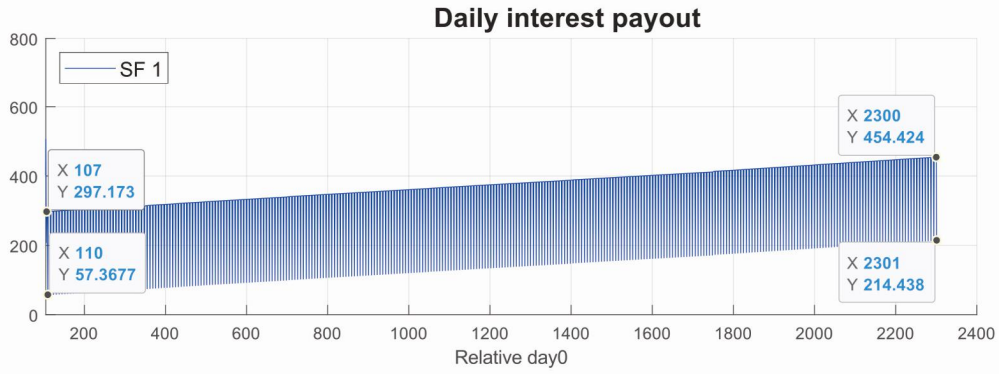
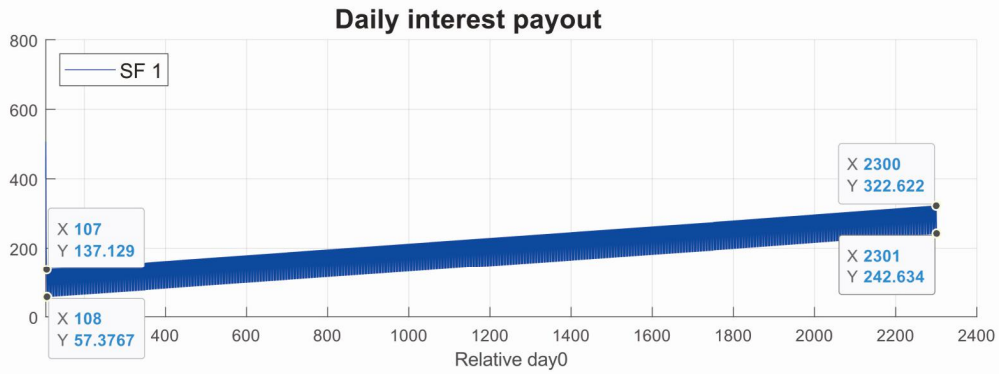
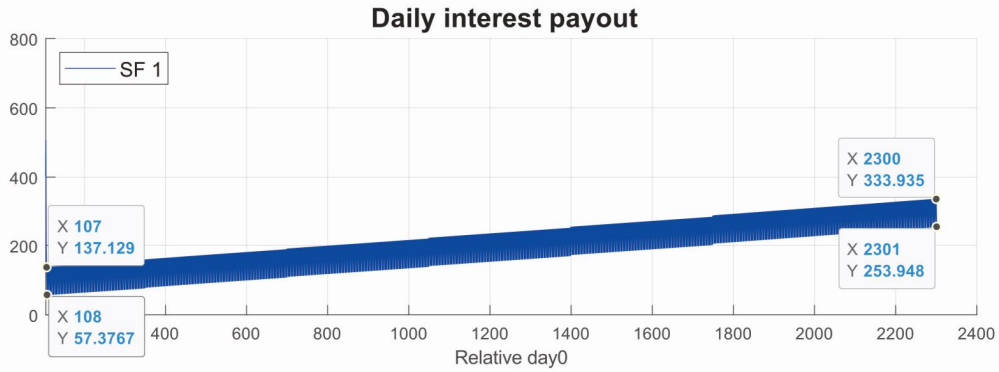


Figure A.10 Global-Share-Rate（upper scenario 1 - lower scenario 4）







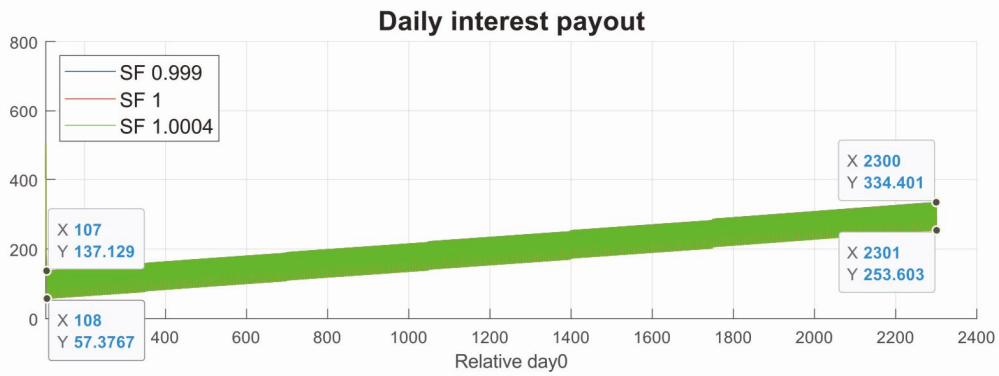


Figure A.11 Daily interest payout (Mill) (upper scenario 1 - lower scenario 4)

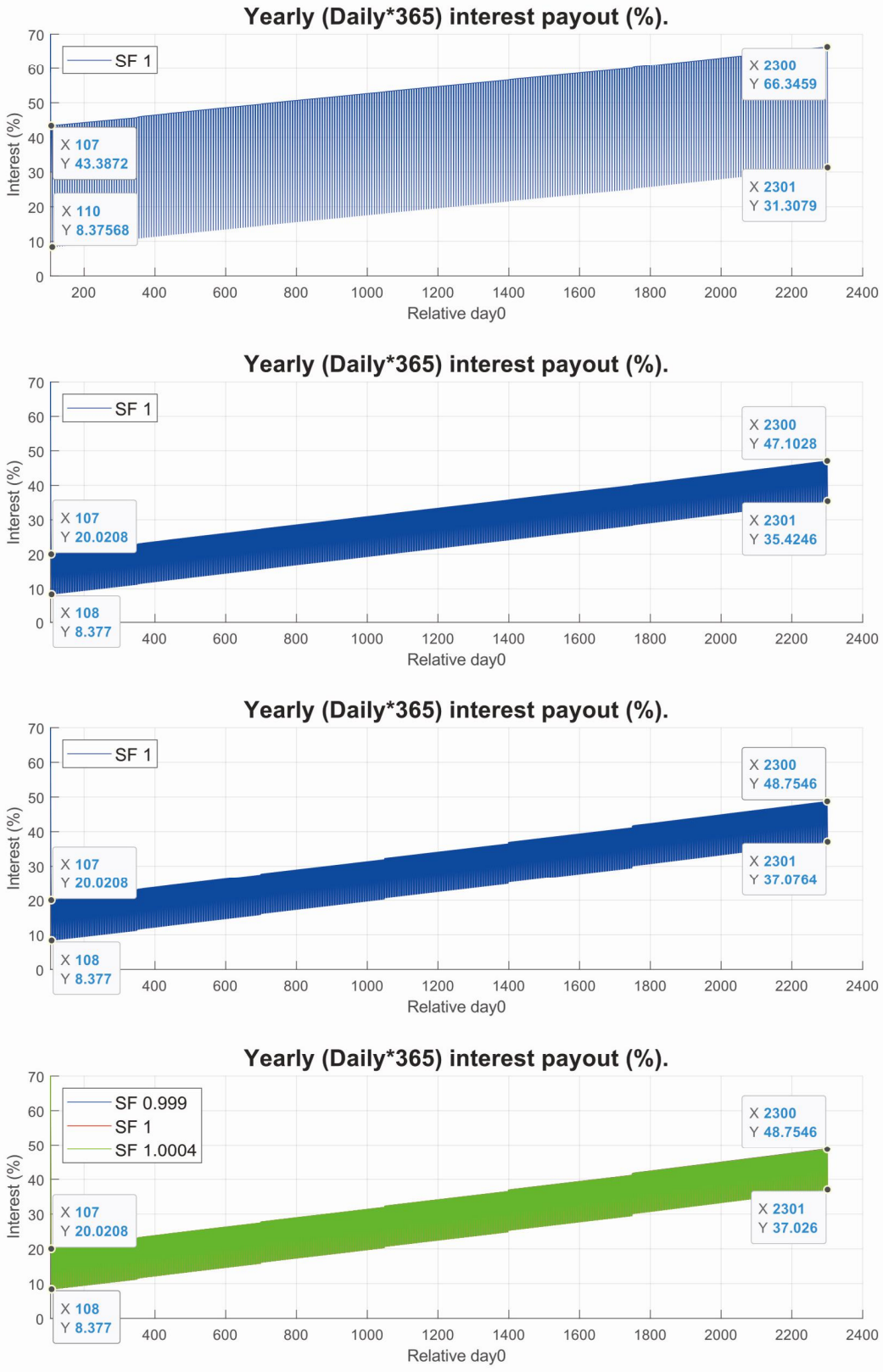


Figure A.12 Yearly (Daily X 365)payout (%) (upper scenario 1lower scenario 4)

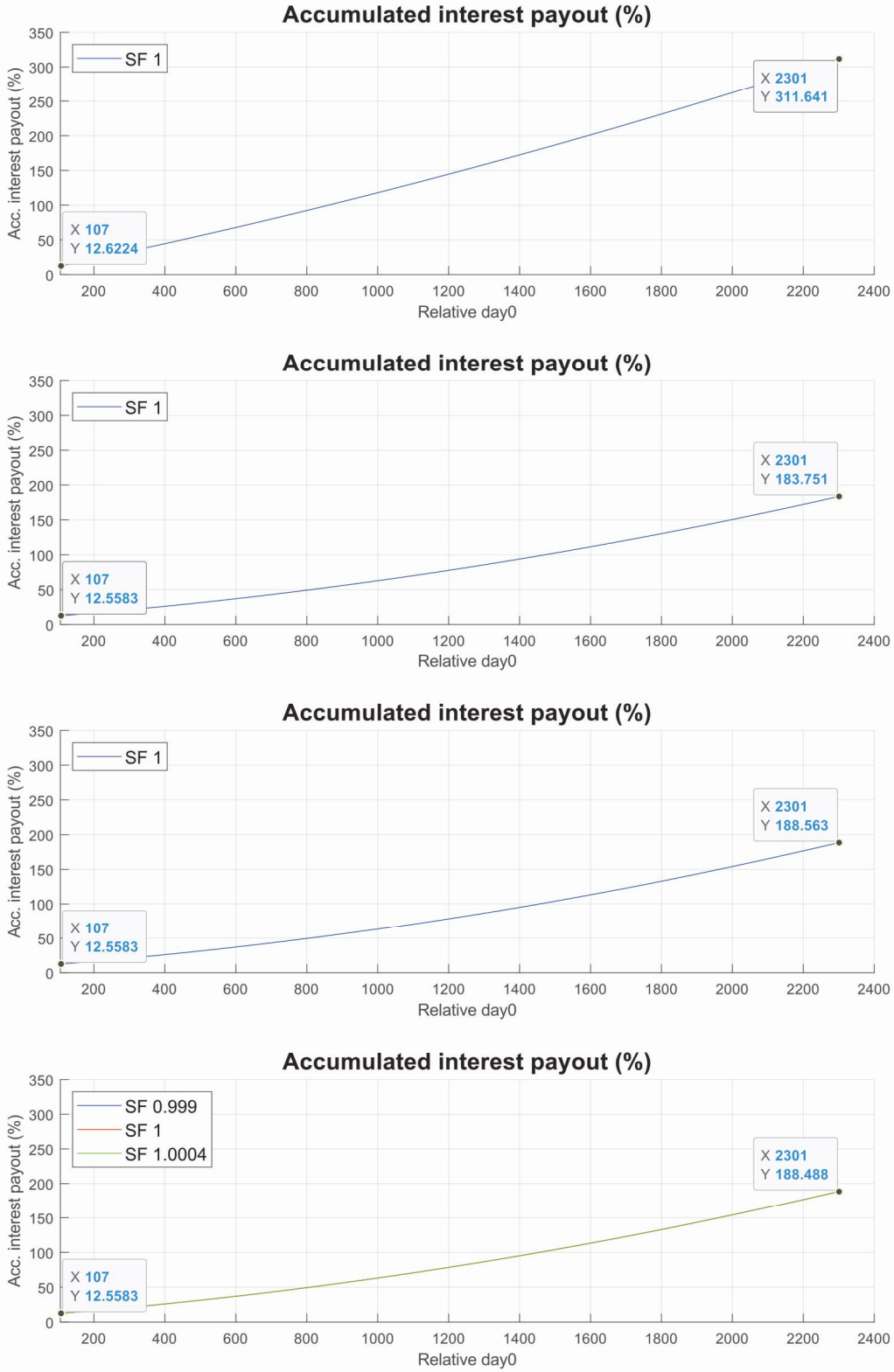


Figure A.13 Accumulated interest payout (%) (upper scenario 1 - lower scenario 4)

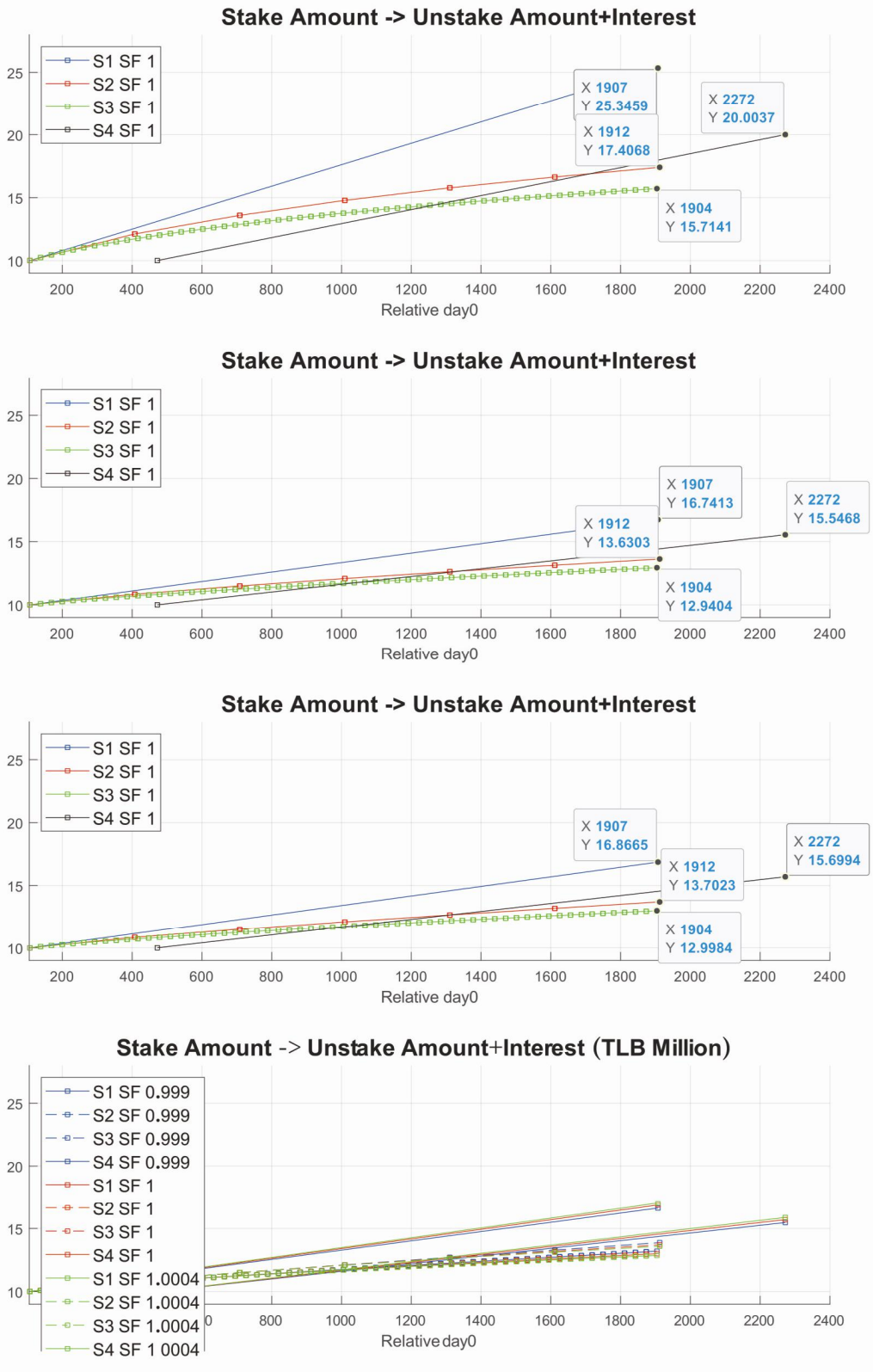
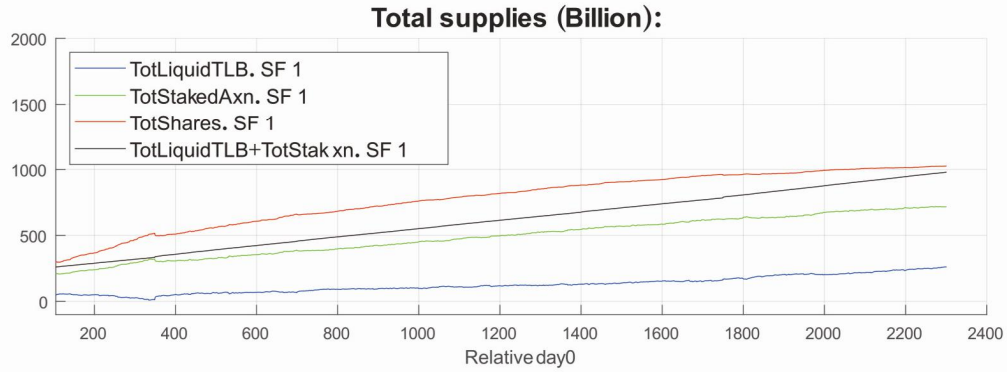
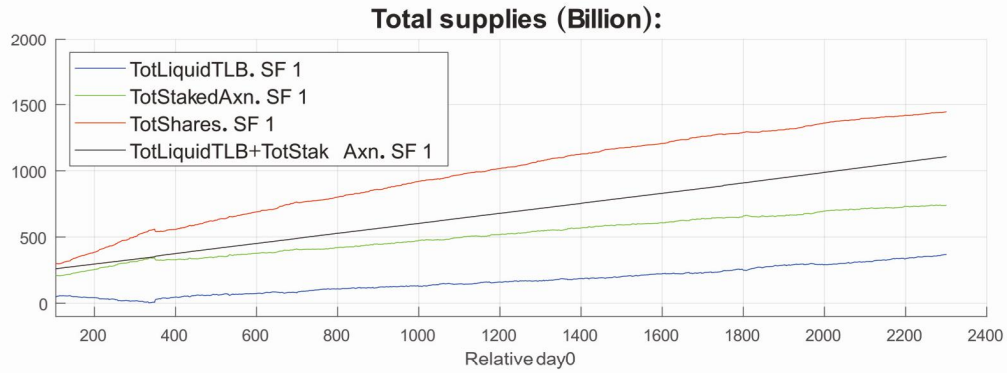
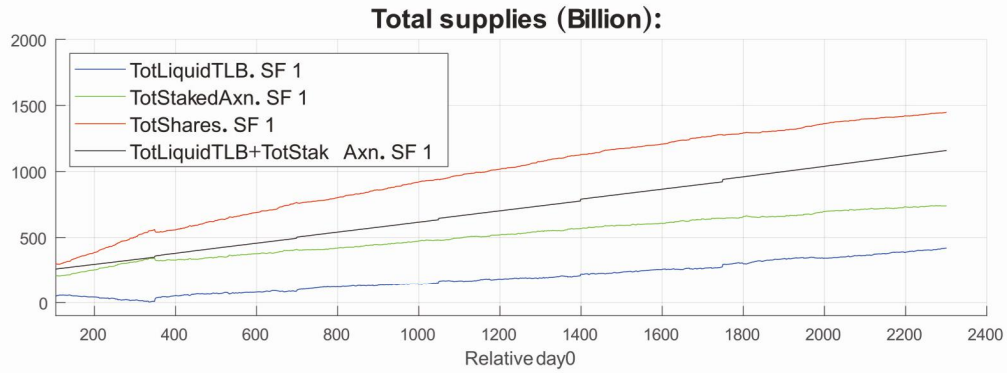


Figure A.14 Unstake amount (principal+ interest) with 4 different staking strategies (upper scenario 1 - lower scenario 4)







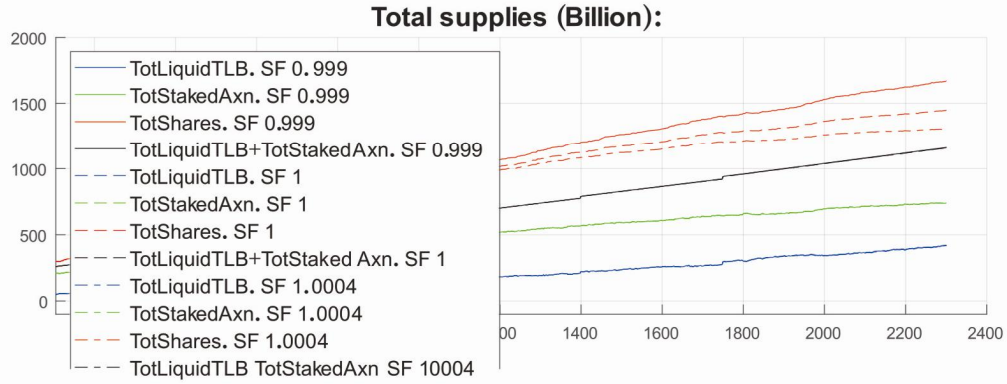


Figure A.15x Total TLB staking and Shares supplies (upper scenario 1 - lower scenario 4)

Glossary

Address

A string of characters and numbers that represent a destination where crypto can be sent to or from.

AltCoin

A term used to defne all crypto assets other than Bitcoin. Alt simply stands for Alternative.

ATH

All Time High - An acronym referring to the all time high price of an asset.

ATL

All Time Low - An acronym referring to the all time low price of an asset.

Arbitrage

Purchase and sale of the same asset in different markets to proft from price differences.

Audit

Comprehensive analysis of code with the intent of discovering bugs or security breaches. Audits can also be done for the economics or legal aspects of a project

Auction

Where TLB staking investors enter a bid of ETH, in return for their fair share of TLB from the daily auction pool.

Bidder

A person who bids into our auctions.

Bitcoin

Founded & released in January 2009, Bitcoin is the frst digital currency of its kind & ground zero for the entire crypto world as we know it. You can earn Bitcoin simply by staking TLB staking!

Block

A block is a data fle used for recording and storing permanent transactions pertaining to a specifc network. A block records some or all of the most recent transactions in chronological sequence. This data is a permanent record such that a block acts like a page of a ledger or record book. Once a block is flled a new block is added which ensures that once written, the records cannot be altered or removed. A block can be thought of as a link in an ever-growing chain of cryptocurrency transactions that are collectively known as a blockchain.

Block Height

A numeric representation showing the number of the current block being hashed.

Blockchain

A blockchain is a type of database, or ledger, that is stored electronically on a computer system in the form of data fles called blocks. These blocks allow for the sending and receiving of cryptocurrency transactions. These blocks are strung together in a “chain” comprising millions of blocks that are constantly being added to as transactions are processed. The blockchain is decentralized allowing public access to the data that is freely accessible to anyone and beyond the reach of a single controlling government, agency, or group.

BPD - BigPayDays

Big Pay Days are a valuable reward mechanism that was built into the TLB staking ecosystem to incentivize longer stakes. There are 50 billion TLB tokens allotted to the Big Pay Days over fve years for stakes that are locked for the required amount of days or more.

BuyBacks

Token BuyBacks, are a function of our auction contract. When someone bids ETH into our auctions, a portion of that ETH is instantly used to purchase either TLB or wBTC from Uniswap, which is then used to reward stakers.

Centralized

Something that is controlled by a single authority or managed in one place. Examples of centralized fnance include banks and Federal Reserves, or centralized data like that owned and managed by big tech companies.

CEX

Centralized exchanges most commonly facilitate trades between users by maintaining an order book: a collection of buy and sell orders posted by individual traders. Orders are requests to buy or sell a certain amount of a specifc cryptocurrency at a certain price. CEXs aggregate orders from their users and then use special software to match and execute the corresponding buy and sell orders.

Cold Wallet

Used to describe a crypocurrency wallet that is not connected to the internet, and thus cannot be used to process transactions without frst being reconnected (and turning into a “hot wallet”). Cold Wallets are more secure and less prone to unauthorized use.

Confrmation

In the blockchain, all transactions must be validated by 6 or more independent nodes in order to be considered “confrmed.” This validation process proves that the action was truly intended by its submitter, preventing unauthorized transactions from being posted to the blockchain.

Consensus

A consensus is a fault-tolerant mechanism that is used in the blockchain to achieve the necessary agreement amongst all the decentralized processors that are computing transactions for the network. Simply put, all nodes must agree on verifed transactions, reaching a consensus.

Cryptocurrency

A form of digital currency that is secured by cryptography, making it nearly impossible to counterfeit due to the resiliency and distributed ledger that is called the blockchain. TLB staking is a type of Ethereum-based cryptocurrency.

DAO

Decentralized Autonomous Organization. A DAO is a group of people or organizations that are unifed in purpose such that they act as one organizational body.

DAPP

Decentralized APPlication. A DAPP operates in such a way that it is not tied to a central governing application or database. Its main benefts are immutability, accountability, anonymity, bandwidth, and the user maintaining total control over their personal data.

Decentralized

Owned by no one entity, government, organization, group, person, or community. Ownership is spread out to anyone and everyone wants to join. True decentralization is possible with cryptocurrencies.

DeFi

Decentralized Finance. Meaning no one entity like a bank or government can control or have access to an individual’s fnances.

Defation

Defationary items are limited in supply and thus high in demand, resulting in an upward price/valuation movement.

DEX

Decentralized EXchange. DEXs allow cryptocurrency holders to exchange with each other directly, on a peer-to-peer basis, without needing to trust an intermediary or centralized exchange to create the transaction.

Discord

A chat platform where most of the TLB staking community is based.

Dividends

Dividends are what you earn from Staking TLB staking, in the form of more TLB or even wBTC (Bitcoin). Often abbreviated to Divs.

DLT - Distributed Ledger Technology

DLT refers to the technological infrastructure and protocols that allows simultaneous access, validation, and record updating in an immutable manner across a network that's spread across multiple entities or locations.

DM

Direct Message. A message that is sent directly from one user to another on a messaging application such as Discord.

ERC-20

ERC-20 tokens are a type of cryptocurrency written for and running on the Ethereum network. TLB staking is a type of ERC-20 token.

ERC-721

ERC-721 tokens are smart contracts used primarily to verify the "digital uniqueness" of the piece of data it holds, such as a picture. Used primarily for NFT's.

ETH - Ethereum

Ethereum (shortened to ETH) is the second largest cryptocurrency following Bitcoin based on market capacity. It was released in July of 2015 and gained widespread adoption due to its ability to run code on the blockchain in the form of "smart contracts."

Fiat Currency

Fiat currencies are currencies that are backed by political/governmental institutions and reinforced by its global trading strength. Fiat currencies are primarily used to pay for goods or services and are centralized around the governments that control them.

FOMO

Fear Of Missing Out. The phenomenon by which someone will choose to participate (or invest) in something not because of sound reasoning or logic, but because they feel they will "miss out" if they do not participate. FOMO often leads to regret.

FUD

Fear Uncertainty and Doubt. It is used to refer to very dark and unsettling times regarding the future of something. Someone who spreads FUD (FUDding) is often doing so without any supportive evidence or the ability to back up their claims and is often just spreading rumors with the purpose of discouraging others.

Gas

Gas refers to the method of payment (often in fractions of a token) that is given to the processing nodes that are computing transactions on the blockchain. Also referred to as Network Fees, the price by which you pay to have your transaction processed on the network.

Gas Limit

The gas limit is the maximum amount of Gas that a transaction will consume before 'failing', used as a safeguard to make sure that a user does not spend more in Gas than they would like.

GitHub

A digital repository and code hosting platform for software that allows for version control and collaboration. Here is TLB staking's GitHub.

GSR - Global Share Rate

The share rate of the TLB staking token that converts TLB staking into Shares during the staking process. The higher the share rate, the less shares you receive when you stake.

Gwei

Gwei is a very small unit of the Ethereum network's Ether (ETH), represented as 1 Billionth of an Ether. Gwei is a useful unit to measure network transaction fees, also known as Gas.

Hardware Wallet

A hardware wallet is a special type of cryptocurrency wallet which stores the user's private keys in a very secure manner, preventing these private keys from being hacked or stolen. A transaction cannot be submitted to the blockchain without frst being authenticated by the hardware device itself, preventing fraud or unauthorized use.

Hash

A hash is a function that converts an input of letters and numbers into an encrypted output of a fxed length. A hash is created using an algorithm and is essential to blockchain management in cryptocurrency.

HODL

An intentionally misspelled version of HOLD, often referred to colloquially as someone who invests with no intention of selling, no matter how high or low the price fuctuates.

Hot Wallet

A hot wallet is a tool that allows a cryptocurrency owner to receive and send tokens by remaining connected to the internet, unlike a cold wallet. They are inherently less secure because they can be accessed via the internet itself.

Immutable

Not susceptible to any altercation, change, manipulation, or editing after its original creation. In the blockchain, once a block is processed, it is immutable and thus cannot ever be changed. This is why transactions on the blockchain are permanent, meaning they cannot be erased or undone. Because of this, it is always good to verify transactions before submitting them to be processed!

Impermanent Loss

When one of the assets in a liquidity pool goes up in value compared to the other, the dollar value of the assets provided by a liquidity miner is lower compared to just holding the initial deposit. If one of the assets doubles in price while the other stays the same, the impermanent loss is around 5.7%.

Infation

An increase in the price level of good relative to its economic standing. When the general price level rises, each unit of currency buys fewer goods and services and thus becomes weaker over time.

Interest

Interest, represented in % APY (or Annual Percentage Yield) is the amount your investment is paid back over time.

KYC

Know Your Customer. A set of rules laid out by the government for companies to obtain a certain amount of information from their participants, used for fraud and tax detection.

Layer 2

Also called second layer; it is a protocol that is built on top of another protocol in order to operations to be preformed to the frst layer and manipulate the parameters of the frst layer from within the second layer. Layers can continually be added, though they tend to become more complex with each additional layer.

Ledger

Ledger is a type of Hardware Wallet used to store cryptocurrencies in a highly secure manner. With a Ledger, transactions must be approved by physically clicking buttons on the device itself, which ensures that hackers cannot withdraw cryptocurrency without access to the physical device and its protective password.

Liquid

When used in the sense of ‘Liquid BTC’, we mean this BTC is available to withdraw or spend immediately, its not staked.

Liquidity

Liquidity is the ability of a coin to be easily converted into cash or other coins. TLB staking uses signifcant liquidity stored on an exchange like Uniswap to allow for simpler transactions and price stability. Liquidity also represents the health of the token, the more liquidity the more there is available for trade.

Liquidity Mining

Also known as “software mining,” where network participants can submit their liquidity in the form of contributing equally matching ETH and TLB to the Uniswap liquidity pool, in return for real-time bonuses in TLB tokens.

Longer Pays Better

A core component of the TLB staking token, Longer Pays Better means that an investor will get signifcantly more return on their investment (ROI) in the form of higher APY and Bitcoin dividends by staking their investment for as long as possible, up to a maximum of 15 years. The longer the stake, the greater the shares an investor receives, thus the better dividends.

Mainnet

Mainnet is when a blockchain protocol, such as Ethereum, is fully developed and deployed, allowing real transactions be broadcast, verifed and recorded on the blockchain.

MetaMask

MetaMask is a type of software hot wallet that allows for easy trading, swapping, and integration into websites that allow for wallet addresses to be read. MetaMask does not store cryptocurrencies for you, it merely allows you to load or generate secret keys into the software that are then read by or submitted to the blockchain.

Mining

Mining is the process in which computing nodes compete with each other to verify and publish transactions on the blockchain. A successful transaction process yields payment to the node that was the frst to process the transaction block to the blockchain, often called the “block reward.”

Mutable

Opposite of immutable. Meaning it is liable or susceptible to change by being edited, adjusted or otherwise manipulated. Mutable blocks on the blockchain would mean transactions could be reverted at best, or at worst the funds in question could be redirected to an unauthorized address.

NFT

Non-Fungible Token. An NFT is a unit of data on the blockchain where each NFT can represent a unique digital item, and thus are not interchangeable. NFTs can represent digital fles such as art, audio, videos, items in video games and other forms of creative work.

Node

A computer/device that connects to a cryptocurrency network and helps strengthen the network’s resilience by adding its processing power to the overall group.

Nonce

Number used only ONCE. A pseudo-random number, generated in order to satisfy the parameters required by the mining and hashing algorithms as a part of the security check.

Open Source

Software or protocols that are available to the public at no cost and can be used by anyone.

Overbid

Once our auctions have ‘sold out’, if more bids are placed and the price becomes higher than simply buying on Uniswap, we class the auction as ‘overbid’.

Paper Wallet

A very secure way of storing crypto in a wallet that is stored “offine” by writing the secret keys down on a piece of paper and unloading those keys from any software or hardware wallets until they need to be used again.

Passive Income

Income that is generated passively, without any doing on the investor’s part. Healthy passive income should be the desire of any investor, such that enough passive income generation means never having to work at a job!

Penalties

The fees or deductions from the value of a stake that has not been withdrawn within the withdrawal period (typically 2 weeks).

Private Key

The private key is a specifc string of words that is used to unlock a crypto wallet. Think of a private key as the key to a house. Whoever has the key can enter the house and add or remove any items from the house that they wish. Just as you would not share your home key with a stranger, Private Keys should be treated with the utmost caution and should NEVER be given away to anyone, and should especially not be photographed or otherwise stored on a computer. Write a private key down on multiple pieces of paper and store

Proof of Stake (PoS)

Proof of stake is a type of consensus mechanism by which a cryptocurrency blockchain network achieves distributed consensus. In PoS-based cryptocurrencies the creator of the next block is chosen via various combinations of random selection and wealth or age vs sheer processing power in a Proof of Work (PoW) type of consensus.

Referral

A unique URL that is generated for each wallet address connected to the TLB staking Staking Portal. By giving out this address, both the referrer and the referee will receive a 10% bonus in TLB staking.

Ropsten

Ropsten Ethereum, also known as “Ethereum Testnet” is a testing network that runs the same protocol as Ethereum but is used for testing purposes before deploying on the main network (Mainnet)

Satoshi Nakomoto

The mysterious pseudonym/entity that created and released the frst iteration of Bitcoin, Blockchain, and Distributed Ledger technology to the world.

Satoshi

In honor of Satoshi Nakomoto, a Satoshi is the most micro unit of splitting a bitcoin, representing 0.00000001 of a Bitcoin.

Scamcoin/Shitcoin

A colloquial terminology used to refer to crypto projects that are either poorly constructed, scammy or fraudulent, dead-end investments, or fakes. It is generally advisable to avoid or ignore these types of coins.

Shares

Shares of ownership of TLB staking, given in exchange for TLB staking tokens. Shares generate interest and produce dividends in the form of Bitcoin and are proportionally distributed based on amount of TLB staking staked and the duration of the stake term.

Smart Contract

Smart Contracts are the product of software that is run on the blockchain itself, resulting in an unalterable agreement that has specifc logic operations akin to a real-world contract. Once signed, it can never be altered. Smart Contracts are easily verifable and authenticated because of their persistence on the blockchain.

Stakeholder

Someone who has an active stake in TLB staking (represented by an amount of Shares)

Stakers Share Percentage (SSP)

The Share Percentage is how much of the Share Pool you own. If the pool has 1,000,000,000 shares in it, and you own 10,000,000 shares yourself, you own 1% of the Share Pool.

Staking

Where TLB investors utilize their TLB tokens to earn shares by executing time-locked deposits, which in turn awards dividends over a period of time.

Testnet

Examining and predicting price movements in the fnancial markets, by using historical price charts and market statistics

Technical Analysis (TA)

An online ecosystem (such as the Ropsten test network) where developers can freely interact with the code of a blockchain to experiment around with it before launching to the Mainnet.

Tipping

A function of the TLB staking Discord community whereby users can tip other users (or a group of users) in actual TLB staking by typing ! discord chat box. Users can add or withdraw actual TLB staking to and from their tipping wallet like a normal software wallet. It’s pretty cool!

Token Protocol/Token

Tokens are a framework that bridges the physical and digital realms of value. ERC-20 tokens, for example, allows for interaction + access with the Ethereum's decentralized DAPP ecosystem, carrying both value and processing components all on the blockchain.

Tokenomics

A combination of Token and Economics. Used to address the metrics and token role within its ecosystem.

Total Supply

The absolute maximum amount of a cryptocurrency that can be produced, or "minted."

Transaction - TX

The fee (often referred to as Gas) that a user pays in order to have their transaction processed. By paying miners to process a transaction, it ensures security and competitiveness to the ecosystem that keeps it ever developing and ever supported. Without gas fees, the network would fall apart due to the immense power requirements needed to process transactions.

Transaction ID - TxID

The unique ID that is assigned to a transaction. The TxID is used to access a specifc transaction block and the information it holds. When submitting a transaction on MetaMask, a TxID is generated, allowing a user to check the status of the transaction on a website such as etherscan.io.

Trezor

Trezor is a type of Hardware Wallet used to store cryptocurrencies in a highly secure manner. With a Trezor wallet, transactions must be approved by physically clicking buttons on the device itself, which ensures that hackers cannot withdraw cryptocurrency without access to the physical device and its protective password.

Uniswap

Uniswap is a popular decentralized automated market maker, allowing users to interact with its liquidity pools to trade many types of Ethereum-based tokens for other tokens. Uniswap is currently the only exchange site where you can directly purchase TLB staking.

VCA - Venture Capital Auction

VCA auctions are special events in the TLB staking ecosystem happening on Tuesdays and Fridays where 1 Billion TLB staking tokens are available to buy. All investors who participate on those days immediately get 10% of their bid returned as liquid Bitcoin, with 85% of the auction value being distributed to active stakers as Bitcoin.

Wallet

The digital equivalent to a real world wallet, used to store cryptocurrencies. Readily available software allows users to store their cryptocurrencies on the blockchain and be accessed through their crypto wallet. Wallet types vary, including types like paper wallets, web wallets, desktop wallets, hardware wallets, and mobile wallets.

wBTC (tokenized Bitcoin)

Wrapped Bitcoin (wBTC) is an ERC-20 token that represents Bitcoin (BTC) on the Ethereum blockchain. Ethereum and Bitcoin are not compatible tokens as they run on entirely different types of networks. So wBTC allows Bitcoin to enter the Ethereum network and be used in Ethereum wallets, dapps, and smart contracts.

Whale

The term used to refer to an investor who carries a very high net worth of crypto. A whale typically owns suffciently enough of a cryptocurrency such that their decisions as what to do with it on the open markets would directly and noticeably impact the assets trading price should they sell or buy. Whales generally move into and out of crypto projects in very noticeable ways.

Whitepaper

The foundational a report or guide that is used to inform the public of a project's specifcations; equivalent of a business prospectus or plan, but used to describe the crypto project itself. Generally speaking, the amount of time and care given to a crypto's whitepaper is indicative of the quality of the crypto itself. TLB staking prides itself in its whitepaper.

Disclaimer

This whitepaper (document), or the content and/or materials thereof are not intended to be fnancial advice or a solicitation to purchase any digital asset, token, or fnancial instrument, nor is it any recommendation to purchase the TLB staking token (TLB). This document is for informational purposes only. Before deciding to invest in the TLB staking token, ensure that you understand that this document as of March 23rd, is subject to change. A “best practice” may suggest that you are educated and informed by an advisor before deciding to invest in the TLB staking token, or any other tokens or cryptocurrencies. There are risks involved investing in cryptocurrencies - investments in digital assets such as token(s) are inherently speculative. Valuations of the TLB staking token can or may fuctuate due to market volatility. All of the assumptions, ecosystem simulations, opinions, and statements in this document are idiosyncratic of the TLB staking Network, and therefore are subject to change.

TLB staking.network

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