

Money as Usual

Pierre Person

Adli Takkal Bataille

Pierre Cumenal

Anthony Levesque

November 27, 2024

Abstract

Usual protocol is a decentralized banking model designed to facilitate and democratize access to Real-World Assets (RWAs) while redistributing value across its ecosystem. At its core lies USD0, a stablecoin offering permissionless minting, heightened transparency, robust liquidity, and strict collateralization standards, redefining collateral management. Complementing USD0 is USUAL, a revenue-based governance token that aligns user interests by distributing economic and voting rights as rewards. Unlike traditional stablecoin providers, Usual empowers users to access RWAs via USD0 while participating in the protocol's growth and long-term success through USUAL ownership.

Contents

1	Introduction	2
2	USD0—Liquid Deposit Token	3
2.1	Minting and Redeeming	3
2.2	Collateral Management	4
2.2.1	Eligible Collateral	4
2.2.2	Expanding Collateral	4
2.2.3	Counter Bank Run Mechanism	5
2.3	LDT Scalability	5
3	USD0++—Liquid Staking Token	5
3.1	Lock Period	6
3.2	Rewards	6
3.3	Early Redemption	6
3.3.1	USUAL Burning Redemption	6
3.3.2	Price Floor Redemption	7
3.3.3	Parity Arbitrage Right	7
3.4	LST Scalability	8
4	Liquidity Provision Incentives	8
4.1	Rewards	8
4.2	Liquidity Incentives Management	8

5	USUAL	9
5.1	Minting	9
5.1.1	Minting Rate	9
5.1.2	Supply Factor	10
5.1.3	Rate Factor	10
5.1.4	Scale Factor	11
5.1.5	Cap Factor	12
5.2	Staking (USUALx)	12
5.3	USUAL*	12
5.4	Governance	13
5.4.1	Governable Aspects	13
5.5	Economic Rights	13
6	Risk Management	14
6.1	Technology Risk	14
6.2	Collateral Risk	14
6.3	Product Risk	14
7	Conclusion	15
8	Appendix	15
8.1	Insurance Fund Management	15
8.2	Distribution Allocation of USUAL	16
9	Acknowledgements	17
10	Disclaimer	17

1 Introduction

Stablecoins have served as a crucial bridge between Traditional Finance (TradFi) and Decentralized Finance (DeFi), yet significant gaps persist in the integrity of dominant stablecoin providers. They were first created to provide an on-chain, USD-pegged asset, initially prioritizing stability over generating interest or revenue redistribution. Since then, stablecoins have not evolved and still fail to redistribute earnings to users. The two largest stablecoin providers, Tether and Circle, collectively generated over \$10 billion in revenue in 2023, with valuations surpassing \$200 billion, yet none of this wealth is redistributed to the users who drive their success. These providers effectively charge users all future income that would otherwise be earned in TradFi to participate in DeFi. Such practices pose significant barriers for permissioned institutions seeking open, trustless access to stablecoin products and for permissionless users who, despite entering DeFi, still lack access to yield from these assets.

At the same time, the integration of Real-World Assets (RWAs), a potential solution to this problem, remains underutilized. On-chain US Treasury Bills, while introduced to address these challenges, have seen limited adoption, as they still lack in userbase and assets under management when compared to those of Circle and Tether. This is primarily due to a lack of permissionless accessibility on these protocols. Moreover, while many yield-bearing stablecoins have emerged, providing users with exposure to the yield of their

underlying assets, none have successfully implemented mechanisms to align user interests with the broader success and growth of the project. Additionally, their risk profiles often differ significantly from those associated with real-world assets (RWAs). Overall, these barriers underscore the need for a stablecoin solution that addresses the inequities in profit distribution and the accessibility of RWAs in DeFi.

In response to these problems, *Usual Protocol* introduces USD0, a stablecoin designed to democratize access to RWAs for both permissioned and permissionless users, alongside USUAL, a governance token that aligns user interests by distributing economic and voting rights as rewards for engaging with Usual products. USD0 serves as the protocol's foundational layer, enabling permissionless minting while enhancing collateral management with greater transparency, liquidity, and robust collateralization standards. On the other hand, USUAL incentivizes participation through rewards for engaging in products like USD0++ and liquidity provision, supporting the protocol's long-term sustainability and growth. Unlike traditional stablecoins that privatize profits or solely distribute yield, Usual empowers users to benefit from both yield generation and ecosystem growth. Together, USD0 and USUAL foster balanced participation, addressing the shortcomings of existing stablecoins and advancing equitable growth within the DeFi ecosystem.

2 USD0—Liquid Deposit Token

The current gateway to the Usual ecosystem is the Liquid Deposit Token (LDT), known as USD0, which reflects deposits of eligible RWA collateral within Usual. Users can seamlessly mint and redeem LDT by either directly depositing eligible collateral or using an indirect matching system that pairs permissioned collateral providers with permissionless minters. Furthermore, the concept of Liquid Deposit Tokens (LDTs) is designed to extend to additional assets in the future, signifying that USD0 will not remain the sole LDT within the ecosystem.

2.1 Minting and Redeeming

There are two types of minting and redeeming: direct and indirect. These vary based on the collateral and whether permissionless users can hold it.

- **Direct:** Direct minting and redemption involve directly depositing or redeeming the collateral for the LDT (USD0). This is the simplest process but may not always be available, as eligible collateral can be permissioned, restricting permissionless users from holding it and thus from directly minting or redeeming.
- **Indirect:** Indirect minting solves restricted access for permissionless users as the DAO uses liquidity from permissionless minters to obtain the required collateral, mint LDT (USD0) and then redistribute it back to the user. This indirect minting allows permissionless minters to access 1:1 minting of USD0. Minting can further be routed to liquidity on the secondary market should secondary market exchanges be more favorable. Indirect redemption, on the other hand, does not offer a 1:1 redemption option; instead, users redeem through the secondary market, which is incentivized to maintain liquidity for these redemptions (as discussed in Section 4).

2.2 Collateral Management

Collateral management encompasses defining eligible collateral, adding and managing new collateral, and reacting to potential loss on value of collateral.

2.2.1 Eligible Collateral

Before being depositable for minting of LDT (USD0), Usual undergoes a rigorous due diligence process to determine if a RWA tokenizer is eligible for deposit in the Usual ecosystem. The following factors are taken into account in this process:

- **Fully collateralized:** The most important aspect for Usual collateral is that it should be fully collateralized and not be exposed to leverage. This could be defined as fractional reserve risk typically seen at traditional financial institutions such as banks or any other form of leverage that could lead to a collateral loss.
- **Low Risk:** All collateral for RWA tokenizers must be invested in liquid Treasury Bills, accepting only sovereign bonds that represent the lowest risk available for yield-generating assets. Additionally, risk specific to the tokenizer—such as counterparty, liquidity, credit, interest rate, or FX risk—is assessed through a thorough investigation to identify these risks for each tokenizer.
- **Transparency:** Collateral must be verifiable onchain and additionally should provide high transparency offchain with frequent public financial audits by well regarded third-party institutions.
- **Liquid:** To maintain flexibility of LDT redemptions, collateral must be highly liquid and maintain durations below a set threshold of 0.33 years. Should collateral have a portfolio duration above this, it would not be eligible as collateral within Usual.

Based on these characteristics, the first collateral made eligible within Usual was Hashnote (USYC). The tokenized RWA USYC offered by Hashnote is fully collateralized by a highly transparent, fully liquid and very low risk portfolio of reverse repos. The underlying reverse repos are made with the Depository Trust & Clearing Corporation (DTCC), which has an AA- credit rating and Hashnote is managed by an experienced investment team. Hashnote exemplified all the desired characteristics of a tokenizer and passed the due diligence investigation by Usual; therefore, it is the first tokenizer to back USD0. New collateral providers are taken into account and will undergo the same due diligence process to determine if they can be accepted as collateral for Usual.

2.2.2 Expanding Collateral

Currently Usual just accepts a single collateral (Hasnote - USYC); however, Usual plans to expand this in the future to accept multiple collateral providers for USD0 like BlackRock and M0. Once being accepted as a collateral (as defined in previous Section 2.2.1), users will be free to mint and redeem directly any collateral while the DAO will control which collateral are used for indirect minting. This allows the DAO to control the inflow of collateral which will be based on a desired allocation per collateral determined by governance.

Further, management of multiple collaterals will change in the future thanks to USUAL's multi-collateral controller. It will change the dynamic of minting and redeeming LDTs and change the collateral management onchain.

2.2.3 Counter Bank Run Mechanism

The Counter Bank Run Mechanism (CBR) is a reactive system designed to adjust the salvageable value of the Liquid Deposit Token (LDT) using an insurance fund that hedges against any potential future collateral loss. This insurance fund operates by burning LDT to increase the salvageable redemption value per LDT. Based on the total value of all collateral, $\sum_{i=1}^n P_{Collateral_i} \times C_{Collateral_i}$, the floating supply of LDT $Supply_{LDT}$, the LDT set aside by the DAO for the insurance fund $Insurance_{LDT}$, and the intended fair price of LDT F_{LDT} , the salvageable redemption value of LDT S_{LDT} is adjusted as follows:

$$S_{LDT} = \min \left(\frac{\sum_{i=1}^n P_{Collateral_i} \times C_{Collateral_i}}{Supply_{LDT} - Insurance_{LDT}}, F_{LDT} \right) \quad (1)$$

In other words, if the collateral backing USD0 falls below a certain threshold (such that the insurance fund can no longer hedge against collateral loss), the primary market redemption value of USD0 is adjusted accordingly.

This mechanism ensures an appropriate response to collateral losses, guaranteeing that users receive a fair redemption value, supported by the DAO-maintained insurance fund (see appendix, Section 8.1). Furthermore, if the salvageable redemption value falls below one, the DAO has the authority to temporarily pause the minting engine to focus on re-pegging the LDT. This ensures that new minters do not face immediate losses on their minted assets. During this period, minting activities would be directed through the secondary market, and no new collateral would be accepted.

2.3 LDT Scalability

While initially designed for stablecoin use (creating USD0) for specifically bridging permissioned and permissionless users through RWA, the LDT concept is applicable to any asset class and ideally could be scaled in the future based on governance decisions (see Section 5.4). For example, LDTs could be built for ETH to handle both LST and LRT as collateral for ETH0, as well as dUSD0, an independent stablecoin separate from USD0 backed by decentralized stablecoins (using sUSDe, sDai, and others as collateral). This approach transforms Usual into a key DeFi integration platform, fostering collaboration by enhancing existing protocols' presence in the Usual ecosystem.

3 USD0++—Liquid Staking Token

The primary product rewarded for engagement in the Usual ecosystem is USD0++. This token is a Liquid Staking Token (LST) requiring users to lock USD0, the Liquid Deposit Token (LDT). Users acquire USD0++ by locking their USD0 for a fixed period. During this lock period, users can accrue and claim yield in USUAL while retaining the right to fully unlock their LDT at maturity, or unlock their LDT before maturity for an additional cost.

3.1 Lock Period

The locking period is a fundamental mechanism within the protocol, ensuring that the issuance of USUAL is intrinsically linked to secured future cash flows. Governed by the DAO, the lock period is uniformly set to mature on June 30, 2028, applying to all USD0++. At maturity, all locked USD0++ will automatically unlock unless before the maturity, users opt for early exit mechanisms outlined in Section 3.3.

This long-term commitment is integral to incentivize sustained participation in the ecosystem, aligning user interests with the protocol's growth. By locking USD0++, users are positioned to receive USUAL, which redistributes both economic and governance value. This structure discourages short-term speculation, fostering long-term sustainability.

Nevertheless, USD0++ maintains flexibility through its composable and liquid design, enabling users to exit their positions before maturity by selling or transferring the token in secondary markets, ensuring continued accessibility and market efficiency.

3.2 Rewards

USD0++ accrues USUAL rewards daily as new USUAL is minted and distributed (see Section 5 and Section 5.1). Users can claim their USUAL rewards at any time. By making USUAL claimable, the DAO shifts the gas costs from directly distributing USUAL to users, allowing users to control their gas expenses by claiming at their own discretion. This ensures that the recipient of the transferred USD0++ receives it without any accrued USUAL rewards.

Interestingly, USD0++ can also accrue rewards when held with USUAL's integrated partners. This means that USD0++ continues to accumulate USUAL rewards even when deposited in the smart contracts of approved partners. However, it is important to clarify that when USD0++ is in an accepted Liquidity Provider (LP) pool (see Section 4), it earns rewards specifically from the Liquidity Provision Incentives rather than from the standard USD0++ rewards.

3.3 Early Redemption

While USD0++ is meant to be locked until maturity, there are three primary forms usable to unlock the USD0++ before maturity: USUAL Burning Redemption, Price Floor Redemption and Parity Arbitrage Right.

3.3.1 USUAL Burning Redemption

Users can redeem USD0++ for USD0 (1:1) at any time by returning B_{USUAL} (see equation 2) amount of USUAL tokens. Upon doing so, some of this USUAL is burned while the remaining is allocated to USUAL* (see Section 5.3) as well as the staked version of USUAL, USUALx (see Section 5.2)¹ and the requested USD0 is redeemed in exchange for USD0++. The amount of USUAL required to burn B_{USUAL} , is determined by three factors: the current USUAL rewarded per USD0++ U_t , an adjustment factor A based on the weekly outflow target and cumulative weekly redemptions, and a time cost factor

¹33.33% will be burnt while 33.33% will be allocated to USUAL* and 33.33% will be allocated to USUALx (one third is allocated to each of the three routes).

T (set by the DAO to $T = 180$). The adjustment factor is calculated based on weekly mints and redemptions, while the time cost factor accounts for the prorated USUAL rewards per USD0++ to be returned ($U_t \times T$ —not accounting for A).

$$B_{USUAL} = U_t \times T \times A \quad (2)$$

The adjustment factor A that adapts the amount of USUAL to be burnt based on current redemption activity. This depends on inputs related to redemption activity and target net weekly redemptions from the DAO. The main inputs are θ_t the net weekly outflow (modified by the amount a user redeems X) $\theta_{\text{target},t}$ the target net outflow (where $\text{redemption}_{\text{target}}$ is a target percentage of TVL redeemed per week set by the DAO). Based on these inputs, the adjustment factor A is calculated as follows:

$$A = \begin{cases} 0 & \text{if } \theta_T = 0 \\ \frac{\theta_t}{\theta_{\text{target},t}} & \text{if } 0 < \theta_T \leq \theta_{\text{target},t} \\ 1 & \text{if } \theta_T > \theta_{\text{target},t} \end{cases} \quad (3)$$

such that

$$\theta_t = X + \max(0, \sum_{t-7\text{days}}^t \text{Redemptions}_{t-i} - \sum_{t-7\text{days}}^t \text{Mints}_{t-i}) \quad (4)$$

and

$$\theta_{\text{target},t} = \text{redemption}_{\text{target}} \cdot \text{Supply}_t^{++} \quad (5)$$

Therefore, the amount of USUAL to be returned at the maximum is 180 days worth the current rewards rate while the minimum is 0 depending on the weekly outflow of TVL compared to the target allowed net outflow.

3.3.2 Price Floor Redemption

In addition to the USUAL Burning Redemption mechanism, users have the option to redeem USD0++ at a price floor without burning USUAL. The DAO reserves the authority to set this price floor, allowing USD0++ holders to exchange their tokens for USD0 at a rate below the standard 1:1 redemption ratio. Specifically, the price floor establishes a discounted redemption rate, where users receive less USD0 per USD0++ redeemed. The difference between the standard redemption value and the discounted price is directed to the treasury as a fee, supporting the protocol's sustainability. Furthermore, this open redemption mechanism introduces arbitrage opportunities, as users can capitalize if the market price of USD0++ falls below the redeemable floor value. By establishing this mechanism, the DAO ensures that the redemption rate functions as an effective price floor, maintaining market stability while incentivizing active participation in the ecosystem.

3.3.3 Parity Arbitrage Right

The Parity Arbitrage Right (PAR) is a DAO redemption right designed as a contingency measure, activated only in scenarios where the market price of USD0++ deviates significantly from its peg. This intervention enables the DAO to stabilize the system and

address market inefficiencies. However, it is important to emphasize that this mechanism is neither automated nor governed by a preset strategy. It is intended solely as a reactive tool for extreme circumstances that may threaten the integrity or sustainability of the protocol.

Under this mechanism, the DAO retains the authority to unlock the underlying LDT (USD0) from the LST (USD0++) prior to its maturity, provided such action is approved through DAO governance. This capability applies to any quantity of USD0++ held by the DAO and can be exercised at its discretion.

3.4 LST Scalability

As the Liquidity Deposit Token (LDT) is scalable (Section 2.3), so is the Liquid Staking Token infrastructure used for USD0++. As new LDTs are introduced (ETH0, dUSD0, etc.), a corresponding LST will also be made available (ETH0++, dUSD0++, etc.). These LST will also accrue USUAL rewards and have optional early redemption available. With this change, the USUAL minting and distribution model (see Section 5) will need to be updated to accompany multiple underlying assets when new LST are introduced.

4 Liquidity Provision Incentives

Usual ensures sustainability by maintaining liquidity in the secondary market for its tokens (USD0, USD0++, and USUAL) through distributing USUAL as incentives to users who provide liquidity in designated incentivized pools.

4.1 Rewards

USUAL rewards accrue for users holding LP tokens from accepted pools, based on their share of the total LP tokens. These rewards can be claimed at any time, allowing users to manage gas expenses by claiming when convenient, similar to the flexibility offered by USD0++. The rewards are distributed for users who provide USD0 as liquidity to accepted LP pools (and any other token per liquidity pair). Accepted pools will pair USD0 with another stablecoin (such as USDC), USD0++ or USUAL, making this module the sole source of rewards for USD0 itself. Notably, USD0++ does not earn standard USUAL LST rewards (see Section 3.2) but instead accrues only LP incentives when deposited into an accepted LP pool.

4.2 Liquidity Incentives Management

The DAO decides which pools are eligible for incentives. At launch, one pool each for USD0, USD0++, and USUAL LP incentives will be whitelisted, with specific allocations of USUAL for each (see distribution details in appendix, Section 5.1). The DAO can adjust these allocations and expand the pool list through USUAL governance (see Section 5.4).

5 USUAL

The USUAL token serves as the cornerstone of the Usual ecosystem, functioning as the primary reward mechanism, incentive structure, and governance tool. Central to its design is the concept that USUAL tokens are effectively minted as proof of revenue, directly tied to the generation of income for the protocol's treasury.

USUAL is distributed on a daily basis, with allocations strategically divided across various buckets to incentivize user engagement and align the ecosystem toward sustained growth and stability. The token's supply is inherently disinflationary, as the amount of USUAL distributed per unit of locked TVL decreases in proportion to the protocol's growth in TVL.

Moreover, USUAL holders can stake their tokens to earn additional rewards, also denominated in USUAL, further reinforcing user participation and long-term commitment to the ecosystem. This dual functionality—reward generation and governance participation—positions USUAL as an integral driver of Usual's continued success.

5.1 Minting

USUAL is minted and distributed on a daily basis to various buckets for use and rewards within Usual (see appendix, Section 8.2). The daily distribution is calculated using d the global distribution rate, M_t the minting rate, $Supply_t^{++}$ the supply of USD0++ , and P_t the primary market price of USD0, as follows:

$$USUAL_{\text{dist}_t} = \frac{d}{365} \times M_t \times Supply_t^{++} \times P_t \quad (6)$$

The distribution rate d is immutable and set to 0.25 meaning the minting rate per the market cap of current locked assets will be distributed over 4 years total ($\frac{1}{0.25}$). This gives the expected supply to be minted over time using the minting rate. However, given the dynamic nature of TVL and Price, the real circulating supply will be dynamic and is the aggregate of the daily distribution over time.

5.1.1 Minting Rate

The minting rate introduces an innovative mechanism governing the supply of USUAL relative to USD0++ over a four-year period (considering $d = 0.25$). The initial minting rate, denoted as M_0 . The final minting rate is dynamically adjusted based on four key factors, ensuring responsiveness to market conditions. M_t is calculated as follows:

$$M_t = \min \left[\frac{M_0 \times S_t \times R_t}{\gamma_t}, \kappa_t \right] \quad (7)$$

The calculation of M_t produces unique dynamics based on each subfactor; this can be summarized as follows:

- Inverse Relationship with LST Supply (Supply Factor S_t —equation 8): As the supply of USD0++ S_t grows, the minting rate decreases, fostering scarcity and

rewarding early adopters.

- **Direct Relationship with Interest Rate** (Rate Factor R_t —equation 9): Fluctuations in the interest rate directly influence the minting rate, aligning it with prevailing market dynamics. Ensuring that USUAL tokens are emitted based on proof of revenue: the token emission rate adjusts proportionally to changes in revenue, increasing when revenue grows and decreasing when it declines.
- **Growth Control Variable** (Scale Factor γ_t —equation 11): A governance-adjustable variable γ_t , defaulting to 1, enables the DAO to accelerate or decelerate changes in the minting rate, providing flexibility in managing ecosystem growth and stability.
- **Rate Cap** (Cap Factor κ_t —equation 13): The minting rate is capped by a dynamic maximum κ_t which corresponds to the initial set minting rate adjusted by the interest rate and the Scale Factor.

This structured approach ensures that USUAL issuance remains adaptive to both macroeconomic conditions and protocol-specific developments, fostering long-term sustainability and alignment with user incentives.

Essentially, the minting rate is a dynamic variable that expresses the amount of USUAL minted relative to the value of USD0++ over time. The subfactors are calculated as follows:

5.1.2 Supply Factor

S_t is a supply factor which inversely adjusts the minting rate as supply increases. It has a ceiling of 1, meaning that if the supply ever falls below the initial supply at launch, this ceiling value will be used. On the contrary, for any supply $Supply_t^{++}$ above the initial supply $Supply_0^{++}$, the factor will be below one.

$$S_t = \min \left[\frac{Supply_0^{++} \times P_0}{Supply_t^{++} \times P_t}, 1 \right] \quad (8)$$

For example, as USD0++ supply increases, S_t decreases, therefore minting less USUAL per USD0++ as M_t (the minting factor) decreases. This makes the supply increasingly scarce as the protocol grows. This is designed such that as TVL increases (along with the revenue), USUAL becomes more scarce, thus driving the intrinsic value per token to increase, accruing value to users who hold USUAL as the protocol grows.

5.1.3 Rate Factor

R_t is a rate factor which directly adjusts the minting rate based on change in the current underlying interest rate of collateral for USD0 r_t (subject to the rate floor and ceiling r_{min} and $P_{90}(\pi_t)$).² A rate floor set by the DAO is used to ensure a minimum amount of USUAL is minted and distributed. Further, the 90th percentile of the daily rates from the last 60 days is used as a rate ceiling to cap the rate factor increasing significantly when large sudden changes in the underlying interest rate are realized (ideally creating

²Secured Overnight Financing Rate (SOFR) has never been at or below 0%

a smoother transition in the number of USUAL distributed before and after large rate changes).

$$R_t = \frac{\min[\max[r_t, r_{\min}], P_{90}(\pi_t)]}{r_0} \quad (9)$$

where

$$\pi_t = \{r_i | i = t - 1, t - 2, t - 3, \dots, t - 60\} \quad (10)$$

For instance, when the Federal Reserve (FED) adjusts interest rates (impacting the underlying collateral interest rate of the LDT—USD0), the amount of USUAL minted adjusts proportionally (excluding the influence of the minimum rate $r_{\min}$ or maximum rate $P_{90}(\pi_t)$). This dynamic alignment is critical to maintaining fairness in the protocol's distribution mechanism. Without such an adjustment, significant disparities could arise. If interest rates decrease, users would receive disproportionately higher USUAL rewards for the same revenue generated. This would dilute the revenue per USUAL for new participants compared to earlier ones. Conversely, if interest rates increase without a corresponding adjustment in emissions, the value distributed per USUAL could unfairly favor earlier participants at the expense of new entrants. By tying USUAL emissions to interest rate fluctuations, the protocol ensures equitable distribution across all participants, preserving both sustainability and fairness.

5.1.4 Scale Factor

The scale factor γ_t is used to modify the minted amount of USUAL by a set base scale factor γ which is set by the DAO and by a time factor τ_t . The base scale factor allows the DAO to modify the daily minting of USUAL to either reduce or increase the USUAL emission rate over time;³ this acts as either an accelerator for inflation when set below 1 (and always above 0) and as a decelerator when set above 1. If set to 1, the scale is neutral such that the inflation is as originally intended. The time factor for this is calculated using the UNIX timestamp at which the last mint occurred and the timestamp at which the current mint occurs. This is then adjusted to calculate how many days (based on using 86400 seconds per day via $D_{FS} = 86400$, the distribution frequency scalar.) have elapsed between mints to adjust the distribution (given it is supposed to be daily). Since the model is meant to operate on a daily basis but may differ in terms of times between the actual mints of USUAL. This function uses the last parameter values available at the time of the call for calculations. This is used to adjust and ensure that the correct amount of USUAL is minted from one mint to the next.

$$\gamma_t = \frac{\gamma}{\tau_t} \quad (11)$$

where

$$\tau_t = \frac{Timestamp_t - Timestamp_{t-1}}{D_{FS}} \quad (12)$$

³An airdrop of USUAL tokens will be distributed to USD0++ and LP holders from the Usual Pills Campaign. Gamma will start below 1 (0.7894, which is viewable in the USUAL Smart contract) for the first 6 months to ensure that excess tokens realign allocations to buckets that didn't receive an airdrop (non USD0++, USD0 or USD0++ LP buckets from Section 5.1).

5.1.5 Cap Factor

Further, the cap factor κ_t is set based on the initial minting rate but is modified over time by the change in the underlying interest rates and the scale factor. κ_t is set as follows (where r_0 is the initial underlying interest rate of USD0 at launch):

$$\kappa_t = \frac{M_0 \times \max[r_t, r_{\min}]}{r_0 \times \gamma_t} \quad (13)$$

The cap factor is included to ensure the minting rate does not go above the initial minting rate, adjusted by the change in rate and the scale factor. This is designed so the initial minting rate is intended to be the highest rate of USUAL per USD0++. This cap factor therefore enforces the initial minting rate as the ceiling (excluding adjustment from rate or scale factor changes).

5.2 Staking (USUALx)

USUALx is the transferable token representing staked USUAL. It grants holders access to additional benefits, including participation in reward distributions and governance rights within the protocol. USUALx holders participate in the daily distribution of USUAL, allocated as 10% of the total USUAL emitted by the protocol. This distribution mechanism provides a hedge against USUAL's broader emission, rewarding long-term engagement within the ecosystem.

USUAL tokens can be staked or unstaked at any time without a mandatory lock-up period. However, the DAO retains the authority to impose an unstaking fee, applied as a percentage of the USUALx being withdrawn.⁴ This fee mechanism discourages short-term holding behavior while reallocating the collected fees to reward and strengthen the alignment of incentives for long-term stakers.

5.3 USUAL*

USUAL* is the genesis token of the Usual protocol, designed to finance the protocol's creation and endowed with specific rights distinct from the USUAL token. Initially allocated to investors, contributors, and advisors, USUAL* introduces a tokenomics model aimed at safeguarding the community and the broader distribution framework from the adverse effects typically associated with insider vesting.

This anti-dilution mechanism ensures perfect alignment between the protocol's success—reflected in its cash flows—and the value of the USUAL* token.

- **Allocation Rights:** USUAL* holders are entitled to 10% of all USUAL tokens minted through distributions, with the remaining 90% directed to the community.
- **Fee Participation:** USUAL* holders receive one third (33.33%) of all fees generated from USUALx staking exits, unclaimed airdrop rewards, and USUAL tokens returned during USUAL USD0++ Burning Redemption (see Section 3.3.1).

⁴This fee is initially set to 10% but subject to change with governance.

In the protocol's early stages, USUAL* holders are granted majority voting rights to ensure adherence to the roadmap and facilitate effective decision-making during the launch phase. Over time, governance will transition to a decentralized model centered around USUAL holders. However, this shift will not affect USUAL* holders' permanent economic rights, as outlined above. Further guidance on governance frameworks for both USUAL* and USUAL tokens will be provided in future updates.

5.4 Governance

Usual aims to establish a fair and equitable redistribution of power to its users. Initially, governance will be managed by Usual Labs to ensure a structured launch and operational stability. Over time, the protocol will transition toward a decentralized governance model, progressively returning authority to users who actively contribute to the system's value.

This transition fosters robust neutrality and resilience through decentralization. Governance will ultimately reside with the Usual DAO, which is driven by staked USUAL (USUALx) and USUAL* holders. These stakeholders are empowered with voting and proposal rights, enabling them to shape the DAO's operations, strategic direction, and investment policies. This framework ensures that control is aligned with the ecosystem's long-term sustainability and user-centric ethos.

5.4.1 Governable Aspects

The governance roadmap is maturing and taking form as development continues. However, it is established that the DAO will oversee key aspects of the protocol. Holders of USUALx and USUAL* will have the ability to propose and vote on changes to the following areas:

- **Parameters Set by the DAO:** This includes parameters impacting the various mechanisms for USUAL and other products (USD0++ and Liquidity Provision Incentives), fees for operations like redeeming and unstaking, and other adjustable parameters.
- **Onboarding of New Collateral or Assets:** The DAO decides which collateral can be accepted (following Section 2.2.1) and can further decide which assets can be converted to LDTs within Usual, such as ETH (staked ETH), sDAI, sUSDe, or other tokens. The DAO therefore has domain over the direction and expansion of the protocol.
- **DAO Treasury Management:** The DAO manages the treasury, determining investment strategies, allocations (i.e. insurance fund), and the distribution of proceeds to USUAL holders (via future features—buyback and burning of USUAL, etc.).

5.5 Economic Rights

The economic rights tied to USUAL provide holders with the potential to benefit directly from the ecosystem's growth and success, emphasizing a community-first approach to value creation. The DAO envisions implementing mechanisms to distribute protocol-generated revenue equitably and indirectly to USUAL holders, contingent on governance

approval and regulatory compliance. As the protocol evolves and governance matures, further details regarding the structure and application of these economic rights will be disclosed.

6 Risk Management

The Usual Protocol addresses various risks through its comprehensive risk management policy, which focuses on mitigating technology, collateral, and product risks.

6.1 Technology Risk

Technology risk encompasses the inherent vulnerabilities and uncertainties of using smart contracts to operate the protocol. This includes coding errors, bugs, and potential exploits by malicious actors that could lead to financial loss or system failures. Usual mitigates these risks through multiple comprehensive audits by industry experts, which identify and correct issues, and by continuously monitoring the smart contracts. Monitoring is conducted both internally and by third-party smart contract monitoring and risk management service providers, enhancing security and trust in the platform.

6.2 Collateral Risk

All eligible collateral is subject to rigorous due diligence in accordance with a comprehensive risk policy, ensuring alignment with Usual's principles of transparency, security, and sustainability. Collateral must meet strict criteria, including full collateralization, exclusion of over-leveraged structures like fractional banking, and full liquidity with redeemability guarantees.

However, counterparty risk associated with collateral providers and financial risks—such as interest rate fluctuations, foreign exchange volatility, credit defaults, or liquidity constraints—may impact the underlying assets. These risks could result in losses to the collateral's value.

To mitigate such risks, the DAO manages an insurance fund under the treasury's oversight. A portion of the collateral's earnings is allocated to this fund to absorb potential losses, thereby safeguarding the redeemable value of Liquidity Deposit Tokens (*USD0*). For further details, refer to the Insurance Fund Management in appendix, Section 8.1.

6.3 Product Risk

Each product introduces potential risks associated with ecosystem dynamics or the characteristics of specific deposits:

- **USUAL:** As the principal reward token, the market price of USUAL directly influences the yields within the Usual ecosystem, including rewards tied to USD0++ and liquidity incentives. A significant price decline could reduce the ecosystem's competitiveness and diminish its appeal to users. Moreover, due to the token's inflationary characteristics, there exists a potential risk of hyperinflation. To address this, the DAO retains the ability to regulate token issuance by adjusting the distri-

bution inflation rates through the minting rate (refer to the scale factor in equation 7), ensuring economic stability and ecosystem sustainability.

- **USD0++:** As locked tokens, USD0++ do not inherently possess a cost-free open arbitrage mechanism for maintaining their peg, potentially resulting in price volatility. However, this risk is mitigated through robust liquidity in the secondary market, supported by Liquidity Provision Incentives (refer to Section 4), and the early redemption mechanisms (see Section 3.3). These measures collectively enhance price stability and market efficiency. In extreme scenarios, the volatility of USD0++ is limited through the implementation of the Price Floor Redemption mechanism (see Section 3.3.2).
- **Liquidity Provision of Stables for USD0++ Pairs:** Liquidity providers (LPs) face risks from impermanent loss as USD0++ can potentially depeg. The DAO will manage the inherent risks of the underlying deposits for the Liquidity Provision Incentives by changing the liquidity pool allocation strategy if necessary and can also activate Parity Arbitrage Right should impermanent loss from the USD0++ be significant.

7 Conclusion

In conclusion, Usual addresses a significant challenge in RWA tokenization by bridging permissioned and permissionless access through USD0 (the Liquidity Deposit Token). This foundation is enhanced by an innovative reward system centered around the USUAL token, which serves as a critical mechanism for economic and governance rights within the ecosystem and supports protocol sustainability through Liquidity Provision Incentives and drives growth by rewarding USD0++ holders (and other assets to come in the future). Designed to enhance RWA accessibility and sustain growth through product-focused incentives, Usual aims to align interests across its user base. As the protocol evolves, it holds the potential to scale its offerings and introduce new features that further unify and strengthen the ecosystem.

8 Appendix

The appendix provides additional details for deeper understanding of the protocol.

8.1 Insurance Fund Management

The insurance fund gives the DAO the right to use yield generated from the LDT within the protocol to offset potential collateral risk of loss in value. This will be done by using the insurance fund to burn tokens held in the fund in the event of collateral loss to ensure the LDT peg to its underlying asset (meaning it offsets the redeemable value of the LDT despite the collateral loss).

The insurance fund will however not possess a balance at any time except for when the Counter Bank Run Mechanism (see Section 2.2.3) is activated. At this time, the DAO will decide the appropriate allocation of funds to the insurance fund. This allows the

DAO flexibility in how the fund is allocated, deciding whether to fully or partially repeg the stablecoin at the cost of generated revenue from yield.

To analyze the potential impact from collateral risk, Usual conducted comprehensive stress tests, simulating extreme interest rate rises that surpass any recorded in the last 30 years. This rigorous testing enables Usual to prepare effectively for potential worst-case scenarios. Historically, the most significant short-term increases in 6-month yields recorded were:

- A 75 basis point (bps) rise over a two-week period.
- A 100 bps increase over a one-month period, both observed in 2022.

Given that Usual's portfolio for USD0 has a maximum average duration of 0.33 years (set in risk policy), a recurrence of these historical extremes could temporarily reduce the collateral value by approximately 0.33%. This reduction would primarily affect the portfolio's mark-to-market value for a few months. Additionally, looking at stablecoins such as Circle who had a temporary collateral crisis from exposure to SVB in March, 2023 had 8% of its collateral exposed to this. The average depeg for this time was around 95 cents (5% depeg on the dollar peg). With this in mind the DAO may need to allocate USD0 to the insurance fund cap worth 0.33% to 5.33% of all USD0.

8.2 Distribution Allocation of USUAL

The DAO sets allocation percentages to various buckets that serve as distribution points for USUAL. These buckets are as follows:

Bucket	Allocation (%)
USUALx	10.00
USUAL*	10.00
Market Makers	2.00
DAO	9.38
Ecosystem	8.62
USD0++	45.00
USD0/USD0++	10.50
USD0/USDC	2.50
USUAL/USD0	2.00
Total Allocation	100.00

Table 1: Allocation of USUAL across different buckets.

Buckets refer to the destination of USUAL from the USUAL distribution. These buckets represent different modules or reserves used for different purposes within the USUAL ecosystem. There are different categories of buckets that function for different purposes as follows:

- Immutable rights: USUALx and USUAL* each have an immutable right to 10% of all USUAL distributed.

- Incentive or DAO Reserves: These buckets are designated for external incentives and ecosystem improvements. The market makers bucket distributes USUAL to market makers to aid in price discovery of the token. The DAO bucket, allocated to the DAO treasury, can be invested or used for incentives based on governance decisions. The bribing bucket funds external liquidity incentives. Finally, the ecosystem bucket provides incentives for acquiring partnerships with protocols that can integrate with Usual, thereby enhancing the Usual ecosystem.
- Product Buckets: The allocations for LSTs (USD0++) and Liquidity Provision Incentives (shown by pair below, e.g. USD0/USDC) are rewards distributed for users who either hold LSTs or currently are deposited into an accepted LP pool.

The DAO will have the ability to change these allocations through governance (with the exception of USUAL* and USUALx).⁵ .

9 Acknowledgements

This paper and the Usual Protocol itself are a product of close collaboration between the Usual Labs team and external contributors. We extend our gratitude to everyone who played a role in developing the protocol over the past two years.

10 Disclaimer

This document is provided for informational purposes only and does not constitute financial, investment, legal, or tax advice. It should not be interpreted as a recommendation or solicitation to buy, sell, or hold any assets. The information presented herein is subject to change and should not be relied upon for making any investment decisions.

References

- Morpho Labs. *Morpho Blue Whitepaper*. 2024.
- Curve Labs. *Stableswap - efficient mechanism for Stablecoin liquidity*. 2019.
- Pendle Labs. *Standardized Yield - A token standard for yield generating mechanisms*. 2022.
- Chainlink Labs. *Chainlink 2.0: Next Steps in the Evolution of Decentralized Oracle Networks*. 2021.
- Balancer Labs. *A non-custodial portfolio manager, liquidity provider, and price sensor*. 2021.

⁵Following the airdrop, the scaling factor (see Equation 11) will be set below 1 (0.7894), and the allocations will differ from the values above to ensure that excess tokens are realigned to buckets that did not receive an airdrop: USUALx 17.28%, USUAL* 17.28%, MM & Ecosystem 0.00%, DAO 16.20%, USD0++ 35.52%, USD0/USD0++ 8.29%, USD0/USDC 1.97%, and USD0/USUAL 3.46%. This information is viewable in the USUAL Smart contract.