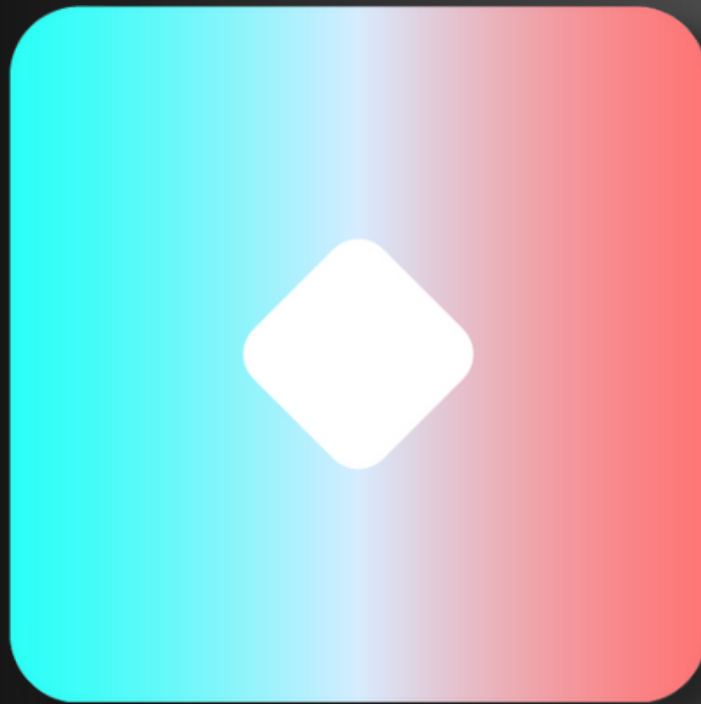




Magnify Cash V1 Protocol: Whitepaper & Tokenomics

Disclaimer: Copyright © 2024 Magnify. All rights reserved. This document is provided for informational and educational purposes only and may change without notice. Magnify does not guarantee the accuracy of the content. This document is not an offer to buy or sell any securities or financial instruments. Magnify disclaims all liability for direct, indirect, incidental, consequential, or punitive damages arising from errors, omissions, or decisions based on this information. Users are encouraged to consult with a professional for individual decisions. Information in this document may have been translated, and its accuracy cannot be confirmed. By continuing to use this information, users acknowledge and agree to these terms. Disputes will be resolved through individual arbitration, and users waive any rights to class action lawsuits. Please review this disclaimer periodically for changes.



Introduction to Magnify Cash

Magnify Cash is a non-custodial and permissionless decentralized credit market that empowers users to lend ERC-20 tokens and borrow against non-fungible tokens (NFTs) with unmatched flexibility and transparency. Central to Magnify Cash is an automated quantitative framework that prices risk through linear interpolation, seamlessly adapting to the nuances of tenor and principal. Committed to true decentralization, Magnify Cash ensures universal support for ERC-20 tokens as lending currencies and ERC-1155/ERC-721 assets as collateral. Lenders can leverage Magnify Cash to create bespoke lending desks, meticulously adjusting loan parameters such as loan-to-value (LTV) ratios, interest rates, and durations. Borrowers benefit from the stability of fixed-term loans, liberated from the specter of unexpected liquidations or mid-term adjustments. This whitepaper delves into the technical foundations of Magnify Cash, elucidating its innovative approach to onchain credit markets and the distributed token launch of the \$MAG protocol token.

Current Bottlenecks in Lending Protocols

Traditional lending protocols frequently encounter several challenges, resulting in inefficiencies, risks, and user dissatisfaction. This section highlights the industry bottlenecks that Magnify Cash effectively addresses through its innovative approach to onchain credit markets.

Centralization:

Many lending platforms depend on centralized control, necessitating whitelisting, approvals, or governance decisions to list new currencies and collateral. This dependency creates delays and reduces flexibility, compelling users to rely on intermediaries for their lending and borrowing needs. The prevailing industry standard supports only a limited range of lending currencies and collateral types, significantly curtailing opportunities for both lenders and borrowers.

Manual P2P Lending:

In traditional peer-to-peer lending, manual processes are inherently slow, necessitating constant position management and leading to increased competition for liquidity. These inefficiencies can result in stagnant liquidity and higher premiums, as lenders and borrowers struggle to navigate the complexities of these markets.

Oracle Risks:

Reliance on oracles introduces significant risks, including inaccurate data, network congestion, and node management issues. These vulnerabilities can lead to incorrect pricing, compromising loan stability and creating uncertainty for users. In severe cases, oracle malfunctions have triggered mass liquidations and widespread protocol disruption.

Shared Pool Risks:

Shared liquidity pools are susceptible to hacks, exploits, and other security threats. These vulnerabilities can result in substantial losses for users and undermine trust in the protocol.

Magnify's Unique Approach

Magnify Cash distinguishes itself from other credit markets with a unique approach to onchain lending and borrowing. This section highlights the key features that define the protocol and illustrates how they effectively address common issues prevalent in the onchain credit market landscape.

Universal Collateral Acceptance:

Magnify Cash supports any ERC-1155 and ERC-721 tokens as collateral, allowing users to leverage a wide array of digital assets for borrowing. This flexibility opens up new possibilities for users, leading to a more inclusive lending environment. Examples of viable collateral options include, but are not limited to, tokenized art, bonds, real estate, commodities, and luxury goods.

Universal Lending Currency Support:

Magnify Cash facilitates lending with any ERC-20 token, offering users a broad range of currency options. This approach eliminates constraints on lending currency choices, enabling both lenders and borrowers to transact in a manner that best suits their needs.

Fixed-Term Loans:

Borrowers benefit from fixed-term loans that eliminate the risk of unexpected liquidations or mid-term adjustments. This added stability ensures a reliable lending experience, fostering trust and confidence in the protocol.

Non-Custodial:

Magnify Cash ensures that user assets remain entirely in the users' control throughout the lending and borrowing process. By not holding user assets at any point, Magnify Cash eliminates many of the risks associated with centralized credit markets, allowing users to maintain full ownership and control of their assets.

Decentralized:

Magnify Cash users can lend and borrow with assets of their choice and on terms they define, free from restrictions imposed by permissions, whitelisting, or governance. Lenders maintain ownership of their lending desks, along with the corresponding liquidity and active loans, represented onchain as an independent asset. All fund payments, including principal and interest, and collateral management are powered by a decentralized escrow system, ensuring secure and transparent transactions. This decentralization guarantees users complete control and flexibility, independent of the Magnify Cash ecosystem.



These unique aspects of Magnify Cash contribute to a more flexible, adaptable, and user-friendly lending platform, setting the stage for a new era in onchain lending and borrowing. The protocol's innovative approach to credit markets offers a fresh perspective in the evolving world of decentralized finance.

Quantitative Risk Assessment: Dynamic Interest Rate Model

The Magnify Cash interest rate model offers a robust quantitative framework for assessing risk in a lending context. This section details the methodology behind our oracle-free interest rate calculation, highlighting the mechanics of a scalable and risk-sensitive approach to onchain lending.

Core Determinants of Interest Rates:

Two primary factors influence interest rates on Magnify Cash:

- **Principal:** The loan amount requested by the borrower. Higher principal values generally indicate greater risk exposure, resulting in increased interest rates.
- **Tenor:** The duration of the loan, typically measured in months. Longer tenors introduce additional uncertainty, which is compensated by higher interest rates.

Scaling Factors and Linear Interpolation:

The interest rate calculation employs scaling factors to accurately represent the proportionate impact of principal and tenor on the final interest rate:

- **Principal Scaling Factor:**

$$\frac{P - \text{minPrincipal}}{\text{maxPrincipal} - \text{minPrincipal}}$$

This factor determines the relative position of the loan amount within a defined range.

- **Tenor Scaling Factor:**

$$\frac{T - \text{minTenor}}{\text{maxTenor} - \text{minTenor}}$$

This factor measures the relative position of the loan duration within a defined range.

Combining these factors, the final interest rate, r , is calculated as follows:

$$\text{Interest} + \frac{(\text{maxInterest} - \text{minInterest}) * \left(\frac{P - \text{minPrincipal}}{\text{maxPrincipal} - \text{minPrincipal}} + \frac{T - \text{minTenor}}{\text{maxTenor} - \text{minTenor}} \right)}{2}$$

This linear interpolation creates a smooth transition in interest rates as principal and tenor vary. The weighted combination ensures a balanced approach to interest rate determination, accurately reflecting the relative risk associated with different loan scenarios.

Technical Architecture

Magnify Cash is built on a solid technical foundation to ensure security, flexibility, and transparency. This section explores the core components of the protocol's technical architecture, detailing how the design supports key features and provides a secure environment for lending and borrowing.

Components:

- **Smart Contracts:** Magnify Cash utilizes Solidity smart contracts to manage core operations, including lending desks, loans, and loan configurations. The protocol leverages OpenZeppelin libraries for secure and standardized smart contract implementations, ensuring reliability and security.
- **Lending Desks:** Each lending desk has a unique identifier and can be configured with specific loan parameters, such as loan-to-value (LTV) ratios, interest rates, and loan durations. This setup enables a flexible and secure lending environment, eliminating dependencies on oracles and shared pools.
- **Loan Structures:** Loans are represented by unique identifiers, with promissory notes issued to lenders for easy tracking and management. This structure provides clear documentation of each loan's terms, collateral, and status, while granting lenders full control over their assets.
- **Storage Management:** The protocol uses mappings to store lending desks, loans, and configurations, allowing for efficient data retrieval and scalability. This design supports the platform's growth without compromising performance or security.
- **Error Handling and Validation:** The smart contracts include comprehensive error handling to prevent invalid inputs and ensure robustness. This validation process helps maintain the protocol's integrity and reliability.

How it Works

Lending Process:

Magnify Cash offers a permissionless platform for lending against NFTs and other digital assets. This section outlines the lending process within the protocol.

Establishing Lending Desks:

Lenders create lending desks by specifying:

- **Accepted ERC-20 Token:** The currency in which loans are issued.
- **Initial Balance:** The amount of ERC-20 tokens the lender is willing to provide.
- **Loan Configurations:** Parameters for loans, including loan-to-value (LTV) ratios, interest rates, and loan durations.
- **Supported NFT Collections:** Lending desks can support multiple NFT collections (ERC-721 and ERC-1155) within the same desk, providing a broad range of collateral options.

Each lending desk is assigned a unique identifier and is configured with predefined loan parameters. Lenders have the flexibility to adjust these parameters over time, allowing for dynamic strategy adjustments and optimal lending conditions.

Liquidity Management:

Lenders have full control over their liquidity, allowing them to add funds to their lending desks, withdraw capital, or adjust loan configurations as needed. The protocol's non-custodial structure ensures that capital remains segregated, eliminating the risks associated with shared liquidity pools. Lenders can pause or freeze their desks at any time to stop the issuance of new loans. Upon loan repayment, liquidity is automatically reallocated to the originating lending desk, ensuring lenders remain liquid and their funds are not absorbed by competitors.

Loan Issuance:

When borrowers initiate loans, the protocol leverages the lending desk's configurations to determine the loan terms. Lenders receive promissory notes representing their claim to the loan's collateral, ensuring clear documentation for each loan's terms, interest rates, and collateral.

This decentralized lending process offers a flexible approach to providing capital for borrowers while allowing lenders to maintain control over their lending strategies. By issuing promissory notes, lenders have transparent and enforceable claims, enhancing the overall trust and efficiency of the protocol.

Borrowing Process:

Magnify Cash provides a streamlined borrowing process, enabling users to borrow against NFTs and other digital assets with ease. This section details how the borrowing process functions within the protocol, ensuring a user-friendly experience.

Creating Loans:

Borrowers start by connecting their wallets to Magnify Cash and selecting a lending desk. They provide NFT collateral and choose loan parameters based on the lending desk's configurations. These parameters include:

- **Loan Amount:** The amount of ERC-20 tokens the borrower requires.
- **Loan Duration:** The length of time for the loan.
- **Interest Rate:** Determined by the lending desk's configurations and the combined scaling factors for loan amount and duration.

Once the loan is created, the NFT collateral is held in escrow, and the borrower receives the loan amount minus any origination fees. The fixed-term structure ensures that borrowers do not face unexpected liquidations or mid-term adjustments throughout the duration of their loan.

Repayment and Liquidation:

Borrowers can repay their loans to reclaim their NFT collateral by returning the principal loan amount along with the accrued interest to the lending desk. If a borrower fails to repay the loan by its due date, the lender can initiate liquidation, claiming the NFT collateral as compensation for the loan's default.

This borrowing process provides a flexible approach to obtaining loans against NFTs and other digital assets. It offers a straightforward path for borrowers to access capital while ensuring lenders have robust mechanisms to mitigate risk.

Magnify Tokenomics

The total \$MAG (Magnify) supply is fixed at 880 million tokens, designated to facilitate governance, enhance community participation, and provide liquidity support within the Magnify Cash ecosystem.

Detailed Allocation Breakdown:

1. \$MAG Genesis LBP - 57.00% (501,600,000 MAG tokens)

This substantial allocation is designated to ensure a significant number of tokens are available on the market at genesis. Tokens will be sold via Fjord Foundry's Liquidity Bootstrapping Pools (LBPs). This approach promotes fair and transparent distribution. Tokens sold in the LBP will not require vesting, providing immediate liquidity and promoting broad participation.

2. Lock & Burn Liquidity - 6.00% (52,800,000 MAG tokens)

To ensure a stable market entry and support immediate trading activities, these tokens are fully unlocked at TGE and allocated for liquidity provisions. Tokens and LP positions from this allocation will be locked and burned, establishing a permanent base for the token with no need for ongoing management or intervention.

3. Liquidity Providers & Farming - 7.70% (67,760,000 MAG tokens)

Designed to incentivize protocol growth, these tokens are distributed to lending desk LPs and borrowers. The more liquidity provided, the greater the reward. This allocation is vested over 24 months to encourage sustained participation and growth.

4. Protocol Partners - 3.10% (27,280,000 MAG tokens)

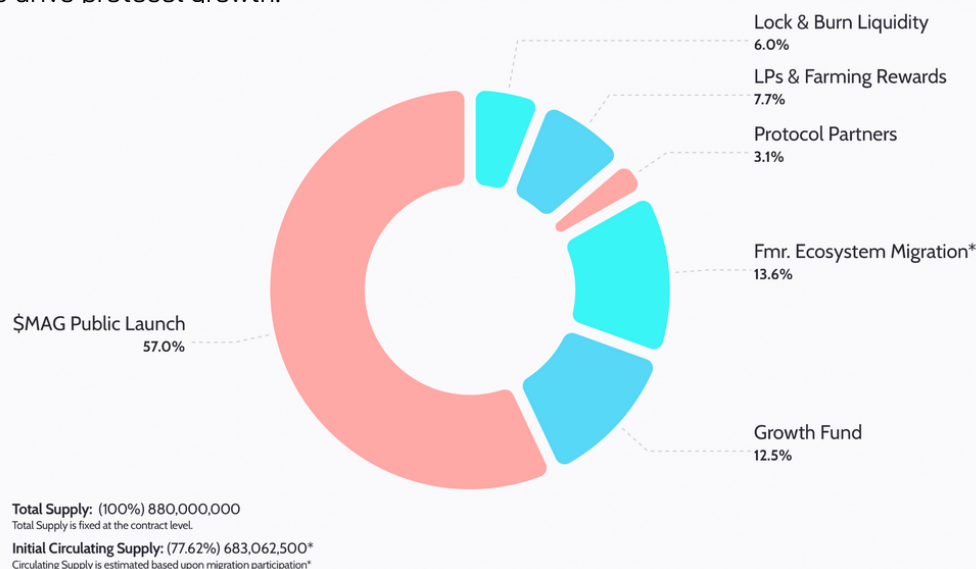
This allocation incentivizes protocol partners, including technical integrations, lending currency partners, and collateral partners, to maximize their contributions in terms of integrations, scaling, and community activation, thereby supporting the decentralized nature of the protocol.

5. Former Ecosystem - 13.60% (119,680,000 MAG tokens)

Fully unlocked at the Token Generation Event (TGE), these tokens facilitate the seamless integration of holders and liquidity migrating from previous systems, ensuring their immediate participation in the Magnify Cash ecosystem.

6. Growth Fund - 12.50% (110,000,000 MAG tokens)

These tokens are earmarked for foundational operations and are vested over 24 months. They play a critical role in ongoing development and ecosystem scaling, including developer grants and open-source initiatives to drive protocol growth.



Get in Touch!

Explore the Magnify Cash ecosystem and communities with the links below! You can get in touch for support or other inquiries via our website and communities.

Magnify Cash Communities



Website

[Magnify.Cash](https://magnify.cash)

Twitter (X)

[@MagnifyCash](https://twitter.com/MagnifyCash)

Disclaimer: Copyright © 2024 Magnify. All rights reserved. This document is provided for informational and educational purposes only and may change without notice. Magnify does not guarantee the accuracy of the content. This document is not an offer to buy or sell any securities or financial instruments. Magnify disclaims all liability for direct, indirect, incidental, consequential, or punitive damages arising from errors, omissions, or decisions based on this information. Users are encouraged to consult with a professional for individual decisions. Information in this document may have been translated, and its accuracy cannot be confirmed. By continuing to use this information, users acknowledge and agree to these terms. Disputes will be resolved through individual arbitration, and users waive any rights to class action lawsuits. Please review this disclaimer periodically for changes.

