REAX: Modular Cross-Chain Liquidity Plugins

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Abstract

Reax is a cross-chain synthetic liquidity protocol tackling the core issues of liquidity and scalability for Derivatives in DeFi. Its modular design, with its flexible liquidity pools, tackles the scalability constraints and asset limitations of existing platforms. The architecture, coupled with customizable liquidity plugins, enables the seamless creation of diverse derivatives including perpetuals, options, and structured products. Reax's secure cross-chain aggregation model unifies liquidity across a wide range of blockchains, providing unmatched market depth for traders and a robust foundation for the next generation of DeFi derivatives applications.

1 Introduction

Derivatives play a crucial role in financial markets, enabling price discovery, risk management, and sophisticated trading strategies. In DeFi, derivatives provide similar advantages, allowing users to hedge their portfolios, gain leveraged exposure, and access assets not directly available on-chain. Popular DeFi derivatives include:

- Perpetual Futures: The workhorses of DeFi derivatives, perpetual futures contracts mirror traditional perpetuals, allowing users to take long or short positions on an underlying asset without expiry. Funding rates ensure price convergence with the underlying asset. Popular examples include dYdX perp contracts and Perpetual Protocol (perp).
- Options Contracts: DeFi options grant users the right, but not the obligation, to buy or sell an asset at a specific price by a certain date. Options come in call (bullish) and put (bearish) varieties, empowering users with portfolio protection and strategic bets. Popular options venues include Lyra, Hegic and Premia.
- Synthetic Assets: Tokenized representations of real-world assets like stocks, commodities, or fiat currencies. Enable exposure to assets without direct ownership. Can be built with derivatives that track underlying asset prices. Examples include Synthetix and Mirror Protocol.

DeFi fosters innovation, leading to the creation of more complex derivative products:

- Power Perpetuals: These derivatives offer leveraged exposure to an underlying asset, allowing users to amplify their returns (and potential losses). Examples include Opny and Numoen.
- Tokenized Baskets & Indices: These derivatives track the price of a basket of tokens or a specific market sector within DeFi. Offering diversified exposure, thematic investing, index-based strategies. DeFi Examples include Index Coop (DeFi Pulse Index), PieDAO (baskets of tokens), Basket Protocol. These products could attract broader investor interest similar to ETFs in traditional finance.
- Interest Rate Derivatives: Derivatives focused on borrowing and lending rates within DeFi protocols. Useful for hedging against interest rate fluctuations, speculative bets on rate changes, yield optimization strategies. Examples include Interest rate swaps on Notional Finance, Pendle (yield tokenization). These play a crucial role as DeFi lending markets mature, offering risk management tools for institutions.
- Variance Swaps: Contracts that allow traders to bet on (or hedge against) the future realized volatility of an asset. Unlike volatility tokens, they focus on realized price fluctuations rather than implied volatility. Applications for trading volatility as an asset class, complex hedging strategies. It has huge potential to gain popularity among traders seeking to isolate volatility as a tradeable factor.

Other DeFi derivatives include yield-bearing products that combine derivative strategies with yield-generation mechanisms and prediction markets that leverage derivatives to create markets for betting on future events. While the potential is vast for these products, they often face challenges such as regulatory uncertainty and limited liquidity.

While DeFi derivatives hold immense potential, their growth is hampered compared to their centralized counterparts, representing a fraction of the volume seen on centralized exchanges. This signals a vast untapped opportunity for DeFi to capture a larger share of global derivatives activity. For DeFi derivatives to reach their full potential, several key factors are crucial:

- **Deep Liquidity**: Limited liquidity across protocols hinders growth and innovation that DeFi needs.
- **Accurate Pricing**: Reliable oracles and on-chain price feeds are the backbone of fair and efficient derivative markets.
- Composability: DeFi's composability thrives when derivatives integrate seamlessly with other protocols, enabling users to build sophisticated trading strategies.
- Accessible User Experience: Complex interfaces can be intimidating. User-friendly interfaces and educational resources are paramount for fostering broad adoption.

Apart from these, a key issue is the fragmentation of liquidity across different blockchain networks and protocols. Each chain and protocol, whether built around perpetuals, options, or other exotic derivatives, often operates as a silo. This fragmentation hinders efficient price discovery, leads to slippage for traders, and diminishes the overall capital efficiency of the market. Additionally, many protocols focus on a limited range of assets, particularly only major cryptocurrencies. This restricts

user choice and hinders the ability to diversify portfolios within the DeFi derivatives landscape. Furthermore, the types of derivatives available in DeFi remain relatively basic compared to the vast array of instruments found in traditional markets. This lack of sophisticated risk management tools and complex strategies limits the appeal of DeFi derivatives for experienced traders and institutional players. True disruption will occur when DeFi offers not only decentralization and permissionless access, but also the depth, flexibility, and security that users have come to expect from established financial markets.

Reax as a cross-chain derivatives protocol is built to address these fundamental roadblocks and propel DeFi into its next evolutionary phase. Its core innovations include:

- Modular Design: Reax utilizes a flexible, multi-pool architecture that accommodates limitless assets, enabling the expansion of DeFi derivatives beyond major cryptocurrencies alone.
- Liquidity Plugins: Dedicated plugins power various derivative types (perpetuals, options, etc.), facilitating the creation of both simple and complex financial instruments.
- Cross-Chain Aggregation: Reax breaks down liquidity silos by seamlessly aggregating capital from multiple blockchains, establishing the deepest possible markets for traders and LPs.
- Capitalizing on Underutilized Assets: Reax unlocks the potential of staked and otherwise underutilized DeFi assets, allowing them to be used as liquidity for derivative applications, driving further capital efficiency

2 Technology

Building an open and inclusive derivatives infrastructure demands a technology stack that is modular, scalable, and permissionless. Reax is meticulously designed to support a vast range of assets and liquidity without sacrificing financial security or creating bottlenecks for innovation.

2.1 Components

Reax Liquidity Pools (RLPs) are designed to provide a reliable and efficient platform for decentralized derivatives trading. The protocol employs a modular architecture that allows for seamless integration with various derivative applications. Below is an overview of the key technological components and their role in achieving this vision:

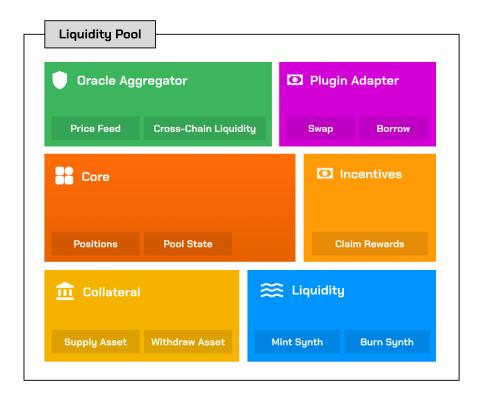


Figure 1: Core Components of a Liquidity Pool

2.1.1 Core

Core module maintains accurate records of collateral backing the liquidity, minted, borrowed, and swapped assets, ensuring that users can monitor their positions and activities in real-time. Collateral assets are held in secure custody and tracked transparently on-chain.

Reax's Liquidity Pools employ a dynamic risk management system through the core module that continuously assesses market conditions and adjusts collateral requirements accordingly. This real-time adjustment helps mitigate risks by ensuring that the protocol maintains a sufficient level of collateralization. The system also incorporates sophisticated risk management measures to minimize the impact of adverse market movements. These measures include position limits, margin calls, and liquidation mechanisms. The protocol also employs a conservative approach to risk management, ensuring that the collateralization ratio remains well above the required minimum.

2.1.2 Collateral

Reax's Collateral Module offers a capital efficient approach to collateralization for derivatives by supporting a diverse range of assets such as:

1. Liquid Staked / Restaked Tokens (LSTs/LRTs): Reax enables users to utilize liquid staked or restaked tokens (LSTs/LRTs) as collateral, empowering them to access the benefits of staking without sacrificing rewards. By accepting LSTs/LRTs as collateral, Reax eliminates

the need for users to lock their assets for extended periods, providing greater flexibility and liquidity.

- 2. **LP Tokens:** Reax allows liquidity providers (LPs) to use their existing LP positions as collateral, enabling them to earn on multiple fronts. By collateralizing LP tokens, users can unlock additional value from their existing DeFi activities, maximizing their capital utilization.
- 3. Vault Tokens: Reax integrates yield-bearing vault assets as collateral, allowing users to collateralize tokens that actively generate leveraged returns. This innovative approach enables users to harness the power of yield-bearing vaults, further enhancing their capital efficiency.
- 4. **NFTs:** Reax recognizes the growing importance of non-fungible tokens (NFTs) and allows users to utilize their valuable NFTs as collateral. By integrating NFTs as collateral, Reax provides users with an unprecedented opportunity to unlock liquidity from their digital assets.
- 5. Lending Position: Reax's Collateral Module supports lending assets as collateral, enabling users to collateralize their existing position. For instance, aUSDC from Aave, which serves as a receipt token provided to depositors upon supplying USDC on Aave, can be utilized as collateral. This interoperability allows users to optimize their DeFi strategies by leveraging their lending positions as a source of collateral.

By embracing these diverse collateral types, Reax's Collateral Module opens up a world of possibilities for DeFi users. From maximizing capital efficiency to unlocking liquidity from previously untapped assets, Reax empowers users to take their DeFi experience to the next level.

2.1.3 Liquidity

Users can provide liquidity by depositing collateral, and minting a share of the liquidity pool, rxLP tokens as shown in Fig. 2. rxLP is an ERC20 token representing the composition of pool assets and can be seen as an index token.

$$P_{\text{rxLP}} = \frac{\sum (P_{s_i} * S_{s_i})}{D_{\text{total}} - S_{\text{rxLP}}}$$
where:
$$P_{\text{rxLP}} = \text{Price of rxLP}$$

$$P_{s_i} = \text{Price of security } i$$

$$S_{s_i} = \text{Supply of security } i$$

$$D_{\text{total}} = \text{Total Debt}$$

$$S_{\text{rxLP}} = \text{Supply of rxLP}$$

2.1.4 Oracles

Reax utilizes a secure multi-oracle network to establish a trustless and reliable framework for pricing synthetic assets, collateral valuations, and cross-chain data aggregation. Here's how it works:

- 1. **Decentralized Oracle Network**: Reax leverages a decentralized network of oracles to gather and validate data from multiple sources. This multi-oracle approach enhances the security and reliability of the data, as it eliminates the risk of a single point of failure.
- 2. **Data Aggregation**: The oracles collect and aggregate data from various sources, including centralized exchanges, decentralized exchanges, lending platforms, and other data providers. This comprehensive data aggregation ensures that Reax has access to a wide range of market information, which is essential for accurate pricing and valuations.
- 3. Validation and Consensus: The collected data is then validated by the oracles using a consensus mechanism. This process verifies the authenticity and accuracy of the data, ensuring that it is trustworthy and reliable.
- 4. Synthetic Asset Pricing: Reax uses the validated data to calculate accurate prices for synthetic assets. These synthetic assets represent real-world assets, such as stocks, commodities, and cryptocurrencies, but they are traded on the blockchain. The pricing mechanism is designed to reflect the underlying value of the real-world assets, making Reax's synthetic assets a reliable and transparent alternative for investors.
- 5. Collateral Valuations: Reax also employs its multi-oracle network to determine the value of collateral used for managing debt positions within Reax. This valuation process is crucial for assessing the risk associated with synthetic assets, as it ensures that the collateral is sufficient to cover the amount of debt in case of a default.
- 6. Cross-Chain Liquidity Aggregation: Reax's multi-oracle network facilitates the aggregation of liquidity data from different blockchain networks. This cross-chain data aggregation enables Reax to provide accurate and reliable aggregated liquidity across multiple blockchains.

By combining a secure multi-oracle network with rigorous validation and consensus mechanisms, Reax establishes a reliable and transparent ecosystem for pricing synthetic assets, collateral valuations, and cross-chain data aggregation. This infrastructure empowers developers to build innovative decentralized applications that leverage accurate and trustworthy data, driving the growth and adoption of DeFi.

2.1.5 Reward Mechanism

Protocol fees generated by applications built on Reax are collected in the Incentives module and distributed to liquidity providers (LPs) in the form of REAX tokens. This incentivizes deep, sustainable liquidity.

2.2 Modularity

Reax's modular architecture breaks free from the constraints of monolithic derivatives protocols. This approach is driven by two core components:

2.2.1 Multi-Pools

Reax takes a unique approach to liquidity pools, enabling multiple pools for different types of assets. Unlike other decentralized exchanges that have a single liquidity pool for all derivatives, Reax segregates pools based on asset class or volatility. This approach provides several advantages.

- Increased capital efficiency: By having separate pools for different assets, Reax can allocate capital more efficiently. This ensures that each pool has sufficient liquidity to meet the trading needs of users.
- Reduced risk: By segregating pools, Reax reduces the risk of contagion. If one pool experiences a liquidity crisis, it will not affect the other pools.
- Greater scalability: Reax's multiple pool architecture allows it to scale effortlessly alongside user needs. As new assets are added and trading volume increases, Reax can easily add new pools to meet the demand.

Reax pools are more versatile than traditional liquidity pools. They can accommodate a wide range of assets, including cryptocurrencies, equities, foreign currencies, commodities contracts and much more. Each pool has a different risk profile and this allows users to find the pool that best suits their needs.

Developers building within the Reax ecosystem can deploy their own pools permissionless. This feature accelerates innovation by allowing developers to experiment with innovative ideas and asset classes using Reax's infrastructure.

2.2.2 Liquidity Plugins

Flexible plugins serve as a fundamental component of the Reax ecosystem, empowering developers to create a diverse array of applications that leverage liquidity pools in a highly efficient and scalable manner. Each plugin is meticulously designed to address specific use cases and draws upon a distinct pool of debt pools. This modular approach grants developers and applications the flexibility and efficiency to leverage liquidity from Reax's pools in a manner that is both adaptable and efficient. Reax is compatible with a range of essential plugins referred in Fig. 2 and Fig. 3, which include:

- 1. Synthetic Assets: This plugin is the core for enabling minting synthetic assets within Reax. rxLP token minted by providing liquidity can be swapped to any synthetic assets. Synthetic assets minted within Reax represent exposure to the underlying asset, and possess incredible utility for investment, trading and earning yield. All synthetic assets can be traded with one another without any slippage. As an ERC-20 Standard Token, synthetic assets minted on Reax can be used composable-ly all over DeFi. They offer a wide range of assets, from cross-chain cryptos to tokenized stocks, foreign currencies, commodities and more that are pegged to the price of real world assets, enabling easy portfolio changes, arbitrage, and access to specific synths for DeFi applications.
- 2. Borrow Plugin: Allow applications to borrow synthetic assets for various purposes, tapping directly into Reax liquidity pools. Applications borrow from liquidity pools against taking a collateral from their users, paying a fixed/variable interest rate. Interest payments accrue revenue for liquidity pool lenders, in return exposing them to positions taken by the application. These plugins support different borrowing mechanisms (overcollateralized loans, flash loans, etc.), enabling the creation of perpetual futures contracts, CDP applications, and margin trading across the entire Reax ecosystem.
- 3. **Premium-Based Model**: Buyers pay premiums in exchange for specific rights or potential payoffs. Premium income is distributed to liquidity providers who bear the associated risk.

Enables options markets to hedge risk or take leveraged position and potential insurance-like products.

4. Gateway Plugin: Acting as bridges between the worlds of native assets and their synthetic counterparts, this plugin facilitates the onboarding and offboarding of assets and stabilizing peg of assets within the Reax environment. This plugin handles the secure, frictionless conversion process while integrating with essential oracles for reliable asset pricing. This seamless onboarding and off-ramping is crucial for attracting new users, enhancing capital flow, and enabling advanced strategies that utilize both native and synthetic assets.

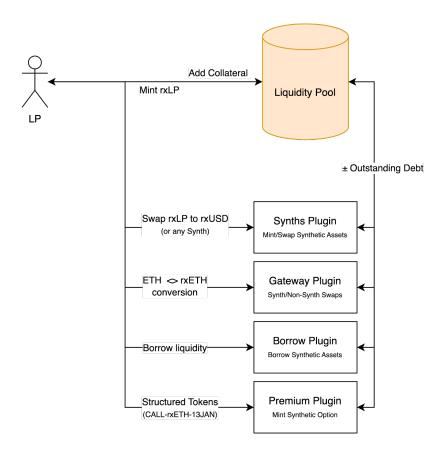


Figure 2: Liquidity Flow

These plugins can be tailored to support a wide range of derivative applications, including Perpetual Futures, Options (Calls and Puts), Structured Products, Volatility Derivatives and more as shown in Fig. 3. This modular approach ensures:

- Limitless Assets: Reax pools, unrestricted by rigid design, accommodate everything from cryptocurrencies to traditional assets like stocks, commodities, and forex.
- Adaptability: Liquidity plugins ensure applications can be quickly adapted to changing market conditions and user demands.
- Rapid Innovation: Reax's modularity enables developers to experiment and build novel derivative products with unparalleled speed and efficiency.

• Composable Future: The modular design of Reax aligns with the composable nature of DeFi. These building blocks can be combined to create increasingly complex and interconnected financial applications.

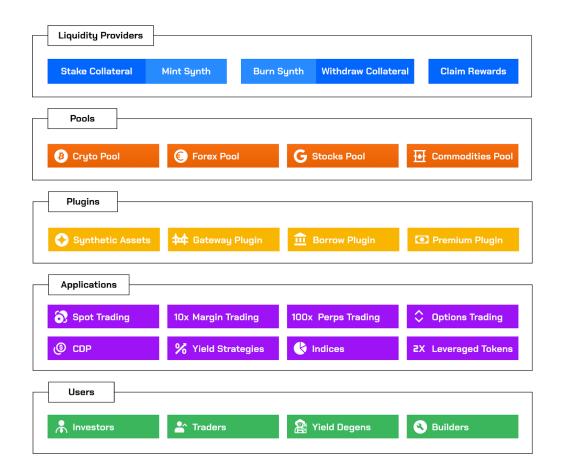


Figure 3: Modular Architecture of Reax

2.3 Cross-Chain Liquidity

Reax transcends single-chain limitations, aiming to unify fragmented DeFi liquidity. By leveraging these three key innovations, Reax is poised to transform the DeFi landscape and bring about a new era of interoperability and efficiency.

2.3.1 Pool Synthesis

Cross-chain liquidity aggregation is achieved by recognizing and combining the values of liquidity on liquidity pools on different blockchains. Essentially, debt pools for the same asset class, running on different chains, are treated as a single, larger meta-pool.

On-demand Aggregation Model: The on-demand aggregation model employed by Reax offers a decentralized approach to monitoring and recording liquidity data across multiple blockchains. Here's an elaborated explanation of the process:

- **Decentralized Nodes**: Reax utilizes a network of independent and geographically distributed validator nodes responsible for monitoring liquidity data from various blockchains. These nodes play a crucial role in ensuring the security and reliability of the liquidity aggregation process.
- Secure Data Recording: The decentralized nodes securely monitor and record liquidity data, such as available liquidity, trading pairs, and pricing information, from blockchains where Reax's liquidity pools are deployed.
- Off-chain Aggregators: Off-chain aggregators are responsible for generating signed messages in threshold networks like Wormhole, which is a reliable cross-chain messaging protocol. These signed messages represent the current state of liquidity across different blockchains.
- Threshold Networks: Threshold networks like Wormhole implement multi-party computation techniques to ensure the integrity and security of cross-chain messaging. Multiple nodes within the network must collectively sign and verify messages, adding an extra layer of security and preventing single points of failure.
- On-chain Validation: The signed messages generated off-chain are then submitted to Reax smart contracts on the blockchain for validation. Reax smart contracts verify the authenticity and integrity of these messages before any transactions are executed, ensuring the accuracy and reliability of liquidity data.

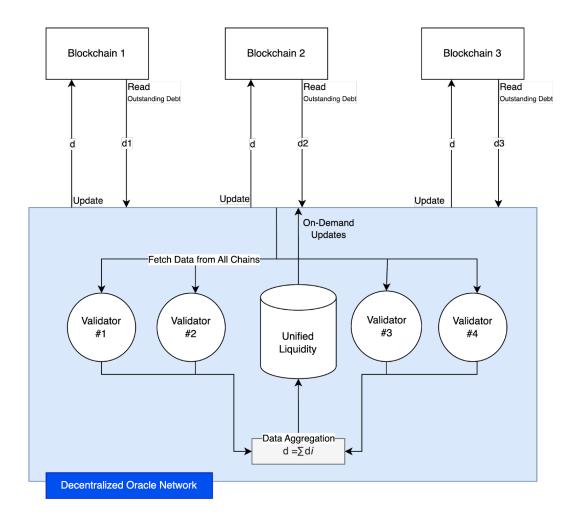


Figure 4: Cross Chain Liquidity Aggregation

With Reax's aggregated liquidity, users can open a LONG ETH position on Ethereum against a SHORT ETH position on Solana, breaking down liquidity barriers.

New or less-liquid chains often struggle with limited liquidity, hindering DeFi development. Reax solves this by using aggregated liquidity from established chains, providing a capital boost to DeFi apps on these nascent chains. Improved liquidity makes building on less-liquid chains more attractive to developers.

Access to deeper liquidity pools means lower slippage, better pricing for users on all chains.

2.3.2 Bridging

Reax enables frictionless transfer of synthetic assets created on one chain to another chain where Reax is deployed. This relies on a well-designed bridging mechanism that ensures asset integrity and accounting consistency across chains.

Example: A user deposits collateral and maintains position on one chain and mints the synthetic token on another chain, and utilizes them in DeFi protocols built on there.

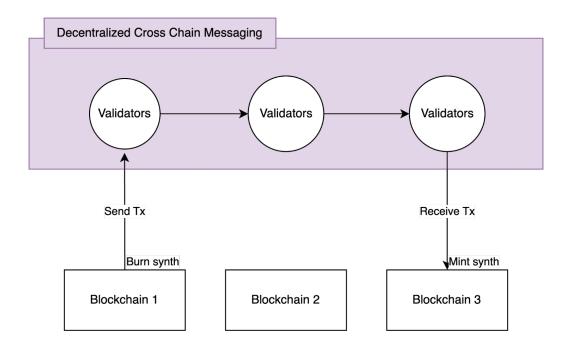


Figure 5: Bridging of Synthetic Assets

2.3.3 vAMM

Virtual Automated Market Makers (vAMMs) are the key to enabling robust, deep markets and truly decentralized liquidity. vAMMs are intelligent systems designed to facilitate trading activities in a trustless, transparent, and efficient manner. One of the key advantages of vAMMs is their ability to enhance scalability and reduce costs. By utilizing a combination of on-chain and off-chain liquidity sources, vAMMs create a comprehensive ecosystem that meets the diverse liquidity needs of traders. This hybrid approach offers a number of benefits, including:

- Substantial and Varied Liquidity Pools: vAMMs aggregate liquidity from various sources, including decentralized exchanges (DEXs), centralized exchanges (CEXs), and liquidity providers, creating deep and diverse liquidity pools. This ensures that traders have access to ample liquidity, even for large trades, reducing the risk of slippage and ensuring efficient price discovery.
- Reduced Price Impact: vAMMs utilize advanced algorithms to minimize price impact, ensuring that traders can execute their trades with minimal slippage. This is achieved by optimizing trade execution routes and utilizing liquidity providers with the best prices.
- Interoperability: vAMMs are designed to be interoperable with various DeFi protocols and platforms, allowing users to seamlessly transfer assets and liquidity across different applications. This interoperability promotes innovation and enables the development of a truly decentralized financial ecosystem.
- **Flexibility:** vAMMs offer users a high degree of flexibility in managing their liquidity. Users can easily adjust their liquidity positions, add or remove liquidity, and optimize their strategies based on market conditions.

• Cost-Effective Liquidity Provision: vAMMs provide a cost-effective way for liquidity providers to earn rewards. By contributing their assets to liquidity pools, liquidity providers earn a portion of the trading fees generated by the vAMM. This incentivizes liquidity provision and helps maintain a healthy and vibrant market.

By fostering thriving markets, providing genuine decentralized liquidity, and offering a range of benefits to users, vAMMs within the Reax ecosystem will pave the way for a more efficient, transparent, and inclusive financial system.

3 Applications

The Reax protocol's modular architecture and plugins provide a solid foundation for a wide range of DeFi applications as referred in Table 1. Its flexibility allows developers to create custom solutions tailored to specific needs, fostering innovation and growth in the DeFi ecosystem. This key strength of the Reax is enabled by its modular architecture. This design enables developers to mix and match different modules to create customized DeFi applications quickly and easily.

Application	Description	Plugin
Spot Trading	Enabling the trading of a vast array of synthetic tokens representing real-world stocks, commodities, currencies, and more. Users benefit from seamless , zero-slippage swaps between synthetics, unlocking exposure to diverse markets without the need to leave the DeFi ecosystem.	Synthetic Assets
Perpetuals	Traders gain access to high-leverage perpetual futures contracts. It borrows assets from the debt pool at an interest rate (hourly), increasing the interest accrued by LPs.	Borrowing
Options	Enabling debt pools as AMMs, users can buy calls and put options on a wide range of assets. Users pay premiums when purchasing options. These premiums are distributed directly to debt pool lenders as a form of yield.	Premium
Interest Bearing Vaults	Approved protocols borrow unbacked rxUSD at a fixed rate to utilize in various strategies. Generated returns are shared with lenders.	Borrowing
Spot Lending and Borrowing	Lending protocols can create a market to borrow rxUSD at a fixed rate that users can borrow backed by a wide range of [approved] collaterals, at conservative loan-to-value (LTV) ratios.	Borrowing
Structured Products	Creation of complex financial instruments (e.g., yield baskets, tranched risk products) based on the assets available within the Reax ecosystem. Could earn management fees, performance fees, or utilize innovative incentive structures.	Premium
Staking Derivatives	Allow users to stake their assets on supported Proof-of-Stake (PoS) chains and borrow its synthetic derivative interest-free in 1:1 ratio. LPs earn from staking rewards. Example: ETH (Ethereum) -> rxETH SOL (Solana) -> rxSOL CRO (Cronos) -> rxCRO	Borrowing

Table 1: Use Cases of Reax's Modular Plugins

4 Tokenomics

The REAX token is the core component of the Reax ecosystem, fulfilling diverse functions that contribute to the growth of the protocol and provide value to its participants.

4.1 Core Utilities

4.1.1 Governance

Holders of REAX enjoy the privilege of influencing the protocol's direction by participating in governance decisions. They can cast their votes on issues such as fee structures, protocol upgrades, and resource allocation from the treasury. To encourage long-term commitment, a lock-up mechanism may be implemented, where extended lock-up periods confer heightened voting power.

4.1.2 Protocol Rewards

A portion of the fees collected from applications built on Reax is dedicated to repurchasing REAX tokens from the market. These tokens are then redistributed to REAX holders, creating a positive cycle that benefits all ecosystem participants.

4.1.3 Staking

Staking their REAX tokens, users contribute to the security of the protocol and receive a share of the revenue generated. The duration and quantity of staked tokens affect the rewards earned from staking.

4.1.4 Liquidity Provider (LP) Incentives

To incentivize liquidity providers in various Reax pools and plugins, a significant portion of the REAX token supply is allocated. This facilitates ample liquidity, allowing seamless asset swaps, efficient borrowing, and a robust trading environment. LP incentives play a vital role in attracting liquidity and sustaining the health of the ecosystem.

4.1.5 Additional Utilities

The utility of the REAX token is not limited to the Reax ecosystem alone. It can be integrated into other DeFi protocols, enabling cross-chain interactions, synthetic asset creation, and more. This interoperability enhances the overall utility and value of the REAX token.

The seamless integration of these functions empowers the REAX token to create a dynamic and self-sustaining ecosystem that benefits all stakeholders. It incentivizes participation, rewards contributions, and drives the long-term growth and success of the Reax protocol.

4.2 Token Distribution

The REAX token distribution has been meticulously planned to align incentives and ensure long-term sustainability. Here's an expanded explanation of the token distribution strategy:

4.2.1 Liquidity Rewards

A significant portion of tokens will be allocated to Liquidity Provider (LP) rewards. This aims to incentivize early LPs who provide liquidity to the REAX token, thus supporting a healthy and liquid market. By offering attractive rewards, the protocol encourages the creation of a deep and liquid market for REAX, which benefits traders and the overall ecosystem.

4.2.2 Ecosystem Development

A share of the tokens will be reserved for Ecosystem Development. This allocation is intended to support applications and projects building on top of the Reax protocol. By rewarding developers and innovators who contribute to the growth and adoption of the Reax ecosystem, the protocol fosters a vibrant and thriving community.

4.2.3 Treasury

A portion of tokens will be allocated to the Reax treasury. This reserve is crucial for future initiatives and the long-term growth of the protocol. The treasury's purpose is to fund strategic projects, partnerships, and ecosystem development efforts that align with the protocol's vision.

4.2.4 Strategic Investors

Reax has secured the support of strategic investors who believe in the long-term potential of the protocol. These investors provide valuable guidance, expertise, and resources that contribute to the growth and success of Reax.

It's important to note that all token allocations are subject to lock-up and vesting periods. This ensures a gradual and controlled release of tokens into the market, preventing excessive volatility and promoting long-term stability. The lock-up and vesting schedule is designed to align incentives and encourage long-term commitment from token holders, fostering a sustainable and thriving Reax ecosystem.

4.3 Emission Schedule

The REAX supply will commence with an initial circulating amount, with the remaining tokens allocated for vesting and gradual release over a predetermined period, typically spanning several years. This structured approach is designed to ensure a controlled and strategic distribution of tokens based on predefined criteria.

4.3.1 Year 1: High Emissions

The first year of the token emission schedule is characterized by high emissions, strategically allocated to accomplish specific objectives:

- Bootstrapping Liquidity: A substantial portion of the tokens is allocated to bootstrap liquidity in decentralized exchanges (DEXs) and centralized exchanges (CEXs). This initial liquidity is crucial for facilitating efficient trading and establishing a robust market for the REAX token.
- Rewarding Early Adopters and Ecosystem Participants: To incentivize early adoption and
 participation in the REAX ecosystem, a significant number of tokens are allocated as rewards
 for various activities, such as liquidity provision, staking, and community engagement. These
 rewards aim to attract and retain early supporters who contribute to the growth and success
 of the REAX network.

4.3.2 Years 2+ Gradually Decreasing Emissions

Following the initial high emissions period, the token emission rate gradually decreases in subsequent years. This measured approach is designed to achieve several key objectives:

- Predictable Inflation: By gradually decreasing emissions, REAX aims to maintain predictable and controlled inflation. This measured approach helps stabilize the token's value and instills confidence among token holders.
- Focus on Fee-Based Revenue Accrual: As the network matures and adoption increases, REAX shifts its focus towards fee-based revenue accrual for token holders. This transition aligns with the project's long-term sustainability and ensures that token holders benefit from the growth and success of the ecosystem through transaction fees and other revenue-generating mechanisms.

By carefully balancing the initial high emissions for bootstrapping and rewarding early adopters with a gradual decrease in subsequent years, REAX aims to achieve predictable inflation and ensure the long-term success of the project.

5 Roadmap

Reax's vision is to revolutionize decentralized finance through the creation of an innovative derivatives protocol. Our roadmap outlines our key milestones, and demonstrates our commitment to pushing the boundaries of what is possible with DeFi.

5.1 Beta

Our initial beta launch in Q3 2023, exceeded expectations and laid the foundation for the upcoming V1 release. With over 3000 active users, \$1M+ Total Value Locked (TVL), and \$10M+ trading volume, this phase provided invaluable insights and user feedback.

5.2 Release I: Alchemix

The V1 launch of Reax will introduce support for Liquid Staked Tokens (LSTs) and expand to multiple L2 chains. This release will unlock cross-chain liquidity and deepen strategic partnerships, solidifying Reax's position as a leader in the DeFi lending market.

5.3 Release II: Dynamo

Dynamo will usher in a new era of DeFi derivatives trading with the launch of perpetual futures. Users will gain access to leveraged positions and sophisticated risk management tools, enabling them to execute complex trading strategies. Additionally, the introduction of forex and commodities pools will provide exposure to 100+ assets, diversifying the Reax ecosystem.

5.4 Release III: Nexus

Nexus will bring advanced hedging and speculative strategies to the DeFi landscape with the introduction of options trading. This release will empower users with greater control over their portfolios, enabling them to protect against downside risk and capitalize on market volatility. The launch of the REAX token and decentralized governance mechanisms will empower the community to participate in the growth and direction of the Reax protocol.

5.5 Release IV: The Colosseum

The Colosseum will mark a significant milestone in Reax's journey. We will focus on strategic partnerships and B2B (Business-to-Business) integration, extending Reax's reach into traditional finance sectors. Our goal is to make Reax the go-to platform for derivatives trading for both retail and institutional investors.

6 Conclusion

Reax stands at the forefront of a new era in decentralized finance. Its innovative multi-pool architecture, flexible liquidity plugins, and cross-chain aggregation transcend the limitations of existing DeFi protocols. Reax is not merely an iteration; it's a catalyst for the evolution of DeFi, designed to empower:

- Traders: Benefit from deeper liquidity, diverse trading instruments, and unprecedented capital efficiency.
- DeFi Applications: Build upon a robust foundation, accessing scalable liquidity to realize ambitious visions.
- Liquidity Providers: Earn attractive, multi-faceted yields across the Reax ecosystem.
- Everyday Users: Unlock exposure to a vast array of synthetic assets and income-generating opportunities, regardless of their native blockchain.

The Reax team is driven by the belief that DeFi's potential extends far beyond its current boundaries. We invite you to join us in shaping this future – a future where financial markets are truly decentralized, accessible, and interconnected.