Token Unlocks Annual Report

2023

TokenUnlocks.

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Prologue

Annual Report 2023-24

This is the second time the TokenUnlocks team has collaborated to offer insights and analysis based on our collective observations throughout 2023. The industry continues to progress, thriving in the bearish market sentiments post-2022. However, 2023 proved to be an eventful year as builders navigated various challenges. Significant unlocks occurred, including the ETH Shanghai upgrade, and there were key innovations across different sectors (Staking, GameFi, SocialFi, RWA, etc.), as well as notable token redesigns and migrations. This report will comprehensively cover these developments.

A brief introduction for those new to us: We created the [TokenUnlocks app](#) in 2022 with the aim of addressing transparency issues and ensuring all stakeholders have a clear understanding of project information. Token unlocks, vesting schedules, token allocation, and tokenomics data are crucial aspects of the crypto industry that require better clarity. This year, the TokenUnlocks team is extremely grateful for the support we received, allowing us to expand the [TokenUnlocks](#) analytics platform to a broader audience within the industry. We take pride in launching several innovations in 2023 that significantly contribute value to the space. These include [ETH-staking unlocks](#), which projects near-future ETH unlocks from staking, UnlocksInsights, delving deep into token fundamentals research, and TokenUnlocks Pro for advanced analytics.

TokenUnlocks Annual Report is all about taking a pause and looking back into the past and allowing us to understand how the future of crypto progresses.

2022's annual report covered the fundamentals of token unlocks and provided a major insight for each major individual project as well as a macro trend on how projects implement and execute their token operations. The report received amazing feedback with more than 100,000 views in the first week of publishing. Also, a shout out to Coinbureau for the effort to digest our report into this on-point video review.

This year, in addition to a retrospective on numbers and insights, we delve deeper into our concepts and methodology in the next part of this Prologue chapter. This is followed by Chapter 1, which focuses on numbers and analytics, encompassing insights into unlocks and details on how projects store, allocate, and distribute tokens. Chapter 2 offers a brief perspective on 2022-2023. Chapter 3 holds special significance as we receive support from crypto and tokenomics experts contributing to our report. They will share insights on industry-specific topics, including Restaking, DeFi, and exciting developments in token engineering principles. Finally, in Chapter 4, we will focus on the unlock data and future trends coming in 2024.

A special thank you to our partners at Economics Design, M6Labs and Token Engineering Academy for their contributions. A big thanks to the TokenUnlocks team, who curated the data throughout the year and provided amazing insights for us in this report. Their dedication has made this report possible.

Brace yourself for an immersive journey through 2023. As we navigate the rich landscape of data and insights, get ready to unravel the trends, innovations, and pivotal moments that shaped this remarkable year in the world of crypto. So, settle in and join us as we uncover the stories written in numbers and charts that define the past year's crypto narrative.

DISCLAIMER:

The information contained within this report is intended for educational purposes only and should not be considered financial advice. The authors of this report strive to provide an impartial and comprehensive analysis, with the ultimate goal of promoting transparency and understanding in the crypto industry.

Concepts and Methodology

At TokenUnlocks we simplify complexity for you.

Not all crypto projects are created equally. Each project discloses its tokenomic information differently, and the lack of industry standards makes data collection and standardization challenging. However, at TokenUnlocks, we strive to provide a production-grade level of data to make our users' lives easier. In this section, we'll explain our concepts and methodology that are used throughout this report as well as guide you through our platform's features to enhance your navigation through the content.

TokenUnlocks Concepts and Methodology:

- Token Supply
- Unlock Types
- Token Emission
- Token Allocation

Token Supply

Before we dive into tokenomics, let's grasp the fundamental concept of economics: supply and demand. This year, our focus has been on unlocking tokens, with an emphasis on the token supply.

Token supply simply refers to the quantity of tokens that have been minted, although some can be unclaimed or locked from trading on the public market. With the increasing adoption of cryptocurrencies in the market, different projects use various supply process designs to distribute tokens to stakeholders (vested wallets) and the public market.

The crypto industry currently lacks a standard way to measure different token supply figures, leading to frequent misunderstandings about the actual numbers. To address this issue, TokenUnlocks has established clear and defined metrics for token supply, making it easier for everyone in the industry to understand and measure.

The supply metric is determined by the project and the stakeholders regarding their intention. The project decides the allocation types (eg. team, investors, communities) of the tokens and the vested time determining the locked and unlocked supply. While the stakeholder wallet can choose to claim the unlocked supply and sell to the public market, dictating the number of circulating supply. Below are the main types of token supply:

- Locked Supply: This term refers to the number of tokens that are not available for trading on the public market because they have been restricted. This restriction can be implemented through a smart contract or an agreement between parties in a wallet (EOA[1]/Multisig[2]). The purpose of locking tokens is to encourage stakeholders to participate in projects for the long term.
- Unlocked Supply: This refers to the quantity of tokens available for trading on the public market. These tokens are accessible for trading, but they can also remain in the stakeholder's wallet without being claimed.
- Claimed Supply: This number defines the circulating supply but doesn't necessarily match it. Once the unlocked tokens have been sent to the stakeholders' wallets, whether manually or through a smart contract, they will be included in the circulating supply only when the stakeholder moves the tokens out of their wallet.
- Circulating Supply: This term refers to the number of tokens actively available and being traded in the public market. This supply doesn't include tokens that are locked, burned, or held by vesting wallets. The number increases when the claiming process begins by the stakeholders' wallets. Even if these tokens haven't been traded on the secondary market yet, they are considered available for trading once they are moved out of stakeholder wallets. We collect this supply data from multiple sources.

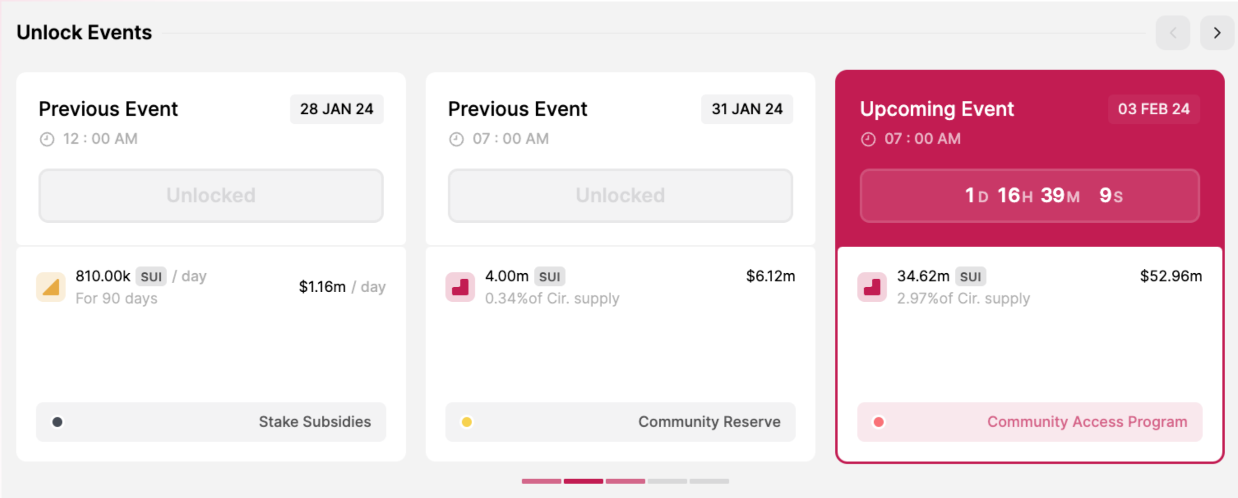
It's important to note that the circulating supply may not align with the claimed token amount, primarily because of the burn and relock mechanisms, which can impact the overall circulating supply figure.

Unlocks Types

Unlocking tokens can happen in different ways, depending on agreements among parties involved. This year, a new category of locked supply called "To Be Determined Locked" or TBD Locked has been introduced to standardize supply that doesn't have a set release schedule. Here are the different categories of locked supply:

[1] EOA or Externally Owned Account is a regular account that is possessed by a single entity and controlled by private keys.
[2] Multisig or Multi-sig wallet is a smart contract account which requires two or more people to execute transactions.

Time-Based Unlock:



The time-based unlocking mechanism involves a vesting schedule, which can be categorized into two groups: Cliff Unlock and Linear Unlock.

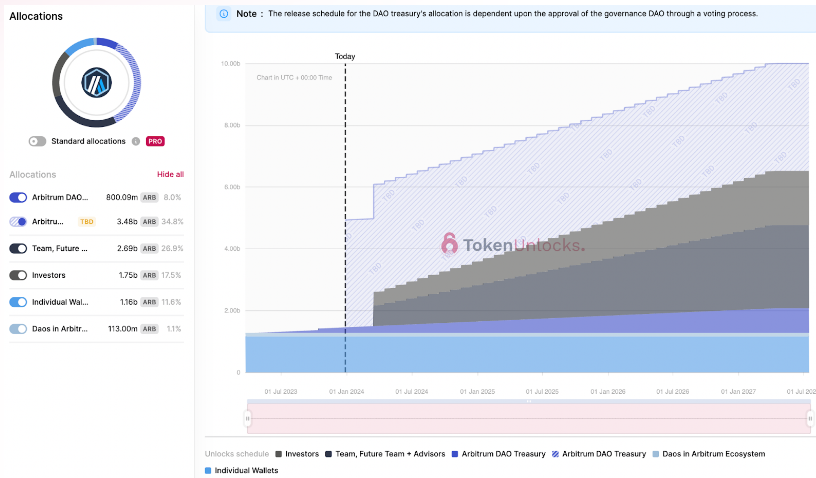
- Cliff Unlock: This approach unlocks tokens on a particular date, with release intervals occurring less frequently than daily, like weekly or yearly. Each Cliff Unlock may reveal a different amount of unlocked tokens.

- Linear Unlock: This method entails the daily release of tokens at a set rate, calculated either per unit of time or per block, depending on the blockchain's parameters.

Event-Based Unlocking:

Another way tokens can be unlocked is through events rather than specific timeframes. In this mechanism, the release is tied to a particular purpose or condition, like voting in governance or decisions made by the project team.

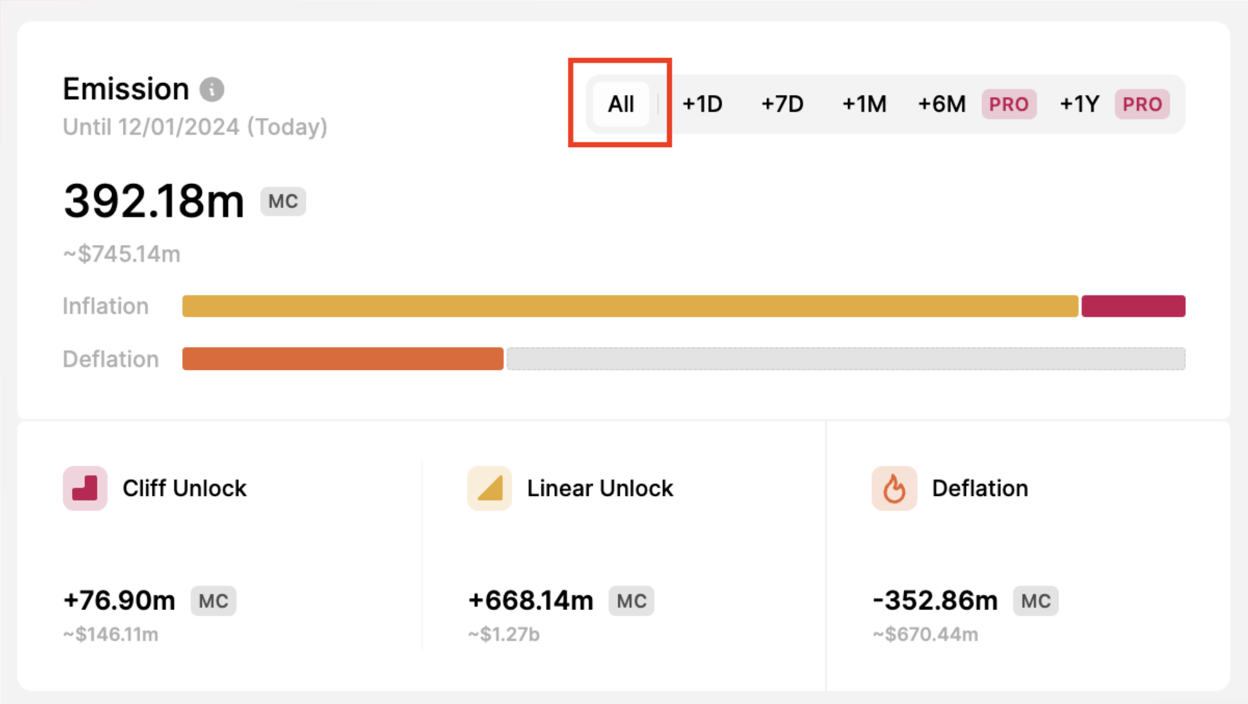
- TBD Locked: TBD Locked refers to tokens that haven't yet been assigned a release time. These tokens are usually set aside for specific purposes, such as DAO treasury, reserves, and unallocated funds. They become available when certain predefined conditions are met. As the project shares information about the lock-up period and unlocking process (either cliff or linear), the TBD Locked supply decreases and transforms into a locked supply with a known lock-up period (cliff or linear unlock).



For example, the upper chart illustrates the vesting schedule of the Arbitrum token, including the TBD allocation for the Arbitrum DAO treasury. This allocation is represented as a striped chart labeled in ‘TBD’.

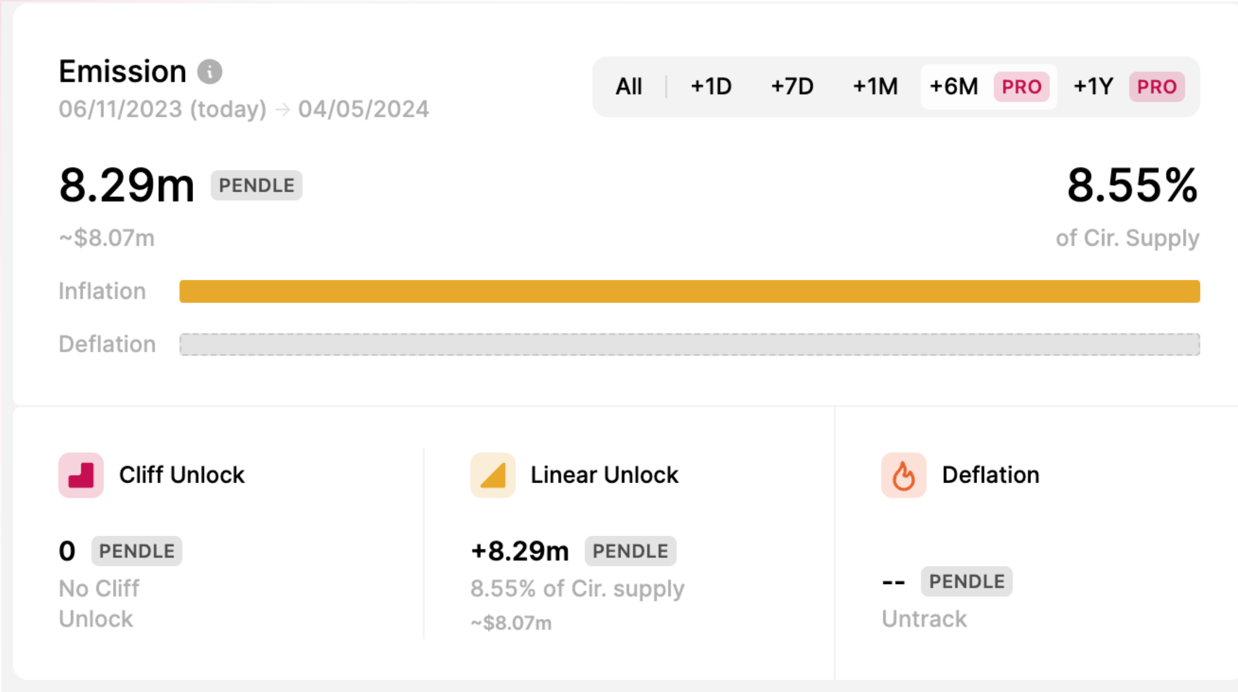
Token Emission

Let's dive into a simplified view of Token Emission, a key metric for understanding the total supply over a specific time. This metric considers emissions derived from both cliff and linear unlocks within the chosen timeframe. On our website, you can find deflation and inflation data for certain tokens by clicking the 'All' button. Deflation signifies a decrease in the unlocked supply amount. We provide historical deflation data for tokens with a burning mechanism that we actively track.



The token emission reveals insights into both past and future token issuance, allowing us to understand the overall increase or decrease in the unlocked supply. Emission results from both inflation and deflation. We have compiled all cliff and linear unlocks associated with inflation supply, providing detailed information on allocation, including the amount, value, and the percentage of unlocked supply in circulation.

For upcoming emissions, users can access data for different time frames such as 1 day, 7 days, 1 month, 6 months, and 1 year. To explore the historical emission, comprehensive information from the Token Generation Event (TGE) to the present day is available in the 'All' section.



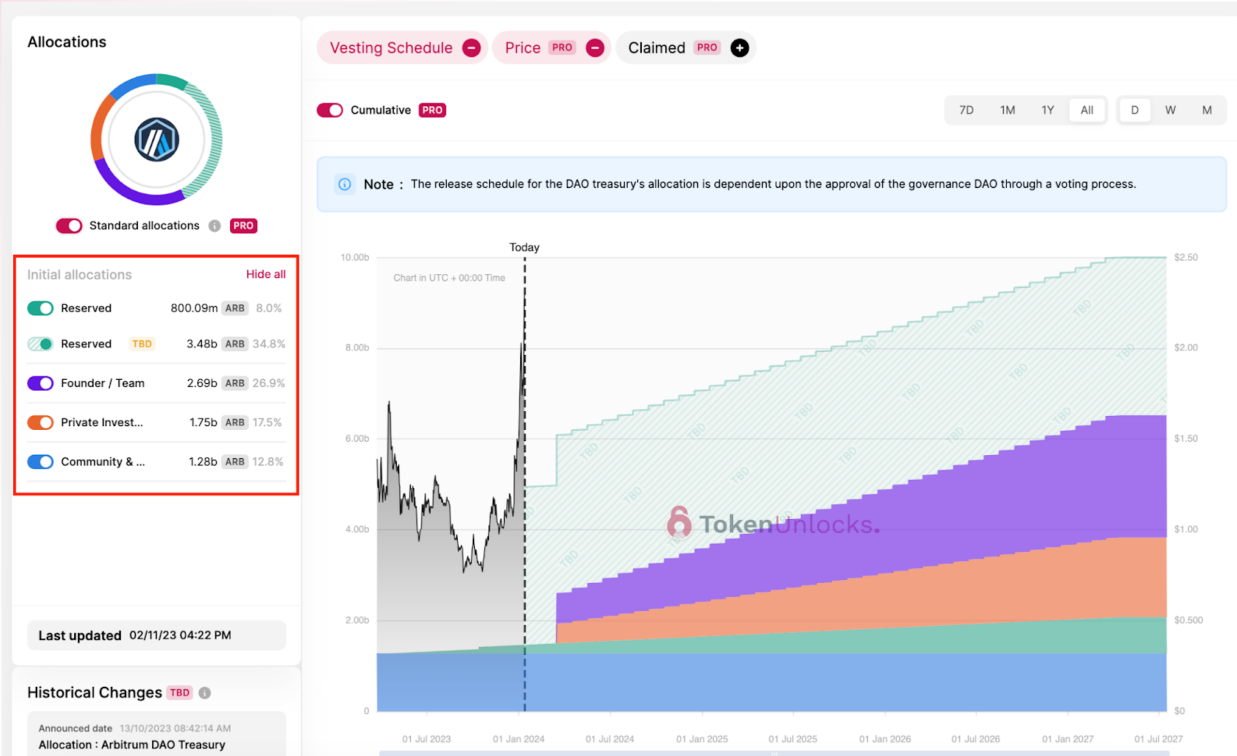
Token Allocation

Let’s talk about another important metric. Token Allocation refers to the distribution percentage of tokens among various stakeholder groups within a cryptocurrency project. The strategy and direction of a project can be understood by examining how they allocate their tokens to different stakeholders. However, a challenge arises because each project categorizes and defines allocation differently, making it hard to compare across projects. To simplify this, we've introduced the concept of Standard Allocation. Token allocation can be divided into five main categories:

TokenUnlocks Standard Allocation	Definition	Example
Founder / Team	This allocation focuses on individuals with the highest ownership and responsibility for driving the business or product forward. It primarily includes founders, advisors, past, and future employees.	- Founder - Team - Advisor - Core Contributors - Future Employees

Private Investors	This involves entity investments (VC, Angels) in a selective group who purchased equity that later converts to tokens. It excludes public investment or open market costs, usually costing less than public investments.	- Strategic Round - Series A - Series B - Angel Investor - VC
Public Investors	Tokens sold through public channels or exchanges, open to anyone with possible selective criteria. These tokens are typically not subject to a vesting schedule and can be freely traded once listed on an exchange.	- Whitelist - IDO - ICO - ILO - IEO - Crowdsale - Launchpad - Coinlist
Reserved	The future recipient is not clearly defined. This group is likely controlled by the company, DAO, or foundation for operating expenses.	- Foundation - Treasury - Endowment - Ecosystem - Marketing - Non-profit Foundation - Ecosystem Grants - Reserves
Community / Others	The public can participate to receive a portion and be incentivized for engagement. This category is used to group various community-related initiatives.	- Airdrop - Liquidity Mining - Staking Reward - Bounty Program - Contest - Initial LP

On the Token Unlocks platform, you can open the toggle to view different standard allocation types.

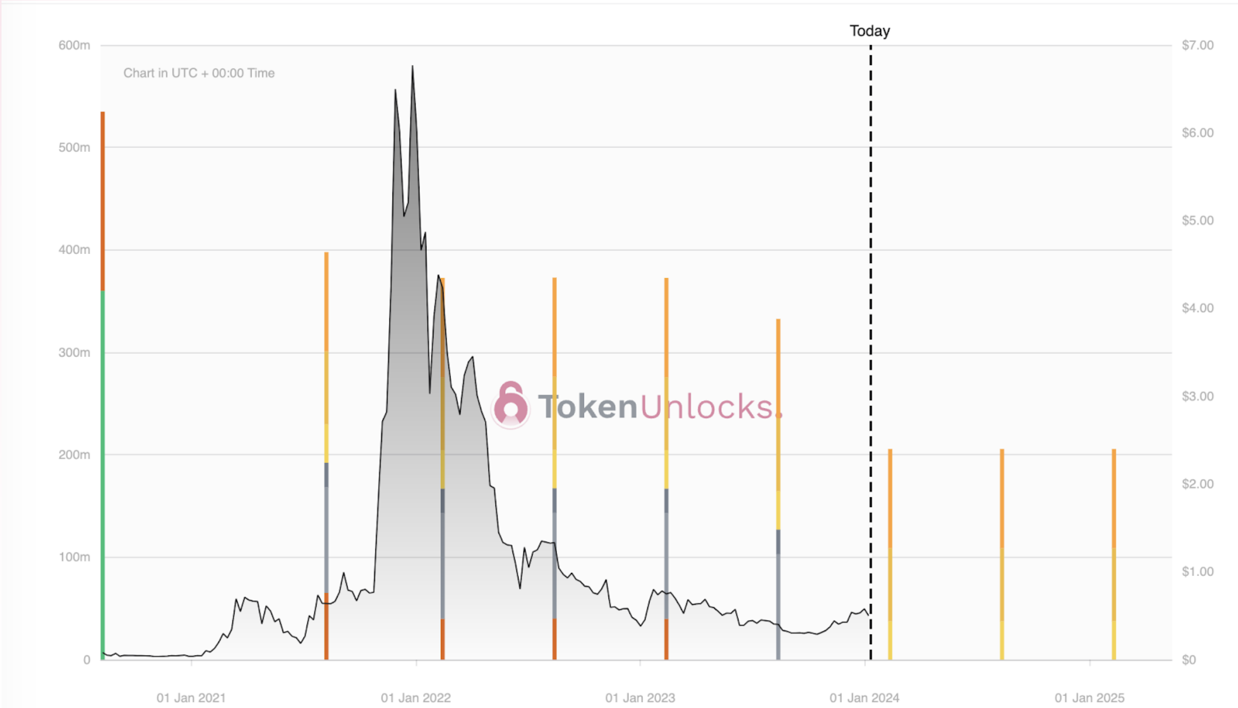


We will talk more about how different standard allocation types affect the token's price before and after its unlock on page 39.

Data Analysis Mastery - What’s more?

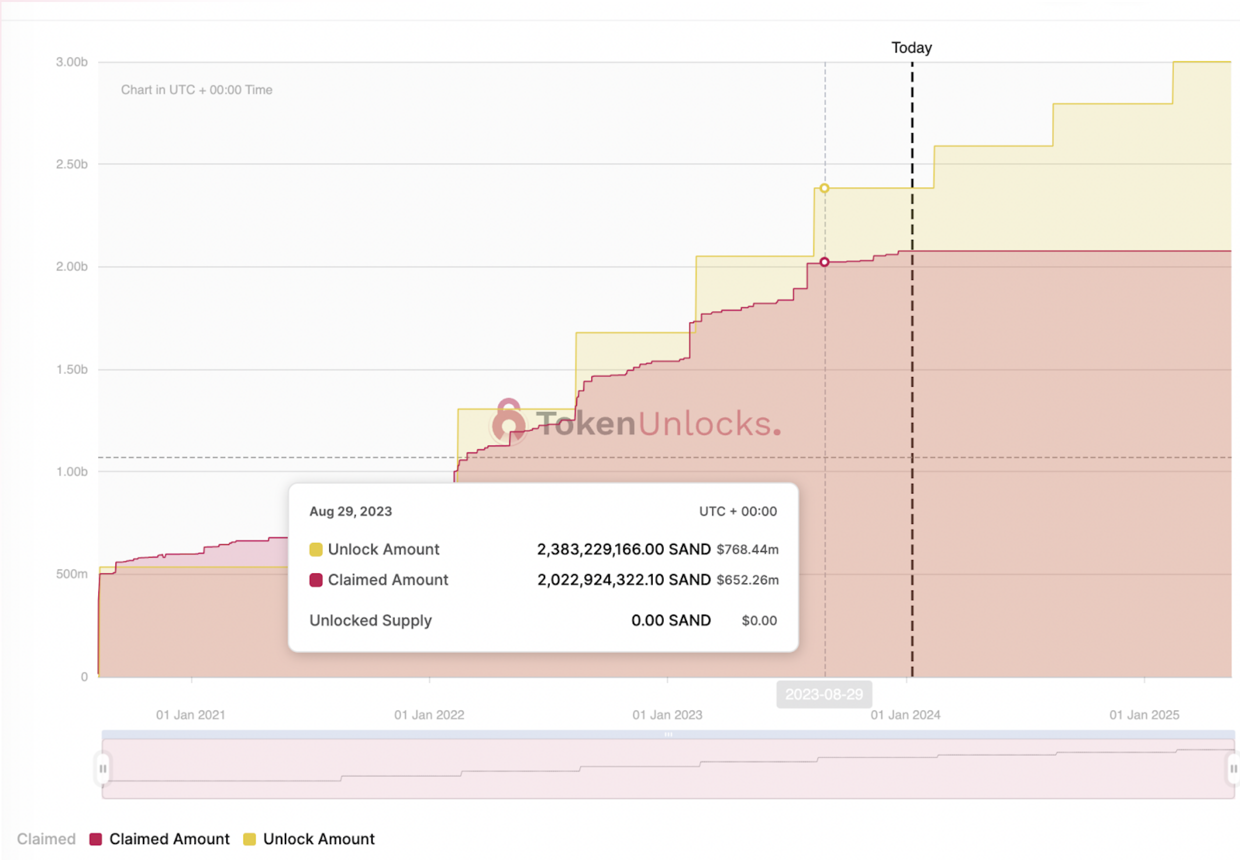
Below are more features that we offer on our platform to allow our users to make a more intelligent decision on their watchlist tokens.

Pro Chart



Simplifying the vesting schedule chart, we use a toggle to switch to our cumulative chart, similar to a stacked bar chart. This chart illustrates the changing amount of unlocked supply or tokens over time by aggregating unlock amounts in different timeframes. This makes it easier to observe crucial unlock events. Additionally, you can overlay the price chart on the vesting schedule chart to enhance your understanding of unlock events.

Post unlock tracking



After unlocking events, the supply that was previously locked in stakeholder wallets becomes part of the circulating supply. We refer to this as the "claimed" process. The graph shows the claimed amount. Sometimes, the claimed amount can exceed the unlock amount due to certain operations or discrepancies between on-chain operations by the project and off-chain public announcements.

Where do we source all the data from?

Here are the sources of token data we rely on to determine various metrics and our collection method:

- **Official Publication:** This refers to tokens for which we gather data from the official channels of the token project, such as the Whitepaper, Medium Announcements, and the Official Website. We mostly cross-check the data with various sources to ensure its integrity and freshness.

- **Onchain Inference:** This involves collecting data for tokens based on on-chain aspects, like Smart Contracts and Chain Explorers. We gather on-chain parameters and then map them to our website for comprehensive analysis.

In the upcoming chapter, "Insights and Implications", we will apply the concepts and methodology discussed in this section to examine historical data of 2023. This exploration will provide insights into making more informed predictions about the future.

In 2023, we envision the crypto industry as a building block for great innovations coming in 2024. This isn't a rhetorical assumption but is grounded in raw data accumulated throughout the year. Now that you've grasped the meaning behind each set of data, let's delve deeper into the specifics of 2023.

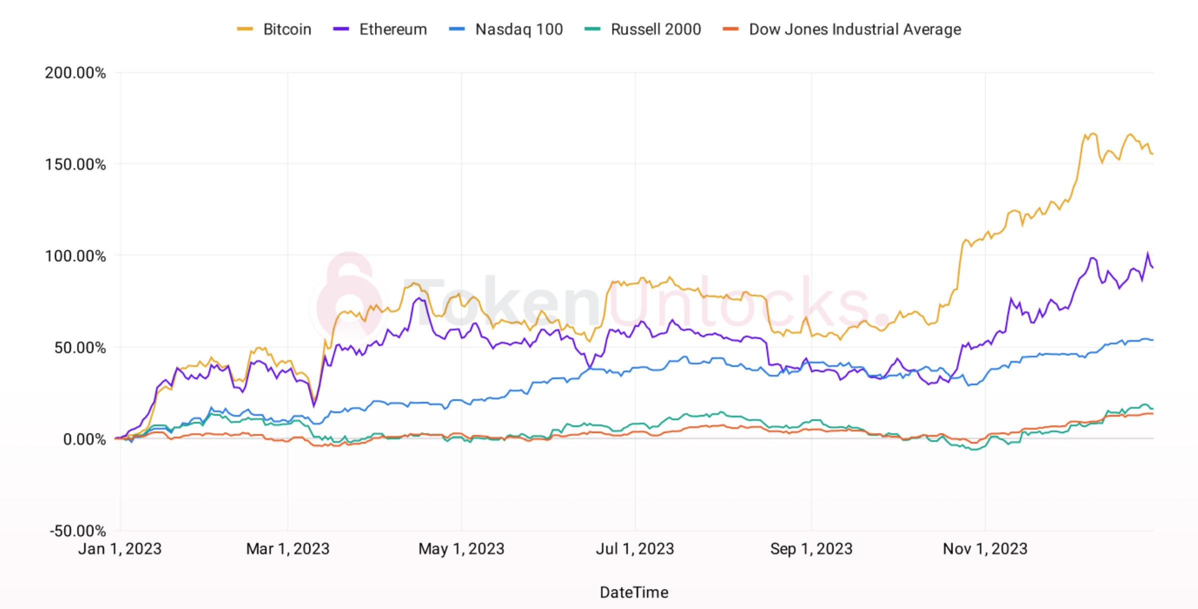
Insights and Implications

2023 Unlock Stats and Retrospective

A Market Recovery and Bitcoin's Dominance

In 2023, the cryptocurrency market experienced a remarkable turnaround, recovering from the turbulent events of the previous year, including the crashes of LUNA and FTX, which caused a 70%-90% drawdown in the market. Despite these setbacks, the crypto market demonstrated remarkable resilience.

Price performance crypto vs traditional investment benchmarks



SOURCE : Data from Yahoo Finance

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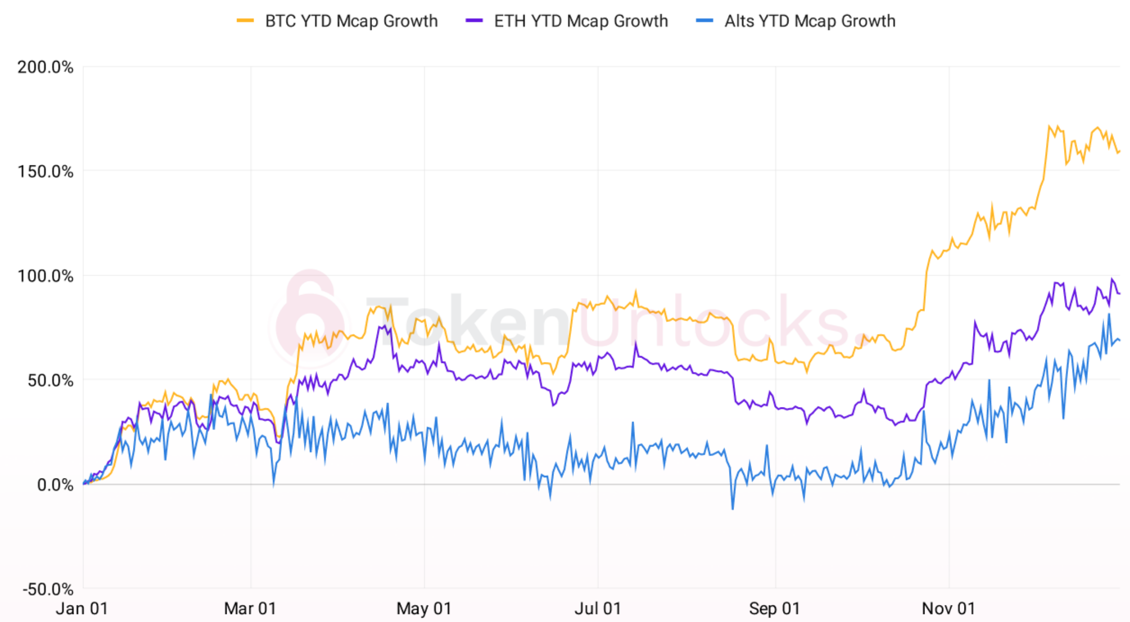
Bitcoin overcomes traditional investment benchmarks like the Nasdaq, Dow Jones, and Gold. Its pullback was reflected in the total cryptocurrency market capitalization doubling from $840 billion in January to $1.72 trillion by December according to Coingecko’s data.

This revival was not confined to Bitcoin alone. The entire digital asset ecosystem experienced a significant increase in activity, with Ethereum and many other altcoins seeing a strong 90% growth in their market values. This highlighted Bitcoin's growing dominance, which is often observed when markets recover from extended periods of decline, such as the one in 2021-22. However, Ethereum's journey was slightly more subdued, with its value compared to Bitcoin (ETH/BTC Ratio) dropping to the lowest point in several years (around 0.052). This still happened despite the successful Shanghai upgrade and the considerable growth of the Layer 2 ecosystem.

Year to Date Marketcap Performance



SOURCE : Data from Coingecko

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The Bounce Back

This bounce-back was thanks to a few big things. Everyone was excited about the possibility of new Exchange-Traded Funds (ETFs), particularly the potential for a Spot Bitcoin ETF, and the upcoming Bitcoin halving. Moreover, institutional adoption also gained momentum, with major financial players integrating cryptocurrencies into their systems, exemplified by BlackRock's revised spot Bitcoin ETF proposal.

Exploring Each Sector Performance

DeFi is still by far the most significant use case of blockchains…

The path to a decentralized future with DeFi has been faced with challenges and setbacks from external sources, hacks, and questionable actions from major players in the field despite the sector's TVL reaching an all-time high of $176 billion back in 2021 but eventually plummeting to a low of $39 billion during the 2022 winter. Even so, it is not all dark and gloomy as there are new developments that emerge if we zoom into the details. For example, apart from multi-asset pools, GMX has also pioneered a zero price impact swap feature, enabling DeFi users to swap assets seamlessly without incurring losses. Questions on how to best utilize capital by taking advantage of DeFi's programmability is one thing that should be addressed.

Staking, the base layer for the security of all protocols…

The launch of Liquid Staking Protocols like Lido in the last bullrun in December 2020, would seem to be an answer to the capital efficiency question but with the cost of more centralization.

In 2023, the Ethereum Shanghai upgrade allowing withdrawals of staked principles and rewards has given stakers more flexibility thus, increasing the total ETH staking percentage. But going further than that is the introduction of restaking by EigenLayer to leverage the pooled security of ETH stakers as a service for other systems.

Real World Assets (RWAs) will onboard the next billion users…

The mission to onboard the next billion users and to be a possible replacement of the traditional world, the exchange of values cannot be limited only to assets that are native to the digital world, but to the material world.

"There are several benefits to asset tokenizations such as fractionalized ownership of illiquid assets, democratizing access to investment opportunities, lower cost, and transparency"

In 2023, major banks and protocols such as Maker, Centrifuge, Maple to name a few, are tokenizing credits, bonds, and other tangible assets, stamping an incremental step of bridging real world assets onto the blockchain.

Stablecoins had faced a lot of regulatory pressures and industry shaking incidents in these past years. The collapse of UST, an algorithmic stablecoin in 2022 and the depegging of USDC (asset backed) in 2023 are prime examples of such incidents. The aforementioned could be viewed as a major shift on future integrations with the current financial system. In 2023, multiple innovative attempts were made on stablecoin with new launches like Curve's crvUSD that allow users to mint stablecoins while still earning interest on their underlying assets and rebalance the collateral when prices fluctuate.

In 2024, upon the approval of several Bitcoin ETFs by the US SEC, this may lead to a big step for this industry for paving a path for institutions to invest in crypto.

SocialFi revolutionizing connectivity through decentralization...

We must not overlook the foundation of success in the Web2 internet era: the value of connectivity. While it still faces challenges with intermediaries and centralization in information possession, in 2023, we have seen some solution to the issue in the decentralized way, creating a better version of social networks. Data privacy, monetization strategies, and censorship resistance are few of the advantages SocialFi builders are keen on implementing.

One interesting strategy we've seen this past year is the point system by SocialFi platforms like Friend.tech and Zapper Chat that let users accrue points via their interactions to the protocols and the content creators, attracting new users without the need to give out governance tokens at launch. At the time of writing, Friend.tech boasts approximately 850k registered users, marking a promising beginning for SocialFi in 2024.

GameFi and its 3 billion users market...

In the entertainment sector, gaming has the potential to attract a huge new wave of users with digital ownership and programmable rules as a foundation. We could soon experience unique approaches to gaming from developers both new and experienced jumping into the space drawing in a big chunk of new adopters from the pool of 3 billion gamers worldwide.

GameFi developments can be divided into partly and fully-onchain games. Partly on-chain games like Axie Infinity do not store all important logic and data on-chain. While fully on-chain games like Pirate Nation do, making them trustless and composable.

Despite the optimism, there are still roadblocks that we need to overcome for real GameFi adoptions, particularly in the scalability issue for throughputs high enough to process player states. We'll be covering recent developments in GameFi that we have found to be interesting with great prospects in Advancements in Key Sectors chapter.

Layer 2 and Rollups the basis of the blockchain expansion...

All the trends mentioned above can't be turned into reality without a scalable and efficient system as a backbone. There is still a lot of room for improvements on security, speed, and cost such as decentralizing the sequencers and Layer 1 upgrades.

In 2023, the layer 2 and rollups space has seen some rapid innovation and solidification. For example, Optimism's Bedrock upgrade which improved things like node performance and deposit times, the launch of Base to onboard new users into the ecosystem came up, and other L2s with bold approaches to differentiate themselves from the rest. 2024 will see a big upgrade to this segment as well, with many L2 governance token launches and the EIP- 4884 upgrade for Ethereum that will greatly benefit L2s on scalability in the future.

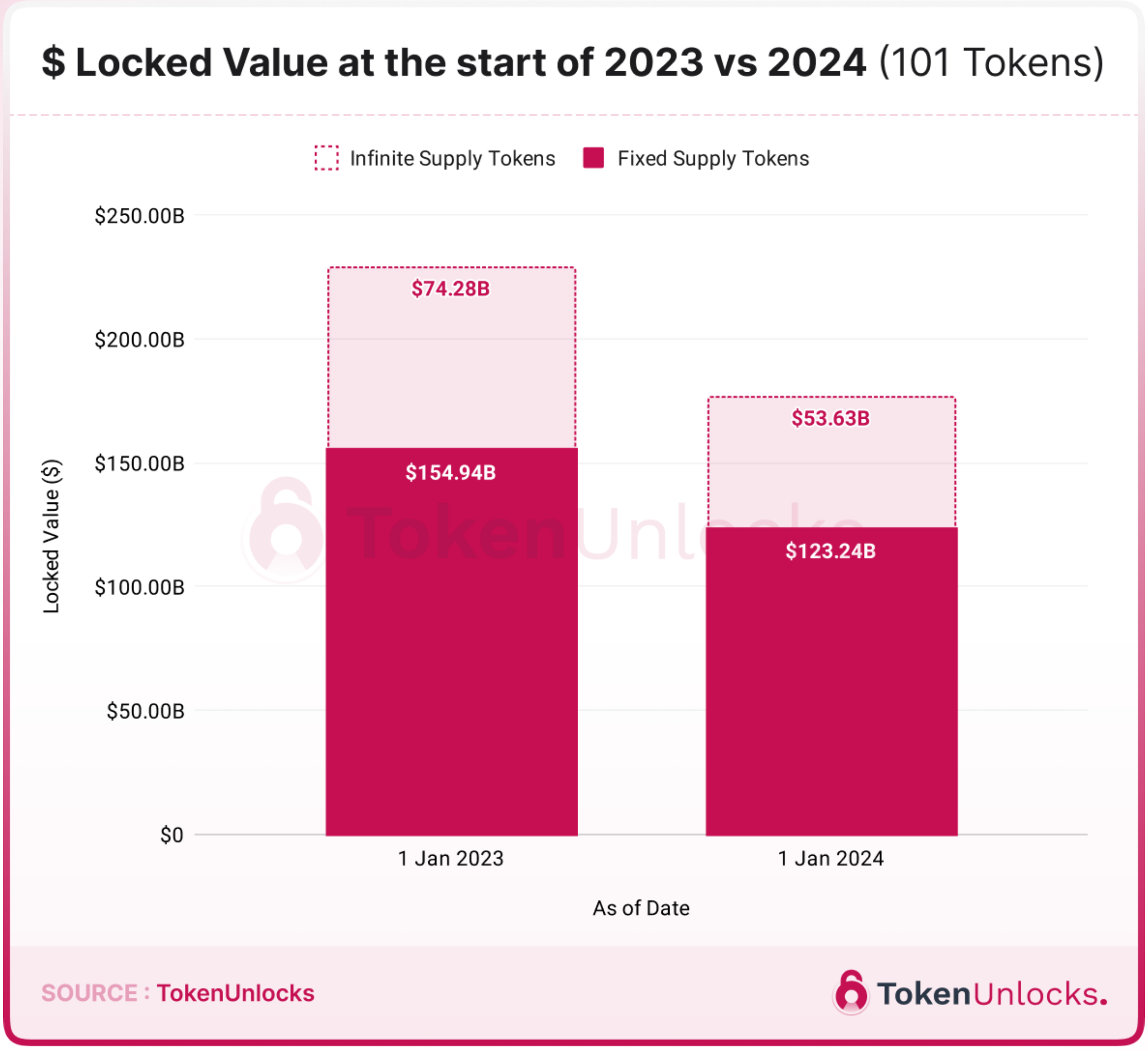
Unlock Data Comparison

Let's analyze the unlock data from 2023 to uncover patterns and trends.

The unfolding of token unlocks across various projects added an interesting dimension to the market dynamics. Although the price impact from token unlocks of the pre-bull market is currently lower than that of the bear market. In 2023, 70 potential protocols out of the top 500 tokens market cap (coingecko rank) were launched. This contributed 1.5% to the overall crypto market cap, which is significant evidence of emerging new players in the market. Analyzing tokenomics and token unlocks can help investors assess the fundamental and the potential impact of these tokens. As these new tokens can greatly influence market trends and investor sentiment, especially in a bull market, closely monitoring them can provide valuable insights for making informed decisions.

Notable Insights in 2023

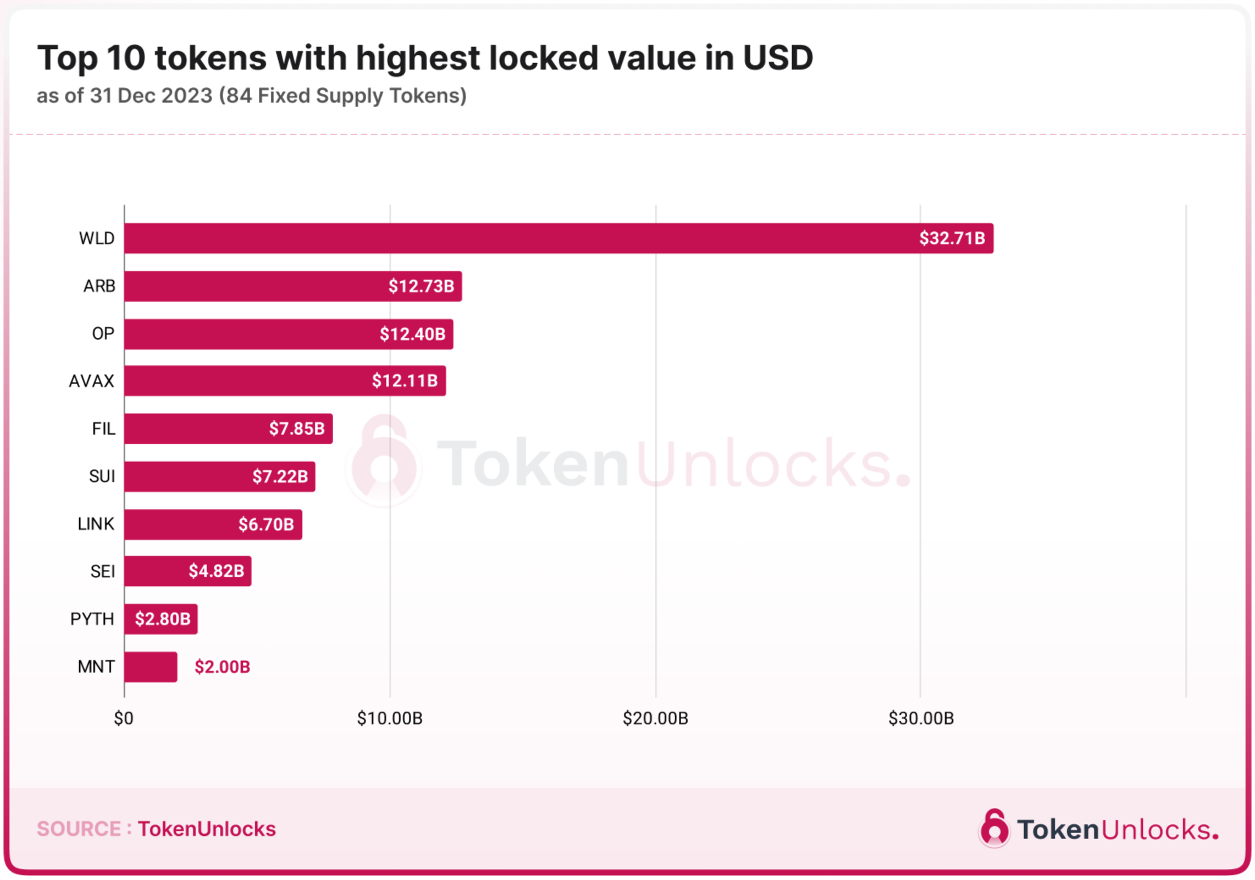
In this section, let's analyze the high level of what we have discovered in token unlocks 2023. We will compare the locked value in USD (only the distribution allocation, excluding other parts like staked, liquidity mining, and collateralization) of 101 tokens (excluding launchpad tokens) at the beginning of the years 2023 and 2024. The value of locked tokens on January 1, 2023, decreased from $229.21B to $176.87B on January 1, 2024. This represents a significant 22.8% decline in locked value (aka. $52.34B unlock value in 2023) as described in chart below.



As of Date	$ Locked Fixed Supply Tokens	est. $ Locked Infinite Supply Tokens	Total
1 Jan 2023	$154.94B	$74.28B	$229.21B
1 Jan 2024	$123.24B	$53.63B	$176.87B

Note for above chart calculation, we use the price as of January 1, 2024, multiplied by the locked token amount in both periods. Out of the 101 tokens, 17 tokens have an infinite max supply for instance Aptos, Solana, Pokadot, etc. Therefore, we cannot determine the exact Fully Diluted Valuation[3] of these tokens (hence, we represent them as a separate chart series with a dashed line). Instead, we estimated their values by comparing total token unlocks projected until 2030 against those until 2023 or 2024.

Furthermore, from 84 fixed supply tokens we listed down the top projects that have the highest locked value in dollars. $WLD is the top with $32.71B tokens locked.



Let's compare the value of unlocks in 2023 to other years. In previous unlock years, we can provide more accurate data with the daily price at the time of unlocks. However, for future unlock years, we have made forecasts using the price on January 1st, 2024. Surprisingly, when comparing the unlocked value in each year, the value of unlocks in 2023 is $32.8B, which is lower than the adjacent years (2022 and 2024).

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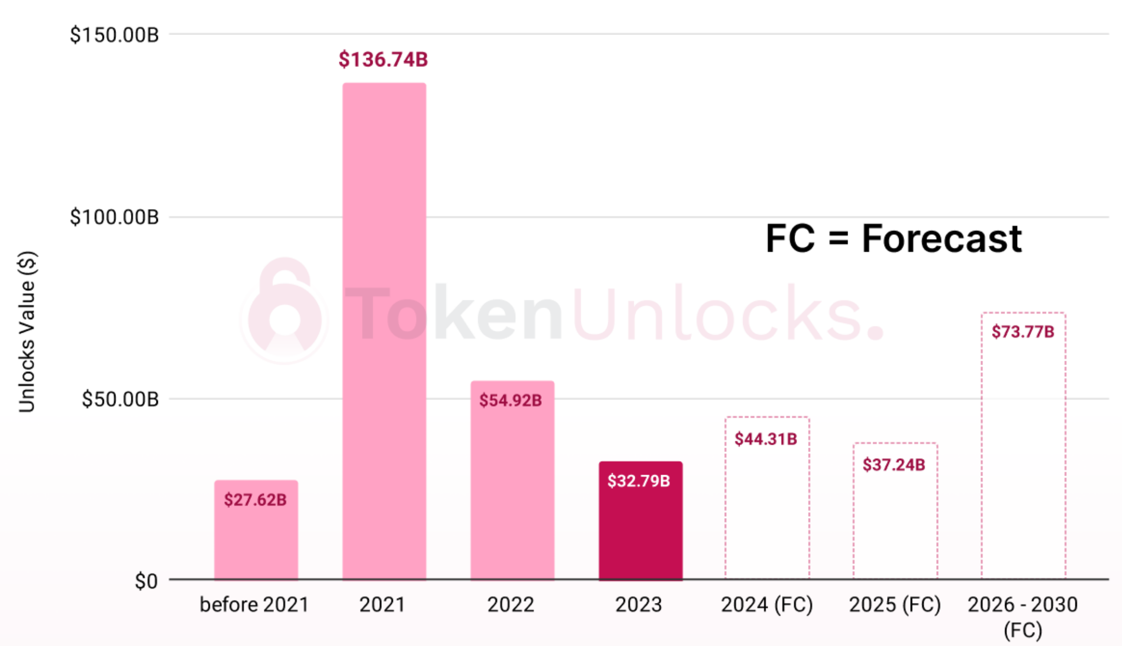
[3] Fully Diluted Valuation is the total value of all of its tokens that are in circulation

The decrease in the dollar value of token unlocks in 2023 can be attributed to two main factors:

- Firstly, the market conditions in 2023 were unfavorable, with a significant decline in cryptocurrency prices from their all-time high in late 2021. The cryptocurrency market cap decreased from $3T to $800B at the beginning of 2023.
- Secondly, crypto projects may have adjusted their unlock schedules or tokenomics in response to these market conditions, resulting in smaller or more gradual unlocks to avoid price impact. For future years, our estimates are rough and exclude 'TBD Locked'[4] tokens, which are yet to have defined release timings.

$ Unlocks Value Per Year (101 Tokens)



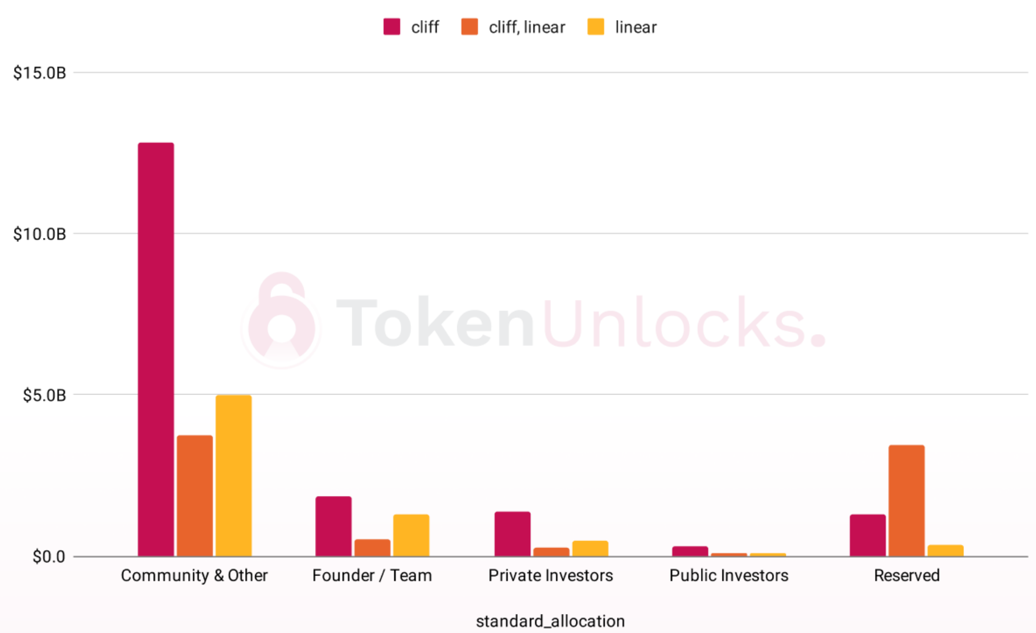
SOURCE : TokenUnlocks

[4] TBD Locked, outlined in Concepts and Methodology section, which means supply that doesn't have a set release schedule

2023 Unlocks Deep Dive

Then, let's dive deeper into the details of what is happening and when it occurred in the $32.8 billion unlocked value. It's important to highlight that the cliff unlocks in the community standard allocation, which represent $12.8 billion, contributed for 39% of the total unlocks in 2023. These cliff community unlocks mainly consist of token migration events and the initial unlock event at the token generation event (TGE), also referred to as the token launch date. These events play a crucial role in driving the value of the unlocks and their impact on the overall ecosystem.

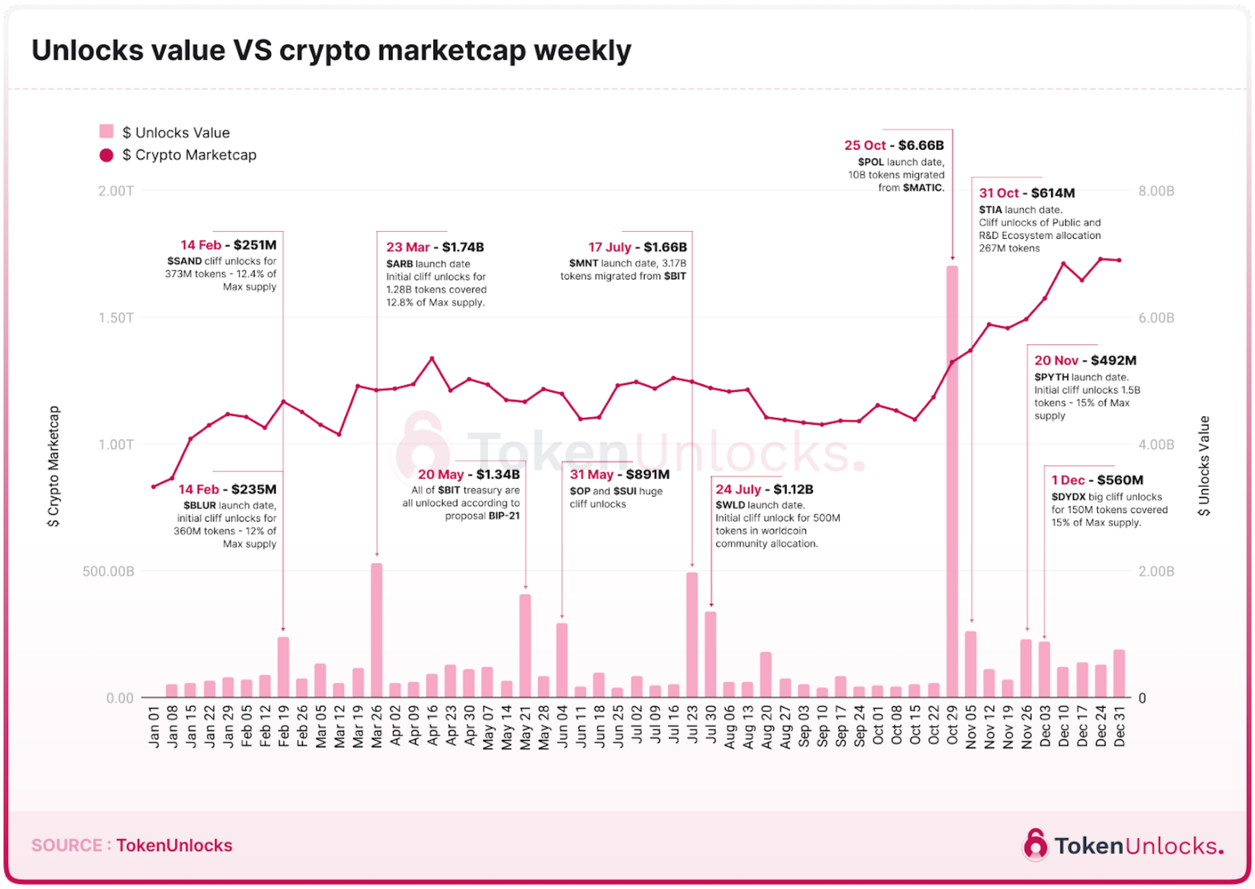
Unlocks Value ($) by Standard Allocation and Unlock Type in 2023



SOURCE : TokenUnlocks

SUM of value_in_usd / ***Standard Allocation***	***unlock_type*** cliff	cliff, linear	linear	Grand Total
Community & Other	$12.8B	$3.7B	$5.0B	$21.54B
Founder / Team	$1.9B	$510.9M	$1.3B	$3.67B
Private Investors	$1.4B	$276.8M	$454.7M	$2.13B
Public Investors	$293.8M	$79.2M	$96.5M	$469.62M
Reserved	$1.3B	$3.4B	$328.1M	$5.06B
Grand Total	**$17.68B**	**$8.04B**	**$7.15B**	**$32.87B**

You can see in more detail on the graph below. Here, by examining the top 10 weeks of unlock values, we can gain insight into what is happening. Surprisingly, out of these 10 weeks, 5 weeks are associated with new token launch events, 3 weeks are related to token migration events, and 3 weeks are characterized by significant cliff unlocks. The double count occurs because the week of February 13th to February 19th had two significant large value unlocked in the same amount for $BLUR and $SAND.

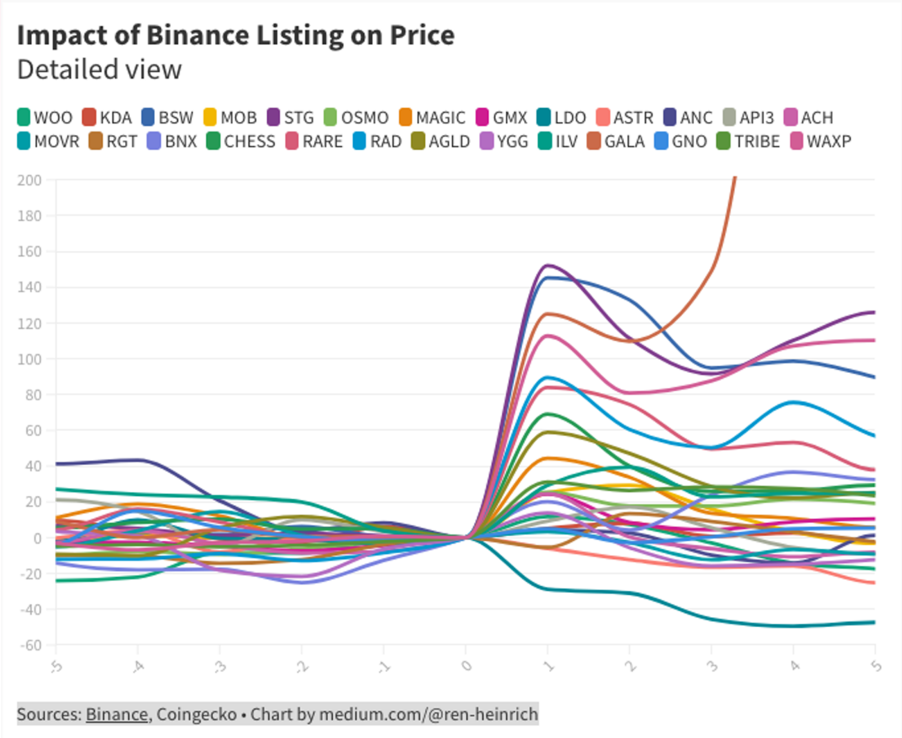


Furthermore, the total value unlocked due to token migration events is $9.59B, which contributes to 29.1% of the total unlock value in 2023. The migration from $MATIC to $POL alone unlocked $6.66B. Additionally, the initial cliff unlock at TGE has a value of $5.49B, contributing to 16.7% of the total unlock value in 2023.

From the chart above, it is clear that there is little correlation between huge unlock events and their impact on the crypto market cap. As mentioned earlier, token migration events and initial unlocks during TGE (Token Generation Event) contribute a significant amount of value (45.8% of total unlock value in 2023).

For token migration events, like the migration from MATIC to POL, often do not result in a price impact due to several reasons. Firstly, these changes are usually well-planned and announced in advance, so everyone knows it's coming and can plan for it. Secondly, the value of your cryptocurrency remains the same during the migration. For example, if you have 1 MATIC, you'll get an amount of POL that's worth the same value. This means that you do not lose or gain money solely due to the migration. The total amount of the new token (MATIC) is kept in balance with the old one (POL). This balance is important because if there is suddenly a significant increase or decrease in the supply of a token, it can cause its price to fluctuate greatly. However, maintaining the balance helps prevent such volatility.

For initial unlocking at TGE might be the exception for price decrease after unlocks, which is a common behavior for newly launched or listed tokens on centralized exchanges. An analysis by crypto investor Ren & Heinrich indicates that the strongest price increase usually occurs on the first day after listing, and the price tends to remain above the listing price for 8 days. The below chart illustrates that most tokens experienced a significant price increase after being listed on Binance. The x-axis on the chart shows the number of days before or after listing in Binance.



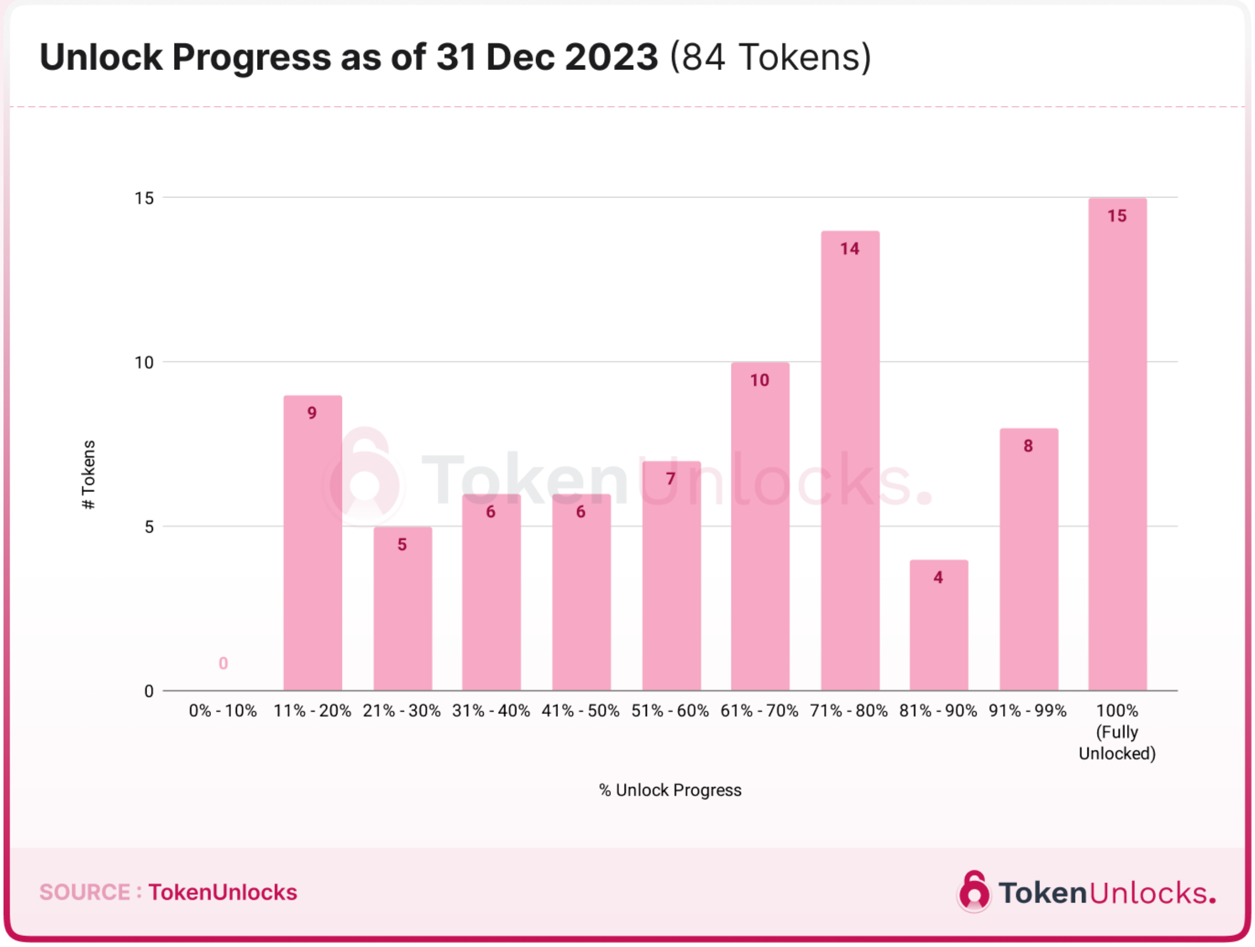
Sources: Binance, Coingecko - Chart by medium.com/@ren-heinrich

This may be due to the liquidity fragmentation of tokens at launch across multiple exchanges, resulting in low liquidity. Consequently, there are fewer buyers and sellers, making it easier for a small group of people able to manipulate the market. For instance, they could buy a large amount of tokens, causing the price to rise sharply due to the limited number of sellers. This artificial price increase can mislead others into thinking that the token is naturally gaining value. Therefore, we cannot see overall crypto marketcap decrease after unlocks. Read more here:

Unlocks Progress Analysis

In the previous section, we discussed the value unlocked in dollars. In this section, we will focus on the progress of unlocking each individual token. A total of 84 projects have been selected for analysis, with 17 tokens excluded due to having an infinite supply. This study provides an overview of the unlock progress of crypto projects listed in TokenUnlocks. These tokens are freely transferable and will be claimed and circulated in the market in the future.

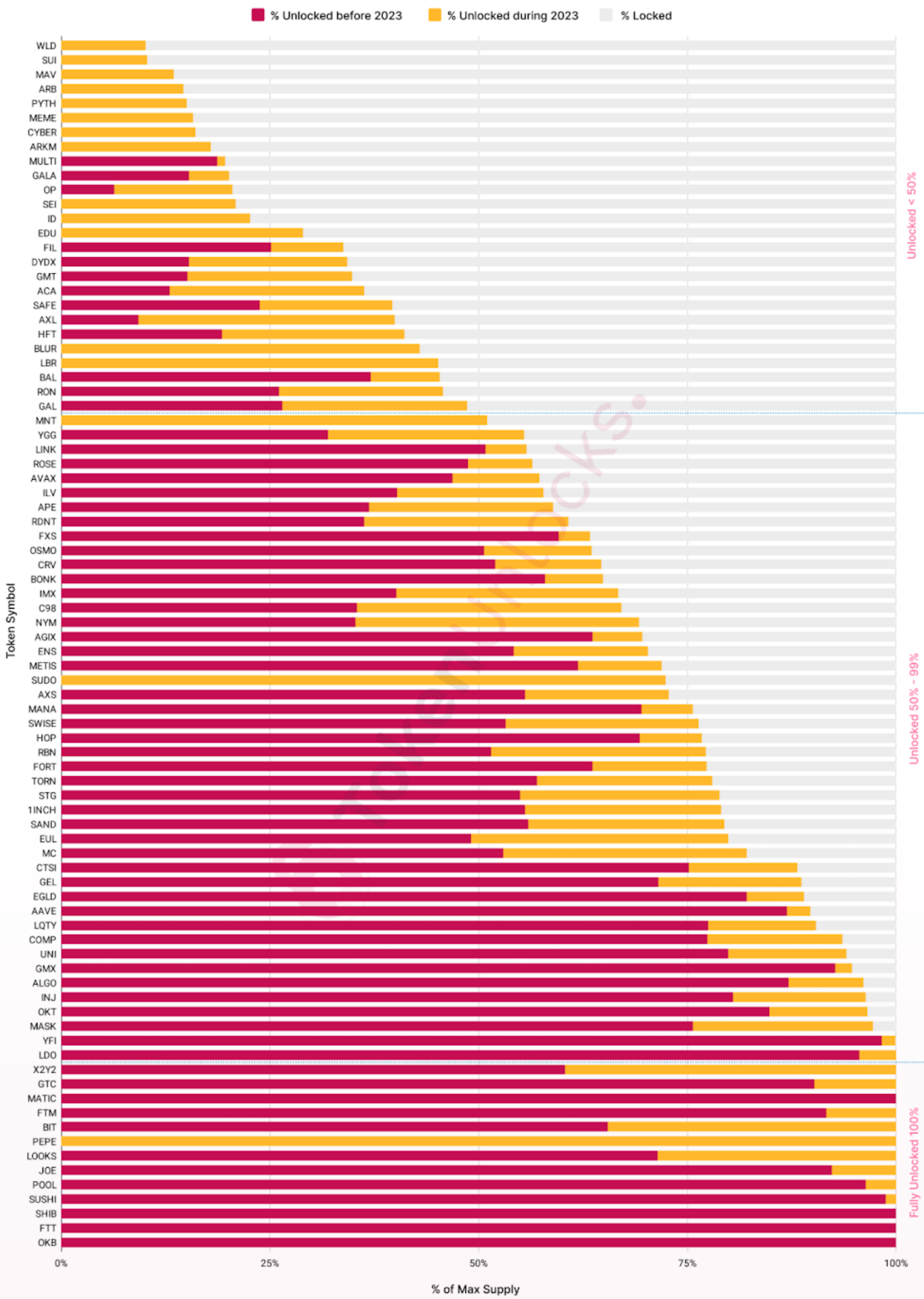
The histogram reveals that each token listed in TokenUnlocks unlocked a minimum of 10% of its maximum supply. Out of the 84 tokens, 15 projects had already fully unlocked 100% of their supply. Interestingly, only 26 tokens have unlocked less than half of their maximum supply, accounting for just 30% of all tokens. On the other hand, 41 tokens have unlocked more than 70% of their maximum supply.



For visibility purposes, let's break down the progress of unlocks for each token. The stacked bar chart below displays the percentage of their total supply that was unlocked before 1 Jan 2023 in red. The yellow bar represents the percentage unlocked during the period from 1 Jan 2023 to 31 Dec 2023. The gray bar represents the percentage that is still locked. Please note that there may be a TBD[5] allocation for this part, where some projects have already unlocked a portion of their allocation in 2023 due to the event based, but today we are currently unable to track and update all of governance and announcements.

[5] TBD Locked, outlined in Concepts and Methodology section, which means supply that doesn't have a set release schedule

Unlock Progress Summary



SOURCE : TokenUnlocks

TokenUnlocks.

Some tokens did not have a red portion because they were just launched in 2023. Most of these tokens are unlocked less than 50%, so there are plenty of opportunities to find a good time to buy during future unlock events. Out of the 15 fully unlocked tokens, 9 were fully unlocked in 2023. These tokens include POOL, PEPE, GTC, SUSHI, JOE, LOOKS, FTM, and X2Y2. These fully unlocked tokens are less risky in terms of price impact because they provide stability and predictability. When all tokens are already in circulation, the market adjusts to their presence, leading to more stable prices. There's less uncertainty, as investors don't have to worry about how future releases of more tokens might affect the market. Additionally, with no sudden increase in supply, the value of existing tokens remains more consistent. This transparency builds investor confidence, reducing fears of price volatility or manipulation that can come with unreleased token supplies. You can see the summary of the last unlocked event for these tokens here.

Token Symbol	Last unlocked date	# Token last unlocked	$ Value of last unlocked	Standard Allocations Associated	Last Unlocked Type
POOL	2023-02-16	6.8k	$6.9k	Reserved	Linear
PEPE	2023-04-14	420.7T	$79.97M	Founder / Team, Community & Other	Cliff
GTC	2023-05-24	9.8k	$14.2k	Community & Other	Linear
SUSHI	2023-06-10	13.4k	$10k	Founder / Team, Community & Other	Linear
JOE	2023-11-15	42k	$14.3k	Reserved, Community & Other, Founder / Team	Linear
LOOKS	2023-11-27	375k	$42.6k	Community & Other	Cliff
FTM	2023-12-27	120.9k	$48k	Community & Other	Linear
X2Y2	2023-12-30	37.59M	$2.59M	Reserved, Community & Other, Founder / Team	Cliff

How do projects vest their tokens ?

Before exploring how projects manage token distribution, let's examine the fundamentals of each method used to ensure fair and orderly distribution. The three primary types of vesting wallets are Externally Owned Accounts (EOA), Multi-signature addresses (Multisig), and Smart Contracts, each differing in terms of flexibility, security, and adherence to the vesting schedule.

EOA addresses are similar to personal banking accounts in the cryptocurrency sector, that are controlled by a private key. This enables owners to transfer tokens flexibly and without restrictions, comparable to traditional bank transactions. From a vesting perspective, EOAs enable projects to manage their tokens as they see fit, relying on the trust that the key holder will release funds according to the vesting schedule. However, there is no enforcement mechanism within the code itself.

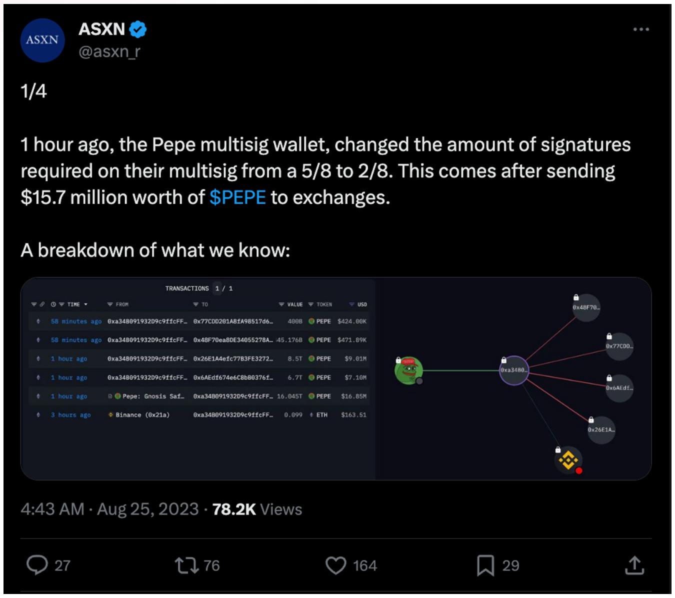
In contrast, Multisig addresses offer a more structured and secure way to manage tokens. Similar to a joint bank account in the traditional banking world, these addresses require multiple parties to agree on transactions. This can be used to enforce a vesting schedule if all parties agree to only approve transactions according to the schedule. This collective decision making process can stabilize a token's market value by preventing sudden, large-scale token transfers.

Lastly, smart contracts, which tokens lock duration and the release timestamps are set by the rules of the code, offer the highest level of control and security. They enforce disciplined token distribution, mitigating the risks of market manipulation and contributing to a more stable and predictable token economy. However, this comes at the cost of flexibility, as token release is bound by the contract's terms.

Below is a summarized comparison of these three types of vesting addresses, focusing on their definitions, flexibility, security, tokenomics impact, and ability to enforce vesting schedules:

Aspect	EOA (Externally Owned Account)	Multisig (Multisignature Address)	Smart Contract
Definition	Like a personal bank account in crypto, controlled by a private key.	A shared wallet requiring one to many signatures for transactions, like joint bank account.	A programmed contract on the blockchain that executes actions when certain conditions are met.
Flexibility	High - immediate and unrestricted access to tokens.	Moderate - requires agreement from multiple parties to execute transactions.	Low - actions are dictated by predefined rules and conditions by code.
Security	Depends on the security of the private key.	Enhanced by requiring multiple approvals, reducing the risk of unauthorized access.	High if properly coded and audited, but susceptible to bugs or vulnerabilities in the code.
Tokenomics Impact	Risk of rapid token movements affecting market stability.	Stabilizes token market by preventing sudden large transfers.	Controls token distribution effectively, reducing market manipulation and ensuring a stable economy.
Vesting Enforcement	Low - No inherent mechanism to enforce vesting schedules.	Moderate - Multisig agreement can be used to enforce vesting, but depends on the signatories' adherence.	High - Can be programmed to strictly adhere to vesting schedules and conditions.

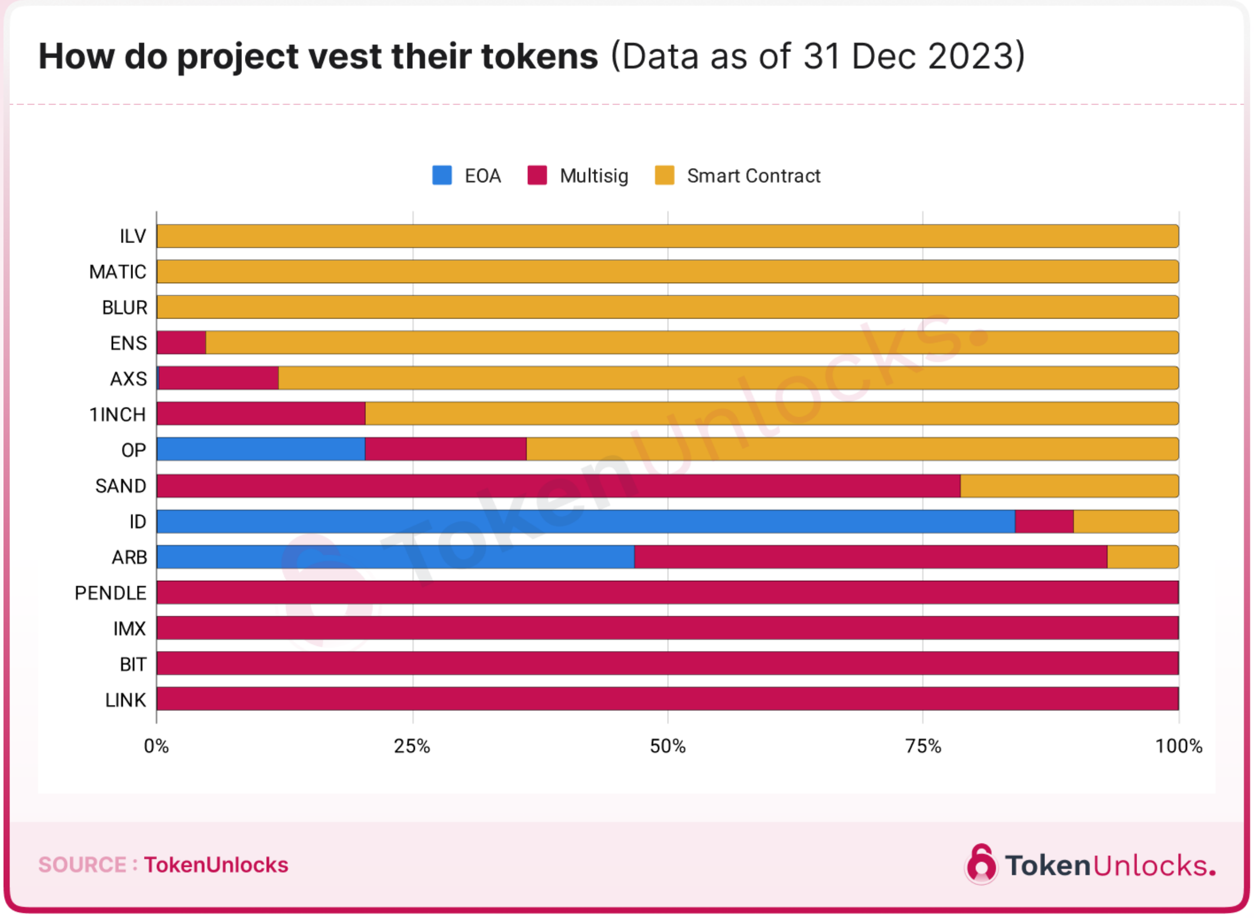
However, it is important to note that some smart contracts and multisig addresses are designed to be upgradeable. This means that their features, rules, or operational mechanisms can be modified after their initial deployment. For example, in the past year, the PEPE multisig address changed the required number of signatures from 5/8 to 2/8, reflecting the real situation at that time. Similarly, smart contracts may be programmed to allow updates or alterations to their code, which could impact their functions, terms, or security features. Therefore, the ability to be upgradeable is another factor that we need to be aware of.



In this study, we will analyze 14 tokens that we currently track claim transactions in TokenUnlocks PRO, along with their 1,220 vesting addresses. Amazingly, only 657 vesting addresses have a balance of more than 0 tokens, which accounts for only 53.9% of the total. This is due to some tokens being distributed across multiple hops of vesting addresses or the project moving tokens between different vesting addresses, also another reason is all tokens are already claimed.

Vesting Address Type	No tokens left	Has balance > 0 tokens	Grand Total
EOA	172	449	621
Multisig	210	101	311
Smart Contract	181	107	288

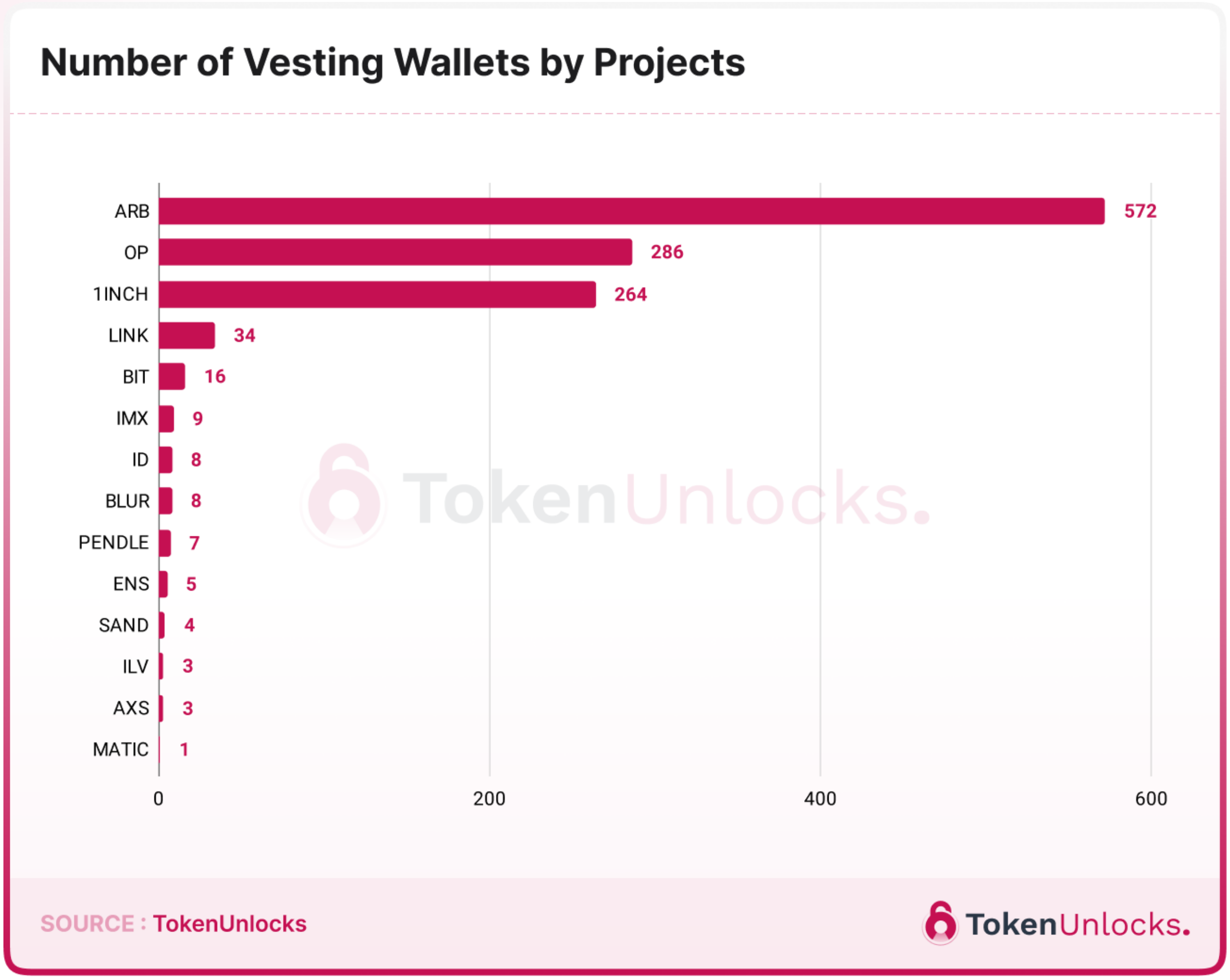
To provide a fair point of view and avoid double counting, we conducted this analysis considering the vesting address balances as of December 31, 2023. In the chart below, we display how the project distributes unclaimed tokens to each type of address. Some of the initial vesting address type may not be visible in the chart below, as the tokens in those portions have already been unlocked or moved to another address type. For example, $BLUR kept their Airdrop tokens in a multisig address before distributing them to eligible users via a smart contract, so we cannot see multisig for $BLUR in this chart.



We discovered that as of December 31, 2023, the majority of selected tokens are vesting through smart contracts and multisig addresses. However, $BLUR, $MATIC, and $ILV have vested almost all of their unclaimed tokens in smart contracts which is easier to determine the vesting schedule as it is controlled by smart contract code based. On the other hand, $BIT and $LINK have vested almost all of their tokens in multisig addresses. Meanwhile, $OP, $ARB, and $ID are using a combination of three different types of addresses together.

Although tokens vested by an EOA address may appear flexible in terms of how they are distributed, it doesn't necessarily mean that projects intend to not follow their initial vesting schedule. Notably, we have observed a similar vesting pattern in projects such as $OP and $ARB. For private investors and the founder/team standard allocation, tokens are initially vested in a multisig address before being distributed to multiple EOAs. Then deposited into [Coinbase Prime custody service](#) (another EOA) to prepare for distribution to the beneficiary stakeholders. We don't yet know the real reason why these projects vest tokens in multiple hops. However, for allocations that are associated with TBD like treasury reserve or community, which are mostly released based on governance decisions, a more secure approach such as using a multisig address is commonly employed, awaiting approval for usage of funds.

The above reasons also support why $ARB and $OP have the most vesting addresses as well (572 and 286 respectively).



Last but not least, let's see how many tokens were claimed[6] at the year's end 2023. You can clearly see that $BIT and $MATIC have had their entire supply claimed as both token contracts were in the migration period, where stakeholders were required to claim and migrate to a new token. However, some token like $ENS and $LINK, have a lower percentage of claim vs unlock even though both of them have big cliff unlocks in vesting

[6] Claim value is the number that defines the circulating supply but doesn't necessarily have to match it. Once the unlocked tokens have been sent to the stakeholders' wallets, whether manually or through a smart contract, they will be included in the circulating supply only when the stakeholder moves the tokens out of their wallet.

schedule. Additionally, for tokens $ARB and $OP, the claim percentages vs unlock could be underestimated as they include TBD allocations that are yet to be fulfilled into the total unlocked amount 2023.

How much token were claimed at the end 2023

Token Symbol	Total Claimed	Total Supply	% Claim vs Total Supply	Unlocked 2023*	% Claim vs Unlock
BIT**	10,000,000,000	10,000,000,000	100.0%	10,000,000,000	100.0%
MATIC**	9,726,695,184	10,000,000,000	97.3%	10,000,000,000	97.3%
1INCH	1,083,102,646	1,500,000,000	72.2%	1,184,774,201	91.4%
SAND	2,118,731,926	3,000,000,000	70.6%	2,383,229,166	88.9%
PENDLE	224,683,124	332,250,555	67.6%	332,250,555	67.6%
IMX	1,300,564,580	2,000,000,000	65.0%	1,334,742,959	97.4%
AXS	171,456,202	270,000,000	63.5%	196,550,782	87.2%
ILV	3,903,502	10,000,000	39.0%	5,775,161	67.6%
BLUR	1,145,152,060	3,000,000,000	38.2%	1,287,021,918	89.0%
ENS	30,367,907	100,000,000	30.4%	70,273,753	43.2%
LINK	218,009,549	1,000,000,000	21.8%	556,850,000	39.2%
OP*	889,130,399	4,294,967,296	20.7%	2,333,023,572	38.1%
ARB*	1,495,738,548	10,000,000,000	15.0%	4,935,571,869	30.3%
ID	253,277,778	2,000,000,000	12.7%	452,375,000	56.0%

How much token were claimed at the end 2023

* For $ARB and $OP, we include a TBD locked allocation into the unlocked portion. This is because we currently cannot track and update all of the event-based unlock events yet.

** The complete claim of $BIT and $MATIC supplies is due to a mandatory migration to new token contracts, not market demand.

In summary, our study shows different ways projects manage their token distribution, using methods like personal-like accounts (EOAs), group-approved addresses (Multisig), and automated contracts (Smart Contracts). Each has its own advantages of flexibility, security, and efficiency in accordance to vesting schedules. We looked at 14 tokens and found that about half of their addresses still have tokens, showing careful management. Some projects prefer predefined rules by code (like smart contracts), while others prefer agreement from multiple key holders (multisig addresses) for releasing tokens. We also saw different strategies, like mixing address types, which shows how the world of cryptocurrency is always changing and adapting. This research points out the need for projects to keep improving how they vest tokens, keeping a good balance between safety, market stability, and the trust of the protocol who own the tokens.

Next let's see the conclusion we can draw from the unlock data of 2023 in the next section.

Implications and Price Impact

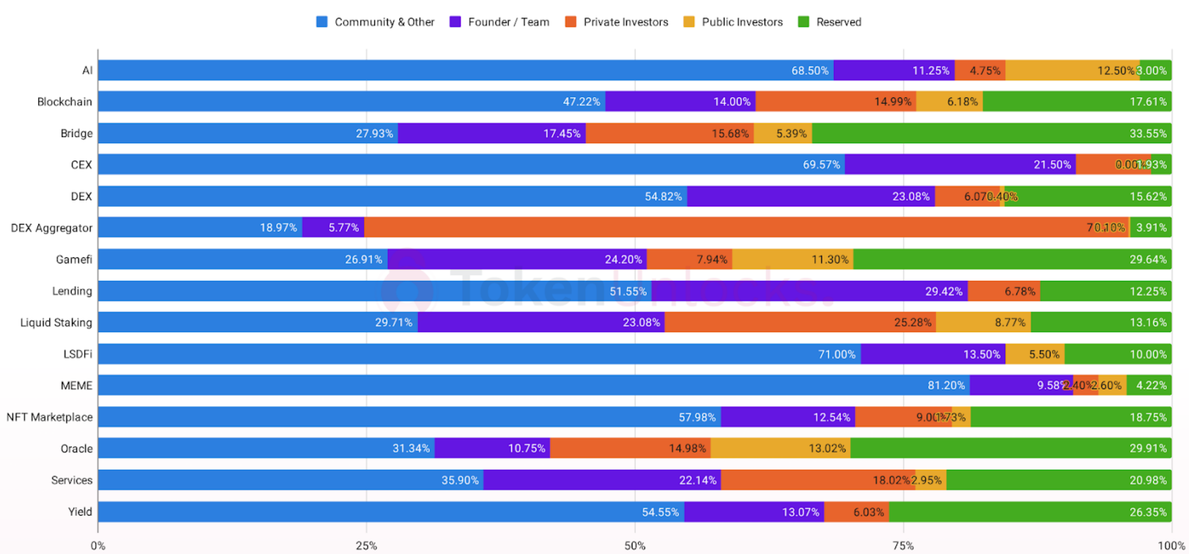
Using the standardized allocation criteria[A] applied to categorize the tokens that are listed in the Token Unlocks database and the genre of each project, we can determine the distribution of allocations across different project types. Here's our discovery.

Key Findings

Nearly a hundred tokens have undergone categorization based on their allocation and project type, spanning across 15 genres. These genres include AI, Blockchain, Bridge, CEX[7], DEX[8], DEX Aggregator, GameFi, Lending, Liquid Staking, LSDFi[9], MEME, NFT Marketplace, Oracle, Services, and Yield.

The chart below displays the collected data, indicating the average allocation within each project type. The most dominant color bar within each genre represents the allocation holding the highest volume of tokens compared to other allocations.

Token Allocation Analysis



SOURCE : TokenUnlocks

TokenUnlocks.

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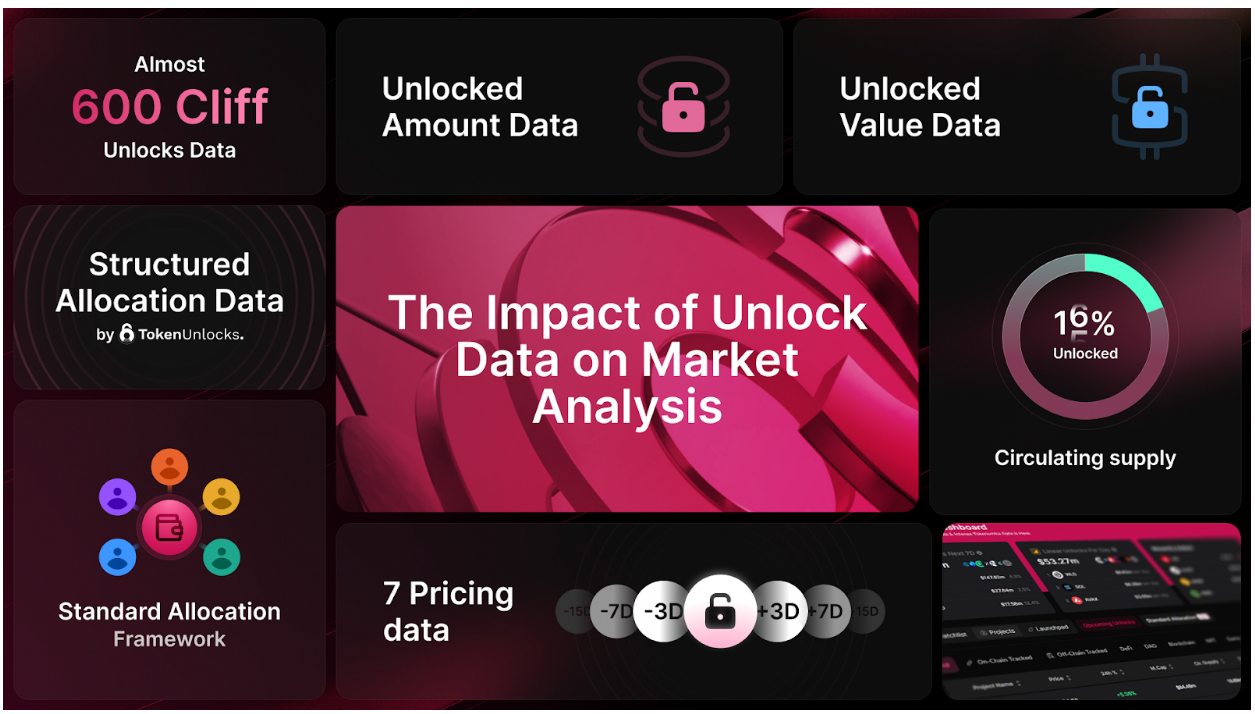
[7] CEX - stands for Centralized Exchange such as Coinbase, Binance
[8] DEX - stands for Decentralized Exchange such as Uniswap, Sushiswap
[9] LSDFI - stands for Liquid Staking Derivative Decentralized Finance, represents a genre of decentralized finance protocols primarily leveraged liquid staking token such as Lybra Finance.

In 12 out of 15 genres, the predominant token allocation goes towards the Community & Other category. This aligns with the goal of enhancing platform decentralization by involving more community part. Conversely, in two genres, the highest volume of tokens is directed to the Reserved category. One such genre is bridge-type protocols, which typically require more reserves compared to other project types. The remaining allocation focuses on Private Investors, specifically in the DEX Aggregator genre. The term "Private Investors" here refers to venture capitalists, who often contribute to a project's credibility and visibility. Remarkably, none of the genres allocate the largest share of tokens to either Founders/Team or Public Investors.

The Impact of Unlock Data on Market Analysis

Curious about how forthcoming unlocked events might influence a token's price? Interested in knowing which unlocked allocations could potentially exert a more substantial impact on token prices? Here's our insight on these queries.

Collected Data



Nearly six hundred cliff-unlocked[10] occurrences, exclude the TGE[11], have been meticulously compiled and classified based on our standard allocation criteria. The pricing data for comparison includes figures from 15 days, 7 days, and 3 days both before and after the unlocking date, alongside the unlocked token quantity concerning the circulating supply at that specific juncture.

Key Findings

Each unlocking event varies in size, ranging from fractions like 0.5% to larger portions such as 50% of the circulating supply[12]. As a result, the percentage change in the price for each cliff unlock will be adjusted based on the size of the unlock, represented by the ratio of unlocked amount to circulating supply.

Standard Allocation	Average Unlocked Amount to Circulating Supply	Percentage Change in Price on					
		15 Days Before	7 Days Before	3 Days Before	3 Days After	7 Days After	15 Days After
Community & Other	10.55%	4.30%	2.50%	4.78%	8.92%	12.85%	6.62%
Founder / Team	6.04%	5.60%	0.36%	1.04%	4.20%	4.76%	-0.67%
Private Investors	14.61%	-2.49%	-3.33%	9.34%	33.00%	34.50%	20.13%
Public Investors	6.01%	6.90%	5.87%	0.67%	-2.74%	-2.51%	-3.82%
Reserved	6.08%	-0.22%	-1.78%	3.98%	10.18%	7.35%	-0.82%

The table displays the average ratio of the unlocked amount to the circulating supply and the weighted average percentage change before and after the unlock date within each standard allocation category.

The majority of categories witness price increases both before and after the unlock date, with the exception being the Public Investors allocation, which experiences a price drop after the unlock.

Conversely, in the case of the Community & Other category, the price prior to the unlock date is higher than the price on the unlocked date, despite this allocation having the second-highest ratio of the unlocked amount to the circulating supply.

Surprisingly, there's a common belief among most investors that the Founder/Team allocation would lead to a price decline. However, the data contradicts this assumption, indicating that the price both before and after the unlocked date remains higher than the unlocked date.

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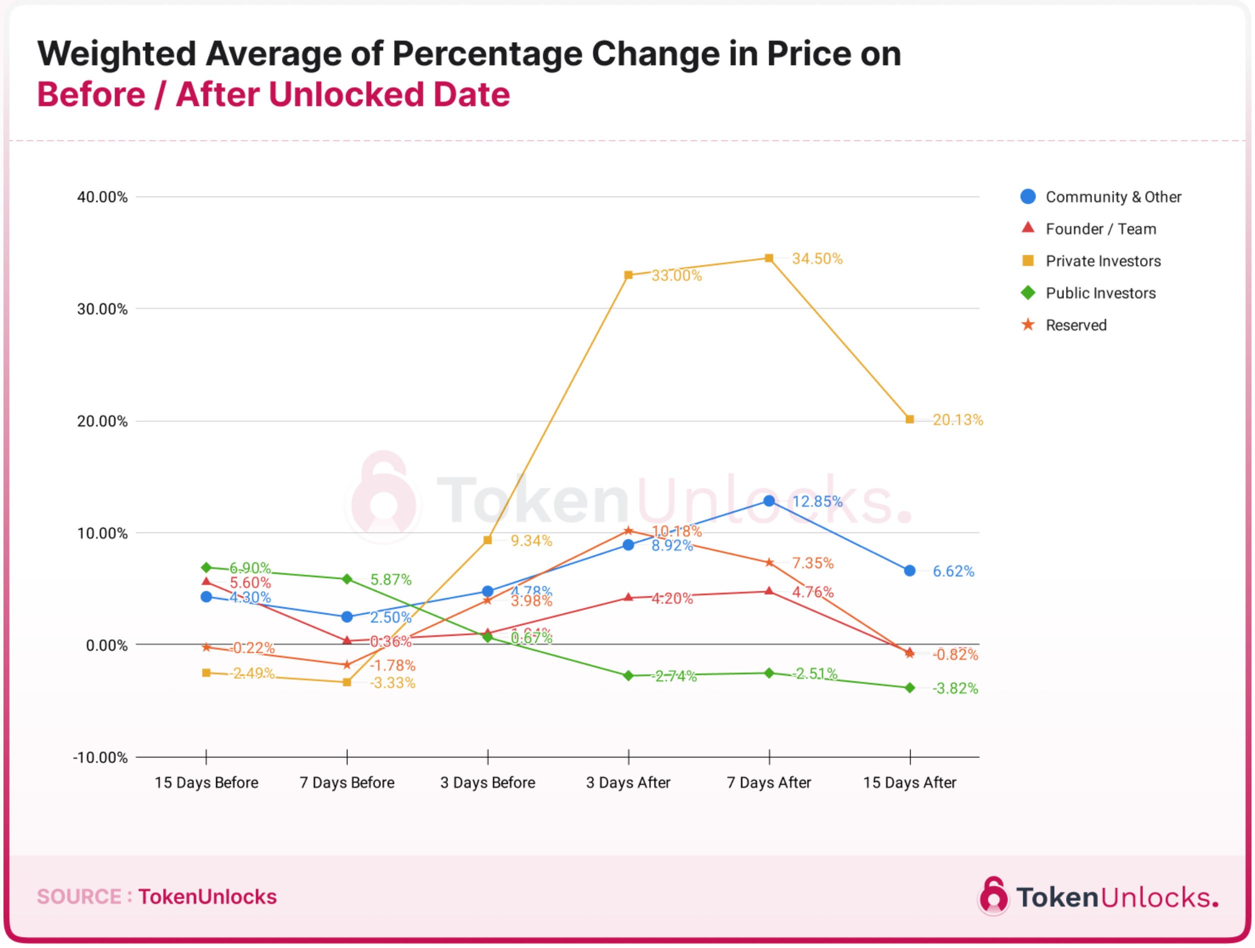
[10] Cliff Unlock - is a one-time token unlocking event within a specific timeframe, distinct from linear unlock event.
[11] TGE - stands for Token Generation Event represents an event that encompasses the creation and launch of a token within a blockchain network.
[12] Circulating Supply - is a portion of the maximum supply for each token, signifying the supply currently in circulation in the market, excluding locked tokens.

The price trend for Private Investors' allocation shows a decline 15 and 7 days before the unlocked date. This suggests that:

Non-private investors may fear the unlocked tokens from private investors. This fear could stem from concerns about a potential sell-off, given that private investors usually acquire tokens at lower prices and have larger unlocked amounts compared to other allocations.



Additionally, following the unlocked date for Private Investors, the price tends to experience a notably more significant surge compared to other allocations, as depicted in the chart above.

In the case of Reserve allocation, the unlocked tokens are typically transferred to the protocol's DAO or a multisig wallet, necessitating community voting before any spending.

Consequently, the price fluctuation remains a blend of both surges and declines before and after the unlocked date.

The Impact of Initial Float on Market Analysis

In relation to the tokens unlocked at the project's initiation—the Initial Float[13]—and the subsequent price action data, here's what we've discovered.

Collected Data

Token	Date	Phase	Initial Float to Total Supply	3 Days After	7 Days Afters	15 Days After
Matic	2019-04-20	Bear Market	4.67%	-35.51%	-22.77%	-14.63%
Chainlink	2019-07-02	Bear Market	0.07%	-24.56%	-25.10%	-14.09%
Decentraland	2020-02-20	Bear Market	51.07%	-8.49%	14.32%	6.99%
Solana	2020-04-07	Bear Market	1.41%	-17.85%	-31.34%	-32.43%
Curve	2020-08-13	Bear Market	7.37%	-62.29%	-74.91%	-77.07%
Uniswap	2020-09-16	Bear Market	15.00%	65.57%	26.11%	23.23%
Axie Infinity	2020-11-04	Bear Market	0.03%	-1.88%	81.31%	255.21%
Lido	2020-12-17	Bear Market	25.35%	-18.51%	-48.99%	-50.24%
Tornado Cash	2020-12-18	Bear Market	5.00%	3.69%	77.06%	88.25%
1inch	2020-12-25	Bear Market	6.00%	-54.37%	-41.75%	-49.18%
Illuvium	2021-03-29	Bull Market	10.41%	98.98%	91.85%	72.28%
Osmosis	2021-06-18	Bull Market	10.00%	-13.10%	-23.48%	-57.74%
BitDAO	2021-07-15	Bull Market	9.37%	-3.62%	-1.62%	-8.19%
Yield Guild Games	2021-07-27	Bull Market	1.48%	77.12%	23.35%	130.88%
dydx	2021-09-07	Bull Market	0.08%	-18.08%	-7.77%	16.30%
Merit Circle	2021-10-31	Bull Market	4.56%	110.39%	78.72%	206.85%
Immutable	2021-11-05	Bull Market	4.00%	-31.23%	12.17%	47.59%
Ethereum Name Service	2021-11-09	Bull Market	19.63%	32.42%	30.63%	15.61%
Looksrare	2022-01-10	Bull Market	12.04%	80.90%	132.14%	82.07%
Moonbeam	2022-01-11	Bull Market	4.09%	-2.42%	-16.43%	-34.98%
Ronin	2022-01-27	Bull Market	11.02%	-20.00%	-42.60%	-8.48%
X2Y2	2022-02-15	Bull Market	60.50%	65.00%	-43.39%	-76.06%
Apecoin	2022-03-17	Bull Market	15.00%	35.12%	55.63%	48.78%
Nym	2022-04-14	Bull Market	5.00%	0.30%	-17.08%	-50.85%
Galxe	2022-05-05	Bear Market	4.50%	-39.04%	-78.98%	-62.76%
Forta	2022-05-24	Bear Market	42.45%	-33.02%	-44.29%	-59.03%
Optimism	2022-06-01	Bear Market	5.00%	10.47%	-5.31%	-59.20%
Aptos	2022-10-12	Bear Market	11.65%	-45.44%	-36.04%	-46.26%
Arbitrum	2023-03-23	Bear Market	2.26%	-11.44%	-12.16%	-12.88%
Open Campus	2023-04-28	Bear Market	5.00%	2.68%	-8.97%	-17.71%
Sui	2023-05-03	Bear Market	3.33%	-4.47%	-15.33%	-12.43%
Mantle	2023-07-17	Bear Market	51.02%	14.57%	14.61%	2.12%
CyberConnect	2023-08-15	Bear Market	6.00%	-16.50%	8.08%	61.68%

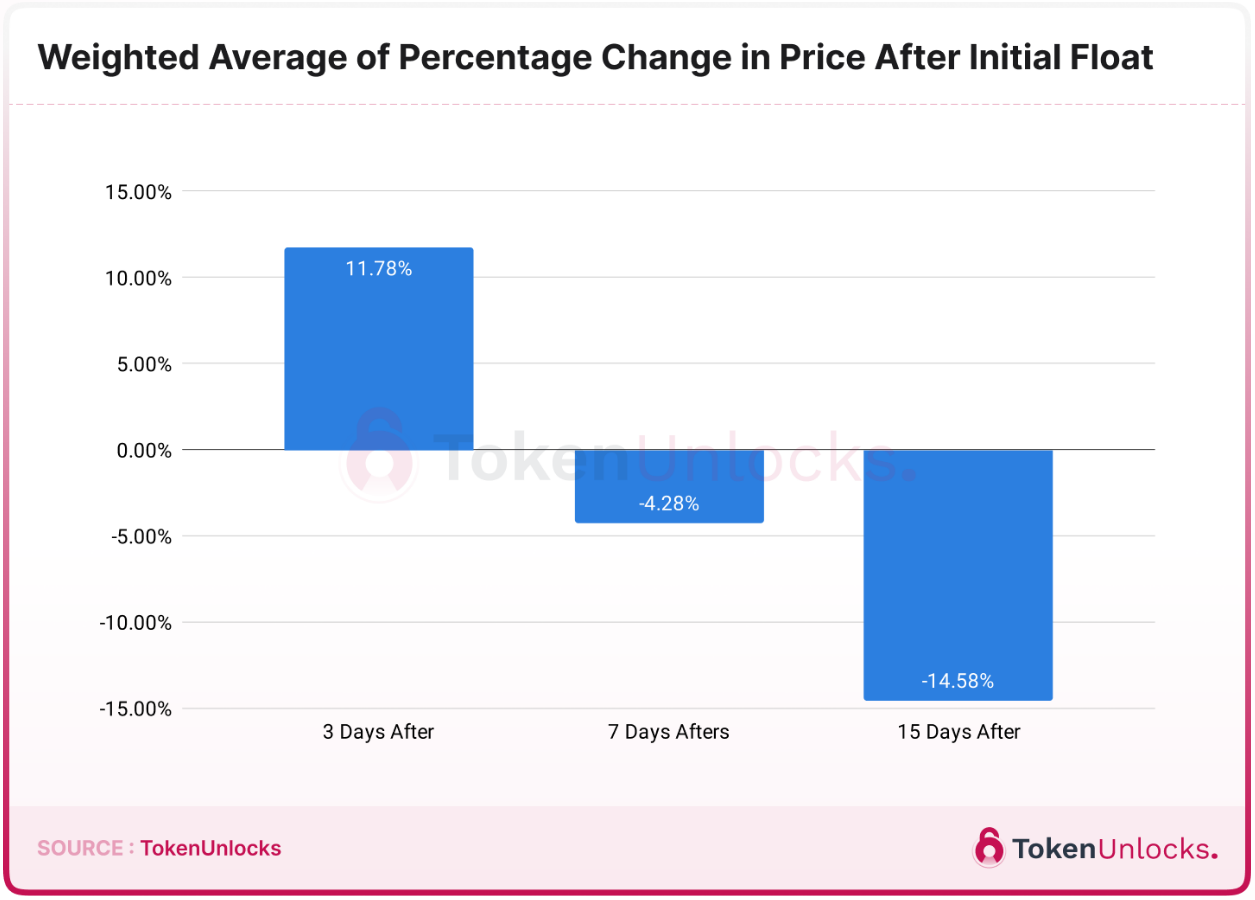
The table below shows the collected data regarding the initial float (sorted by date). To specify whether a project commenced during the bullish or bearish market, we've documented the launch date of each project. For this determination, we consider the commencement of the bull market beginning in early 2021, marked by Bitcoin's attaining a

[13] Initial Float - refers to tokens that has been unlocked at the project's launched

new high, while the date of Terra's collapse[14] indicates the onset of the bear market. Furthermore, aside from the price change following the project's launch, we've gathered the initial float amount to compute the ratio of the initial float to the total supply, aiming to provide clarity on the initial float's size.

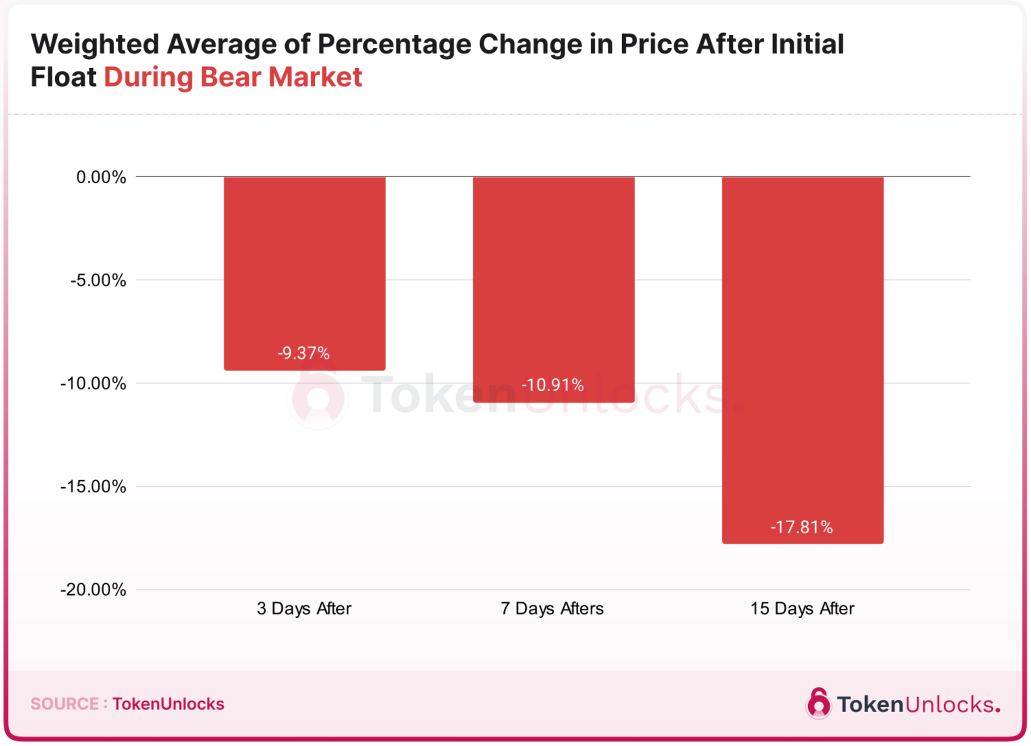
Key Findings

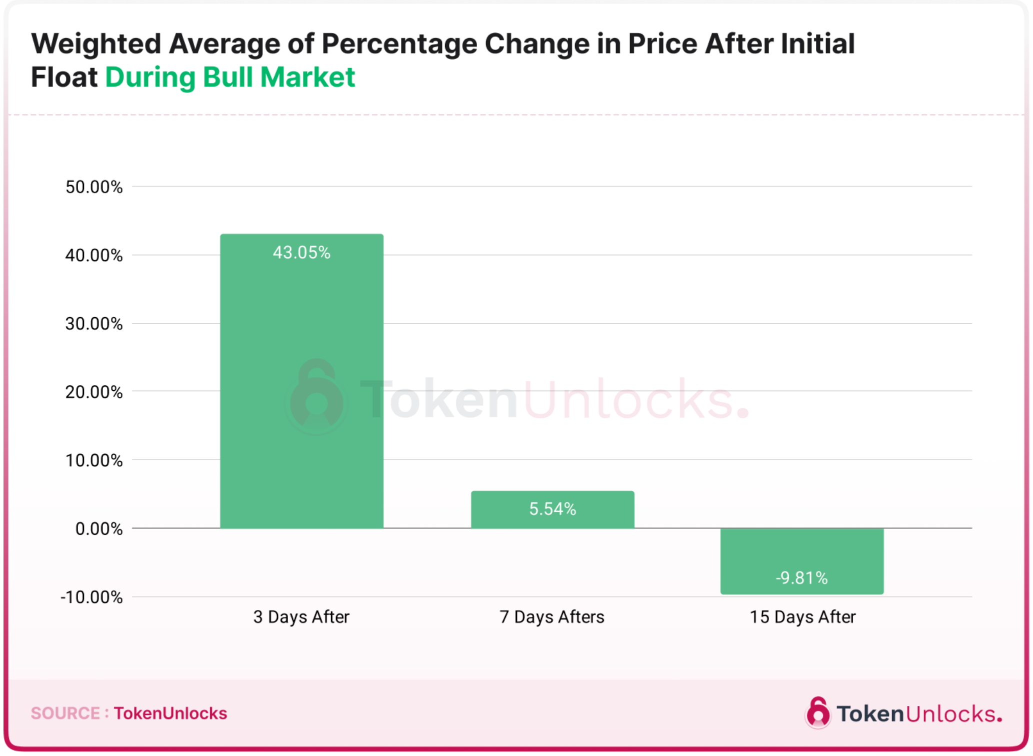
The chart displayed below illustrates the weighted average percentage change in price subsequent to the initial float, factoring in the size of the initial float (initial float to total supply ratio). The data collected post-launch indicates a price surge of approximately 10% within the first three days. However, after seven days, the price typically drops to about 4% below the launch price, further declining to approximately 14% below the initial price after 15 days.



[14] The event in May 2021 when the Terra blockchain was attacked, disrupting the Terra-owned algorithmic stablecoin, Terra USD (UST). This incident led to a market-wide dip of approximately 30%, measured by the total crypto market capitalization.

Similarly, in a bull market, the data indicates a substantial surge in price, with an increase of over 40% within three days after the project launch. Seven days post-launch, the price remains approximately 5% higher than the launch price. However, after 15 days, it tends to drop to nearly -10% compared to the launch price.





In the bear market, as everyone could guess, the data shows that the price dropped below the price at launch date for all three, seven, and fifteen days with the maximum drop in price being nearly 18% compared to the launch price.

Conclusion

Among 15 types of projects, most allocate to Community & Other, supporting decentralization theory. Specific projects like bridge-type protocols need more allocation to Reserved due to higher reserve needs. Private Investors, in the DEX Aggregator genre, also receive attention, representing venture capitalists contributing to project credibility. Notably, no genre allocates the most tokens to Founders/Team or Public Investors.

> ***"Regarding the price impact for each standard allocation, the Private Investors' allocation shows the highest level of price gain after unlocking, reaching up to 34.5% when compared to the price at the unlocking date, and it also has the largest unlocked size".***

The second-largest unlocked size is Community & Other, with the price action both before and after the unlocking date being higher, especially after unlocking, which has notably increased by about 1 time compared to before unlocking.

> ***"The worst performance after unlocking is observed in the Public Investors' allocation, with a maximum price decrease of 3.8%".***

Last but not least, the price impact after the initial float is mixed, with both gains and losses. However, when considering the size of the initial float and the market conditions at the project's launch (during a bull or bear market), the data shows the following:

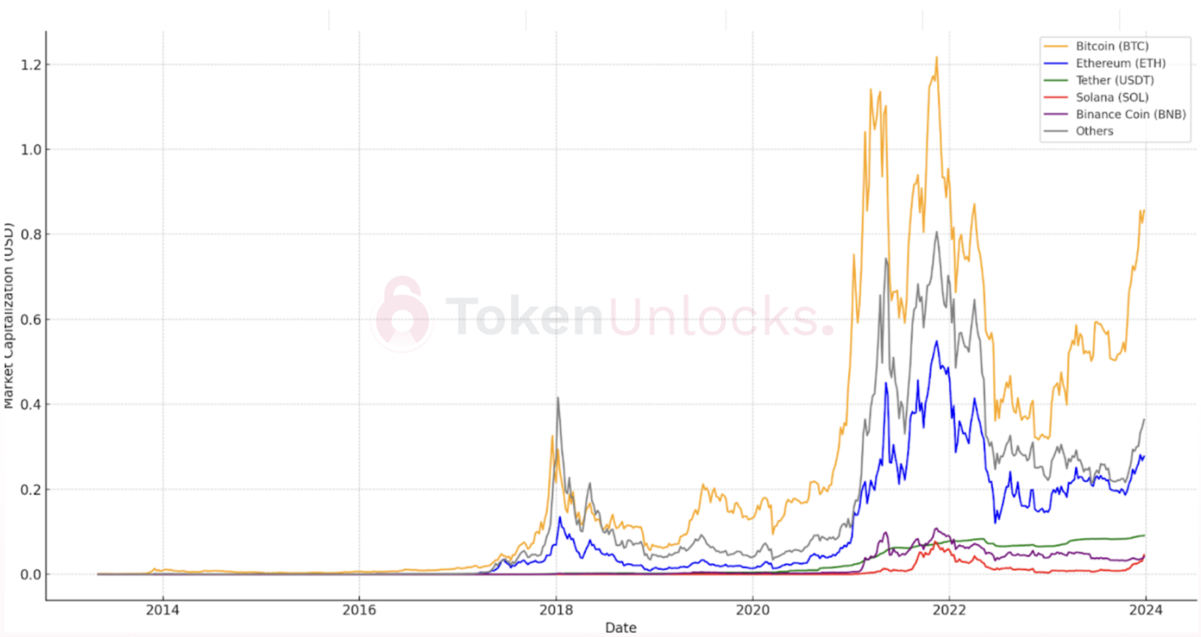
During a bull market, the price after the initial float for 3 days experiences a significant high, with a gain of more than 40%, but then starts to decrease until 15 days after the initial float, reaching a level lower than the initial float date.

On the other hand, launching a token during a bear market is challenging, as indicated by the data showing that the price after the initial float is lower than the initial float date and continues to decrease even further.

Numbers and charts provide the quantitative data for 2023, but to grasp the full picture of last year and anticipate what may happen in 2024, we need qualitative insights. Let's examine the significant events and developments that shaped 2023.

Timeline and Trend

Cryptocurrency Market Capitalization Over Time (in USD)



SOURCE : TokenUnlocks

TokenUnlocks.

Notable Events of 2023

The cryptocurrency market experienced a substantial dip, with the total market capitalization retracting to just around $800 billion by November 2022. This represented a moment of consolidation within the industry, a recalibration following exuberant highs. However, resilience is a hallmark of this sector, and the subsequent recovery to around $1.65 trillion reflects a robust comeback. This resurgence was propelled by several factors, including an influx of innovative blockchain projects, more widespread institutional engagement, and a growing public acceptance of digital currencies as both an investment vehicle and a technological breakthrough.

Since November 2023, Bitcoin has maintained a dominance of over 50%, underscoring its status as the anchor of the cryptocurrency market. This enduring dominance points to Bitcoin's perceived stability and reliability in the eyes of many investors. Meanwhile, the growth of altcoins such as Ethereum or Solona, which have seen significant development with updates like Ethereum's Shanghai, illustrates a diversification in investor interest. This includes a pivot towards projects with strong fundamentals, clear use cases, and sustained development, which are increasingly viewed as viable complements or alternatives to Bitcoin within investment portfolios.

Significant Occurrences:

- **Ordinals (Jan 2023):** A notable trend in the Bitcoin network has been the introduction of Ordinals, a protocol that allows for the inscription of images and other data directly onto individual satoshis (the smallest unit of Bitcoin). This innovation has opened new possibilities for Bitcoin, extending its use beyond just a currency to include aspects of digital art and collectibles.
- **Emergence of New Layer-1 Blockchains (Early 2023):** The projects, Aptos and Sui, developed by former Meta employees, have gained attention. These blockchains utilize innovative technologies such as the parallel engine and Move[15] programming language. This has led to a noticeable increase in the use of DEXs, driven by lower gas fees and reduced barriers to entry, highlighting a shift towards decentralized trading platforms.
- **Shanghai Upgrade (April 2023):** The upgrade was executed in early 2023, marking a significant milestone by enabling the withdrawal of staked ETH from the Beacon Chain. This upgrade transformed Ethereum into a fully operational proof-of-stake chain, likely boosting staker confidence by mitigating technical risks. With the upgrade, only a limited number of validators can withdraw their ETH daily, impacting Ethereum's liquidity and staking dynamics.
- **Rising Stablecoin Influence (May-July 2023):** 2023 spotlights the dual emergence of innovative stablecoins like GHO[16] and crvUSD[17], and an overall increase in stablecoin dominance within the cryptocurrency market, underscoring a shift towards stability and functional diversity.

Other notable focuses in 2023

- **Blockchain-Based Social Media (SocialFi):** The number of unique wallets interacting with social dApps, such as Friend.tech (August 2023), increased sharply, indicating growing interest in blockchain-based social media applications.

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[15] The Move language, originating from Facebook, is used for secure smart contracts on the Diem blockchain.

[16] A decentralized, fully backed, and transparent multi-collateral stablecoin native to the Aave Protocol.

[17] A USD-pegged stablecoin developed by Curve Finance

- **Investment and Security Focus:** There was a substantial investment in blockchain infrastructure and Web3 startups. Security became a focus following hacks and exploits, with a significant amount of money lost to crypto hacks.
- **Global Regulatory Shifts:** There's a growing trend of tightening regulations within the cryptocurrency sector worldwide. This movement is geared towards enhancing consumer protection, preventing financial crimes, and ensuring the stability of the financial market.
- **Compliance Emphasis:** A significant increase in regulatory requirements, particularly in anti-money laundering (AML) and know your customer (KYC) policies, is evident. This change mandates cryptocurrency businesses to adopt more stringent verification processes and transparent operational protocols, reshaping the crypto industry's approach to compliance and governance.

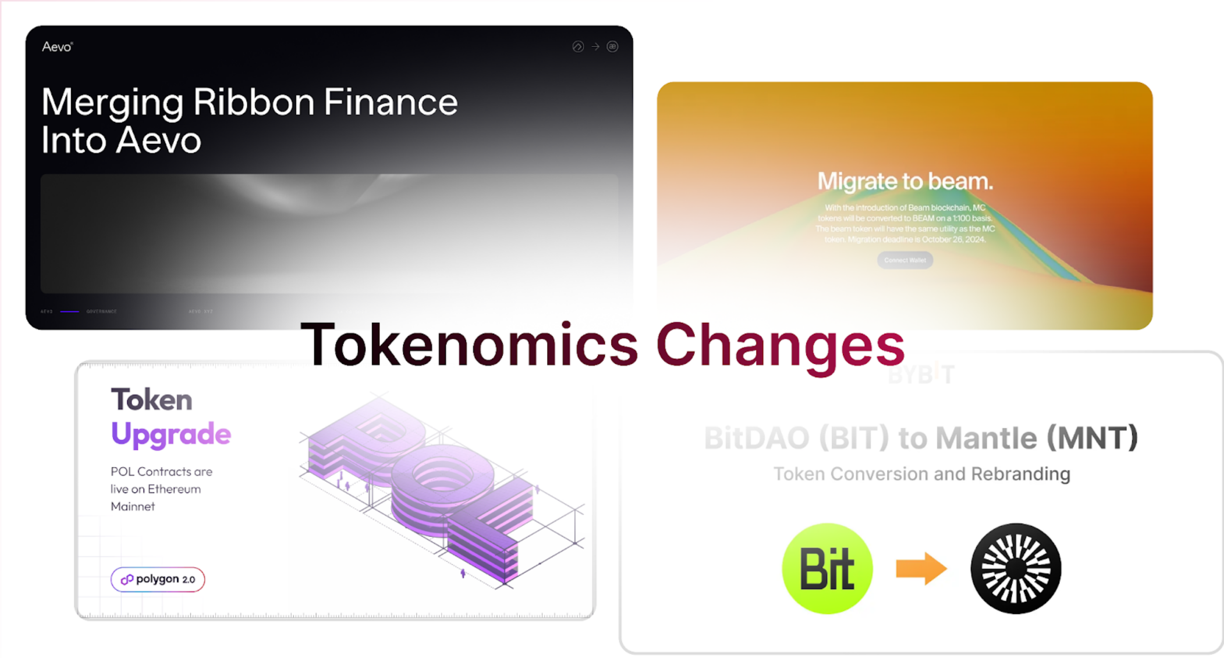
Notable Tokenomics Changes

The tokenomic landscape of 2023 has been a process of continuous improvement and growth, utilizing innovations made the year before to construct more robust, effective, and comprehensive economic frameworks.

Unlock Schedule Changes

A notable tokenomic shift are the unlocks for dYdX, which primarily affect the allocations of private investors and potentially indicate a price impact. In addition, as a result of a governance vote conducted within the dYdX community, liquidity incentive allocations were reduced and redirected to the Treasury. This strategic move reflects a mature approach to token management and aligns with the broader 2023 trend of optimizing token utility and governance.

Tokenomics Changes



Token Rebranding Initiatives

2023 has also been a year of significant pivoting and rebranding. The largest DAO treasury in the cryptocurrency space, BitDAO, has been rebranded as MANTLE to offer a layer 2 solution. Ribbon, a Paradigm-backed options platform, has been transformed into Aevo, an inclusive platform for trading perpetual contracts, options, and strategies. One of the largest GameFi initiatives, MeritCircle, had an upgrade to become Beam, a specialized blockchain gaming network. Precisely, Matic has gone through a rebranding to Polygon (POL) and has implemented an inflation model.

These rebrandings are strategic pivots in the positioning and market perception of these tokens. Each redesign has significant effects on the token's market strategy, community involvement, and utility, following the crypto industry's current trend of innovation and adaptability.

Conclusion

These milestones or shifts not only signify technological advancements but also mark the industry's growing maturity. They reflect an ecosystem that is becoming more diverse, adaptable, and integrated with broader financial and technological frameworks.

In summary, the past few years in the cryptocurrency industry have been characterized by significant technological advancements and shifts in the ecosystem of cryptocurrencies. These internal and external switches represent pivotal moments in the industry's journey towards greater maturity and broader acceptance.

Now that we have an understanding of the broader developments in crypto space, let's explore the specific pillars of the crypto space that shaped the landscape during this period.

Advancements in Key Sectors

We'll be delving into the changing trends and perhaps new opportunities that have been setup by new innovations, use cases, and breakthroughs that have emerged amidst the troubling time throughout the bear market since 2022.

In this section, we delve into the key categories that define the crypto landscape in 2023. These encompass DeFi, Staking Mechanisms, Real World Assets (RWAs), Stablecoins, SocialFi, GameFi, Layer 2/Rollups, and Development in Token Engineering. These foundational elements are witnessing substantial development, with the potential for further evolution in 2024.

We extend special thanks to our partners Economics Design, M6Labs and Token Engineering Academy for their invaluable contributions to this chapter. See below for their respective contributing chapters:

Economic Design

- Staking Mechanism
- SocialFi Token
- GameFi Token
- Real World Asset (RWA)

M6 Labs

- Stablecoin
- Defi Token
- Layer 2 Rollups

Token Engineering Academy

- New design, consideration, and Token Design Tools

Staking Mechanism

Liquid Staking

TVL in Liquid Staking Across Time

SOURCE : Data from Defillama

In 2023, Liquid Staking emerged as a dominant force in the Decentralized Finance (DeFi) sector with a staggering TVL of over $33 billion - as of January 22, 2023. This surge is attributed to the innovative integration of traditional staking methods with the dynamic DeFi ecosystem, significantly enhancing the growth and versatility of blockchain technologies.

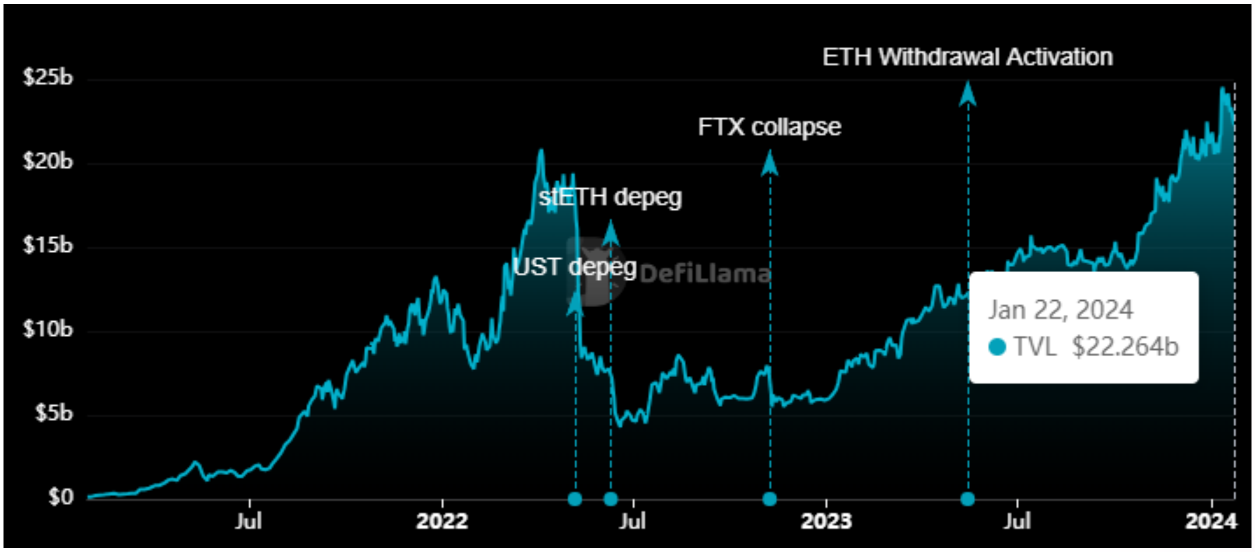
Liquid Staking represents a significant advancement in the blockchain sector, offering an innovative solution to the traditional challenges associated with staking digital assets. At its essence, liquid staking involves the issuance of Liquid Staking Tokens (LSTs), which are tradable assets representing the user's staked cryptocurrencies. This process allows users to retain liquidity of their assets while still participating in the staking process.

The relevance of liquid staking in the blockchain ecosystem cannot be overstated. Traditionally, staking cryptocurrencies often meant locking up assets for a period, during which they could not be traded or used in other DeFi applications. This illiquidity posed a considerable drawback for many, especially those seeking to maintain flexibility in their investment strategies. Liquid staking addresses this issue by providing users with LSTs that can be traded or used across various DeFi platforms, all while their underlying assets are staked in the network.

Furthermore, liquid staking democratizes access to the staking process. Managing validator nodes, which is a requirement in traditional staking models, can be technically complex and often requires substantial investment. Liquid staking eliminates this barrier, making it feasible for a wider audience to participate in and benefit from staking. By simplifying the process and removing technical complexities, it opens up opportunities for yield generation to a broader base of cryptocurrency users.

Lido Finance - Project Spotlight

Lido Finance stands as a pivotal player in the Ethereum staking landscape, renowned for its liquid staking solutions. By enabling users to stake ETH and receive stETH (staked Ethereum) as a receipt token, Lido facilitates earning additional yields through DeFi farming and liquidity provision. This model of liquid staking offered by Lido represents a significant innovation in the realm of blockchain asset management, enhancing liquidity and opening up new avenues for yield generation.



However, Lido's prominence is not without its challenges, particularly concerning security and centralization. As Lido accrues a substantial portion of the total ETH staked, it raises critical questions about the impact on Ethereum's foundational principle of decentralization. The platform's growing influence in the Ethereum ecosystem has sparked concerns about its potential 'too big to fail' status, which could pose significant risks to Ethereum's security. This is especially pertinent in the context of blockchain's vulnerability to concentration risks, such as the scenarios of a '51% attack' or a '66% attack', where a single entity's dominance could undermine the network's integrity.

These centralization concerns are critical, as they touch upon the very ethos of blockchain technology, which is predicated on decentralization and distributed trust. Addressing these issues is crucial for maintaining the credibility and sustainability of liquid staking protocols like Lido. Potential solutions, such as setting limits on the concentration of stakes per provider and implementing a dual-governance system to balance the voting rights of LDO holders and stETH holders, are under discussion within the community. However, consensus on the most effective approach to mitigate these risks remains to be achieved.

The situation surrounding Lido Finance underscores the delicate balance between innovation and the foundational principles of blockchain technology. As the platform and similar liquid staking solutions continue to evolve, the community's response to these challenges will be instrumental in shaping the future landscape of Ethereum staking and the broader DeFi ecosystem.

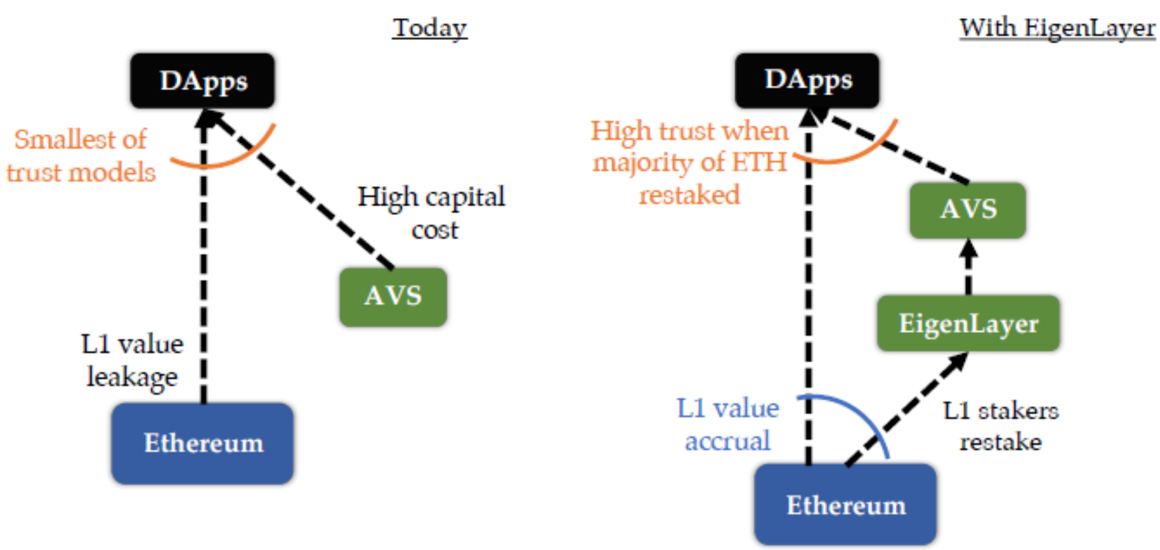
Restaking

One of the biggest challenges for new projects is bootstrapping ecosystem security due to large financial requirements and building trust within the community. Restaking is shaping up as the next significant trend in blockchain security for 2023. EigenLayer's platform for restaking is particularly notable for extending Ethereum’s pooled security from ETH stakers to other blockchain systems. This innovation allows developers to bootstrap new networks without creating their own communities of network validators, marking a significant shift in the crypto landscape.

Restaking reuses and repurposes ether (ETH) tokens staked on Ethereum for smaller networks and applications. This process helps reduce the high costs associated with setting up new projects, as developers don't need to rally their own validators. Restaking through EigenLayer's techniques extends Ethereum’s decentralized trust to other systems, allowing the creation of diverse protocols, including off-chain ZKP[18] verification protocols and novel oracle mechanisms[19].

Eigenlayer - Project Spotlight

EigenLayer is frequently credited as a pioneer of restaking. It enables the staking of Lido stETH, Rocket Pool ETH (rETH), Coinbase Wrapped Staked ETH (cbETH), and many others. The protocol has seen significant demand, with its total value locked quadrupling to about $1.14 billion shortly after increasing its restaking capacity for liquid staking tokens. This surge in TVL highlights the enthusiasm of crypto users towards EigenLayer and the potential of restaking in general. In practice, restakers (stakers on Eigenlayer) will have the option to reuse their staked ETH to validate and secure additional applications. In exchange for their service provided by their locked funds is rewarded through financial incentives. In other words, while restakers have the opportunity to earn yield from securing multiple dApps, they are also subject to different penalty mechanisms.



Restaking represents a fundamental shift in how blockchain security and trust are leveraged. By allowing the reuse of staked ETH, it creates a more efficient and cost-effective way for new projects to establish security. However, there are risks

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[18] ZKP - A method where the prover shows the verifier that a given statement is true without revealing extra information.

[19] novel oracle mechanisms - collects price data directly from exchanges, market makers, and trading firms.

associated with restaking, such as the potential for slashing[20] penalties and conflicts of interest that might affect the consensus on Ethereum. These concerns need careful consideration as restaking continues to evolve and gain traction in the crypto ecosystem.

[20] Slashing is a sanctions applied to proof-of-stake (PoS) blockchains aimed at discouraging dishonest and malicious behavior among validators.

SocialFi Token

SocialFi, emerging at the intersection of social media and decentralized finance (DeFi), seeks to address the fundamental flaws inherent in traditional social media platforms. Today's social networks, dominated by centralized data control, offer limited avenues for creators to monetize their content and often rely heavily on advertising models. These limitations stifle user empowerment and financial opportunities for content creators.

SocialFi, a fusion of 'social' and 'finance' in the Web3 domain, represents a paradigm shift by introducing a decentralized framework for social media. This innovative approach empowers users by placing control and ownership in their hands, rather than in the hands of a few centralized entities. It tackles the core issues of Web2 social media, such as the concentration of data control and restrictive monetization options, by enabling creators to directly monetize their online presence and influence.

In the SocialFi ecosystem, content creators and influencers are at the forefront, empowered to take charge of their data and creative output. This model contrasts sharply with the indirect monetization strategies of traditional social media, offering new, direct income streams. By converting social influence into economic value, SocialFi platforms present a transformative opportunity for users to benefit financially from their online engagement.

Tracing the evolution of SocialFi, Bitclout stands out as an early example. Launched as a pioneering blockchain-based social media platform, it introduced the concept of celebrity and tech figure tokens. Despite its innovative approach, Bitclout grappled with challenges such as unauthorized token representation and technical limitations in integrating on-chain social interactions. These issues culminated in its eventual decline, but its role in popularizing social tokens—a key component in current SocialFi applications—remains significant.

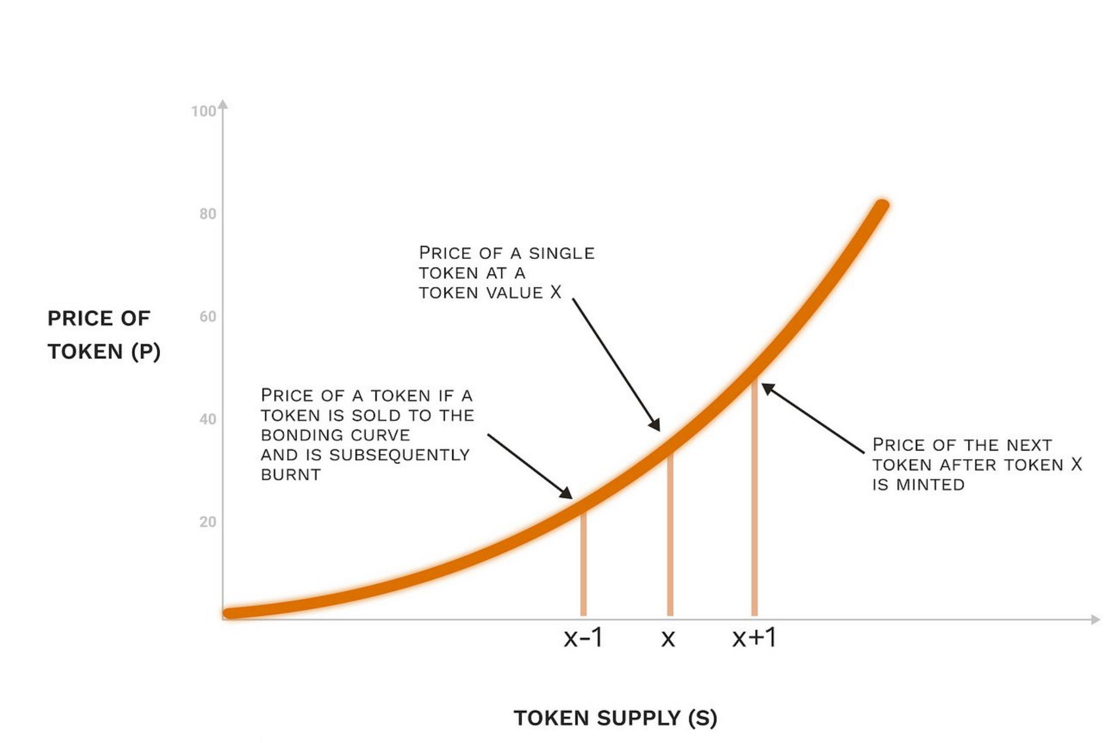
The resurgence in SocialFi's popularity is largely credited to the advent of Friend Tech in August 2023. In contrast to Bitclout's speculative focus, Friend Tech brought a tangible social component to the table: 'Keys.' These serve as a mechanism for accessing exclusive content, representing a leap forward in integrating social and financial aspects within a user-friendly platform.

Friend.tech - Project Spotlight

Friend Tech is a project in the SocialFi landscape, offering a revolutionary way for users to interact with content creators, especially those active on platforms like Twitter. Unlike traditional social media, where interactions are largely passive and monetization is ad-driven, Friend Tech introduces an engaging, finance-based model of interaction. This approach not only enhances user engagement but also aligns financial incentives between creators and their audience.

At its core, Friend Tech allows users to purchase and trade "shares" in Twitter content creators. This concept is akin to investing in a stock, where buying shares in a creator, such as Vitalik Buterin, grants exclusive access to a private chat group. This group is only visible to the share-holder and other investors, fostering a closer, more interactive community around a creator. The idea is to transform the typically distant relationship between fans and creators into something more tangible and mutually beneficial.

The pricing mechanism for these shares is governed by a bonding curve. This means each new share purchase increases the overall price, while selling a share decreases it, effectively managing the asset's price and supply dynamically. The formula employed is: (Number of shares ^ 2) / 16,000 * 1ETH



As a result, the value of shares fluctuates based on community interest, mirroring the principles of supply and demand in a market economy. Moreover, a 10% transaction fee on each share purchase or sale is split between the platform and the creator, ensuring that both parties are incentivized to participate. This system allows creators to earn revenue without necessarily selling their own shares.

Friend Tech represents a significant departure from the Web2 model of social media. While Web2 platforms primarily monetize through ads and indirect methods, Friend Tech integrates direct financial transactions into the social experience. It leverages Web3 technologies to create a new realm of interaction, where the line between content consumption and investment blurs. This approach, however, attracts a mix of genuinely interested fans and financially motivated investors, creating a unique dynamic within the platform. It's a model that exemplifies the potential of Web3 in redefining social media interactions, offering a blend of engagement, monetization, and community building.

Conclusion

Looking to the future, SocialFi is poised for continued evolution and expansion. As the technology matures and more users become accustomed to the mechanics of Web3, we can expect to see further innovation and refinement in these platforms. However, this growth trajectory is not without its challenges. Issues such as regulatory compliance, platform governance, and the balance between financial speculation and genuine social engagement will require careful navigation. Additionally, the sustainability of these models in the long term, especially considering the speculative nature of some aspects of SocialFi, will be a crucial factor in their lasting success.

As SocialFi progresses, it's essential that developers, users, and regulators collaboratively address these challenges to ensure a healthy, equitable, and vibrant ecosystem. The potential of SocialFi to redefine social media and online communities is immense, but realizing this potential will depend on the careful management of both its innovative capabilities and inherent risks.

GameFi Token

Blockchain gaming has strong potential to bring mainstream adoption to cryptocurrencies and other blockchain-based assets. The 3 billion population of gamers worldwide provides a large potential market to tap into, provided that the quality of a web3 game is high enough to attract them. Poor user experience and high transaction costs had previously hampered web3 gaming growth outside of a web3 native audience, but that barrier is now lowered with a variety of solutions abstracting away the onboarding complexities and newer chains or layer 2/layer 3[21] reducing transaction costs.
While these factors have a strong ability to get more people on-boarded to having crypto wallets, giving them the potential to interact more with crypto, it can also drive their motivation to continue to engage with the industry. Web3 gaming showcases the benefits of item ownership and gamers are already an audience that has intrinsic demand for virtual assets, allowing for an easier understanding of the value of having agency over their virtual goods.

The Asia-Pacific region is becoming a major center for Web3 game development, with 40% of developers hailing from that region, followed by North America with 30%, according to the 2023 State of Web3 Gaming report from Game7. Forces driving this include government support, a significant gaming population, greater adoption of blockchain, and relative openness of gamers in the APAC region to new monetization strategies.

Fully on-chain games[22] have seen growing interest within the web3 gaming community, however this category remains in the minority. Business models, including viable strategies to accrue value to a token, are mostly still being explored. Despite technical limitations and ongoing development, fully on-chain games established themselves as a distinct and captivating category, hinting at a future where games exist not just as software, but as self-governed virtual nations.

The web3 gaming sector is likely to provide a variety of token investment opportunities in the near future. Many teams have raised money within the past several years for web3 games, with an intention to release a token, but have not done so yet. While a component of this stems from the long development timelines and attempting to align with game

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[21] Layer 3 - an additional layer built on top of a layer 2 to further enhance its functionalities or security
[22] Fully on-chain games - a blockchain is used instead of a centralized game server, so both assets and all components of a game's state are recorded on-chain

launches, many of these delays can be attributed to a desire to delay the TGE[23] to a bull market. With improved market sentiment in crypto, and particularly in gaming tokens in late 2023, more teams are likely to consider releasing their token.

Echelon - Project Spotlight

Echelon Prime Foundation, the DAO behind Parallel, released their PRIME token in March of 2023 and now stands as one of the highest market cap gaming tokens with a 2023 release. The PRIME token is meant to power an ecosystem of games, starting with Parallel TCG and further expanding with other games like Parallel Colony. This allows for direct value accrual from game-specific spending across multiple titles, unlike many tokens tied to a single game or to a more general ecosystem.

[23] TGE- Token Generation Event is the point at which a given currency is initially created and is generally used as a reference point for cliffs and vesting

$PRIME price relative to BTC

SOURCE : TokenUnlocks

Conclusion

Web3 gaming is rapidly approaching a true test of its potential. Experienced teams have been building games for several years, with many approaching launches in 2024. This should bring about a rejection of the assumption that Web3 games are low quality and only about the financial incentives. What remains to be seen is how both mainstream and web3 native gamers will interact with a new class of games with fun gameplay and various types of real value components. The Web3 attributes of these games have the potential to improve player retention and have a positive psychological impact on how connected players feel with that game and its community. At the same time, teams need to learn from previous Web3 games and avoid ponzi-like economic structures that intentionally or unintentionally burn players in the long run.

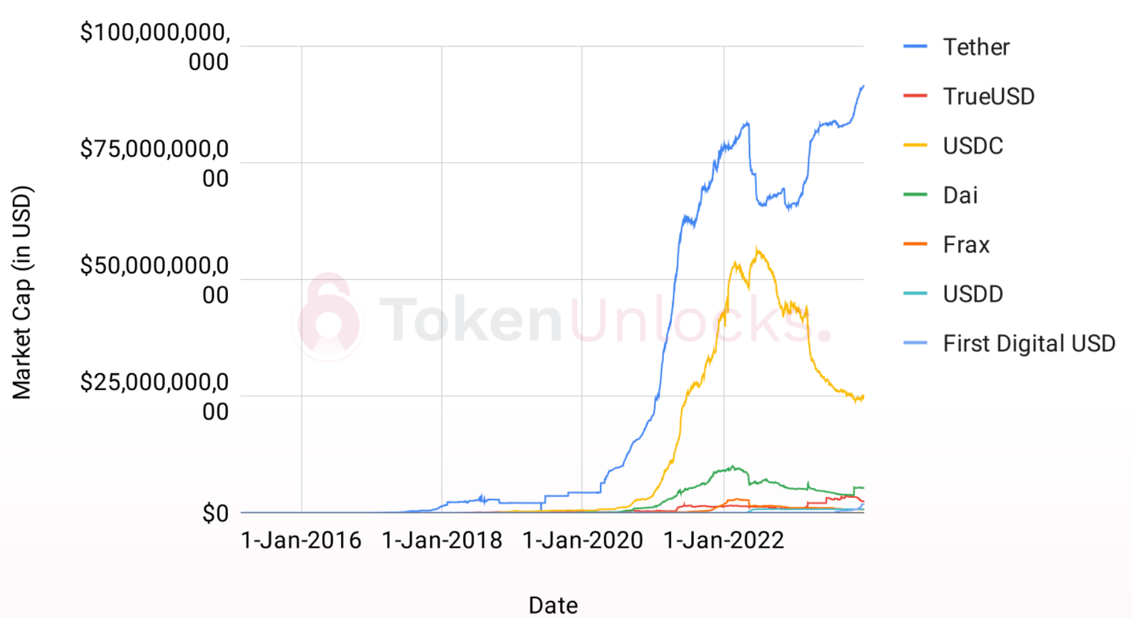
Real World Assets (RWAs)

In the world of cryptocurrency, a significant transformation is underway - the integration of blockchain technology with real-world assets. Real-world assets (RWAs) are gaining traction in the world of Decentralized Finance (DeFi) and are expected to grow significantly in the coming years.

Real World Assets (RWAs) Defined

Real-world assets represent physical or real-world assets that are digitally tokenized on the blockchain. This encompasses tangible assets like gold, real estate, and art, as well as intangible assets such as bonds, stocks, and carbon credits. RWA platforms are reshaping the way users interact with real-world assets, offering a more accessible, transparent, and efficient alternative to traditional trading methods. Stablecoins, which represent the most common use case of real-world assets (RWAs), have gained significant market share and adoption, with coins like USDC, USDT, TUSD, and PYUSD. This industry has a total valuation of $130 billion. In this report, we will focus on newer RWA use cases.

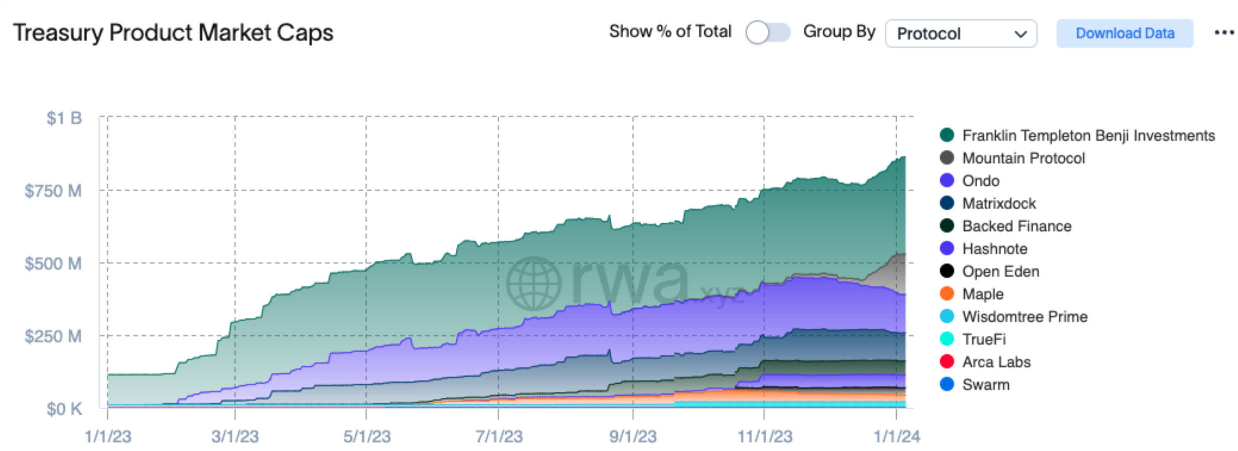
Stablecoins Market Cap Across Time



SOURCE : Data from Coingecko

RWAs are still in the early stages of development, but this category has seen tremendous growth in 2023 in terms of adoption and TVL, and the trend should continue in 2024. According to Defillama, RWAs are the 6th largest sector, ahead of Yield protocols, derivatives, gaming, or synthetics. According to a report by Nansen, the Real World Assets (RWA) Price Index, which tracks the performance of 22 RWA protocols has outperformed ETH and BTC in terms of growth in adoption and TVL in 2023, with significant outperformance in January and April.

A notable development in the Real World Assets (RWA) sector in recent months is the emergence of tokenized U.S. Treasuries. U.S. Treasuries represent sovereign debt issued by the U.S. government and have long served as a benchmark for risk-free assets in traditional financial markets. With the current increase in interest rates, treasury yields have consistently risen, now surpassing DeFi yields. In the treasury market, various protocols and firms play pivotal roles, including names such as Franklin Templeton[24], Ondo Finance, and Matrixdock, among others.



Source rwa.xyz

RWA Examples - Project Spotlight

Real-world applications in real estate, capital and debt markets, and commodity investments illustrate the practicality of RWAs. Giants Like Franklin Templeton (through their retail app: Benji) have shaken this industry by adopting RWAs and driving

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[24] Franklin Templeton - A multinational holding corporation headquartered in the United States, collectively known as Franklin Templeton along with its subsidiaries.

institutional interest, on another hand Projects like Lofty, Homebase, and RealT enable fractional ownership in real estate, while Platforms like Centrifuge and Maple digitize credit investments, offering stable collateralized yield through blockchain technology. Pax Gold addresses commodity investments by allowing secure investment in gold without physical storage concerns.

Capital and Debt Markets

Maple:

The Maple platform has facilitated over $3.175 Billion in loans since its launch. The platform has also seen a 250% increase in users over the past year. It is a platform that allows institutions to access capital through a decentralized corporate debt marketplace. It offers undercollateralized lending for institutional borrowers and income opportunities for lenders. The platform is powered by the Maple token (MPL), which is used for governance, sharing network fees, and insuring decentralized lending pools through staking. The token is available on the Ethereum and Solana blockchains. The tokenomics of MPL are set to be upgraded, with a proposal for a tokenomics upgrade expected to be submitted soon. The upgrade aims to issue new tokens over three years to recapitalize the Maple Treasury and support the project's growth. The current circulating supply of MPL is 3,658,989 out of a maximum of 10,000,000.

Centrifuge:

Centrifuge has facilitated over $495 million in credit investments since its launch. The platform has also seen a 149% increase in users over the past year. It is a decentralized lending platform that focuses on real-world asset (RWA) lending. It has grown to become one of the largest blockchain-based RWA lending platforms. The platform allows users to tokenize non-crypto assets, such as mortgages, invoices, or consumer credit, and use them as collateral for loans.

Franklin templeton benji Investments has a market cap of $331,123,349. Allowing its investors to invest in tokenized securities and T-Bills[25]. This represents a growth of 700%. The tokenized US treasury market, including the Franklin OnChain U.S. Government Money Fund, has grown to $650 million in size since the beginning of the year. One share of the Franklin OnChain U.S. Government Money Fund is represented by one BENJI token, which is available on the Stellar and Polygon blockchains. The fund invests over 99% of its

[25] T-Bills: Treasury Bills, or T-bills, represent short-term debt obligations by the US Treasury. Because the U.S. government backs them, they are considered extremely low-risk, usually they have relatively low returns except lately, since interest rates peaked.

assets in US government securities, cash, and repurchase agreements collateralized by such assets, aiming to maintain a stable $1 share price. The tokenized US treasuries are seen as a good hedge against decoupling risks and are considered crucial for modern investors' portfolios. The tokenized treasury market is expected to continue growing, with some experts predicting it could easily reach ten times the current market size.

Real Estate

Lofty:

Lofty has facilitated over $30 million in real estate transactions since its launch. The platform has also seen a 300% increase in users over the past year.
RealT: RealT has over $104 million in TVL tokenizing real estate properties since its launch. The platform has also seen a 150% increase in users over the past year.

Commodity Investments

Pax Gold:

Pax Gold has facilitated over $436 million in gold investments since its launch. The platform has also seen a 100% increase in users over the past year.

These few examples show how attractive this industry is. However, it is essential to consider the challenges and obstacles associated with integrating real-world assets into the blockchain, such as legal and regulatory compliance, valuation intricacies, and governance concerns.

Conclusion

The integration of real-world assets into the crypto space signifies a substantial shift towards a more inclusive and accessible financial landscape. Opportunities abound, ranging from investing in art to fractional ownership of real estate and commodities. The ongoing journey is laden with possibilities, presenting an exciting prospect for the crypto world.

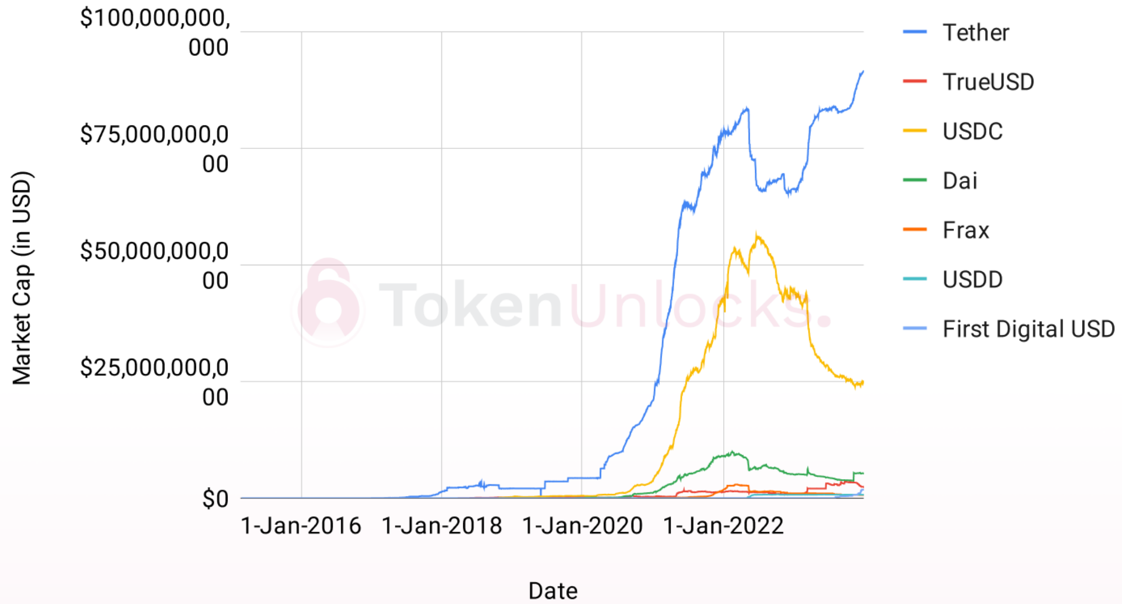
Stablecoin

Moving on from the Terra debacle into the mainstream

2022 marked a watershed moment for stablecoins. TerraUSD (UST), one of the world's largest stablecoins, imploded due to inadequate peg mechanics, leading to a widespread market capitulation. Subsequently, algorithmic stablecoins, which lacked sufficient collateral, were virtually eliminated from the market.

In 2023, the stablecoin market has undergone significant transformation, marked by enhanced regulatory focus and technological advancements. The United States, leading the regulatory charge alongside the UK, EU, Japan, and Singapore, has been instrumental in shaping a more structured approach to stablecoin governance.

Stablecoins Market Cap Across Time



SOURCE : Data from Coingecko

TokenUnlocks.

The stablecoin market faced hurdles, such as the temporary de-pegging of major stablecoins like USDC and DAI. Even so, one of the biggest events was Binance's decision to cease the minting of BUSD following regulatory pressure[26]. This was a particularly big deal since, at one point in 2023, they were actually gaining the market share.

These events tested the market's resilience, but the endorsement of alternatives like TUSD and the sustained trust in USDT despite regulatory challenges reflect the market's adaptability. This response underscores a shift towards greater regulatory compliance and transparency in the stablecoin sphere.

Project Spotlight

#	Coin	Price	24h Volume	Exchanges	Market Capitalization	30d	Last 30 Days Circulation
1	Tether USDT	$0.999816	$41,790,336,269	476	$91,124,493,924	3.2%	
2	USDC USDC	$0.999823	$11,108,965,097	434	$25,024,035,937	2.6%	
3	Dai DAI	$0.998989	$238,949,412	237	$5,314,135,882	0.3%	
4	TrueUSD TUSD	$0.999267	$226,037,432	59	$2,429,426,409	-25.6%	
5	First Digital USD FDUSD	$0.999578	$1,956,412,264	5	$1,794,294,170	164.1%	
6	BUSD BUSD	$0.997619	$664,187,919	114	$1,014,638,709	-42.4%	
7	USDD USDD	$0.990090	$14,450,319	22	$717,488,964	-0.7%	
8	Frax FRAX	$0.997616	$27,714,373	46	$647,655,456	-3.1%	
9	Tether Gold XAUT	$2,050.28	$9,385,494	23	$504,655,183	3.3%	
10	PAX Gold PAXG	$2,034.01	$9,516,985	36	$450,148,185	-2.4%	

Right now, the overall marketcap of the stablecoin market is at a little above $131.50 billion. With a $91.12 billion marketcap, Tether (USDT) dominates 70% of the market. Circle's USDC is a distant second with $25 billion.

crvUSD

Curve Finance launched the crvUSD stablecoin in 2022. crvUSD is a collateralized-debt-position (CDP) stablecoin, where users deposit collateral, potentially starting with ETH, to borrow crvUSD, similar to MakerDAO's DAI system. Its uniqueness lies in its innovative liquidation mechanism, the Lending-Liquidating AMM Algorithm (LLAMMA).

[26] The stablecoin faced regulatory scrutiny following the New York Department of Financial Services (NYDFS) directive in February, instructing Paxos to cease its issuance.

Unlike traditional liquidation processes, LLAMMA uses price bands to gradually liquidate collateral, selling portions for crvUSD as the collateral value falls. This approach reduces the risk of sudden liquidations, as enough crvUSD is gradually accumulated to cover the loan at potential liquidation points. Furthermore, if the collateral's value rises, crvUSD is converted back, maintaining a borrower-friendly, less volatile system.

In Closing

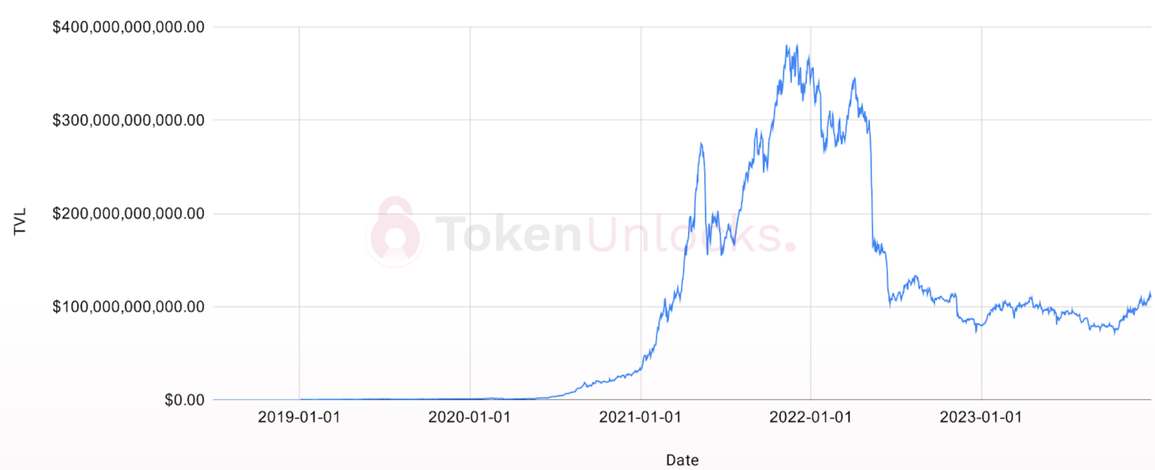
The importance of stablecoins in the broader crypto ecosystem is increasingly evident. They provide a critical link between traditional fiat and the crypto world, offering stability in an otherwise volatile environment. This role is amplified by their adoption in mainstream financial operations as major companies and financial institutions begin to leverage stablecoins for various transactions. As we move through 2023, the stablecoin market, balancing regulatory developments and market dynamics, remains a key driver in the evolution of digital finance, setting the stage for its future growth and integration into the global financial landscape.

DeFi Token

Decentralized Finance, or DeFi, has consistently been one of the hottest sectors in crypto.

For many, DeFi is the ultimate use case of crypto. Imagine decentralized and transparent financial instruments that allow you to earn a yield on your capital. In November 2021, the total value locked up in DeFi reached an all-time high of $176 billion. However, as the 2022 crypto winter[27] began, the TVL dipped to $39.25 billion before recovering to $52.22 billion, as of writing.

TVL in DeFi Across Time



SOURCE : Data from Defillama

TokenUnlocks.

The Rise of Liquid Staking

For most of 2023, the primary focus for Liquidity Providers (LPs) has been on capital preservation. Rather than increasing liquidity, there's been a trend toward optimizing the use of existing capital. This is why liquid staking has emerged as the dominant and most exciting narrative in the DeFi space.

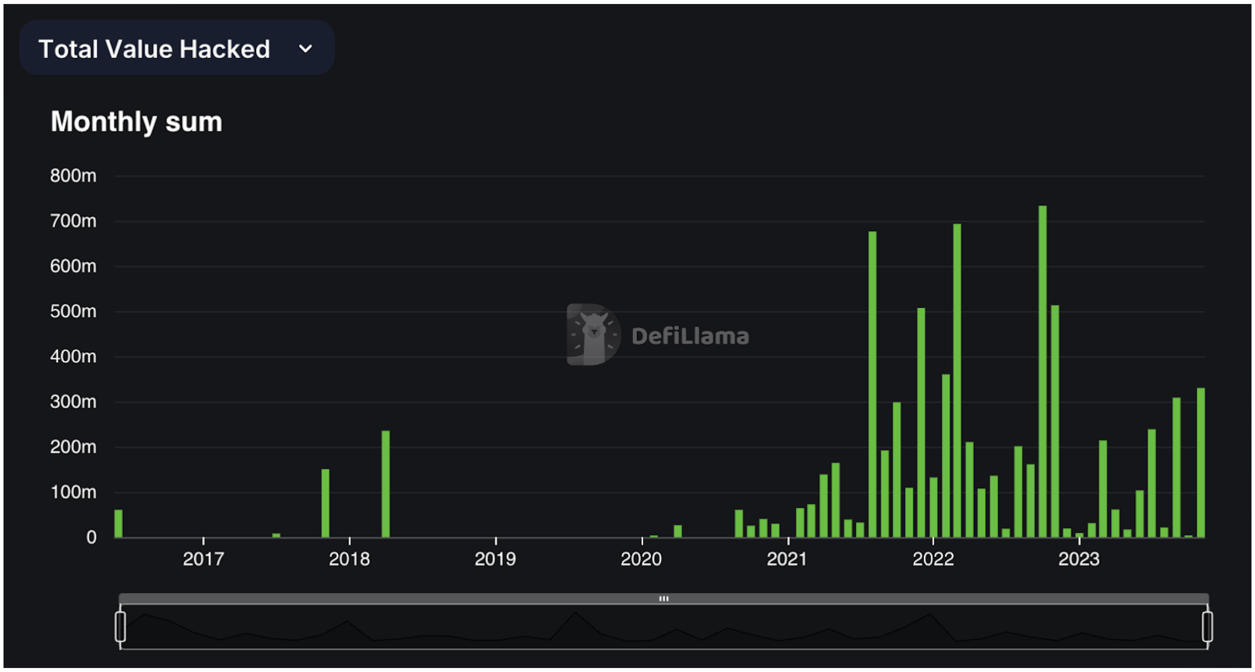
[27] Crypto winter: Extended period of falling prices and lower trading volume. The most recent one lasted 13 months, from Bitcoin's peak of $68,569 in November 2021 to a low below $17,000 in December 2022, reflecting a 75% decline.

It is the top DeFi category that has the most TVL combined which we have covered in the Staking Mechanism section.

DeFi hacks aren't slowing down

The DeFi sector in 2023 has continued to grapple with the persistent issue of security breaches, a challenge that significantly undermines the industry's credibility and growth. Despite the innovative strides in blockchain technology, the year has been marred by high-profile hacks, causing substantial financial losses and eroding trust among users and potential investors.

Notably, Chainalysis reports that DeFi protocols accounted for over 80% of all major crypto hacks in recent years, with 2022 alone witnessing over $3.5 billion stolen. This troubling trend persisted into 2023, with DeFiLlama documenting over $735 million lost across 69 hacks by year's end.



These security breaches have varied in scale and impact, yet they collectively highlight a critical vulnerability within the DeFi ecosystem. High-profile cases like the Euler Finance hack, which resulted in a loss of $197 million, and the $11 million setback suffered by Yearn.finance, are prime examples of the sophisticated threats facing the sector.

As the DeFi sector expands, it encounters the challenge of balancing innovation with strong security. Frequent security issues have sparked concerns about its capability to protect assets, especially for institutional investors.

To counter these issues, it is crucial to prioritize strengthening security protocols and enhancing customer protection. The focus should shift towards developing more resilient frameworks and systems to mitigate these risks.

DeFi Projects To Highlight

Lido

Lido is the leading DeFi protocol in the world. As you may know, Ethereum transitioned from a proof-of-work (PoW) model to a proof-of-stake (PoS) model. Lido keeps stakers liquid by offering them the stETH token for their staked ETH. The stETH-ETH system gives Lido a near-perfect tokenomics system of supply and demand.

Lido is the leading DeFi protocol. On December 11, 2023, its TVL reached an all-time high of nearly $22 billion, although it has since adjusted to $20.56 billion. This impressive growth can be largely attributed to an increase in net ETH deposits and a concurrent rise in the price of Ethereum, resulting in an 18% upswing in its TVL.

A key factor contributing to this success is the notable surge in first-time ETH stakers, with Lido crossing the 200,000 mark. Furthermore, its staked ETH (stETH), including wrapped stETH (wstETH), has witnessed a 10.34% growth within DeFi ecosystems, amassing a total of 3.52 million stETH.

The platform has made significant strides in its governance structure, with successful Snapshot votes endorsing crucial proposals such as those related to the wstETH bridge components and the Simple DVT staking module[28].

With the TVL of the entire DeFi market standing at $50.5 billion, nearly half of this value is associated with Lido, a fact that underscores the protocol's significant influence.

Lido tokenomics highlights

Lido's tokenomics centers around two key elements: the governance token $LDO and the liquid staking derivative $stETH. $LDO grants holders voting rights in Lido Finance's governance, influencing treasury and protocol management decisions.

$stETH, a liquid staked version of Ethereum, offers staking rewards without sacrificing liquidity, is useful as collateral in DeFi applications, and is tradeable across decentralized exchanges. This structure allows LDO holders to shape Lido's future while stETH provides practical utility in DeFi, enabling participation in yield farming and earning opportunities.

See $LDO unlocking schedule and more at https://token.unlocks.app/lido-dao

GMX

GMX is one of the best-designed decentralized spot and per exchange in DeFi with robust tokenomics. With a Total Value Locked (TVL) of $610.23 million, as reported by DefiLlama, GMX stands out not only for its size but also for its unique role in Arbitrum's growth.

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[28] Distributed Validator Technology functions as a system that operates similarly to a multisig setup for running a validator. Rather than relying on a single node operator, DVT relies on multiple node operators, each managing distinct nodes that communicate and collectively reach consensus to fulfil validator responsibilities (Lido.fi)

The exchange is known for its low swap fees and zero-price impact trades, and it uniquely supports trading through a multi-asset pool. This pool generates income for liquidity providers from various sources, including market making, swap fees, leverage trading, and asset rebalancing.

The platform's recent performance and developmental strides can be partly attributed to the Arbitrum Short-Term Incentive Program (STIP)[29], which prioritized decentralized perpetual projects in its first round of funding distribution.

GMX, receiving a significant portion of these funds, has shown an impressive commitment to development. This commitment is not only a sign of the project's dedication to enhancing its offerings but also a potential indicator of long-term bullish prospects.

As GMX continues to leverage the support from Arbitrum's STIP and expand its user base, its role in shaping the perpetual exchange landscape and its impact on the broader DeFi market remain areas of keen interest.

GMX tokenomics highlights

GMX's tokenomics revolves around three tokens - $GMX, $esGMX, and $GLP, each offering distinct benefits:

$GMX:

- Staking this token yields 30% of GMX protocol fees.

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[29] STIP - a grant program developed by the Arbitrum Foundation and community to stimulate usage and attract additional liquidity to the Arbitrum blockchain.

- Holders earn $esGMX and Multiplier Points for yield boosting.
- Grants governance rights for protocol decisions.

$esGMX:

- Staking enhances $GMX yield.
- Convertible to $GMX after a year, encouraging long-term holding and governance involvement.

$GLP:

- Automatically staked, earning 70% of protocol fees.

The incentive structure looks like this:

- For Token Holders: Governance participation and rewards in $esGMX and protocol fees, appealing for long-term investment.
- For Liquidity Providers: Attractive for yield farming, offering $esGMX rewards and a significant portion of protocol fees.

See $GMX unlocking schedule and more at https://token.unlocks.app/gmx

In Closing

The DeFi sector, while grappling with security challenges and fluctuating total value locked (TVL), continues to evolve with significant developments like liquid staking. Leading protocols such as Lido and GMX are driving growth with innovative tokenomics and robust governance structures. In 2024, expect narratives like RWA and LSDfi to continue growing strong in DeFi.

Layer 2 Rollups

Layer 2 has undoubtedly been the leading crypto narrative of 2023.

A Layer 2 solution is an external network or technology that operates on top of an underlying blockchain, commonly referred to as Layer 1. Its primary role is to enhance the base layer's capabilities, especially in handling higher transaction volumes. In practice, Layer 1 delegates resource-intensive tasks to Layer 2, optimizing efficiency. This division of labor allows Layer 1 to concentrate on transaction finalization and security while Layer 2 manages operational overhead.

The key advantage of Layer 2 is its ability to operate with fewer constraints than Layer 1, resulting in significantly faster transaction speeds and enhanced scalability. This offloading of operational tasks from Layer 1 to Layer 2 alleviates congestion on the Layer 1 network and ensures that Layer 1 maintains its focus on core functions like network finality and governance.

#	NAME	RISKS	TYPE	STAGE	PURPOSE	TOTAL	MKT SHARE
1	Arbitrum One		Optimistic Rollup	STAGE 1	Universal	$8.76B ▲ 5.85%	48.70%
2	OP Mainnet		Optimistic Rollup	STAGE 0	Universal	$5.71B ▲ 27.19%	31.77%
3	Base		Optimistic Rollup	STAGE 0	Universal	$744M ▲ 6.91%	4.14%
4	zkSync Era		ZK Rollup	STAGE 0	Universal	$575M ▲ 13.01%	3.20%
5	dYdX v3		ZK Rollup	STAGE 1	Exchange	$351M ▼ 0.31%	1.95%

The necessity of Layer 2 becomes apparent when considering the future growth and expansion of blockchain technology, particularly in its application beyond cryptocurrencies. The limitations of current Layer 1 technologies restrict the development and scalability of complex applications. Layer 2 solutions address this bottleneck, enabling applications to operate more efficiently and scale to the levels required for widespread adoption. This advancement is crucial for blockchain technology to fulfill its potential as a transformative, world-changing innovation.

So far, the world of L2 has been dominated by two protocols –Arbitrum (ARB) and Optimism (OP).

However, in 2023, we saw the emergence of two new protocols that might become market leaders – Base and Blast.

Layer 2 Projects to Highlight

Base

Base, launched by Coinbase, is an Ethereum L2 chain based on Optimism. In a short time, Base has already become the 3rd largest L2 globally, with TVL worth $744 million. The following shows the top 5 protocols on Base by TVL:

Name	Category	TVL	1d Change	7d Change	1m Change	Fees 24h	Revenue 24h	Monthly /
1 Aerodrome 1 chain	Dexes	$116.41m	-1.12%	+38.30%	+84.72%	$22,166	$22,166	
2 Seamless Protocol 1 chain	Lending	$91.12m	+2.01%	+20.27%	+2333%			
3 friend.tech 1 chain	SoFi	$40.12m	+4.73%	+4.16%	+23.22%	$32,052	$16,026	
4 Compound V3 4 chains	Lending	$39.2m	+5.62%	+16.51%	+17.76%			
5 Stargate 13 chains	Cross Chain	$34.15m	-0.98%	-11.71%				

Base's Friend.Tech must be highlighted as the protocol that kickstarted the SocialFi hype cycle.

Blast

Blast is a new L2 platform developed by the team behind the NFT marketplace protocol Blur. It introduces native yield generation for ether (ETH) and stablecoins like USDC, USDT, and DAI. This feature enables assets to automatically generate yield upon transfer to Blast, leveraging ETH staking and integration with on-chain Treasury Bill (T-Bill) protocols, such as MakerDAO.

ETH staking rewards are passed directly to users, increasing their ETH balance, while stablecoins yield returns through T-Bill protocols, enhancing their balance on the platform. This innovation aims to provide a passive income stream and address the idle nature of assets in the crypto space.

In Closing

2023 marked a significant year for Layer 2 solutions in the crypto space, with the emergence of new protocols like Base and Blast alongside established players like Arbitrum and Optimism. Base quickly rose to prominence, while Blast innovated with yield-generation for assets like ETH and stablecoins. In 2024, expect these 4 to continue dominating the narrative.

Developments in Token Engineering - 2023

Token Engineering has garnered growing attention in 2023 within the crypto sector. To achieve long-term token value growth, crypto projects have to develop token supply and demand drivers with rigor. The conventional focus on supply-side design—typically within the realm of tokenomics—has revealed its limitations. What's urgently required are strategies that navigate both supply and demand-side incentives while continuously monitoring outcomes to mitigate vulnerabilities and maximize returns.

In a nutshell, Token Engineering is the design, verification and optimization of token-based economic systems. It covers a wide range of questions. From structuring a token sale and crafting distribution algorithms, to incentive design and governance mechanisms, its scope is extensive and vital.

The following case studies are great examples for the progress made in the sector in 2023, and for how token engineering facilitates the growth of token networks.

Token Supply:

Dynamically Adjust Token Unlocks based on Market Conditions and Network Success

Vesting has important consequences for a token price and its economy. This is supported by recent research revealing negative correlations between unlocks size and token price[30].

The need to raise capital through token sales forces vesting terms to be set early. However, as vesting terms are typically only time-based, these choices are unlikely to be optimal. Once the schedule is set the number of tokens unlocked stays the same, no matter what is happening in token exchange markets, and no matter what happens with user uptake.

Dr. Achim Struve, Token Engineer at Outlier Ventures, has been developing an alternative algorithmic framework that he calls “Adoption Adjusted Vesting”.

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[30] Learn more here: We Analyzed 5000 Token Unlocks – This is What We Found

As the name implies, the goal is to bring the unlock rate in line with user adoption growth for the token. Achim proposes a simple model as an example which uses the token's market price as the indicator of user adoption. The core of the rule is shown below.

Earlier token price

Last change in token price

Current token unlock rate

$$\dot{S}_t = \dot{S}_{t-1} * \left[\frac{P_{t-2} + \left(k * \dot{P}_{t-1}\right)}{P_t^*}\right]$$

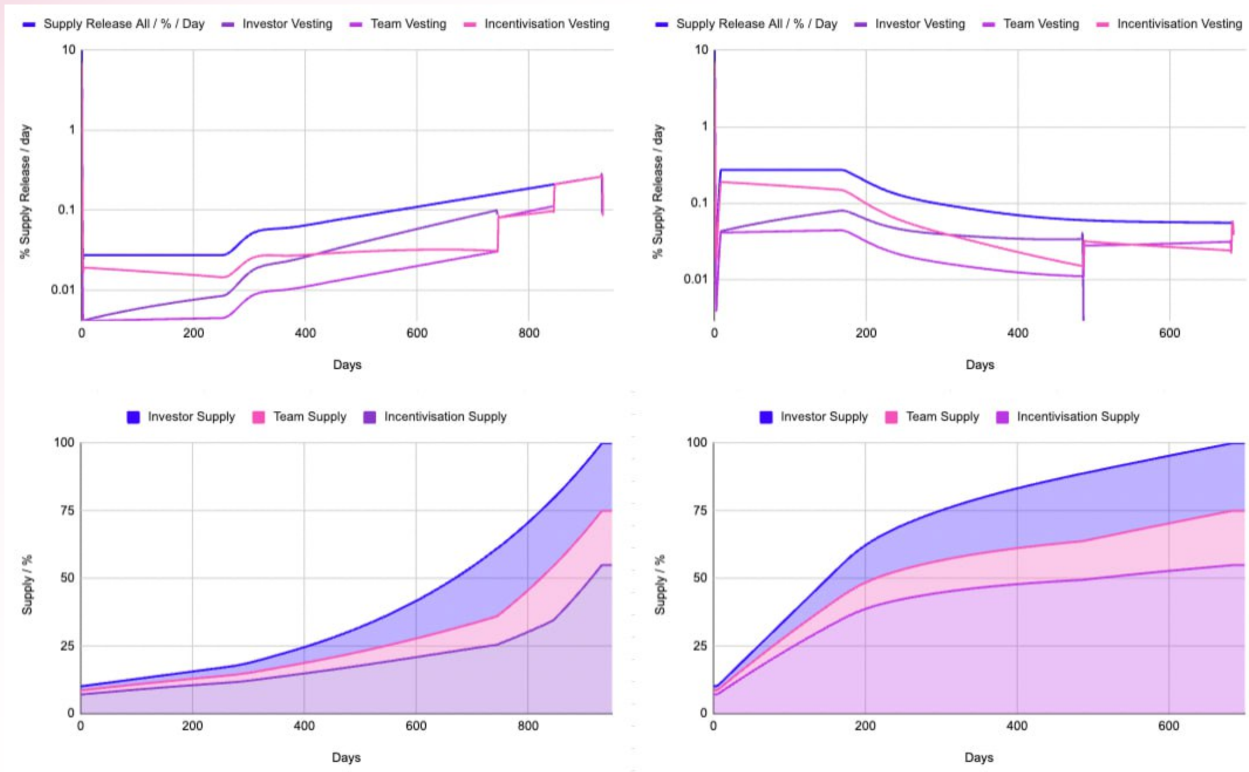
Previous token unlock rate

Current target token price

The math paints an intuitive picture. When token prices are above a chosen target level, and increasing, the rule will adjust the token unlock rate upward. That change is expected to contribute to a dampening in the token's price acceleration in the next period, decreasing the likelihood that the unlock rate will be increased by the same amount in the next time step.

In the opposite case, when token prices are below a target level and decreasing, the rule adjusts the token unlock rate downward. This change is expected to reduce the rate at which new tokens become available for trading, helping to slow the token's price decline.

With rules like these, token unlock charts can look very different to what we are used to and are driven by the market valuation. The charts below illustrate what the cumulative unlock curve would look like in a case of exponential user growth which is slow at first, then becoming very fast (on the left), vs a logistic growth case which sees initial rapid growth followed by a tailing off (on the right):

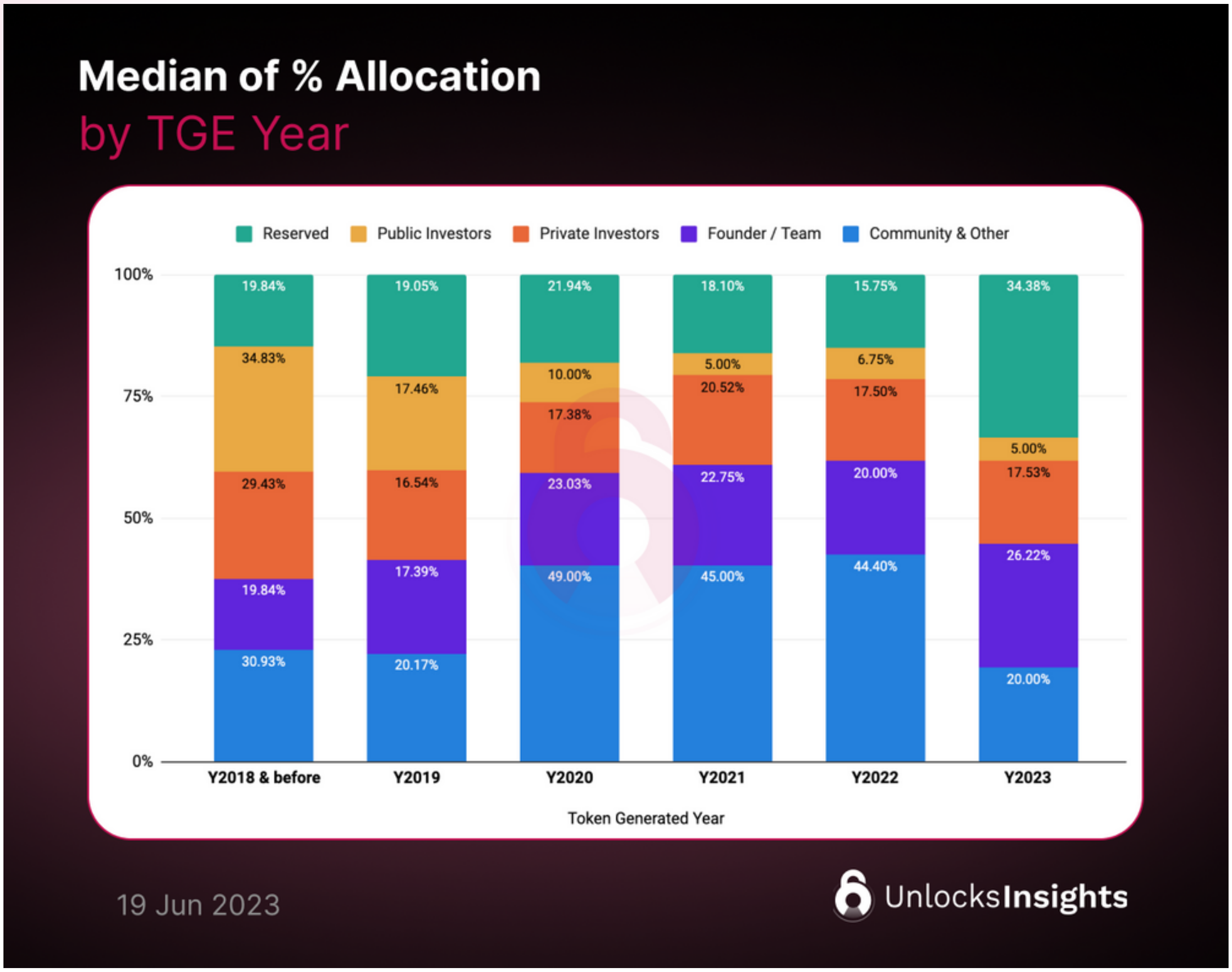


Algorand implemented a similar kind of price-based [algorithmic vesting rule](#) which it claims helped to arrest the oversupply issues created by their early, over-generous vesting schedules.

We expect these methods to become more widespread in the future.

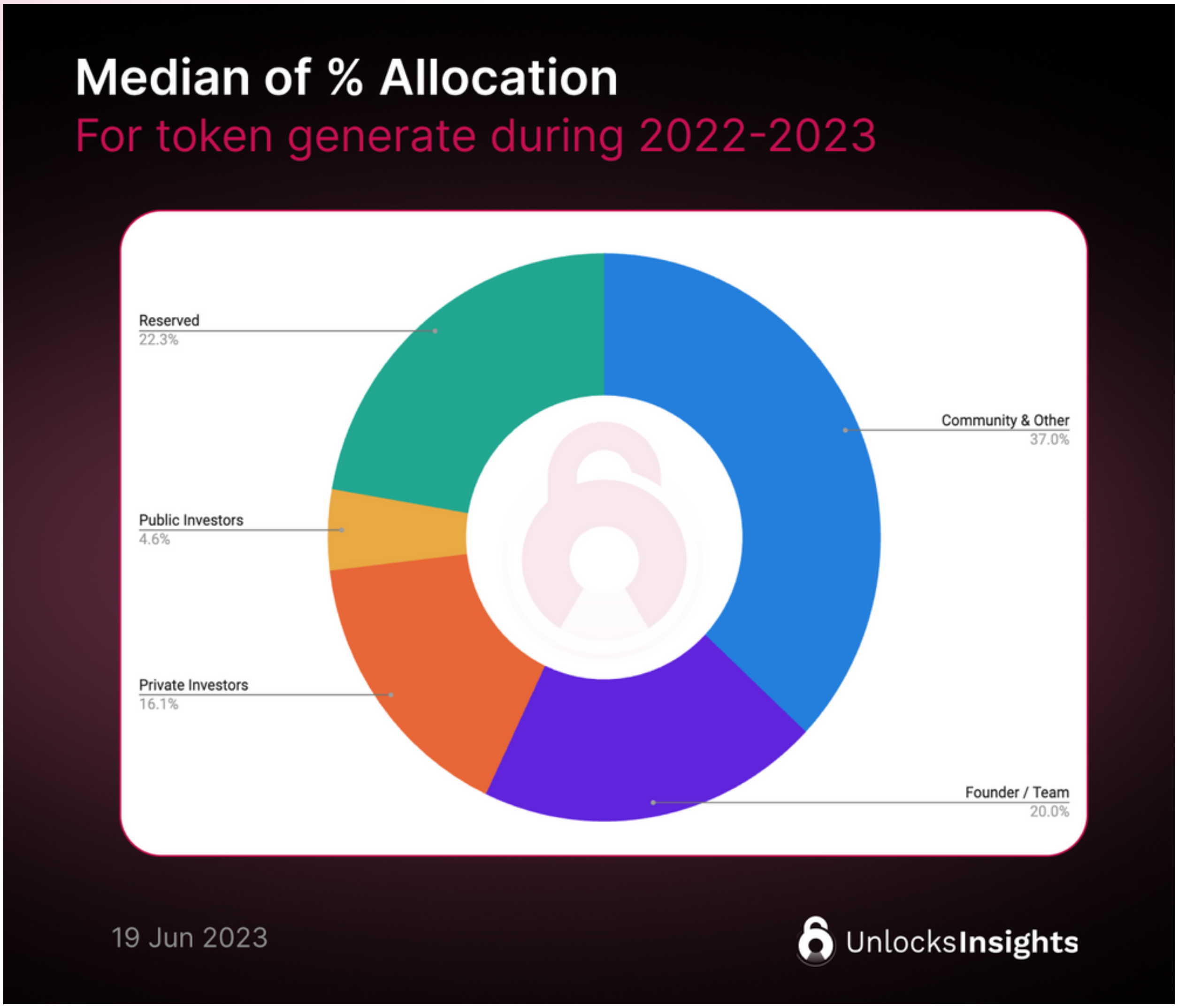
Token Demand:

Monitoring and Optimizing Incentives for Maximum Efficiency



Data gathered by Token Unlocks shows that the medium allocations size for incentives and rewards aimed at the user community is 37% - a figure which has been consistently high.

This is a large share of network value. To make economic progress it will be important to understand how effective these allocations are at fulfilling their purpose. Otherwise projects are just pouring value down the drain.



In March 2023, Gauntlet won a grant from the Uniswap Foundation to drive the long-term growth of the protocol and maximize its impact for the community. In total, Uniswap has allocated $20M to growth incentives. [Gauntlet conducted some initial research about how best to use them](). They set out with a clear objective to only recommend an incentive program where $1 of token value spent today brings back $1 or more in return. They formalized this criterion for the Uniswap token using the following expression:

$$\Delta NetBenefit_{overall} = \Delta PV + \Delta G - Cost$$

Where:
ΔPV: is the change in the net present value of future cash flows as a result of the campaign
ΔG: is the change in the governance value of tokens
$Cost$: is the total cost of running the program

The first task was to identify whom the incentives ought to be targeted at. On Uniswap there are two core economic actors to choose from:

1. Traders - token incentives are used to subsidize trading to get them to use Uniswap
2. Liquidity providers - token incentives are used to grow number of pools and their size

The first option, incentivizing traders or "trade mining", is highly popular. Gauntlet began evaluating these kinds of programs by asking whether DEX traders are "sticky". If they are, traders will hang around after the incentive program ends yielding longer-term benefits.

Gauntlet tested this out by seeing if trading costs would improve if trades on other DEXes were routed through Uniswap instead, using a simulation. They discovered that the total value of inefficient trades was small - amounting to only about 1% of DEX traded volume on Ethereum. On top of that, 92% of these trades were made by highly sophisticated traders, who were unlikely to be making repeated inefficient trades on Uniswap out of sticky loyalty.

Gauntlet concluded that most traders are not sticky, and any boost from a "trade mining" program would be limited and temporary - unlikely to yield a positive return on tokens spent.

Incentive programs targeting liquidity providers (LPs) were next. Again, Gauntlet started by analyzing LP behavior. They did not find evidence that LPs are sticky or forgetful (as many believe), but did find evidence that temporary incentive programs could kickstart or "bootstrap" new pool formation and rebalance pool sizes in ways that were self-sustaining after the incentive program ended.

Gauntlet took these initial conclusions forward in September 2023 by announcing a new liquidity mining program on Uniswap V3. Roughly 2M ARB is to be distributed to liquidity providers across Uniswap V3 pools on Arbitrum. The goal is to grow Uniswap on Arbitrum and generate insights for improved iterations and predictive models of LP and trader behavior in response to incentives or liquidity.

Large Language Models (LLM) to support Token Engineering

The showcased examples underscore that mechanisms for token supply and demand need rigorous design and continuous quantitative analysis. The escalating complexity of decision-making poses a growing challenge, especially within today's DAO ecosystems, where protocol changes require token holder support. DAOs have to find solutions to provide maximum depth of information, encourage discussion and criticism, while allowing for smooth, and sometimes urgent decision making.

cadCAD GPT is an LLM agent framework to support token system simulations. It provides a natural language interface to explore changes in a token network, and compare design variants. Mapped to the cases above, it allows to run Adoption Adjusted Vesting against traditional vesting in simulations. Or, similarly, to explore the effectiveness of incentive programs based on behavioral patterns – all by natural language prompts.

Conclusion

With the convergence of available data, advancements in token engineering and AI-powered decision-making, the potential of token-based economies is gigantic. We've just started to understand how clever incentive mechanisms can drive the sustainability and growth of token networks. No doubt, the upcoming year, 2024, promises even more groundbreaking innovations.

That's 2023, what's next?

2023 Conclude

This report will highlight the progress and evolution of the crypto landscape design through different phases of the crypto market cycle. The industry is now more focused on sustainable incentives and values to drive token demands. With the fall of fast cash grab projects and the rise of hacks. DeFi saw a shift of focus as the community started to value long-term narratives like real yields. While stablecoins have gone through tough tests challenging its credibility. RWA saw an influx of new players including big financial institutions. Despite the ups and downs of the market cycle, builders with convictions continue to push forward on all the important areas such as L2s scalability, restaking, and tokenomics design. We're also seeing more efforts directed towards new sectors like SocialFi and GameFi.

TokenUnlocks will continue to offer a detailed and insightful perspective on these significant changes. Highlighting these specific cases can offer insights into the dynamic and evolving nature of tokenomics in the current market.

In the upcoming chapter, we will delve into an analysis of the 2024 data, exploring the emerging trends anticipated for the following year.

Future Outlook

Unlock Data for 2024

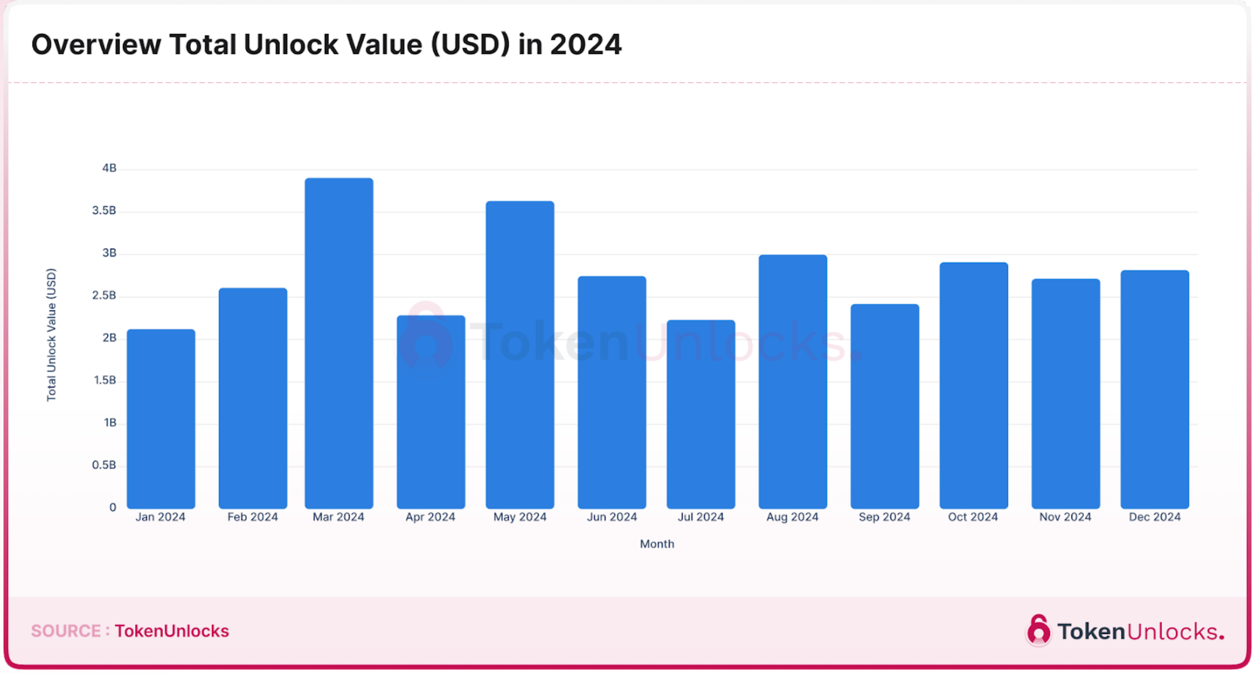
Building on our understanding of how unlocks impact price changes in Chapter 3, let's use this knowledge to navigate the 2024 market. This year, the total unlock values for each month show significant variations. Compared with 2023, the total unlock amount will be $21.42B lower.

Our team at TokenUnlocks has put together a detailed dataset comparing total unlock sizes across different time frames and unlock types. The unlock amount combines all projects, not individual ones, so our readers can understand the macro picture of the overall market in 2024. If you want a more detailed breakdown of each project, you can visit UnlocksInsights to see our monthly unlock articles. By exploring the data below, you can gain insights into potential developments in 2024.

Total Unlock Value

The following table provides a detailed overview, including the total unlock value in USD and the corresponding ranking.

The total unlock value is calculated by multiplying the closing price on December 31, 2023, by the total amount to be unlocked in 2024.

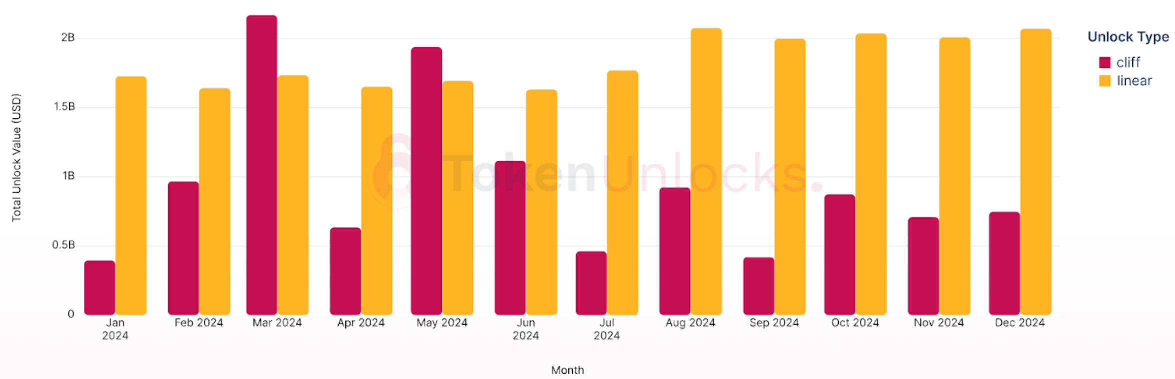


From the previous graph, March 2024 has the highest cumulative unlocked value, standing as the peak month with a sum of $3,904,638,236.36. May follows closely in the second position with a value of $3,632,978,648.57. Conversely, January holds the lowest total unlock value at $2,123,687,905.40, closely trailed by July, which shares an equivalent value. The cumulative value of July's unlocks amounts to $2,232,513,222.30.

Looking ahead to the next year, the cumulative unlock value for the first half of the year totals $17,305,326,378.90, while the cumulative unlock value for the second half amounts to $16,100,971,693.21. This marks a value difference of $1,204,354,685.69.

Breaking down the total unlock value by unlock type will provide deeper insight into the unlocks expected in 2024.

Overview Total Unlock Value (USD) in 2024 Breakdown by Unlock Type

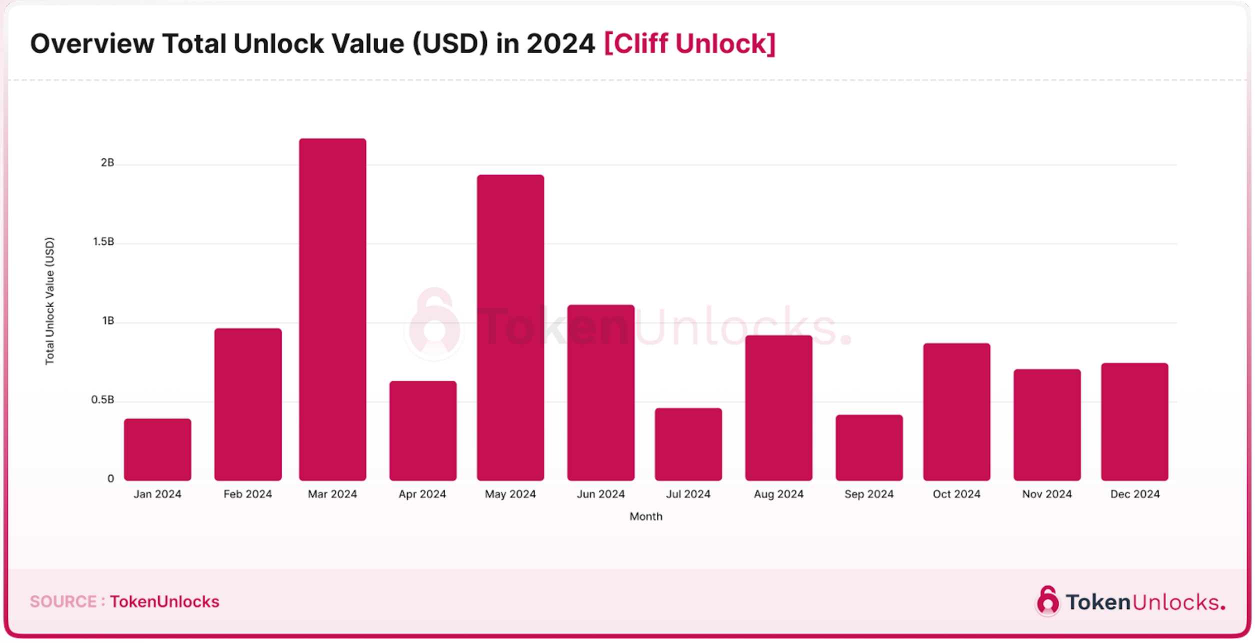


SOURCE : TokenUnlocks

Cliff unlock rates were higher in the first half of the year than in the second half, as observed from the overall unlocking picture. Specifically, values reached up to $2,169,584,000.00 and $1,938,791,000.00 in March and May, respectively. It is evident that in terms of linear unlock, the unlock value during the first half of the year will be less than that during the second half. The second half of the year will likely see a rise in linear unlock.

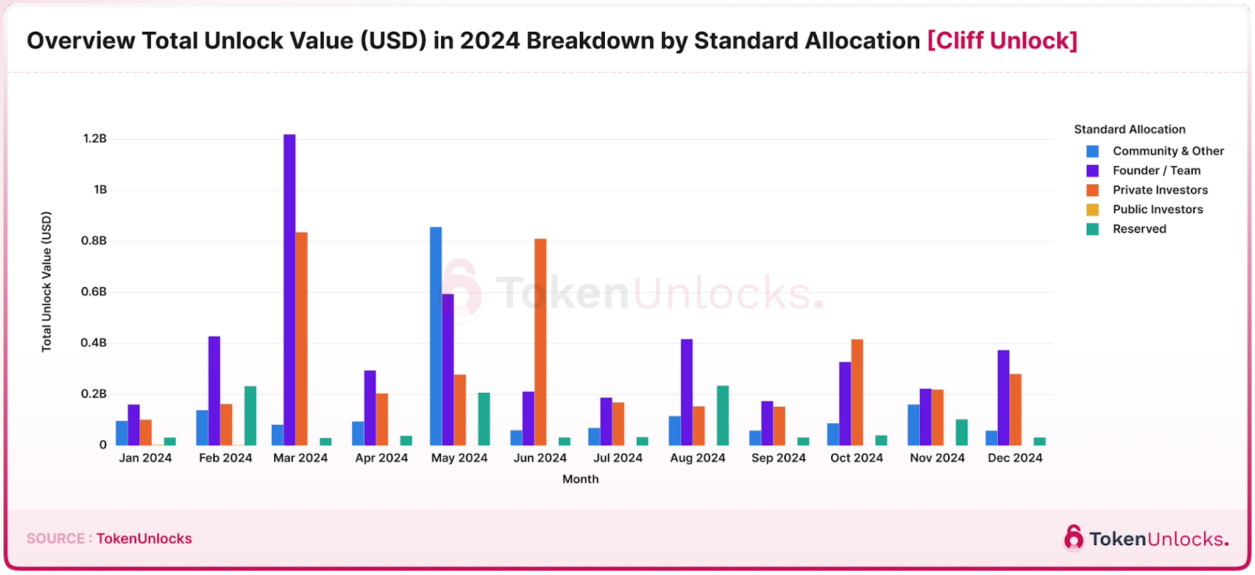
Next, we will examine the Total Unlock Value for each unlocking type individually, beginning with Cliff Unlock and ending with Linear Unlock. This will provide us with a clearer picture of the trend for each type of unlocking.

Total Cliff Unlocks Value



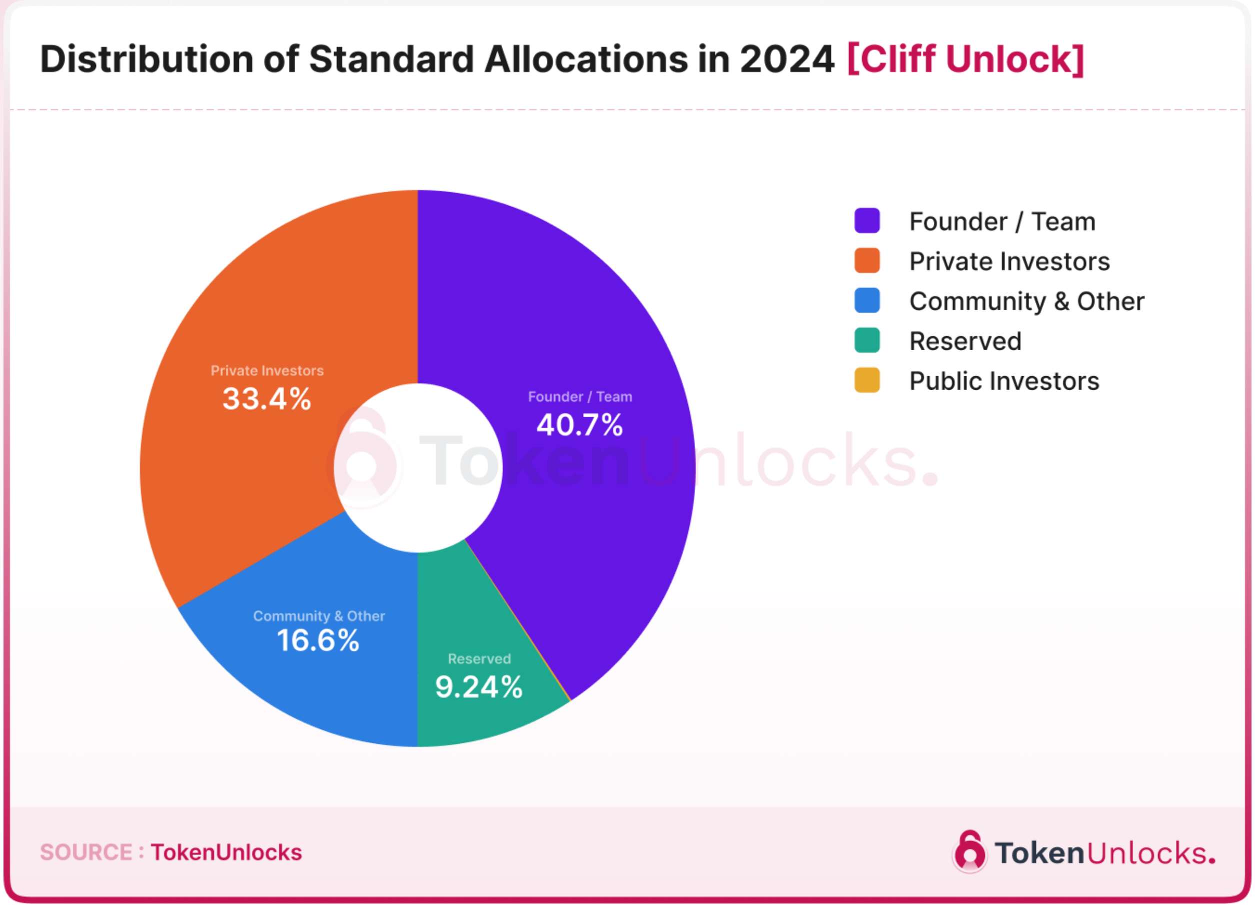
March is the month with the highest total cliff unlock value, with May ranking second. The preceding half of the year has been an exceptionally intriguing period to observe. However, if we examine the Monthly Cliff Unlock from the Standard Allocation perspective, the percentage of value presented in March is mostly attributed to "Founder / Team" and "Private Investors".

The standard allocation of "Founder / Team" and "Private Investors" exhibited the highest unlocking rate during the month of May. "Community & Others" and "Founder / Team"



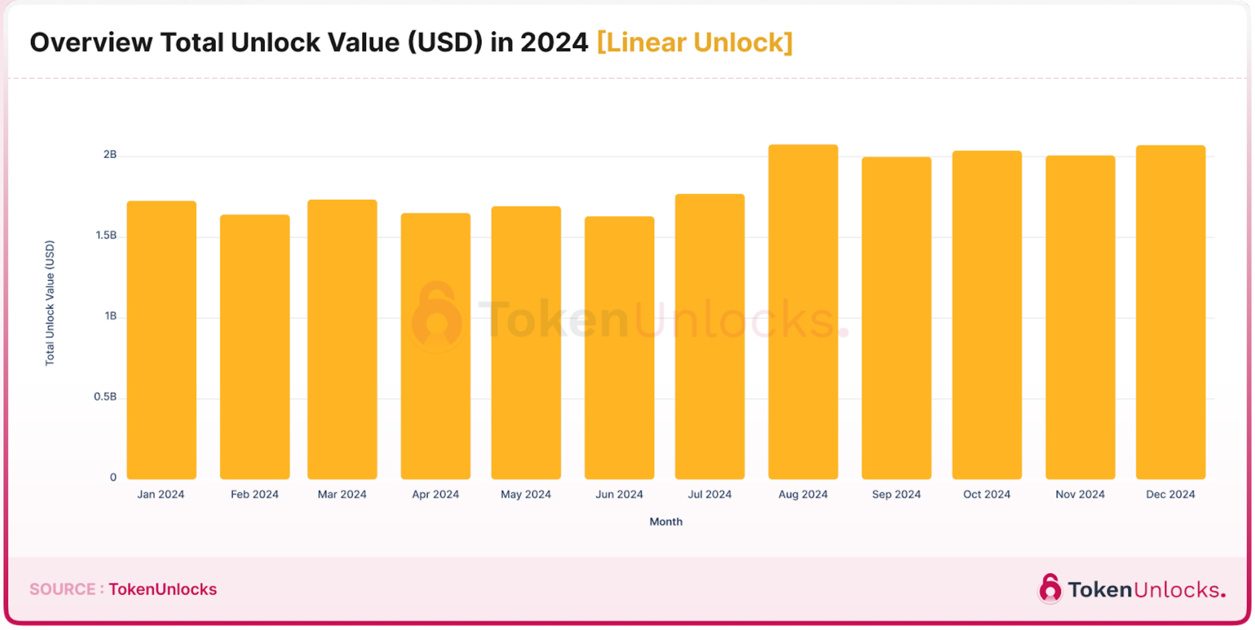
The percentage of value attributed to the Standard allocation of "Founder / Team" and "Private Investors" in March is actually significant. The Standard allocation of "Founder / Team" and "Private Investors" exhibited the highest unlocking rate during the month of May. "Community & Others" and "Founder / Team"

Based on the data presented in the previous graph, the standard allocation of "Founders/Team" and "Private Investors" for total unlocked cliff has a ratio of 40.7% and 33.4%, respectively. This highlights the potential impact on the market or project resulting from the cliff unlocks of the founders/team and investors.

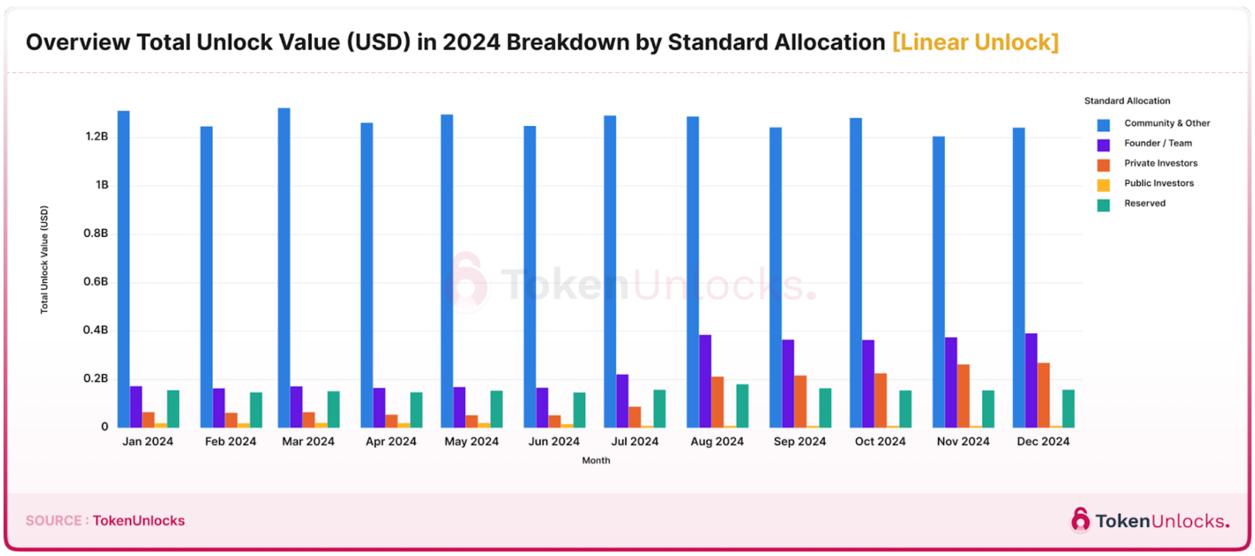


Total Unlock Value [Linear Unlocks]

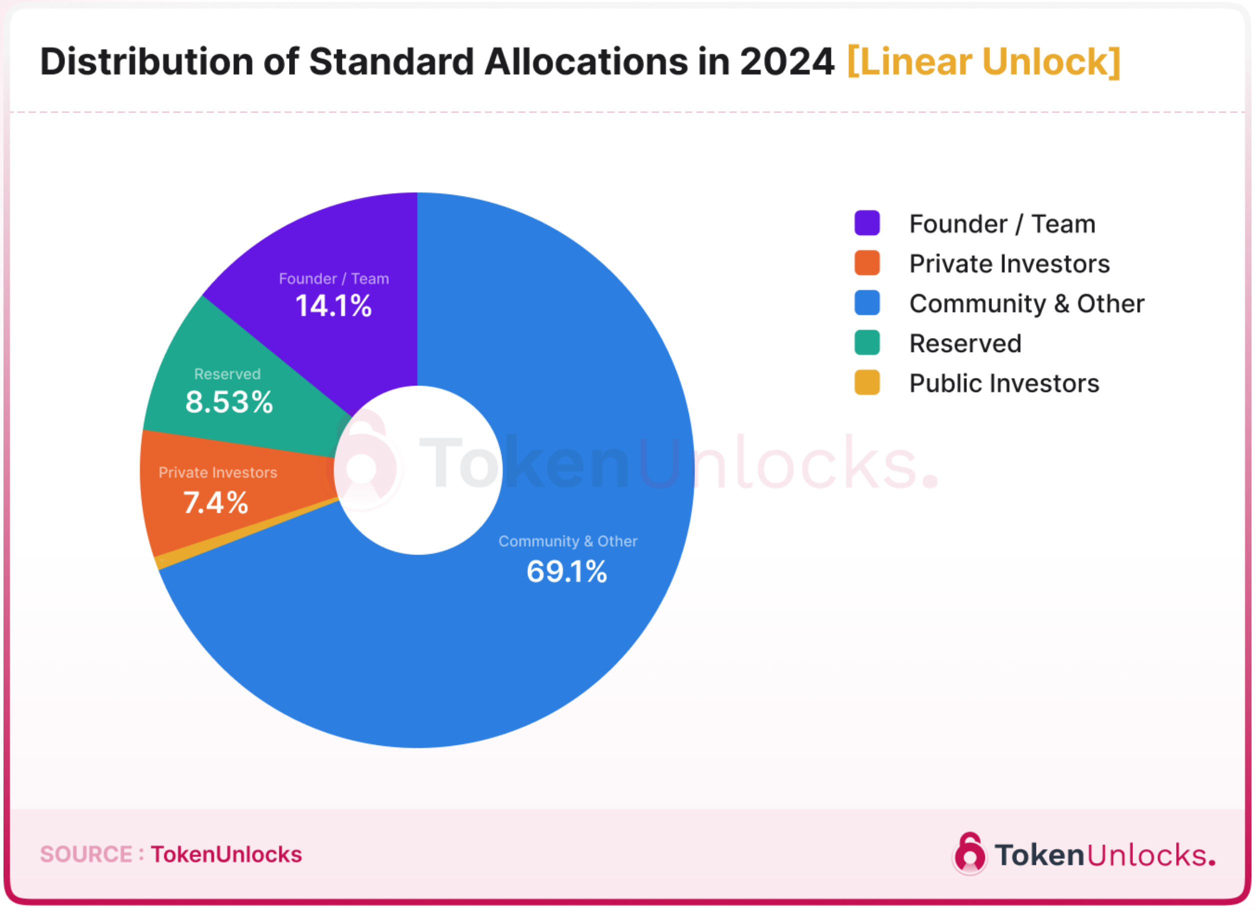
Regarding linear unlocks, the monthly value remains relatively consistent. However, during the second half of the year, the unlock value is expected to appreciate more compared to the first half of the year.



Examine the Monthly Linear Unlock via Standard Allocation. The standard allocation of "Community & Other" shows a relatively consistent rate of unlocking throughout the year. However, the standard allocation of "Founder/Team" demonstrates a higher unlock value from August to December compared to the period from January to July.

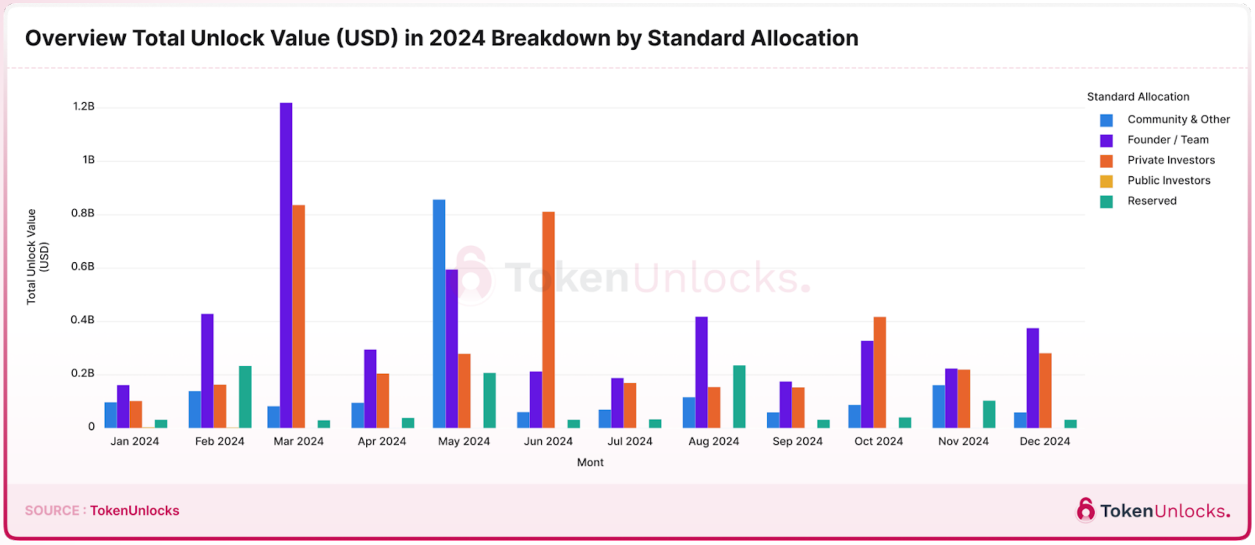


Based on the data presented in the previous graph, the standard allocation of “Community & Other” accounts for 69.14% of Linear Unlock, while “Founder/Team” and “Private Investors” make up only 14.14% and 7.40%, respectively. Despite "Founder/Team" and "Private Investors" having a higher value of unlocks in the Cliff Unlock section, the latter two are still comparable in nature.



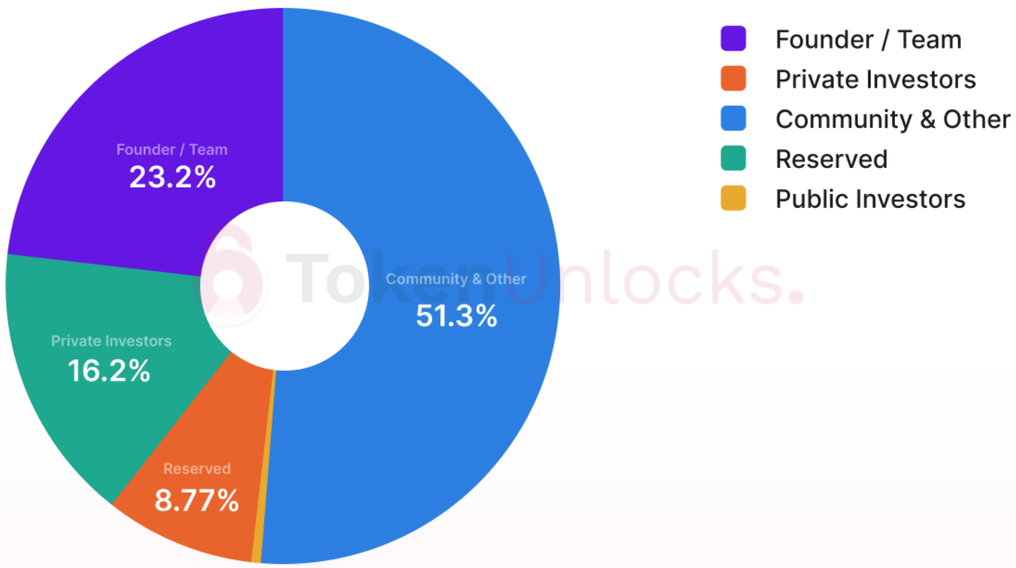
Total Unlock Value Breakdown by Standard Allocation

Let's now examine how the Total Unlock Value is allocated across categories, focusing on the two topics discussed earlier: Total Unlock Value [Cliff Unlocks] and Total Unlock Value [Linear Unlocks]. The graph below offers insight into the monthly benchmark allocations, including the corresponding unlock fees in USD.



Starting with "Community & Other," we are proceeding in order through the standard allocation in relation to the data displayed in the preceding graph. The standard allocation of "Founder/Team" had the highest number of unlocks in May, totaling $856,902,636.43. Following closely is the standard allocation of "Private Investors" in March, which had the highest value at $836,505,727.33. "Community & Other" had the most unlocks in May. In January, the standard allocation for "public investors" received the greatest number of unlocks, totaling $3,610,373.81. Conversely, in August, the standard allocation for "reserved" received the most unlocks, totaling $235,210,588.53.

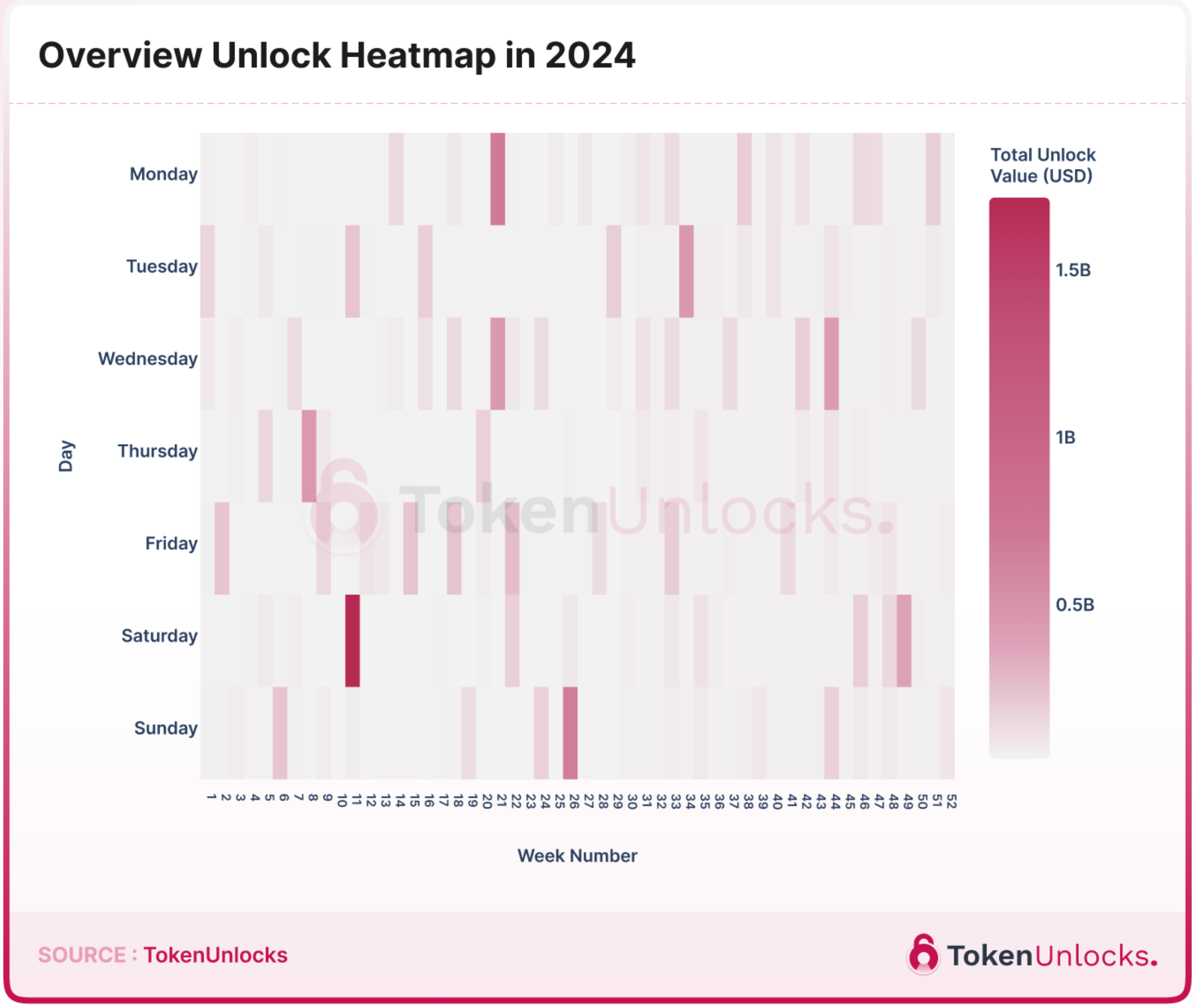
Distribution of Standard Allocations in 2024



SOURCE : TokenUnlocks

Consider the percentage of unlocked values distributed with standard allocation mapping. The analysis of the unlock value reveals that "Community & Other" comprises 51.3% of the value, "Founder/Team" comprises 23.2%, "Private Investors" comprises 16.2%, "Reserved" comprises 8.77%, and "Public Investors" comprise a mere 0.56%.

Total Unlock Value Heatmap



Day	Total Unlock Value (USD)
Monday	$4,790,642,235.56
Tuesday	$4,466,813,885.63
Wednesday	$4,948,043,698.98
Thursday	$4,083,023,205.53
Friday	$4,650,391,650.42
Saturday	$5,798,360,664.62
Sunday	$4,669,022,731.37

Let's narrow our focus to a smaller time frame—days of the week. The heat map illustrates the USD size of unlocks, compared with both the days of the week and week numbers (52 weeks in total). According to this data, the most substantial unlock occurs on Saturday of week 11 (Mar 11 - Mar 17) with a value of $1,731M. Below are the top 5 unlock days in 2024:

Week	Day	Date	Total Unlock Value (USD)	Ranking
11	Saturday	2024-03-16	$1,731,967,000.00	1
21	Monday	2024-05-20	$700,573,300.00	2
26	Sunday	2024-06-30	$680,886,900.00	3
34	Tuesday	2024-08-20	$471,978,100.00	4
21	Wednesday	2024-05-22	$469,151,100.00	5

Conclusion

The 2024 data provides a snapshot of the potential unlocked value entering the crypto market. March emerges as the month with the highest unlock amount, while January holds the lowest value.

Additionally, the "Private Investors" and "Founder/Team" categories consistently hold a substantial share of the total unlock value. Notably, March, June, and August record some of the highest values in these categories.

Standard Allocation	Average Unlocked Amount to Circulating Supply	Percentage Change in Price on					
		15 Days Before	7 Days Before	3 Days Before	3 Days After	7 Days After	15 Days After
Community & Other	10.55%	4.30%	2.50%	4.78%	8.92%	12.85%	6.62%
Founder / Team	6.04%	5.60%	0.36%	1.04%	4.20%	4.76%	-0.67%
Private Investors	14.61%	-2.49%	-3.33%	9.34%	33.00%	34.50%	20.13%
Public Investors	6.01%	6.90%	5.87%	0.67%	-2.74%	-2.51%	-3.82%
Reserved	6.08%	-0.22%	-1.78%	3.98%	10.18%	7.35%	-0.82%

Analyzing the data from 2023, especially in the "Private Investors" category, suggests the anticipation of significant price movement both before and after the unlocking of that particular project. However, it's crucial to note that unlocked tokens might remain unclaimed and hence could have no impact on the market price.

Overall, our unlock data should only be used as a guideline and reference, but not as financial advising direction. Conduct your research to explore various perspectives on the project or market to formulate the most effective investment strategy.

Let's delve into the qualitative data from 2024 to predict the trends and potential developments for the upcoming year.

Internal and External Factors in 2024

If you want to know the future, look at the past - Albert Einstein

So far, we've examined the growth of the crypto world. Now, let's leverage its history to speculate on its potential in 2024. In this section, we will provide a detailed analysis of the anticipated trends and factors influencing the cryptocurrency market in 2024. It will distinguish between internal factors intrinsic to the cryptocurrency market, such as technological advancements and regulatory changes, and external factors, including global economic shifts and geopolitical dynamics. This dichotomy will offer a holistic view of the potential trajectories of the cryptocurrency market in the upcoming year.

The year 2024 is poised to be a critical year for the cryptocurrency market, marked by significant developments both within the industry and in the larger global context. Thus, we aim to dissect these influences, providing insight into the potential outcomes and directions for the cryptocurrency market.

Internal Factors Influencing the Cryptocurrency Market:

- Regulatory Evolution and Its Impact:
    - The implementation of MiCA[31] in the EU is a landmark event, creating a harmonized legal framework for crypto-assets and potentially influencing global regulatory approaches. We will delve into the implications of regulatory frameworks on market stability, investor protection, and innovation within the cryptocurrency space.
- The Bitcoin Halving Phenomenon:
    - The upcoming Bitcoin halving in 2024 is expected to reduce the reward for mining new blocks by half, a change that historically has led to substantial increases in Bitcoin's price. The halving's impact on the supply of Bitcoin could lead to increased scarcity and potentially higher prices. Historical analysis of previous halving events and their subsequent effects on the market provides a foundational understanding of what might be anticipated in 2024.
- Technological Progress within Blockchain and Cryptocurrency:

[31] The Markets in Crypto-Assets Regulation (MiCA) establishes standardized market rules for crypto-assets within the European Union. It encompasses crypto-assets that currently lack regulation under existing financial services legislation.

    - Layer-2 scaling solutions, such as OP Stack[32], Polygon CDK[33], and Arbitrum Orbit[34], are advancing the efficiency and scalability of blockchain networks, which could foster increased adoption and usage. Developments in blockchain technology, including Ethereum's ongoing upgrades and the emergence of new consensus mechanisms, are reshaping the industry's infrastructure and capabilities.

External Factors Impacting the Cryptocurrency Market:

- Global Economic Conditions and Their Ripple Effects:
    - The role of central bank policies, interest rates, and monetary liquidity as drivers of cryptocurrency market dynamics is crucial. The interconnectedness of the cryptocurrency market with traditional financial markets necessitates an analysis of global economic health and its potential impact on crypto assets.
- Geopolitical Dynamics and Market Volatility:
    - Geopolitical events, such as trade agreements, conflicts, and international policy decisions, can have immediate and profound effects on the cryptocurrency market. To illustrate, decisions and regulations in major markets like the US and Asia significantly influence the global crypto market. This includes actions by entities like the SEC and their impact on market dynamics.
- Integration of Cryptocurrencies in Mainstream Finance and Technology:
    - The increasing adoption of blockchain technology across various industries and the integration of cryptocurrencies in traditional finance are pivotal external factors. The broader integration of blockchain technology into various industries and its adoption in mainstream finance could drive growth and acceptance. The evolving landscape of cybersecurity in relation to cryptocurrencies remains a critical external factor. The industry's ability to manage and mitigate security risks is pivotal to its credibility and growth.
- BTC ETFs Approval

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[32] OP Stack represents a modular and open-source blueprint designed for the development of highly scalable and interoperable blockchains across various applications.

[33] Polygon CDK enables organizations to swiftly build customized ZK-based Layer 2 solutions atop Ethereum, fostering modularity and seamless interoperability across different Polygon chains and Ethereum itself.

[34] Arbitrum Orbit enables the creation of customizable chains using Arbitrum technology. These chains can be either Layer 2 (L2), settling directly on Ethereum, or Layer 3 (L3), settling on any Ethereum L2 like Arbitrum One.

    - Many Bitcoin ETF firms expected billions of dollars inflow to Bitcoin ETFs and are bullish on long-term prospects. Combined with the upcoming Bitcoin halving in the next few months, this gives a good sign for the crypto community.
- Uncertainty in the Fiat-based Virtual Assets:
    - Currently, the cryptocurrency market is heavily dominated by USD-based assets. Most cryptocurrencies, including Bitcoin and Ethereum, are typically priced and traded in USD, and many stablecoins are pegged to the US dollar. One possible outcome of MiCA could be the rise of stablecoins pegged to the Euro. These Euro-based digital assets might gain traction, especially within the EU, as businesses and consumers seek assets aligned with their primary currency and regulatory framework. The introduction of MiCA could lead to a gradual shift in this dynamic. As the EU creates a more regulated and structured environment for crypto assets, it might encourage the development and adoption of Euro-denominated cryptocurrencies and stablecoins.
- Environmental, Social, and Governance (ESG) Considerations:
    - The environmental impact of cryptocurrency mining and the industry's response to ESG concerns are becoming increasingly relevant. For instance, the environmental impact of Bitcoin, especially mining practices, remains a pivotal internal factor. However, there's a growing trend in the utilization of renewable energy sources and innovative approaches such as using flared natural gas for mining. These practices not only address environmental concerns but also open avenues for Bitcoin's role in climate change mitigation.

In 2024, the cryptocurrency market is expected to be shaped by a complex interplay of internal and external dynamics. Technological advancements, regulatory changes, and market maturation will interact with global economic trends, geopolitical developments, and technological integration challenges. Stakeholders in the cryptocurrency space will need to navigate these diverse and often interconnected factors to capitalize on opportunities and mitigate risks.

This report aims to draw conclusions by synthesizing the insights from the analysis of both internal and external factors, offering a comprehensive forecast for the cryptocurrency market in 2024. It acknowledges the complexities and uncertainties inherent in the market, providing a nuanced perspective on the potential directions and outcomes for cryptocurrencies.

TokenUnlocks Pro: Staying Ahead of the Game

2023 has been a challenging year for TokenUnlocks, we have achieved many major milestones: scale to 100 tokens, launched Ethshanghai, Unlocks Insights, iterated existing features, and launched Token Unlock Pro. We wouldn't be able to reach this point without your love and support for our product. We have served nearly 1 million users since the first launched back in 2022, and more than 10,000 unique users daily.

Continuous Improvement

At TokenUnlocks, we're proud to present our remarkable progress from 2023 to 2024 in offering comprehensive and insightful data to the crypto community. Beginning with tracking 143 protocols in 2023, we expanded its reach to cover a market cap of $23 billion, representing 2.6% of the total crypto market.

By the beginning of 2024, TokenUnlocks further increased its scope, tracking 222 protocols, with the market cap tracking soaring to $194 billion, accounting for 10.83% of the overall market. Furthermore, we introduced the tracking of claim events, which allows us to provide information on what happens after unlocks and anticipate the actual amount that enters the circulating supply. Currently, there are 14 tokens available in TokenUnlocks Pro as of the date of writing. And we consolidated standard allocation of 79 existing official publication tokens in order to make it easy to make meaningful comparisons and bring consistency and standardization to the industry.

This achievement is just the beginning. We acknowledge it's a long journey ahead, but we are committed to tracking as much as we can, ensuring that our community is equipped with the most comprehensive and insightful data for users.

Progress	Y2023	Y2024
Official Publication Tracking	29	79
Onchain Inference Tracking	13	22
Launchpad Tracking	101	121
Market cap tracked covered (Excluded Launchpad)	$23B	$194B

- Record on Dec, 2023		
% Market cap tracked compared to overall market	2.6%	10.83%
Claim Tracking (PRO)	0	14
Standardize allocation (PRO)	0	79

Tokenomics data is hard, since there is no enforced standard to do it. And its change is even harder, it involves a lot of effort in tracking those updates and changes. Particularly from off-chain sources such as whitepaper, X (former twitter), discord, governance forum, and more. But this is the value that we're dedicatedly working on for our user. Since the vesting schedule is proven to be an extremely important part to understand token supply and tokenomics, unlocking is one of the most dynamic parts and problem to be solved.

Next year, we will focus extensively on token supply, addressing on-chain sources such as claims, staking, liquidity mining, and more. To automate the off-chain tracking, to be able to consolidate the most comprehensive and most accurate 'Supply', through our proprietary tech stacks and expertise. These things will gradually be reflected on our website and API. As we will be shifting and fine tuning a lot more features for our advanced users in TokenUnlocks Pro, and start piloting the API enterprise plan.

If you're interested in our service please do not hesitate to contact us via consulting@token.unlocks.app.

Start Strong Discount

Also for our Annual Report 2024 readers we would like to give you a 20% yearly discount on our UnlocksInsights so that you can begin the year with valuable information and expert analysis. Don't miss out!

Closing Remarks

These strategic initiatives mark our introductory strides toward becoming the premier tokenomics data company. Anticipate enhanced transparency within the crypto space as we embark on this journey. Stay connected for more insights and updates! Follow us on Twitter, and be sure to explore our platform if you haven't already at https://token.unlocks.app/.

Contributors

Partnered Writers (In Chapter 3)

Heartfelt gratitude to our invaluable partners whose collaboration has shaped this annual report, elevating it to perfection. Below, discover the dedicated authors who made this possible.

From Economic Design

- **GameFi Token**
  Written by Kiefer Zang, Gaming Economics & Monetization Consultant
- **Staking Mechanism, SocialFi Token, GameFi Token**
  Written by Giovanni Populo, Token Economy | Infrastructure & DeFi
- **Real World Asset (RWA)**
  Written by Fehmi Fennia, Sr Tokenomics consultant | Infrastructure & DeFi

About Economic Design

A leading provider of Web3 Strategy and Tokenomics services for projects in Web3 gaming, DeFi, and blockchain infrastructure spaces. It specializes in helping businesses optimize their Web3 strategies and tokenomics for long-term success.

Economics Design's services focus on helping businesses develop and monitor market designs, web3 strategies, go to market strategies, and advanced tokenomics.

From M6 Labs

- **Stablecoin, Defi Token, and Layer 2 Rollups**
  Written by Crypto Ramesses, Researcher

About M6 Labs

M6 Labs: Your Guide to Cutting-Edge Crypto Narratives, Trends, and Analysis
Unlock the world of crypto with M6 Labs, where we break down complex topics and offer valuable insights into the latest trends. Whether you're a crypto novice or a seasoned user, our content is designed to guide you through the crypto landscape with confidence.

Join 30k subscribers to our newsletter, Crypto Pragmatist, to get cutting-edge crypto narratives, trends, and analysis.

Token Engineering Academy

- **New design, consideration, and Token Design Tools**
  Co-written by Angela Kreitenweis, Founder Token Engineering Academy
  Co-written by Roderick McKinley, CFA, Advisor and creator of Token Design

About Token Engineering Academy

TE Academy is the first crypto-native university to offer an educational program in token engineering. It combines computer science, game theory, systems engineering, data science, AI, as well as behavioral economics and organization theory. The bachelor-level program TE Fundamentals has 3.5K students enrolled. Their courses are available online, the Token Engineering Reads newsletter offers the latest in Web3 business modeling, incentive design, and token engineering tooling.

Internal Writers

Our internal writers have played a crucial role in crafting this annual report, contributing to tasks ranging from data gathering to content creation. We extend our appreciation to our dedicated internal team for their valuable efforts. Explore below to meet the individuals and learn about their roles within our company.

Prologue

- **Welcome to Token Unlock's Annual Report 2023**
  Written by Tanawat, Founder Token Unlocks
- **Concepts and Methodology**
  Written by 0xDegenalchemist

1. Insights and Implications

- **Part 1**
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  Co-written by Poomch,Tokenomist
- **Part 2**
  Written by Aof 0xQuark, Tokenomist and Content Writer

2. Timeline and Trend

- **Part 1**
  Written by Anonymous, Content writer

4. Future Outlook

- **Part 1**
  Written by Anonymous, Content writer
- **Part 2**
  Written by Jade, Tokenomist
- **Part 3**
  Co-written by Big, Product Manager
  Co-written By Shaun, Growth Lead

Additional Support

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- **Data Analyst**
  0xIsagi, Tokenomist and Developer Team Lead
- **Graphic Designer**
  By OnlyShiftster, Graphic Designer, Video Editor, and UX/UI Designer

About Token Engineering Academy

Token Unlocks is the best token analytics dashboard that monitors vested tokens, notifies users of upcoming unlock events and provides comprehensive tokenomics information. We curate both on and off chain data to deliver to you with the best intuitive user experience.

Sources

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