Evai Tokenomics Paper

Date: June 2024

What is Tokenomics?

Tokenomics encompasses both monetary and non-monetary rules that a project implements to encourage user coordination toward a specific goal. It primarily focuses on the distribution of token-based incentives, determining what should be rewarded and how to reward it. The aim is to distribute and utilize these incentives in a way that ensures positive net utility, where the total benefits for the entire community exceed the total costs, thereby contributing to the project's net positive outcome.

How it can Impact the Project?

1. Influencing User Behavior: Strategically shaping how users interact with the project.

Influencing user behavior through incentives is crucial because it aligns individual actions with the collective goals of a platform without resorting to coercion. Since direct enforcement of desired behaviors is not feasible, incentives serve as a motivational tool that guides users toward contributing positively to the ecosystem. By rewarding actions that support the network's objectives, users are naturally encouraged to participate in ways that benefit both themselves and the broader community. This approach fosters a cooperative environment where the incentives ensure that even if users' goals are not inherently aligned, their actions contribute to the overall health and growth of the platform.

2. Bootstrapping the Project: Laying the foundational financial and operational groundwork.

https://medium.com/@cdixon/crypto-tokens-a-breakthrough-in-open-network-design-e600975be2ef
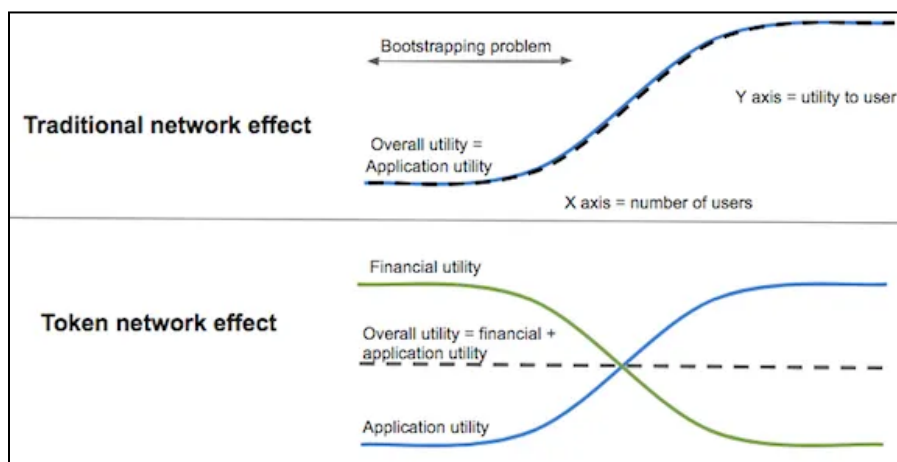
During the Web2 era, overcoming the initial hurdles of network bootstrapping often demanded extraordinary entrepreneurial endeavors and, frequently, substantial investments in sales and marketing efforts. The difficulty of bootstrapping networks means that potentially beneficial networks for collective well-being may never come into existence, simply due to the absence of effective strategies for their initiation. Web3 introduces an innovative method for initiating networks by utilizing token incentives. This strategy compensates for the initial lack of network effects that are crucial during the bootstrapping stage. By providing users with financial incentives through token rewards, it addresses the early-stage shortfall in inherent utility, encouraging participation and growth.

3. Engaging and Retaining the Community: Fostering ownership and incorporating gamification to maintain active participation.

In Web3, communities transcend the role of mere users or passive recipients of content and services; they are active participants, decision-makers, and often the driving force behind the success and direction of Web3 projects. By harnessing the collective intelligence, skills, and resources of their members, these communities lead to innovations more closely aligned with user needs and expectations. Given Web3's competitive nature, there is a high value placed on community engagement, frequently motivated by individual financial incentives. To nurture this engagement, it is essential to offer community members a meaningful stake in the protocol using token incentives.

Evai Approach

Evai has established long-term goals for its tokenomics, emphasizing genuine utility and financial rewards for token holders. Key objectives include:

- Encourage users to contribute to the Evai ecosystem.
- Align project and community goals through fair revenue distribution.
- Reward users based on the value created in the ecosystem.

Evai focuses on providing users with *challenges*, *freedom*, a *social environment*, and *ownership*:

1. Challenge: Evai offers a unique environment where challenge plays a central role, allowing users to demonstrate their skills and knowledge through action. This emphasis on accomplishment caters to the users seeking progress, skill enhancement, and the satisfaction of overcoming obstacles.

2. Freedom: Users are equipped with ratings and a variety of tools to aid in their decision-making processes. However, the power to choose how these resources are employed rests entirely in the hands of the users. By offering this level of autonomy, we encourage a more engaged and proactive user base, fostering an environment where individuals can explore, experiment, and ultimately find the most effective ways to leverage the tools at their disposal for their unique investments or trading journeys.

3. Social Environment and Ownership: Users have the freedom to openly discuss strategies and approaches to investing, all while being guided by a clear set of goals. This sense of community and shared purpose is crucial, but it's the feeling of ownership that truly motivates users. When individuals feel that they have a stake in something, they are naturally inclined to improve and expand upon what they own.

Incentives

- Staking: Have skin in the game and receive a share of the revenue.
- Trading: Demonstrate skill and receive boosted rewards.

- Referral: Attract users and receive mutual rewards.
- Discounts: Utilize tokens to get discounts on trading tools.

Buyback and Burn/Distribute

Burning tokens is a strategy often used to create scarcity by reducing the total supply of tokens in circulation, potentially driving up their value due to the increased rarity. However, scarcity on its own doesn't guarantee that the value of a token will increase—there must also be sufficient demand. If a token becomes scarcer but no one wants it, its value won't necessarily rise.

Use Case: Exploring Token Economy Inflation Dynamics[1]

In the 6th Man Ventures analysis of different inflation strategies on token economics, four inflation categories were explored: high inflation, stable inflation (control), zero inflation, and deflation. The simulation tracked changes across several metrics: crypto market trends, token emissions, network growth, and staking returns. The findings revealed unexpected behaviors that challenge conventional beliefs about token scarcity and value.
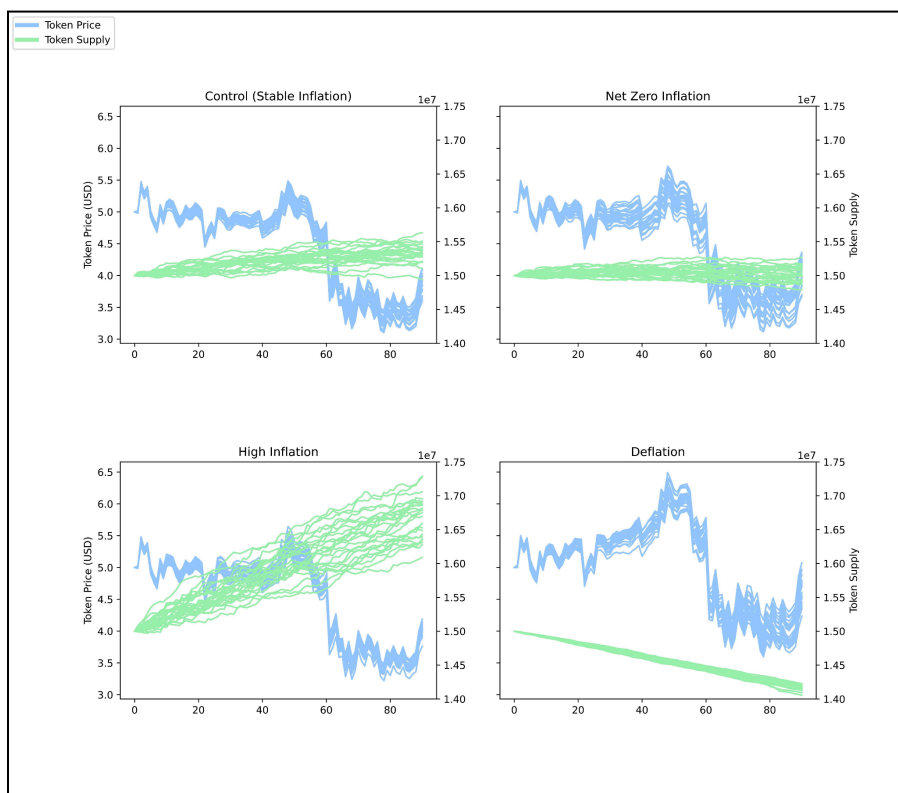
Analysis of different inflation strategies in token economies reveals some unexpected outcomes over short-term periods. The control inflation scenario, marked by a moderate increase of about 8%, exhibited the highest stability. In contrast, a high inflation scenario, increasing by approximately 37%, only

marginally reduced the token price with minimal impact on stability. Deflation, characterized by a reduction of around 37%, resulted in a slight increase in token price but decreased stability.

This case study indicates that inflationary measures typically believed to devalue token prices, do not always align with short-term outcomes. High inflation did not significantly lower token prices, nor did making tokens scarcer through deflation substantially raise their value.

Recognizing this, a balanced approach that combines token burning with strategies to boost demand is essential for enhancing a token's value sustainably. This is where the strategy adopted by Evai comes into play. Evai has decided not to burn all the revenue generated but instead to burn only a part of it. The remainder of the revenue is distributed among its most loyal users. This distribution serves a dual purpose:

- Creating Scarcity: By burning a portion of the tokens, Evai reduces the total supply, which can help increase the token's value if the demand remains steady or increases.
- Stimulating Demand: By distributing part of the revenue to loyal users, Evai not only rewards them but also incentivizes continued engagement and investment in the platform. This can lead to increased demand for the tokens, as recipients of the distributed tokens are more likely to value and use them within the ecosystem.

Evai is planning to distribute revenue in a 30/30/20/20 ratio:

Total Fees

Burn
20.0%

Distribute Back
20.0%

Evai Foundation
30.0%

Growth
30.0%
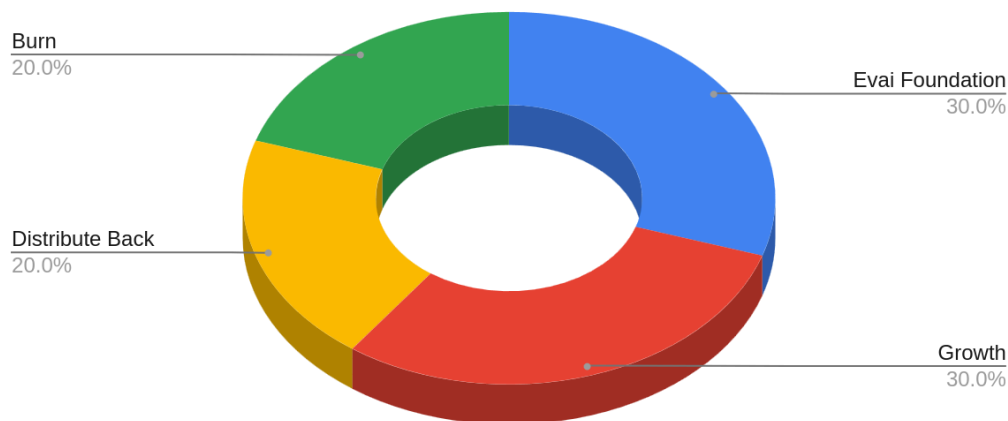
Revenue Distribution

Staking

Using staking to distribute a project's native tokens as rewards can have unintended long-term effects on the token's supply and value. When native tokens are given away as staking rewards, it increases the total supply in circulation. This dilution can lead to a decrease in the token's price if the increase in supply is

not accompanied by a proportional increase in demand. Over time, this price erosion can negatively community engagement, as the perceived value and purchasing power of the tokens diminish.

To mitigate these potential negative effects, Evai has chosen a strategy that involves distributing stablecoins earned through Evai trading activity instead of native tokens. By rewarding stakers with stablecoins, which are generally less volatile and maintain a consistent value tied to fiat currencies, Evai ensures that the supply of its native tokens remains unaffected. Thus, the strategy not only sustains long-term token price stability but also aligns with the interests of the community by offering tangible, stable rewards derived from actual economic activities.

- Revenue Allocation for Growth (30% of Total Revenue from Trading Fund): This portion of the revenue is reinvested into growing the trading fund. By increasing the size of the trading fund, the platform can engage in more or larger trading activities, potentially generating higher returns over time.
- Revenue Distribution to Community (20% Distributed to the Community): This portion of the revenue is given back to the stakers.

Increased Trading Fund → Increased Revenue: As the trading fund grows the reinvestment of 30% of the total revenue leads to increased trading capabilities and higher overall revenue. This is because a larger fund can capitalize on more opportunities or execute larger transactions, which might yield higher returns.

Increased Distribution to Community → Increased Engagement and Investment: Distributing 20% of the revenue back to the community incentivizes more people to participate or invest in the platform. This increased engagement can lead to a larger community, more capital inflow, and greater liquidity. As more people benefit and have a stake in the platform's success, they are likely to contribute more actively, either by increasing their investment or promoting the platform to new users.

Revenue distribution will be proportional based on the value created in the ecosystem:

- Staking Amount (A): The total funds staked by a user.
- Staking Lock-up Period (L): The duration for which funds are staked.

Staking Amount (A): Stakers are ranked based on their staking amount relative to others. For example, if a staker is in the top 1% of all stakers by amount, they receive a higher score. Let's denote the relative rank score as $Score\_A$, where higher ranks yield higher scores.

Lock − up Period (L): The lock-up period ranges from a minimum of 3 months to a maximum of 4 years. We assign a score $Score\_L$ that increases exponentially with the length of the lock-up period.

Reward Score vs. Lock-up Period
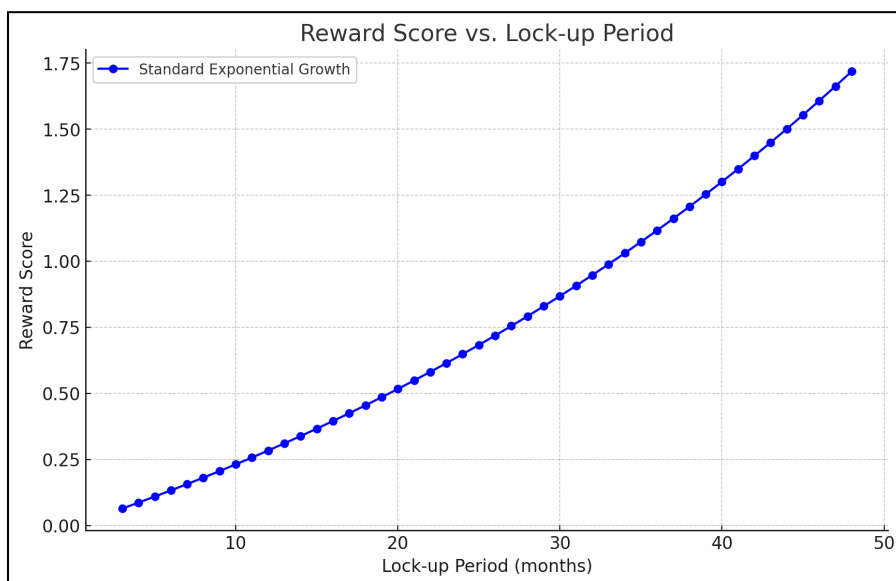
To compute the final score *Final_Score* for revenue distribution, we consider a weighted sum of these scores. In the future, Evai plans to add a contribution score ($Score\_P$) (such as the creation of educational materials). This system will place a higher weight on contributions, prioritizing the skills, knowledge, and real value of users over their financial resources.

$$Final\ Score = w_A \times Score\_A + w_L \times Score\_L + w_P \times Score\_P$$

Where:

w_A, w_L, and w_P are the weights assigned to the staking amount score, lock-up period score, and contributions, respectively.

Complementary (Discounts)

Evai will introduce straightforward token incentives through discounts on the purchase of Evai tools when using Evai tokens. This initiative is designed to enhance the value of holding and using Evai tokens, directly benefiting users who choose to engage with the platform's ecosystem.

To ensure a user-friendly experience, Evai will implement an internal dashboard that simplifies the purchasing process. Users will be able to make purchases directly using a credit card, without the complexity of acquiring Evai tokens from external decentralized or centralized exchanges. This eliminates the steps of transferring tokens to an internal Evai wallet before being able to use them for transactions, such as subscribing to services or making other purchases.

By streamlining the purchasing process, Evai aims to make it more accessible and convenient for users to take advantage of the benefits offered by using Evai tokens, thereby encouraging wider adoption and utilization within the ecosystem.

Supply Policy

Total Supply: The Evai has a total token supply of 800,000,000 EV tokens, initially issued on the Binance Smart Chain (BSC) as part of a pre-seed sale.

Existing Token Holders: Holders of the currently distributed 214,000,000 tokens, representing a portion of the total supply, are provided the opportunity to transition their holdings to the Solana blockchain via dedicated bridge, ensuring a seamless transition from BSC to Solana tokens.

Current Unallocated Supply: The remaining unallocated supply amounts to 586,000,000 tokens. These tokens are allocated for the forthcoming token sale, with the transaction process to be conducted via the bridge into Solana. This strategic allocation aims to bolster the project's growth and expand its ecosystem on the Solana platform.
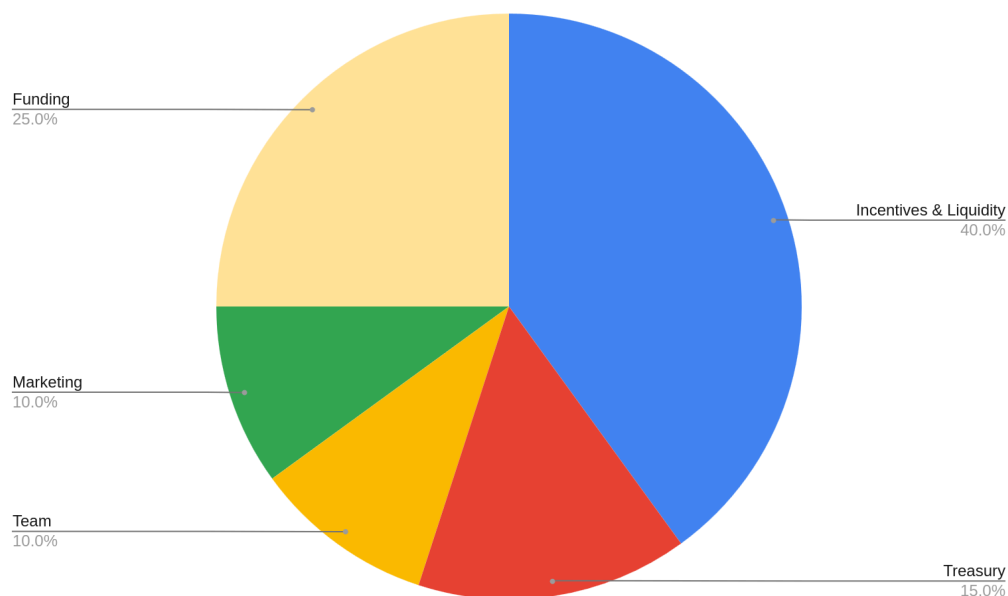
Allocation of 586M:
Incentives & Liquidity - 40%
Treasury - 15%
Team - 10%
Marketing - 10%
Funding - 25%

Allocations Pie Chart

Emissions

The emissions schedule will adhere to a linear monthly unlock process.
Team: 12-month cliff before the unlocking process begins, which then continues linearly over the following 24 months.

Treasury: 6-month cliff before the unlocking process begins, which then continues linearly over the following 36 months.

Funding: 6-month cliff, followed by an 18-month linear unlock process. *(The launchpads are excluded from vesting schedule, in the plot below, assuming 5% is not locked)

Incentives & Liquidity: There will be no lock at the token offering event on the CEX and DEX. The remainder will be a subject to a linear unlock over the next 36 months.

Assuming, for example, 5% unlocked funds from the <u>Incentives & Liquidity</u> pool, the graph of emission looks as follows:
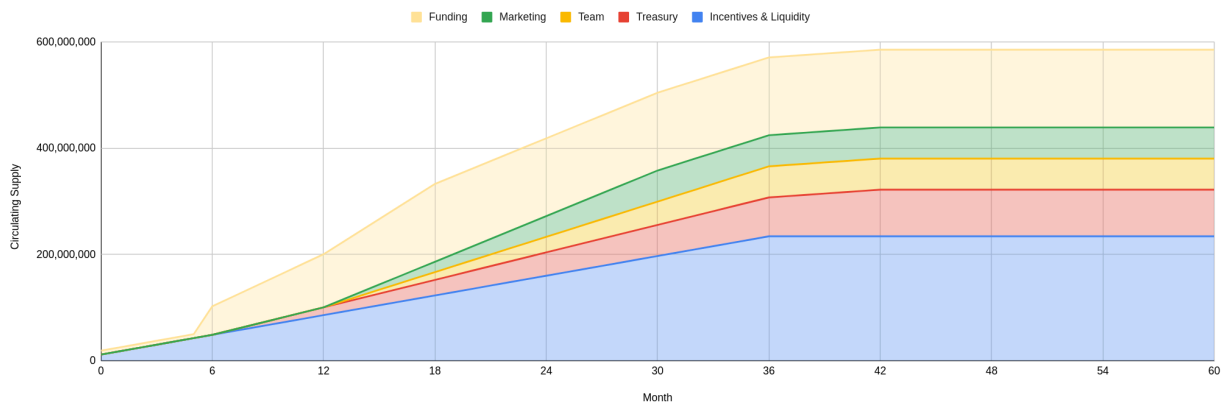
Visual Emissions Schedule

The Spreadsheet of Allocations and Emissions Schedule can be found <u>here</u>.

Economic Simulations

- The methodology will center on the use of stochastic approximations to model and analyze the system. This approach allows us to estimate the collective behavior of agents within a system under conditions of uncertainty and variability. By leveraging stochastic approximations, we can efficiently simulate and predict outcomes without the need for detailed data on every individual component. This principle underpins our commitment to achieving both accuracy and computational efficiency in our simulations.

- Simulations will be used with a focus on understanding price dynamics, not to predict the exact future price, but rather to comprehend the conditions and environment conducive to price appreciation or identifying factors leading to price declines.

- In our analysis of the economy, we will adhere to comprehensive principles that prioritize both sustainability and stability.

Modeling Parameters

1. Valuation Approach: Equation of Exchange.

2. Iterations: 60 months, corresponding to the current release schedule provided, with each iteration spanning 1 month.
3. Initial Price: $0.006
4. Transactional Data: Utilizes business forecast information, showing linear growth starting from 100,000 and reaching up to 4 million transactions.
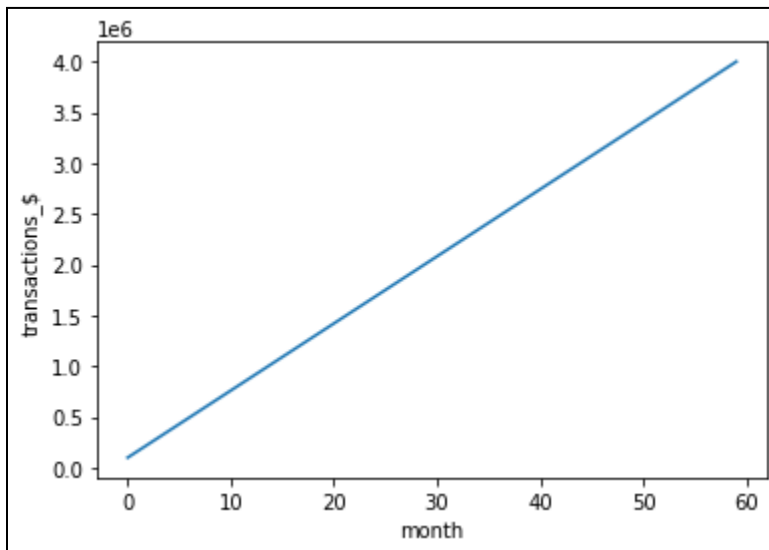
Transaction Linear Growth

5. Holding Time: The holding time data utilized in our analysis was compiled from a collection of holding times extracted from various industry projects. This dataset has been adopted as a robust basis for determining holding times, underpinned by the rationale that observed patterns across these projects offer a substantial foundation for formulating well-informed assumptions about future asset holding durations. By leveraging this historical data, we have established a benchmark for holding times, ensuring our projections are anchored in tangible, real-world observations and trends.
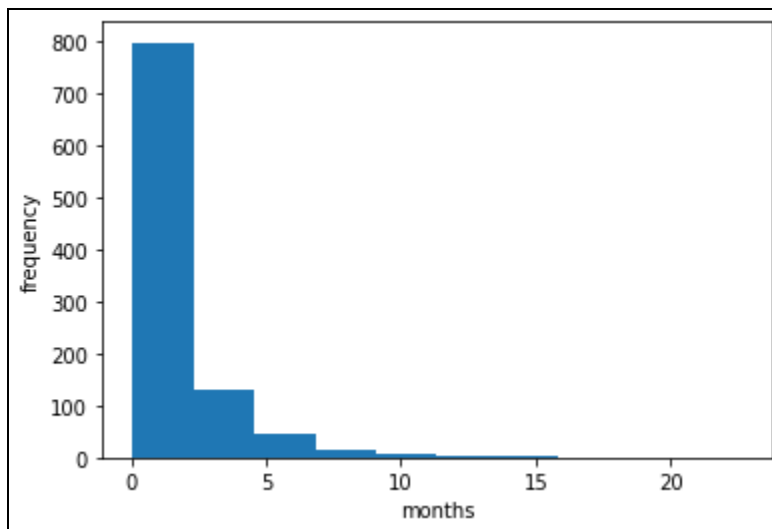

Visual Holding Time Representation as Lognormal Distribution

The outcomes of the simulation are presented below. The thick blue line represents the expected price, derived from the analysis of 100 simulations. The shaded regions indicate the 95% confidence intervals.

Scenario 1: Base Case

The first simulation employs a base case scenario, utilizing predefined assumptions over a 60-month period that mirrors our project's release schedule. It incorporates previously mentioned adjusted transactional data and holding times.
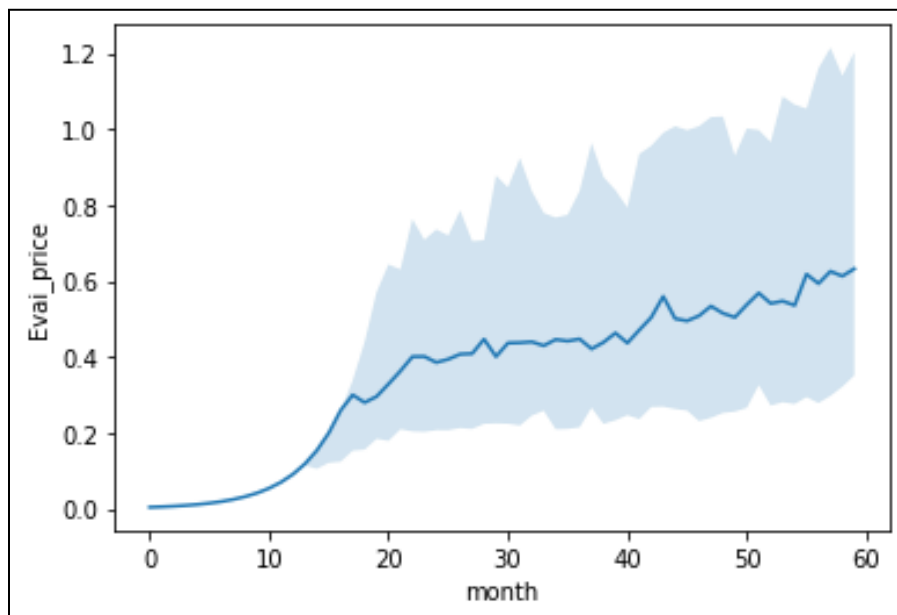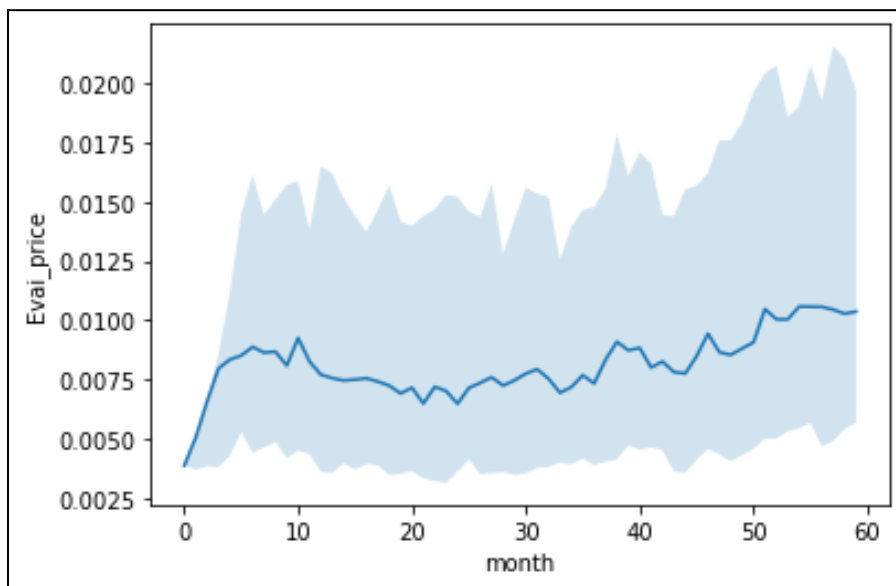

Base Scenario Simulation

Scenario 2: Transactions Suppression I

In this more conservative simulation, we adopt a bearish perspective by significantly scaling down the transaction metrics to 10% of those used in our initial scenario. This approach allows us to examine the potential outcomes under less favorable market conditions.

Price appreciation can still be observed, albeit at a slower and less aggressive pace.

Transactions Suppression I

Scenario 3: Transactions Suppression II

In this transaction suppression simulation, we adopt a bearish perspective by significantly scaling down the transaction metrics to 50% of those used in our initial scenario, but only for the first year. Subsequently, the growth metrics return to standard assumptions.
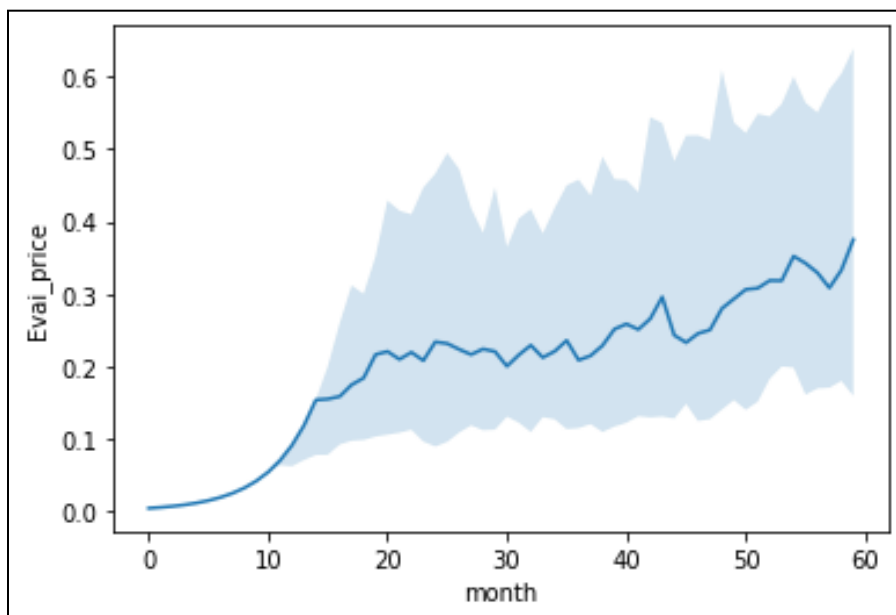
Transactions Supression II

Conclusion and Observations

1. Price appreciation is observed even with conservative and bearish metrics. This indicates that even modest achievements relative to transaction volume can lead to significant value increases, highlighting the potential for growth despite cautious projections.

2. Simulations identified the specific metrics that contribute to a decrease in price, providing valuable insights for Evai. This understanding aids in strategic planning and decision-making, allowing Evai to address and mitigate factors that negatively impact price.

3. Price appreciation, along with the current token supply allocation and emissions, demonstrates that the tokenomics from a quantitative perspective are defensible and can appreciate even without modeling forward multiples, which are often observed in euphoric market conditions to be 5-10x.

Expertly developed by Hacken and Dr. Stylianos Kampakis[2]

Designed to be approachable for non-technical readers while providing enough depth to inform seasoned investors about the token's economic framework, this lightpaper crafted by Hacken is an indispensable tool for communicating the strategic financial underpinnings of the Evai project.

HACKEN

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[2] *Dr. Stylianos (Stelios) Kampakis is a data scientist and tokenomics expert with more than 10 years of experience. His seminal work in token economics has led to many successful token economic designs using tools such as agent-based modeling and game theory. He is a member of the Royal Statistical Society, an honorary research fellow at the UCL Centre for Blockchain Technologies, and a data science advisor for the London Business School.*

Appendix

Questionnaire Assessment

In terms of the questionnaire, we will proceed with the questionnaire published by the JBBA.[3] It will assist us in assessing the overall health of the Evai token economy.

Business-Token interaction (2)

1) Do tokens improve the current business model? Yes:**1**, No:0

2) Is the token nice to have, or an essential part of the business model? Essential: 1, Nice-to-have: **0**

3) Can the project gain value (not the token) in fiat terms? Yes:**1**, No: -1

Structural Analysis (7.5)

Break down explaining main system mechanisms and interactions:

1) **Cash-flows:**
   a) Does the token economy have an influx of value (e.g. in fiat) coming in? Yes:**0**, No: -1
   b) Does money stay in the token economy, or is there pressure to immediately sell? Stay: **1**, Sell-pressure: -1
   c) Are there Ponzi-like elements? Yes: **0**, No: 1

2) **Mechanisms and economic agents:**
   a) Do interactions generate additional value expressed in fiat? Yes: **1**, No: 0
   b) Does the project require a critical mass in order to be able to provide value? E.g. social networks are a good example of this. Yes: 0, No: **0.5**
   c) Are the incentives speculative? For example, rewards with no underlying value? Yes: -1, No: **0**

3) **Demand Drivers:**
   a) Do all the demand drivers depend on controllable factors or uncontrollable factors? An example of a controllable factor is product quality. An example of an uncontrollable factor is simply conditions. Controllable: **1**, Uncontrollable: 0.
   b) Are there levers of the economy that can be used to influence the demand? Yes: **1**, No: 0
   c) Do they depend on entities that generate real economic value or more on internal or speculative factors, e.g. expected token appreciation because of rewards? Real economic value: **1**, Speculative: -1

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[3] *https://jbba.scholasticahq.com/*

4) **Governance (Evai has no community governance):**
   a) Can a majority take over? Yes: -1, No: 1
   b) Can governance cause sticky points? For e.g., votes need to take place, but no one is voting. Yes: 0, No: 1

5) **Empirical proof:**
   a) Has there been proof that the mechanisms used in the project can work successfully? Yes: **2**, No: 0

Allocation and Distribution (1)

1) Does the allocation favor pump-and-dum ps? Yes: -1, No: **0**
2) Does it provide unnecessarily large stakes to certain actors? Yes: -1, No: **0**
3) Does the distribution avoid creating unnecessary sell pressure? An example of this can be excessive airdrops. Yes: **1**, No:0

Stability and stress tests (3)

1) How exposed to shocks is the token? Answering this requires simulations. Use a scale from -2 to 2. A 2 represents a token that can withstand huge shocks (e.g. massive bear market), and a -2 represents a token that can only appreciate when conditions are perfect. (**1**)

2) Does the token appreciate when simulated? If the objective of the token is to provide a peg or some other functionality, then this question can be ignored. Yes: **1**, No: -2

3) Does the system have feedback loops, which could accelerate a crash (e.g. the Terra/Luna case)? Yes: -1, No: **1**

Points Interpretation

The maximum score can be 18.5:
- Business-token interaction(3)
- Structural(10.5)
- Allocation and distribution(1)
- Stability and stress tests(4)

The lowest possible score can be -13:
- Business-token interaction(-1)
- Structural(-5)
- Allocation and distribution(-2)
- Stability and stress tests(-5)

Evai score

- Business-token interaction (2)
- Structural (7.5)
- Allocation and distribution (1)
- Stability and stress tests (3)

Letter rating	Score	Percentage
AAA	16-18.5	86%+
AA	14-16	75%-86%
A	**12-14**	**65%-75%**
BBB	10-12	54%-65%
BB	8-10	43%-54%
B	6-8	32%-43%
CCC	4-6	22%-32%
CC	2-4	11%-22%
C	0-2	0%-11%
DDD	-4-0	-21%-0
DD	**-8-4**	**-42%-0**
D	<-8	<-42%