cSIGMA

SIGMA Crypto Tokenomics

TOKEN SETUP. SIGMA is the core utility token of the CSigma Finance platform. The SIGMA is a fixed supply token with a supply of 1 BN. While the token cannot be used as a payment/settlement method on the platform and is a non-performing token (i.e., there is no economic value in holding tokens), it carries other utilities, as detailed below. The other core functions of the token are:

- Staking the token for benefits (discounts, gated access)
- Staking for lending pools extra collateral
- Rewards distributions for:
    a. Providing liquidity to the token
    b. Performing certain platform actions (Lenders, Pool Managers, Portfolio managers, 3rd party credit rating partners, decentralized credit rating validator nodes)
- Governance

POOL EXTRA COLLATERAL. When pool managers create pools, they can opt to:

- Provide additional rewards in the SIGMA token to users who provide extra collateral
- Share a % of the interest rate collected with the users who provide extra collateral

Any user can provide extra collateral, by staking (explained in more detail below) the SIGMA token within the pool. By doing that they get both the pool-specific benefits AND staking benefits.

However, by staking their tokens in a pool, users also run the risk of their tokens being paid out as compensation to the pool Lenders in case one or more of the loans in the pool default. This is an approach already employed by big players in the DeFi space such as:

- AAVE - https://docs.aave.com/aavenomics/safety-module
- MakerDAO - https://docs.makerdao.com/smart-contract-modules/system-stabilizer-module

TOKEN STAKING. Token staking plays a special role on the platform. First users can:

- Stake their tokens in a pool (and get both platform benefits and pool benefits, but run the risk of their tokens being liquidated).
- Stake their token on the platform (get only platform benefits with no liquidation risk.

Additionally staking acts as a reputation gauge for fresh Pool and Portfolio managers. Pool/portfolio managers rely on their reputation score within the platform to increase the visibility and trust in their services. New managers who have not yet acquired experience, can stake tokens to temporarily boost their reputation score. If however they do not meet certain performance standards, those tokens could be slashed and then re-distributed to users of their services.

All stakers can stake their tokens with or without duration and based on that they receive Staking Power (SP). Let's illustrate how this works:

- User A staking 1 000 tokens without duration will have 1 000 x 1 (multiplier) = 1 000 SP
- User B staking 1 000 tokens with a duration of 1 year might have 1 000 x 2 (multiplier)= 2000 SP

The sum of SP the user has across all pools and the platform determines the benefits the user gets from the platform.

Benefits	Staking power	Benefits
1	21,875+	Platform fee reduction
2	87,500+	Further platform fee reduction
3	350,000+	Further platform fee reduction
4	1,400,000+	Above + increased limits for Pool creators / Portfolio managers.
5	3,500,000+	Same as above + higher limits

Any token holder can stake against a specific pool (as described in the POOL COLLATERAL section above). By doing so, they receive extra rewards, but also run the risk of having their token position liquidated.

PERPETUAL REWARDS. The platform will distribute rewards to users who participate in the following actions:

- Providing liquidity to the SIGMA token on a pre-approved AMM DEX pool.
- Rewards for (Lenders, Pool Managers, Portfolio managers, 3rd party credit rating partners, decentralized credit rating validator nodes)

The rewards will be distributed from a fixed supply reward pool. They will be distributed on a daily basis and will be based on the outstanding tokens in the pool. For example, 0.10% of the outstanding tokens in the pool would be distributed on a daily basis among all groups of people eligible for rewards (the exact percentage allocation to be determined later). The above setup means that:

- The reward pool can never be depleted since the rewards are always distributed as a percentage of the outstanding tokens in the pool.
- The rewards get less and less over time (Bitcoin style), but the net USD value of the rewards might increase if the price of the CSigma Finance token increases.
- This rewards mechanism provides capped inflation and is compatible with fixed supply tokens (as opposed to perpetual inflation)

REPLENISHING THE REWARD POOL. The platform will use a % of revenues collected in order to buy back the token from the market and replenish its reward pool. The pool replenishment will be triggered if the pool's current token availability falls below a certain threshold. On the other hand, if the pool is above this threshold, the leftover tokens (overflow) will be utilized for Liquidity provision.

LIQUIDITY PROVISION. With the emergence of Decentralised Finance (DeFi) and Automated Market Makers (AMM) such as UniSwap, an alternative approach to token burning has emerged, that captures some of the burning benefits while at the same time being less regulatory risky (not a legal opinion) and adding deeper liquidity for the token. In this scenario, instead of burning tokens, they are provided as liquidity for the token on its primary AMM market, and then the resulting LP tokens are stored in the Treasury. Thus, combining the benefits of the reduced token supply with deeper liquidity for the token.

The platform will dedicate a certain % of all revenue collected to buy back the token from the market and towards Liquidity provision.

GOVERNANCE. The platform governance will be facilitated by the already staked SIGMA tokens. Staking for a longer duration yields more voting power. The following formula determines the voting power:

VP = T x M

Where:

- VP is voting power
- T is the number of tokens staked
- M is a multiplier based on the duration for which the tokens are staked (exact numbers to be provided in the full paper)

The platform governance will have three distinct stages:

- EARLY DAYS. During this period, the team is in complete control of the project, and no voting is done. This is because bugs and events will require immediate hotfixes, and this cannot be done democratically.
- SEMI DECENTRALISATION. During this period, the team is still in complete control of the project and can deploy hotfixes as above, but for the non-urgent decision, it can take community input via a forum or even via off-chain voting like a snapshot - https://snapshot.org/#/
- COMPLETE DECENTRALISATION. During this stage, the project is fully decentralized, all decisions are made via a strict procedure, and all voting is done on-chain.

During Stage 3, the platform's governance rules will be structured on the market's best practices for governance.

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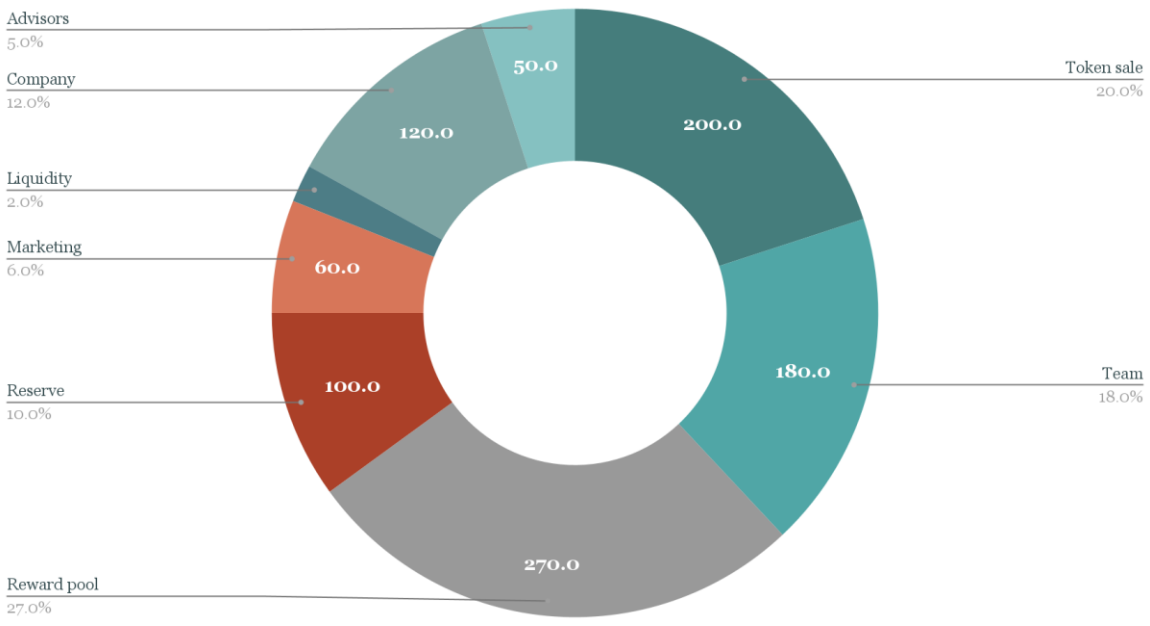
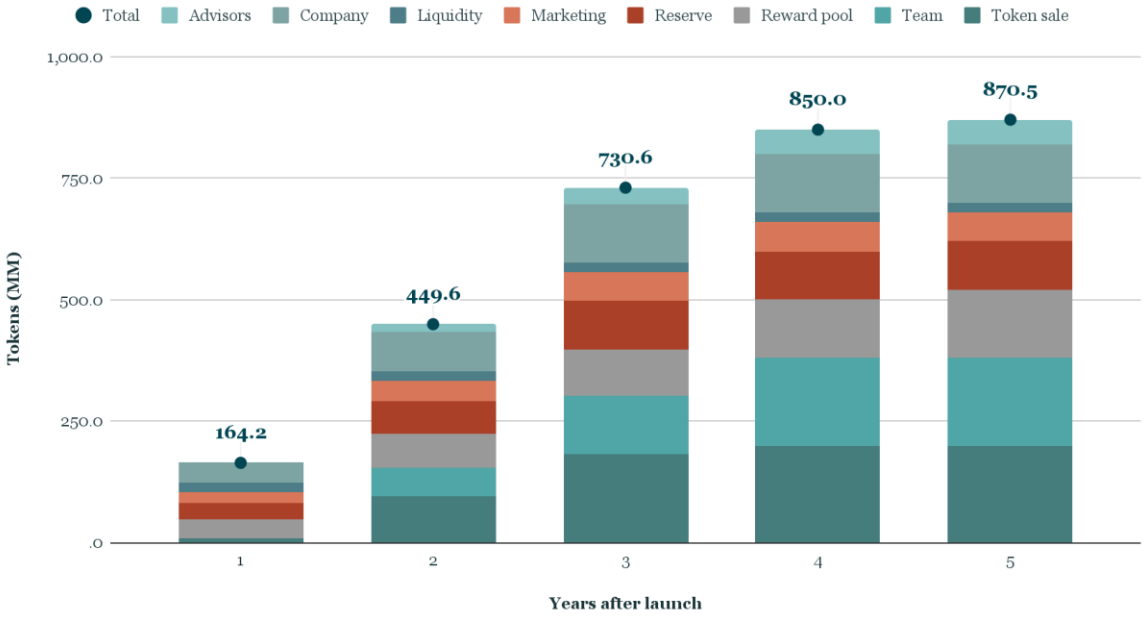
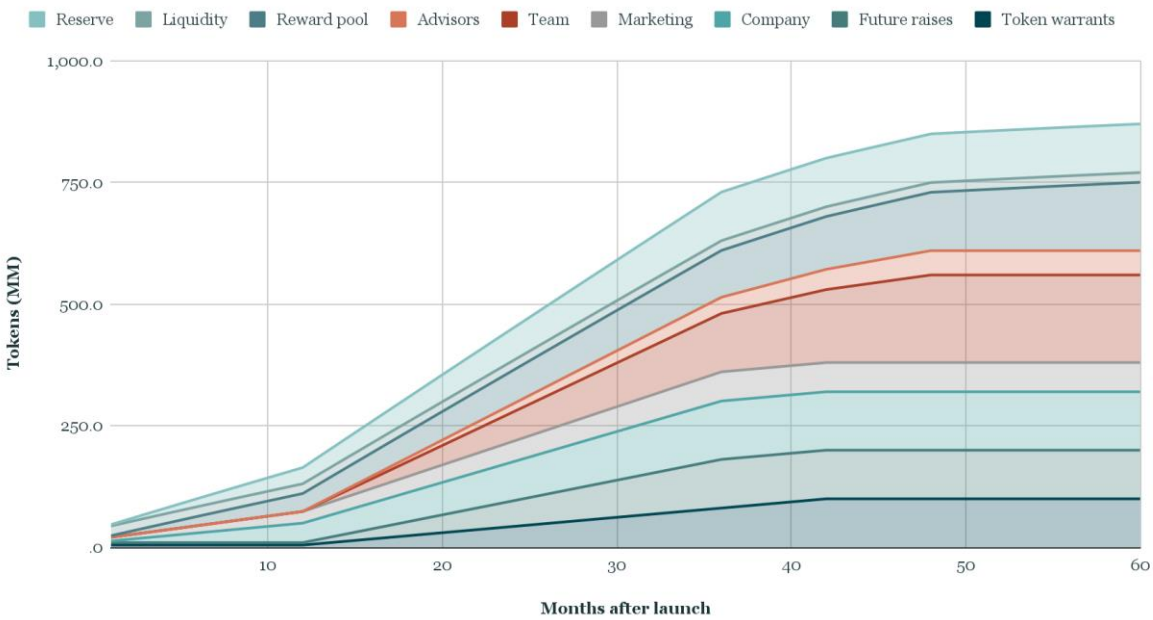
SUGGESTED TOKEN SETUP.

Vesting schedule, per token allocation						
Stage	Allocation	Tokens (MM)	Listing release	Cliff	Vesting	Monthly release
↳ Token warrants	10.0%	100	5.0%	12	30	3.17%
↳ Future raises	10.0%	100	5.0%	12	24	3.96%
↳ Company	12.0%	120	0.0%		36	2.78%
↳ Marketing	6.0%	60	10.0%		36	2.50%
↳ Team	18.0%	180	0.0%	12	36	2.78%
↳ Advisors	5.0%	50	0.0%	12	36	2.78%
↳ Reward pool	27.0%	270	0.0%		12	Non-linear release
↳ Liquidity	2.0%	20	100.0%			
↳ Reserve	10.0%	100	0.0%		36	2.78%
Totals	**100.0%**	**1,000**	**3.6%**			







TOKEN VALUATION. The token valuation will be performed using the Quantity Theory of Money and the Equation of Exchange, which is generally used for currency-like assets that are not productive.

NB!: Non-productive tokens are generally considered a weaker economic design than productive tokens. Productive tokens, however, have serious security implications. That being said, the market knows examples where non-productive tokens outperform productive ones.

APPENDIX

Rewards for Liquidity and LP tokens (as described in the rewards section). The process of providing liquidity on an AMM DEX involves depositing the SIGMA token + the other token of the pool (typically USDT or USDC). Once the liquidity is deposited, the user receives an LP token representing the position (on UniSwap the token would be something like UNI_LP_SIGMA_USDT). When the user stakes the LP token on the sigma platform, only they do they become eligible for rewards.

Phasing. The protocol will broadly launch into 3 phases:

- Phase 1 (inception), to include the following tokenomcis features (as described in this document):
    - Staking (generic)
    - Perpetual rewards for LP providers
    - Liquidity provision
- Phase 2 (full functionality), to include:
    - Governance
    - Rewards replenishment
    - Extra pool collateral
    - Perpetual rewards for (Lenders, Pool Managers, Portfolio managers, 3rd party credit rating partners, decentralized credit rating validator nodes)
- Phase 3 (further upgrades), includes potential further enhancements, beyond the scope of this document, which are likely to be voted on by governance. Those might include monetary policies such as inflation or deflation.