BCAMP Token - veBCAMP Decay Model

Fundamental Requirements

- The ultimate goal of patronage tokens is to incentivize the community to contribute to BCAMP and distribute profits accordingly. A longer commitment to BCAMP will be appreciated.
- BCAMP Token will be issued to recipients based on their contribution; this step will be completed by the ‘HR’ department which decides the amount of the token to each recipient based on their performance.
- The recipient will have the discretion to 'lock' their tokens for a certain time period to exchange for veBCAMP; within the lock period, they have the opportunity to exercise veBCAMP options (such as voting, receiving dividends, and redeeming products).
- The unused veBCAMP will be burnt after the lock period ends.

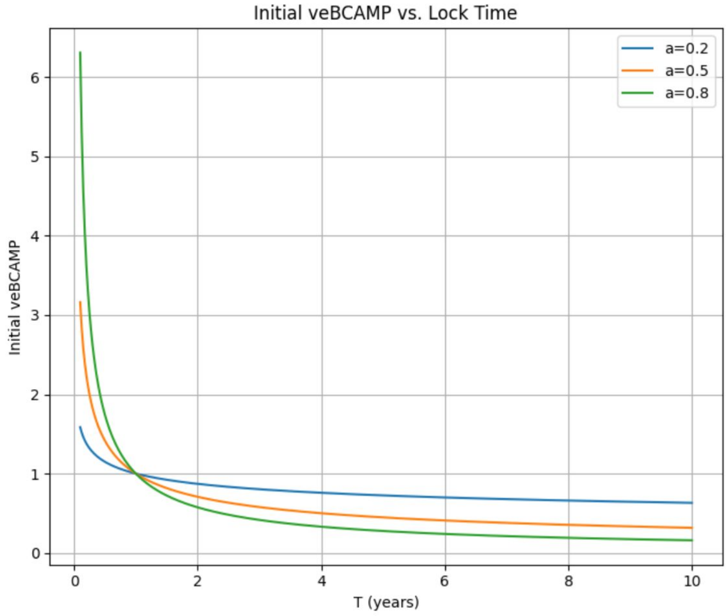
The next question...

How many veBCAMP will be exchanged by one BCAMP Token initially and how the veBCAMP will decay over time?

- Assume linear decay of the value of veBCAMP
- A longer lock period will lead to a smaller amount of initial veBCAMP exchanged from one token
- However, the ‘total’ value of the veBCAMP over the entire lock period will be greater if the recipient is willing to lock veBCAMP for a longer time

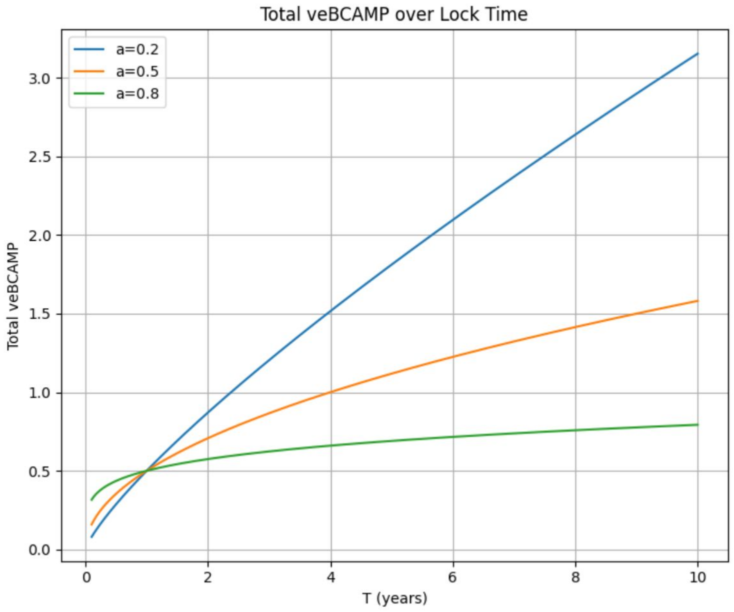
Approach #1

- Initial veBCAMP
    - Amount = 1 / T^a
    - a is a parameter that can be adjusted
    - By fine-tuning a, the initial amount can be allocated for different lock times and different classes of recipients



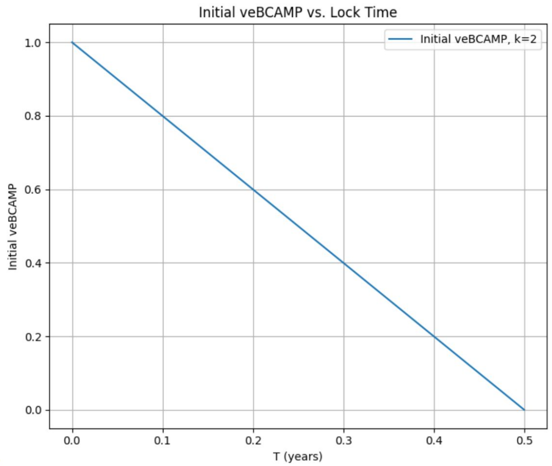
Approach #1 (Cont.)

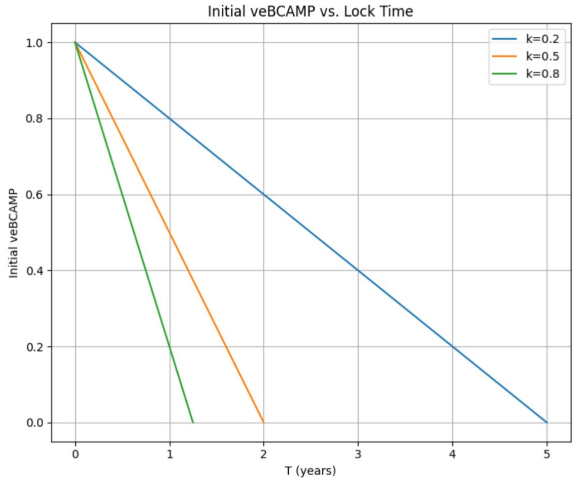
- Total Value
  - TV= T^(1-a) / 2
  - The total value of veBCAMP accrued over the locking period increases over time. T
  - Encourage longer lock periods
  - This design is to reflect the trade-off between lock-time and initial amount



Approach #2

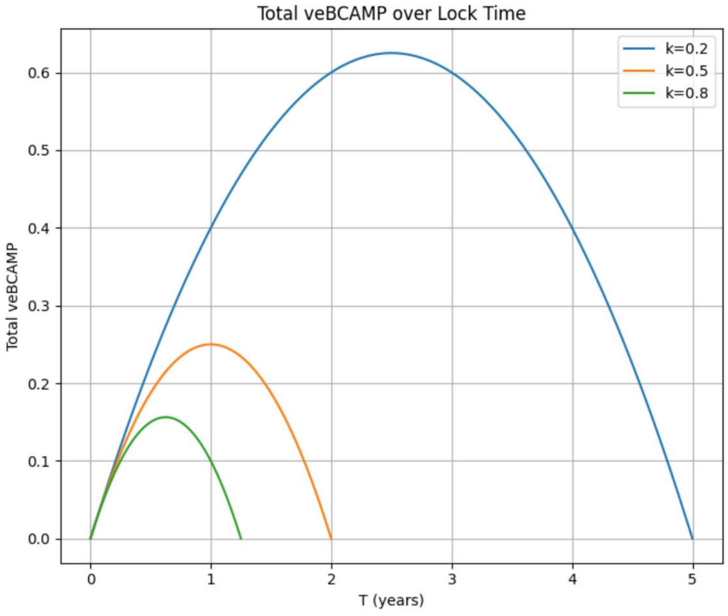
- Initial veBCAMP
  - Amount = 1 - kT
  - k is a positive constant
  - T is the lock time chosen by the recipient
  - T < 1/k constraint ensures positive initial amount
  - It is better to have smaller k so that the lock period will be longer





Approach #2 (Cont.)

- Total Value
  - TV = (1-kT) * T / 2
  - Due to the quadratic nature, the total value is not constantly increasing
  - An optimal T to maximize total value exists



Goal This Quarter

- Finalize the approach we are using
- Finish coding the smart contract based on the CRV and Ve-CRV model along with the approach finalized
  - https://curve.readthedocs.io/dao-vecrv.html#implementation-details
  - https://etherscan.io/address/0x5f3b5dfeb7b28cdbd7faba78963ee202a494e2a2#code
- Being able to clearly present the approach and coding