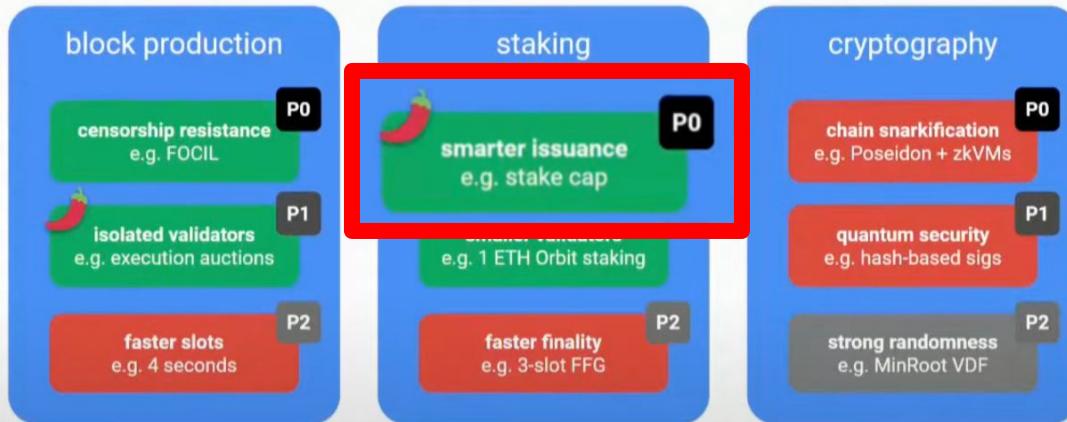


Why Ethereum's issuance policy is [unsustainable]?

Devcon, Nov 14 2024

Ansgar & Caspar
Research at EF

consensus layer roadmap



DC7 SEA

 Top Questions (37)

Why are eth researchers obsessed with lowering issuance? It's already extremely low and rewards will go even lower as activity continues to move to L2s.

17 ↑

Any way to accelerate that timeline?

17 ↑

Is this also the right time to think more about building privacy into the network? If not now, when?

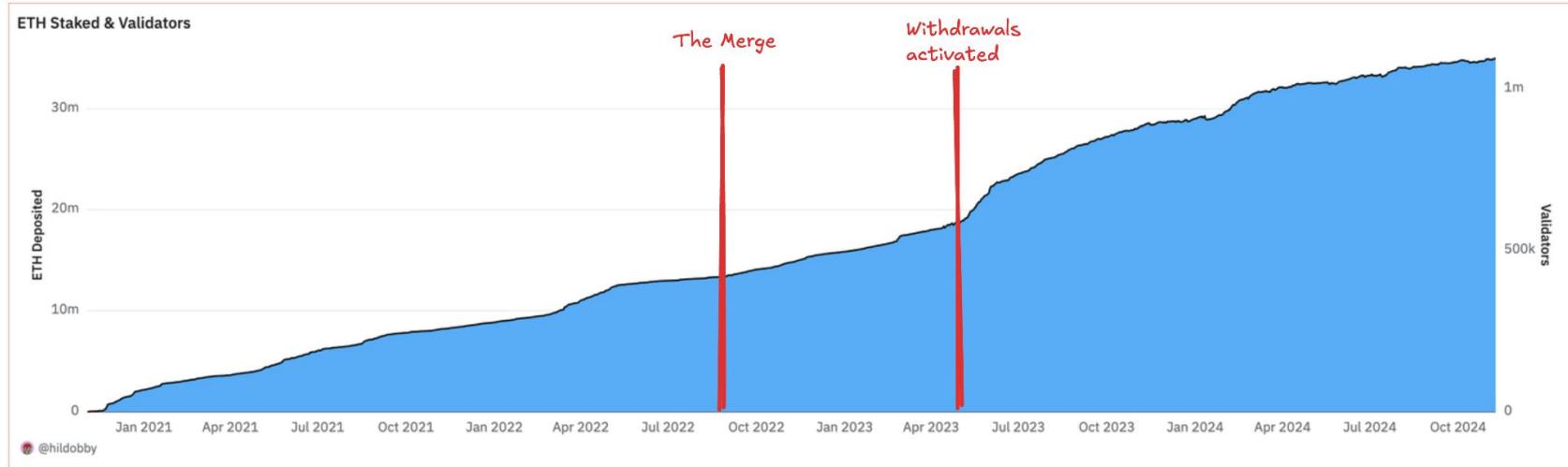
15 ↑

Attendees (77) Votes (142) 

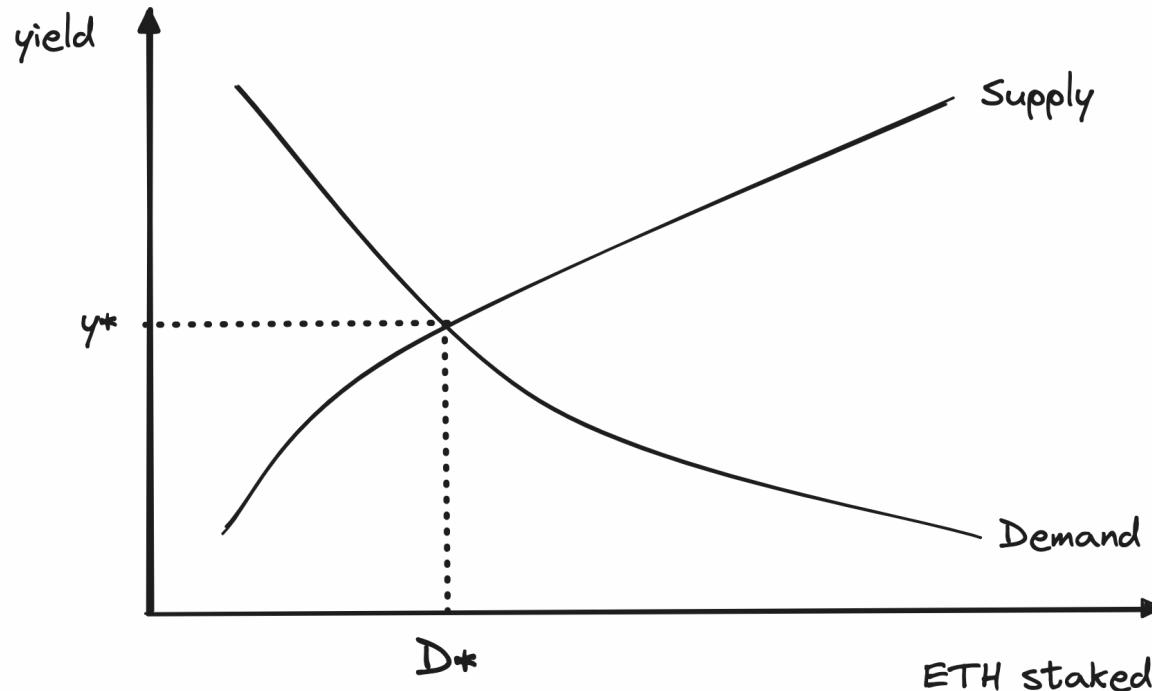


1. **Staking trend**
2. Nominal vs. real yield
3. Issues w/ too much stake

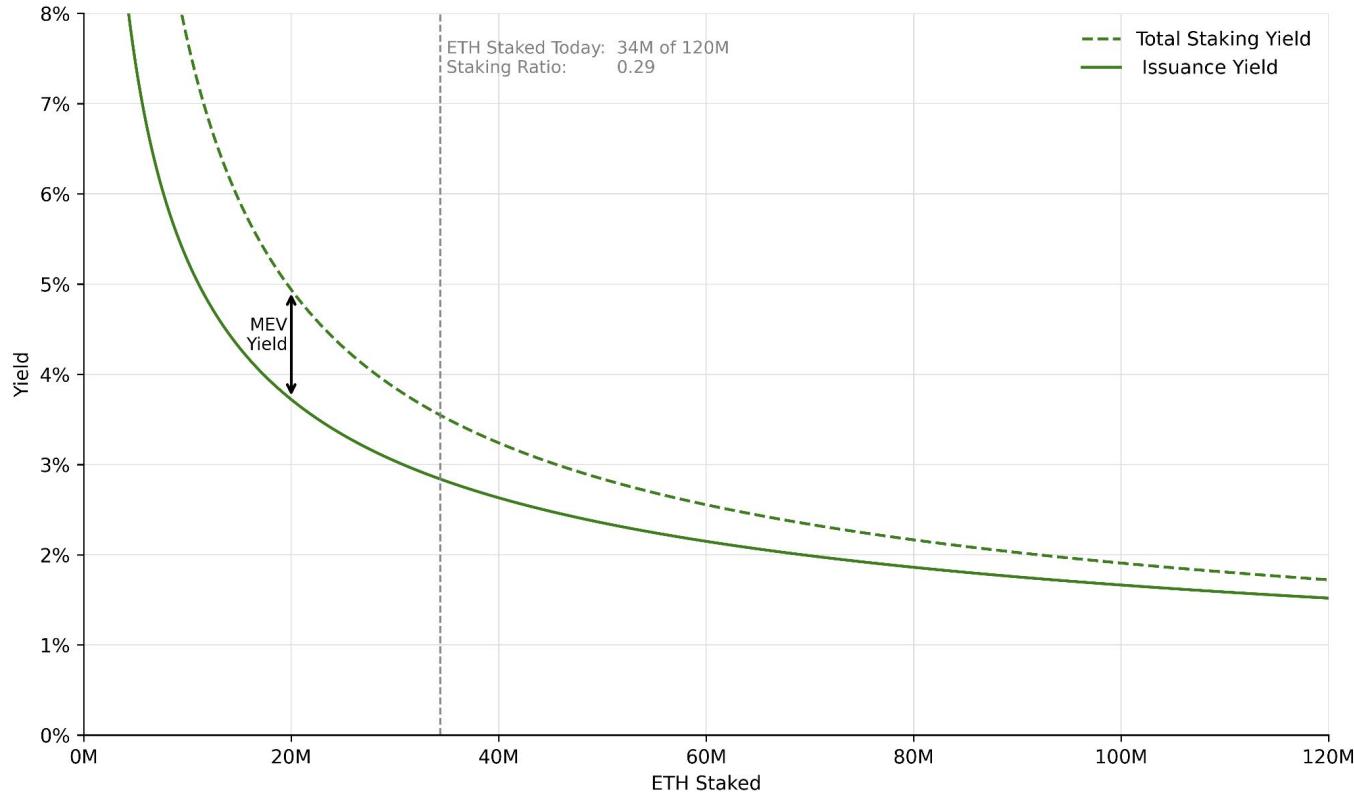
Staking trend



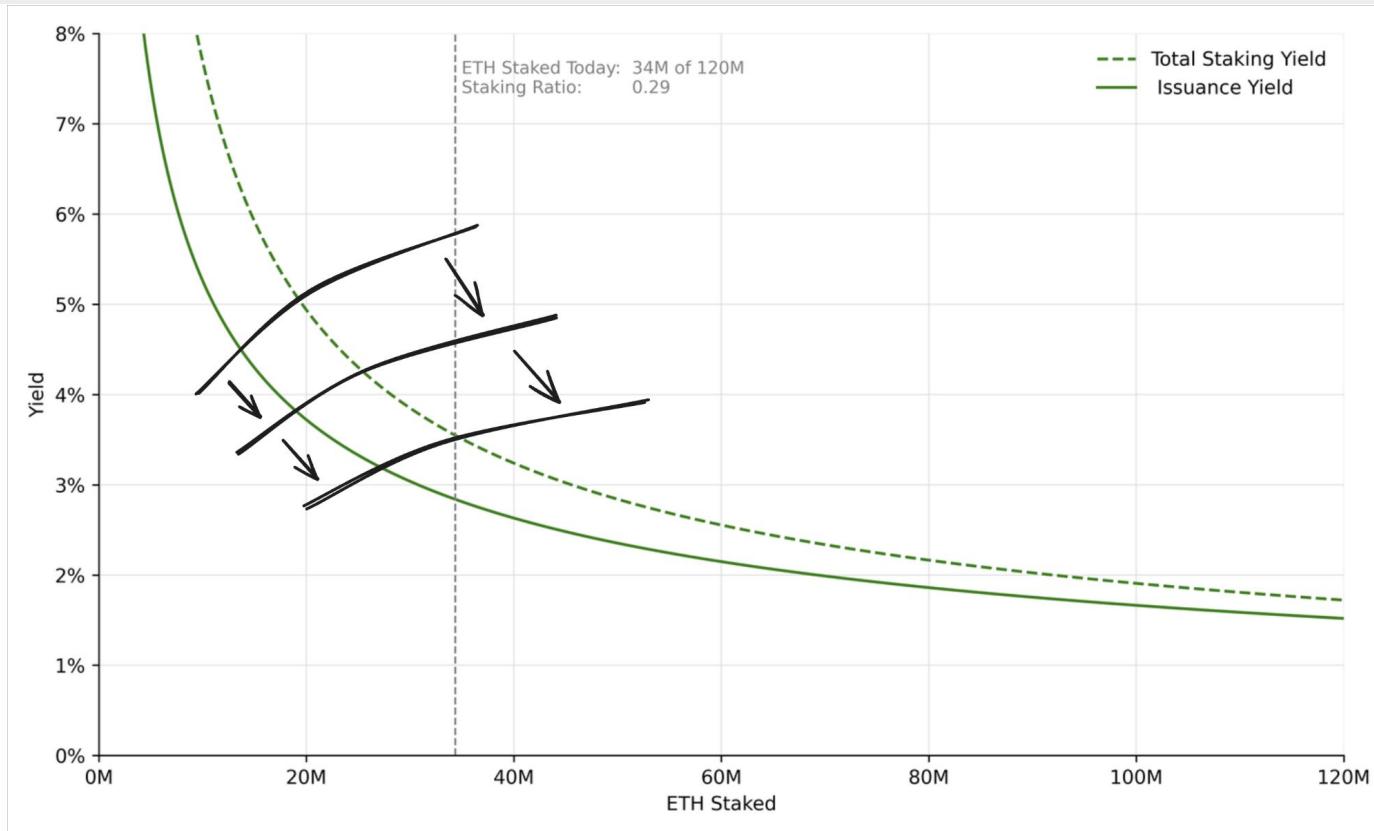
Supply & demand



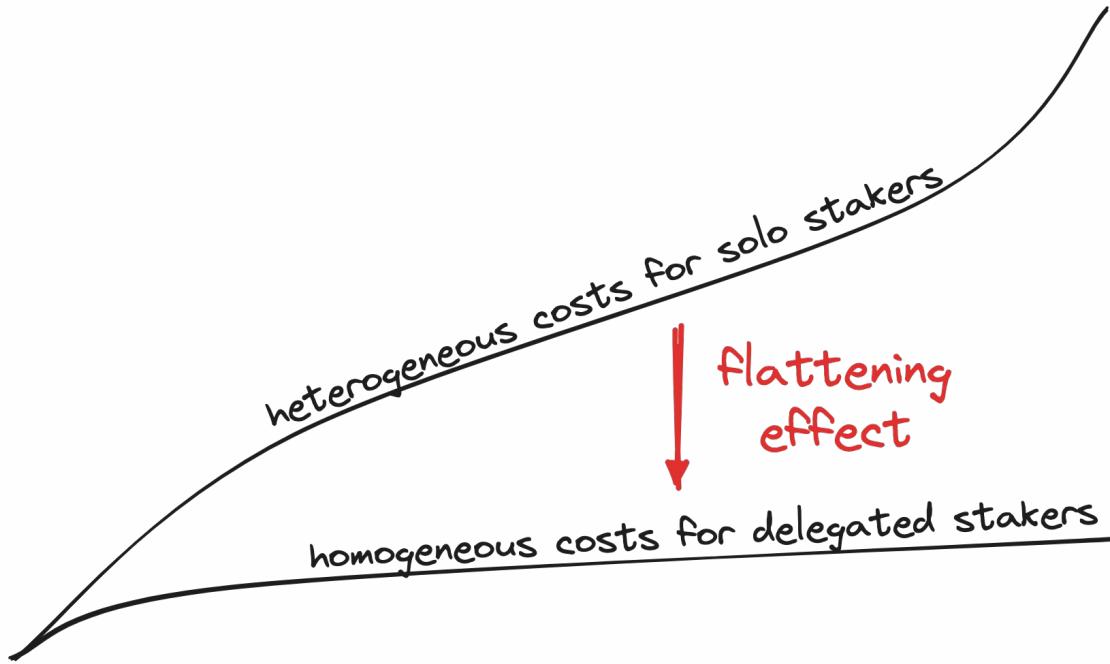
demand



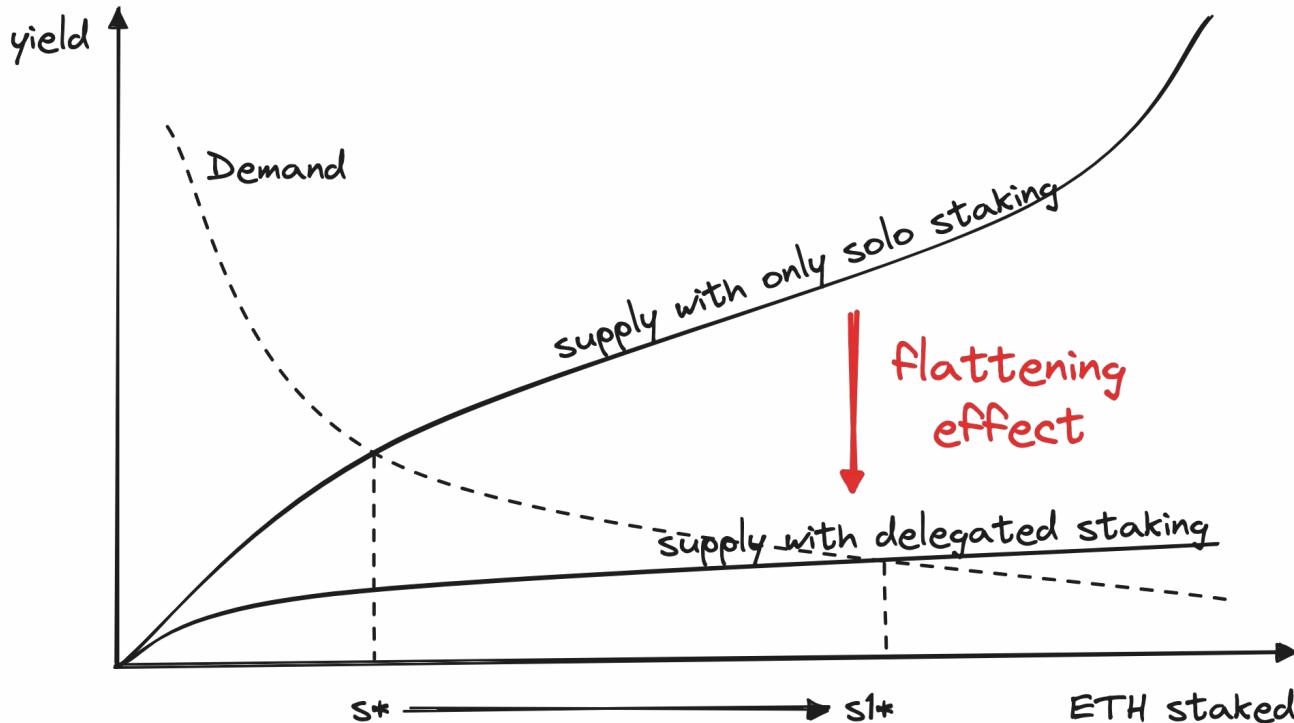
Supply & demand



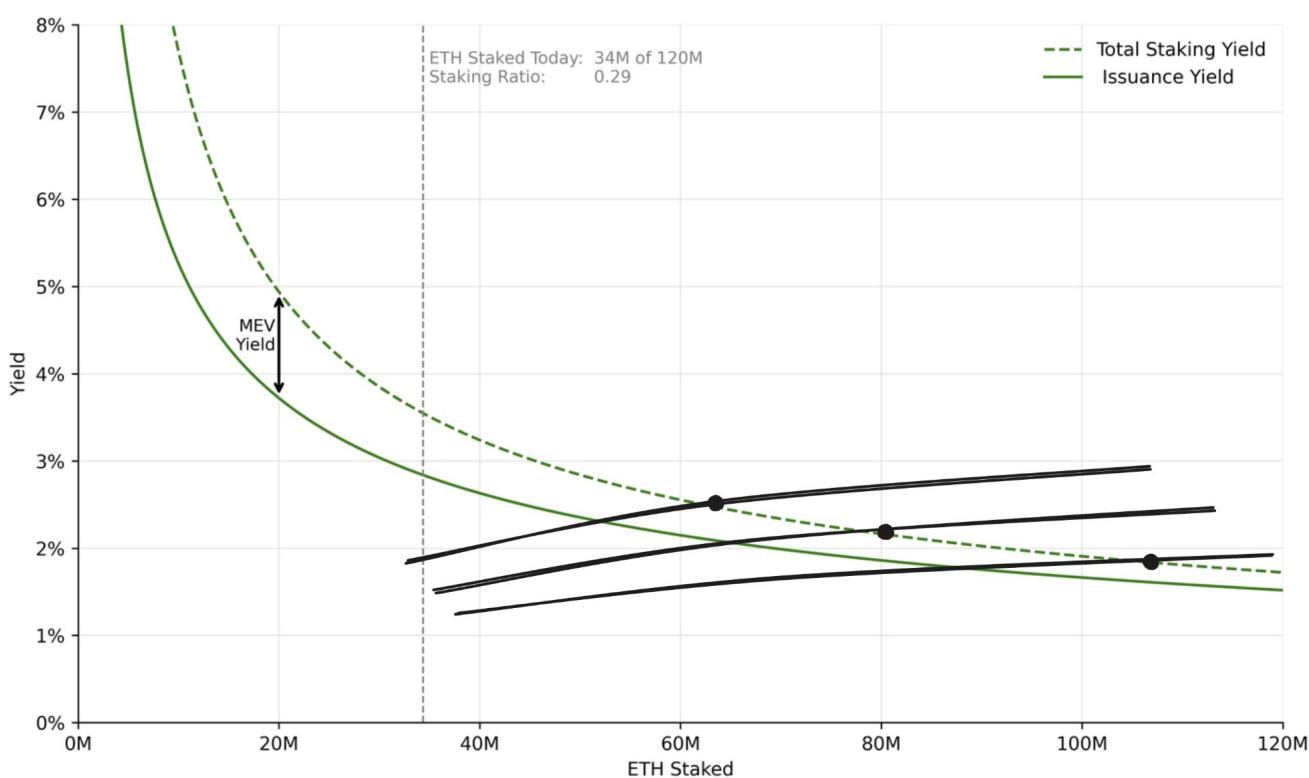
Solo vs delegated staker



Solo vs delegated staker

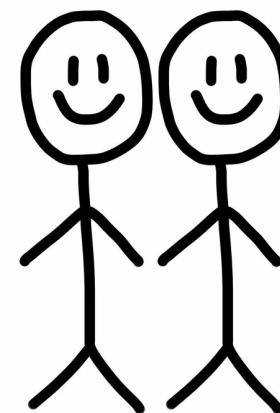
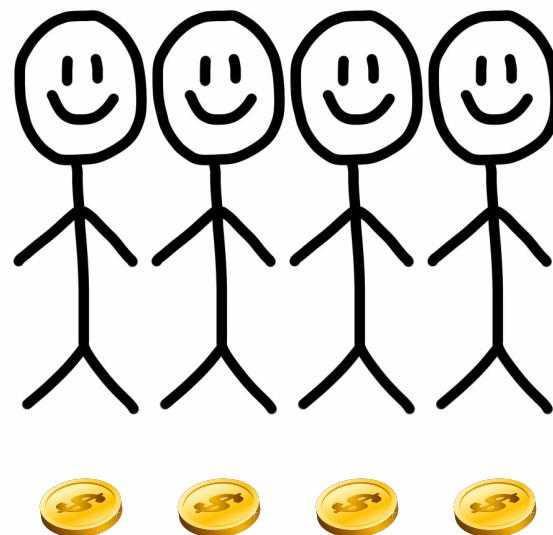


Plausible staking equilibria

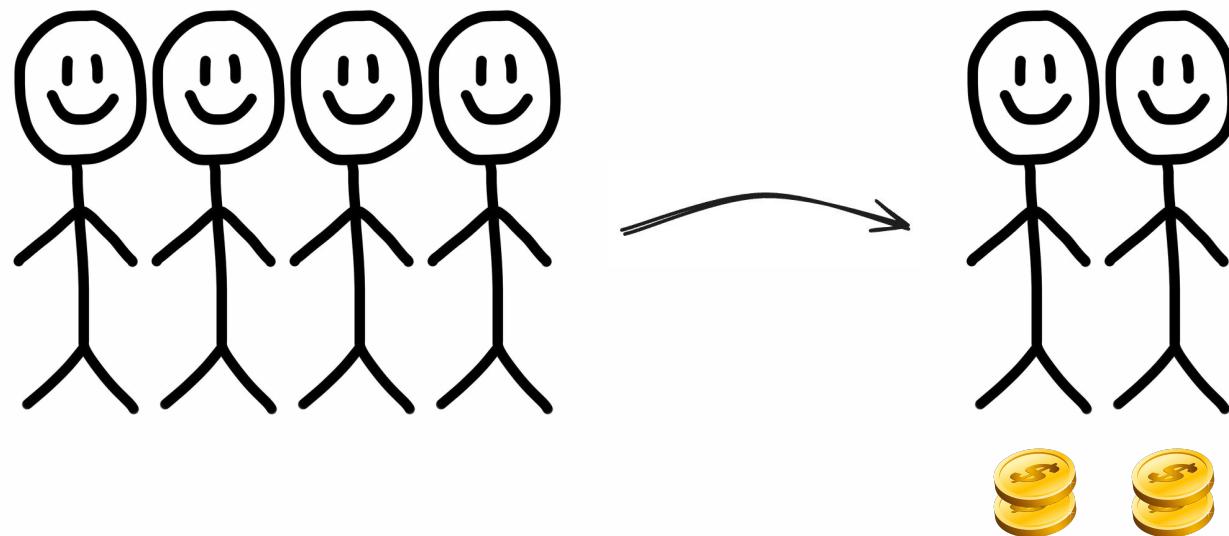


1. Staking trend
- 2. Nominal vs. real yield**
3. Issues w/ too much stake

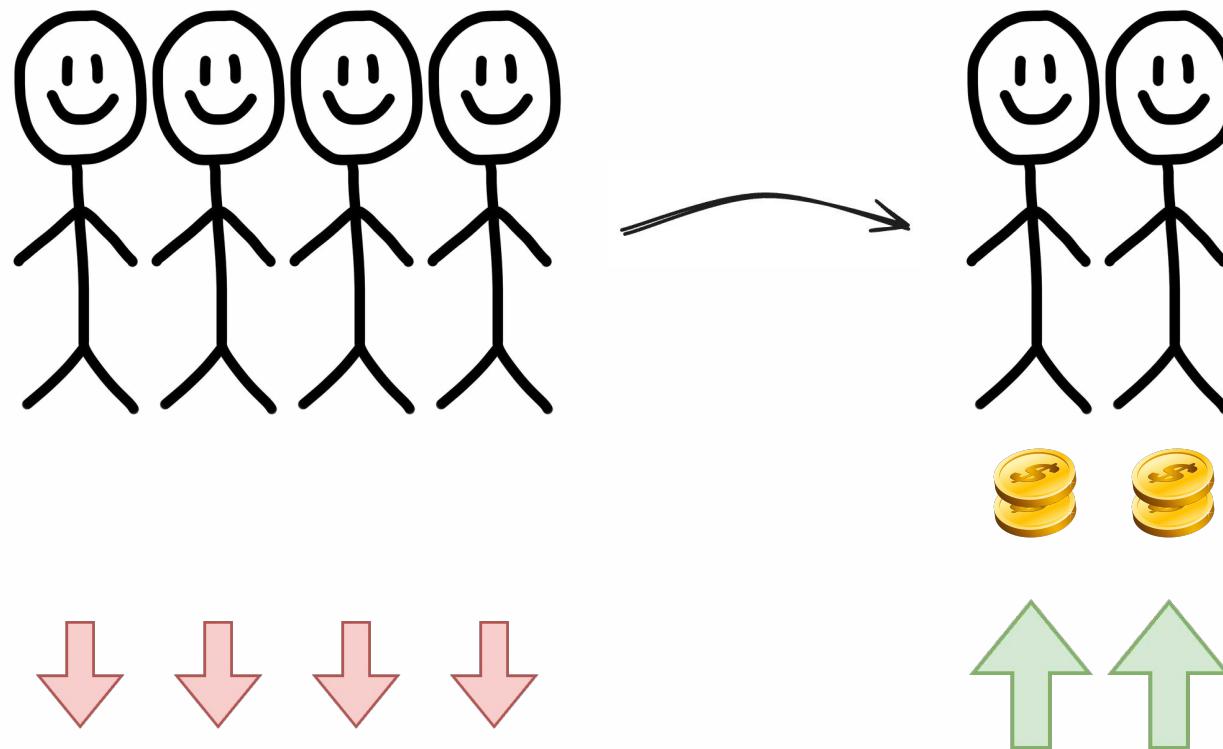
A Simple Model



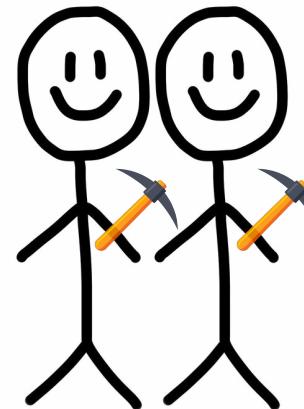
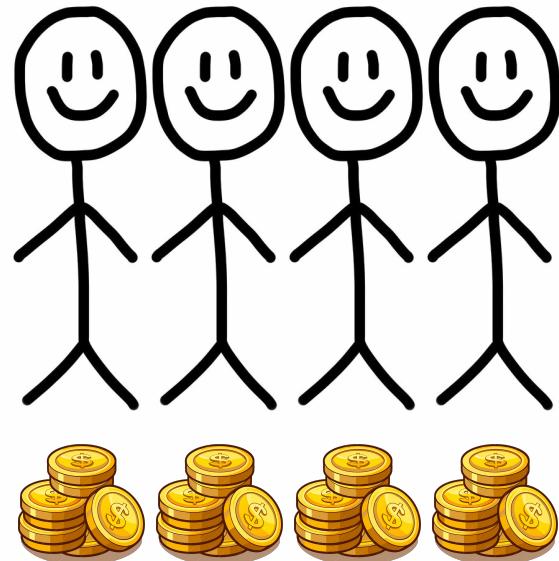
A Simple Model



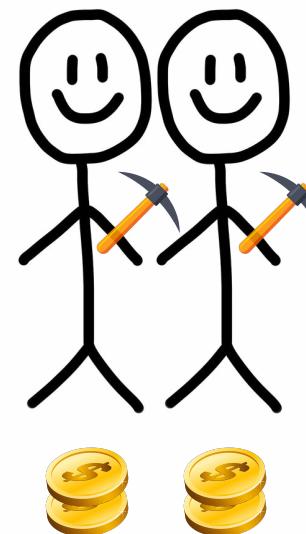
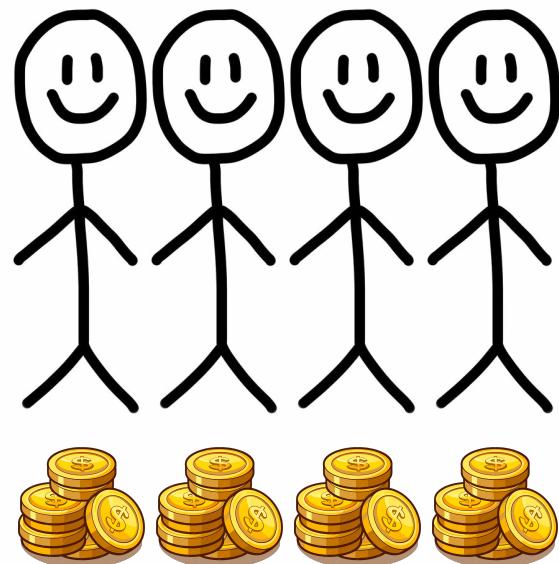
A Simple Model



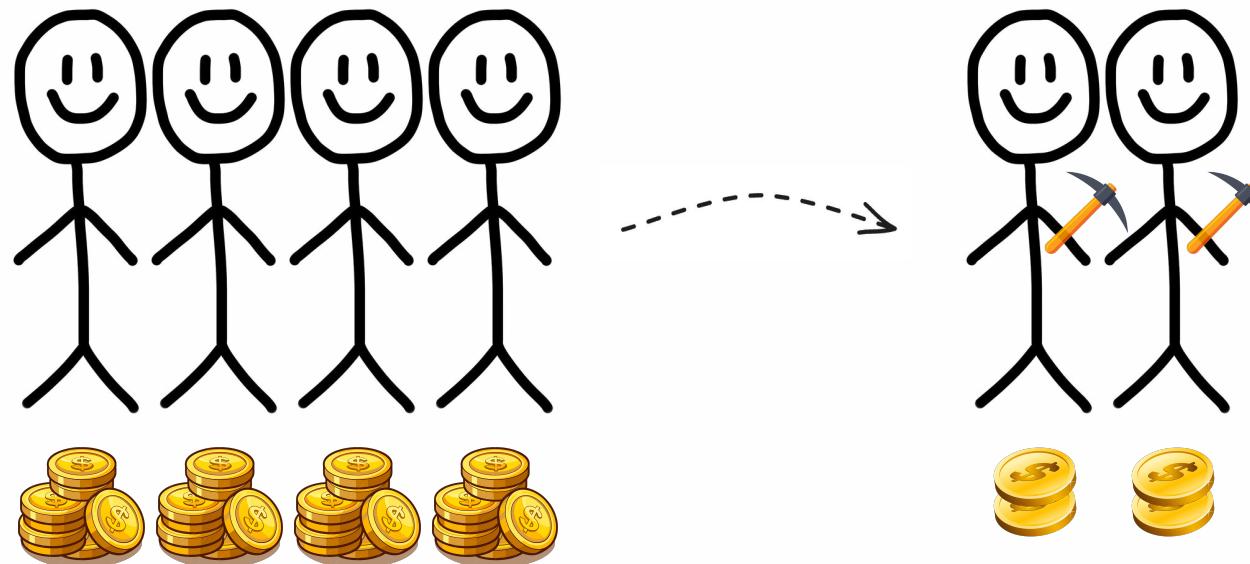
A Simple Model: PoW Mining Rewards



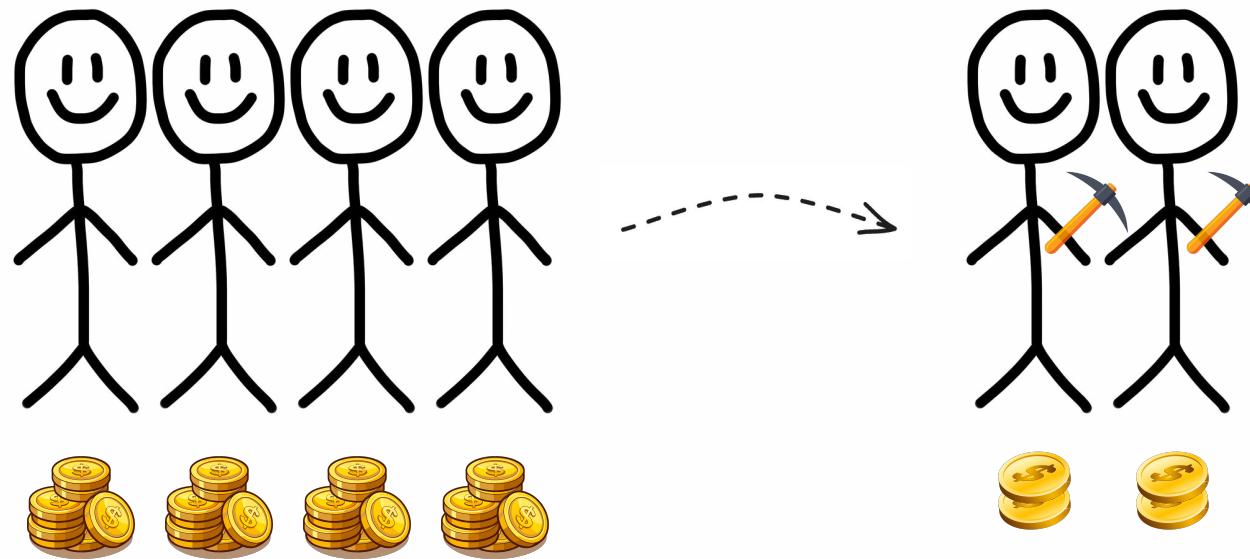
A Simple Model: PoW Mining Rewards



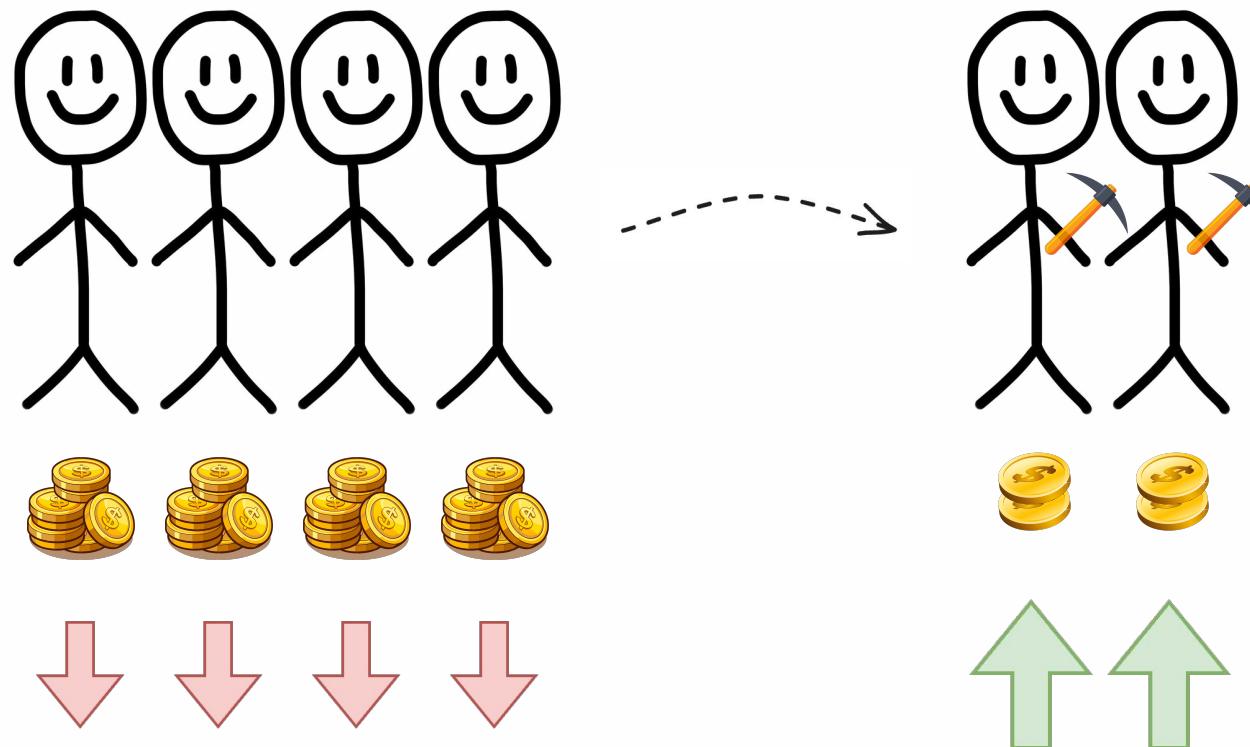
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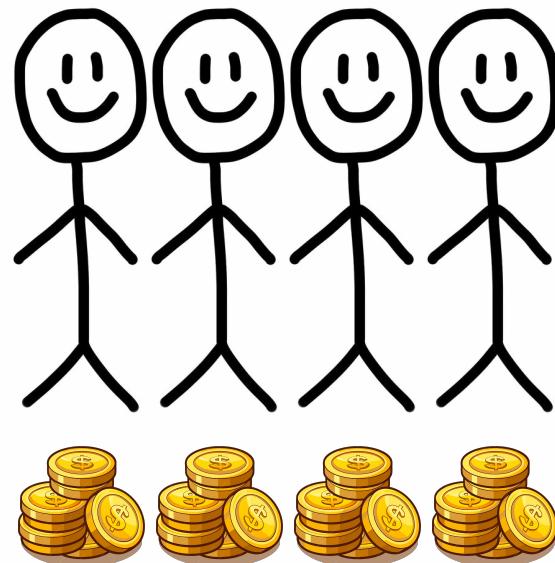
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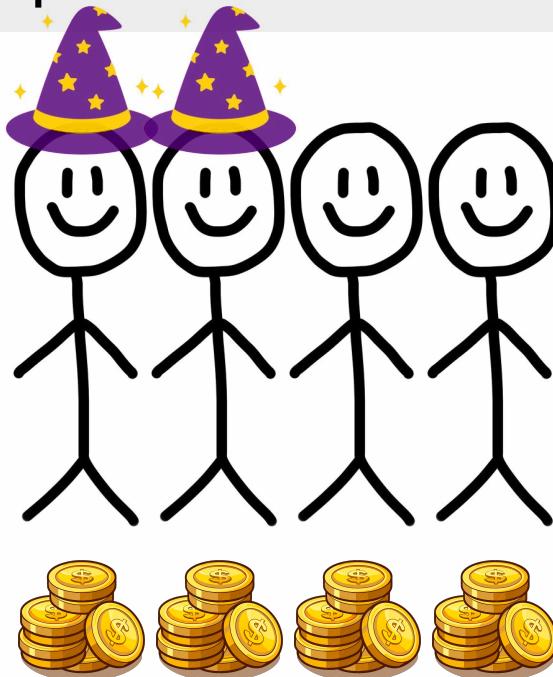
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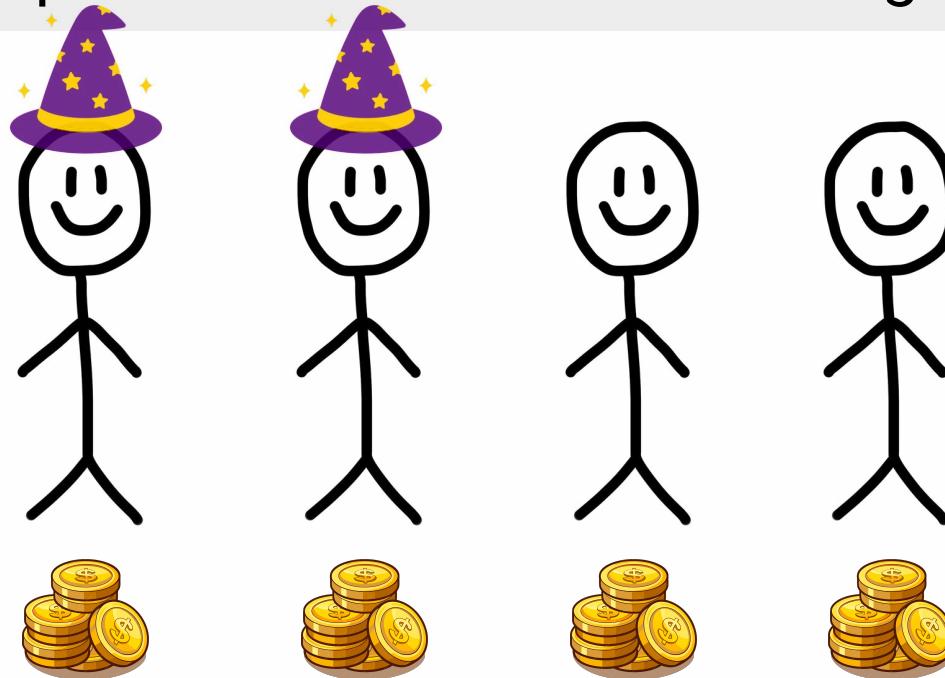
A Simple Model: PoS Staking Rewards



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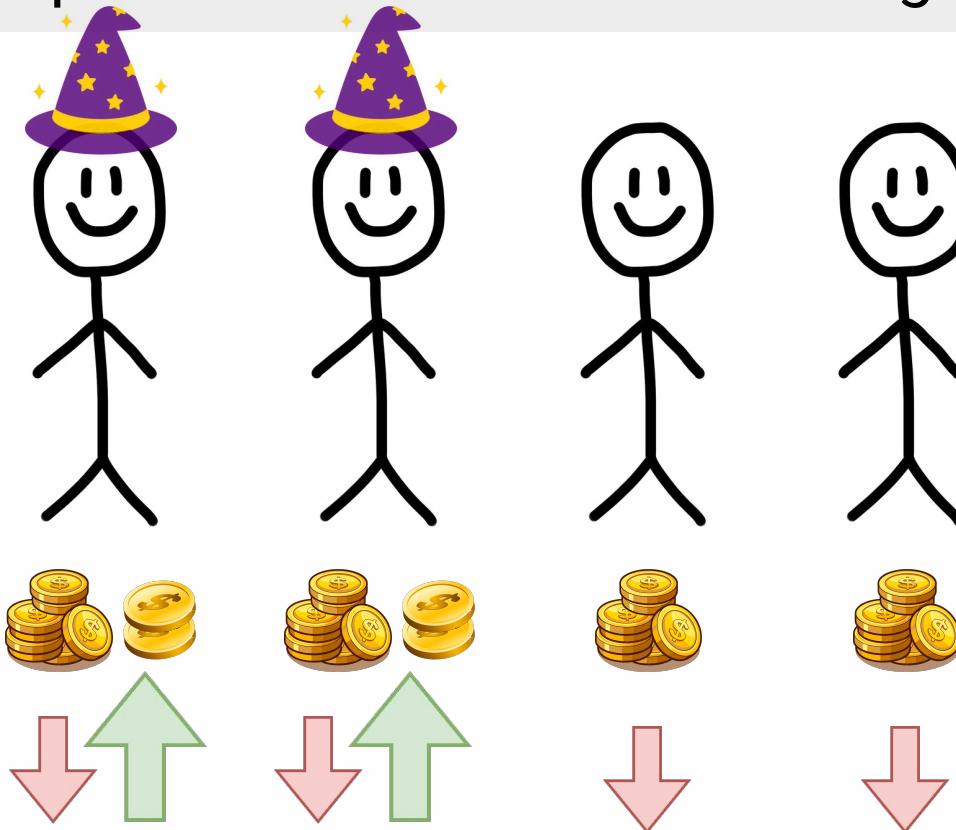
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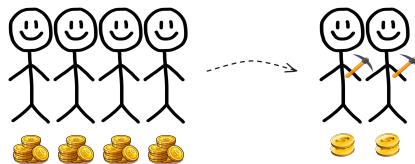


A Simple Model: PoS Staking Rewards

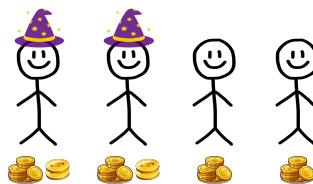


Two PoS Accounting Anomalies

- ❖ Anomaly 1: Payment via new coins

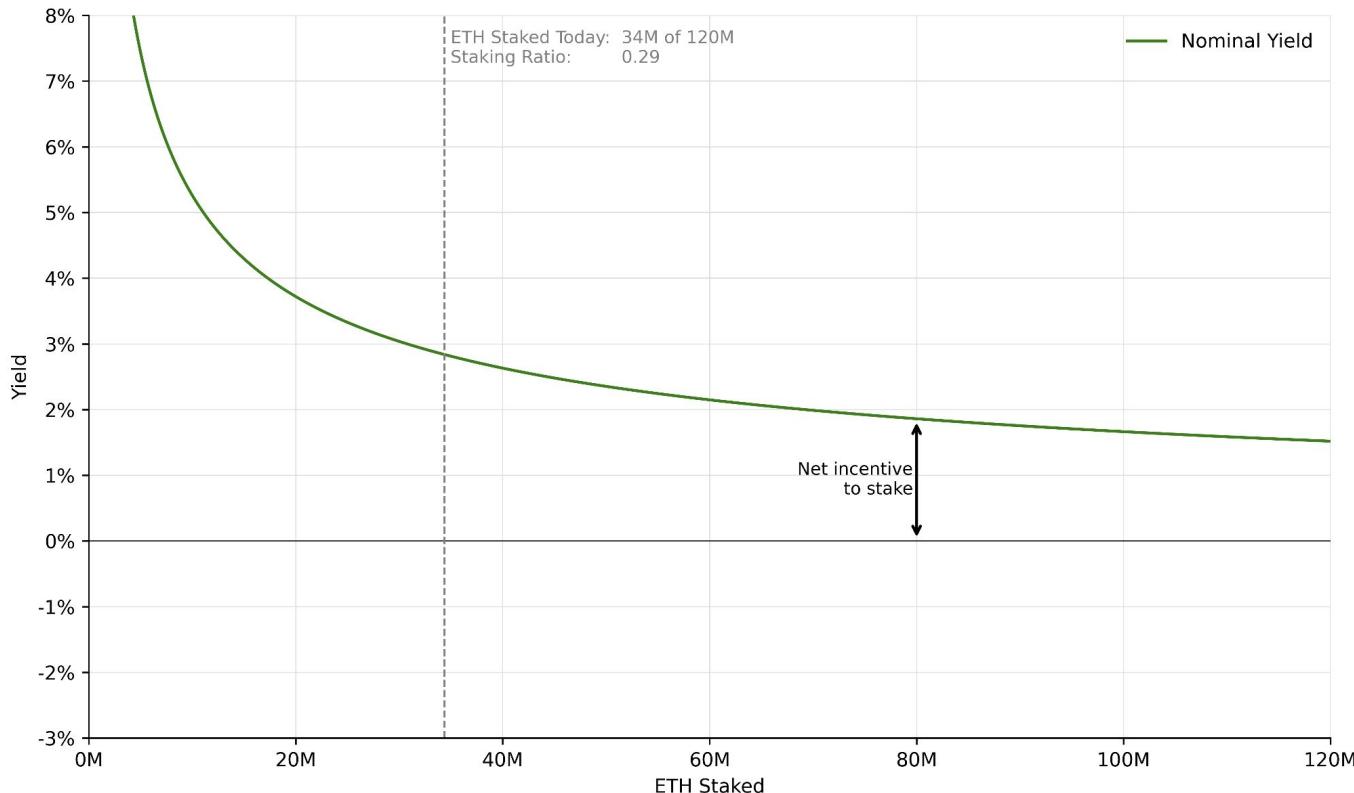


- ❖ Anomaly 2: Recipients are also paying

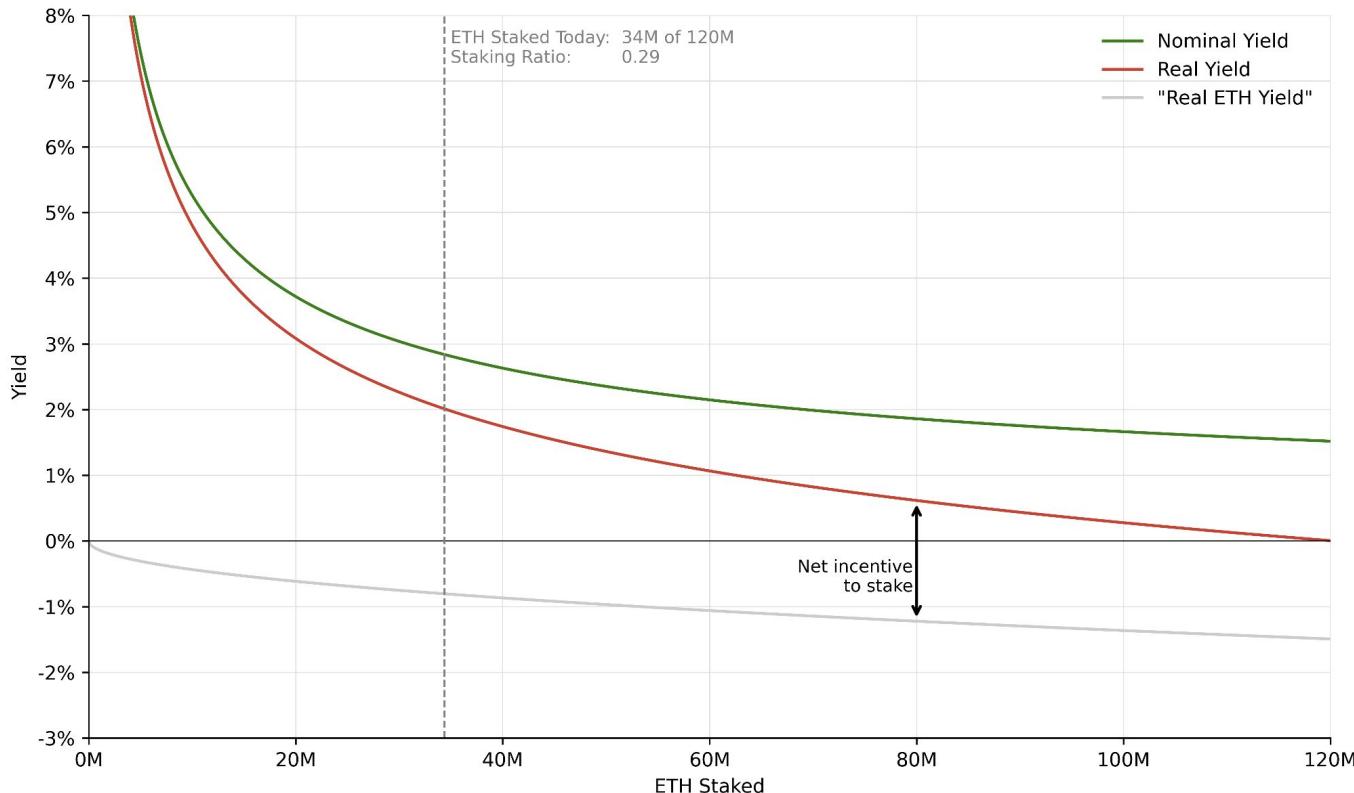


Consequence: What you see is not what you get!

Nominal yield



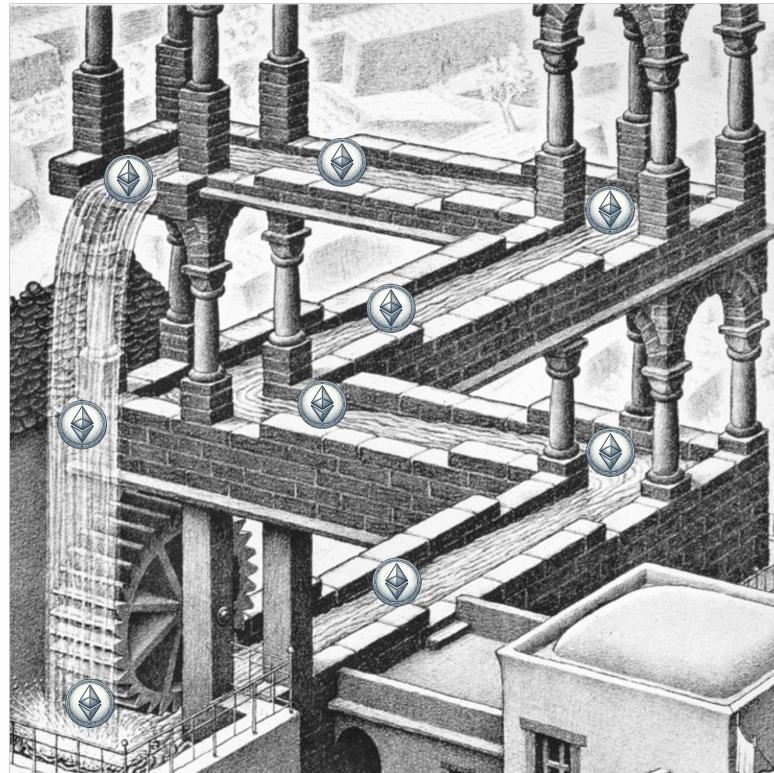
Real yield



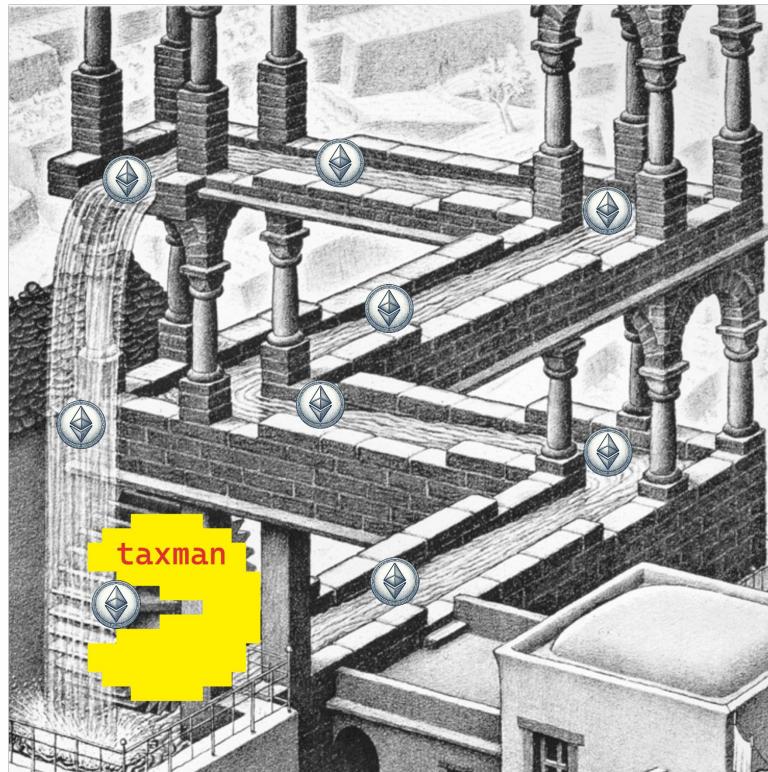
Nominal vs. real yield

- ❖ at low % staked → staking rewards are mostly real yield
 - staking is a (potentially) profitable service by specialists
- ❖ at high % staked → staking rewards are mostly offset by inflation effect
 - staking turns into obligation for ETH holders to avoid dilution
- ❖ (!) nominal yield still determines incentive to stake
 - but: lower share of real yield is worse for stakers

ain't no money tree



Taxman



1. Staking trend
2. Nominal vs. real yield
- 3. Issues w/ too much stake**

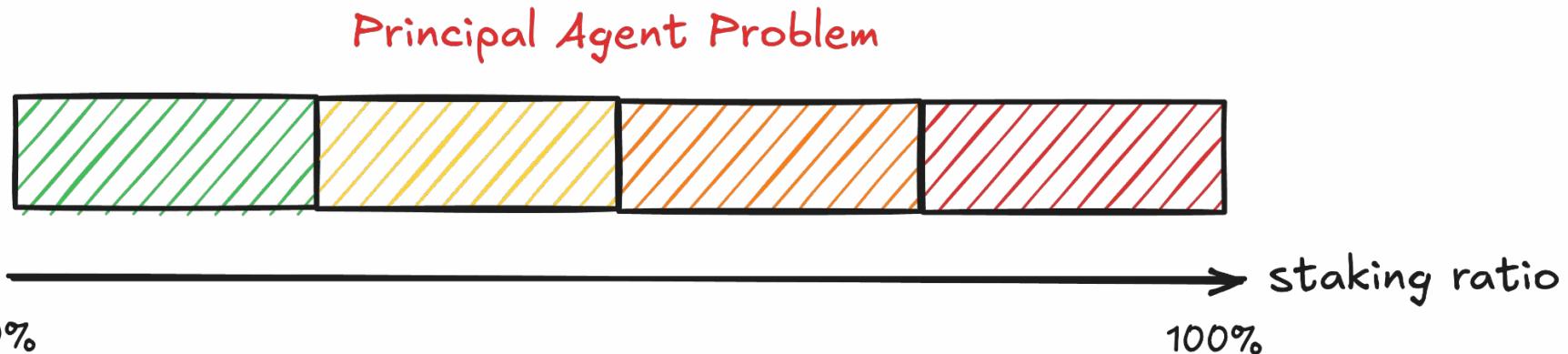
[Overview] Issues with too much stake

- [1] Nominal vs. real yield
- [2] Economies of scale
- [3] Protocol security
- [4] Network effects of money**
- [5] Minimum viable issuance
- [6] Principal Agent Problem

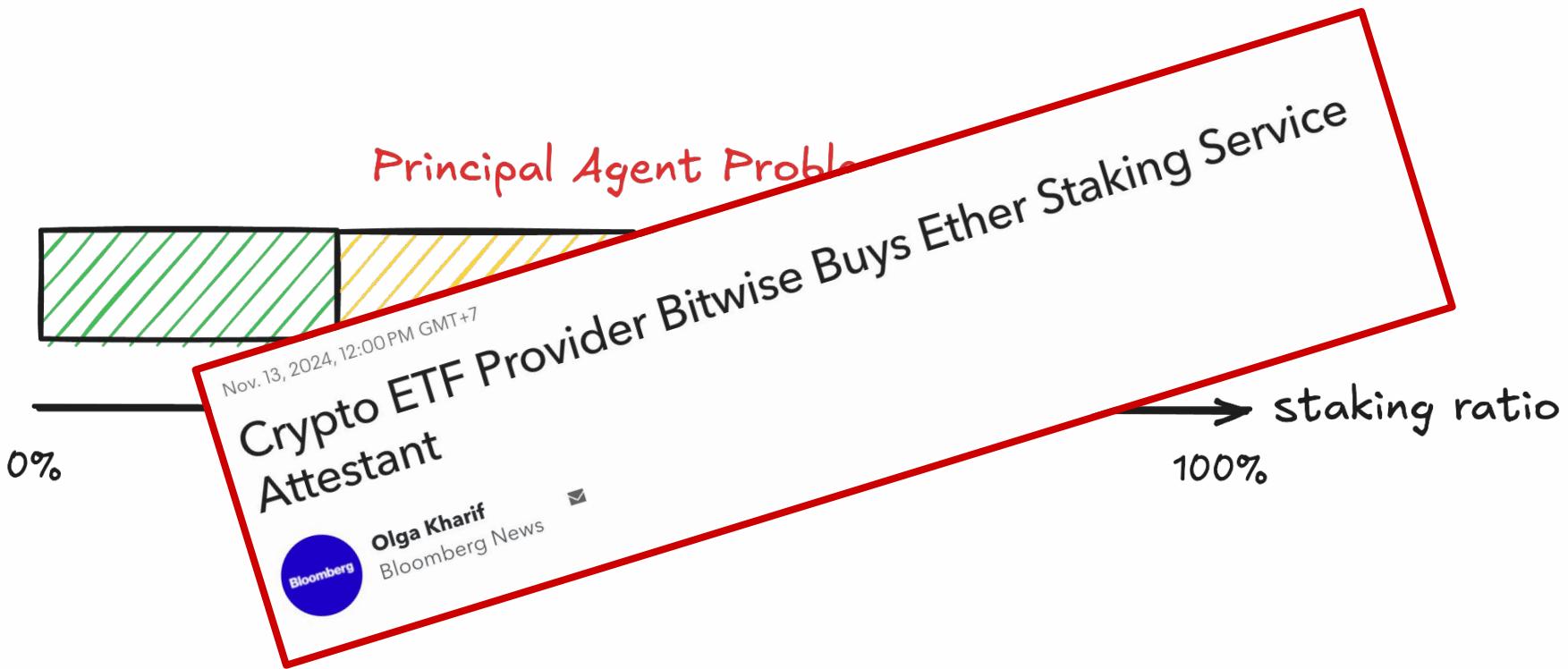
[4] Network effects of money

- ❖ Network effects of LST “money-ness” create winner-takes-most dynamics.
 - “Liquidity begets liquidity”
- ❖ At high % staked the dominant LST replaces raw ETH as the de-facto money of the entire Ethereum ecosystem
 - Adds a permanent trust layer to Ethereum
 - Network effects put pressure on users to opt into a mediated LST with added trust assumptions
 - Also: Risks losing Ethereum’s monetary premium

[6] Principal Agent Problem

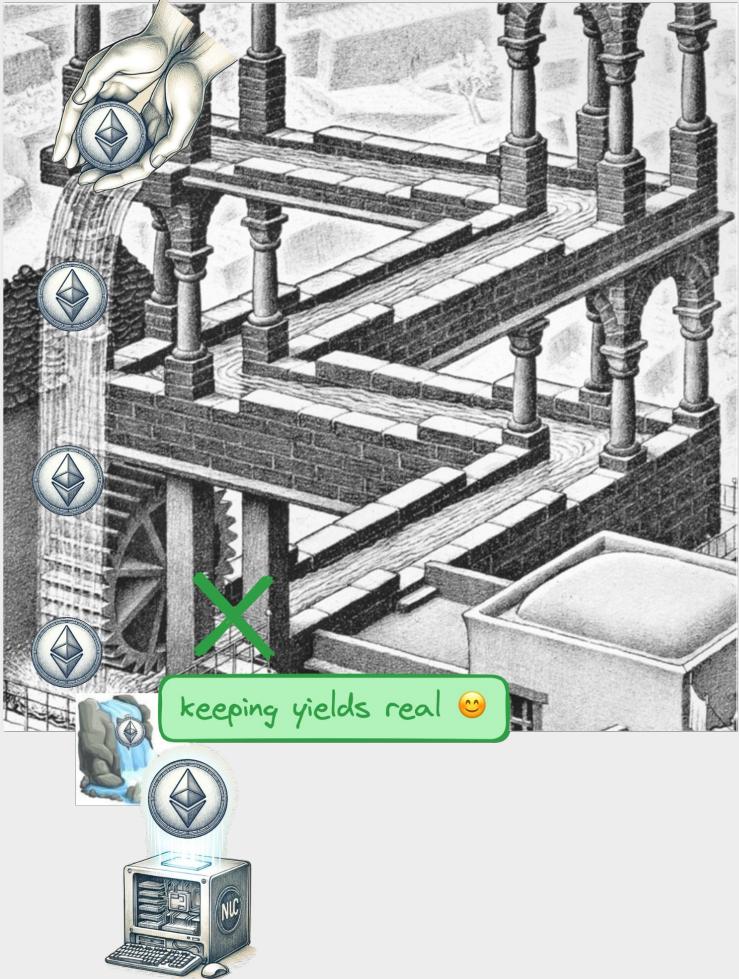


[6] Principal Agent Problem



Possible path forward: Key questions

- What type of curve?
 - Progressive yield reduction
 - “Soft cap” → go to 0% yield beyond some staking level
- What equilibrium staking level?
 - Low
 - Similar to today
 - ~50%



Thank you!

Nov. 13, 2024, 12:00 PM GMT+7

Crypto ETF Provider Bitwise Buys Ether Staking Service Attestant



Olga Kharif 
Bloomberg News