

Practical endgame on issuance policy

Anders Elowsson – EF, RIG

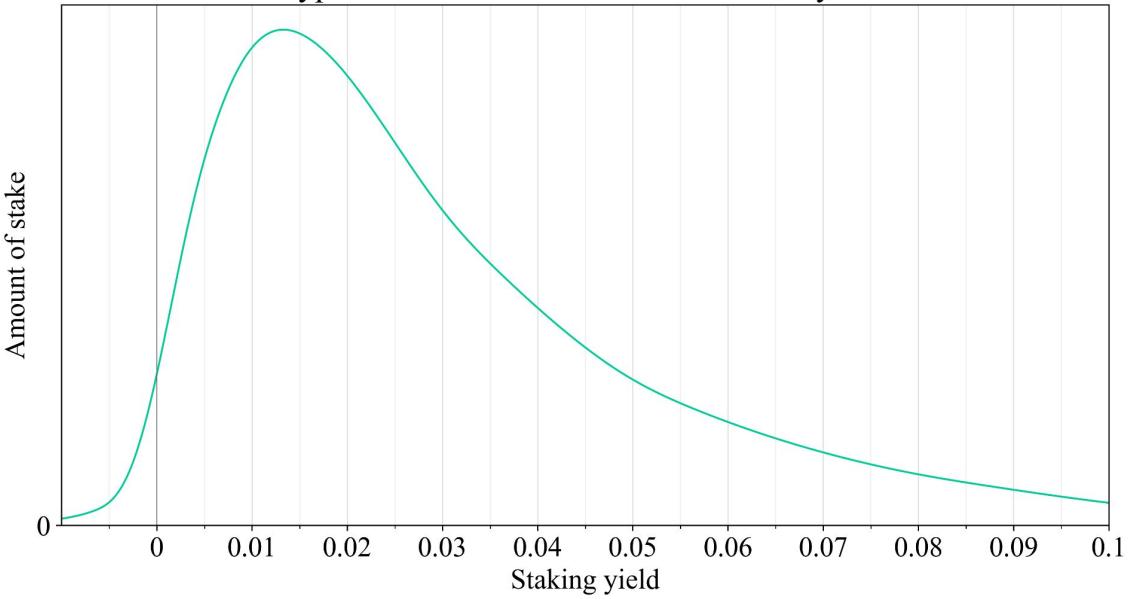
Orientation



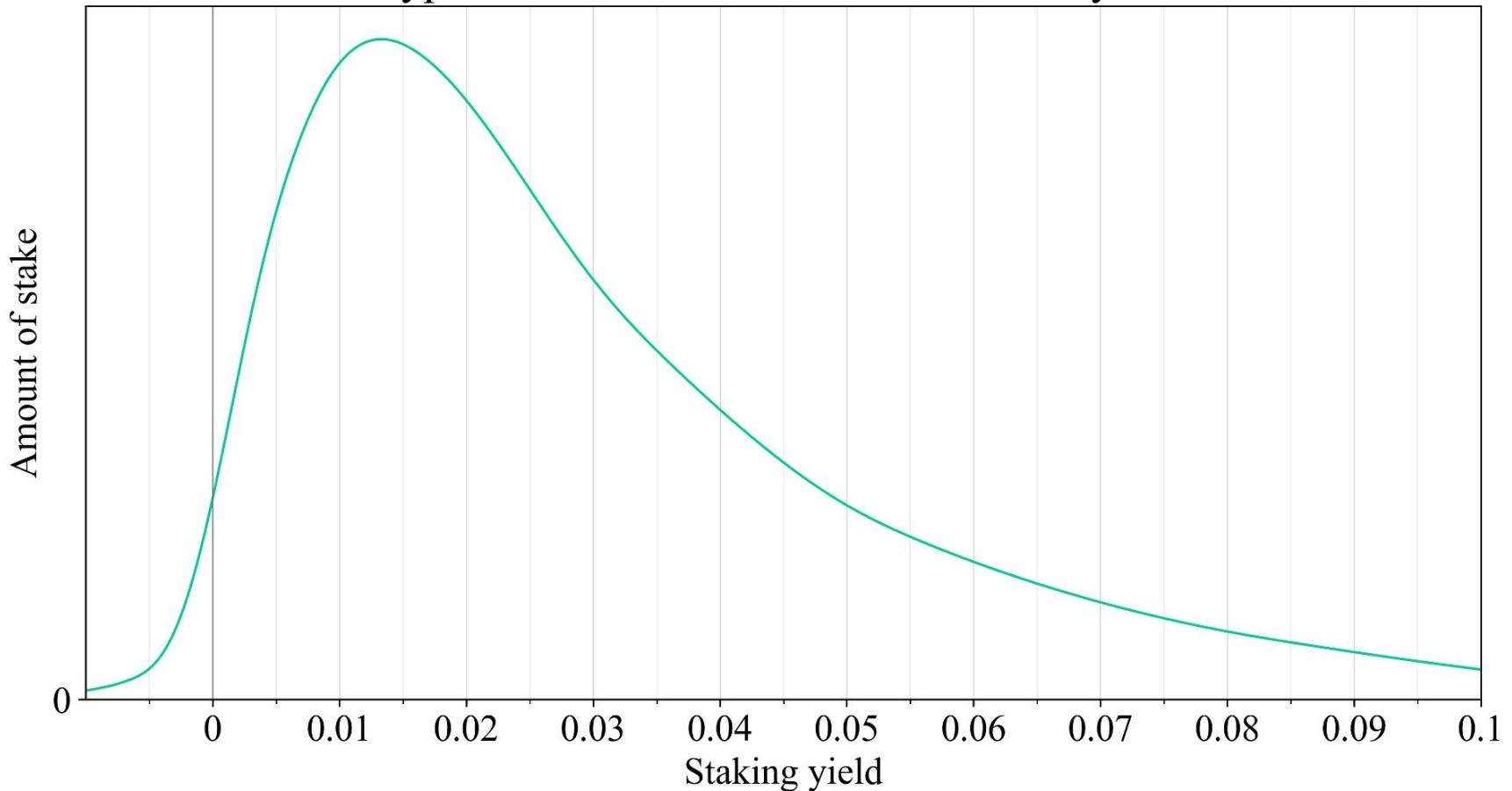


Reservation yield: lowest acceptable yield

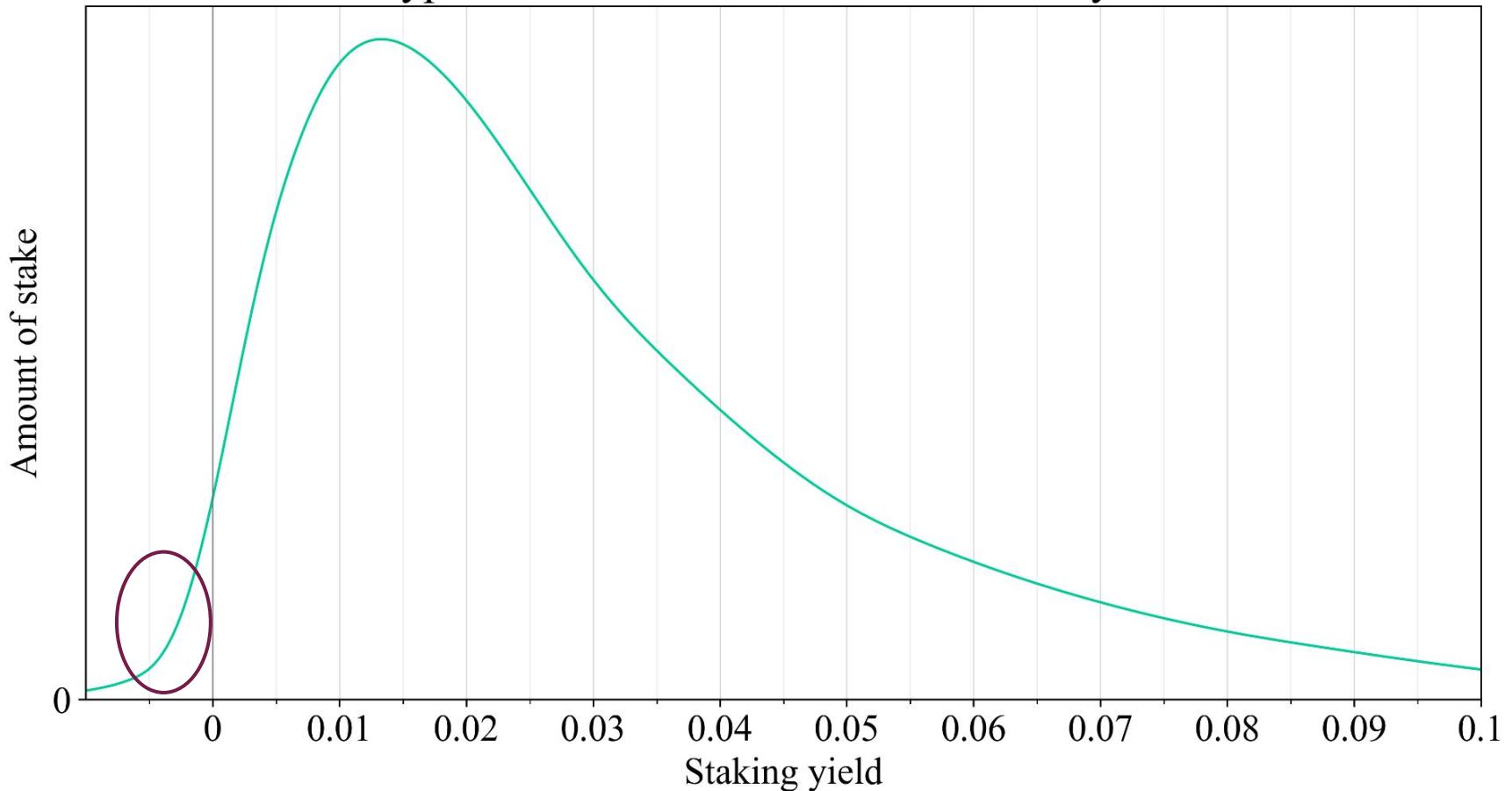
Hypothetical distribution of reservation yields



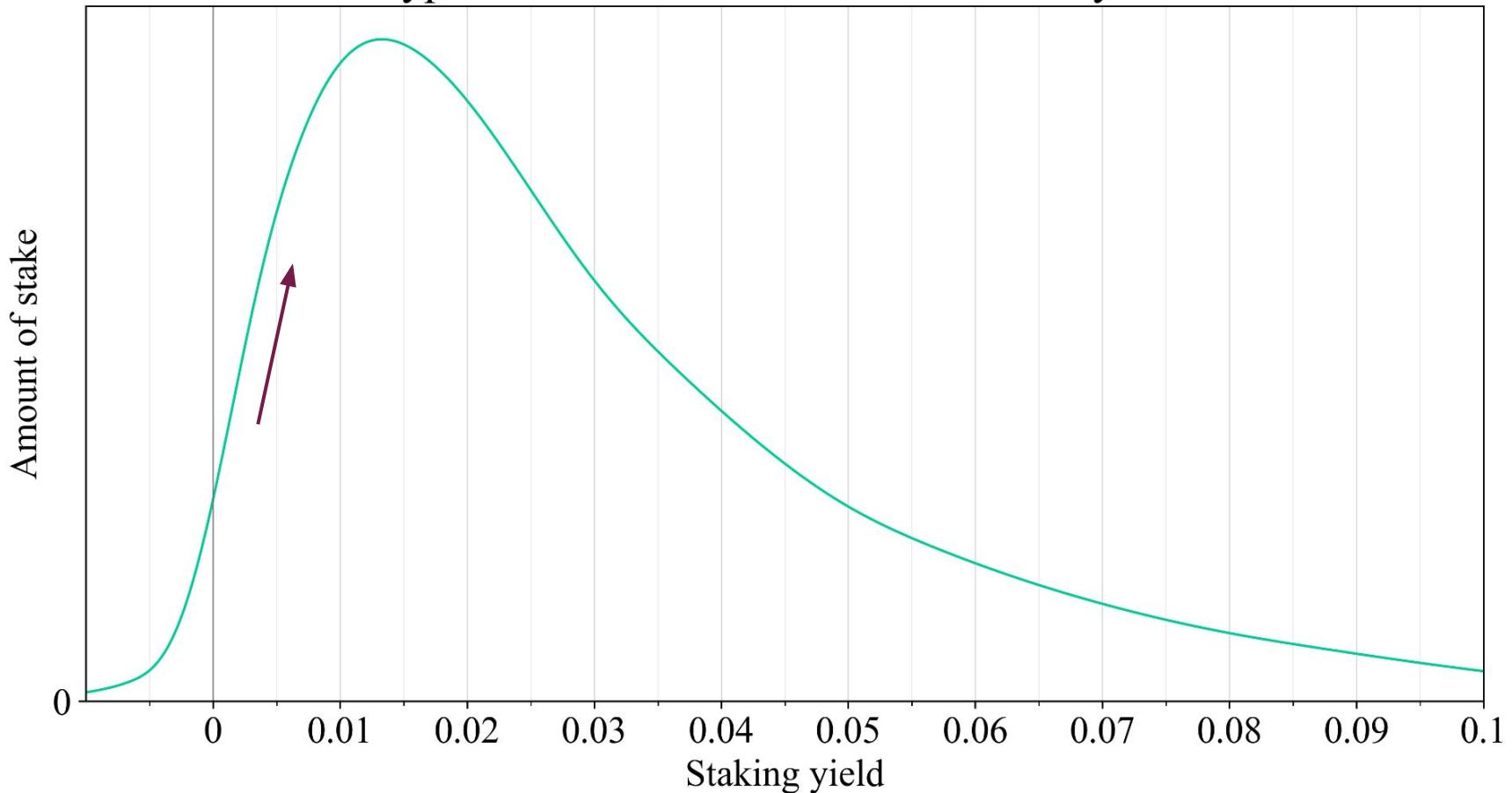
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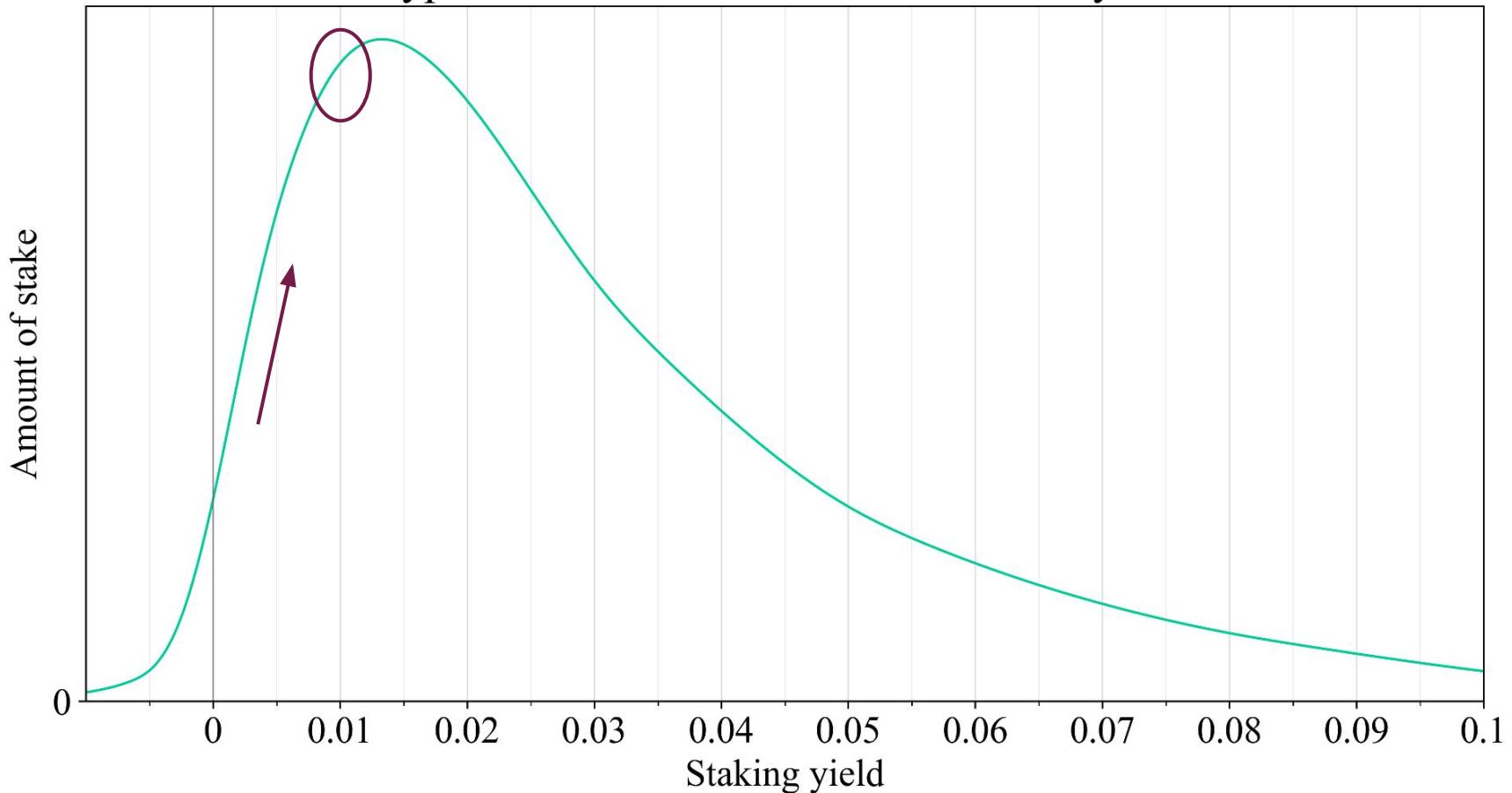
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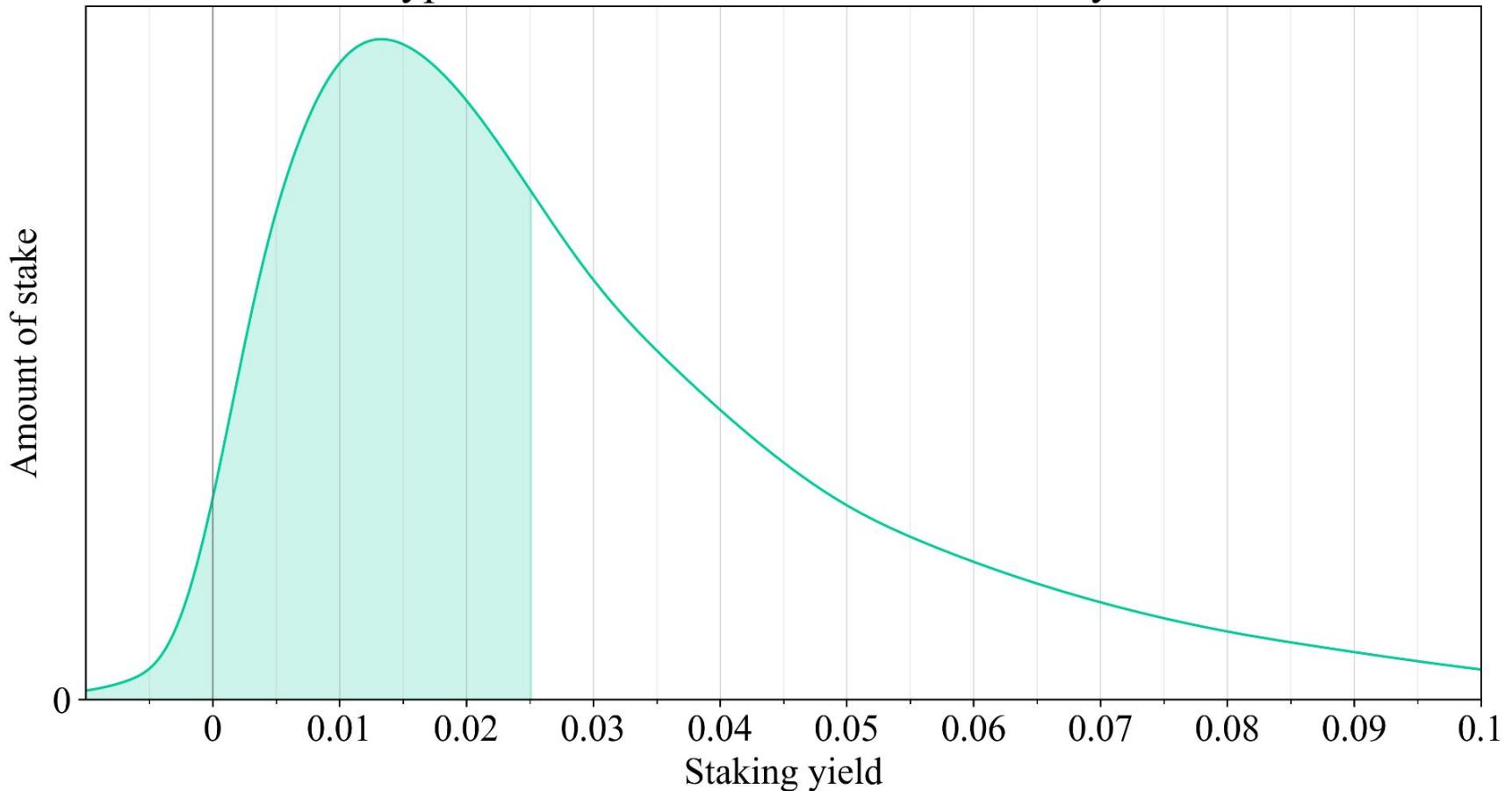
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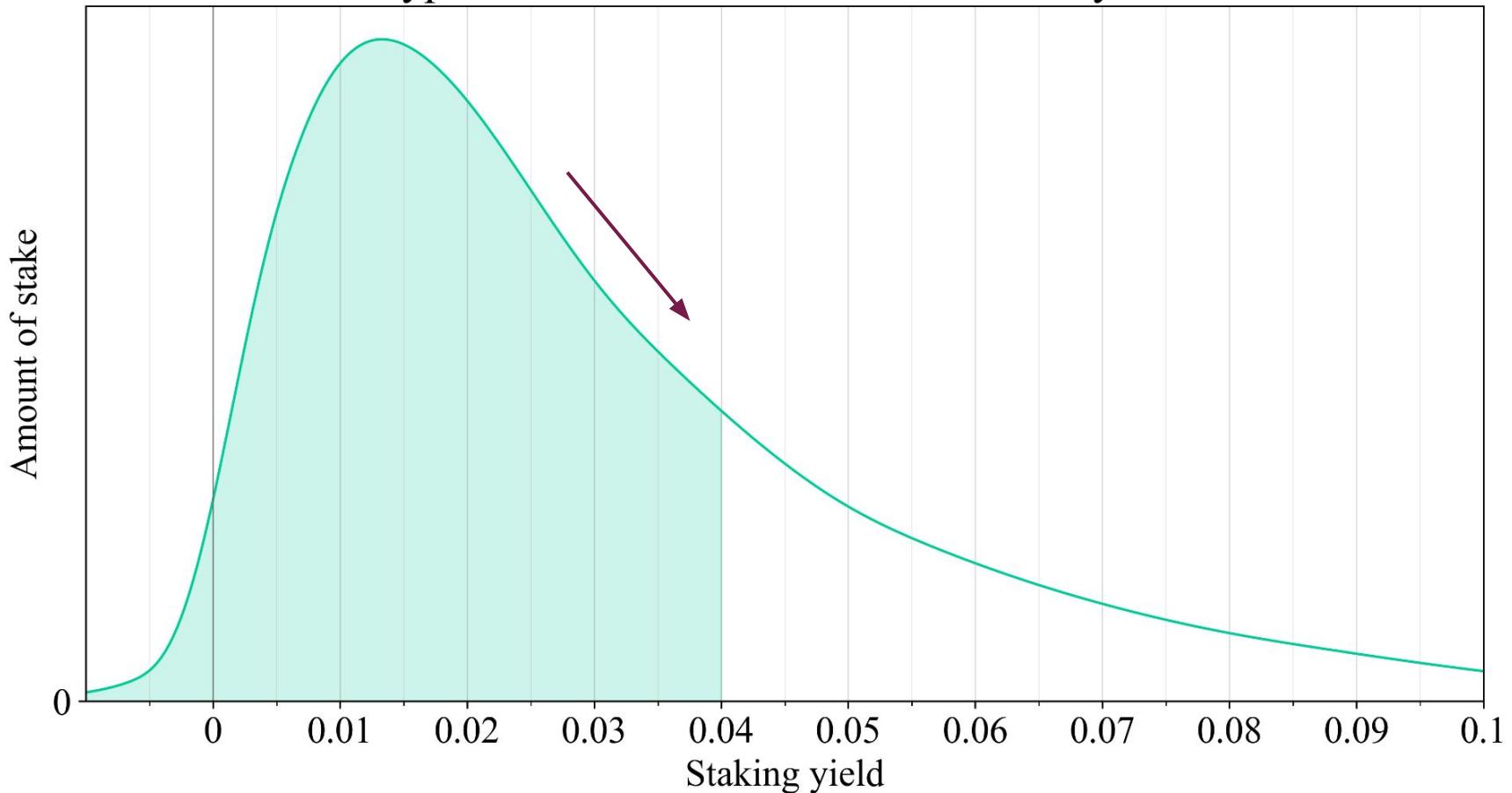
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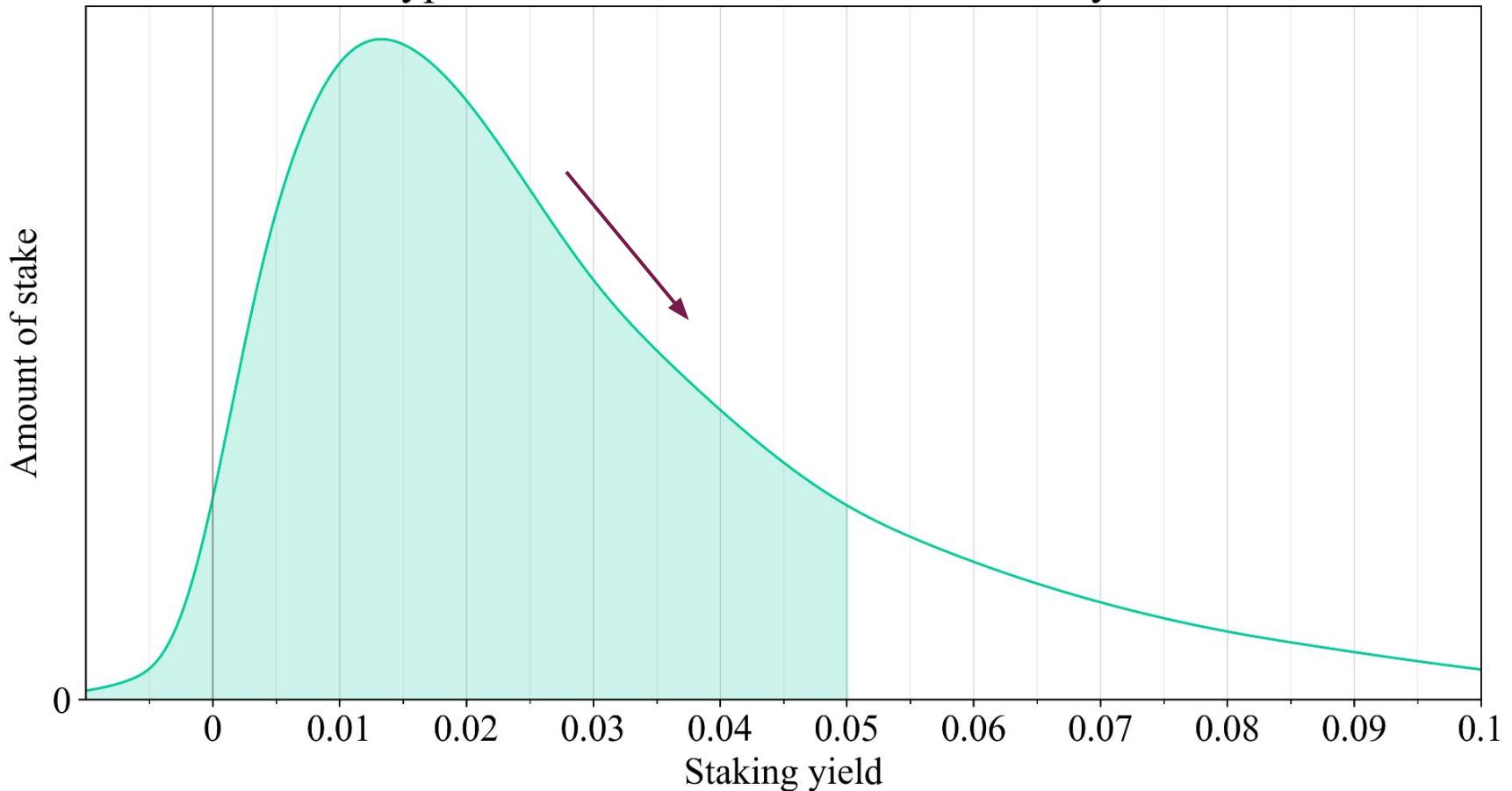
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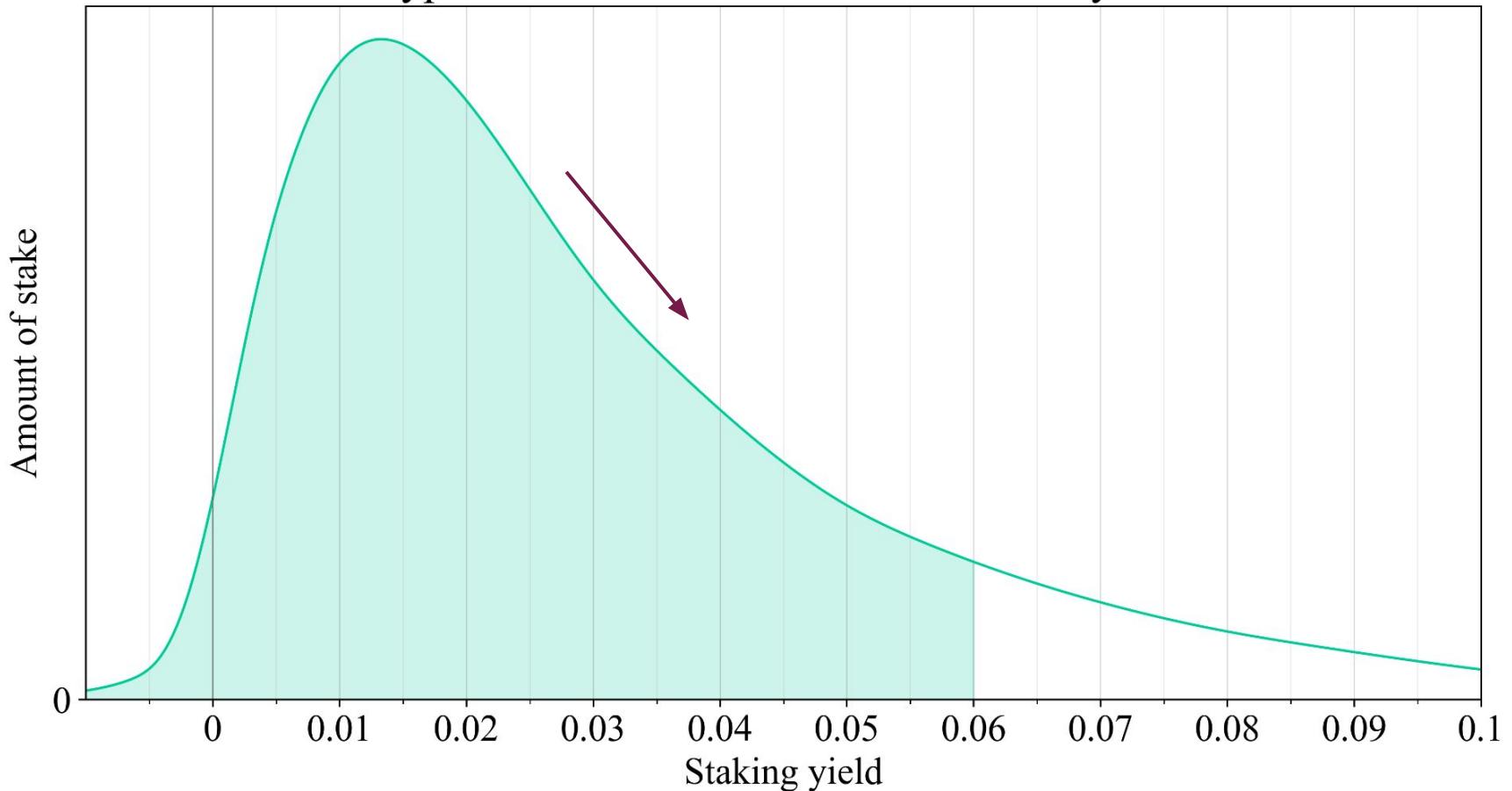
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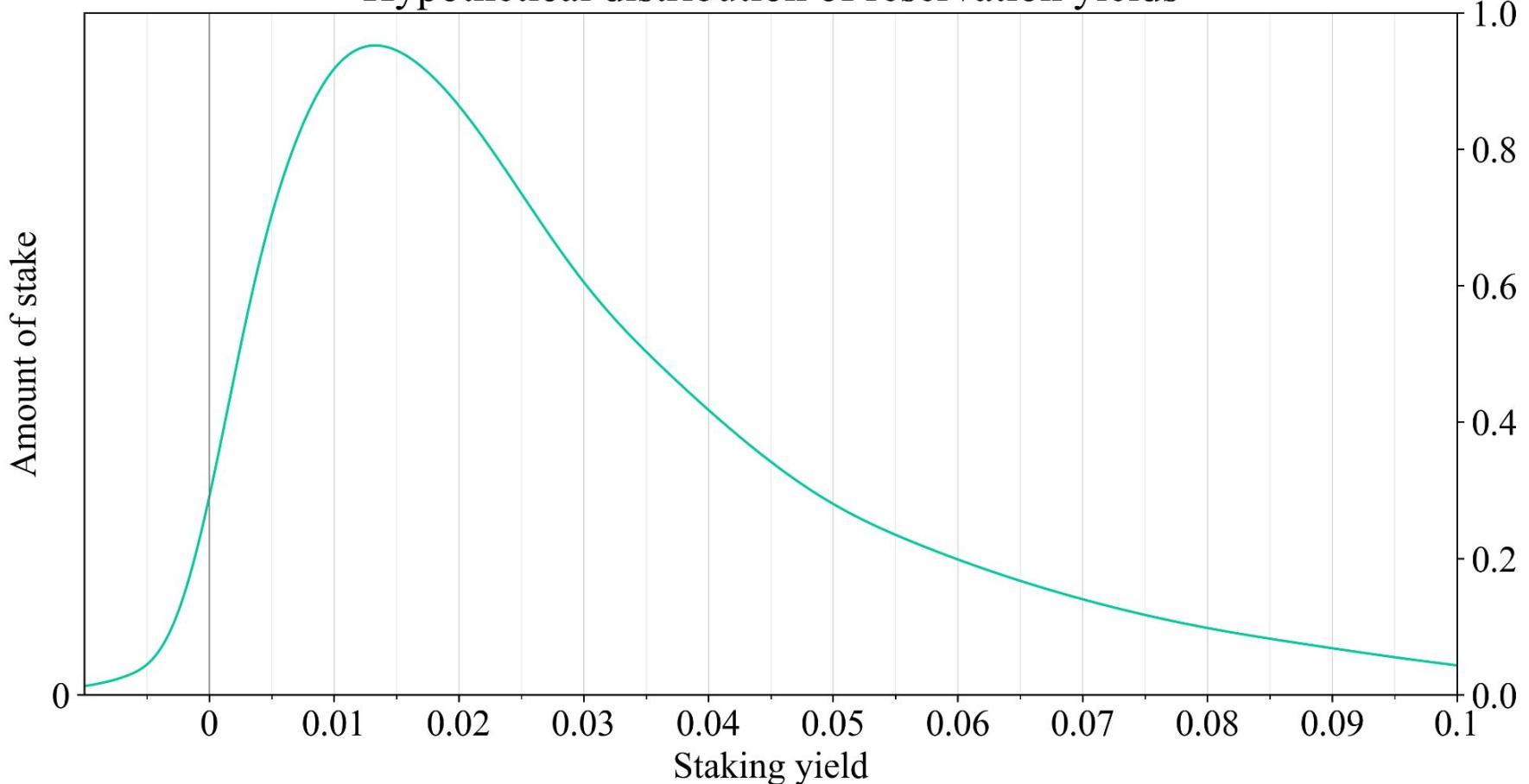
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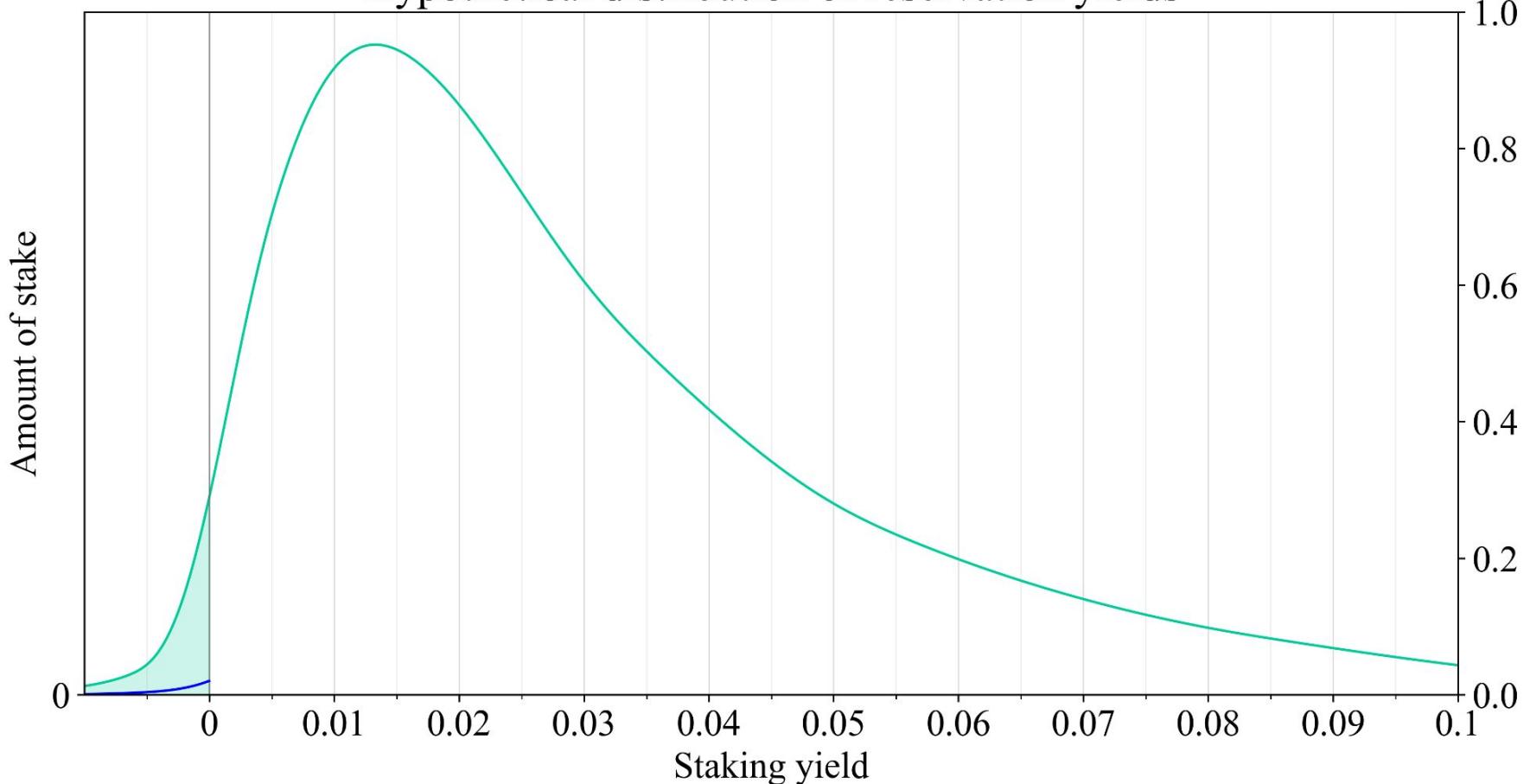
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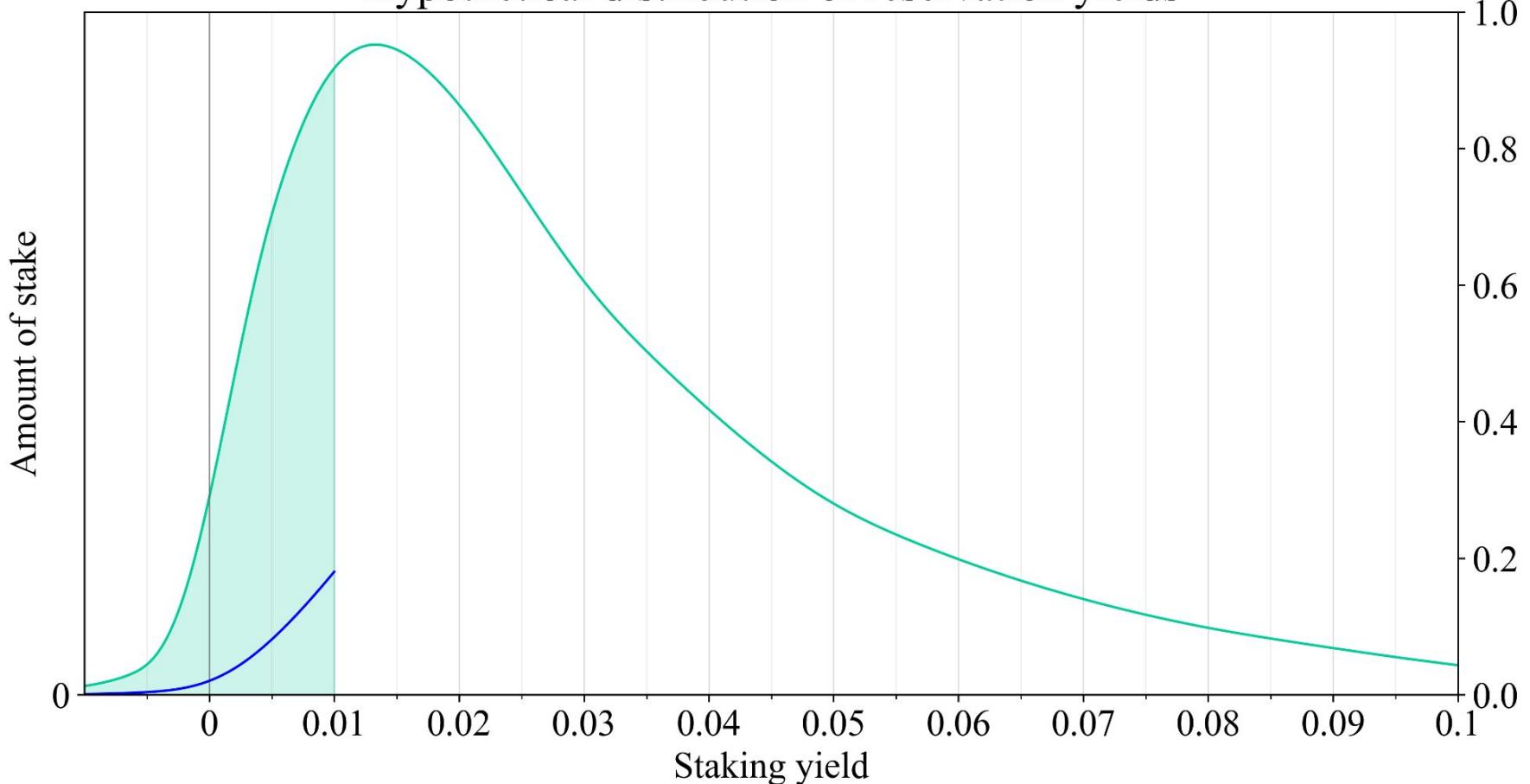
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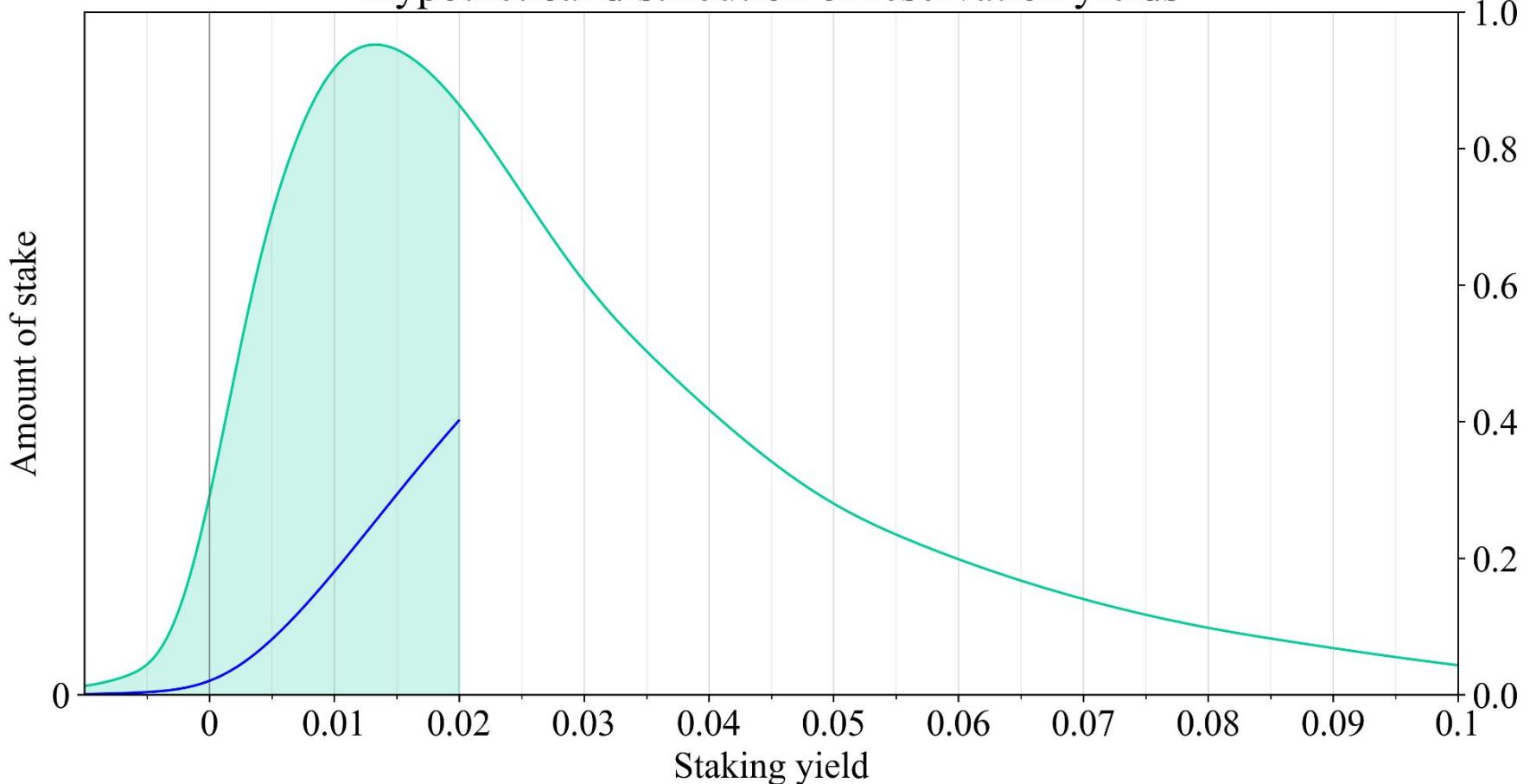
Hypothetical distribution of reservation yields



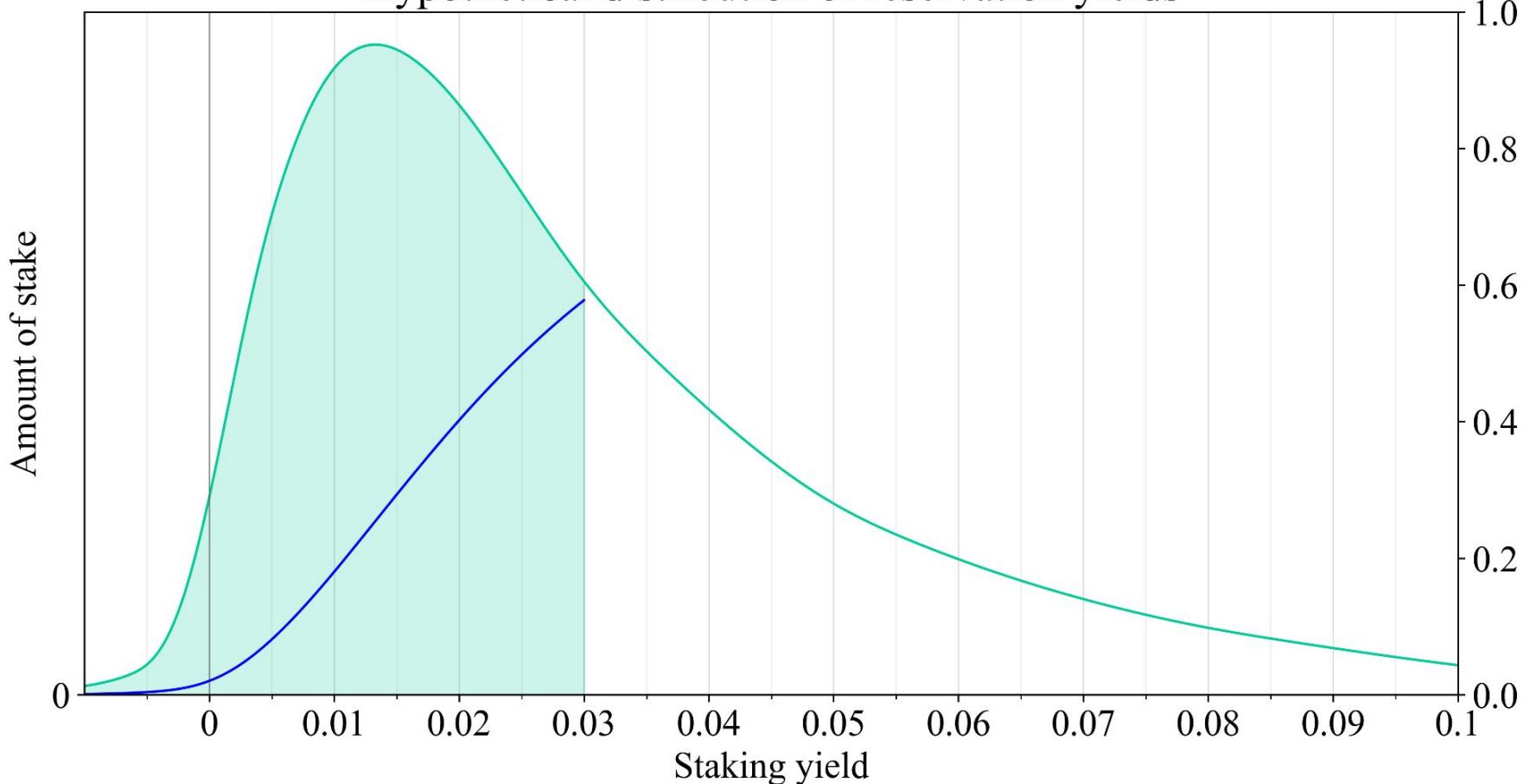
Hypothetical distribution of reservation yields



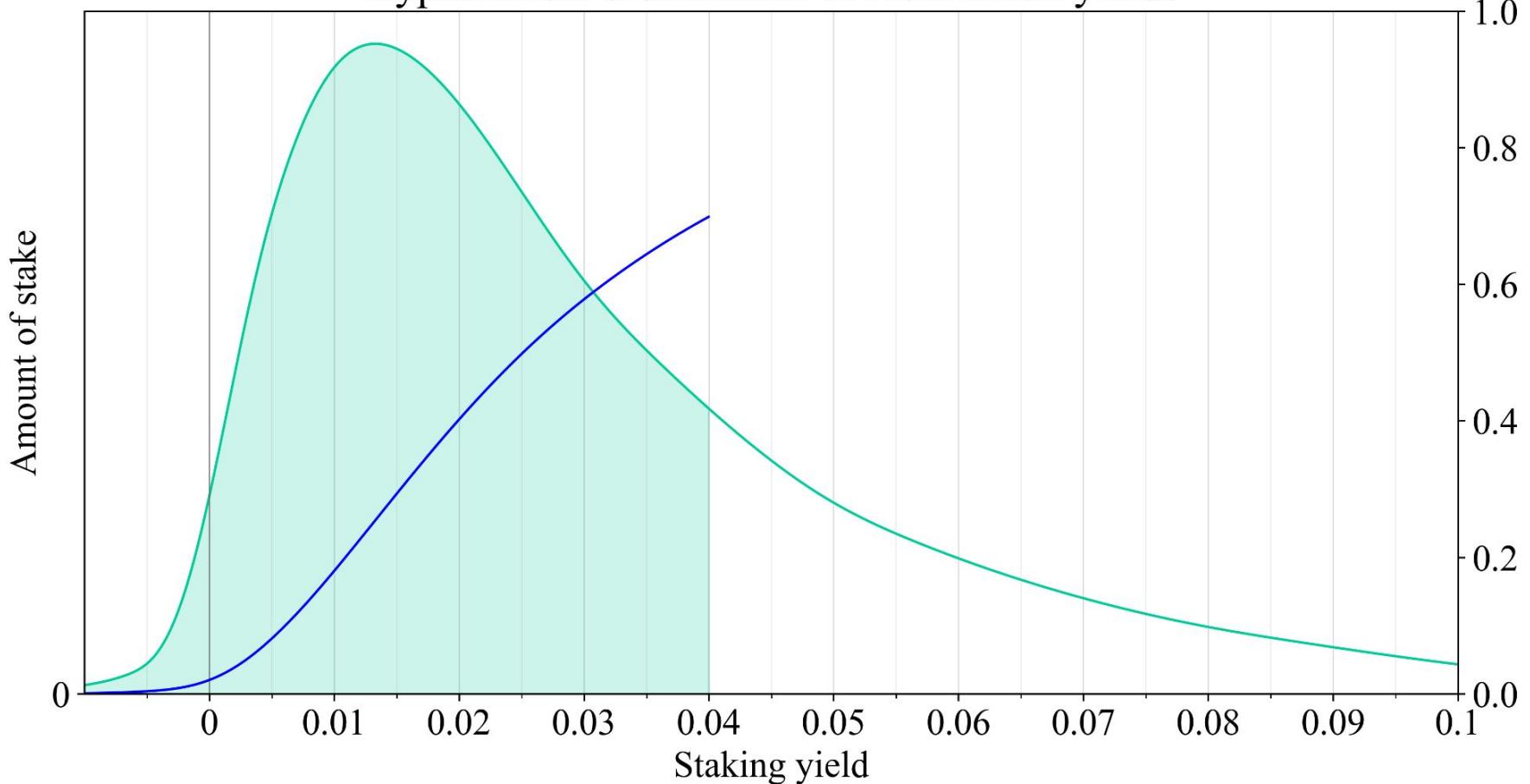
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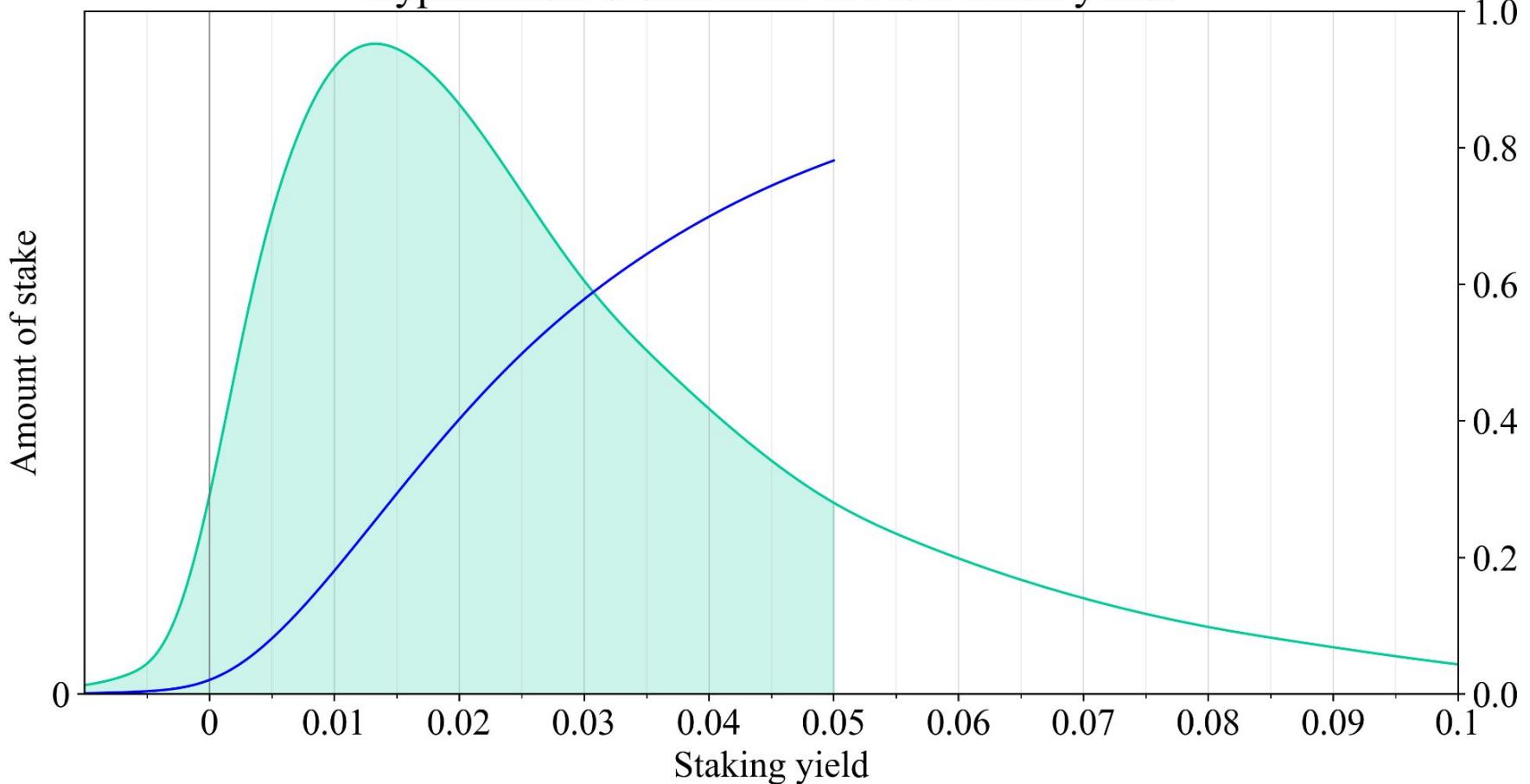
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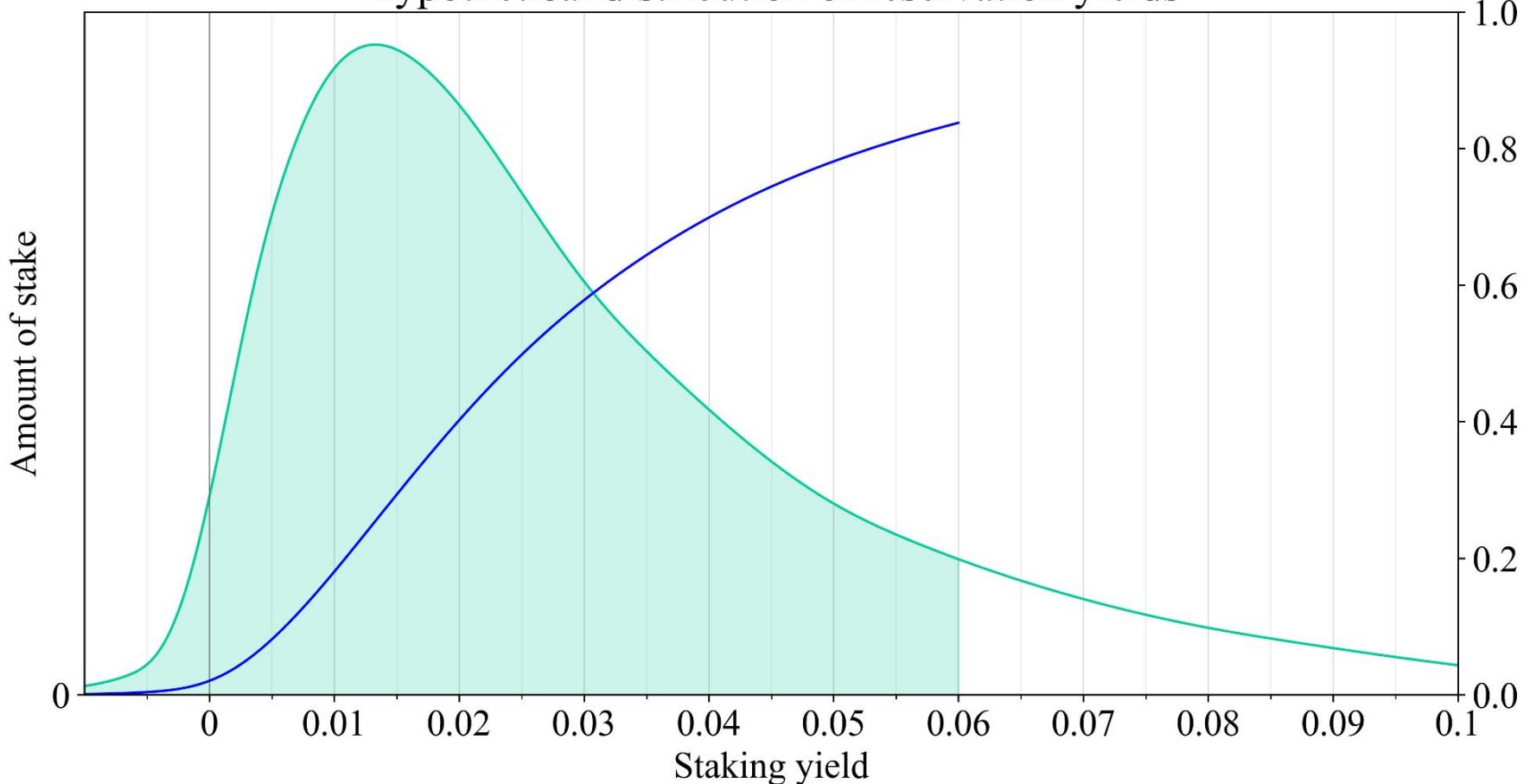
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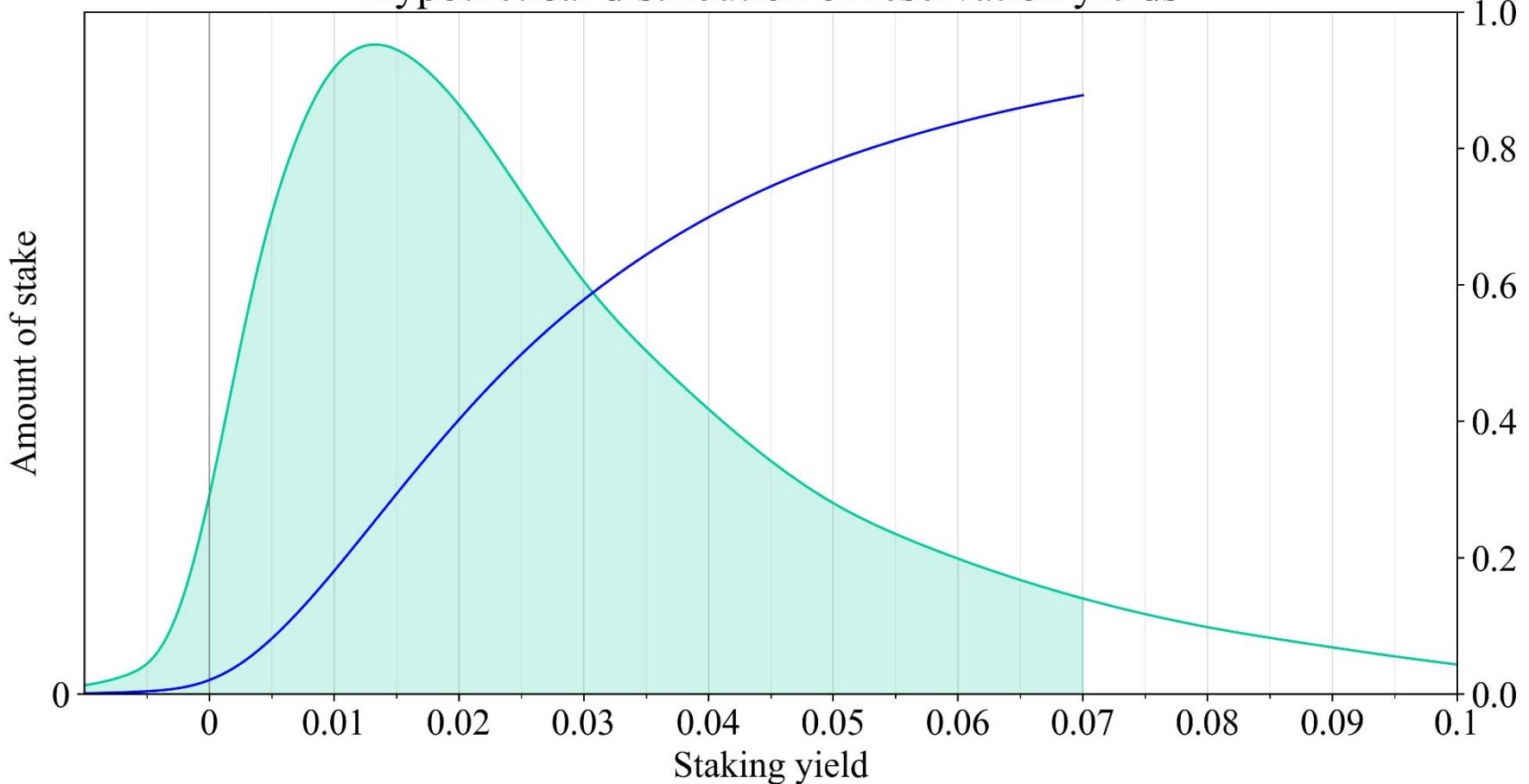
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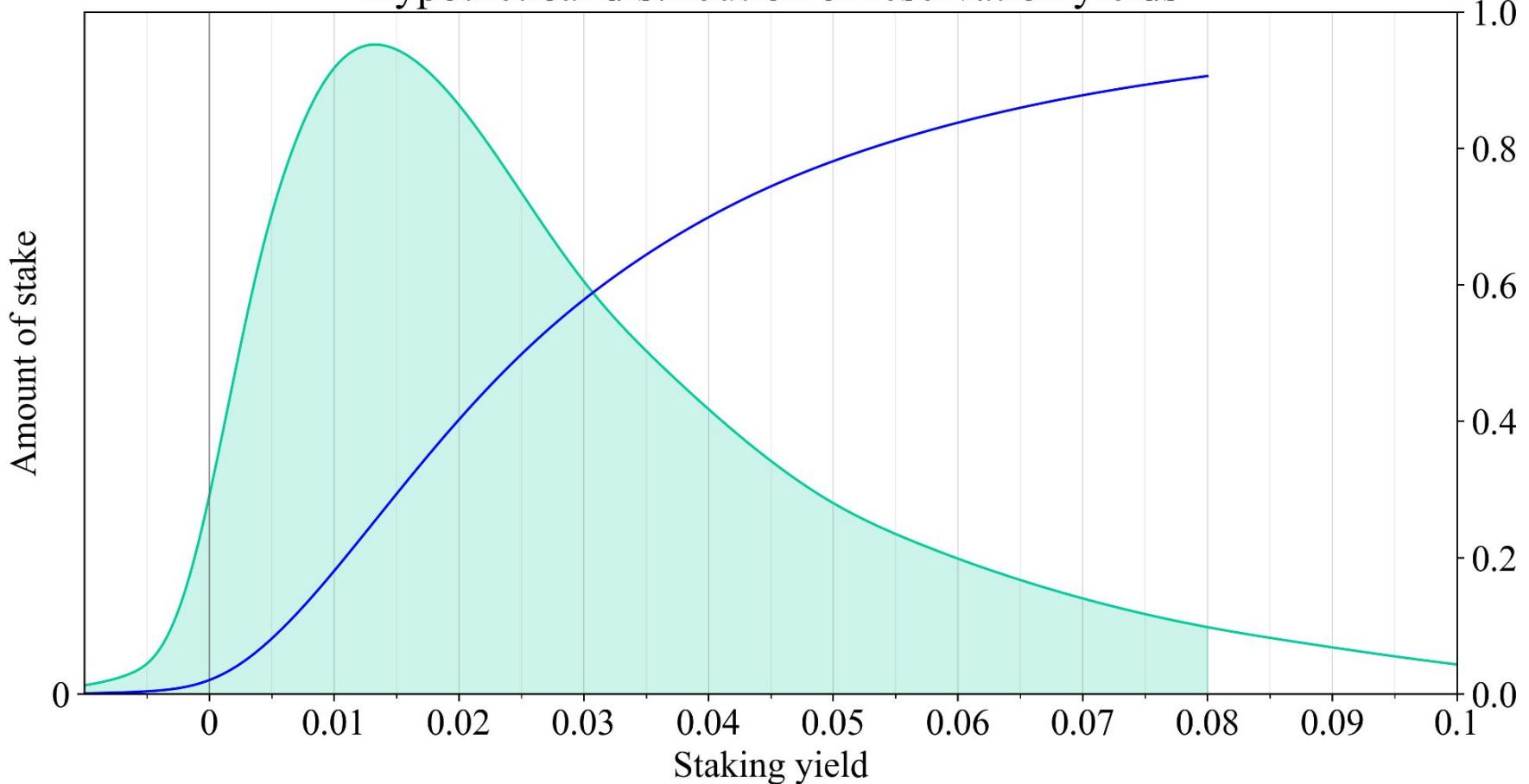
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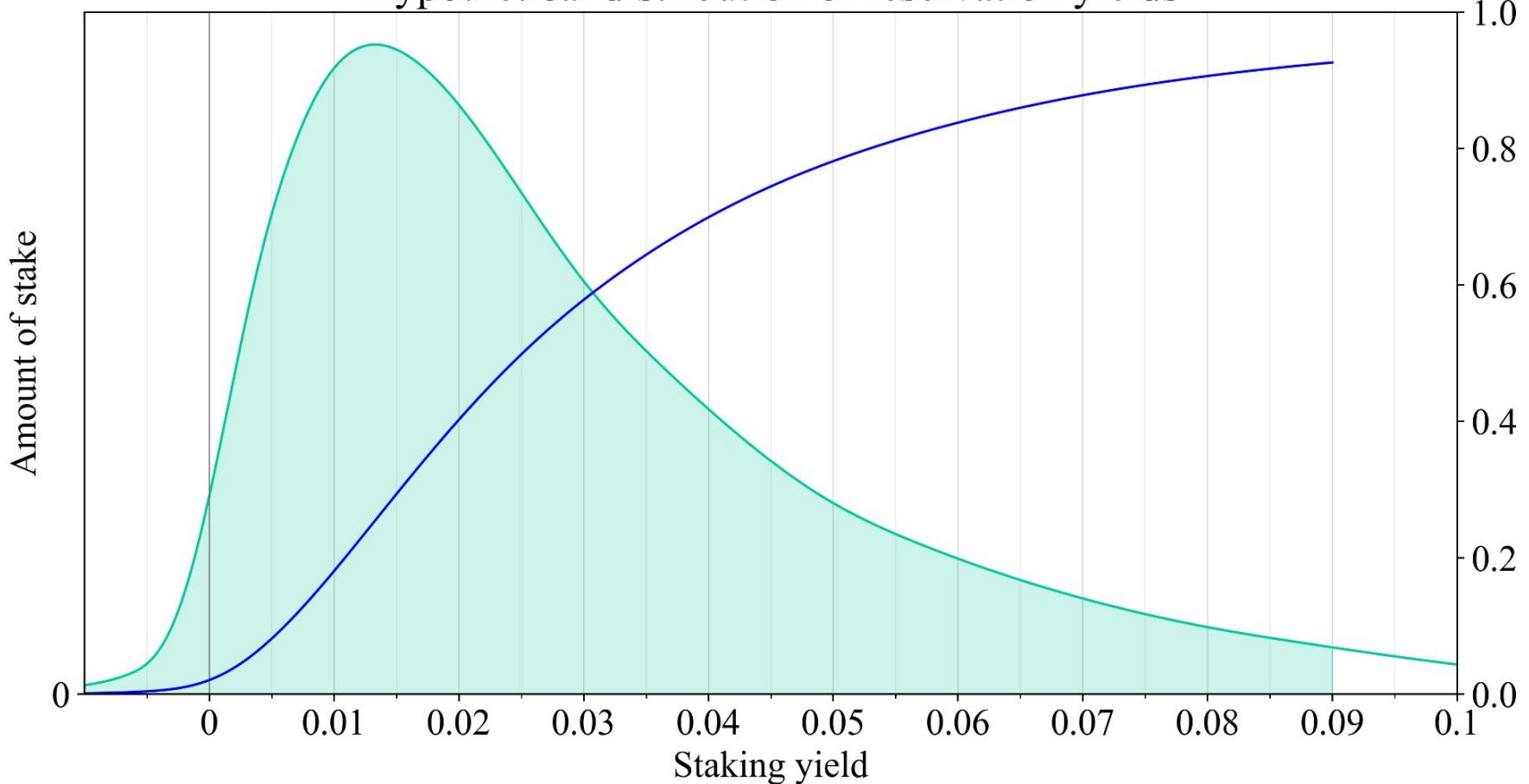
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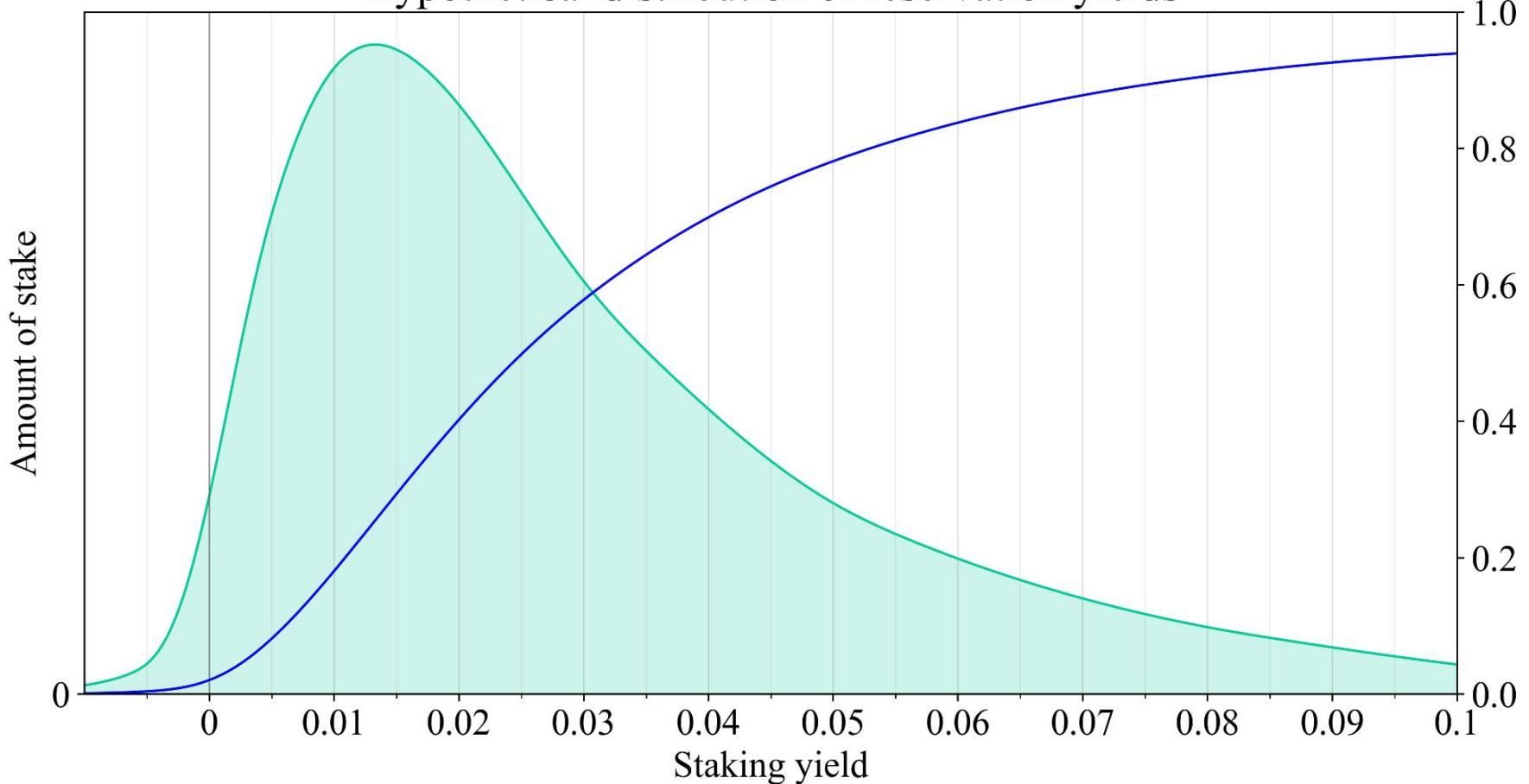
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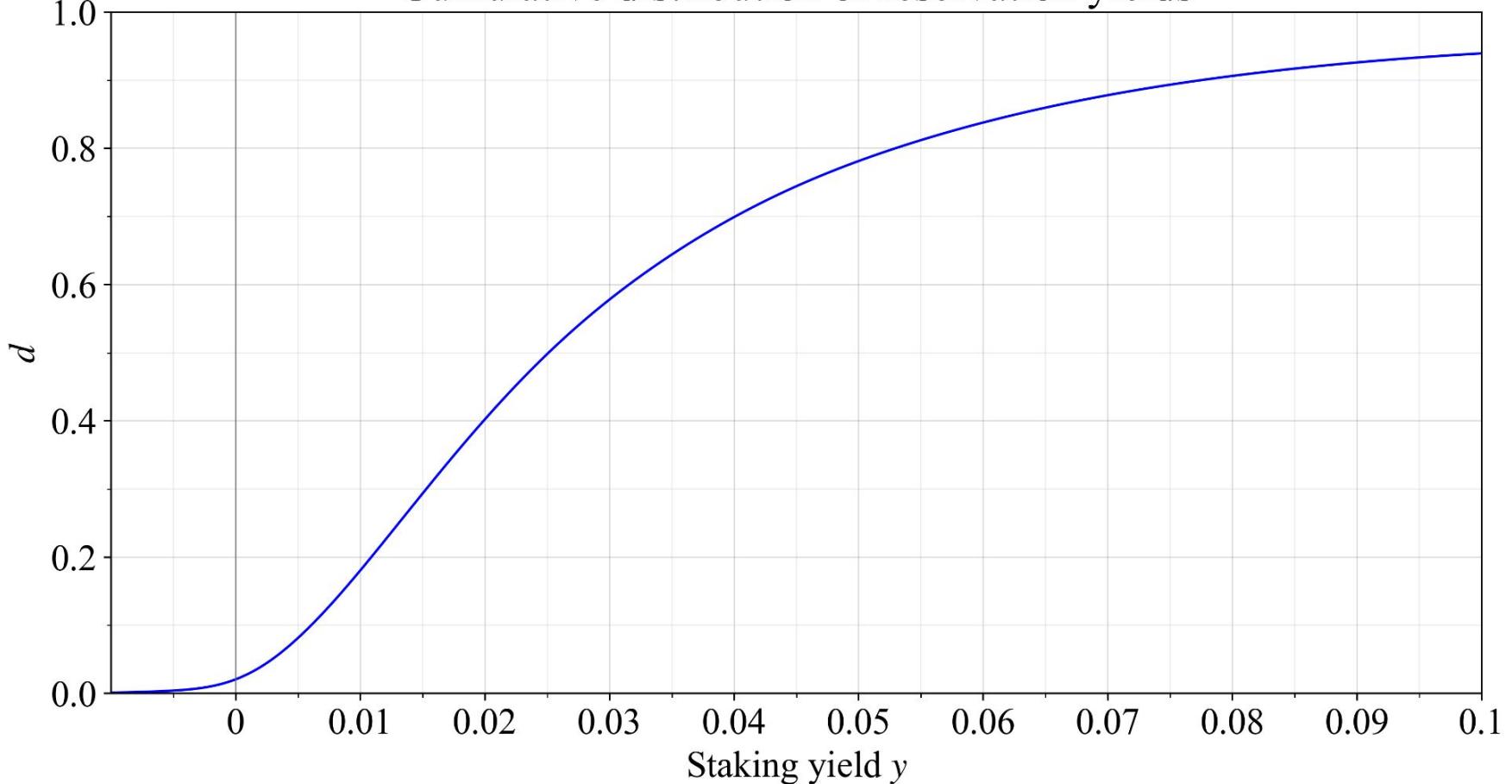
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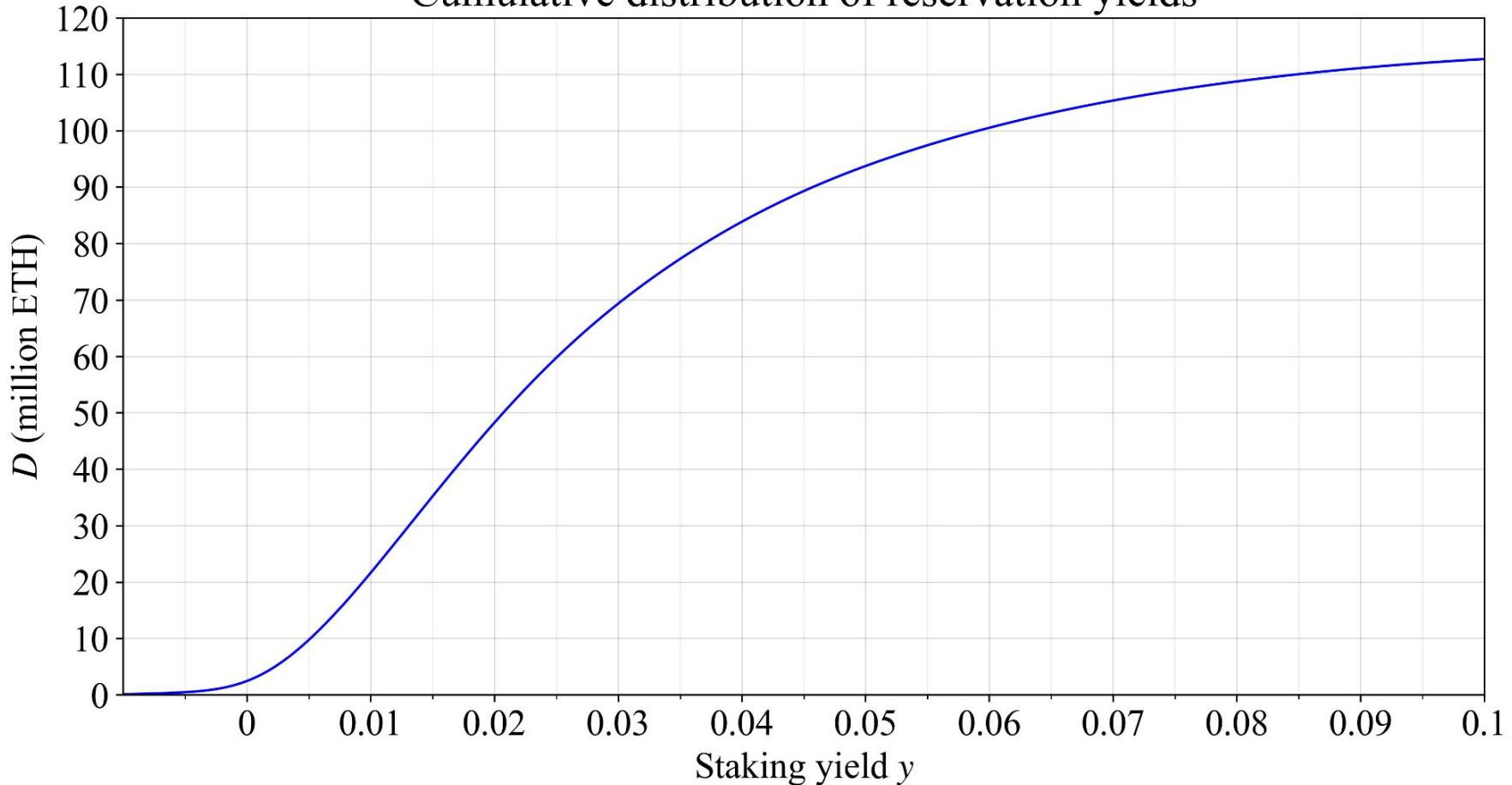
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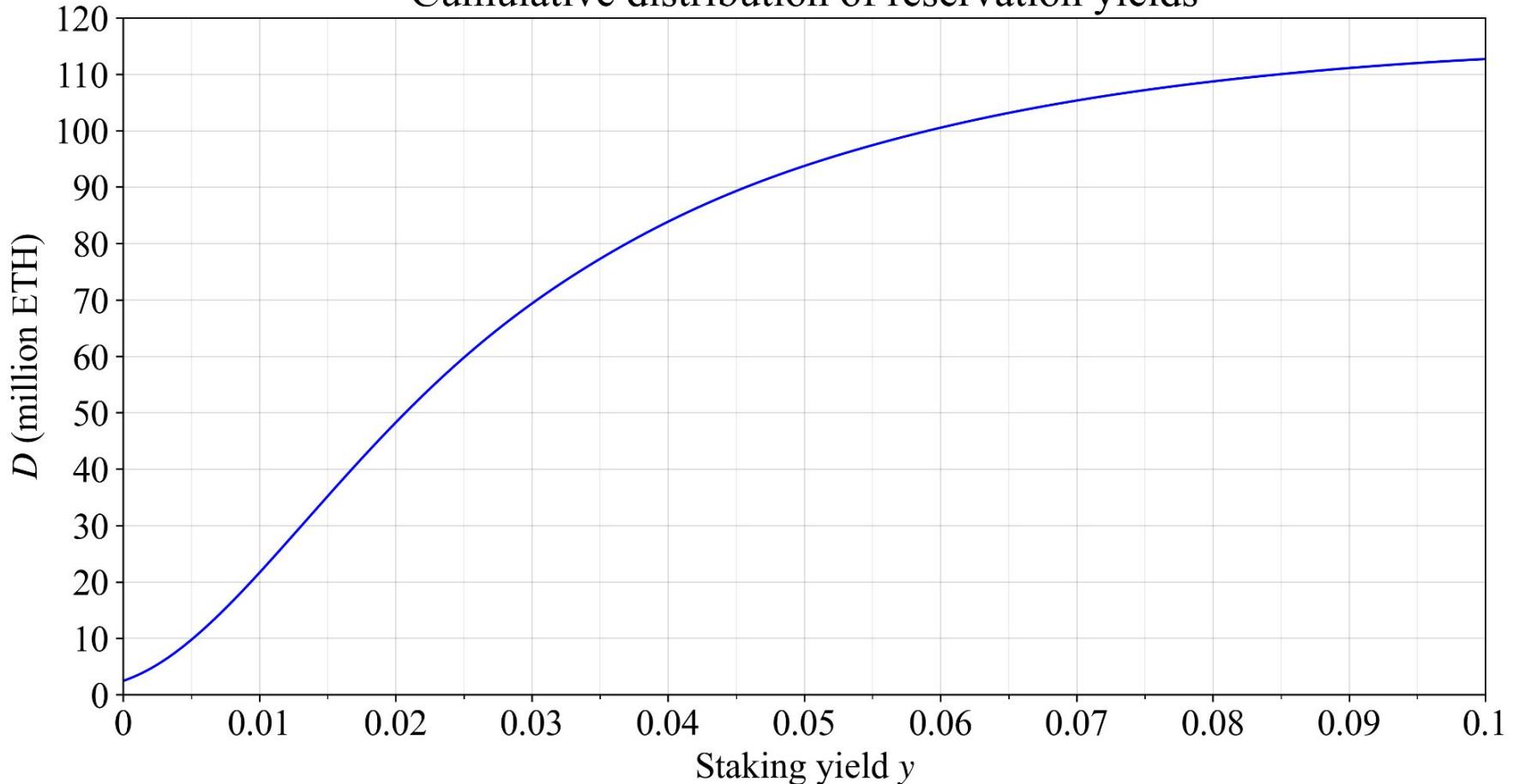
Cumulative distribution of reservation yields



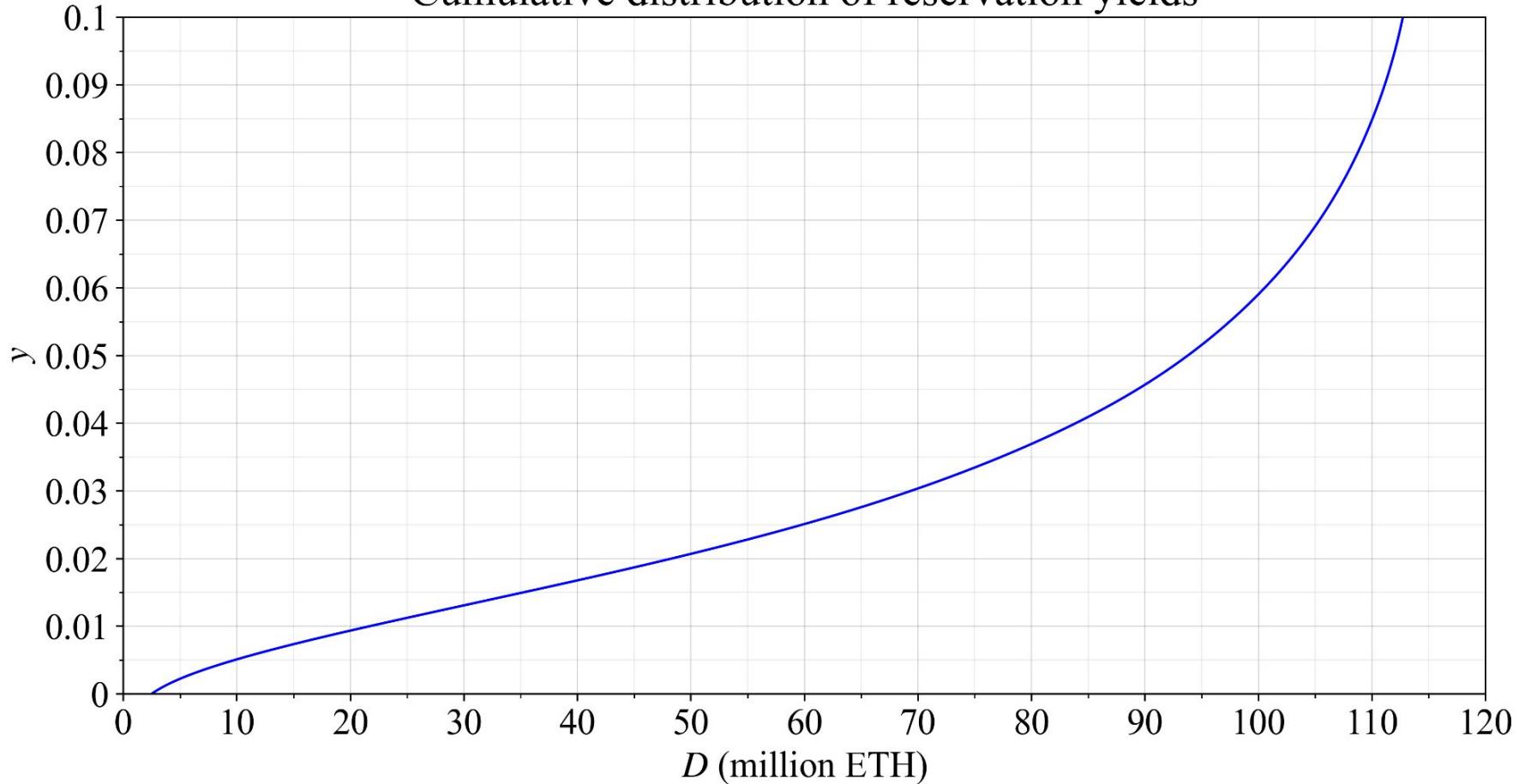
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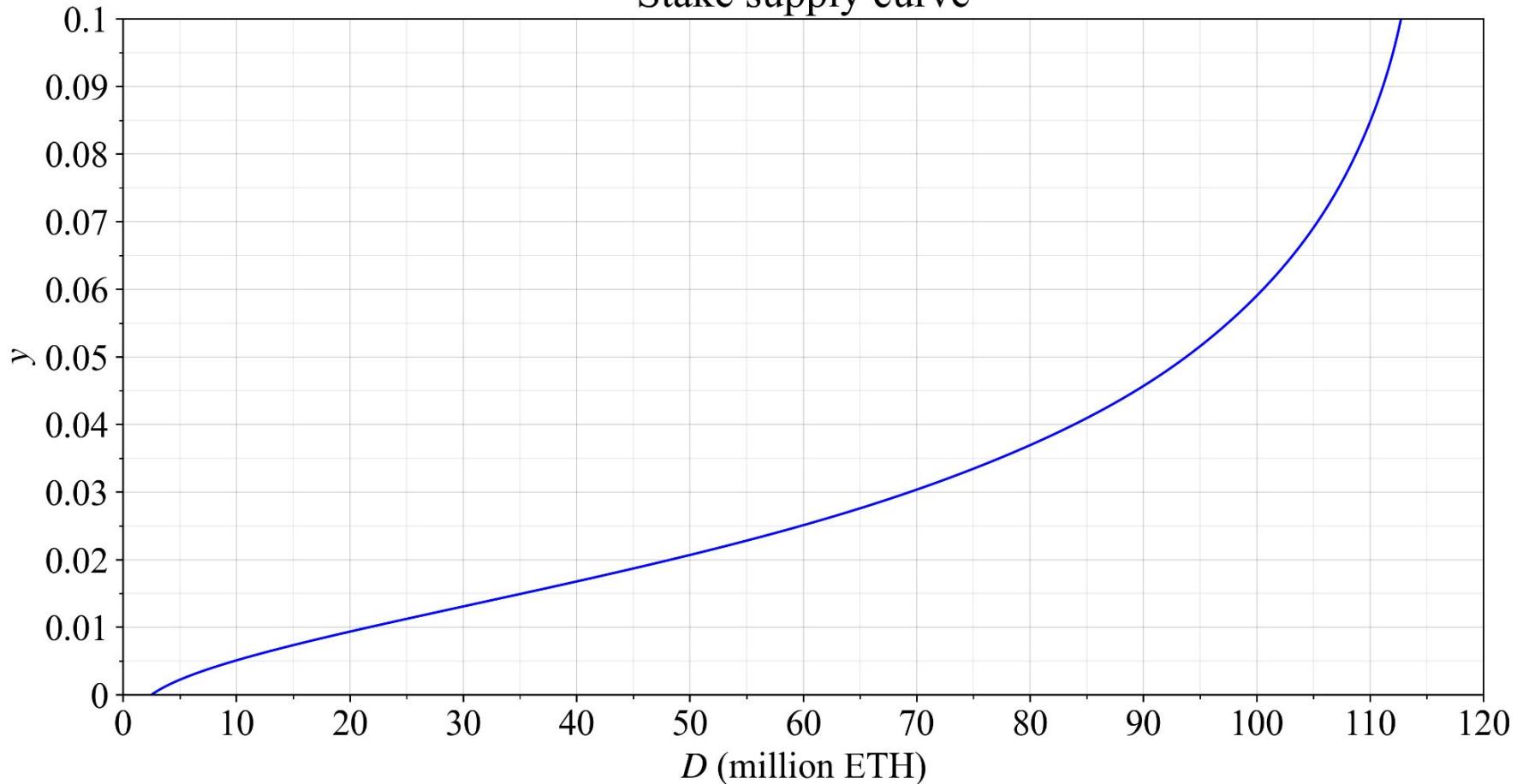
Cumulative distribution of reservation yields



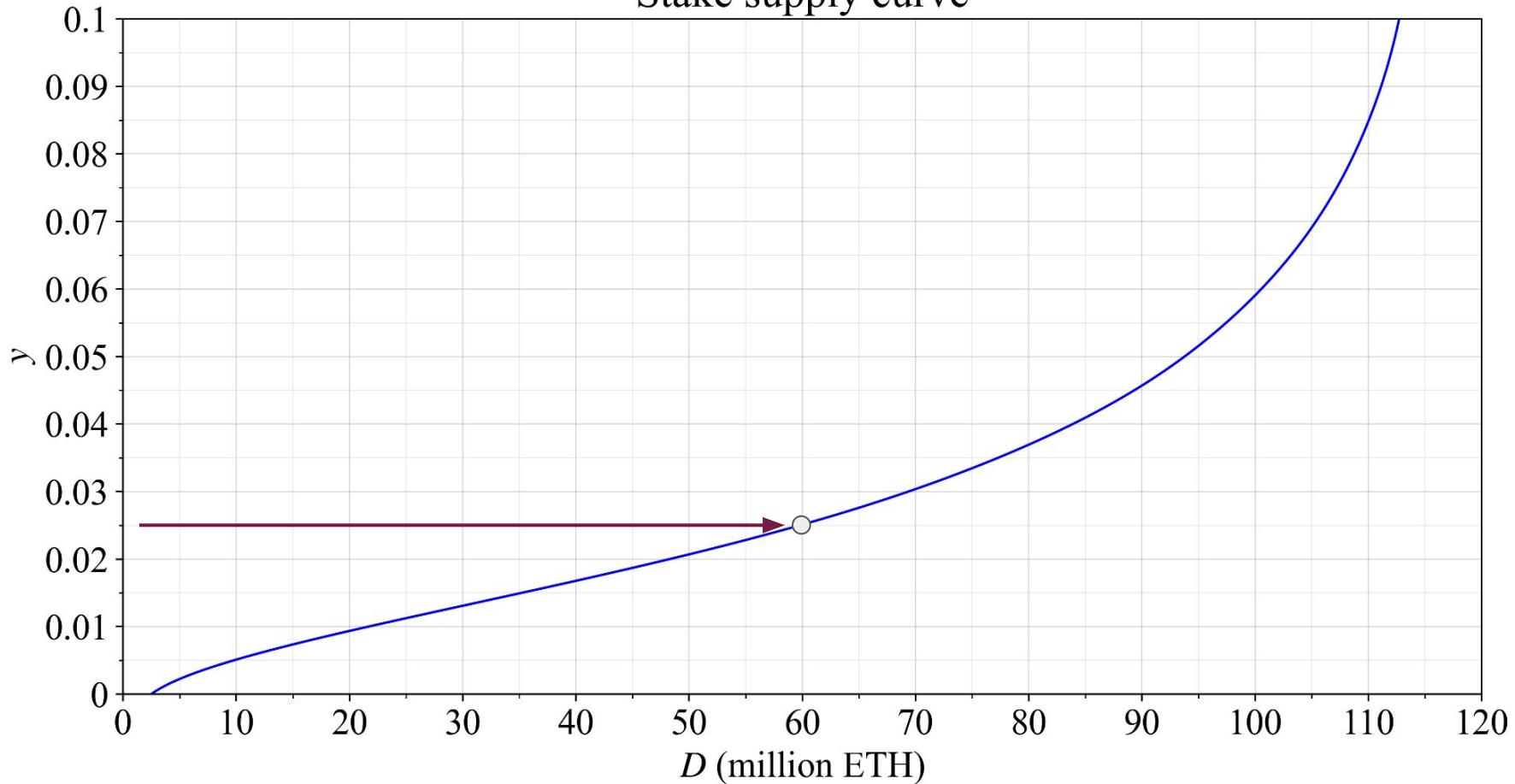
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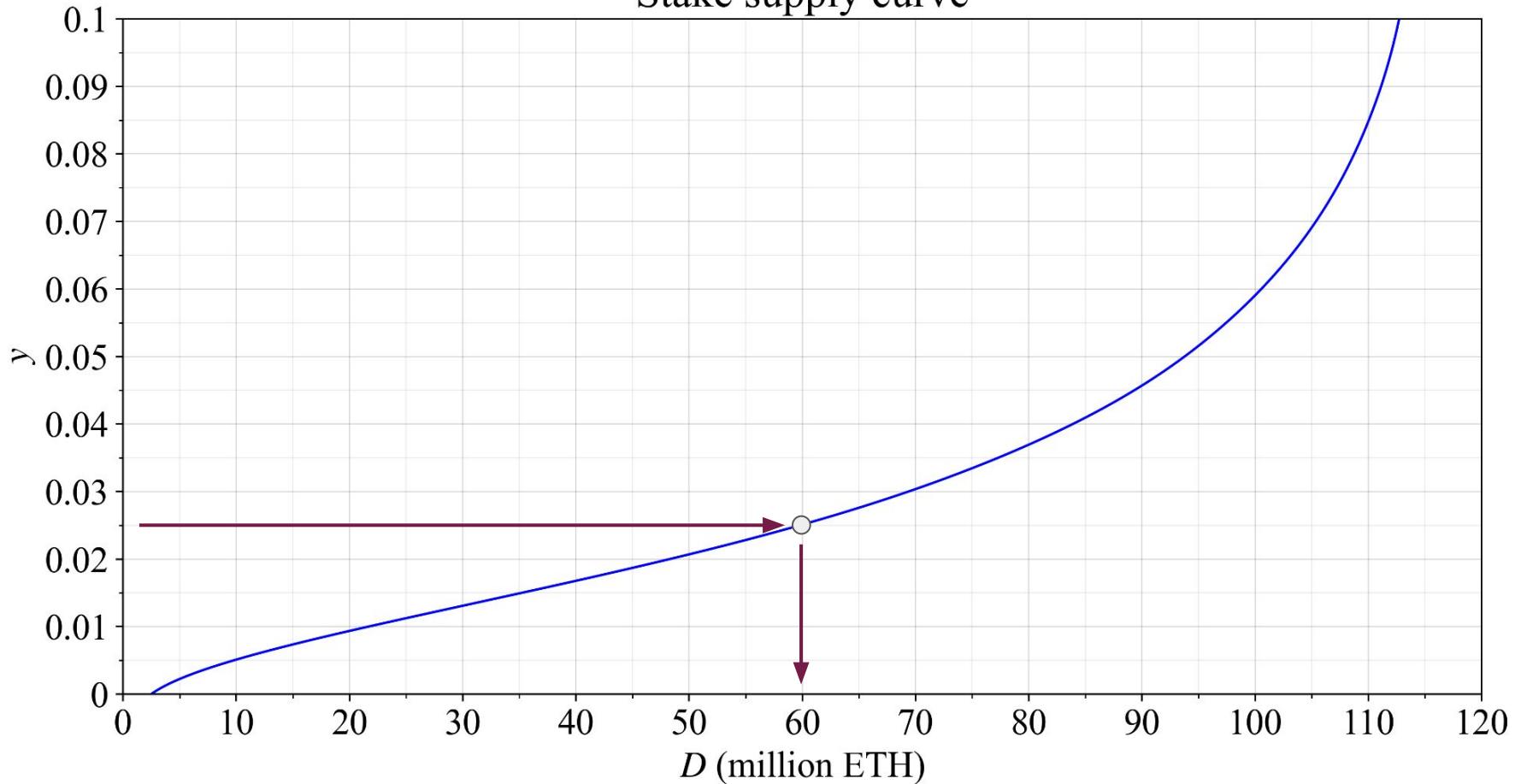
Stake supply curve

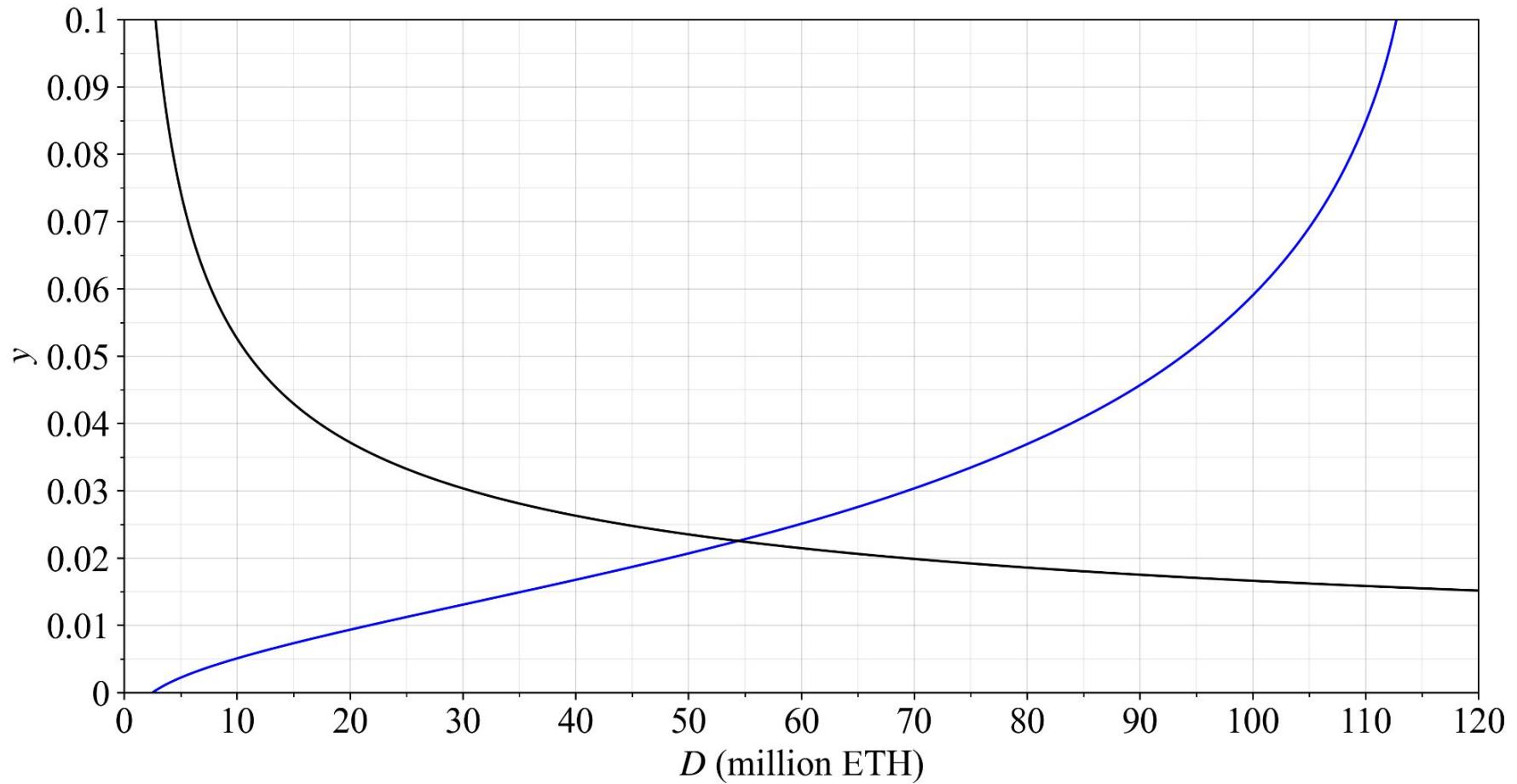


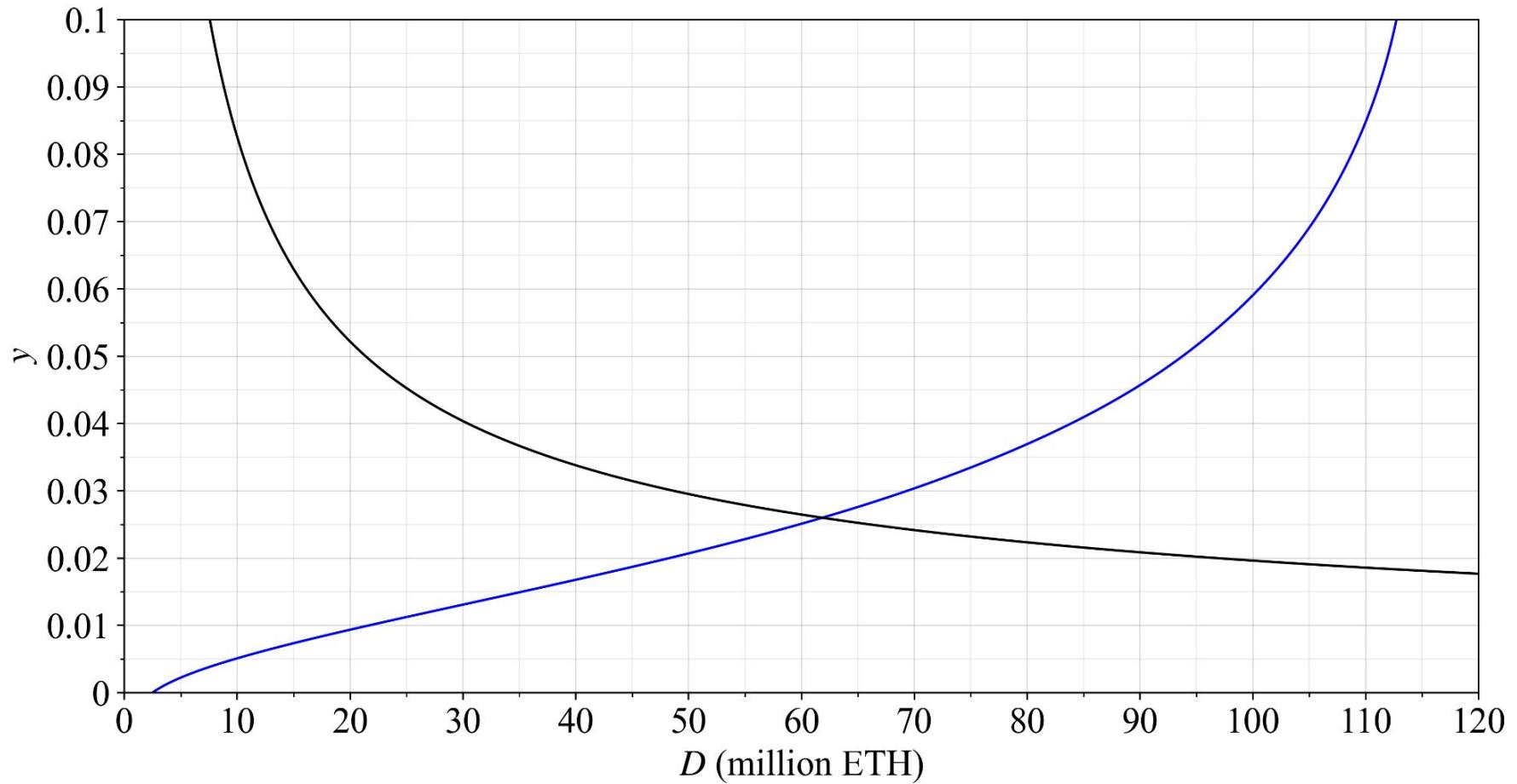
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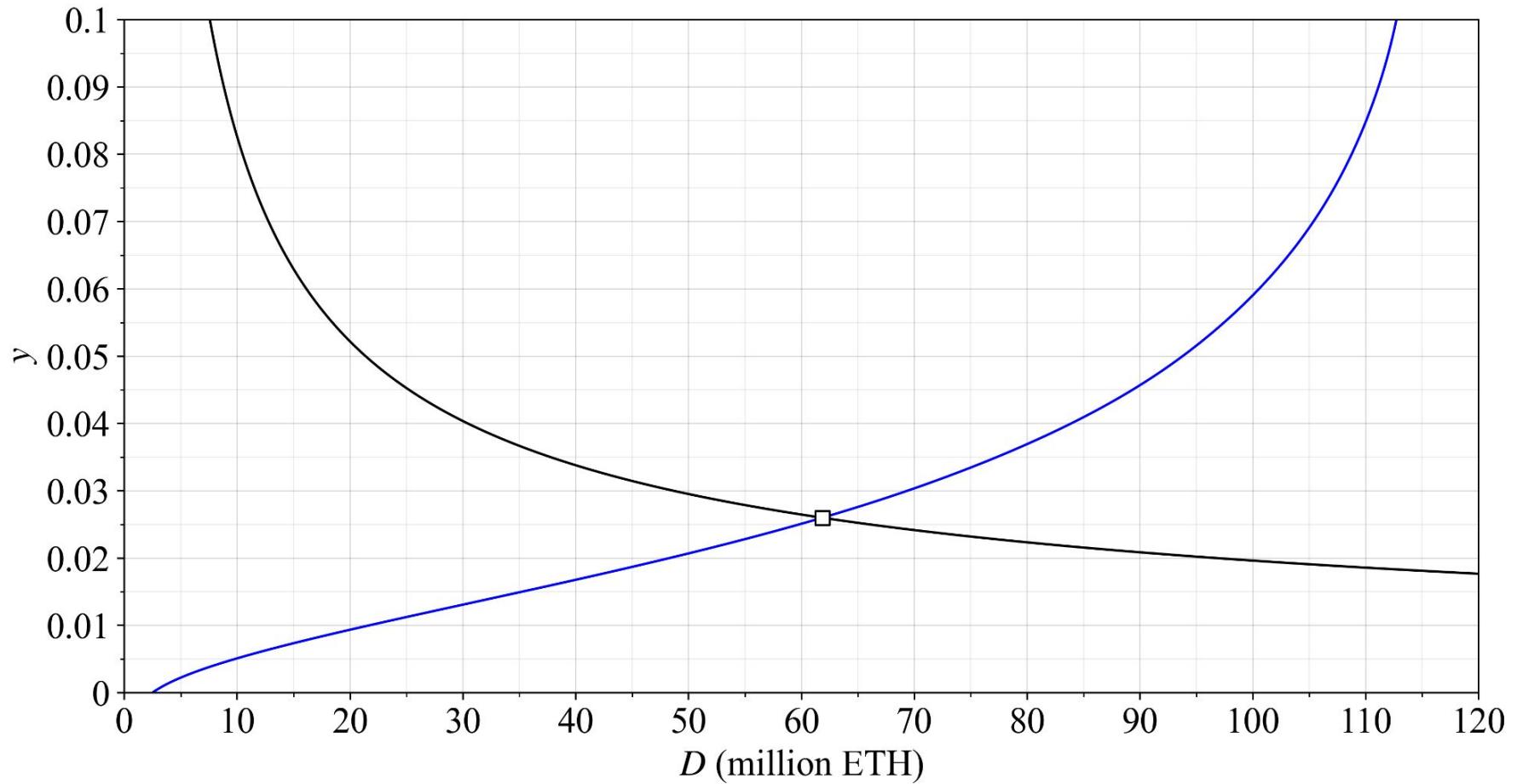


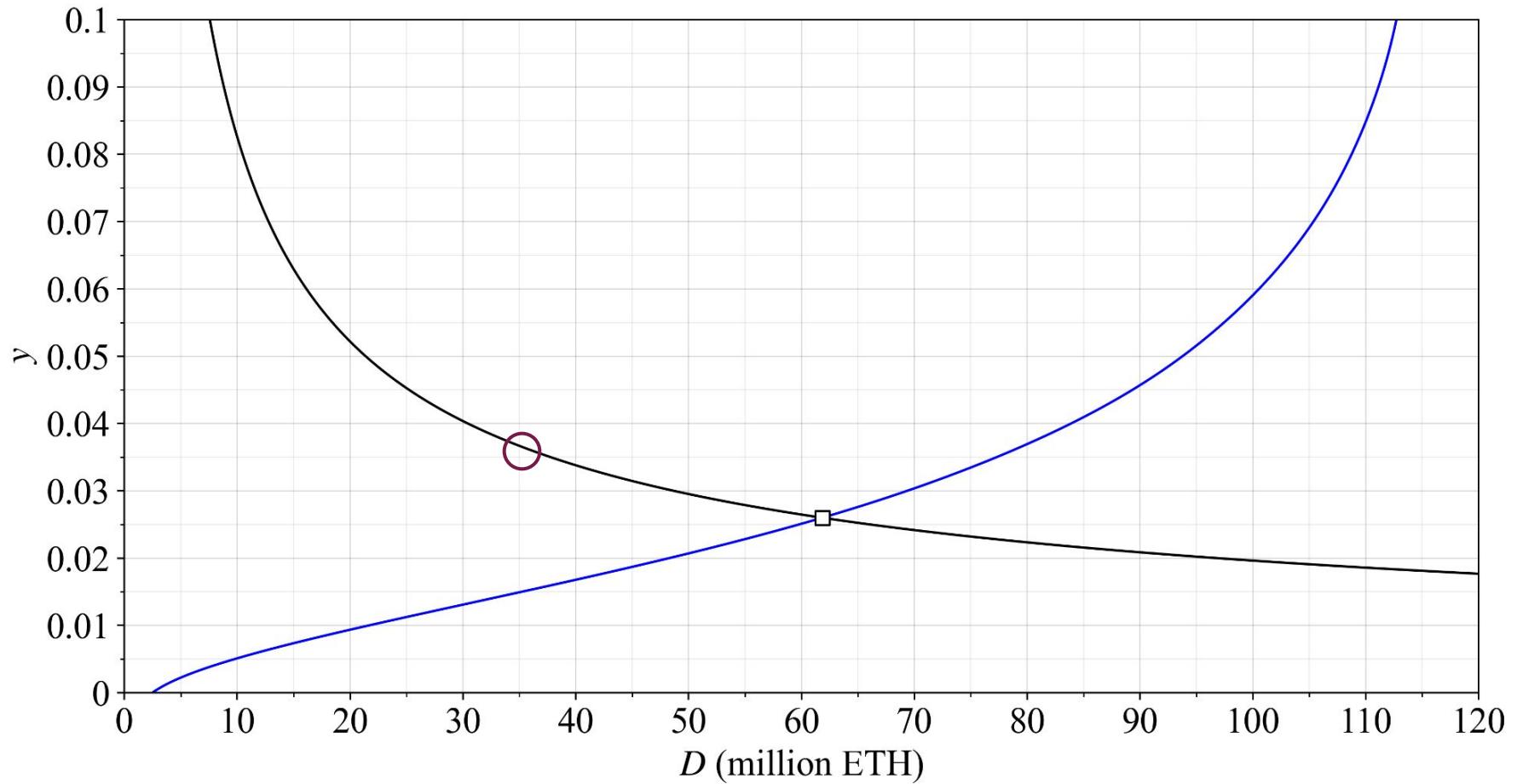
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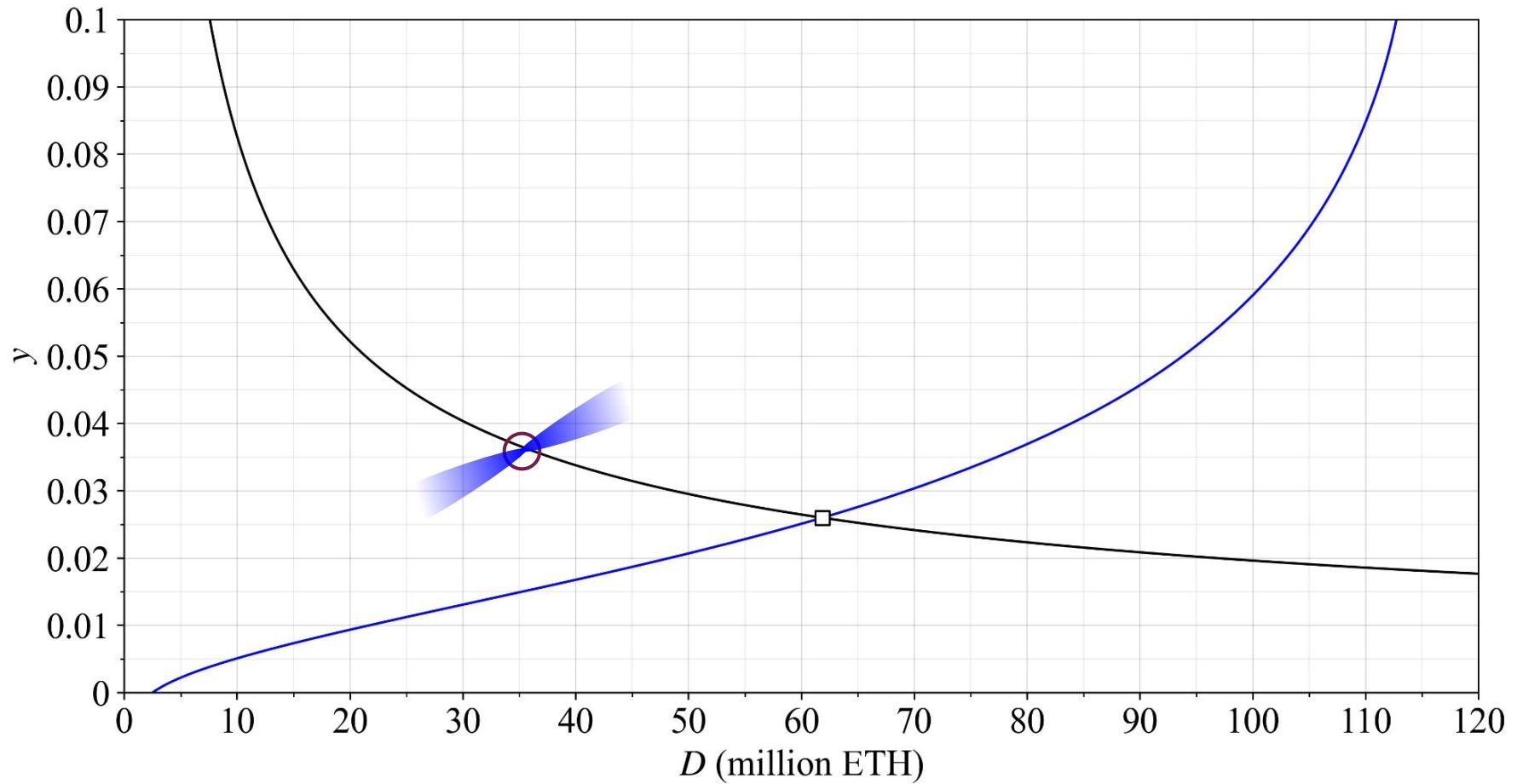






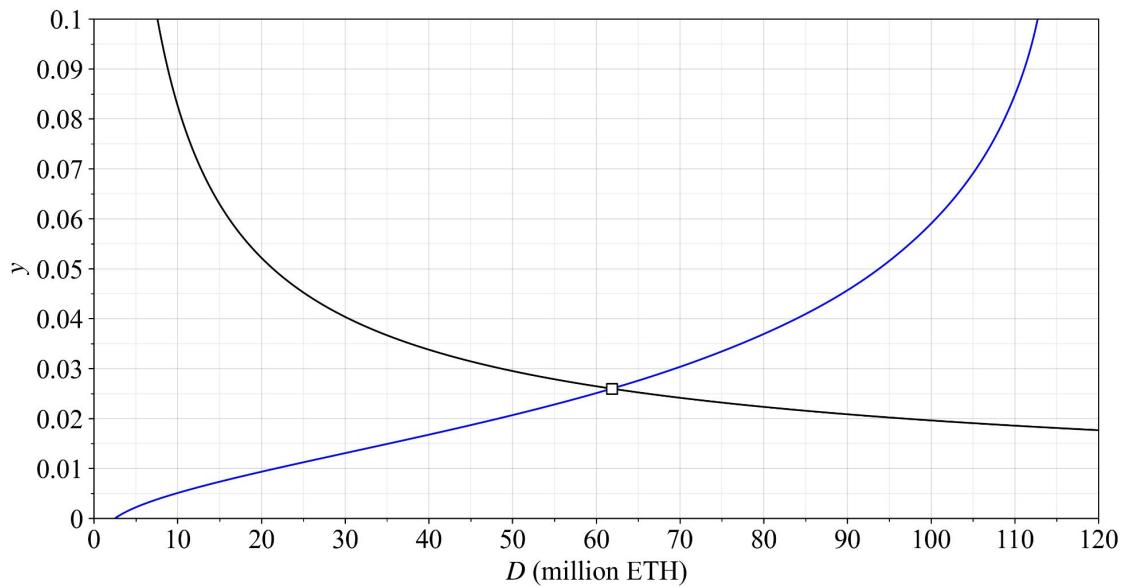


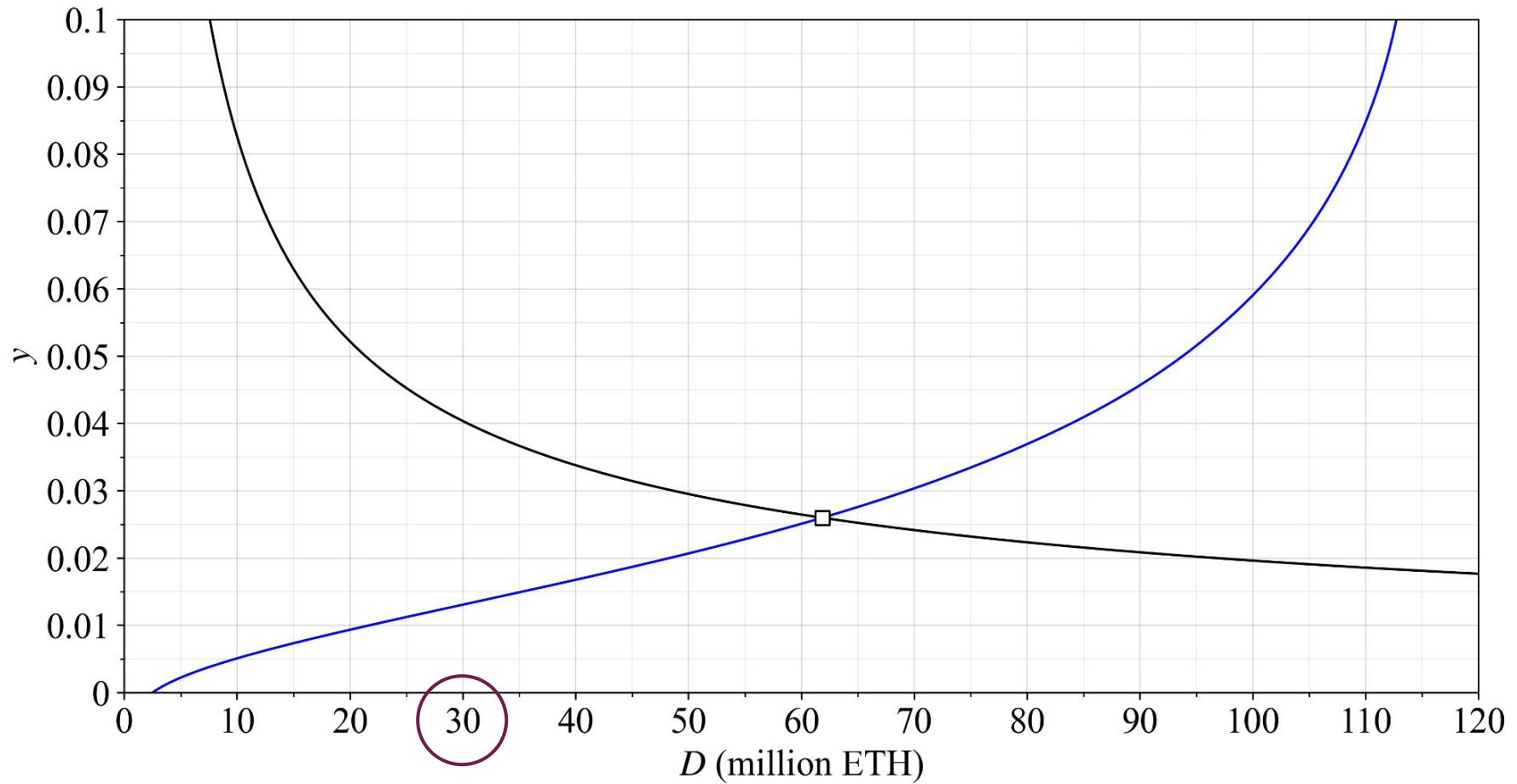


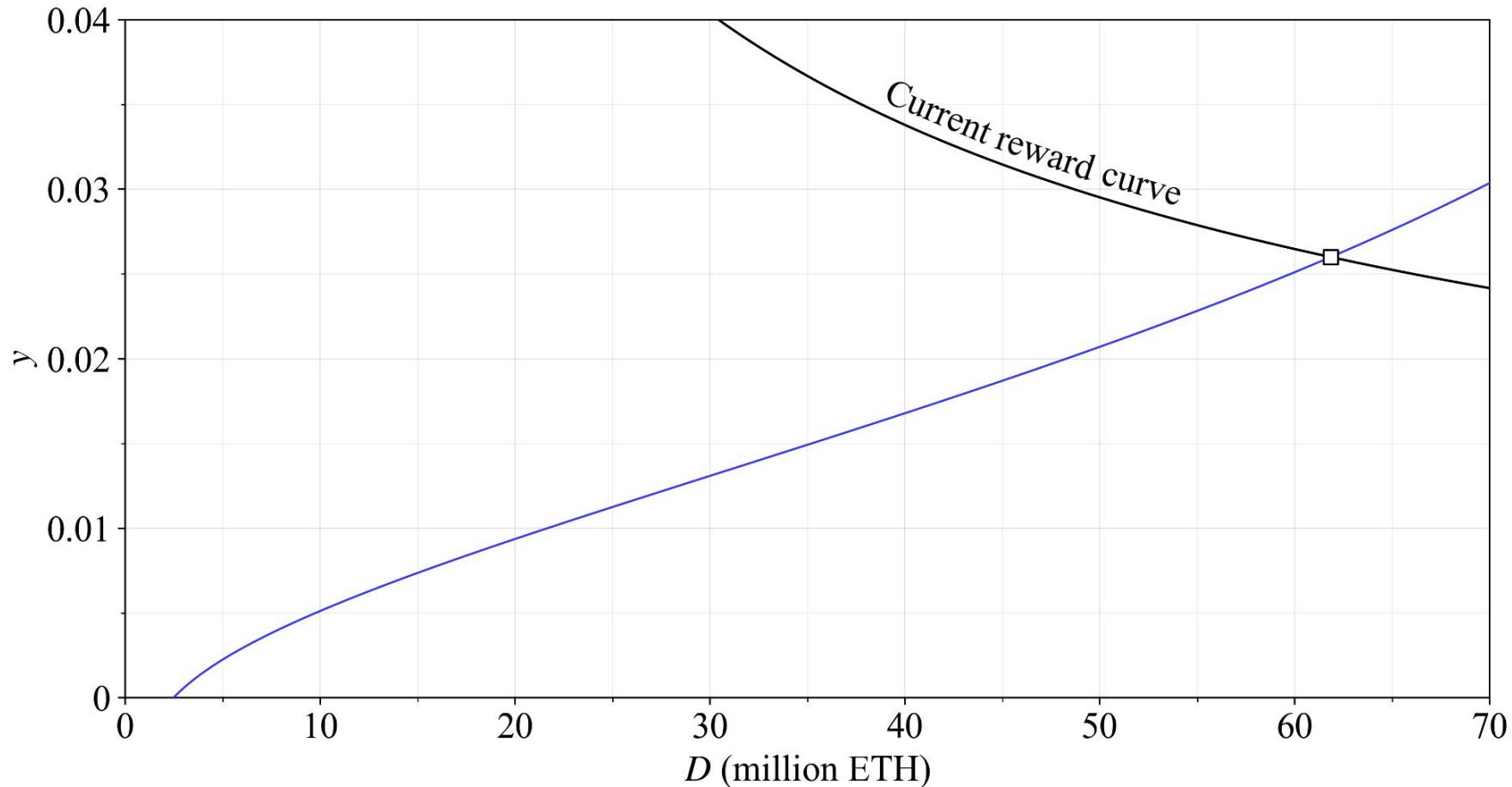


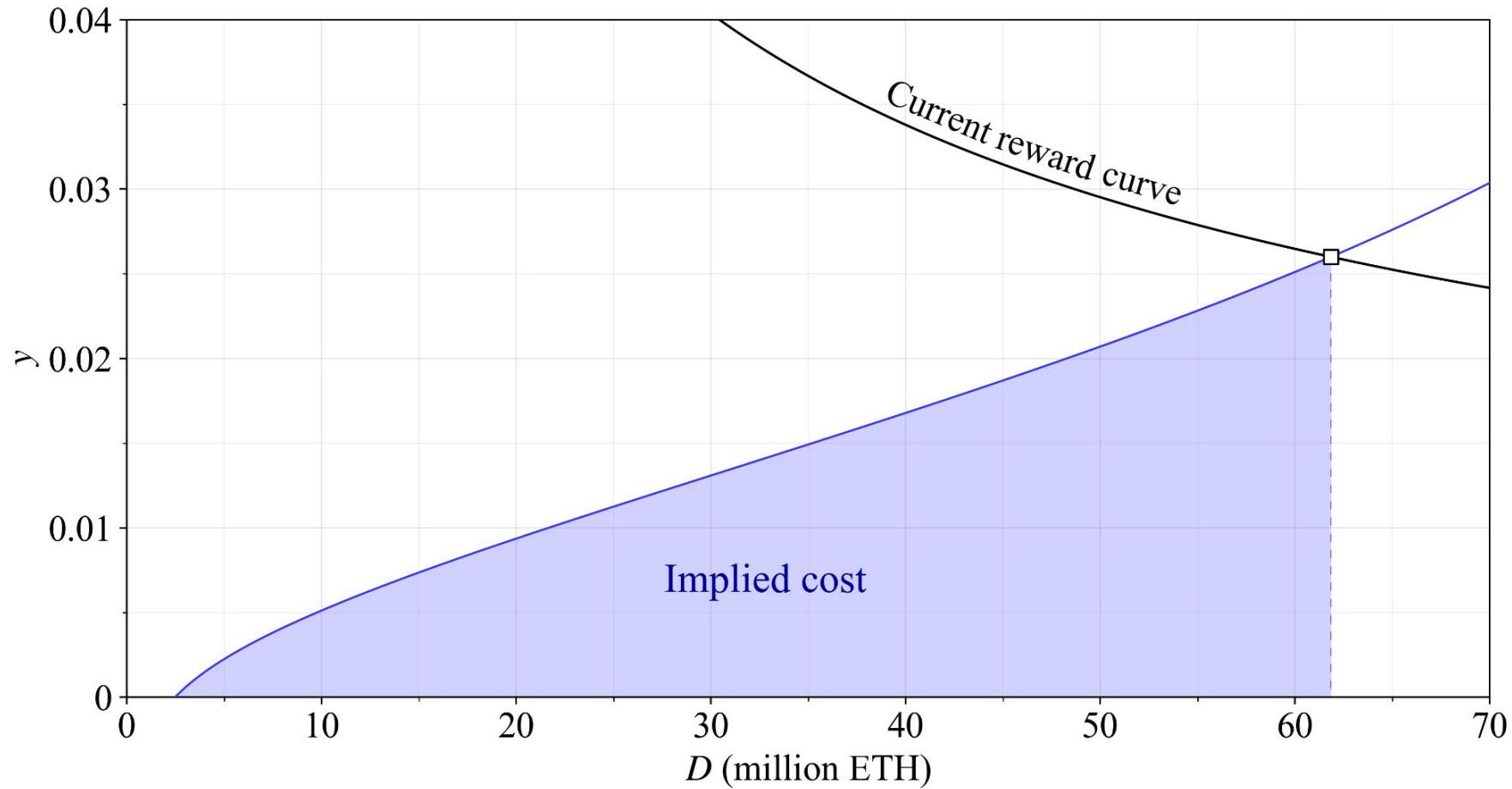
Motivations

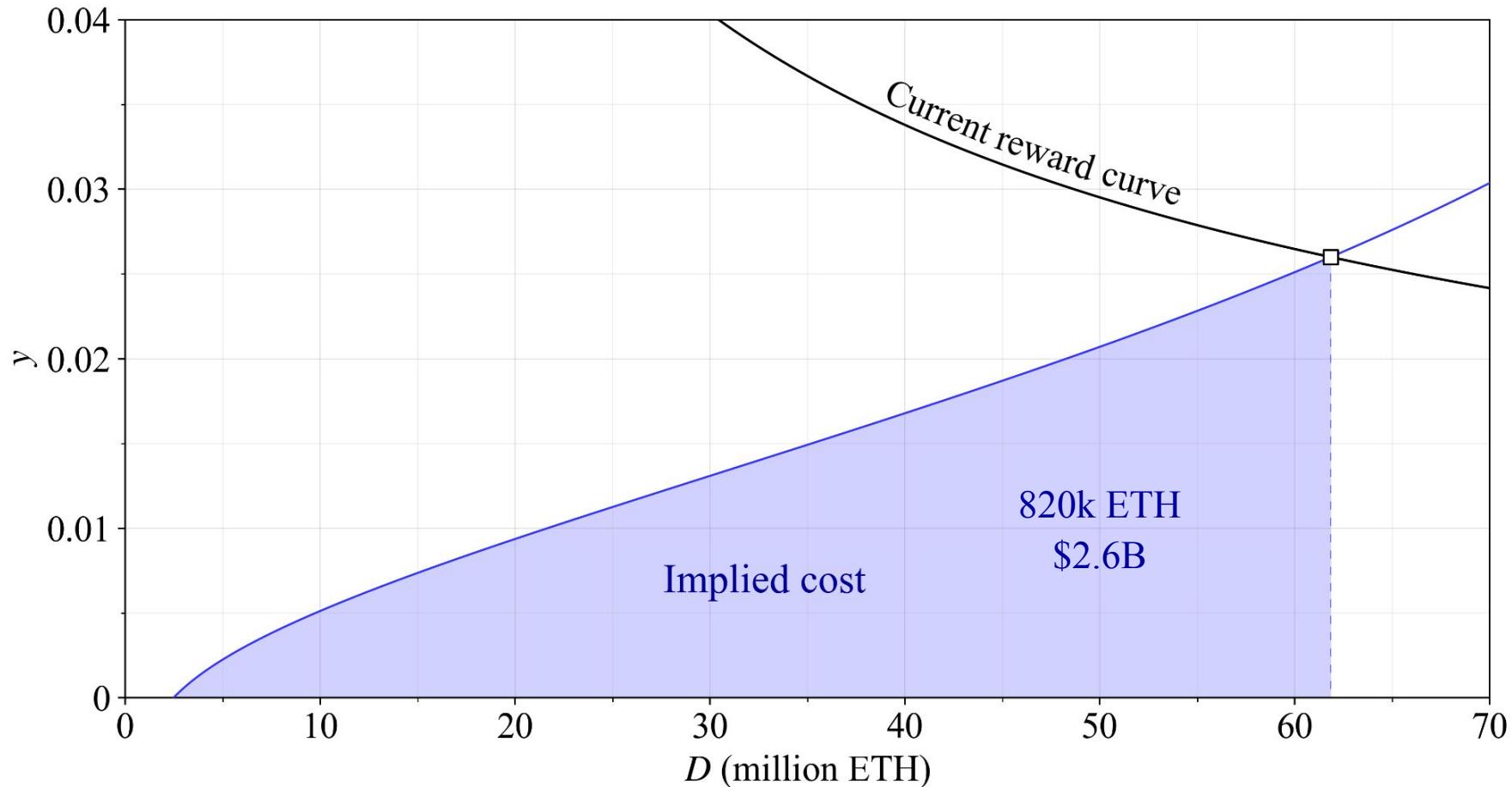


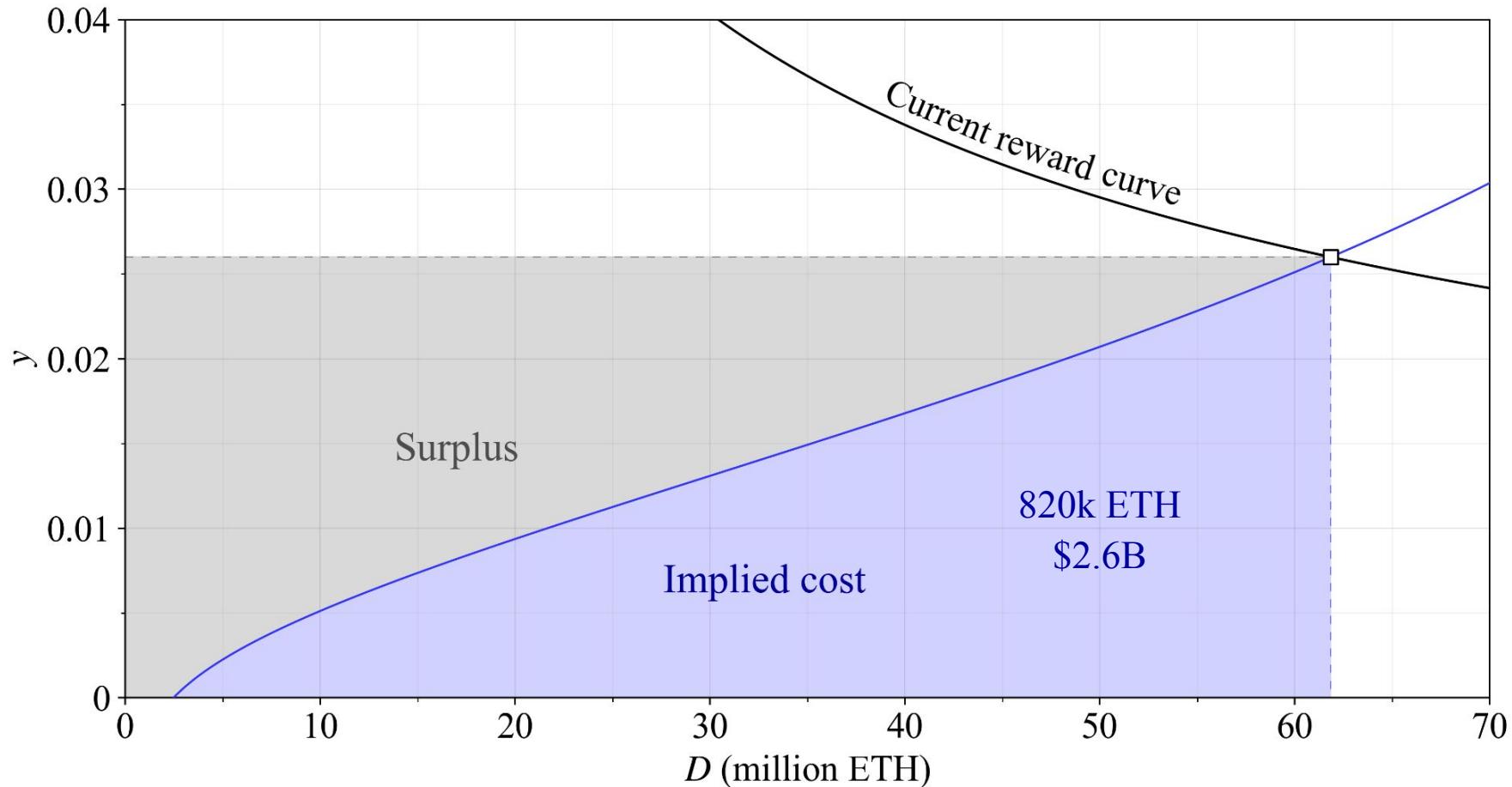


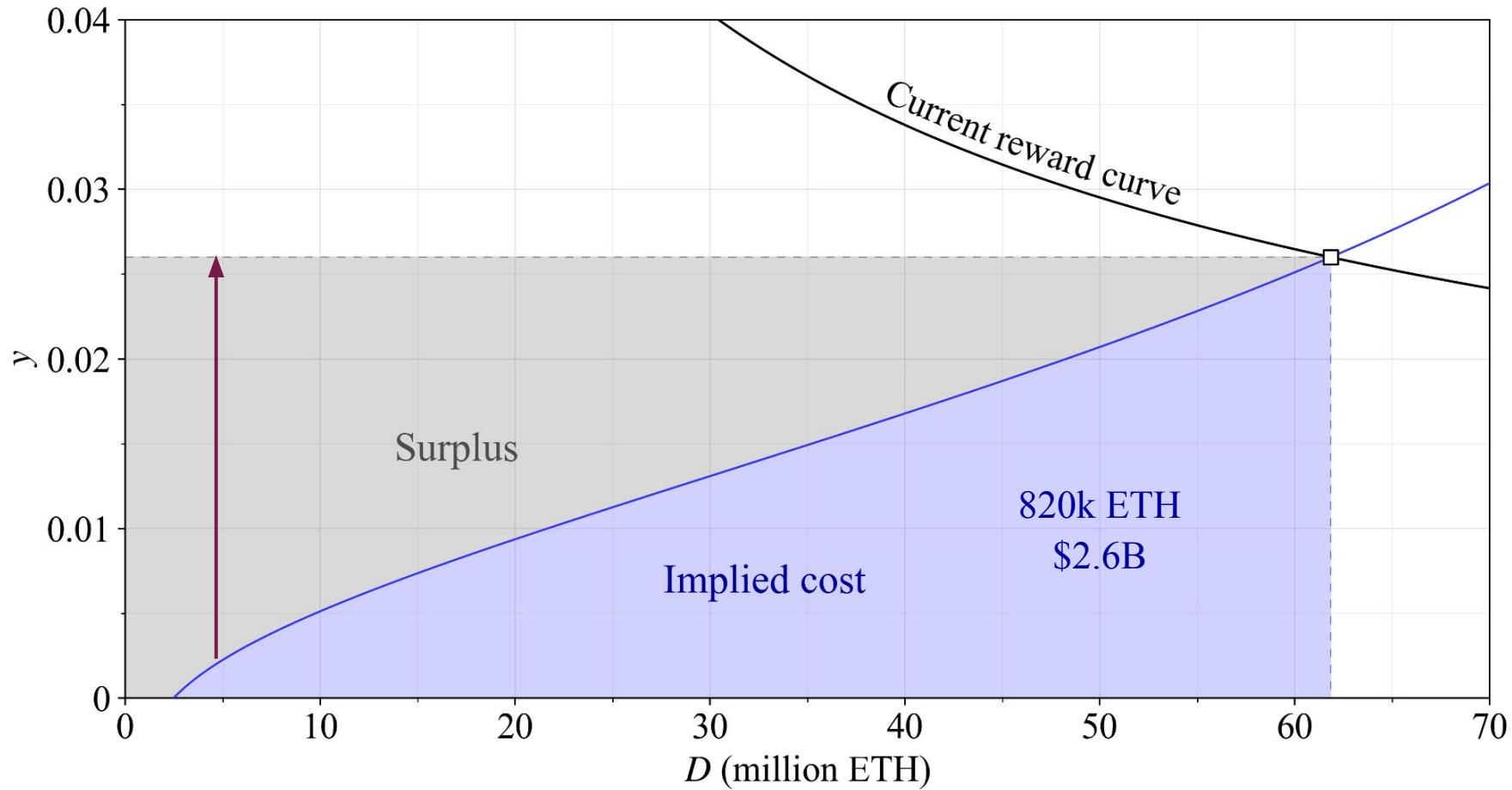


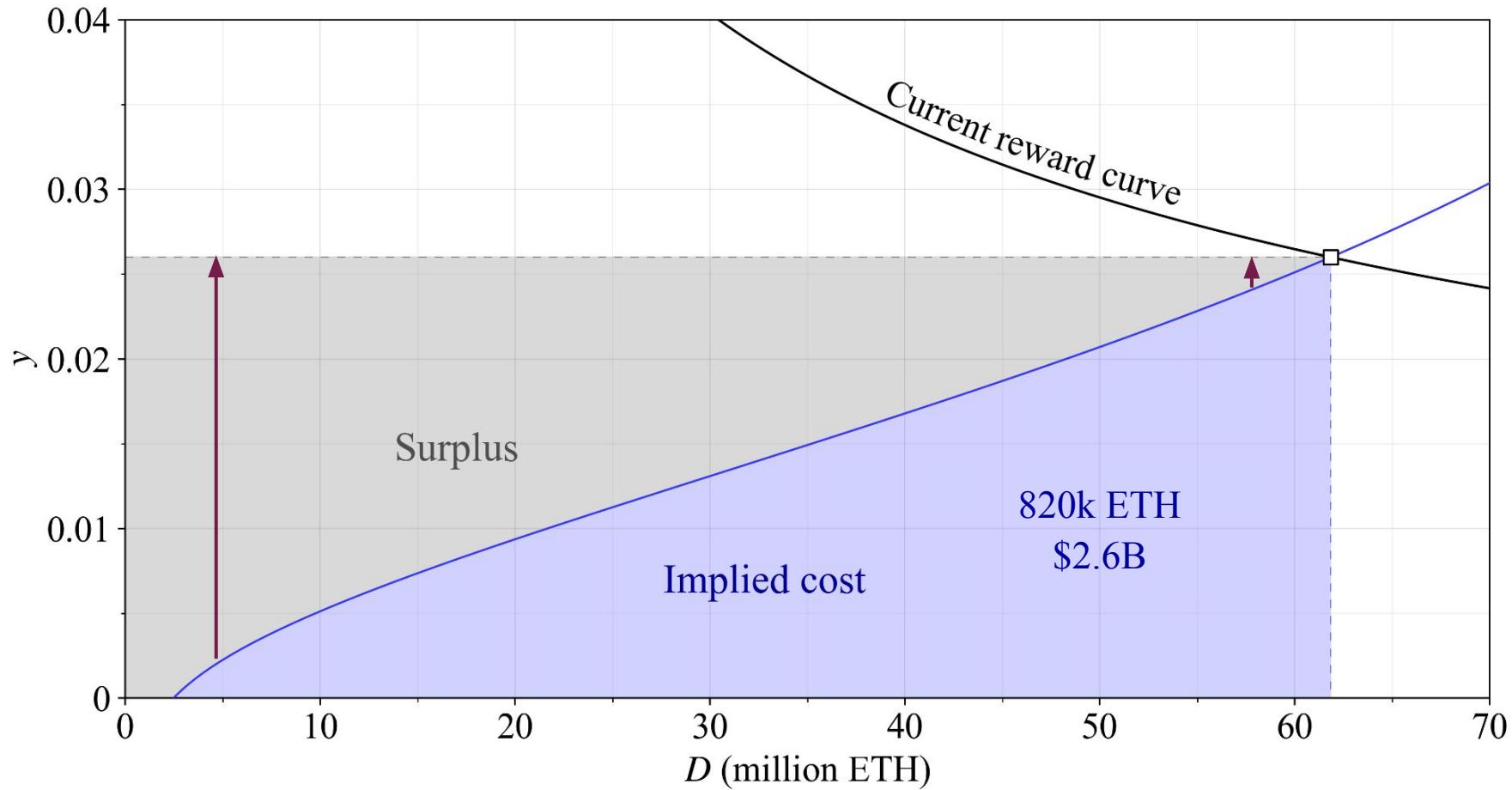


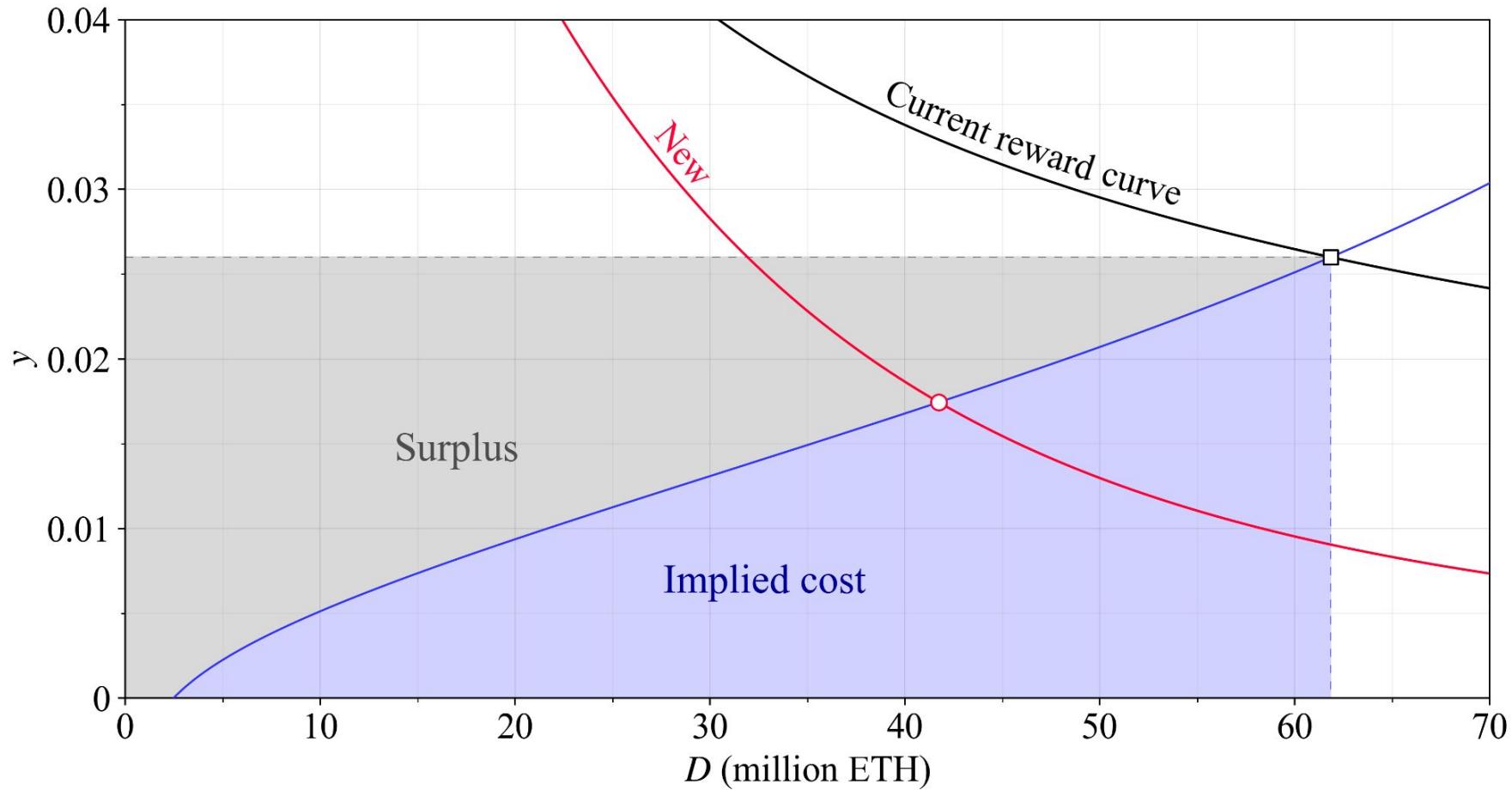


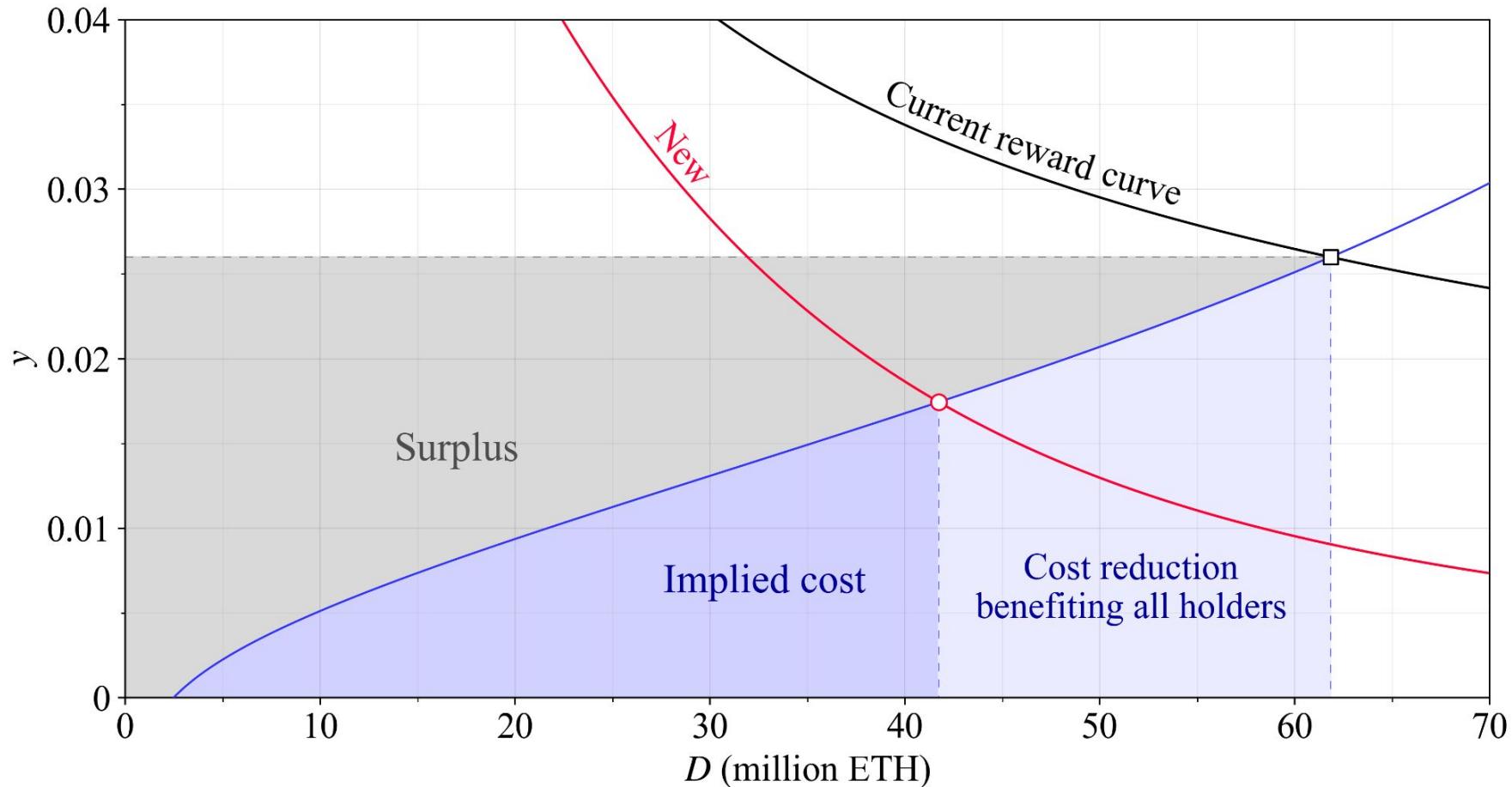


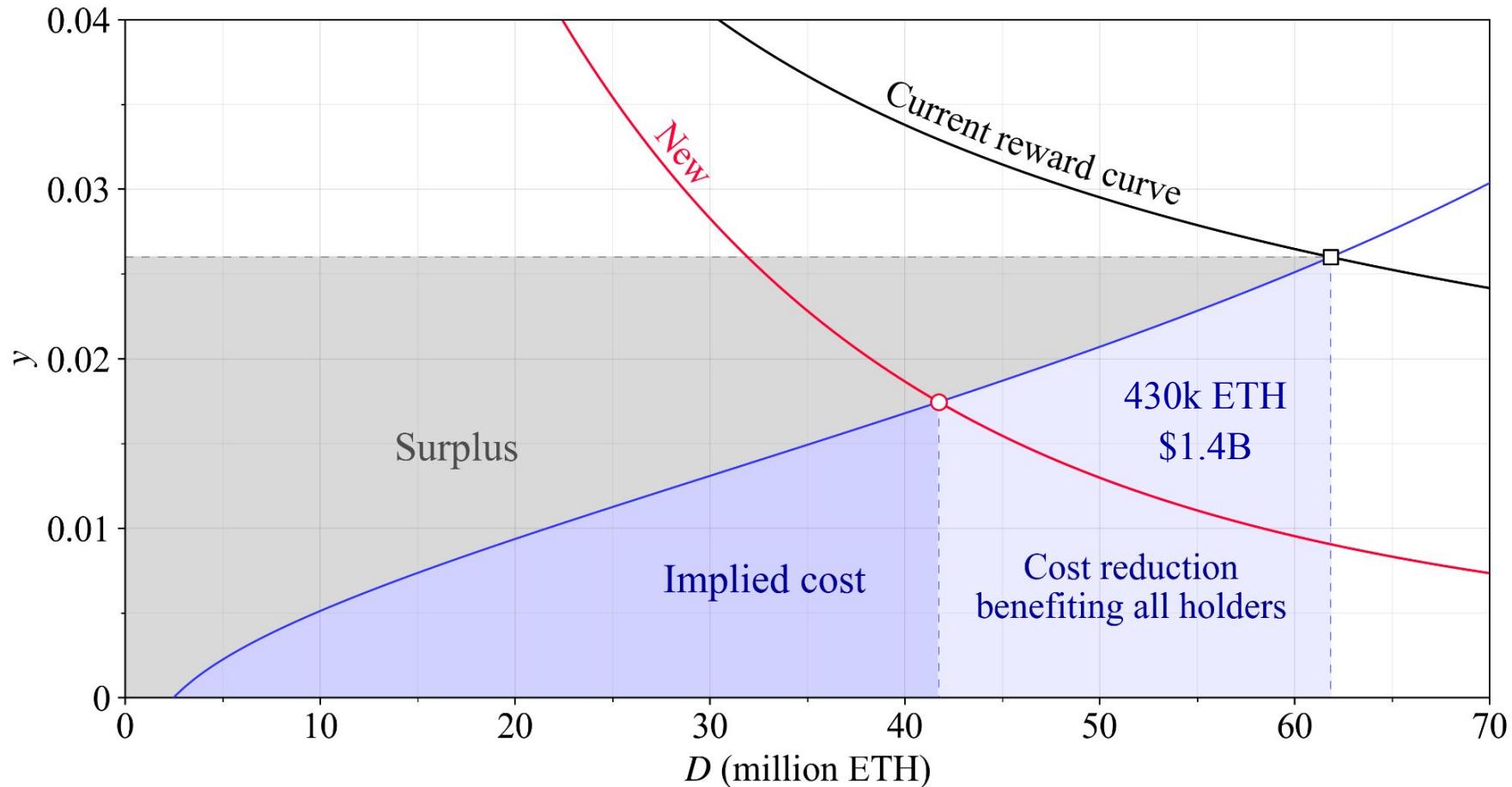




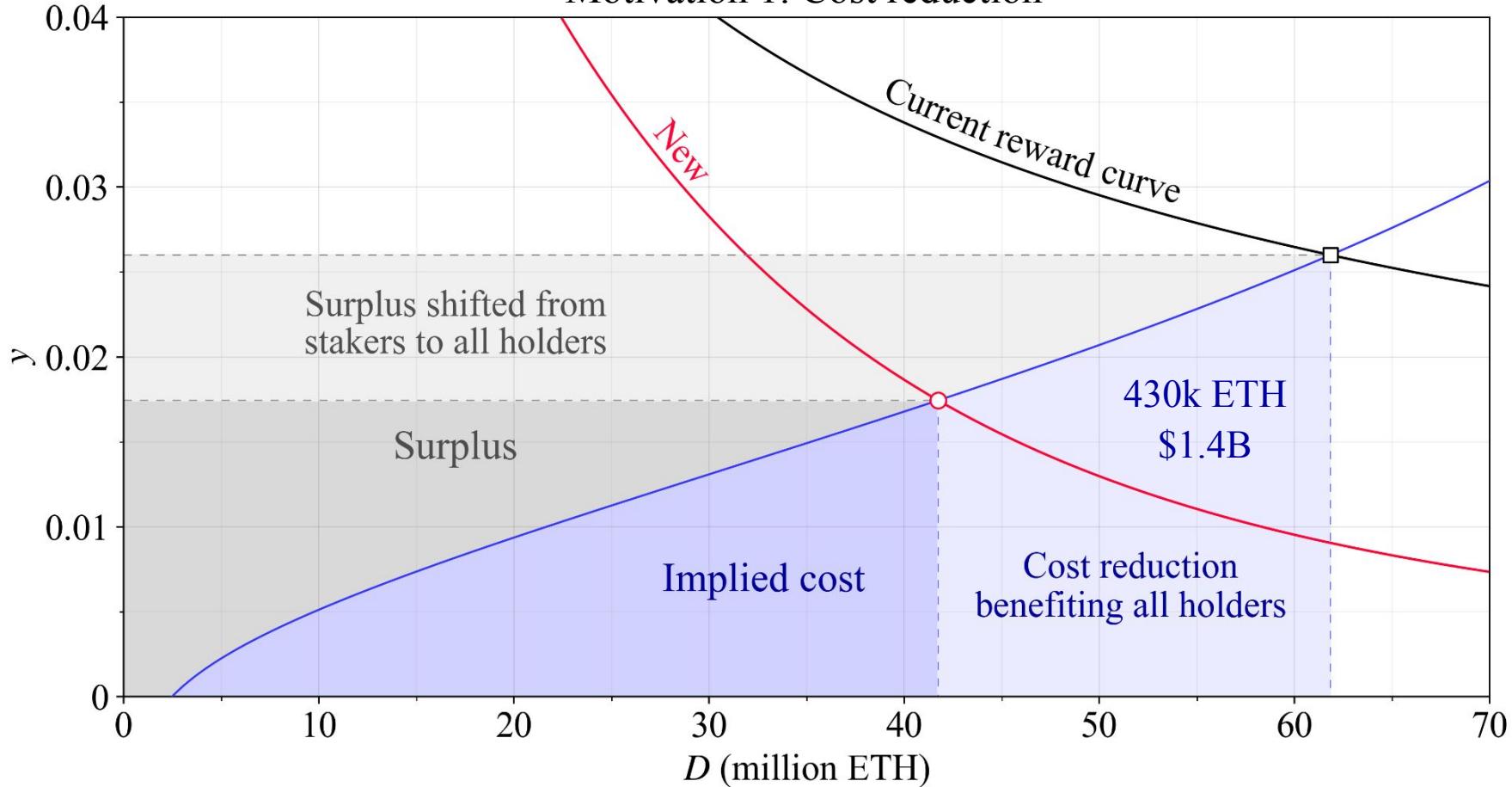








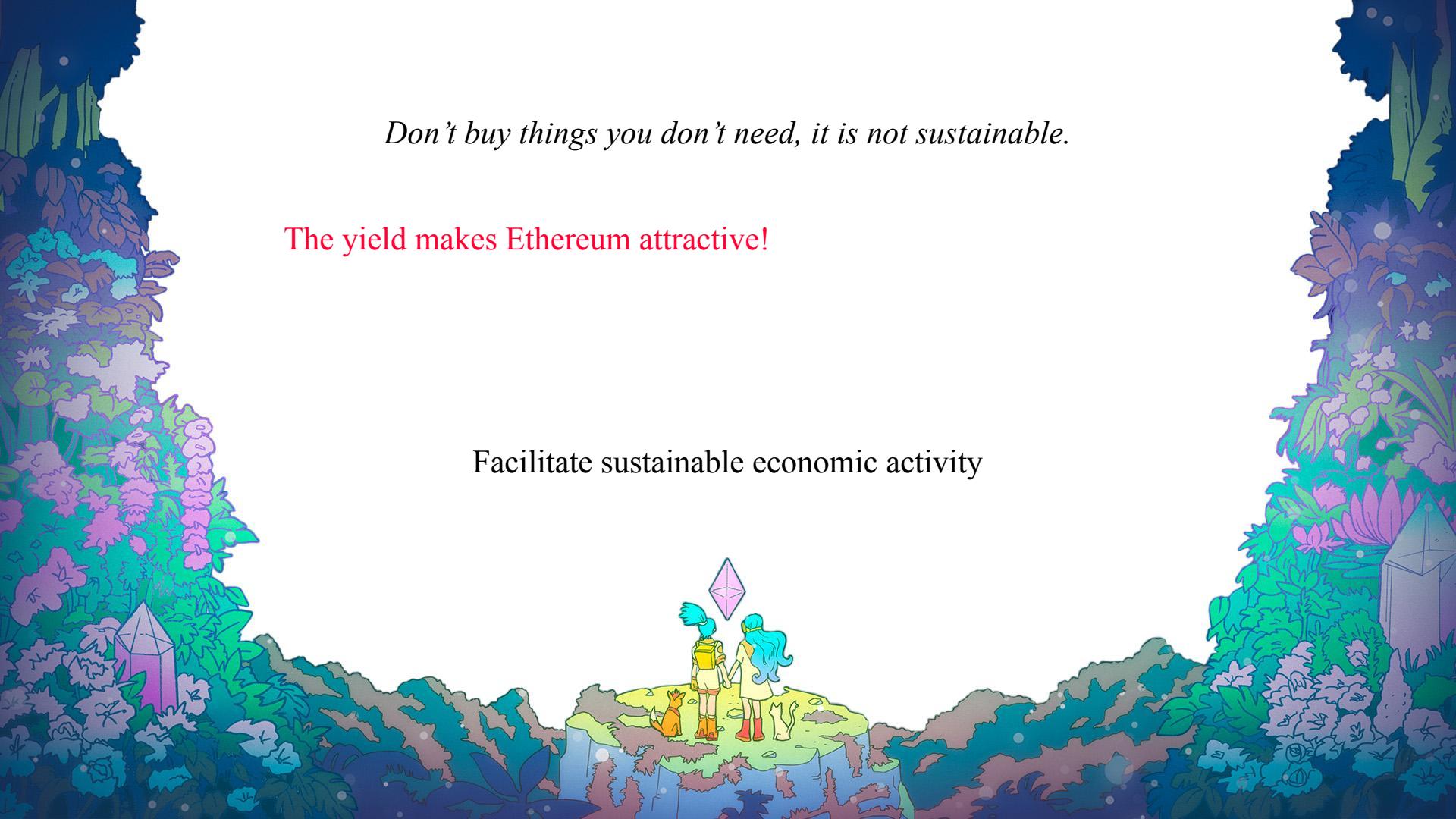
Motivation 1: Cost reduction





Don't buy things you don't need, it is not sustainable.

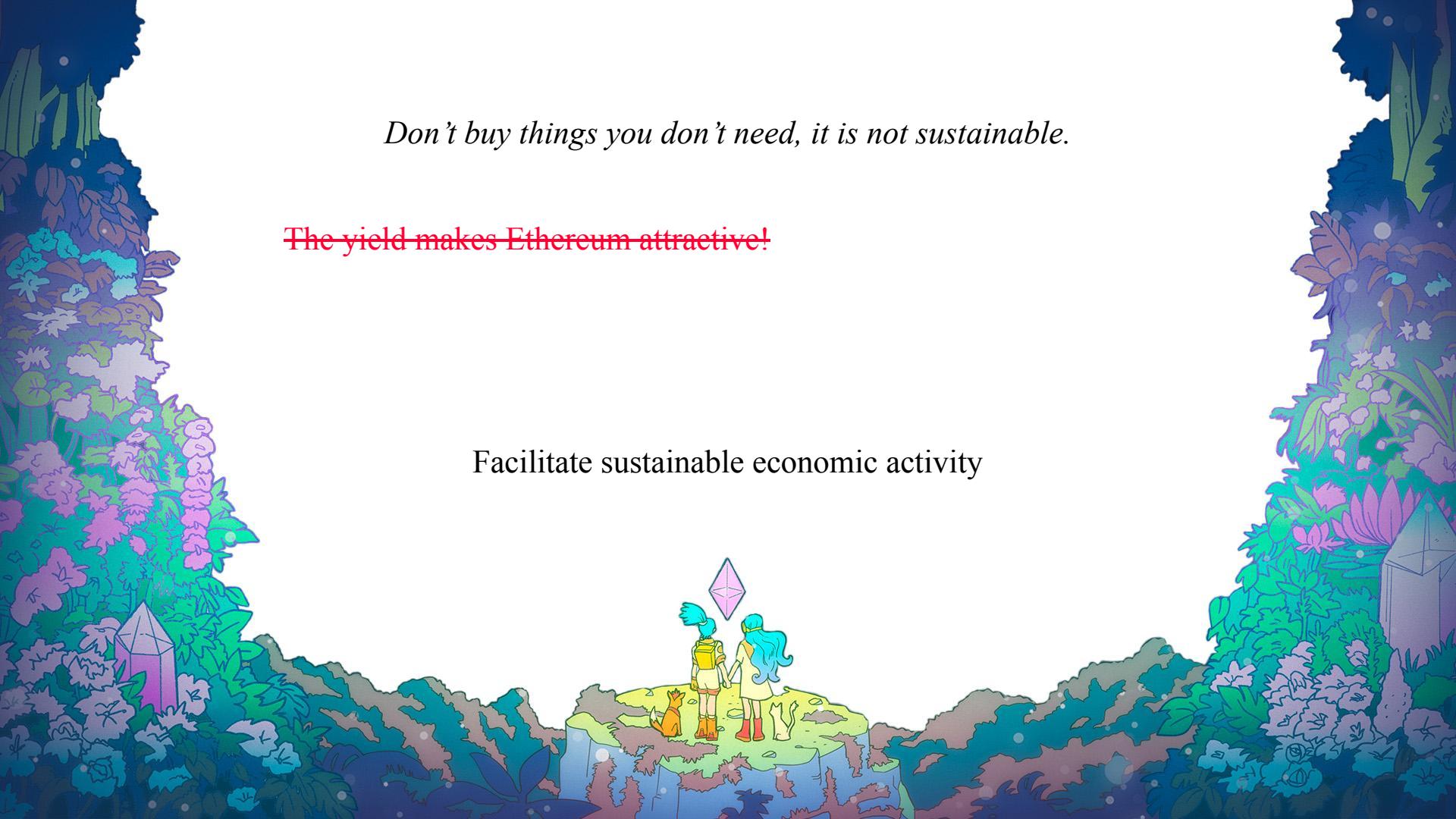
Facilitate sustainable economic activity



Don't buy things you don't need, it is not sustainable.

The yield makes Ethereum attractive!

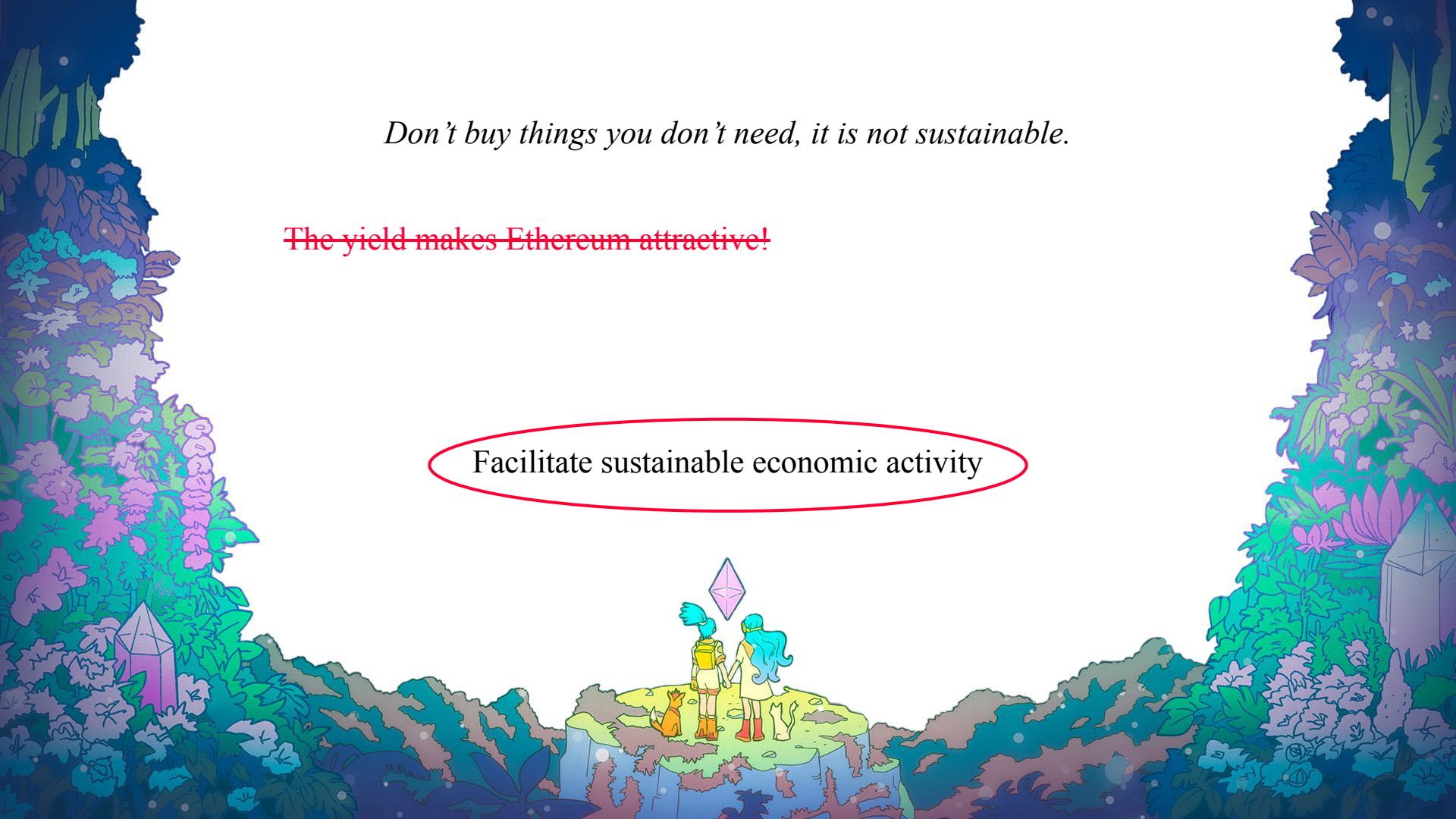
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Don't buy things you don't need, it is not sustainable.

~~The yield makes Ethereum attractive!~~

We need inflation!

Facilitate sustainable economic activity



Don't buy things you don't need, it is not sustainable.

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Don't buy things you don't need, it is not sustainable.

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~~We need inflation!~~

Apps rely on the yield!

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Don't buy things you don't need, it is not sustainable.

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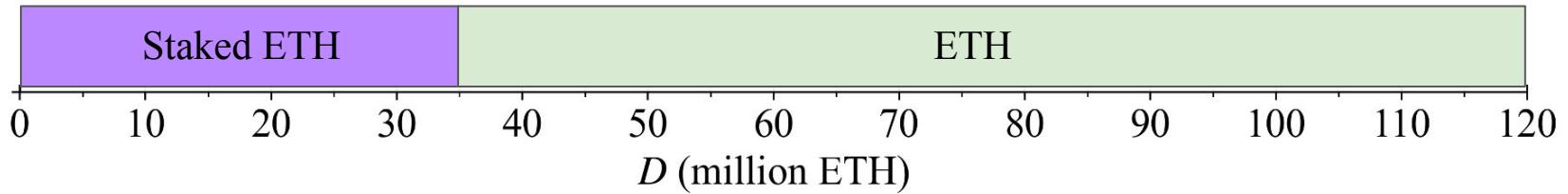
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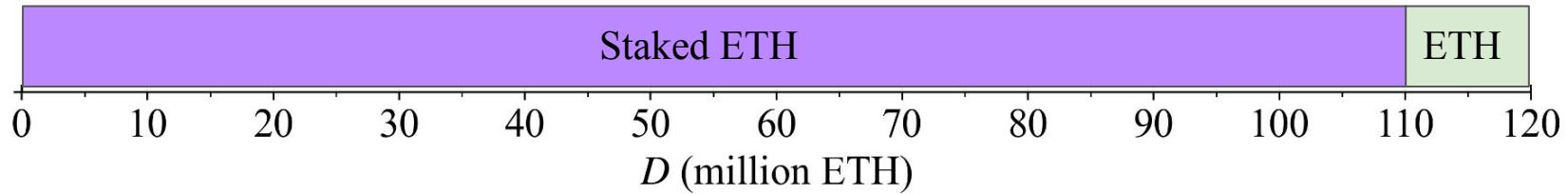
Macro perspective

High stake participation puts pressure on the **consensus layer**



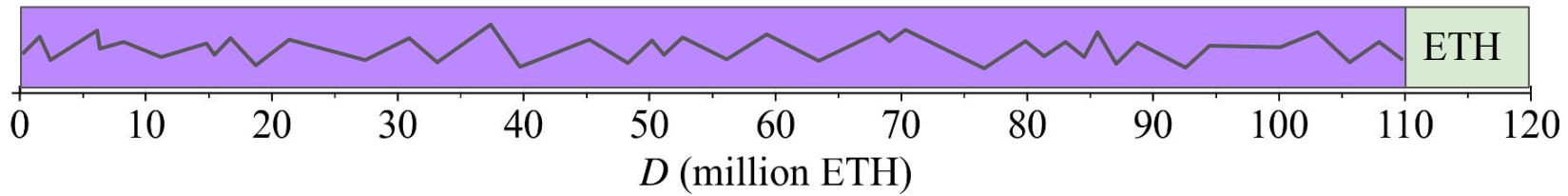
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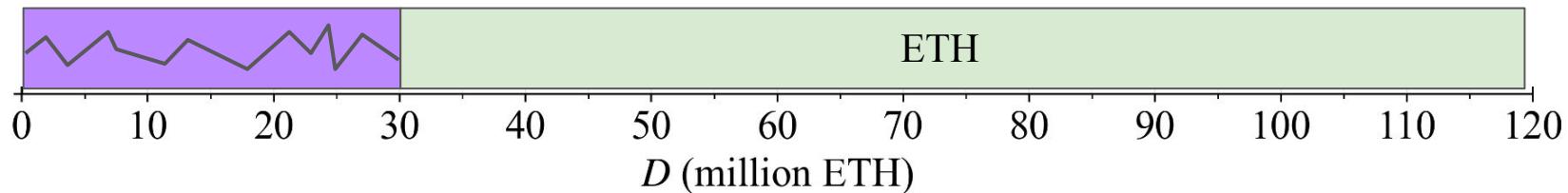
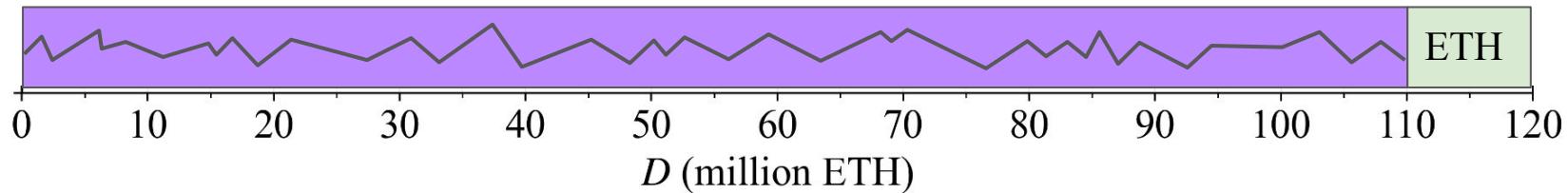
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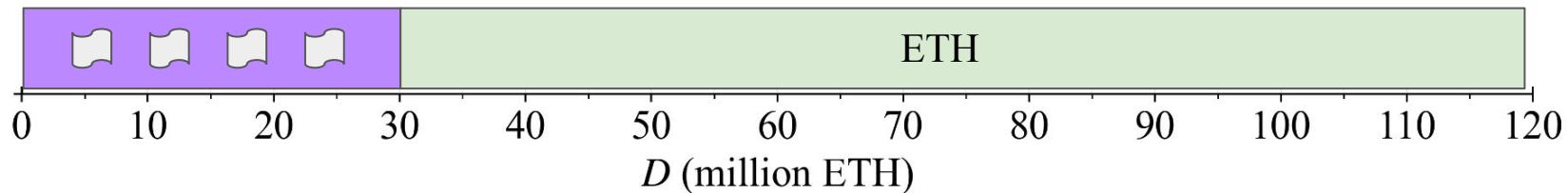
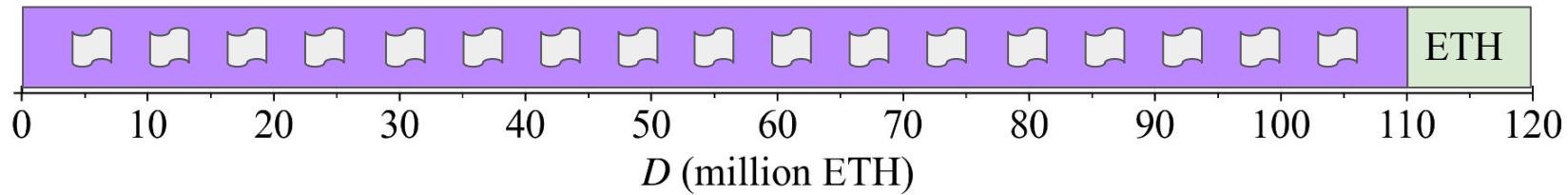
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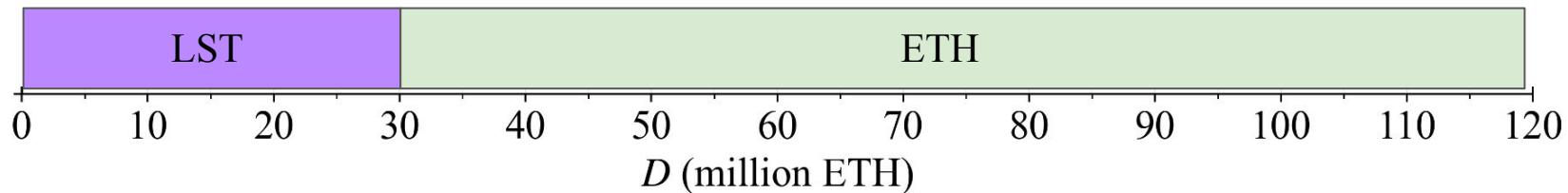
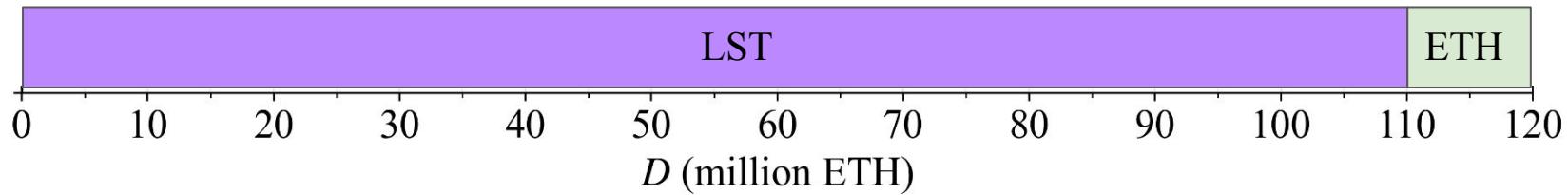
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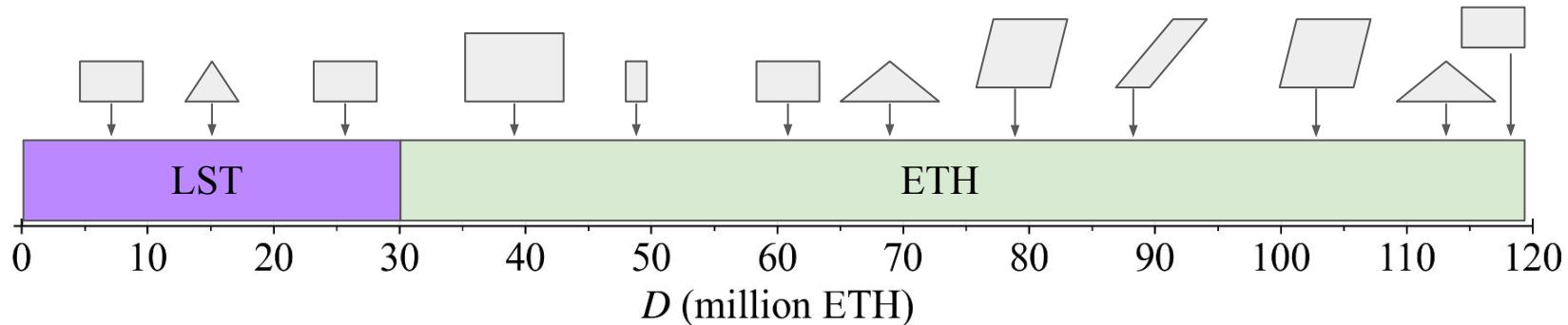
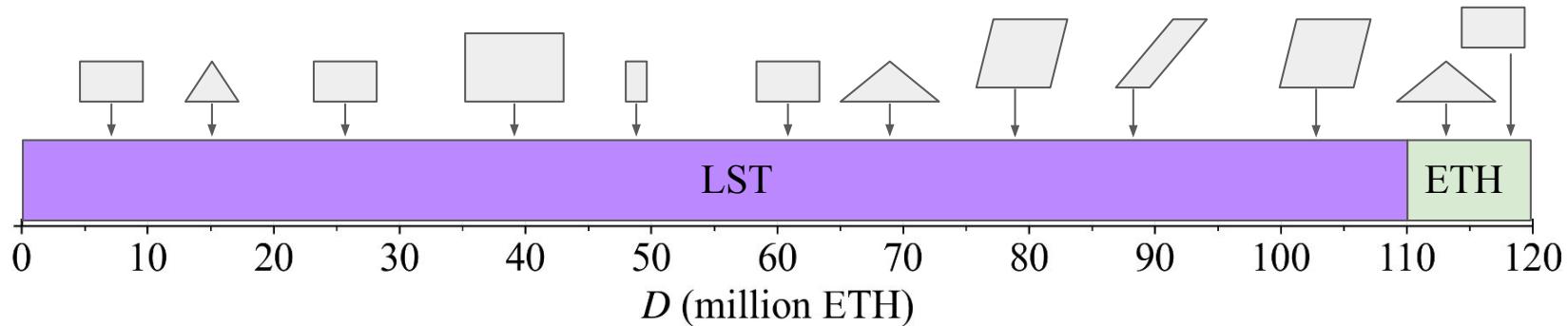
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High stake participation puts pressure on the consensus layer and the **app layer**



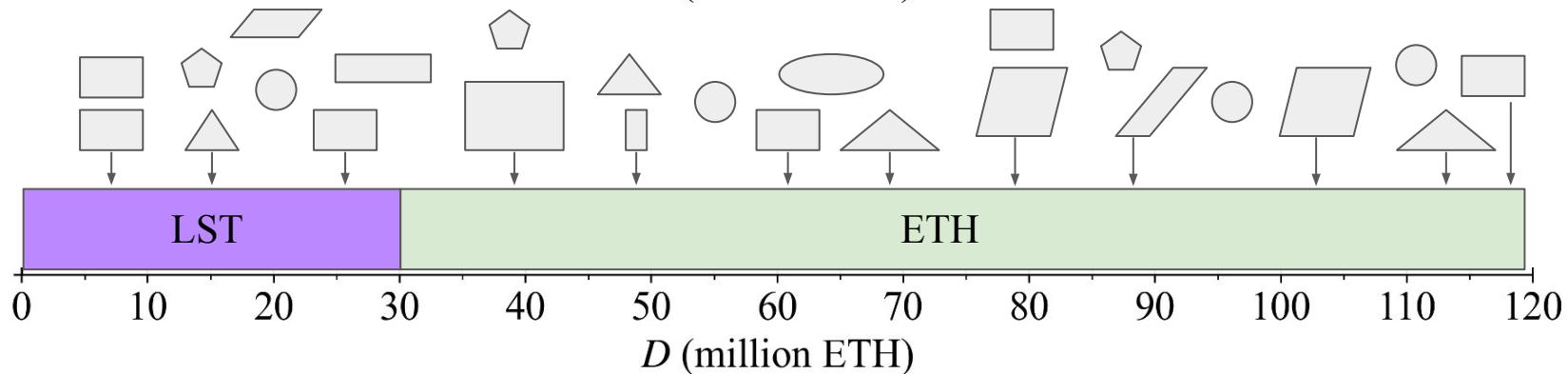
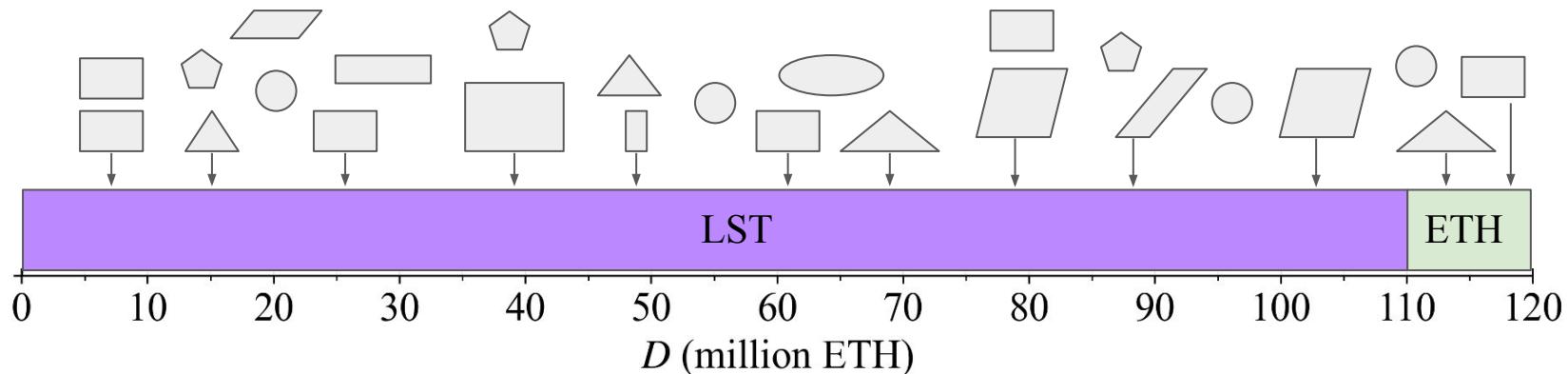
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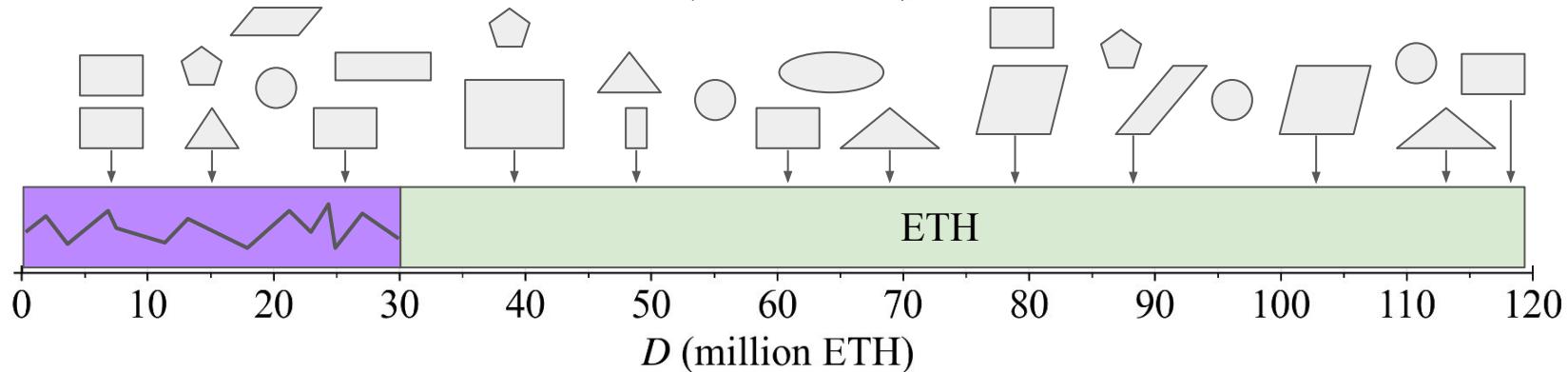
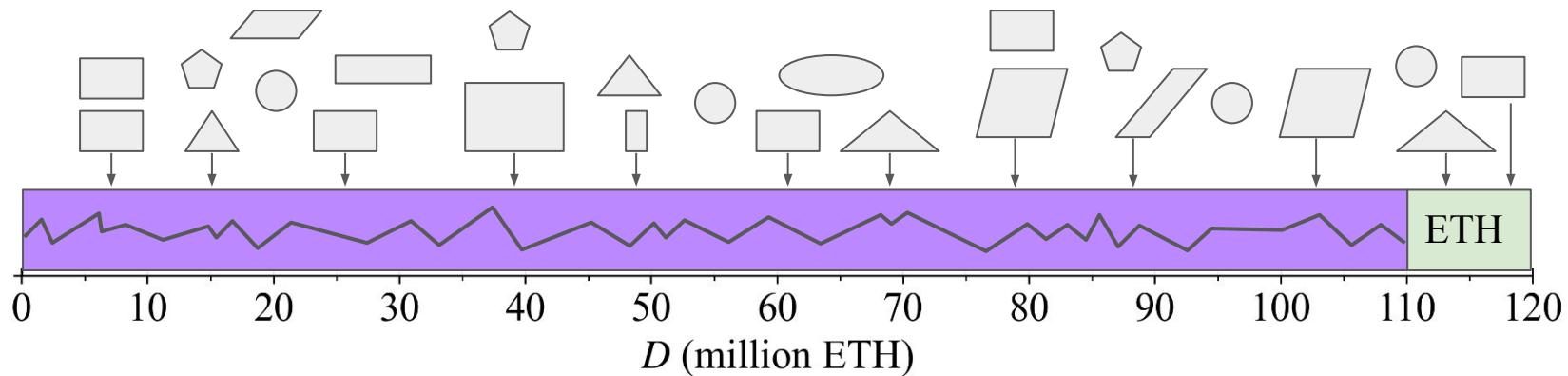
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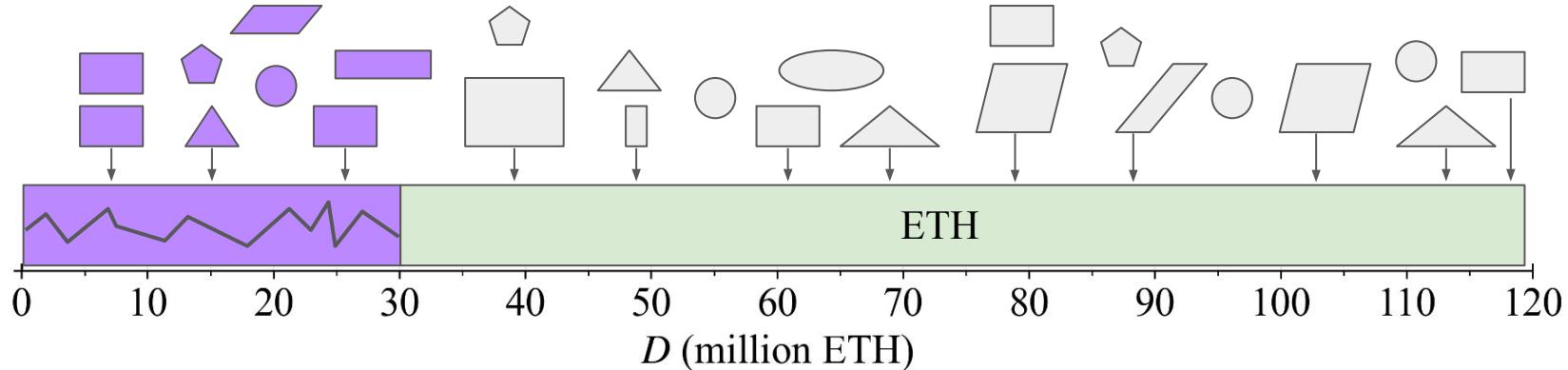
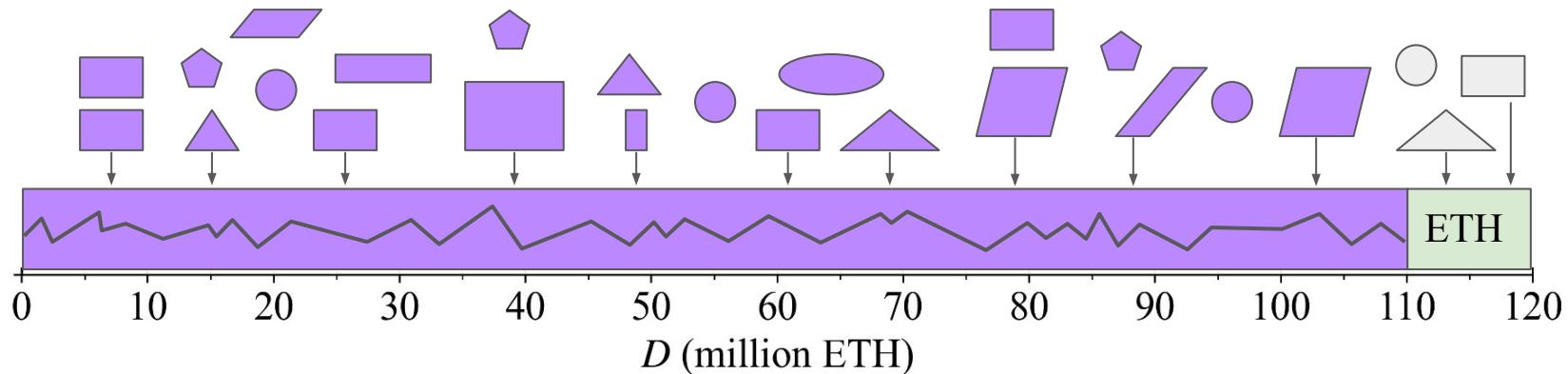
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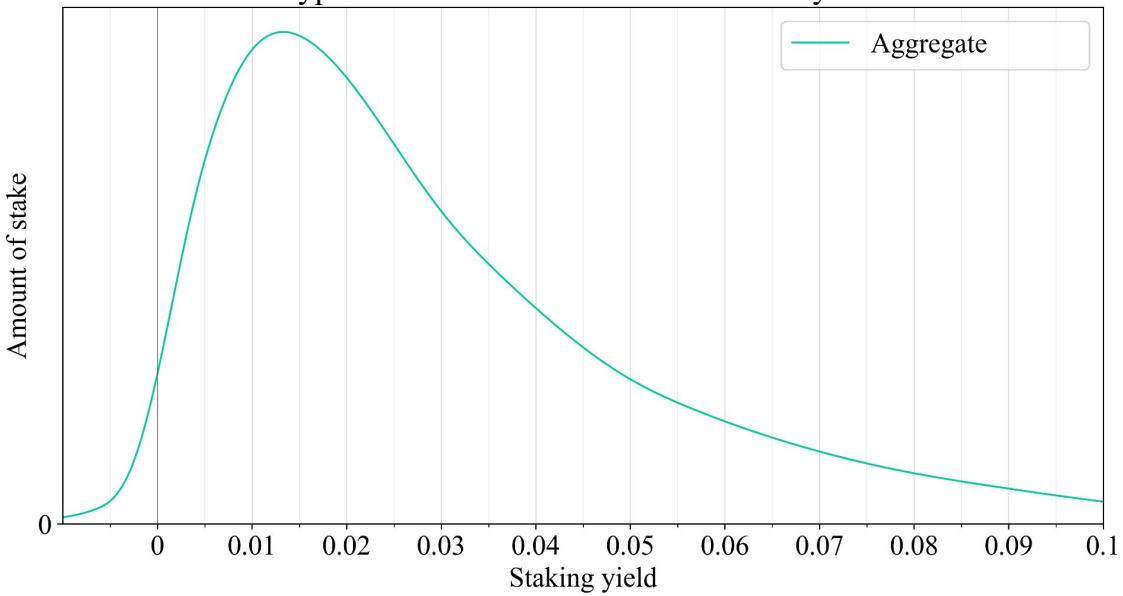
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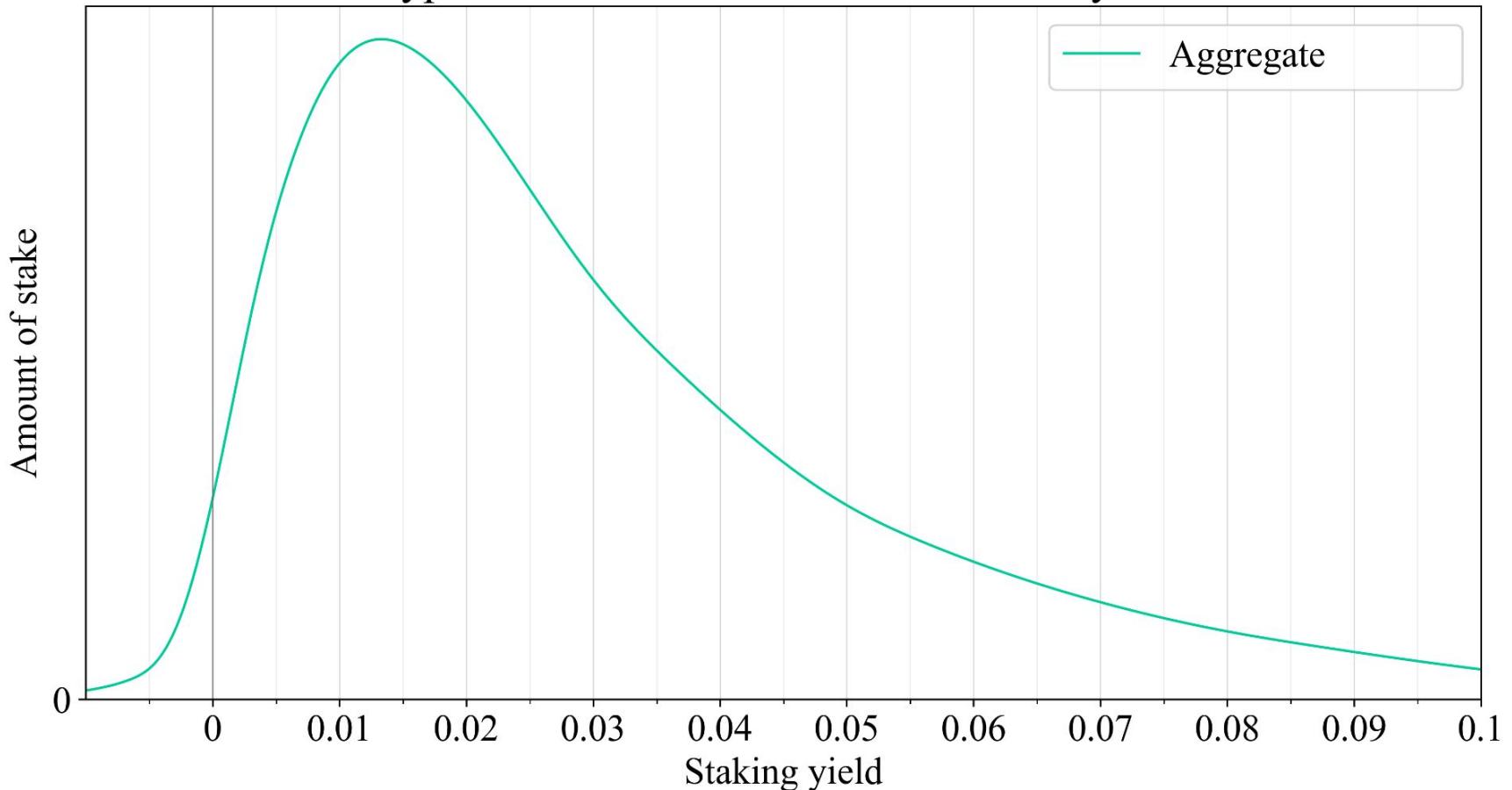
Downsides



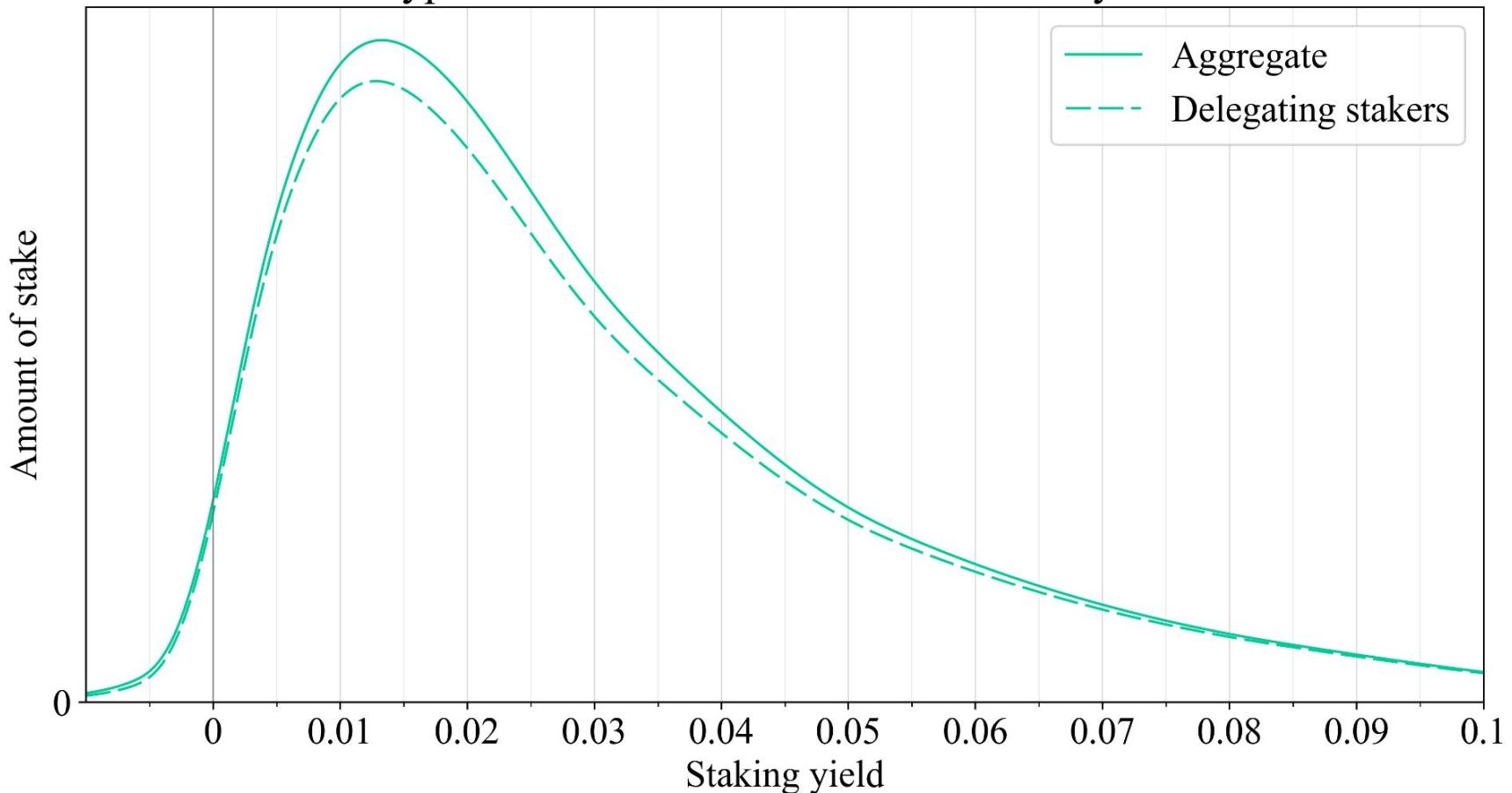
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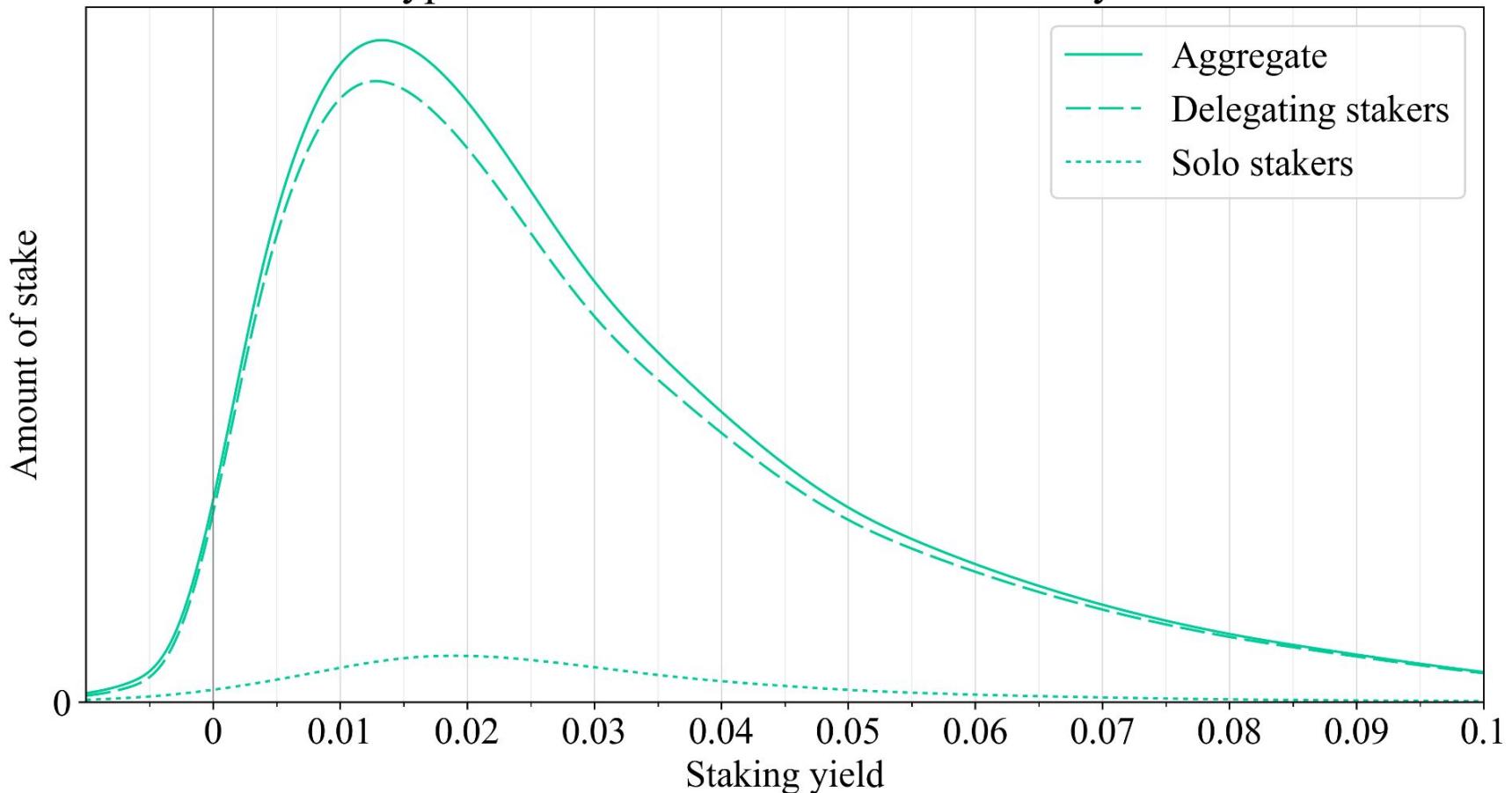
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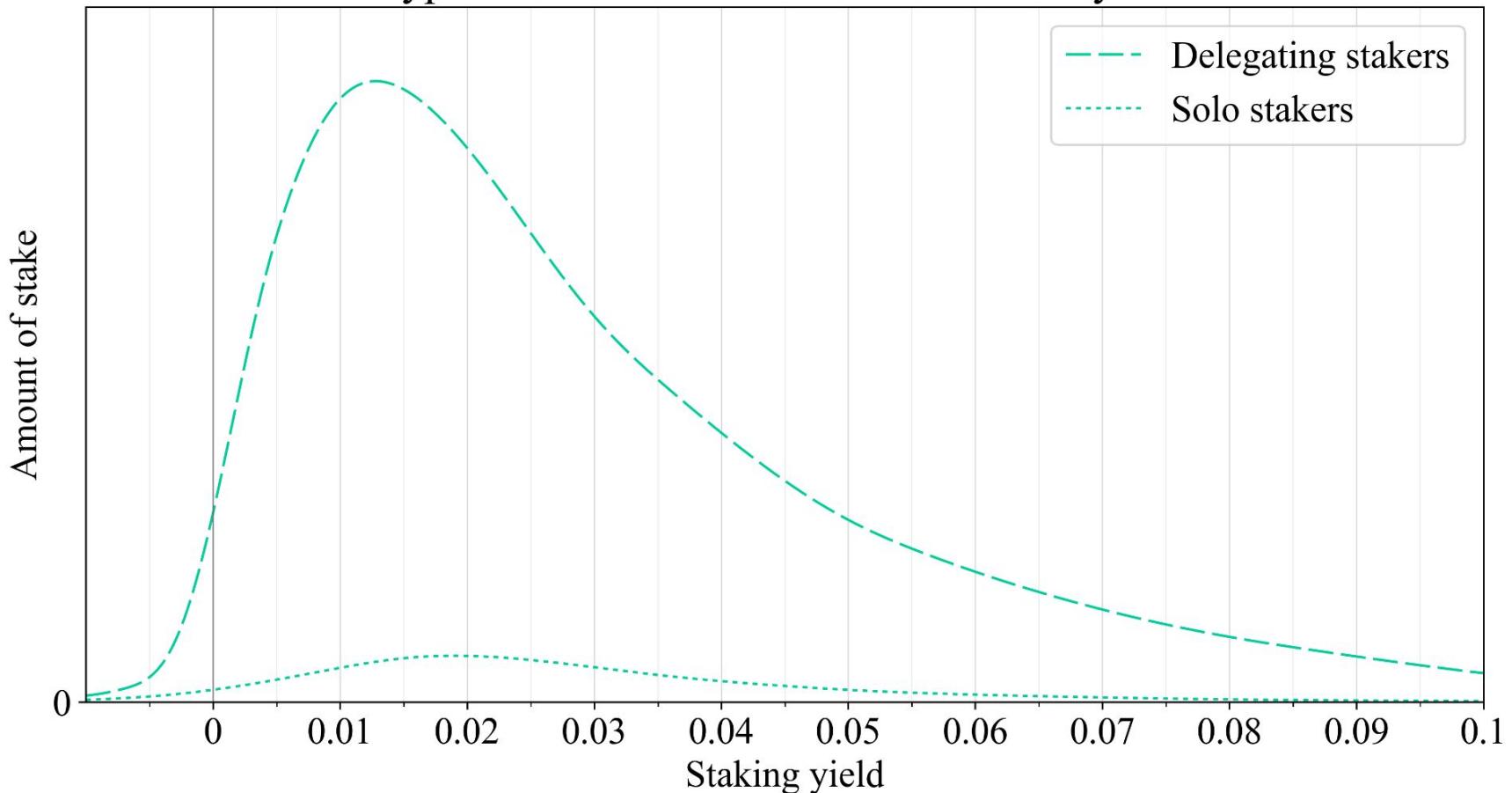
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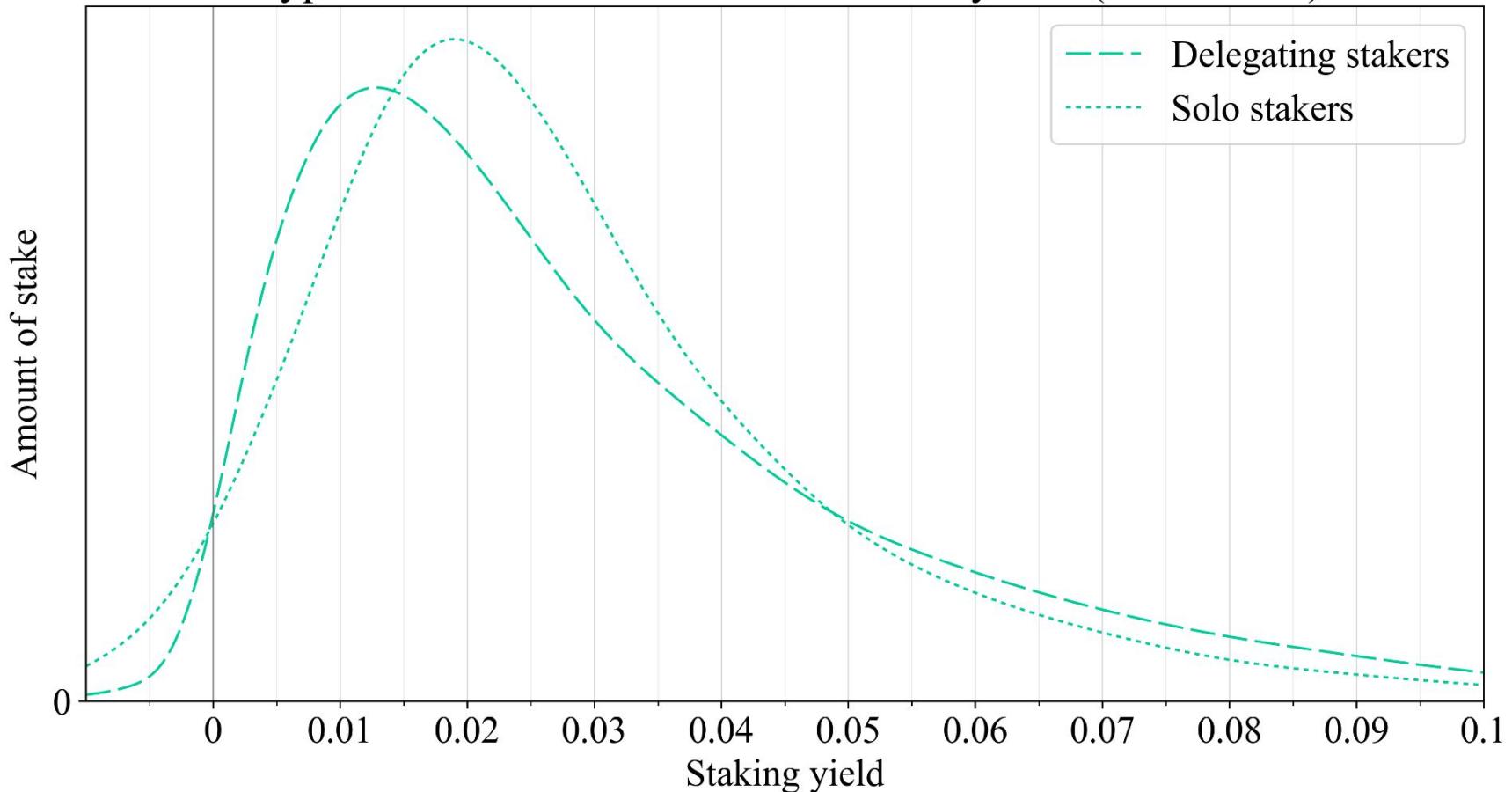
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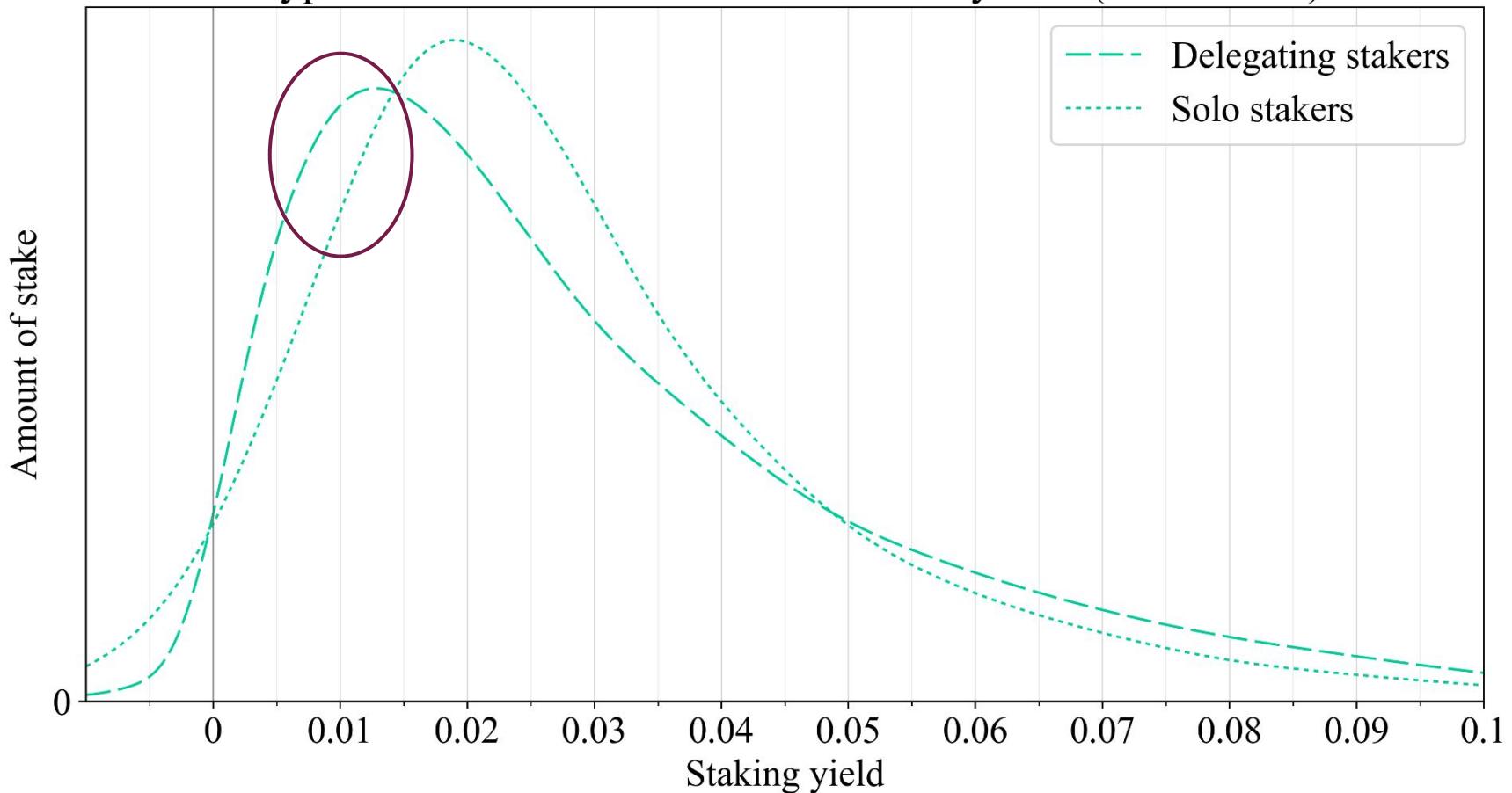
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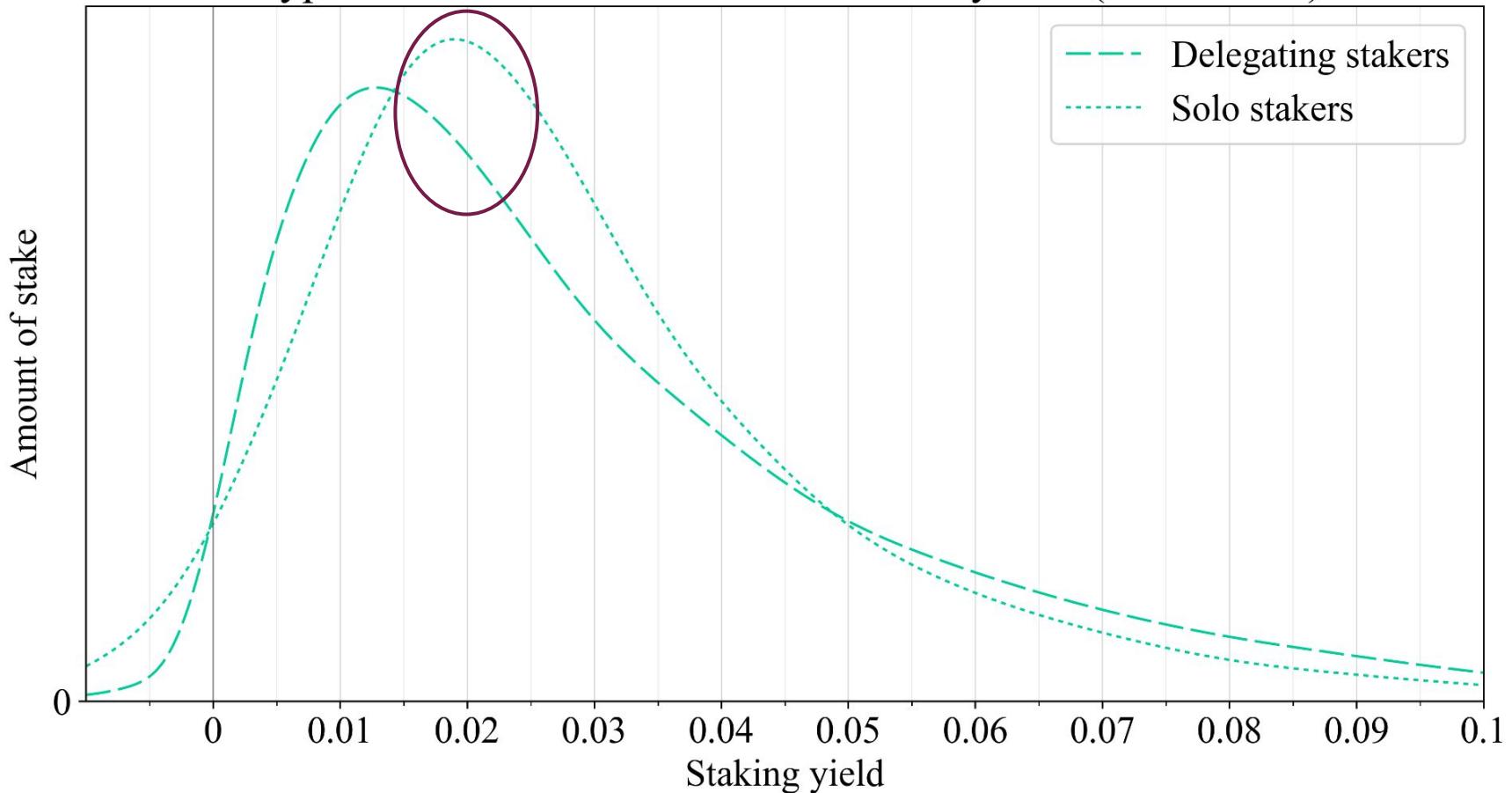
Hypothetical distribution of reservation yields (normalized)

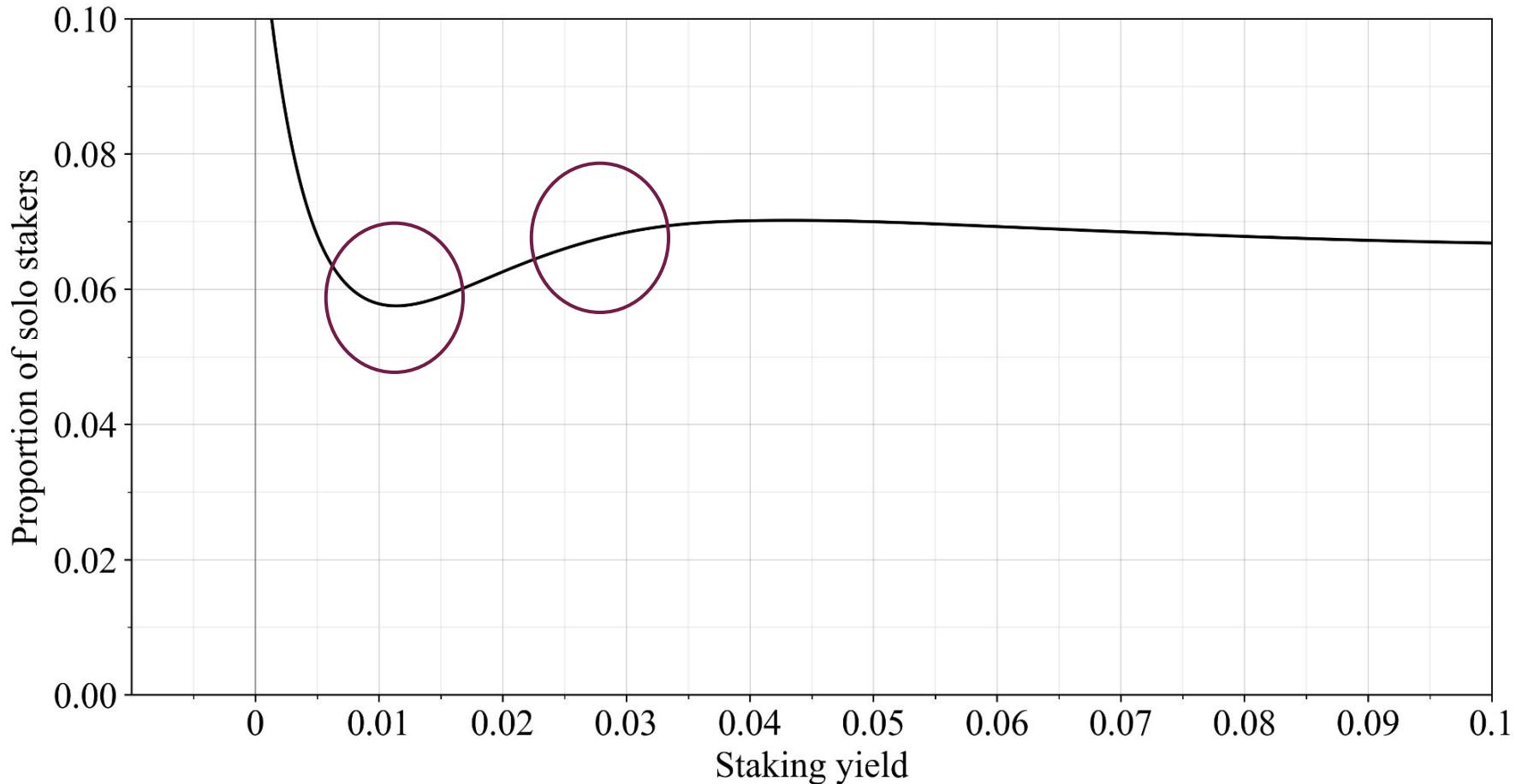


Hypothetical distribution of reservation yields (normalized)

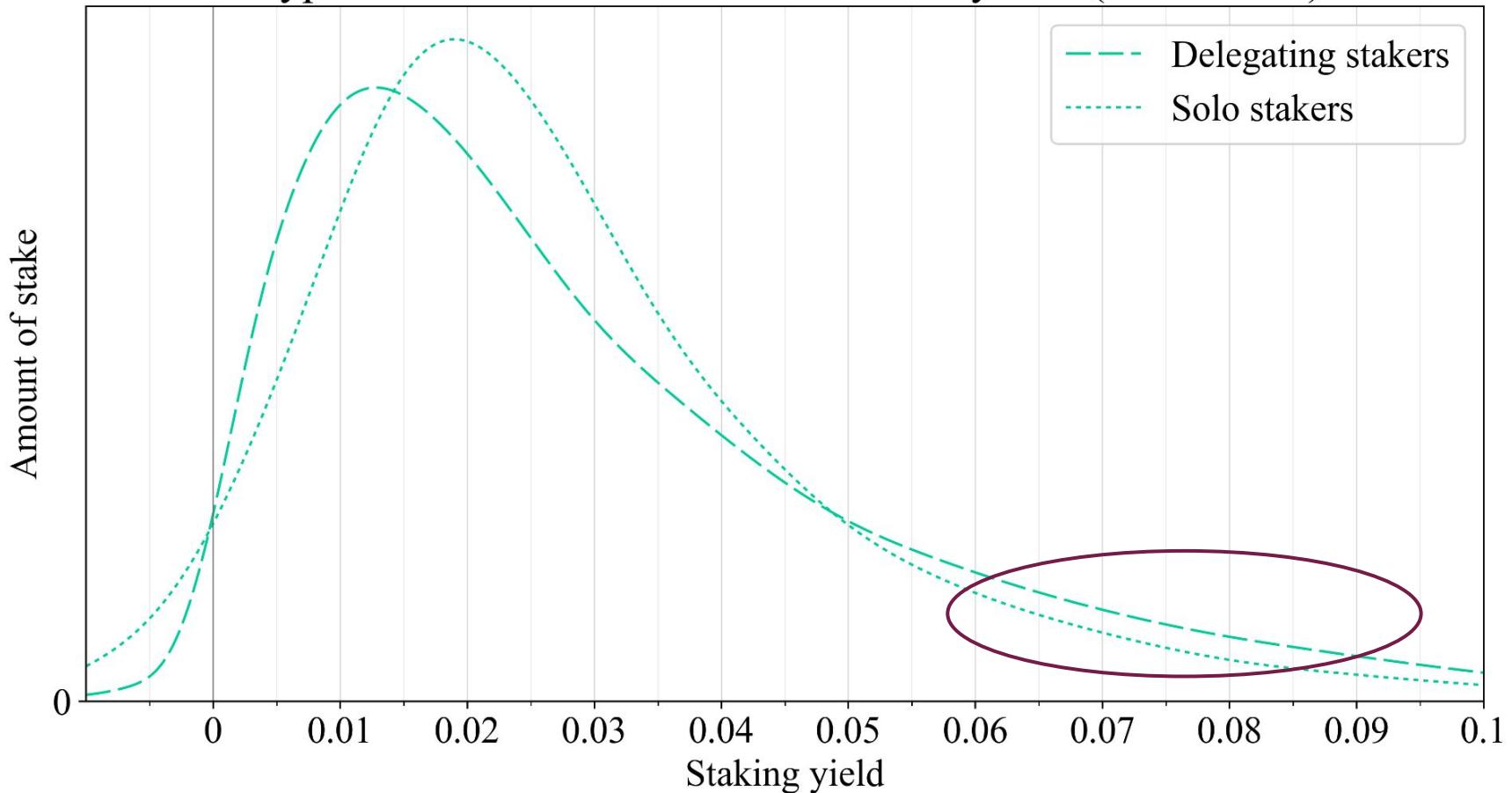


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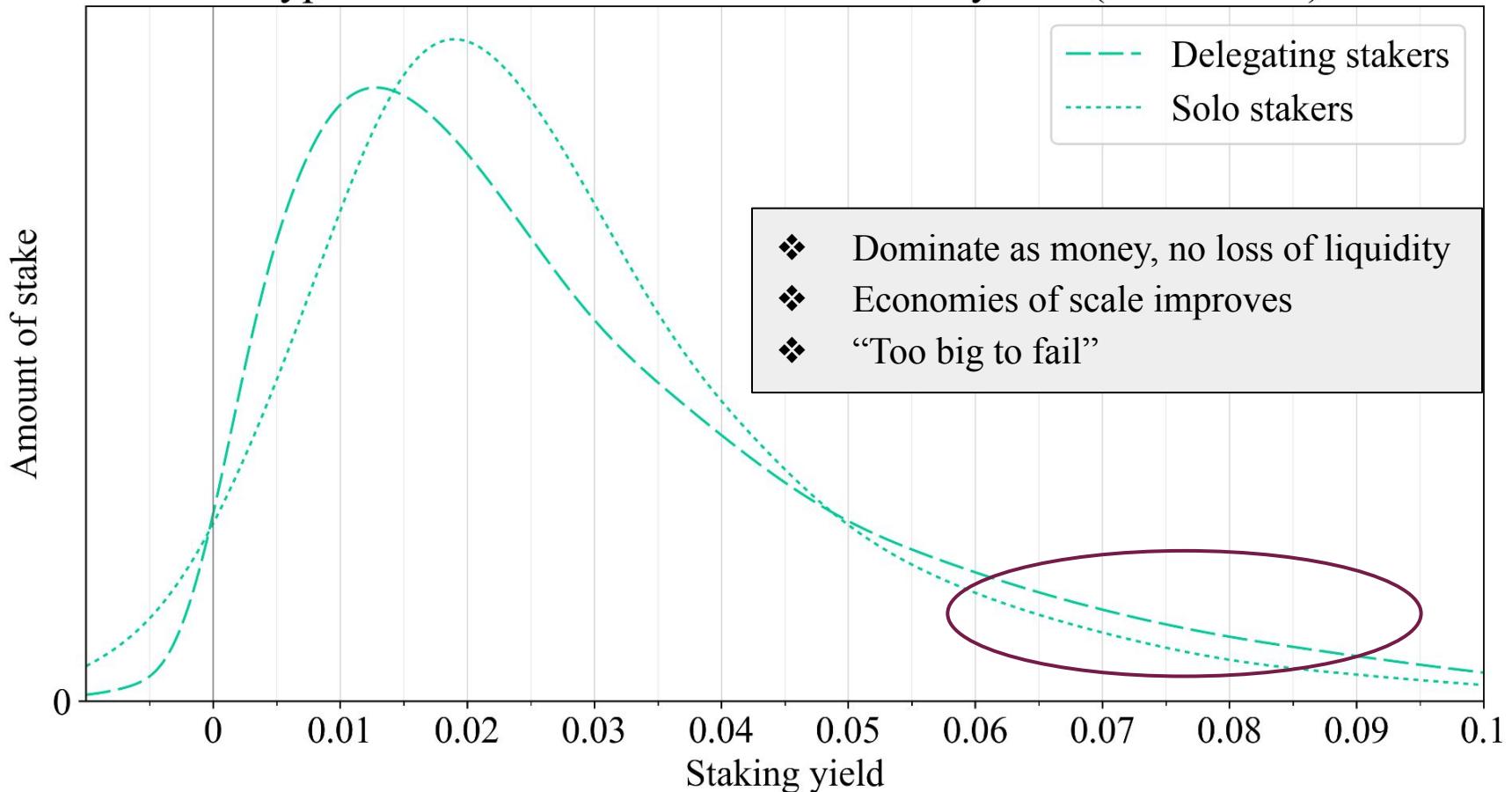


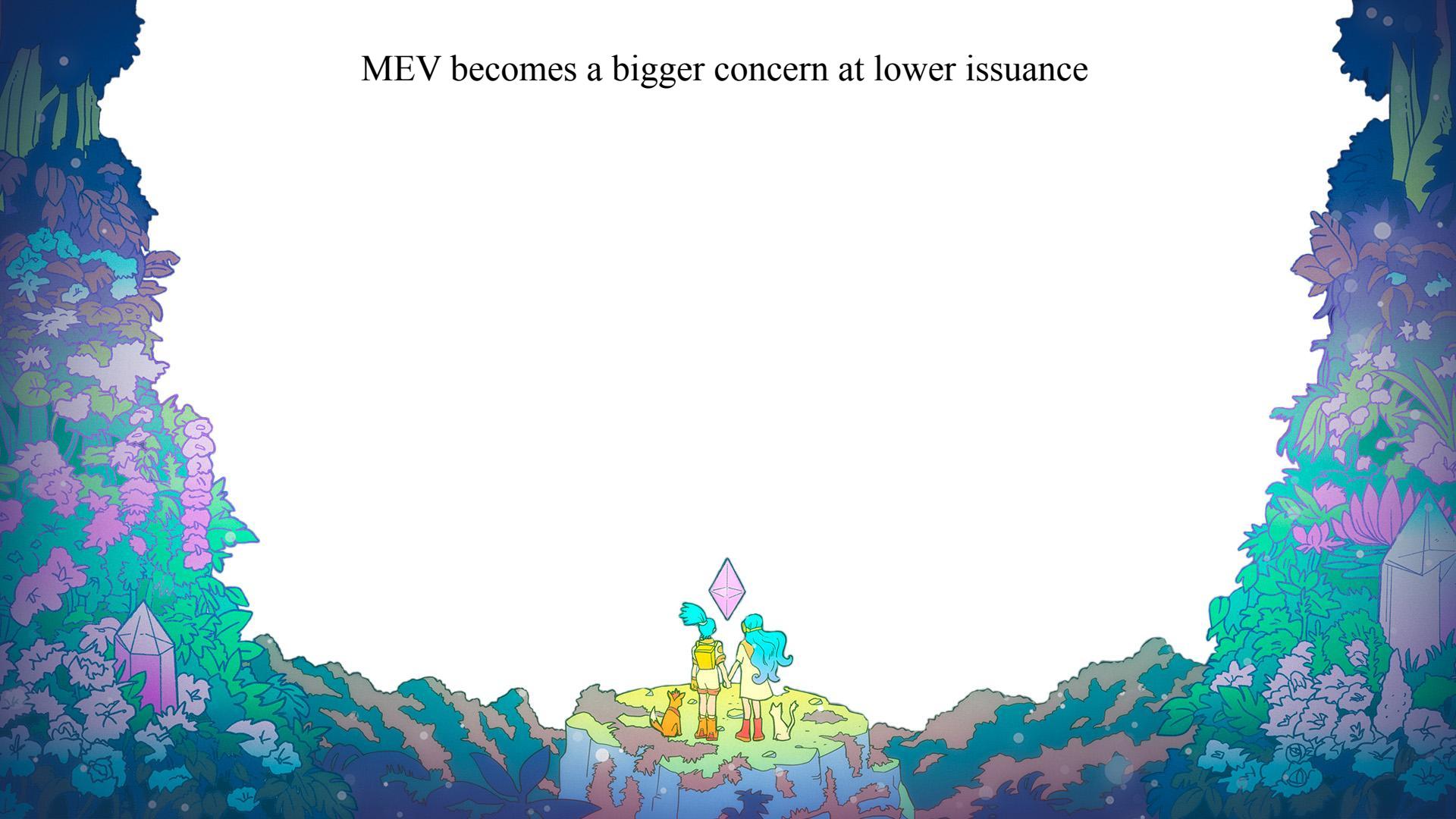


Hypothetical distribution of reservation yields (normalized)



Hypothetical distribution of reservation yields (normalized)





MEV becomes a bigger concern at lower issuance

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- Increases solo stakers' relative yield variability

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Lack of
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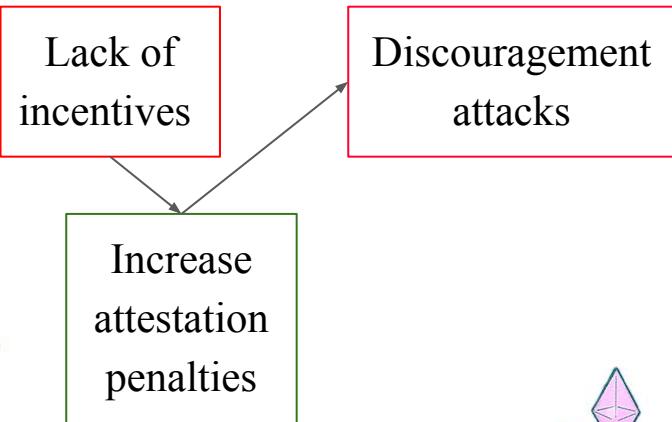
Lack of
incentives

Increase
attestation
penalties



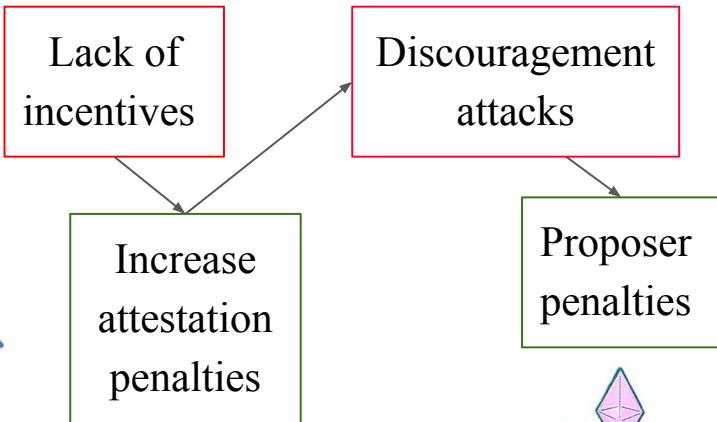
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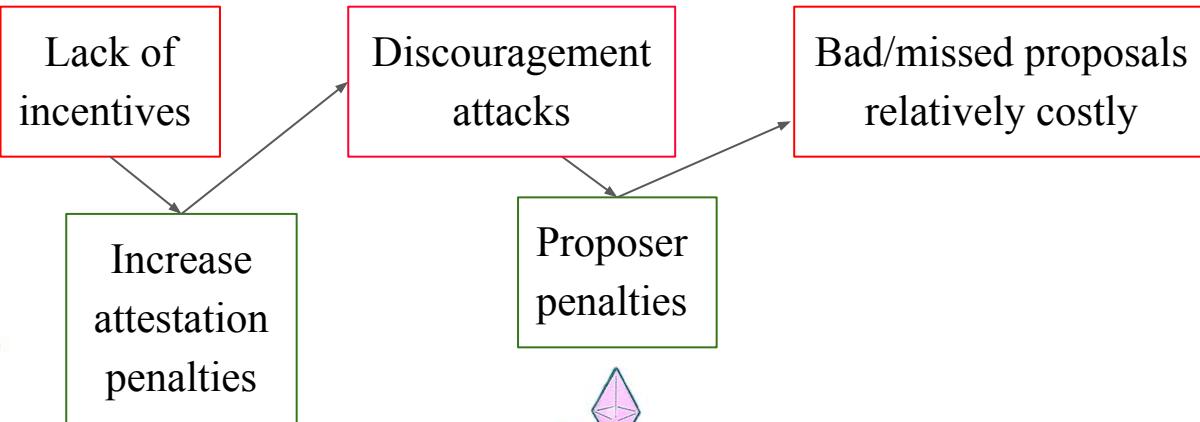
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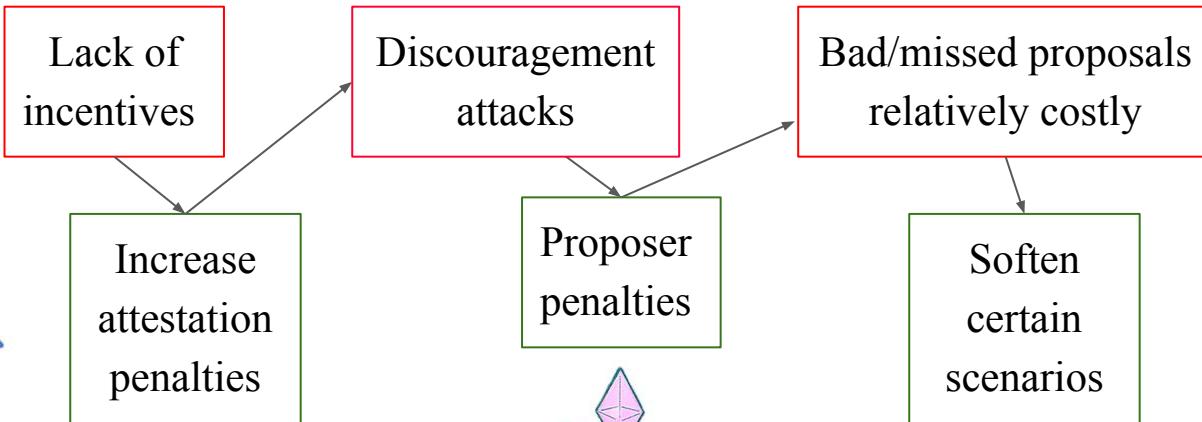
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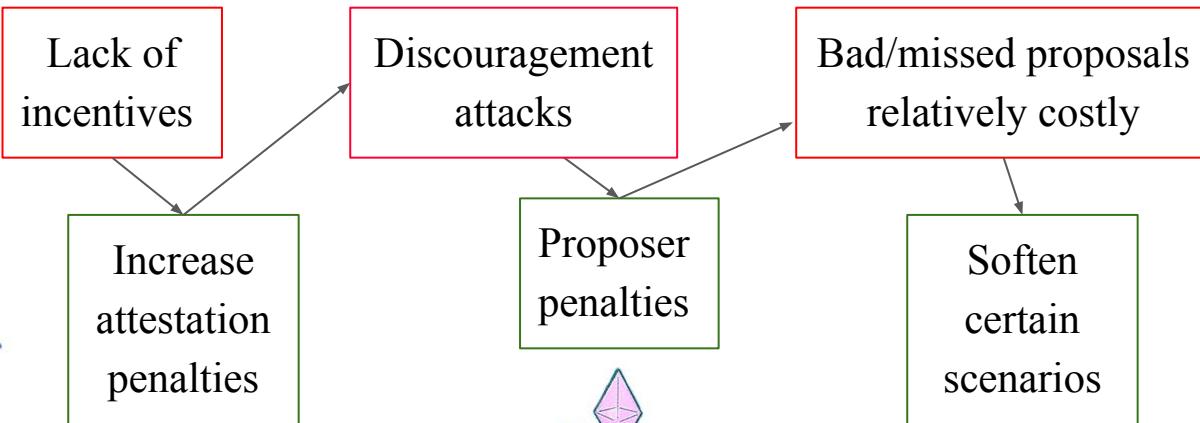
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- Increases solo stakers' relative yield variability
- Degrades consensus incentives under equilibrium
- Complicates Orbit SSF incentives designs



MEV becomes a bigger concern at lower issuance

- Increases solo stakers' relative yield variability
- Degrades consensus incentives under equilibrium
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Lack of
incentives



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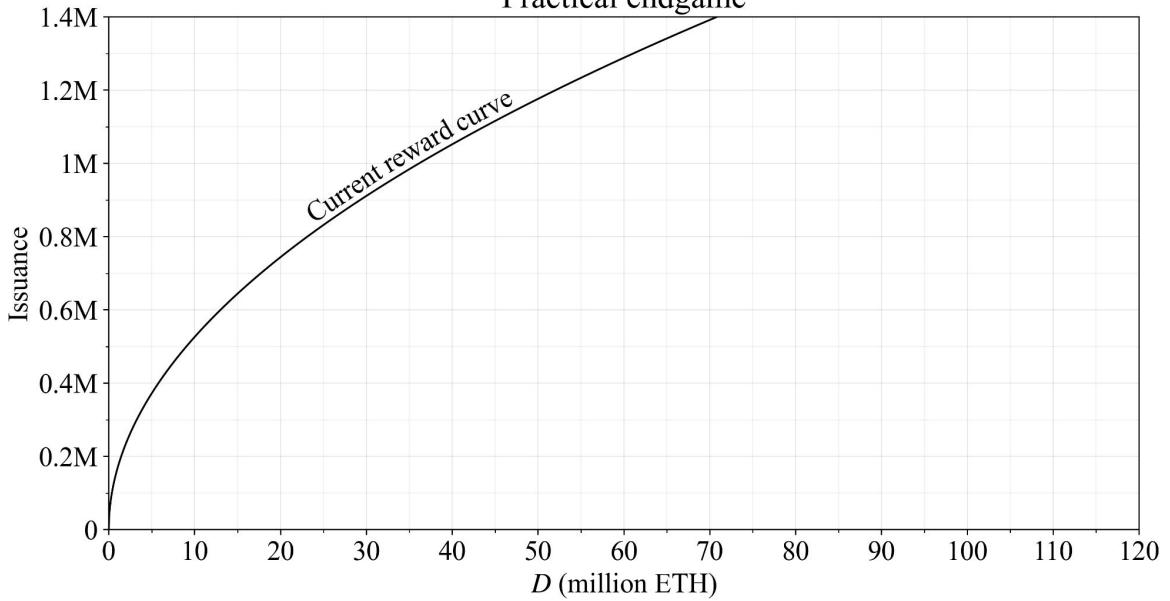
MEV burn

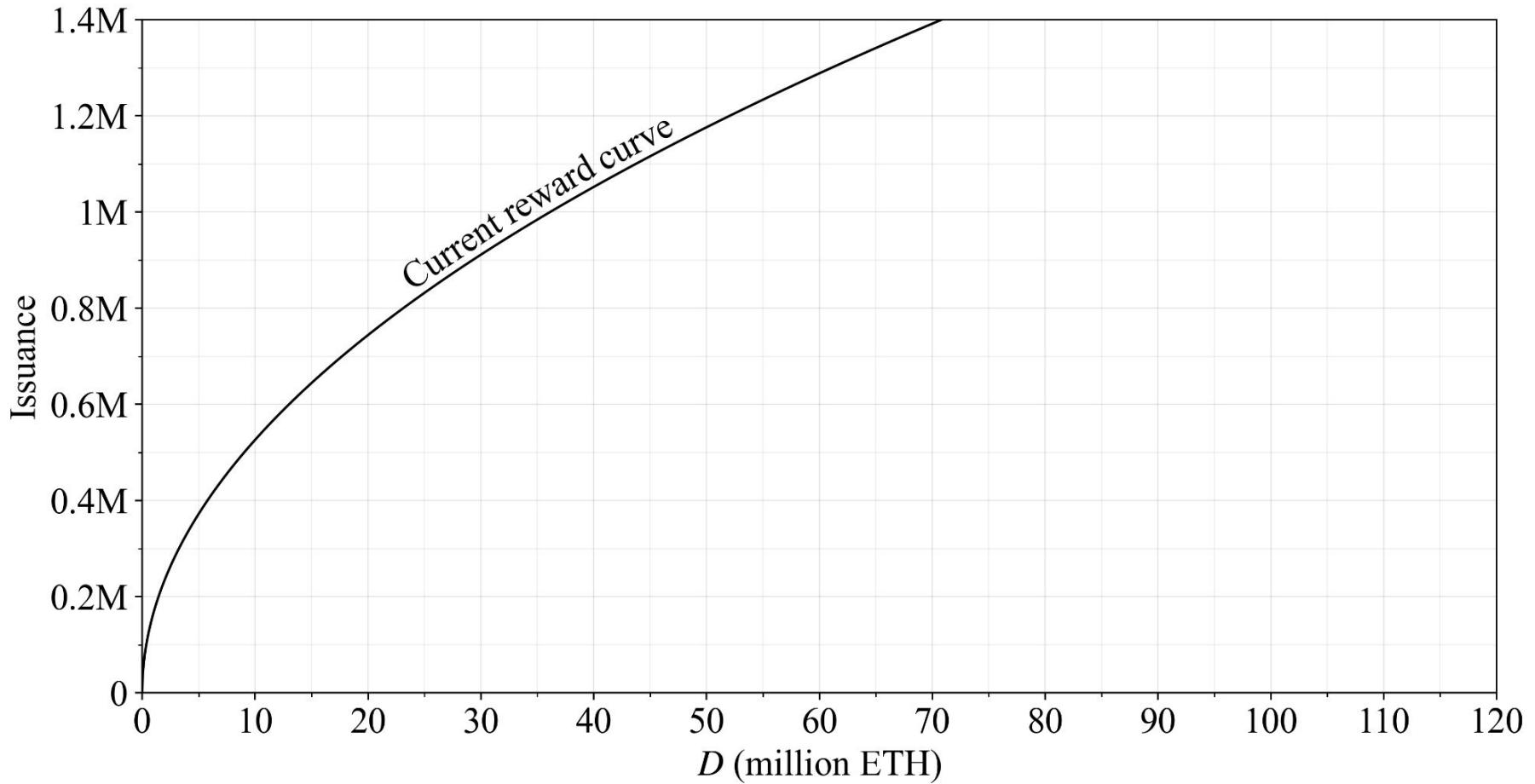


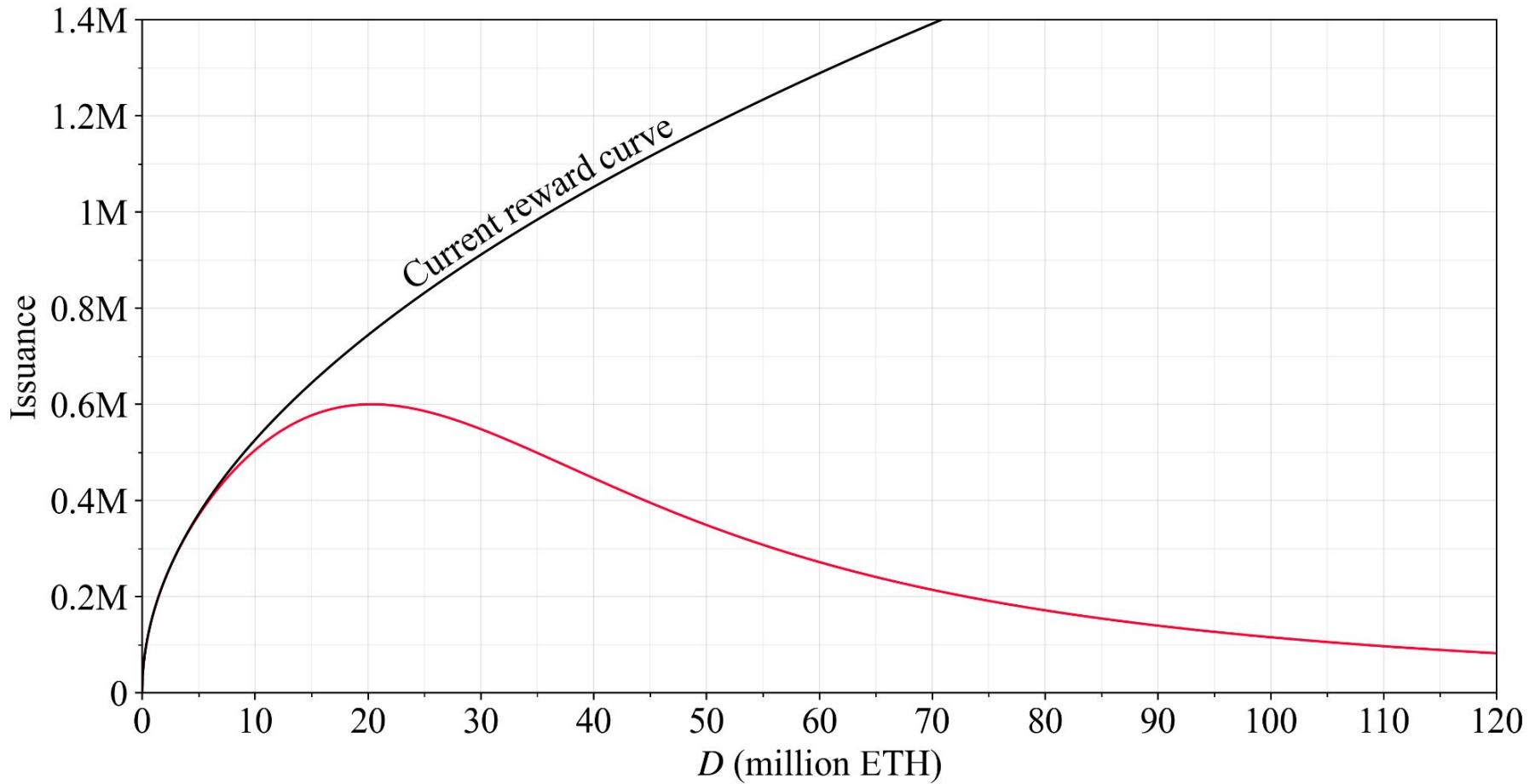
Practical endgame

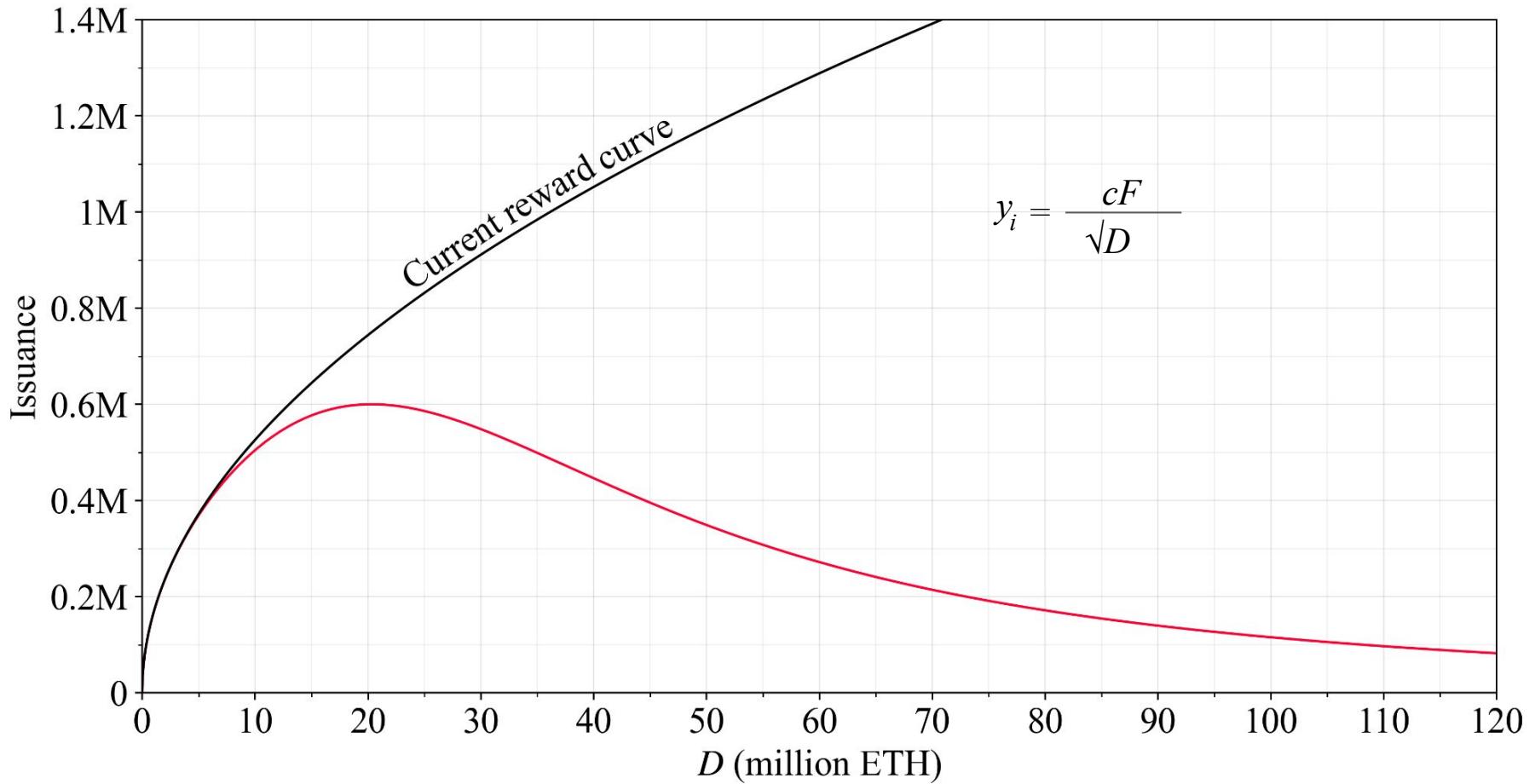


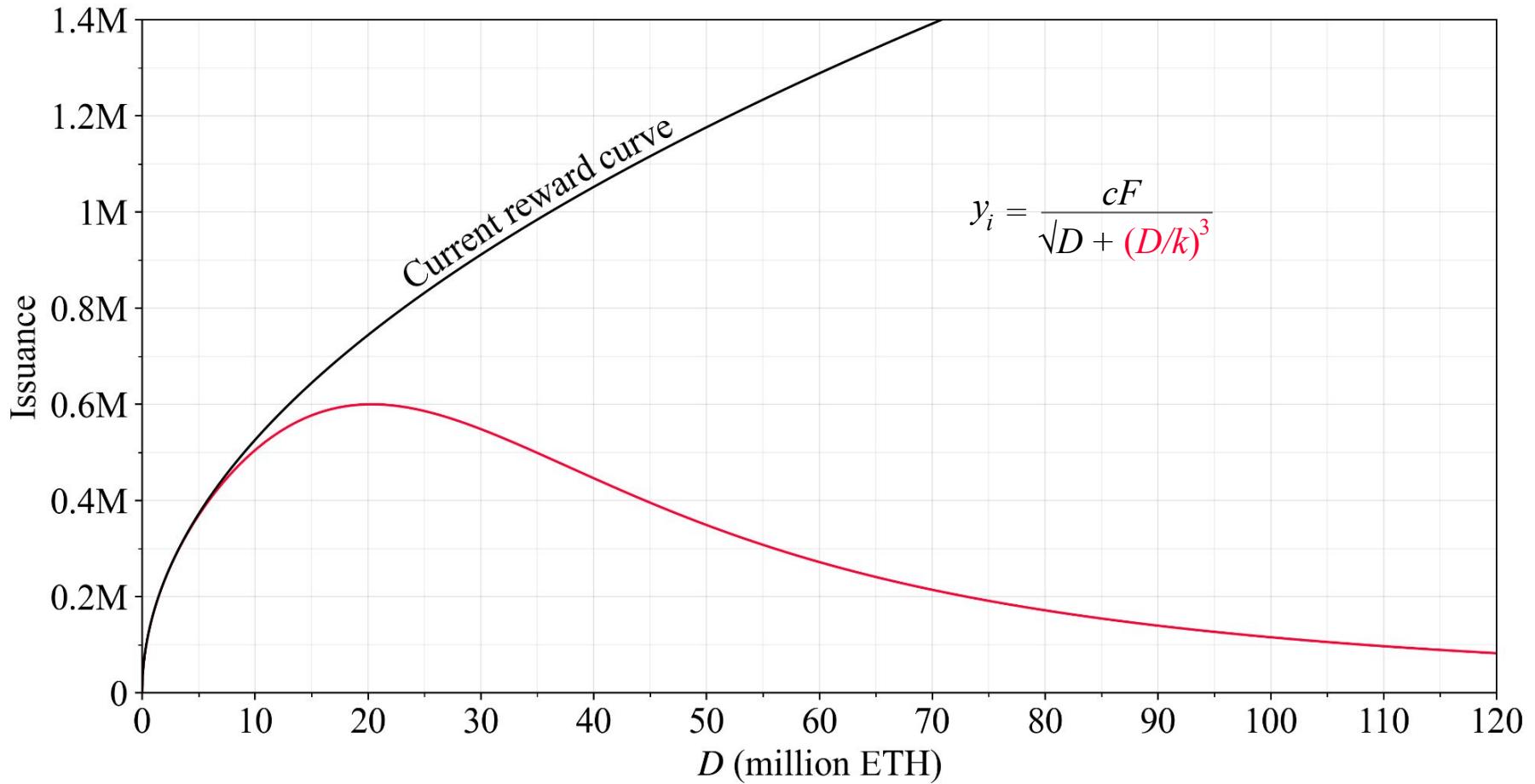
Practical endgame



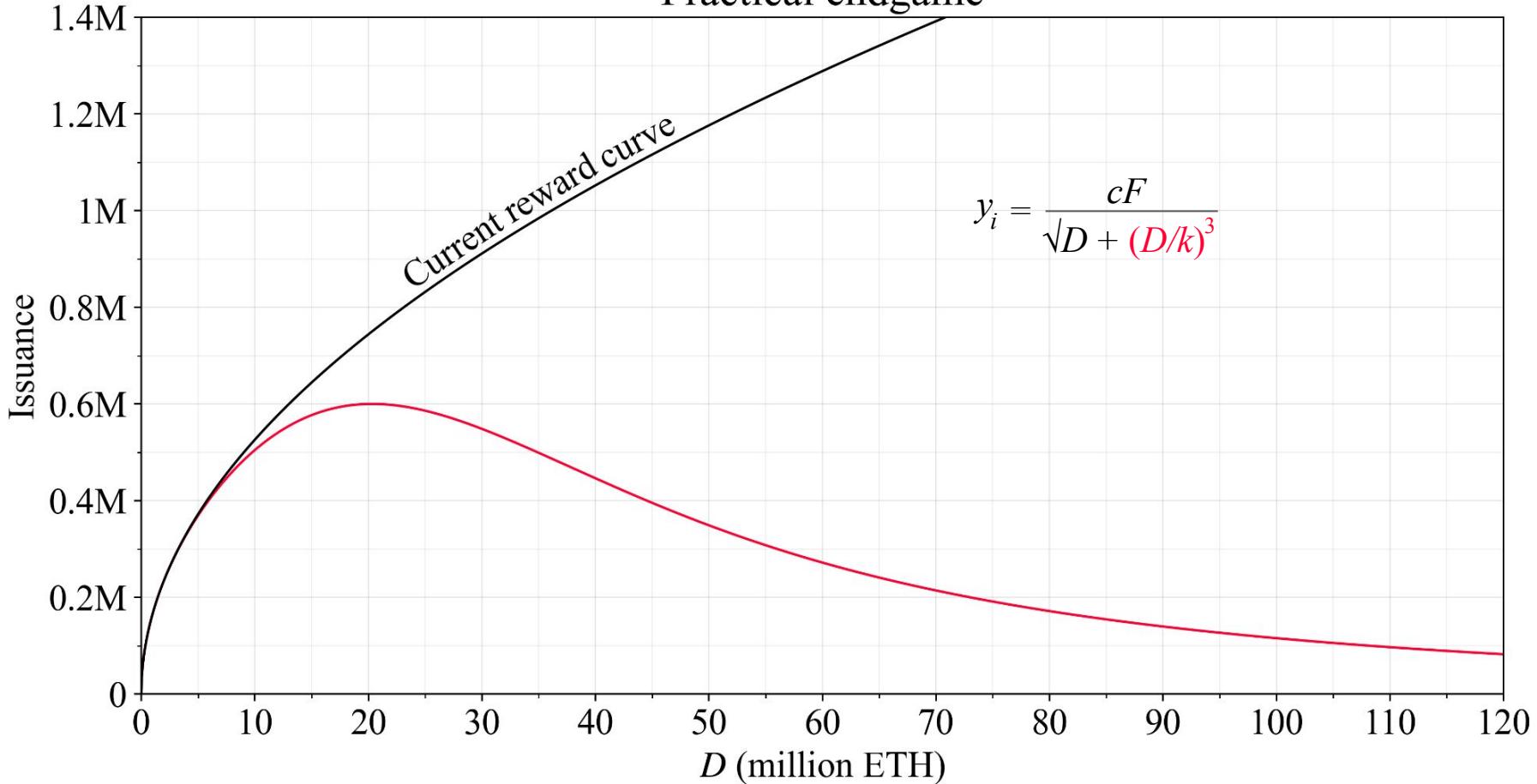




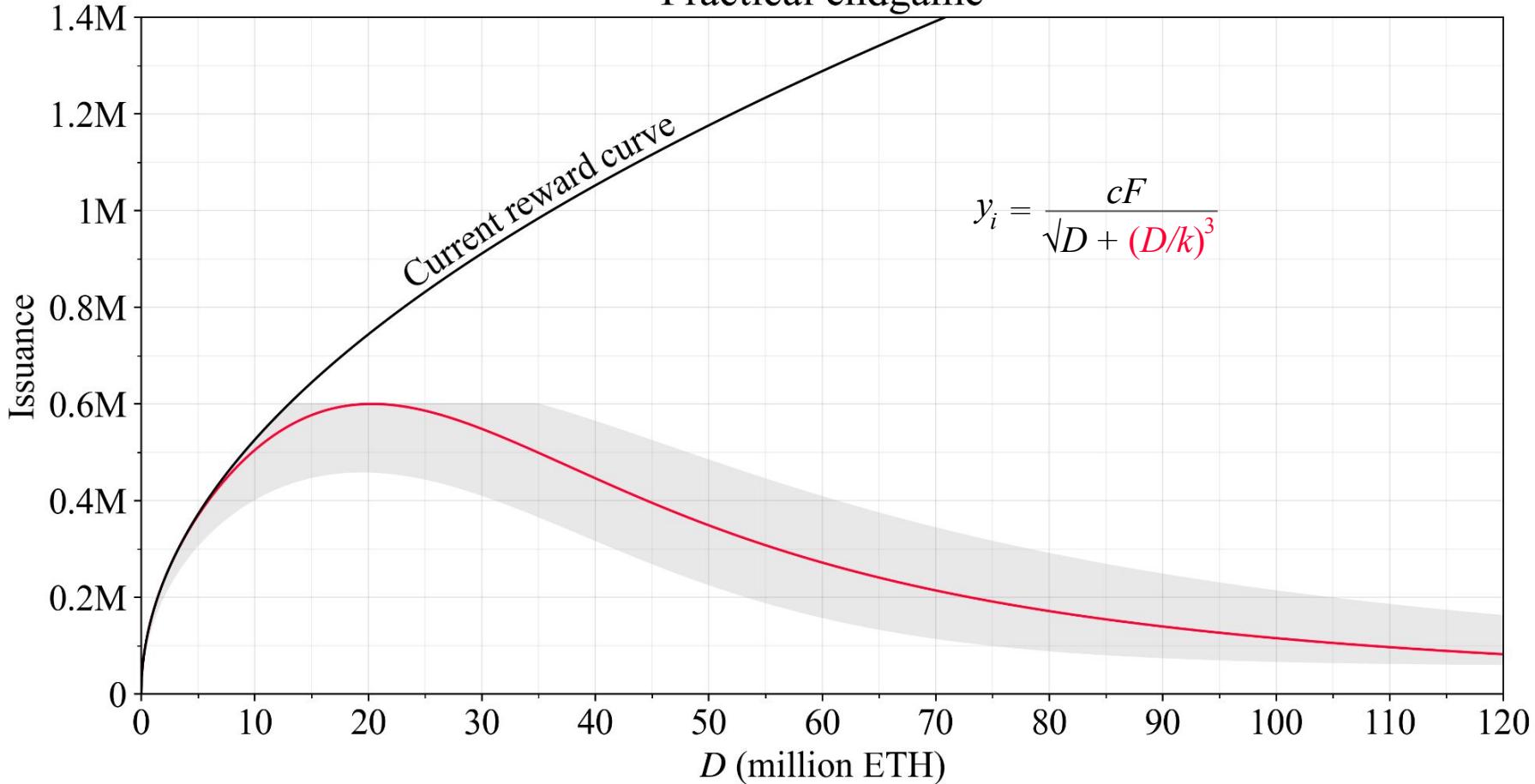




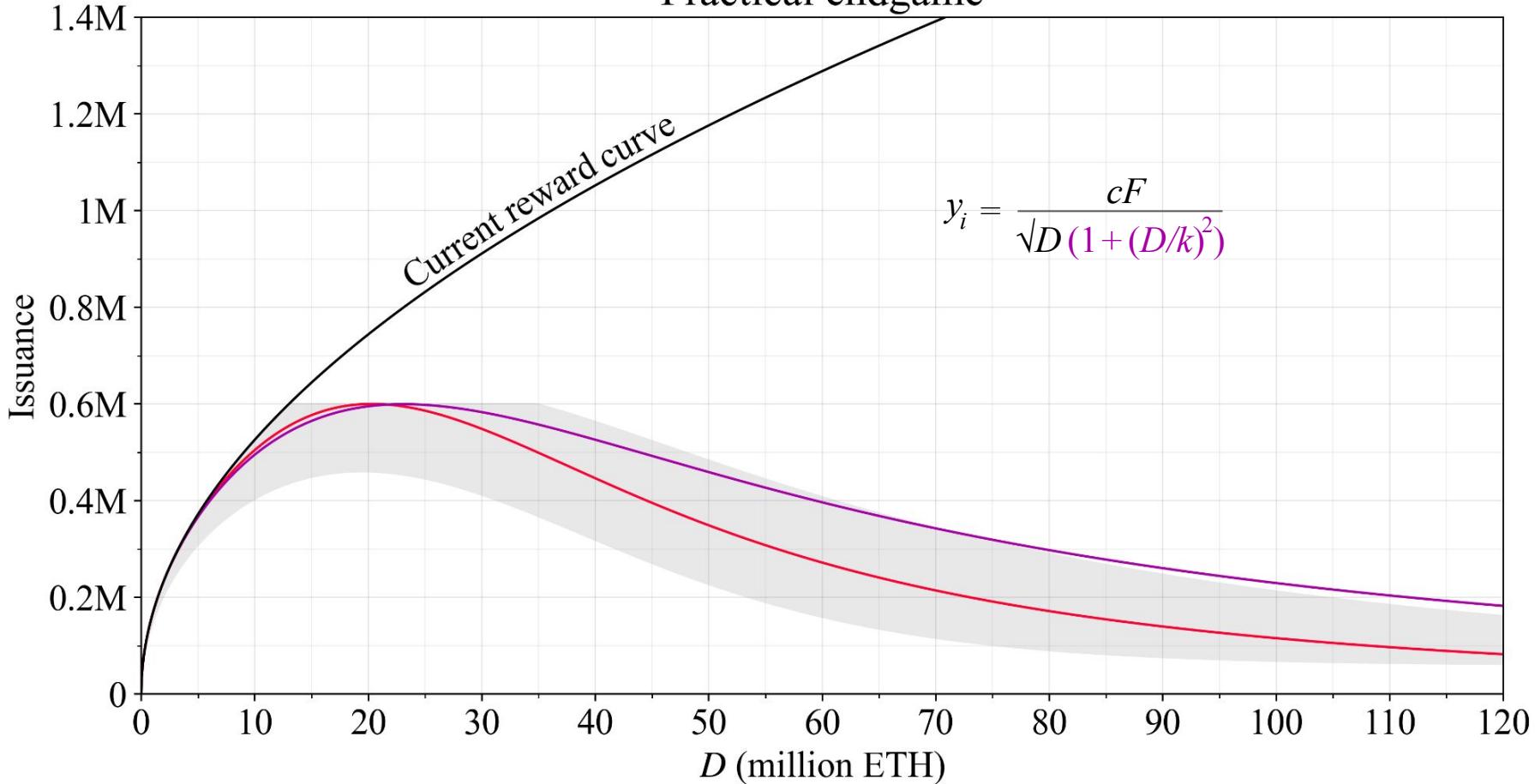
Practical endgame



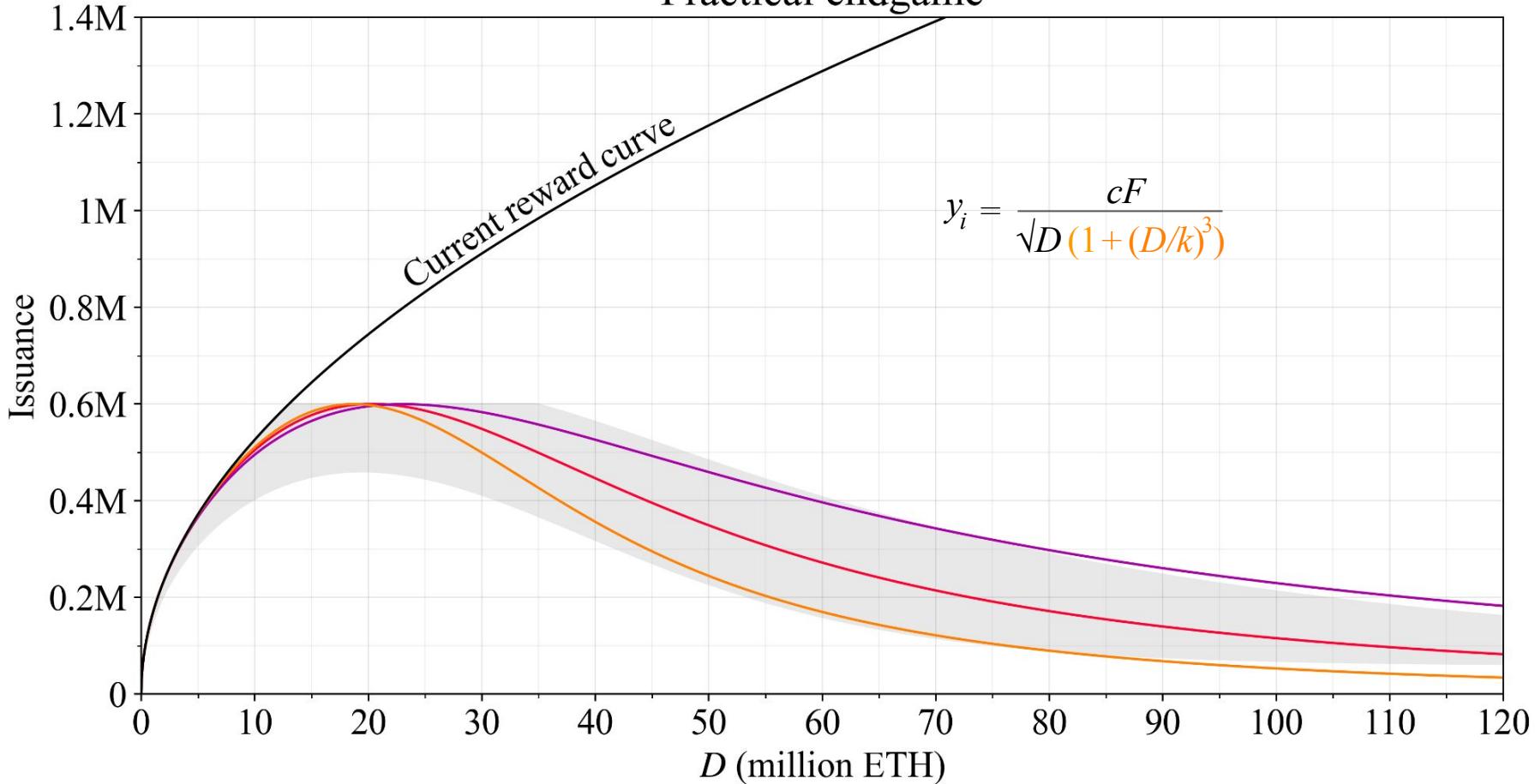
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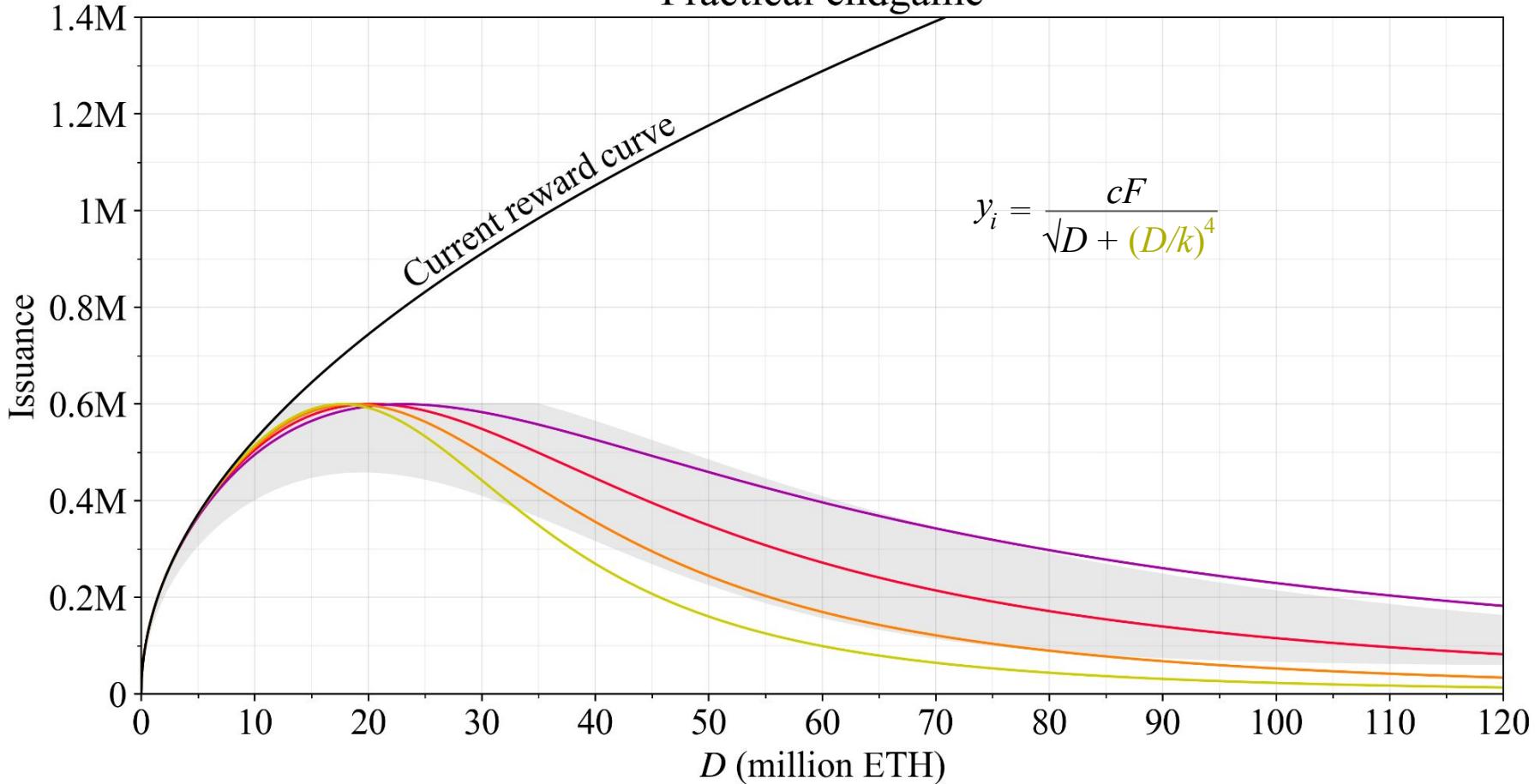
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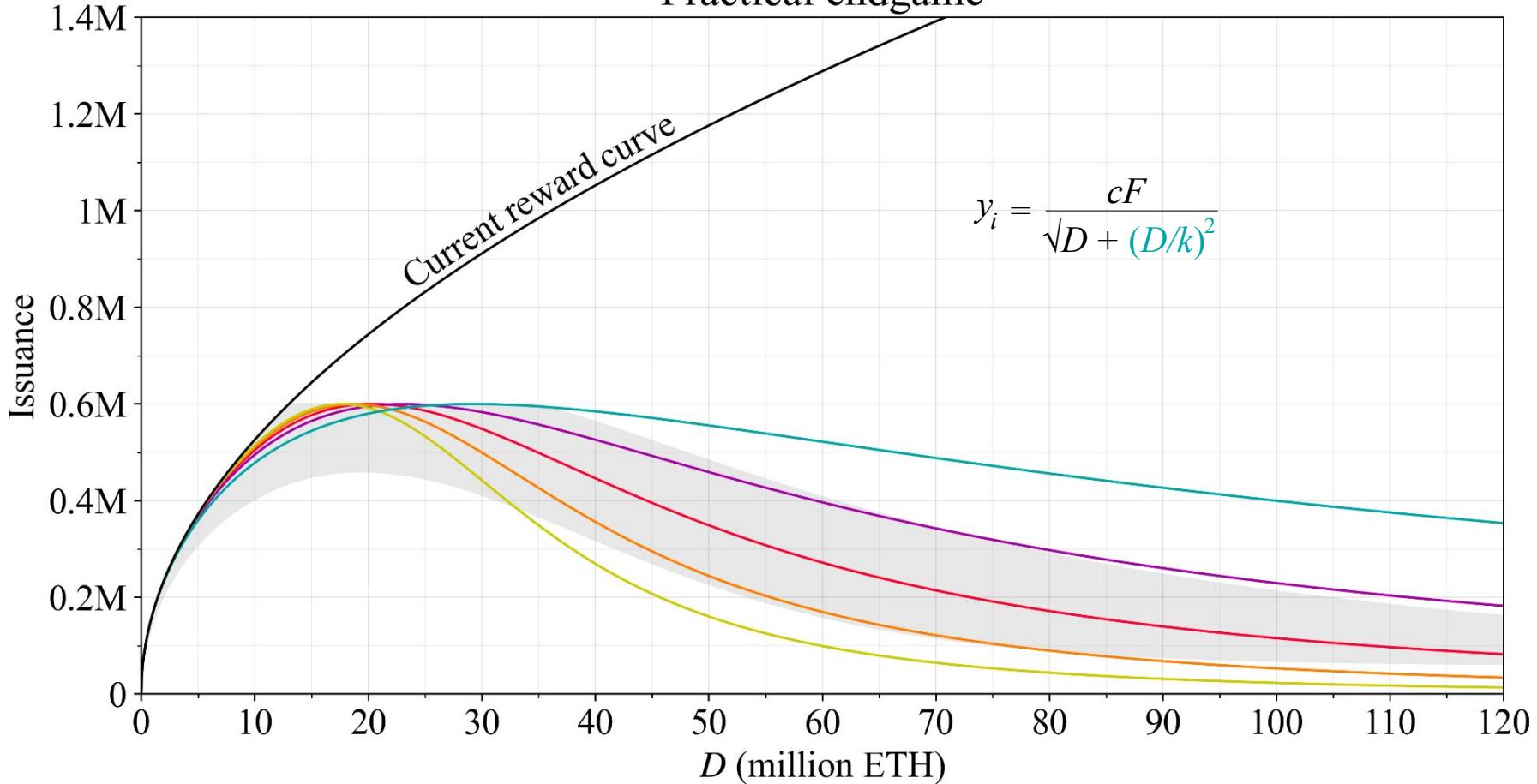
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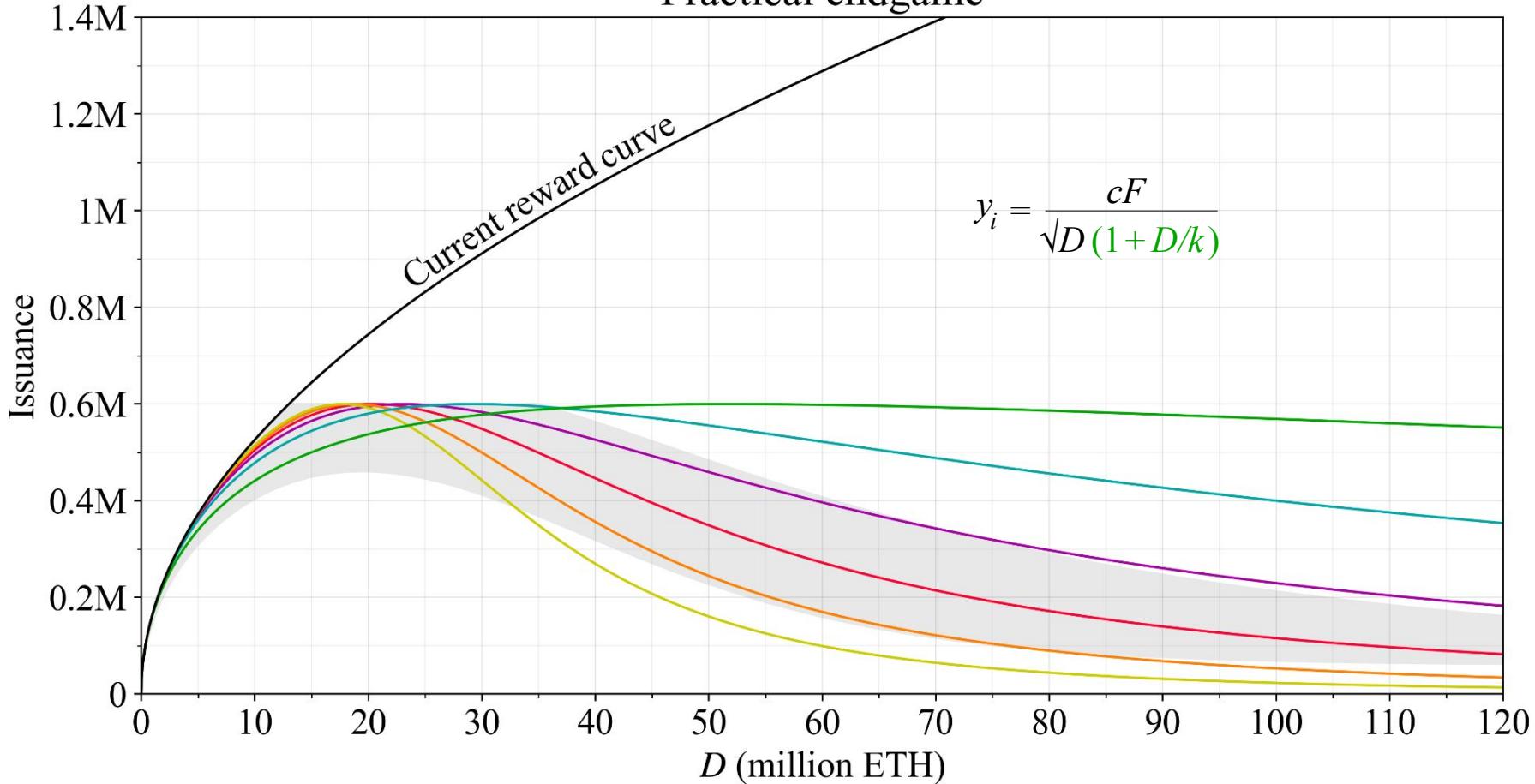
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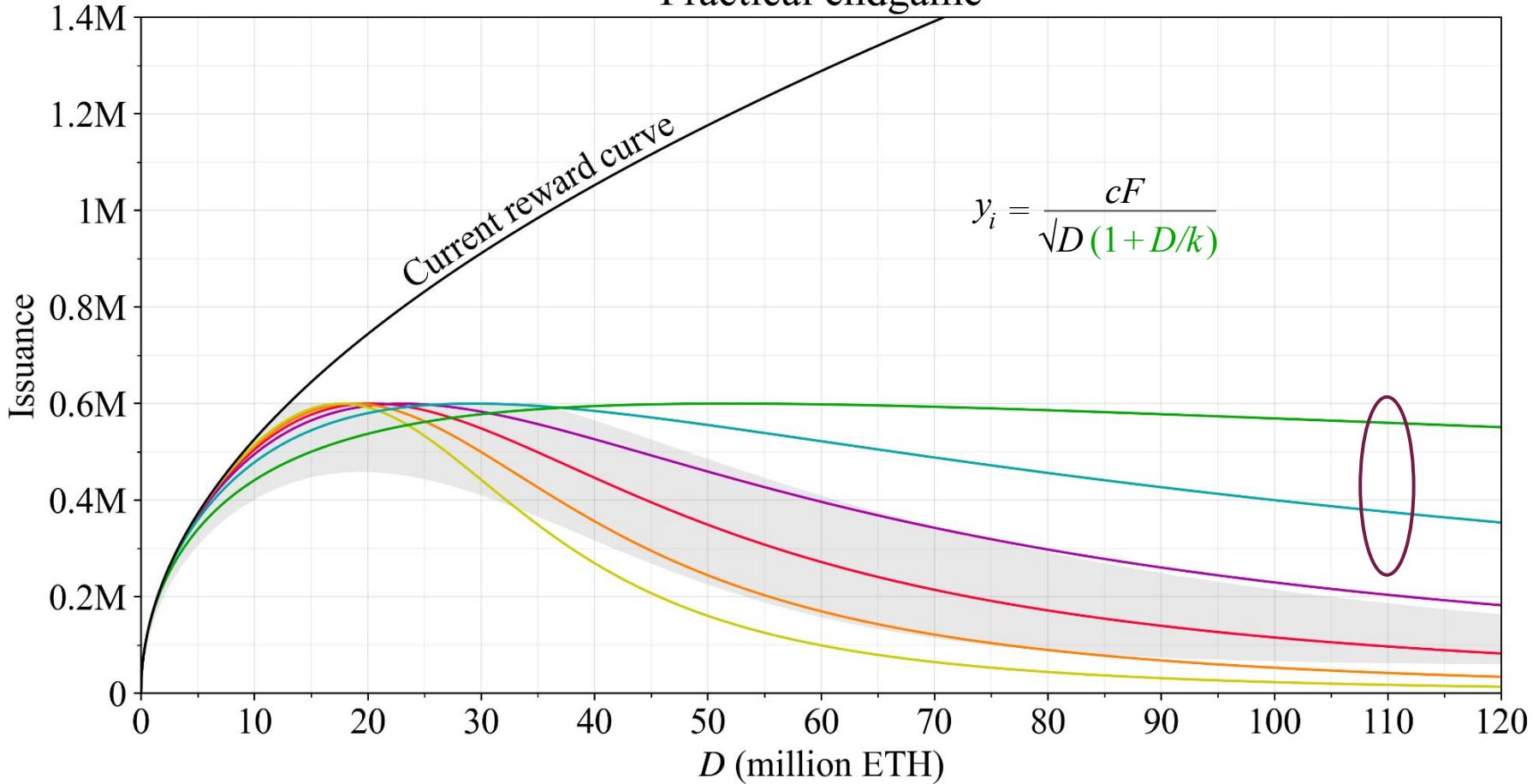
Practical endgame



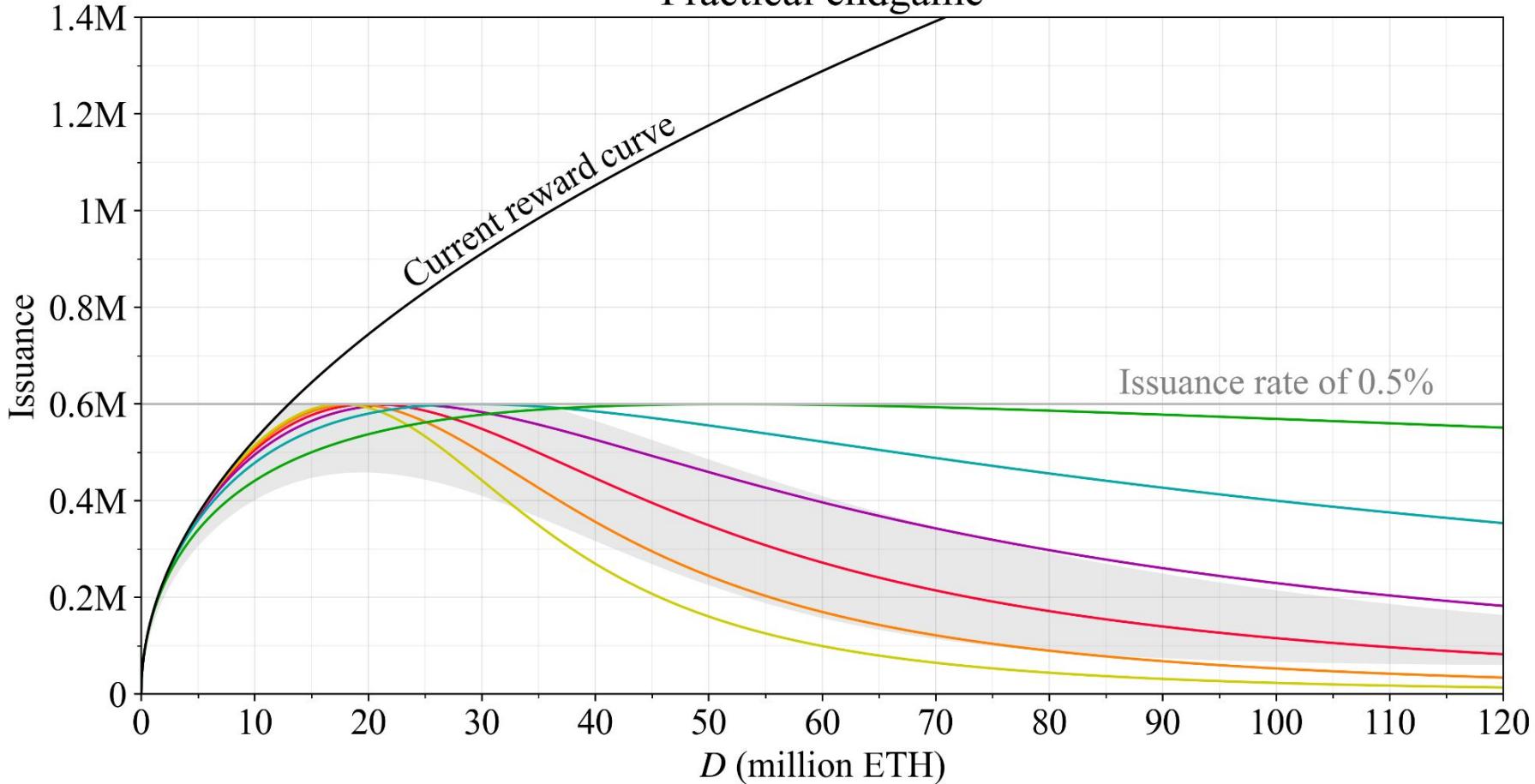
Practical endgame

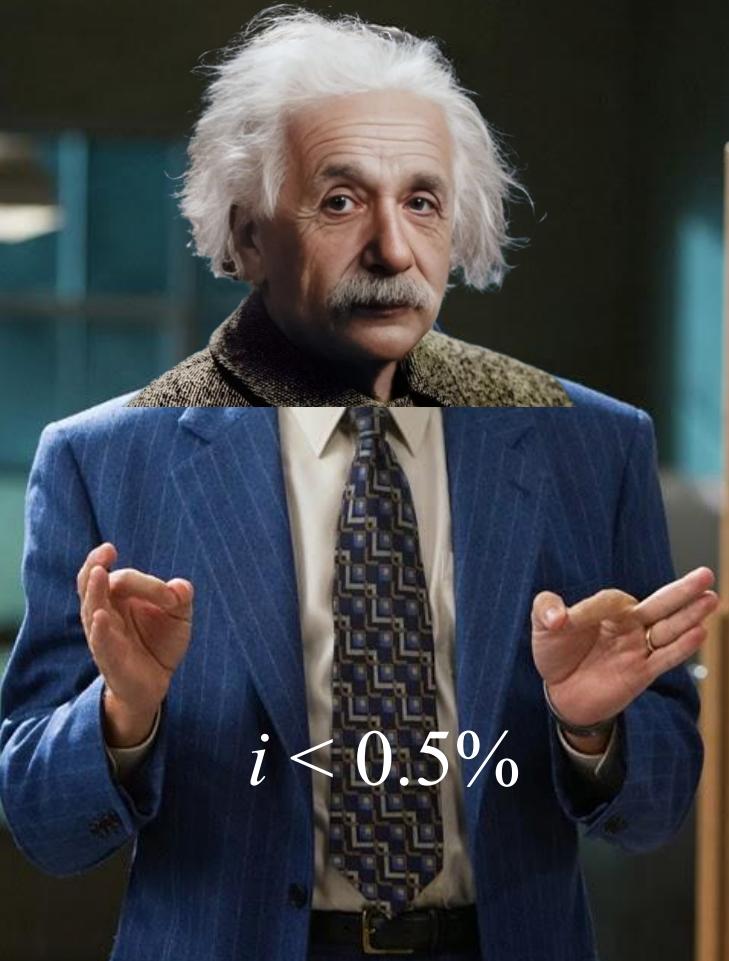
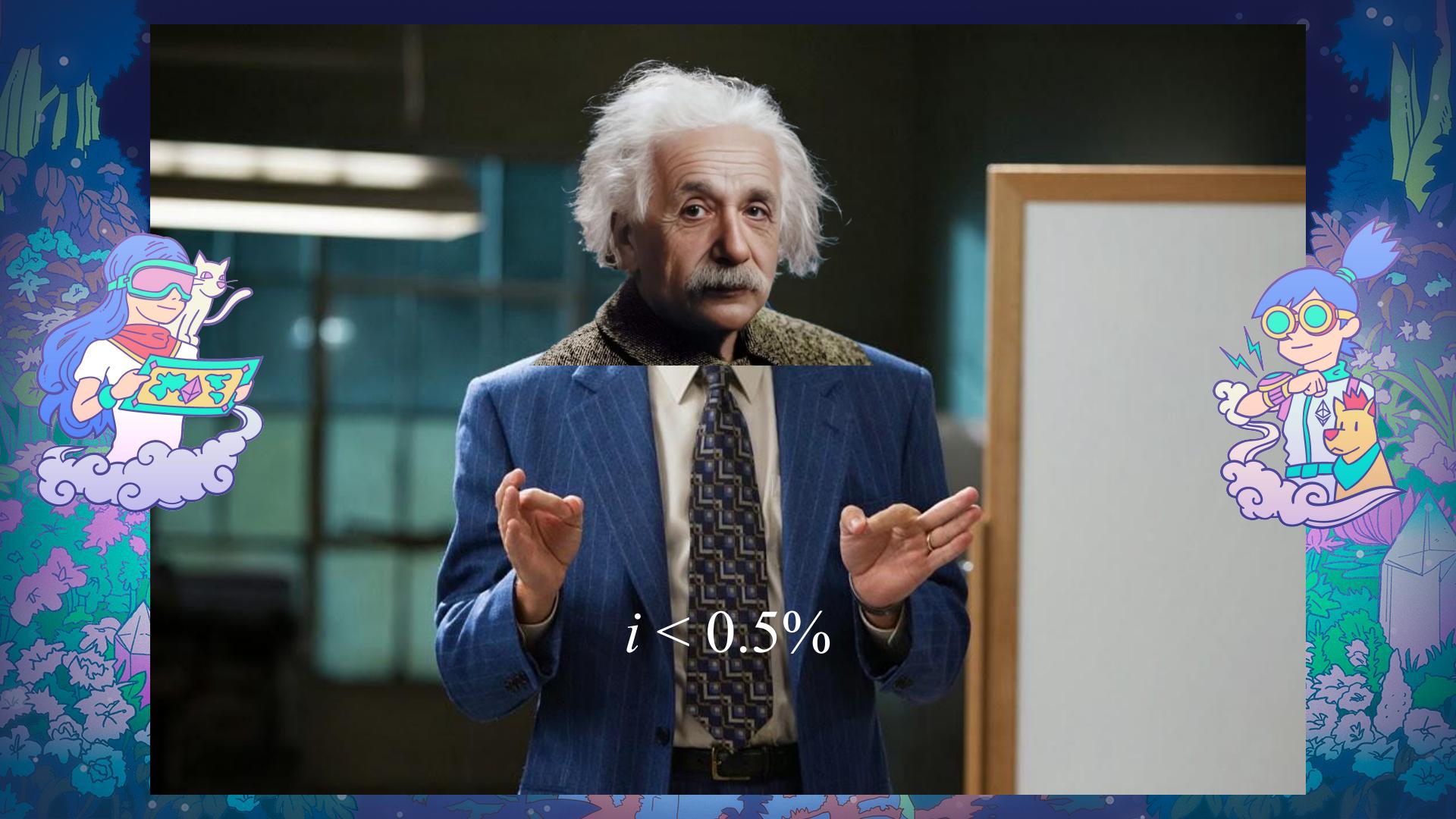


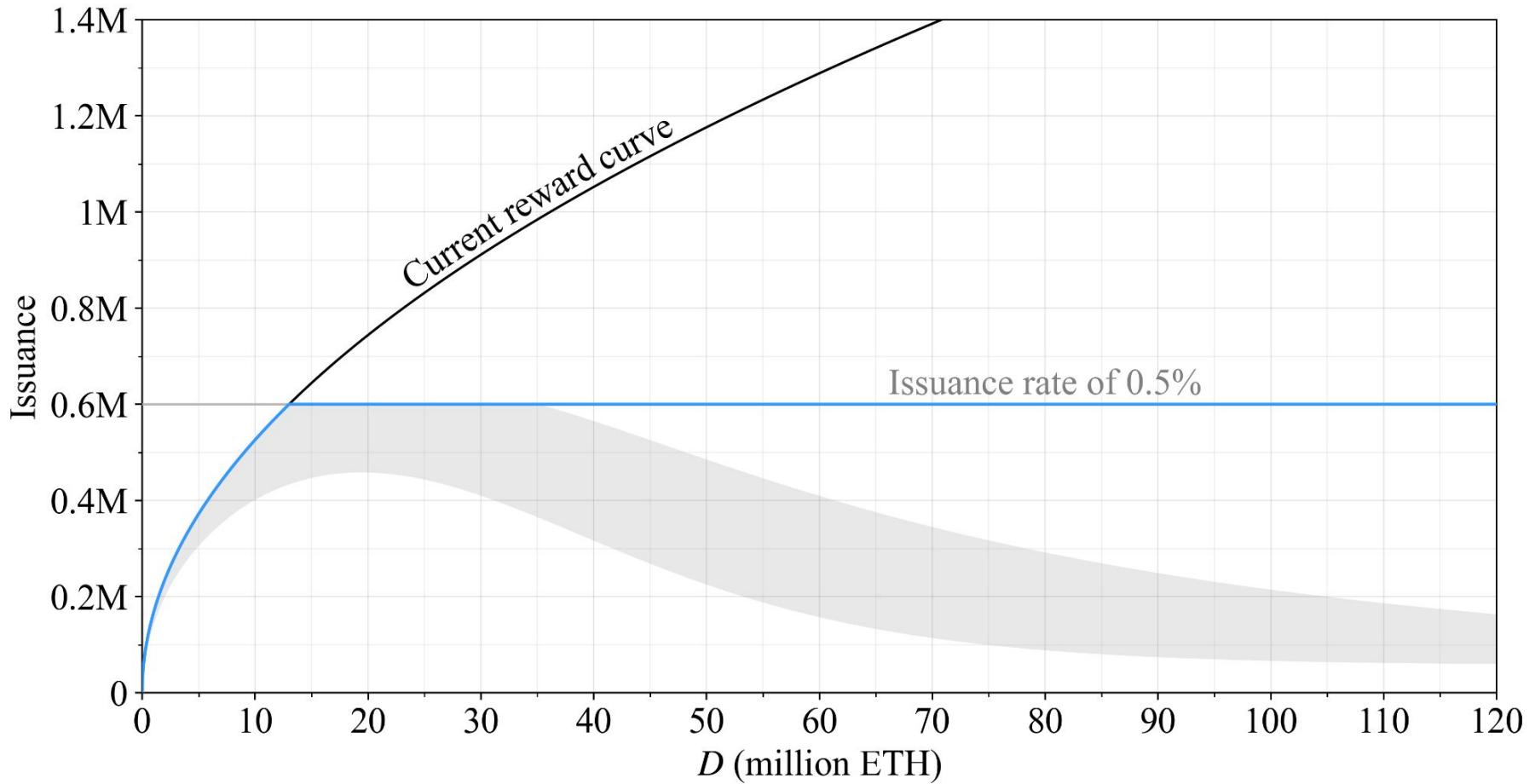
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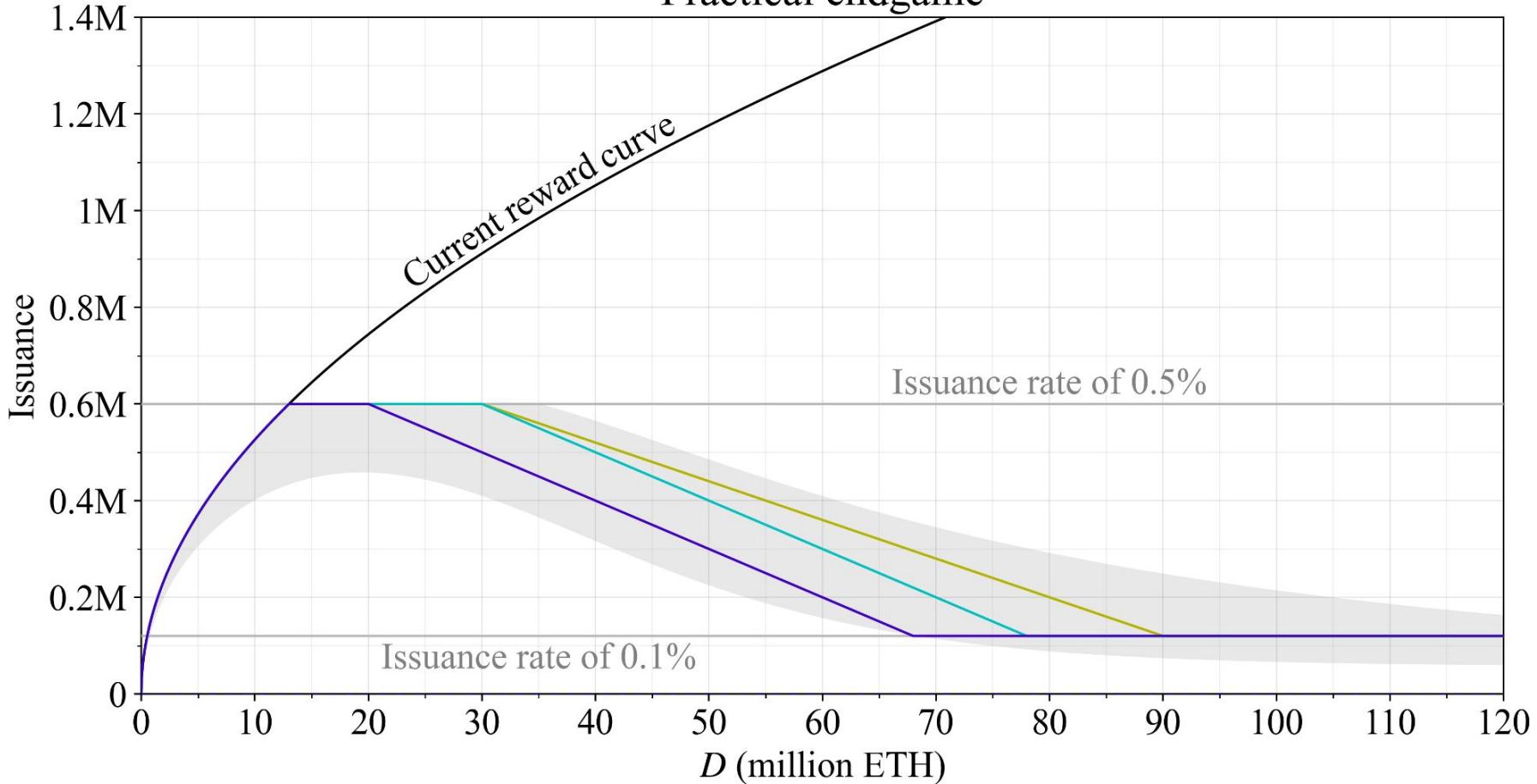
Practical endgame



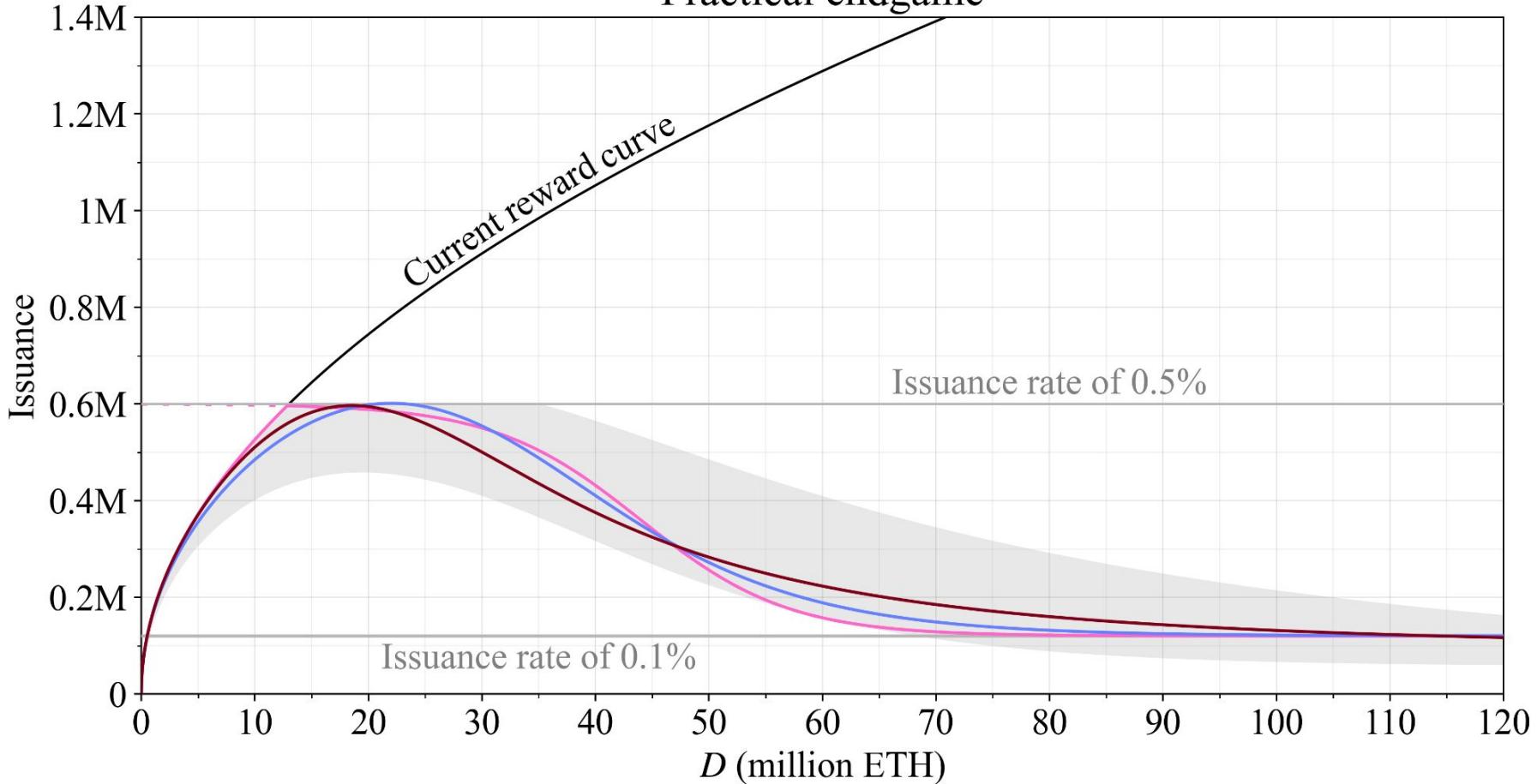
 $i < 0.5\%$ 



Practical endgame



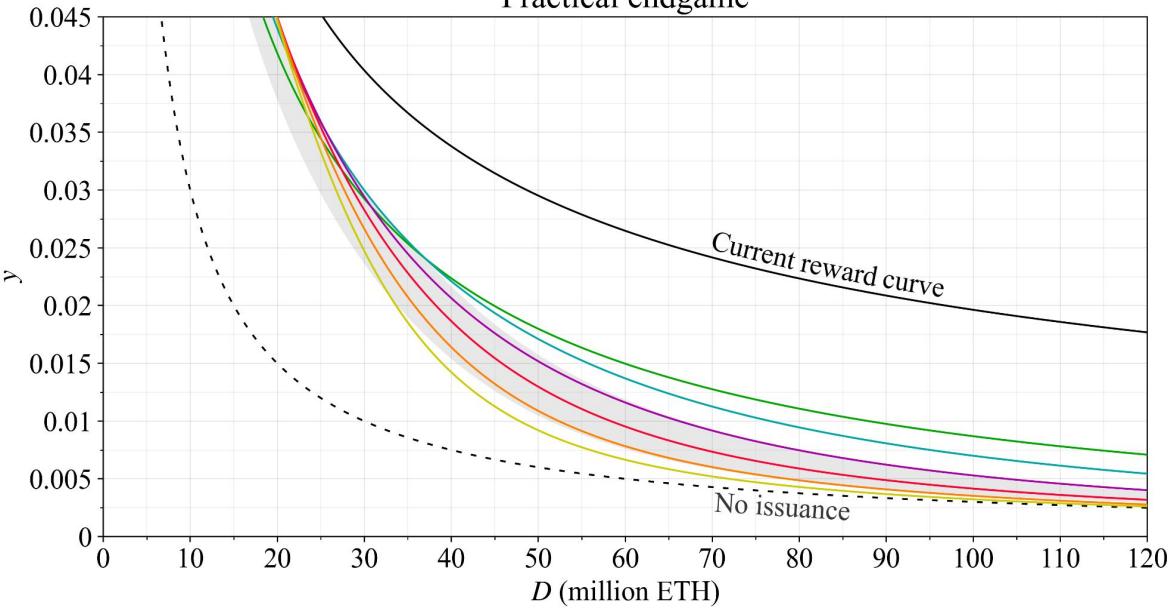
Practical endgame



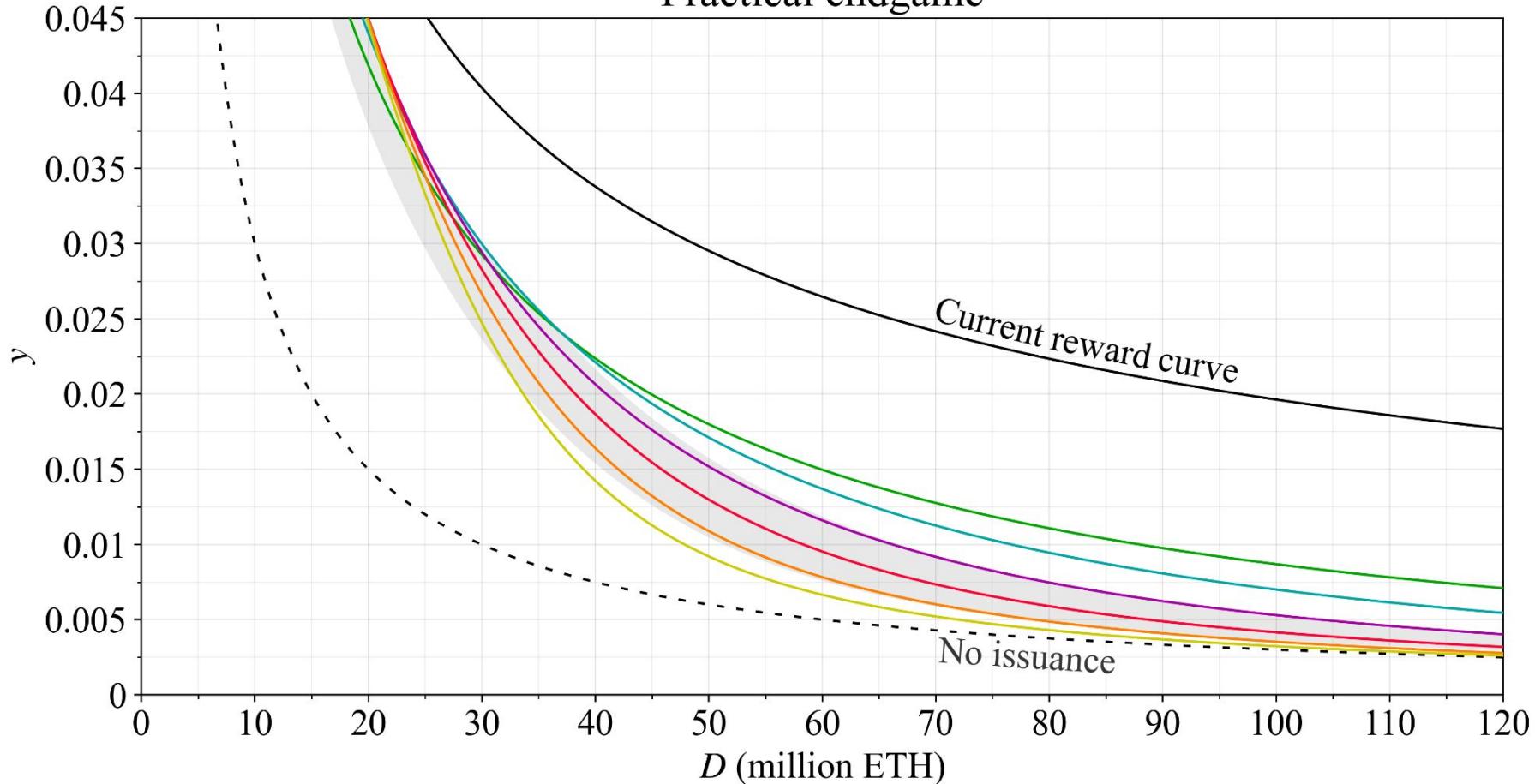
Impact



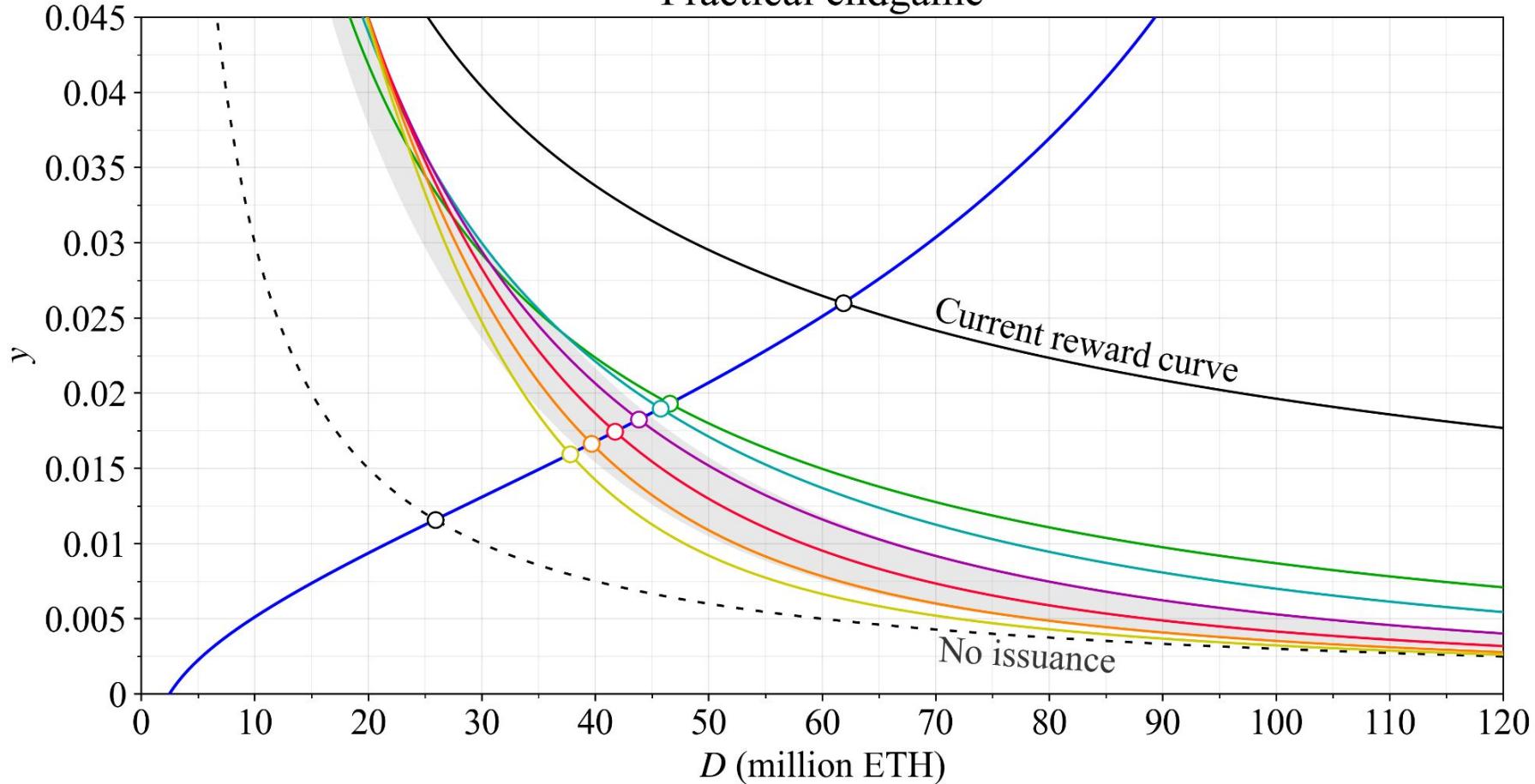
Practical endgame



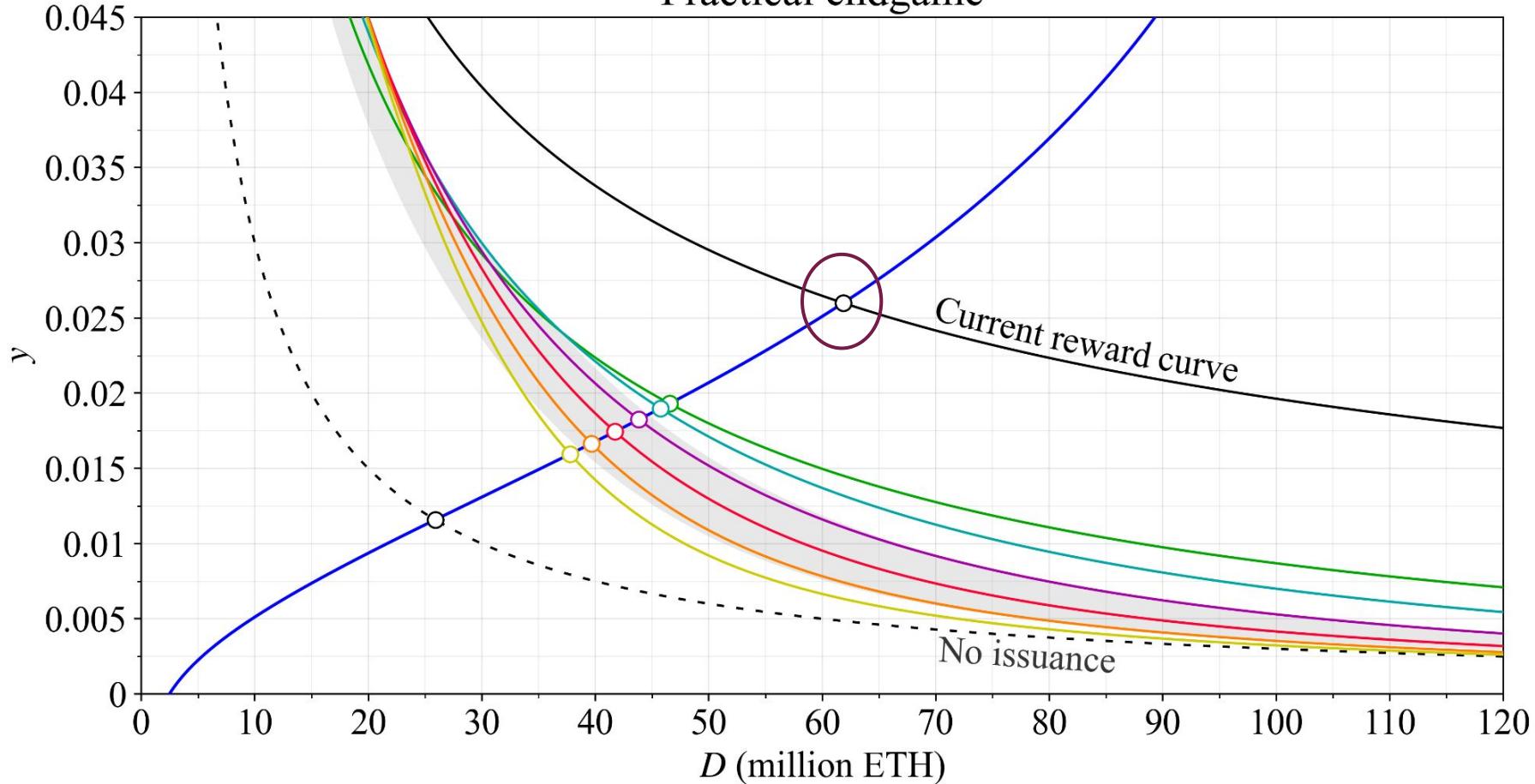
Practical endgame



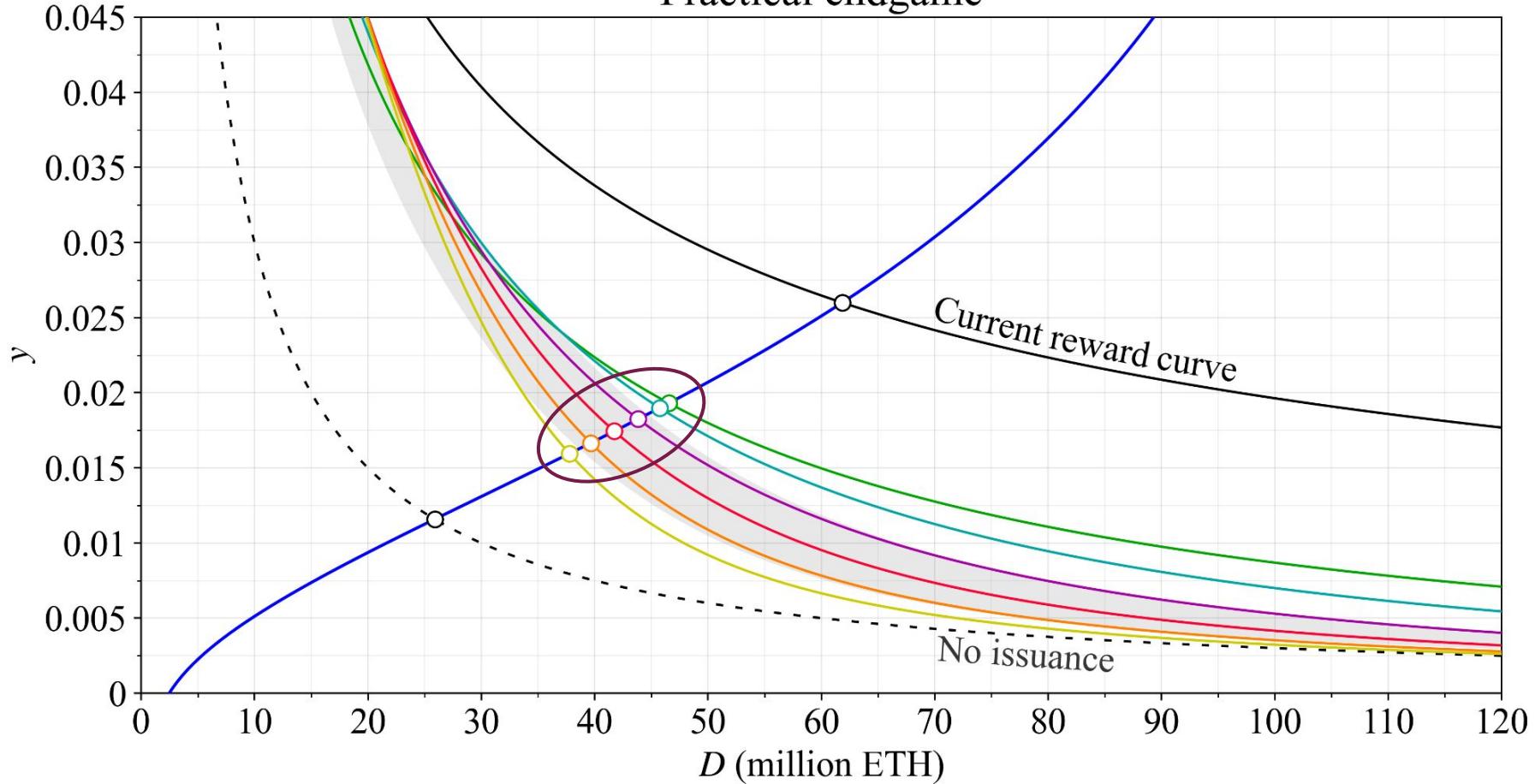
Practical endgame



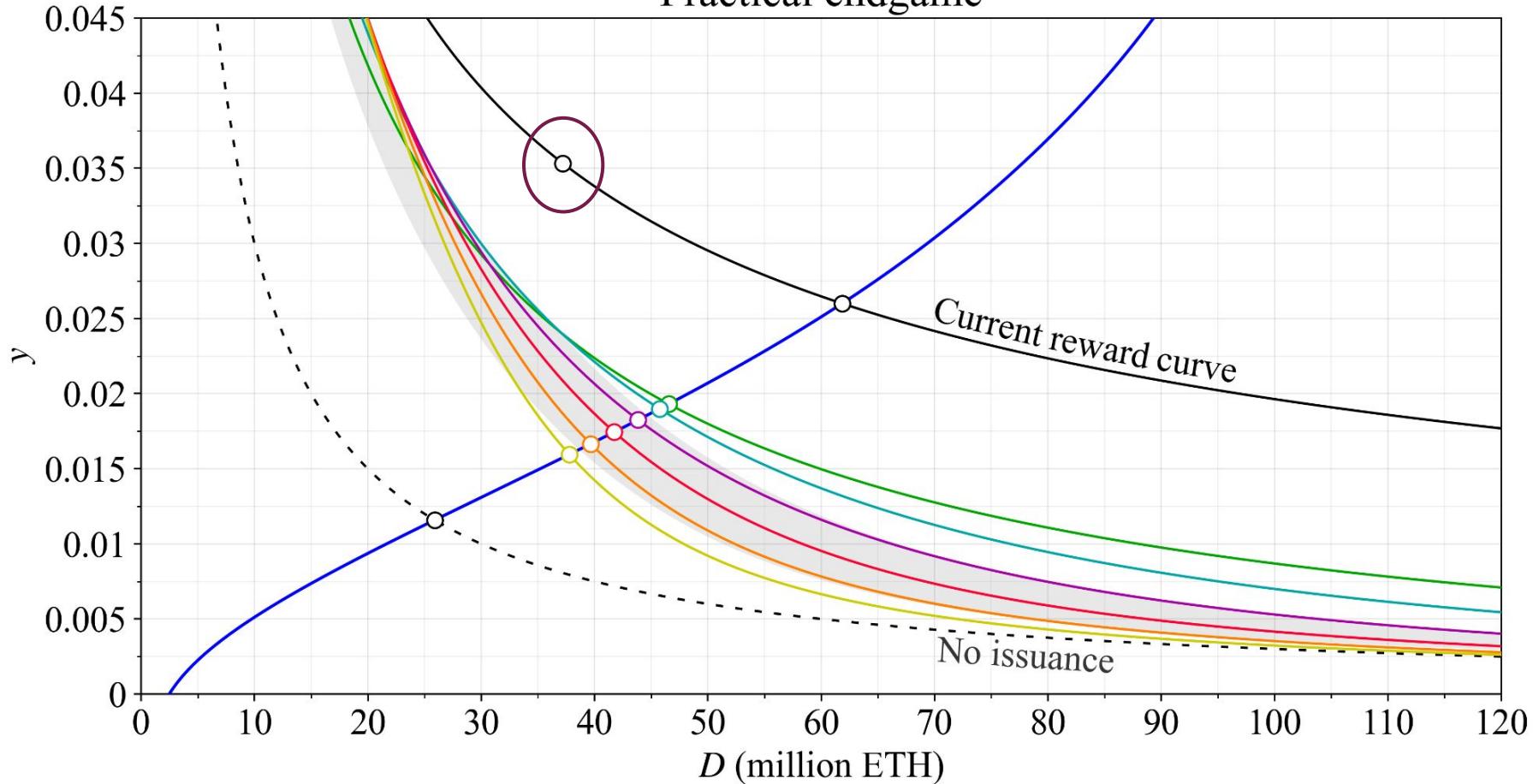
Practical endgame



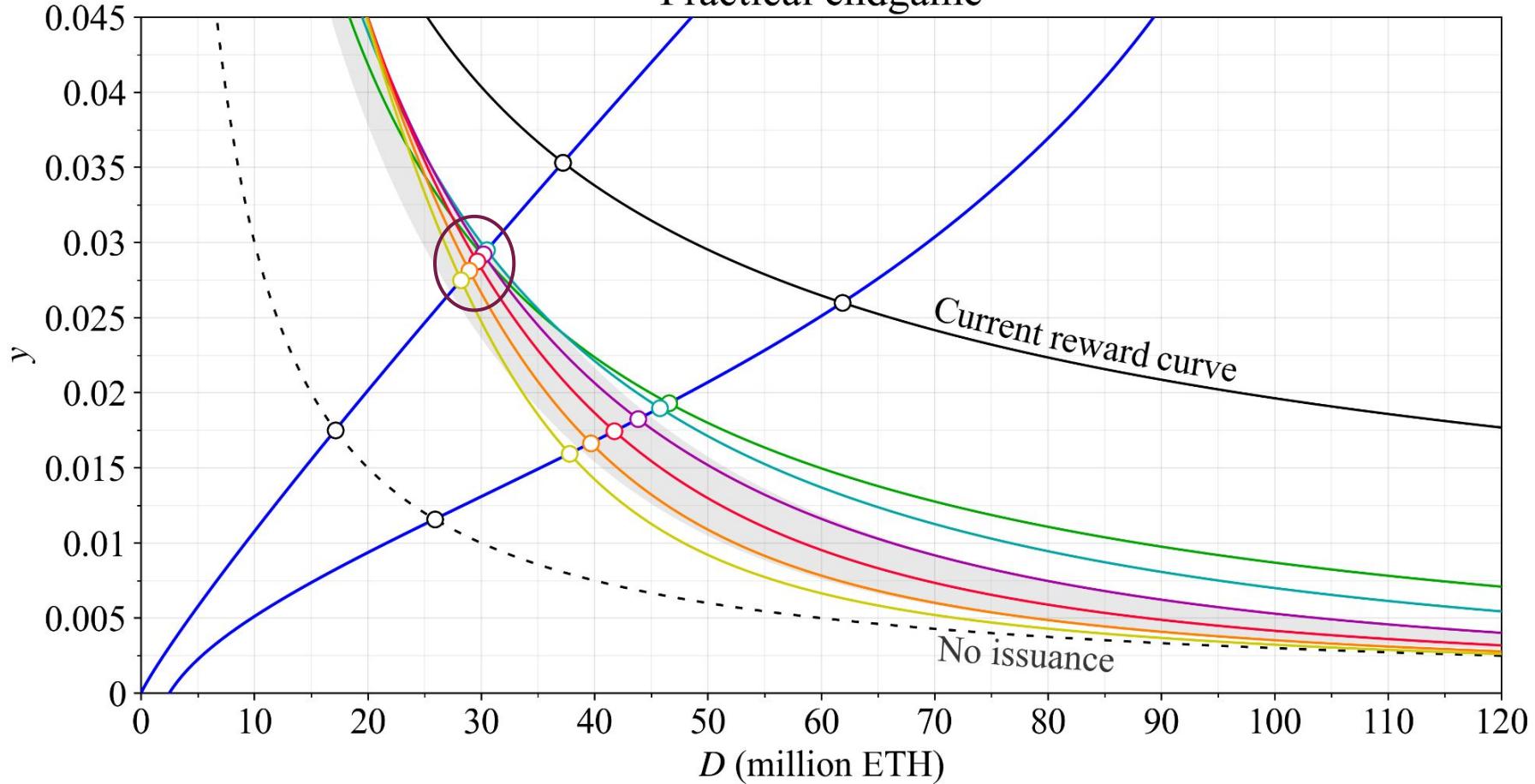
Practical endgame



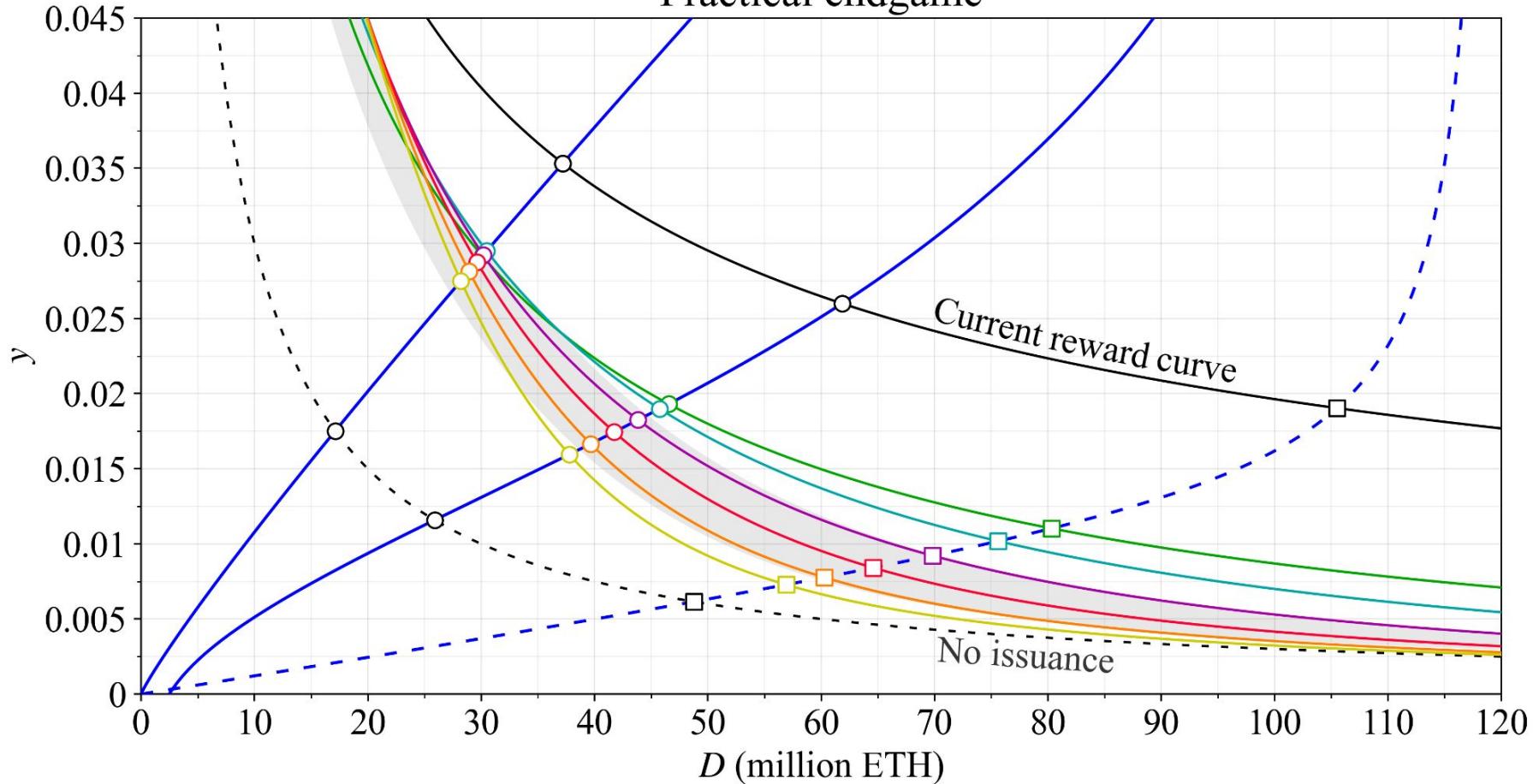
Practical endgame



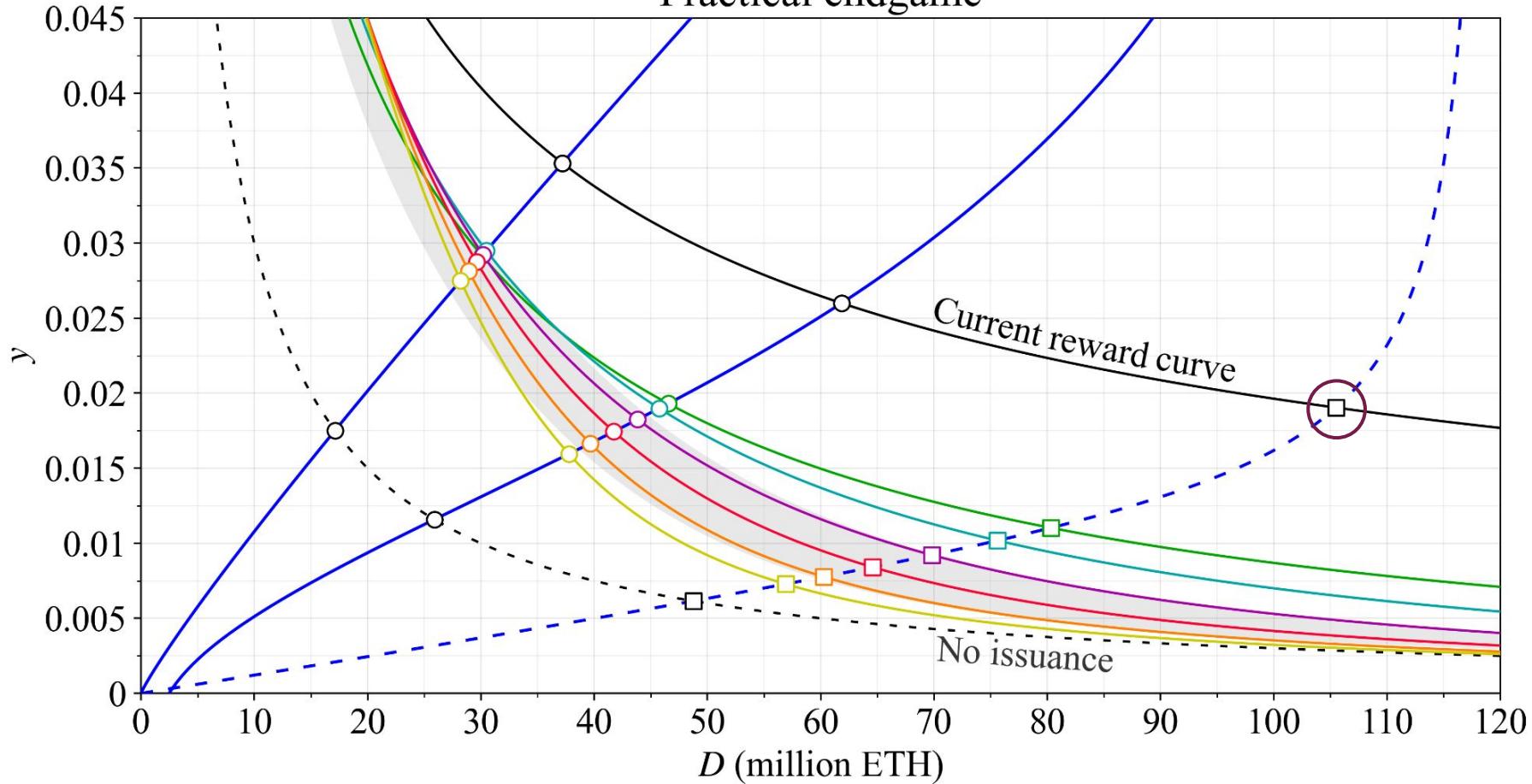
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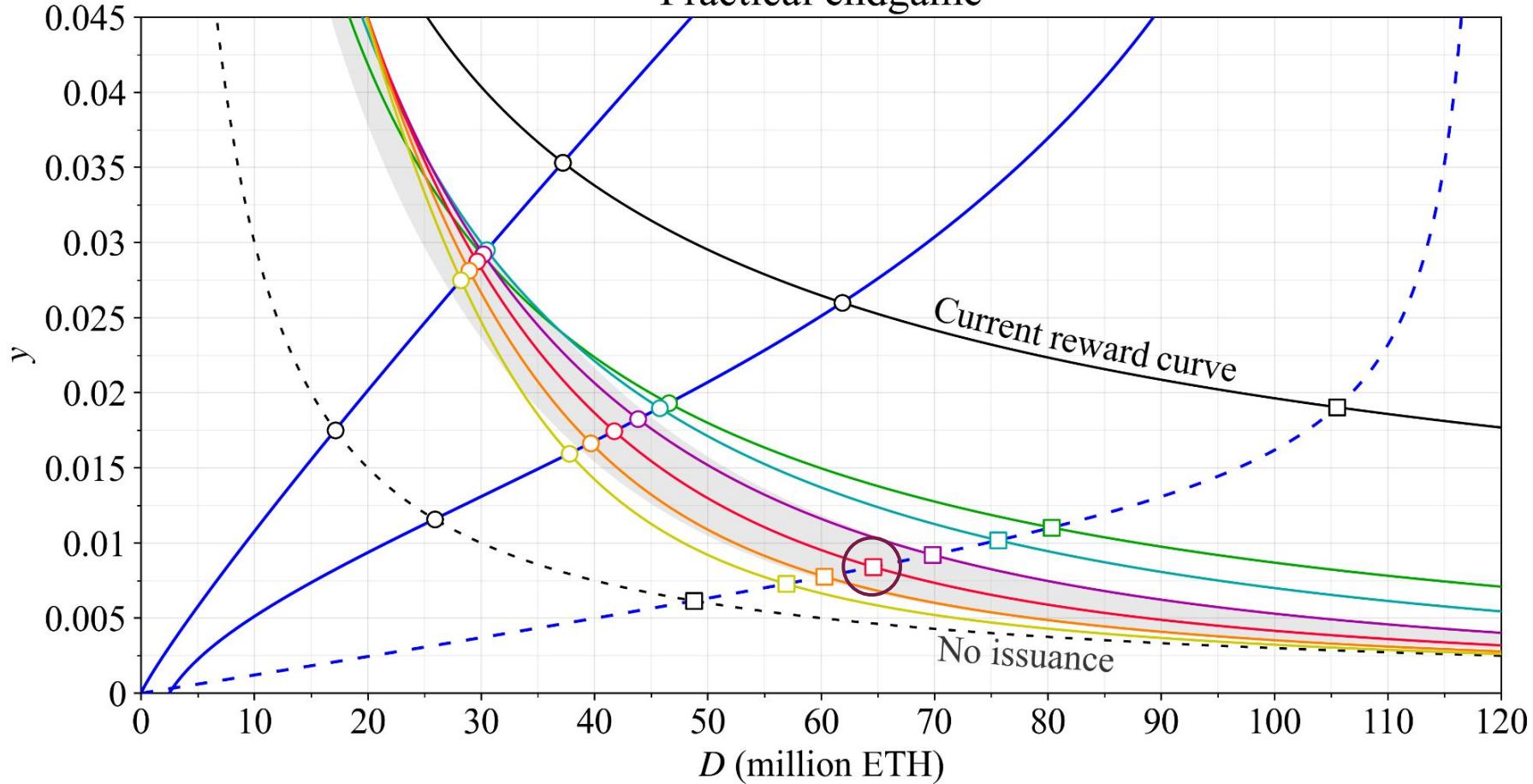
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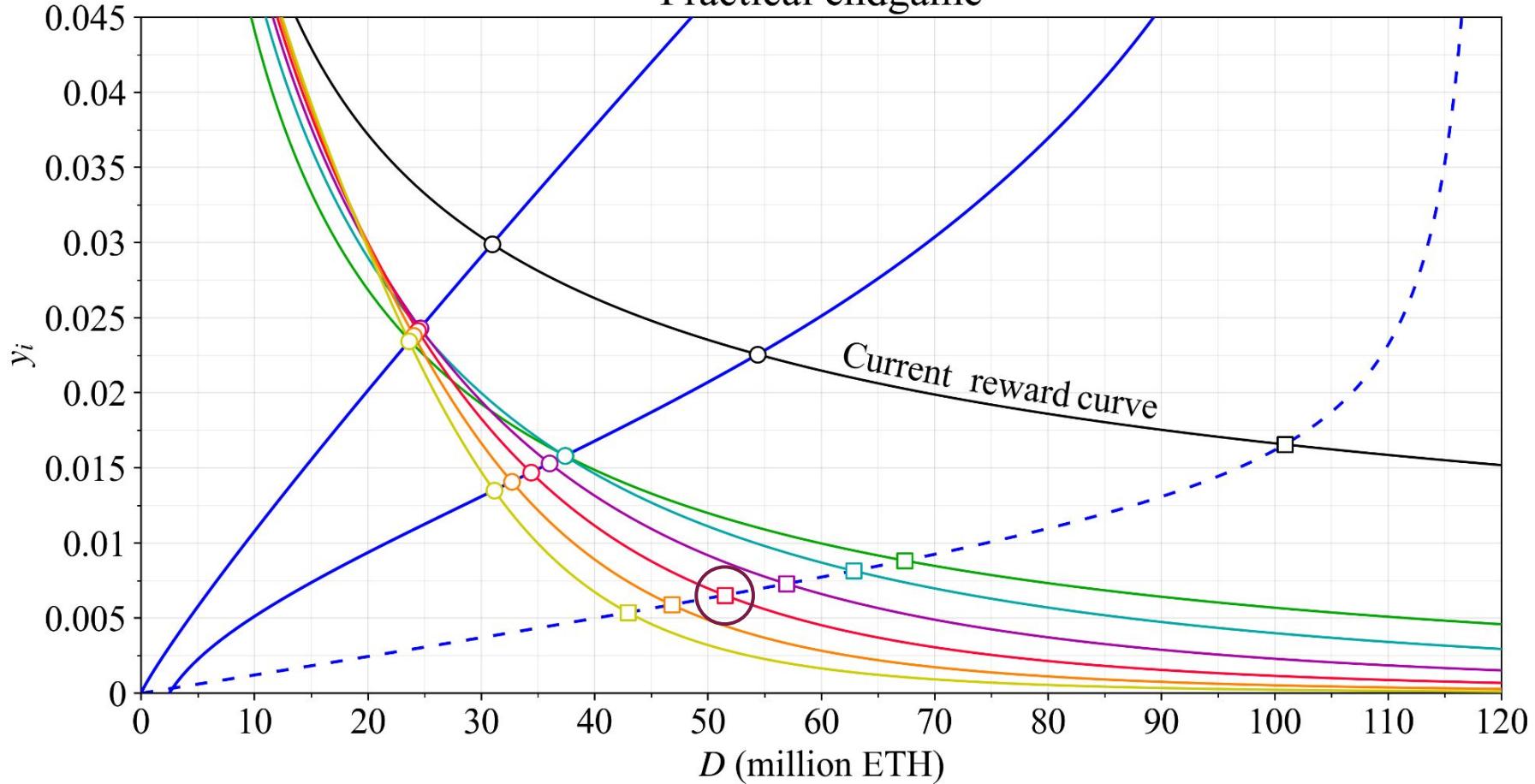
Practical endgame



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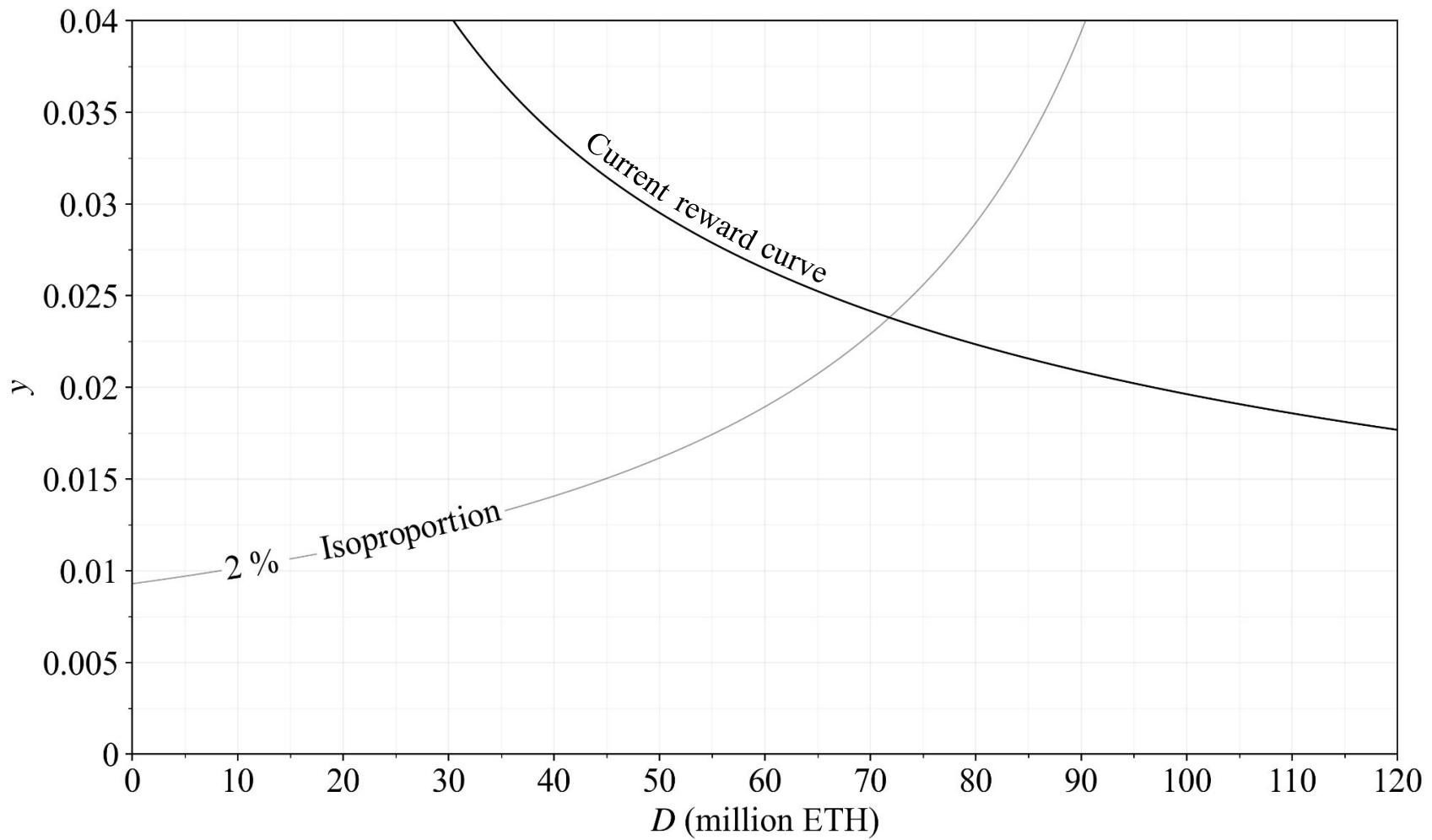


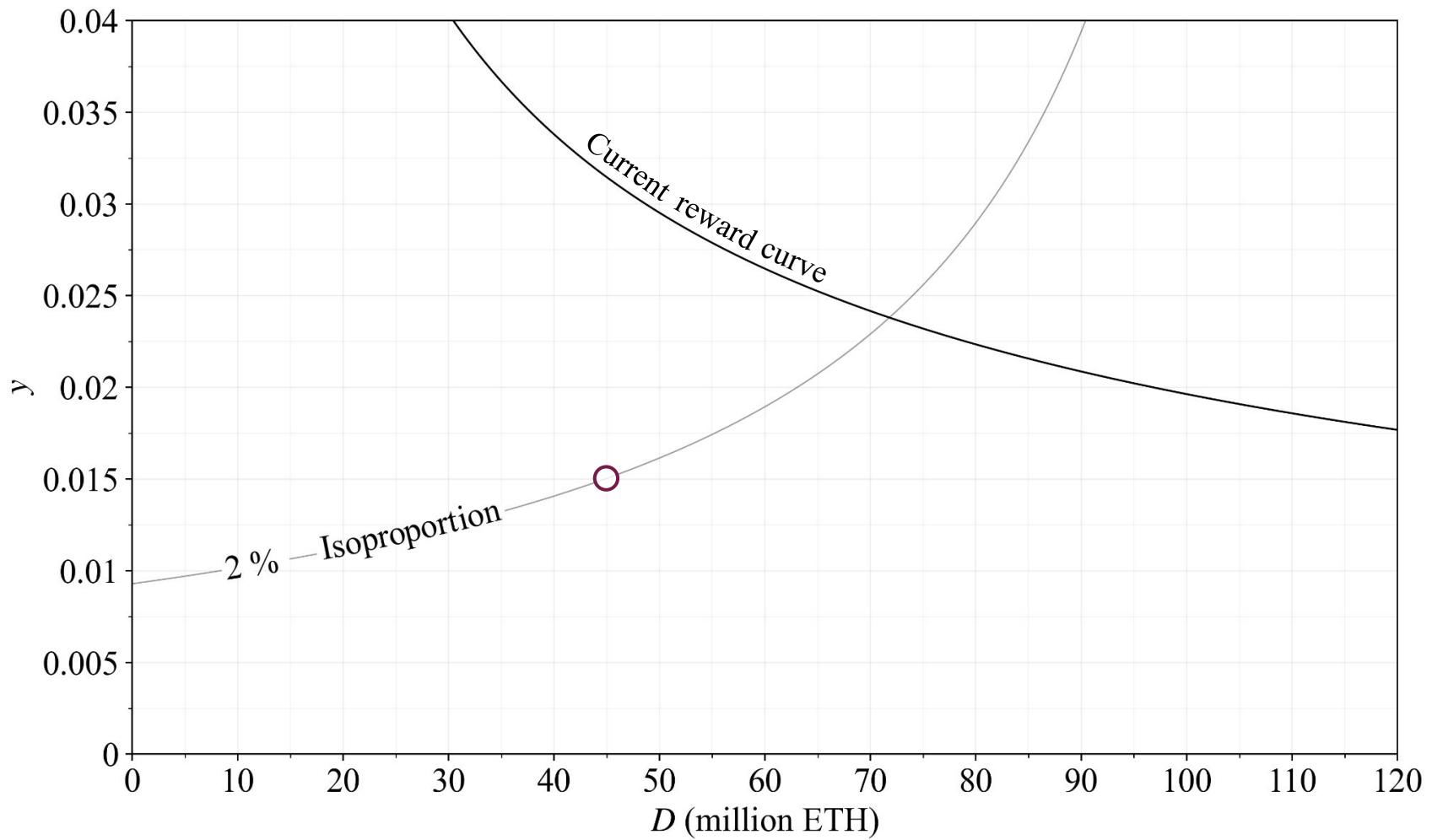
Practical endgame

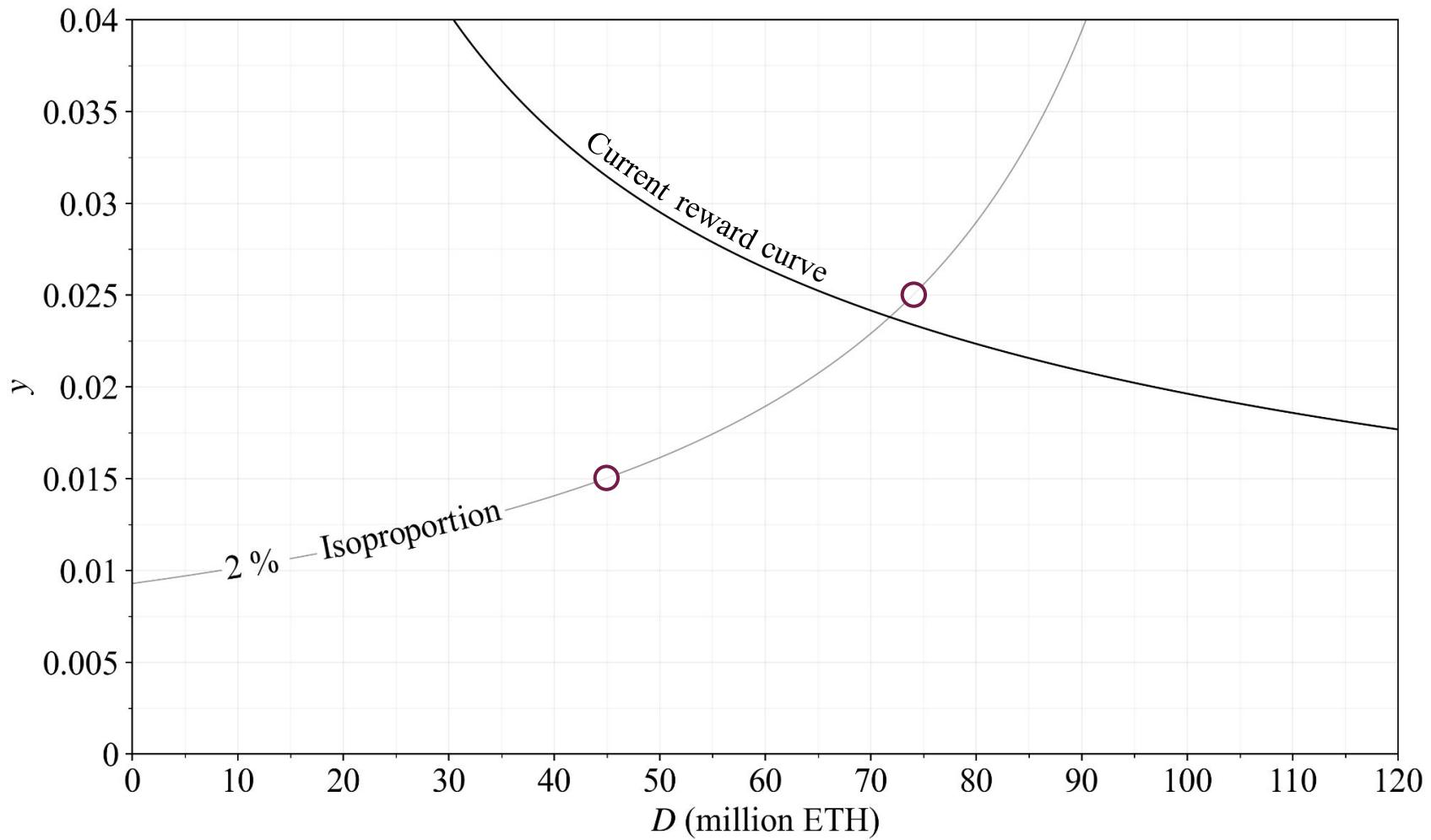


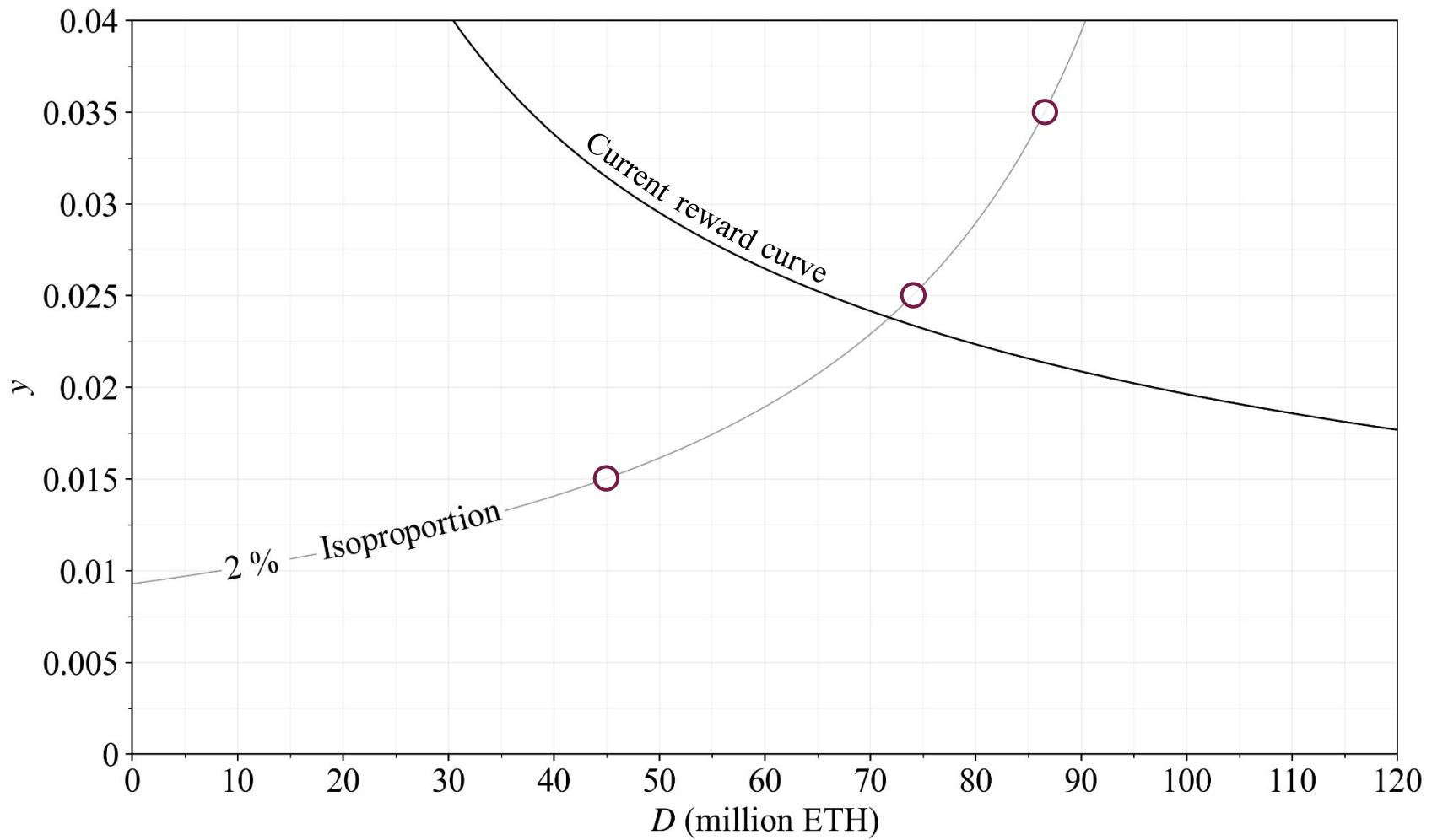
$$y_p = \frac{1+y}{1+s} - 1$$

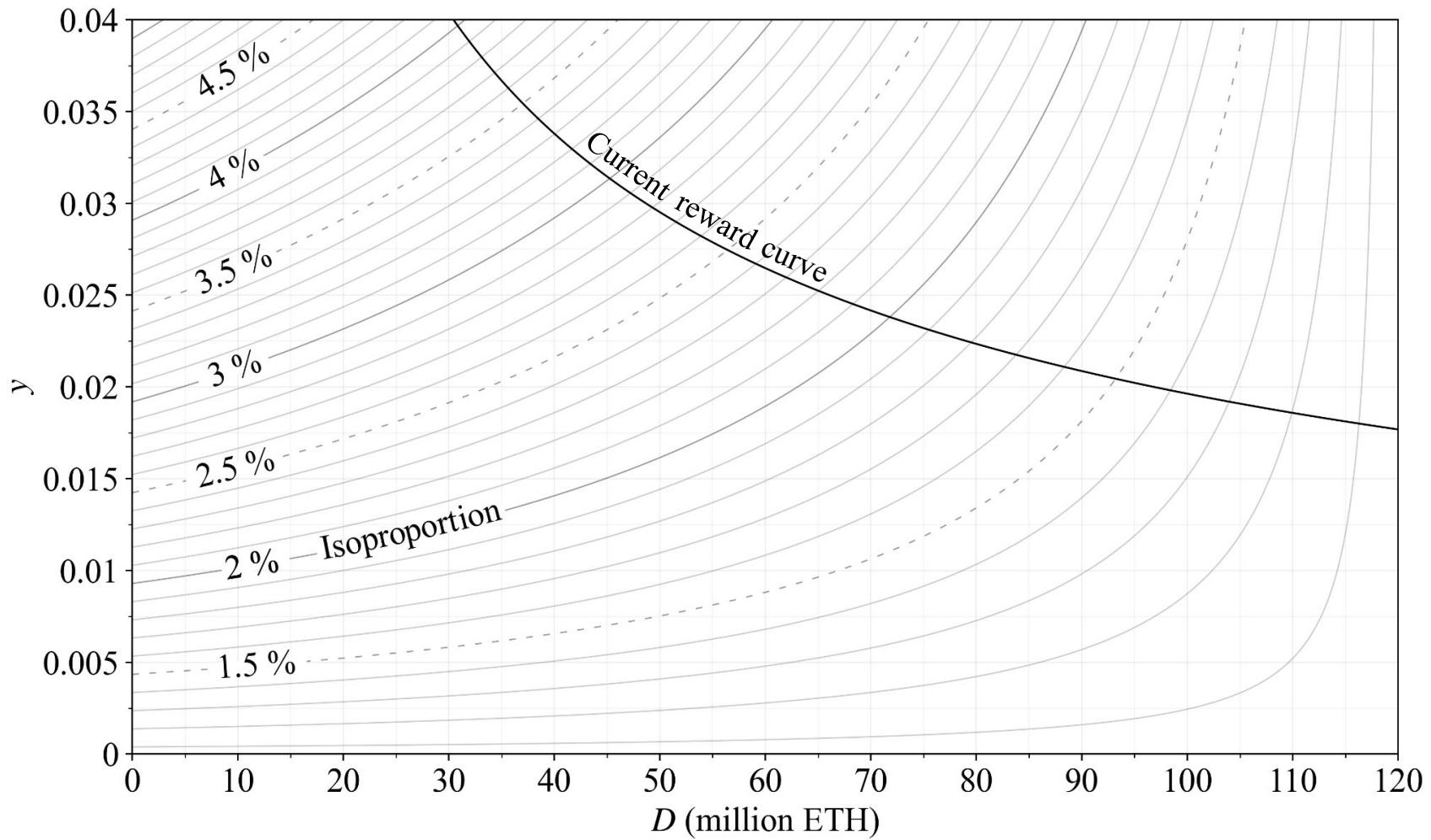


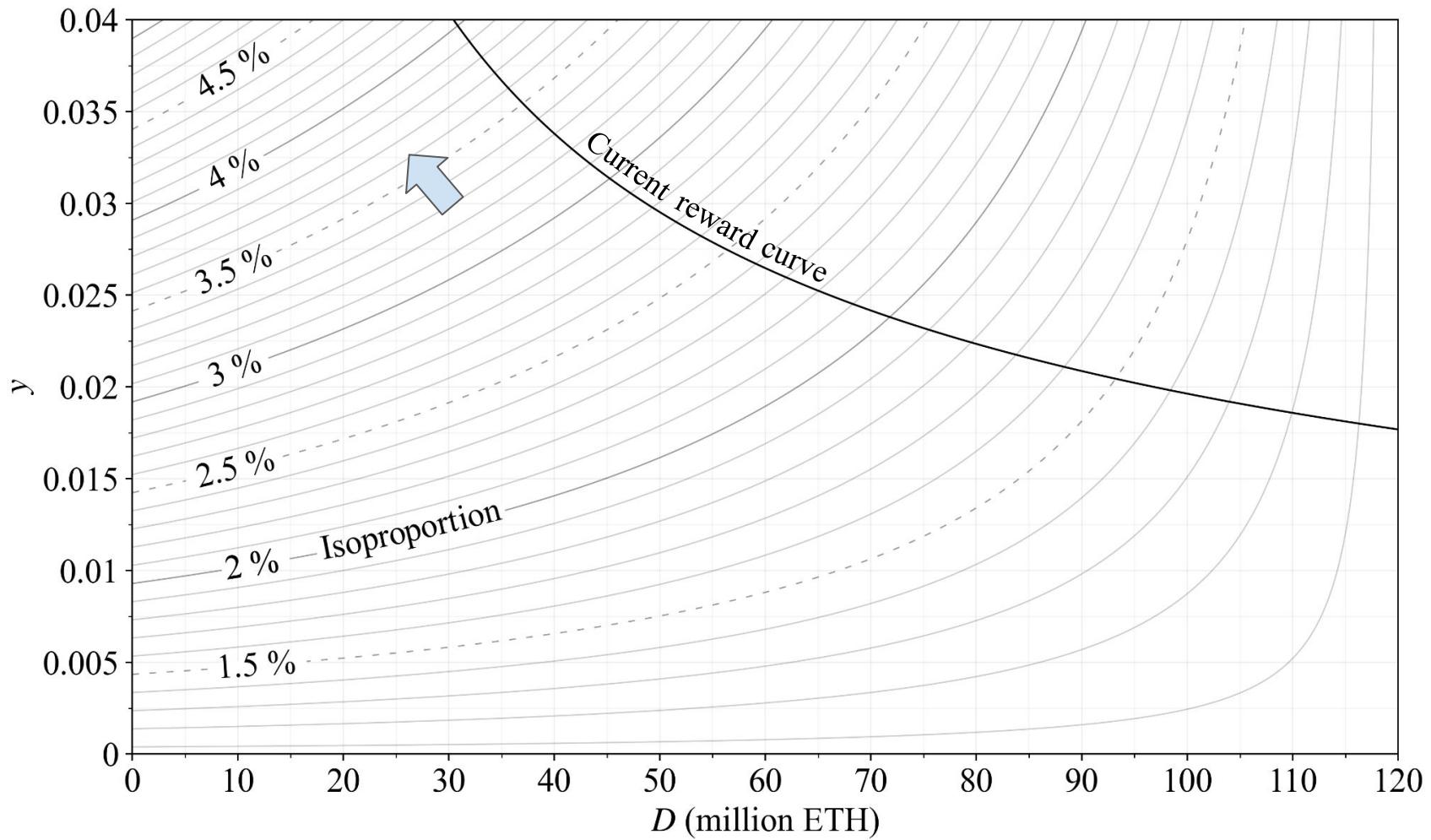


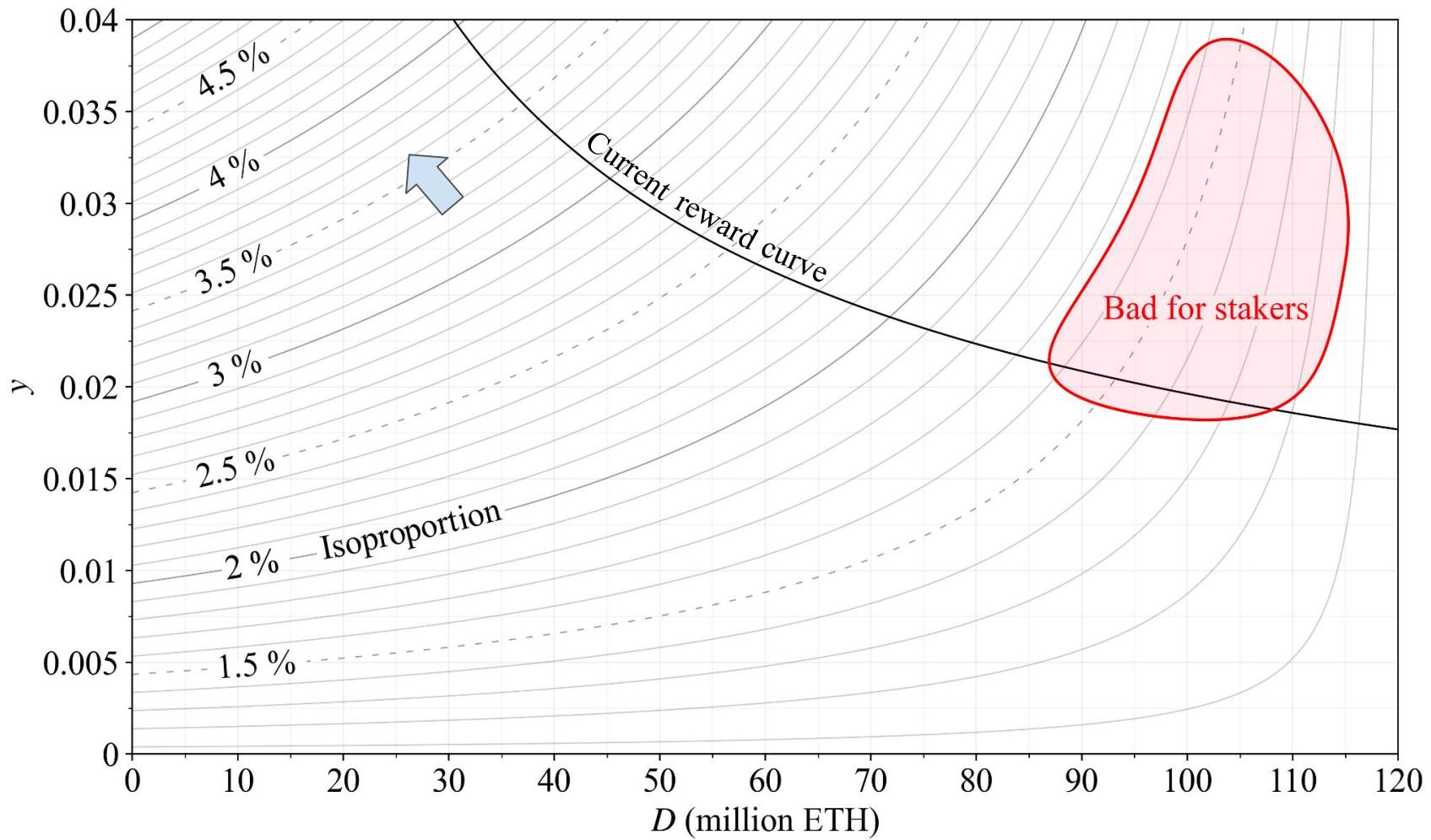


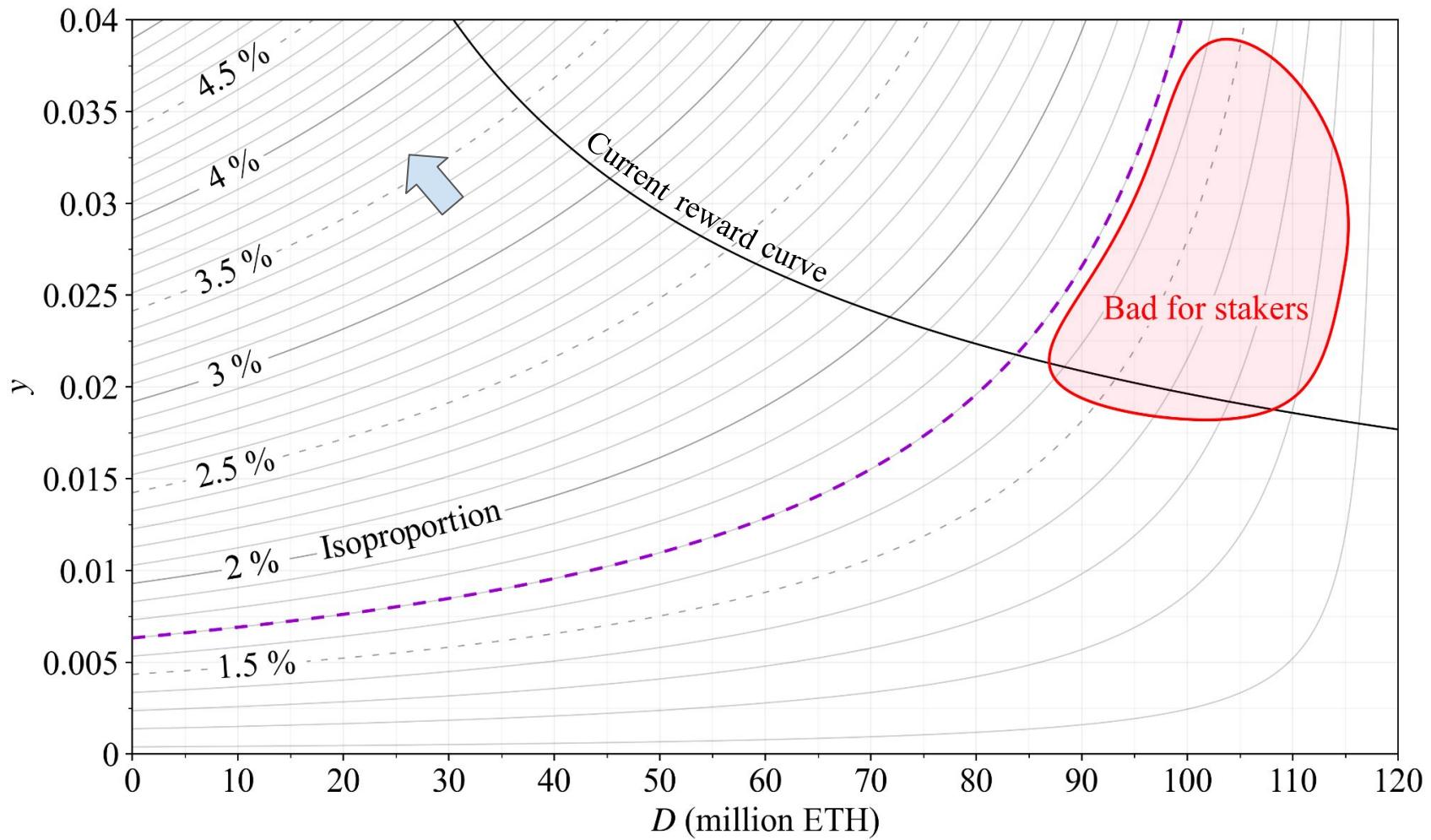


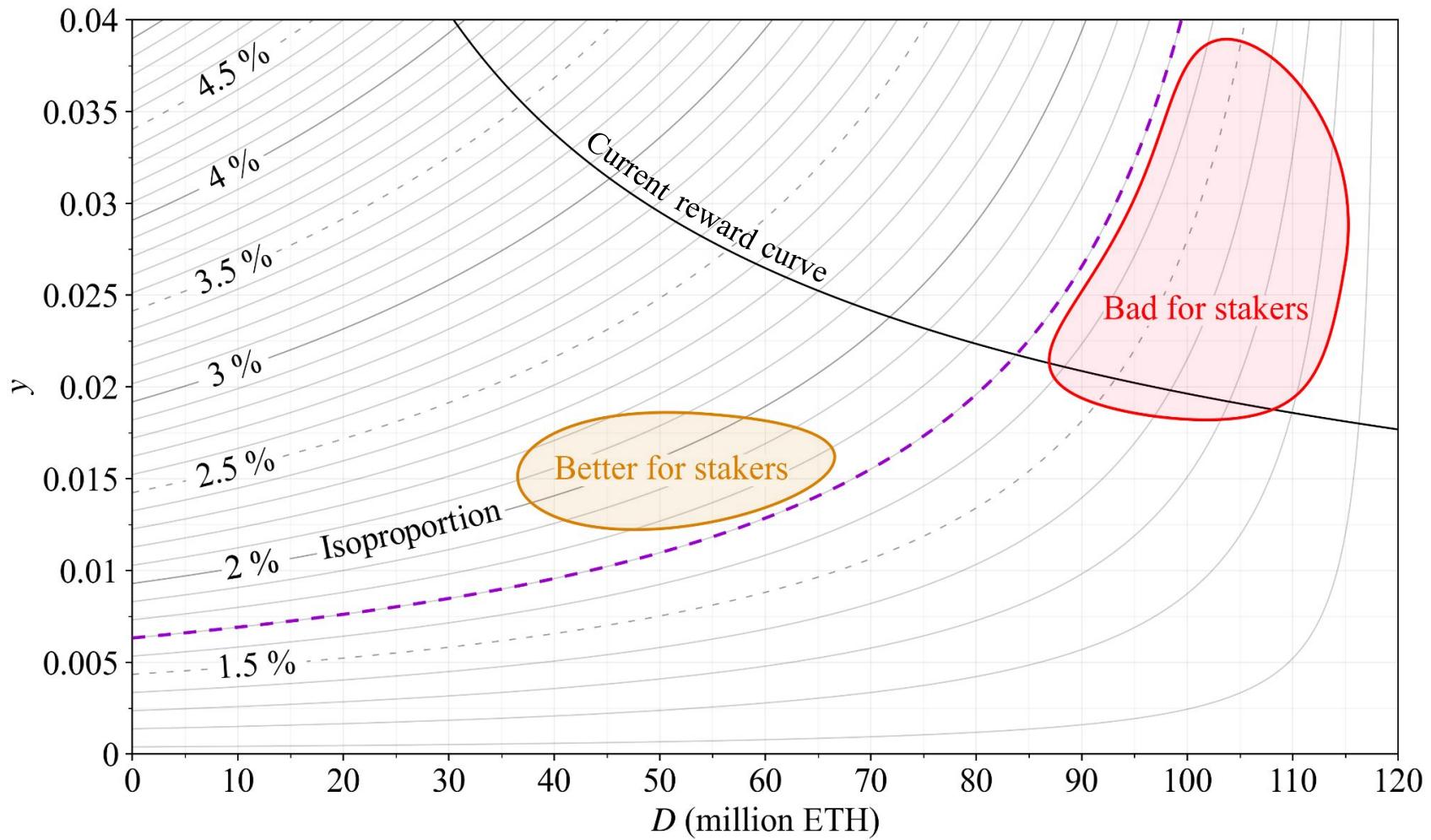


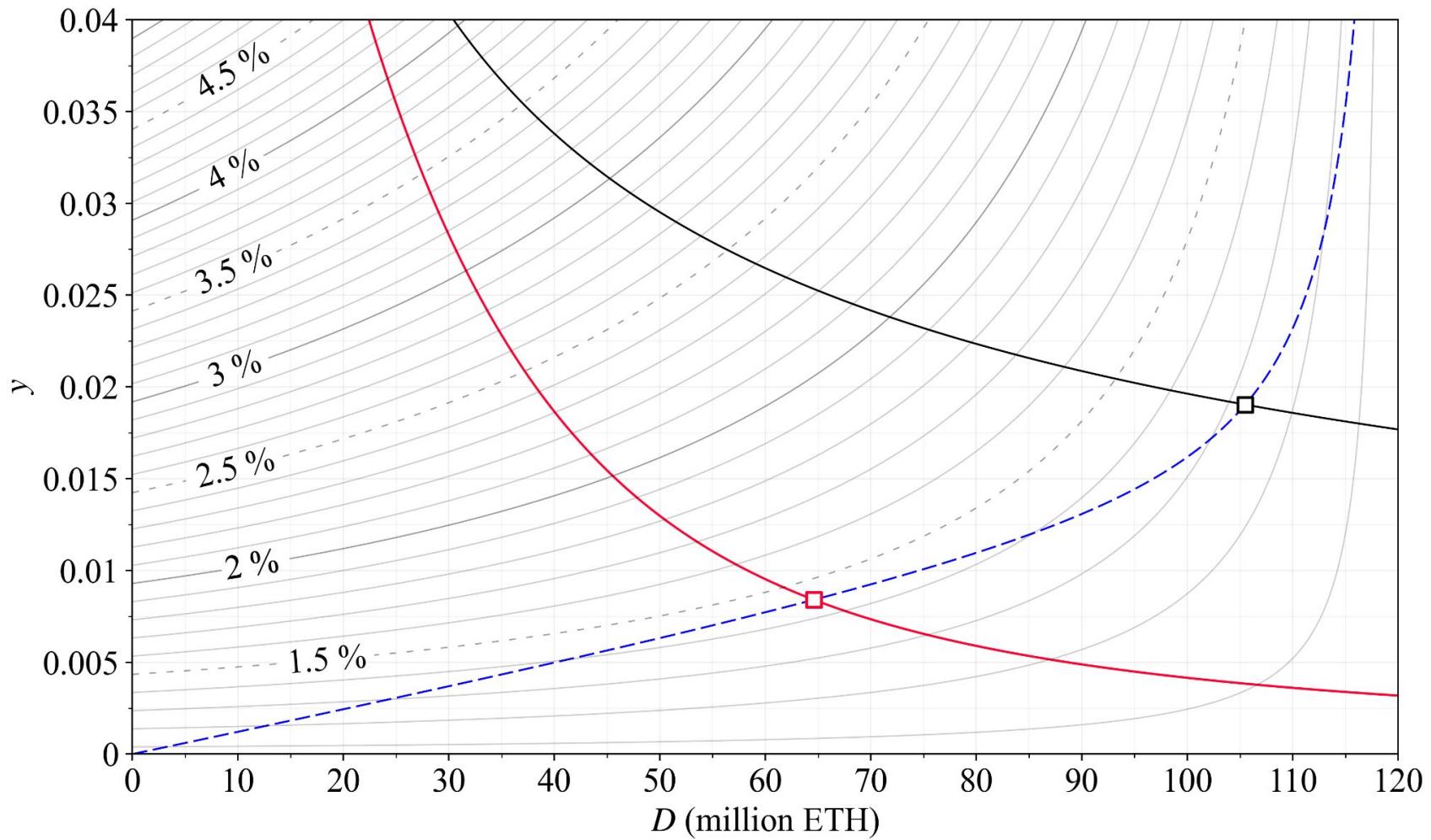


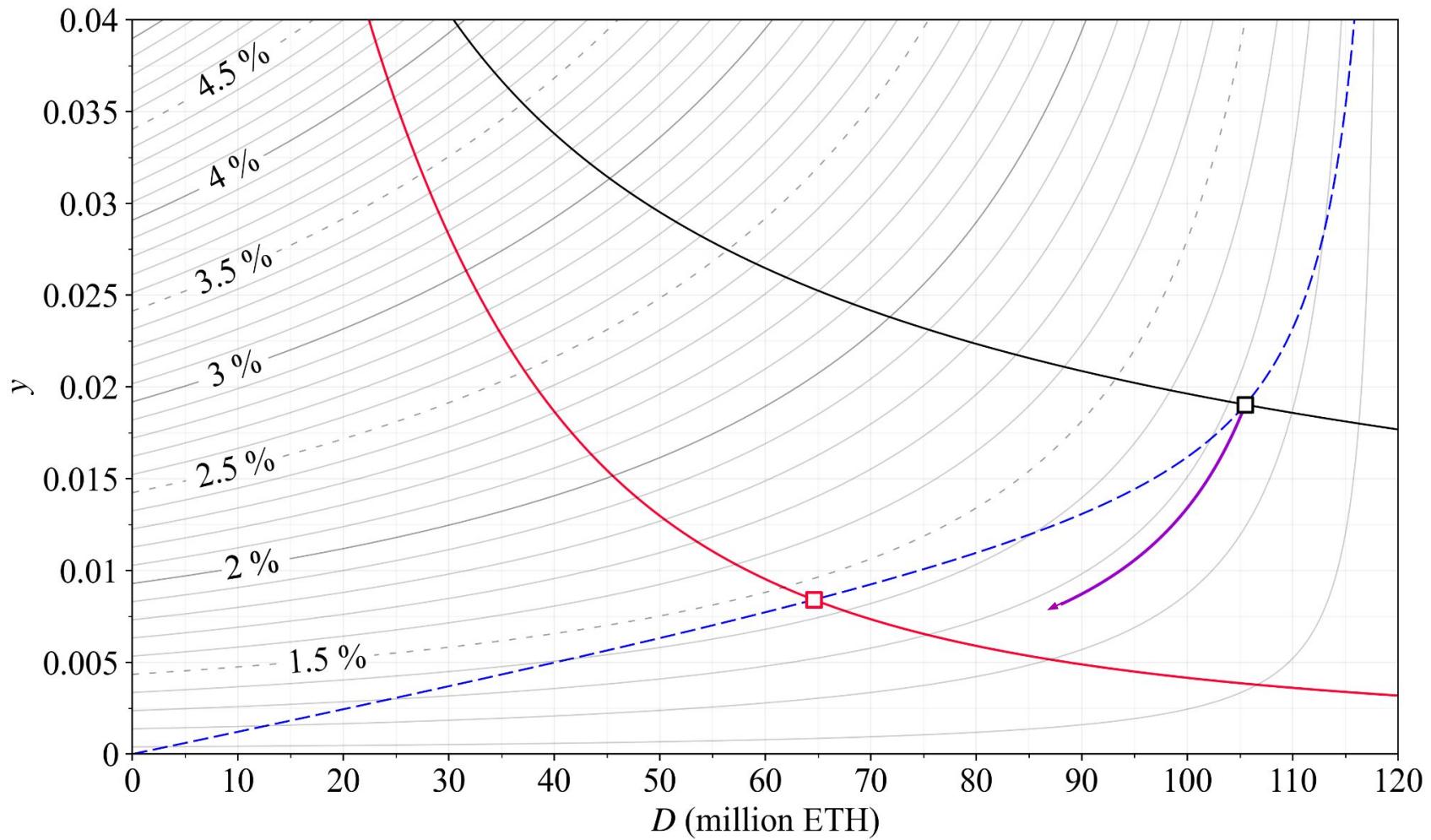


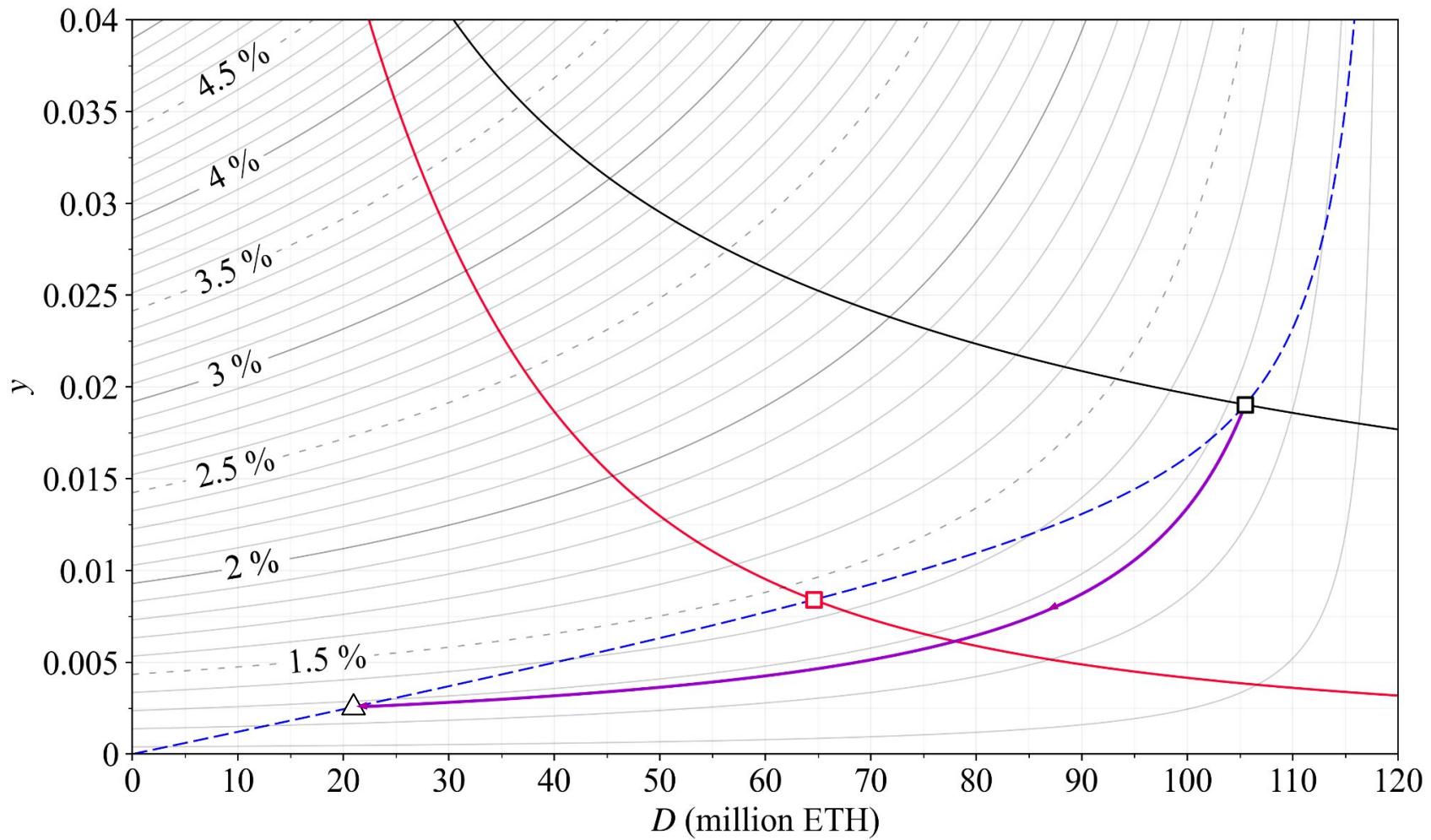


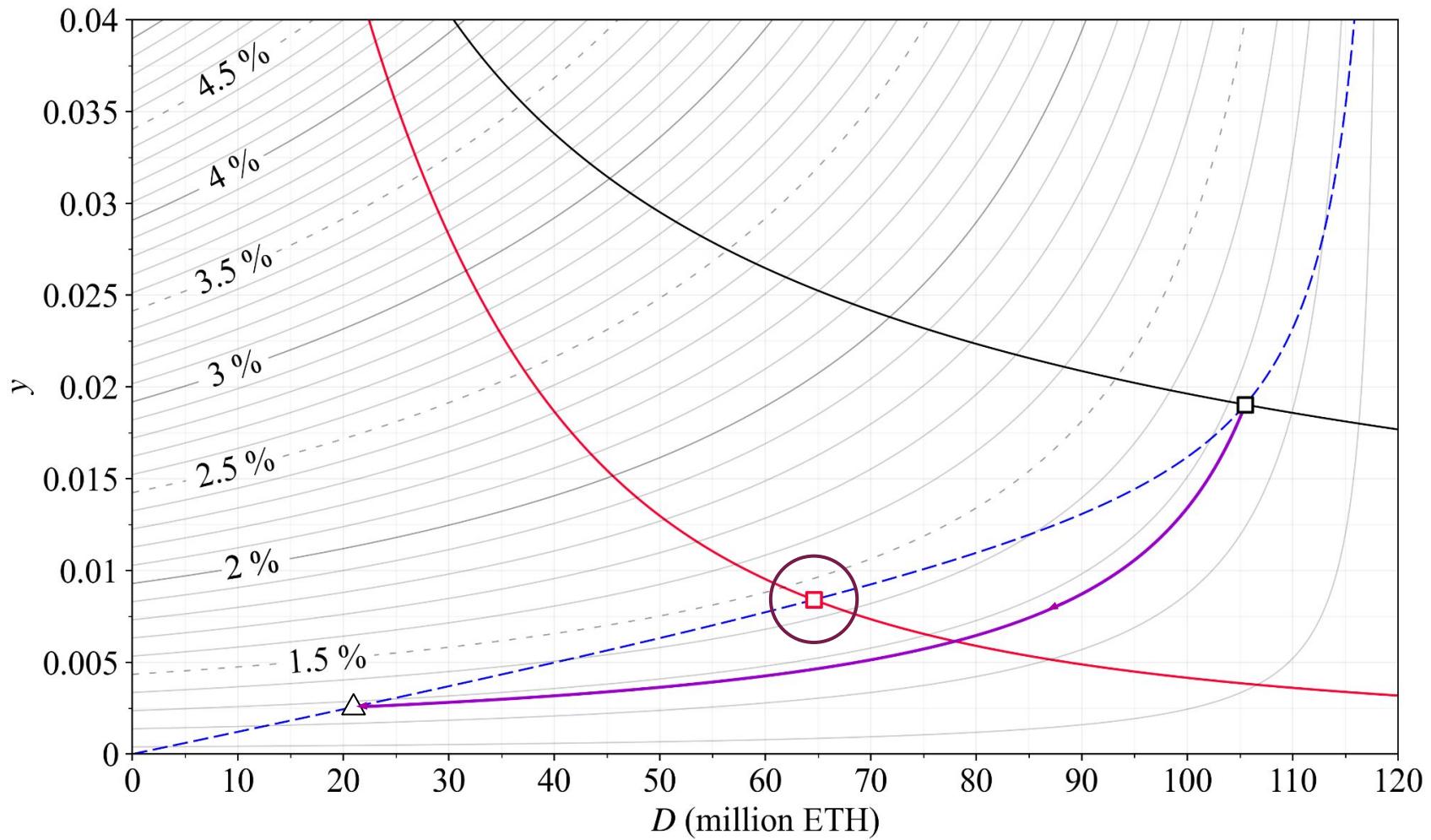










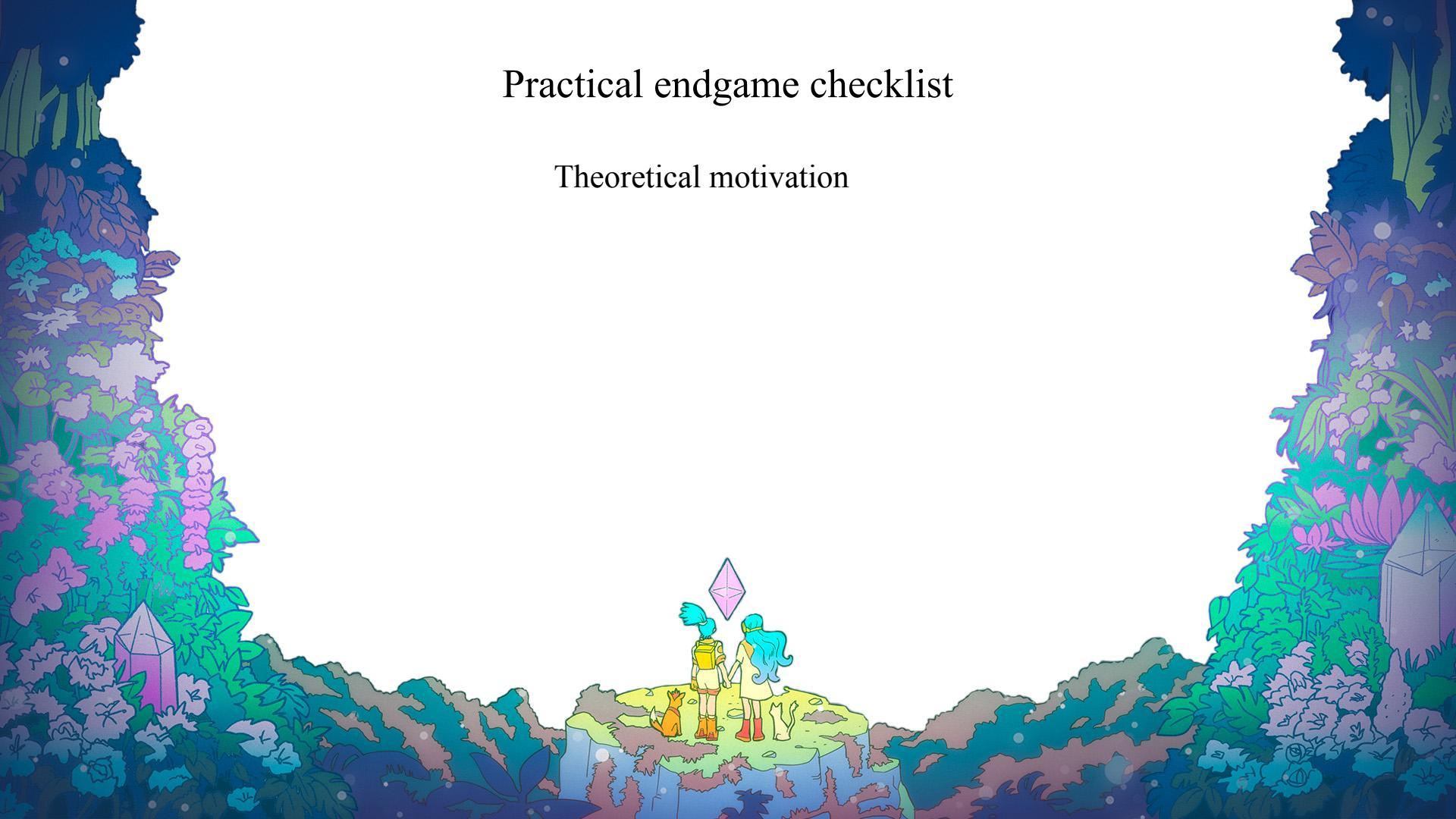


Checklist



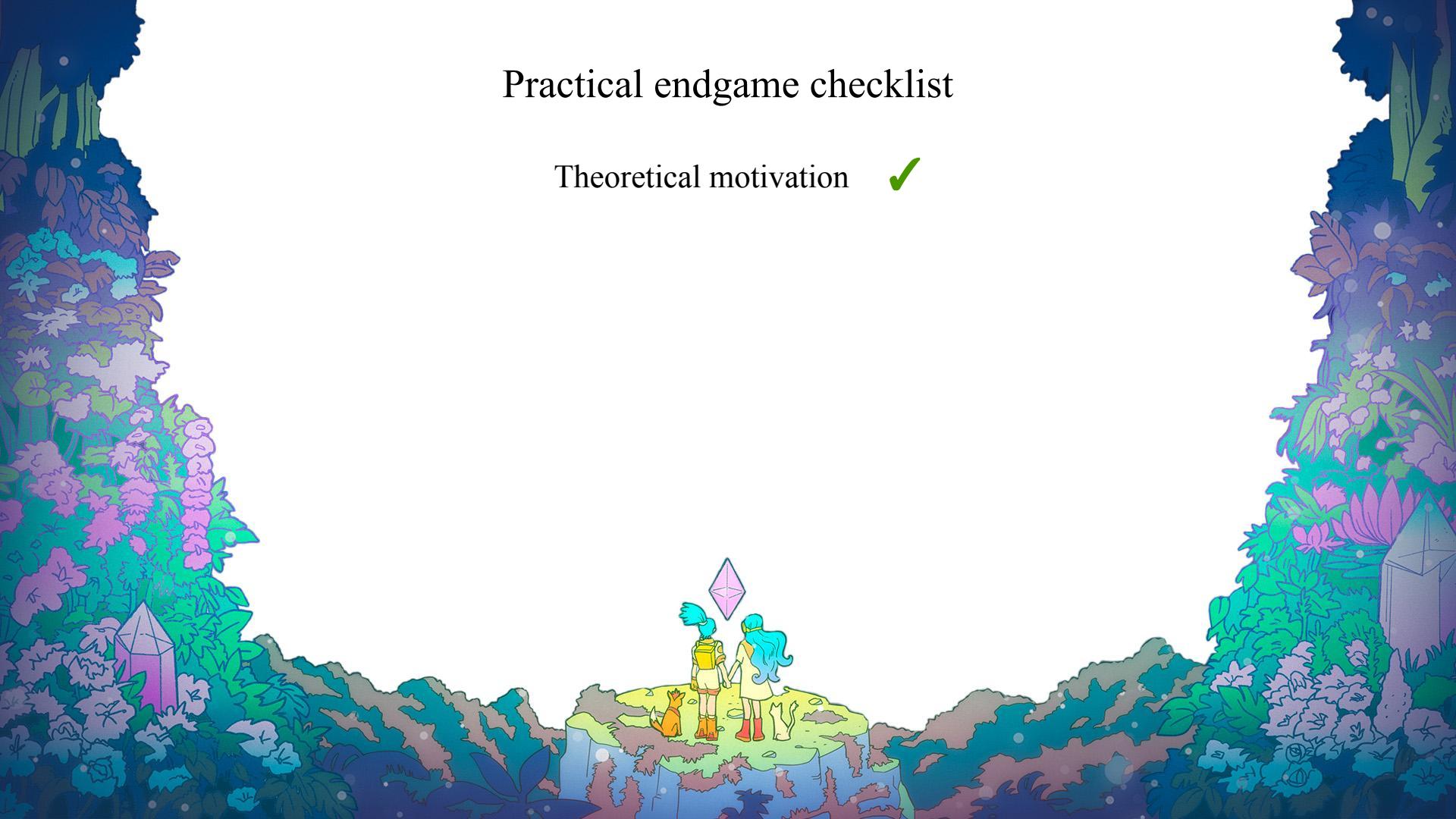
Practical endgame checklist

Theoretical motivation



Practical endgame checklist

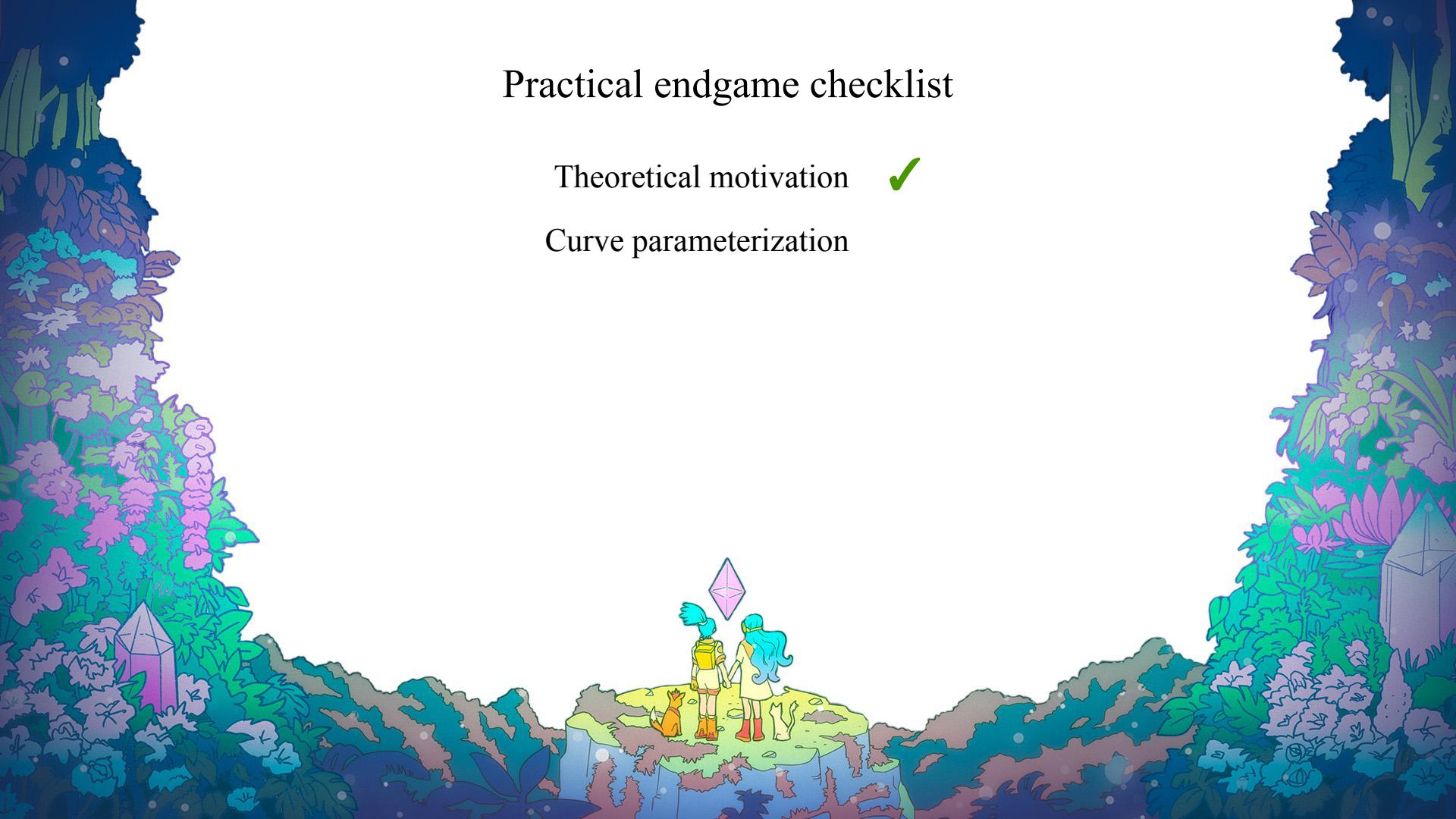
Theoretical motivation ✓



Practical endgame checklist

Theoretical motivation ✓

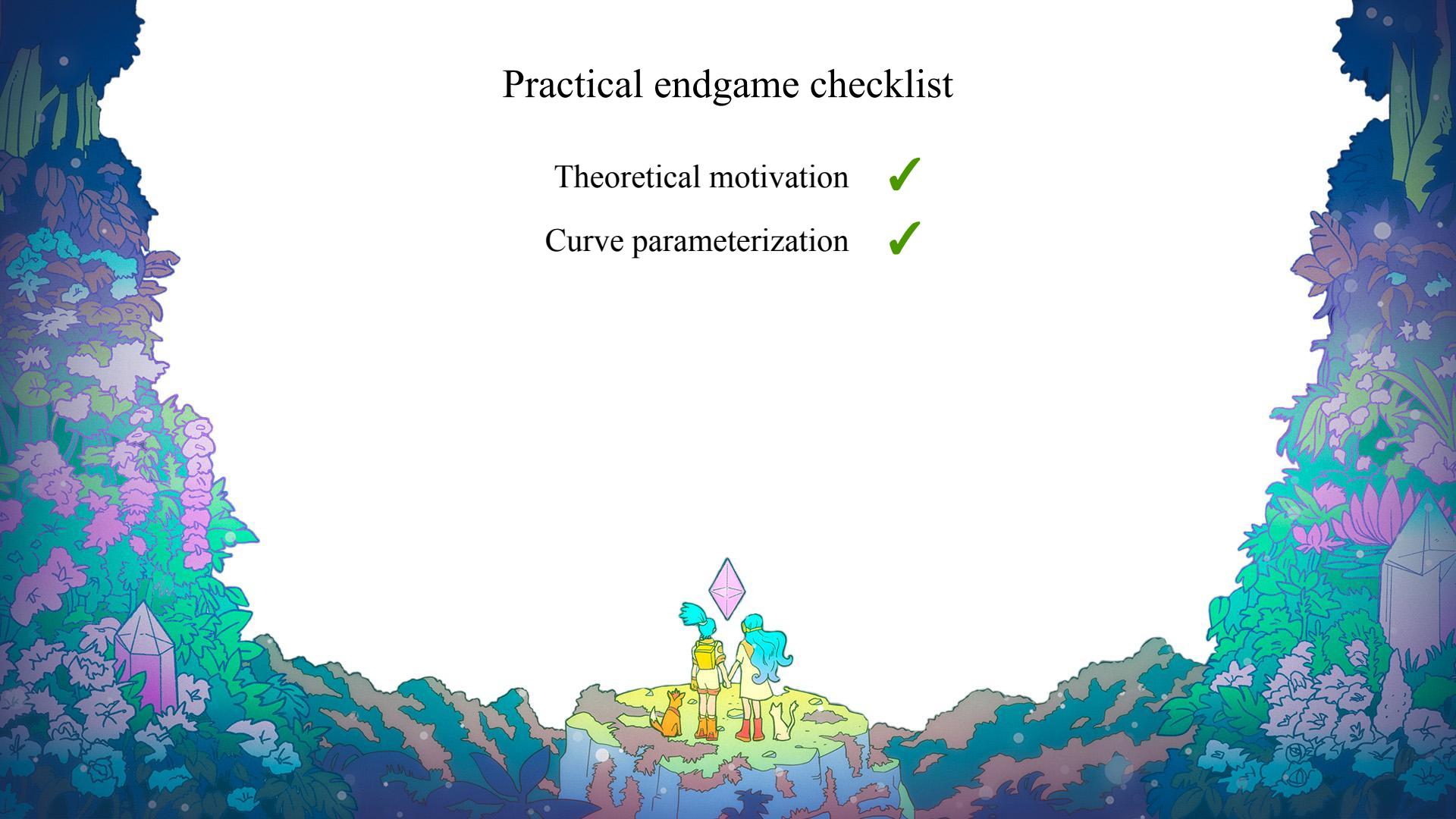
Curve parameterization



Practical endgame checklist

Theoretical motivation ✓

Curve parameterization ✓

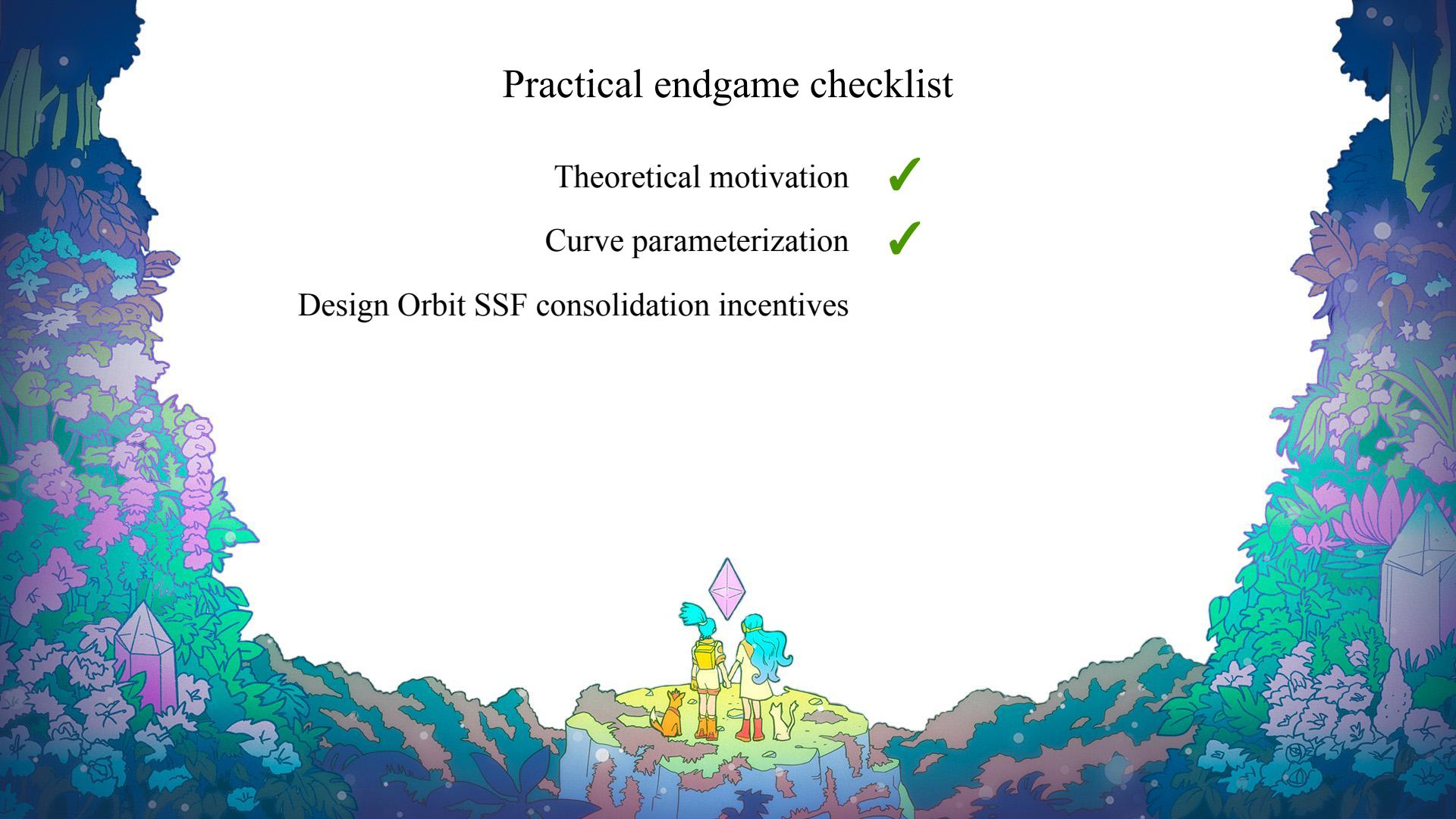


Practical endgame checklist

Theoretical motivation ✓

Curve parameterization ✓

Design Orbit SSF consolidation incentives



Practical endgame checklist

- Theoretical motivation ✓
- Curve parameterization ✓
- Design Orbit SSF consolidation incentives ✓

Practical endgame checklist

- Theoretical motivation ✓
- Curve parameterization ✓
- Design Orbit SSF consolidation incentives ✓
- Redesign Ethereum consensus incentives

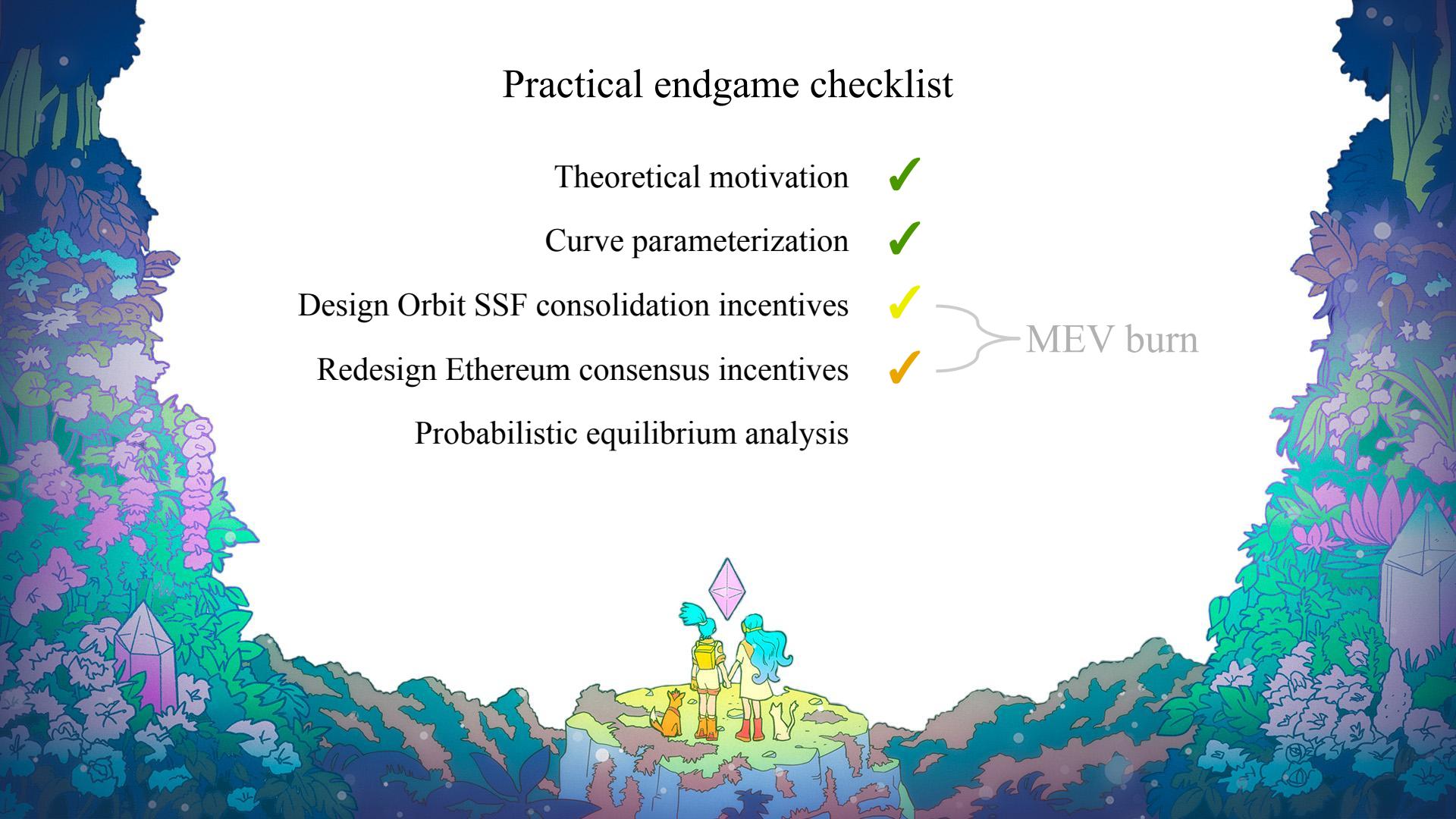
Practical endgame checklist

- Theoretical motivation ✓
- Curve parameterization ✓
- Design Orbit SSF consolidation incentives ✓
- Redesign Ethereum consensus incentives ✓

Practical endgame checklist

- Theoretical motivation ✓
 - Curve parameterization ✓
 - Design Orbit SSF consolidation incentives ✓
 - Redesign Ethereum consensus incentives ✓
- MEV burn

Practical endgame checklist

- Theoretical motivation ✓
 - Curve parameterization ✓
 - Design Orbit SSF consolidation incentives ✓
 - Redesign Ethereum consensus incentives ✓
 - Probabilistic equilibrium analysis
- 

Practical endgame checklist

- Theoretical motivation ✓
 - Curve parameterization ✓
 - Design Orbit SSF consolidation incentives ✓
 - Redesign Ethereum consensus incentives ✓
 - Probabilistic equilibrium analysis ✓
- MEV burn

Practical endgame checklist

- Theoretical motivation ✓
 - Curve parameterization ✓
 - Design Orbit SSF consolidation incentives ✓
 - Redesign Ethereum consensus incentives ✓
 - Probabilistic equilibrium analysis ✓
 - Build community support
- MEV burn



Practical endgame checklist

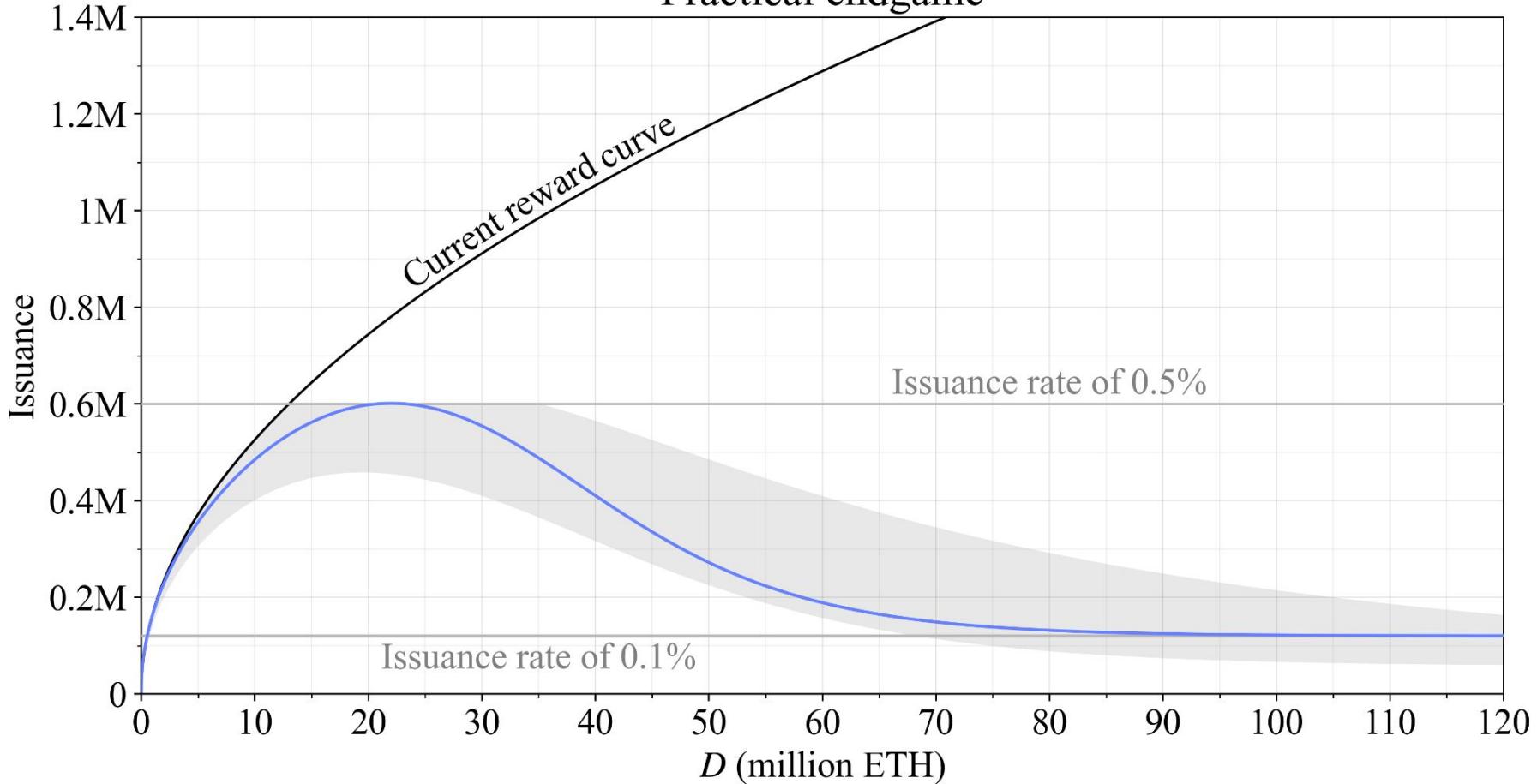
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 - Curve parameterization ✓
 - Design Orbit SSF consolidation incentives ✓
 - Redesign Ethereum consensus incentives ✓
 - Probabilistic equilibrium analysis ✓
 - Build community support ✓
- MEV burn







Practical endgame



Practical endgame

