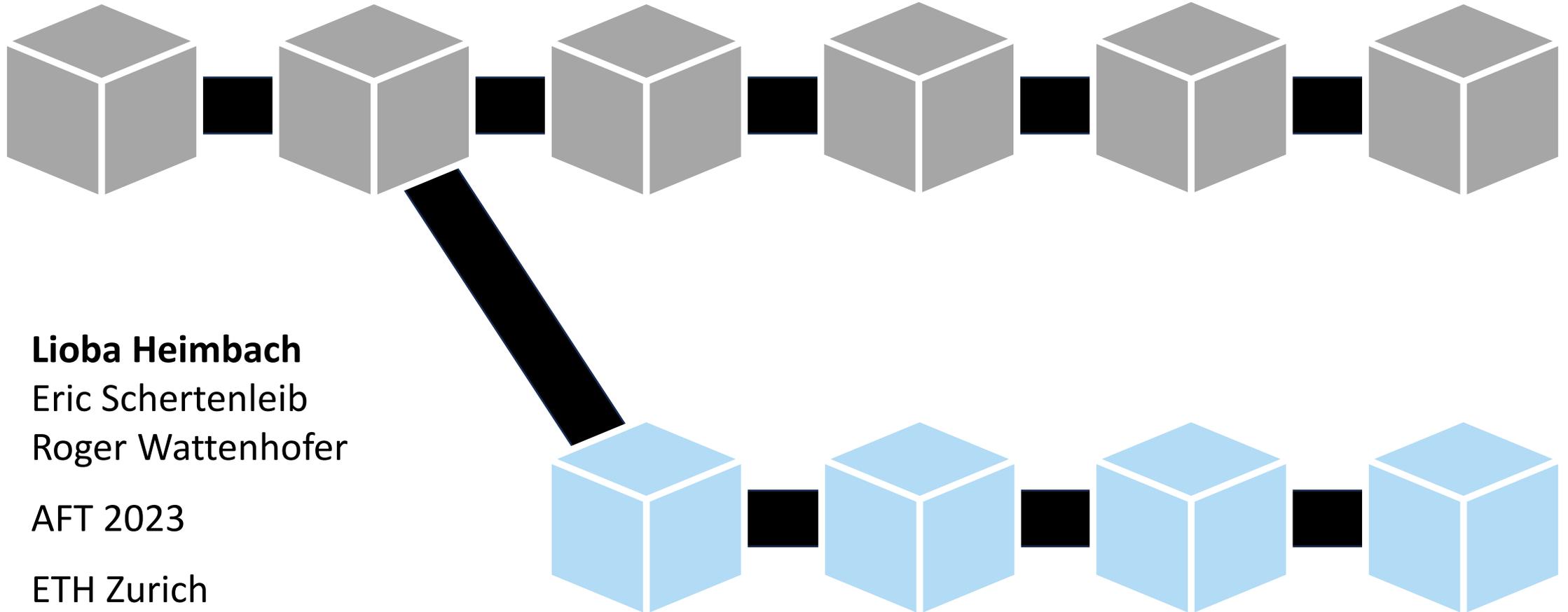


# DeFi Lending During The Merge



**Lioba Heimbach**  
Eric Schertenleib  
Roger Wattenhofer  
AFT 2023  
ETH Zurich

# Traditional and DeFi lending

traditional  
lending

DeFi  
lending

# Traditional and DeFi lending

traditional  
lending



DeFi  
lending

# Traditional and DeFi lending

traditional  
lending



DeFi  
lending

# Traditional and DeFi lending

traditional  
lending



DeFi  
lending

# Traditional and DeFi lending

traditional  
lending



DeFi  
lending

# Traditional and DeFi lending

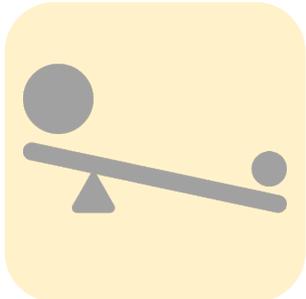
traditional  
lending



DeFi  
lending

# Traditional and DeFi lending

traditional  
lending



DeFi  
lending

# Traditional and DeFi lending

traditional  
lending

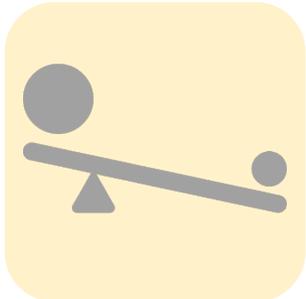


DeFi  
lending



# Traditional and DeFi lending

traditional  
lending

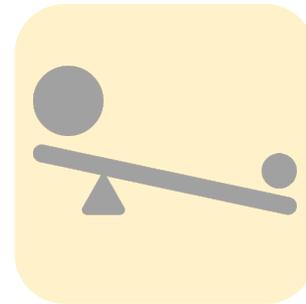


DeFi  
lending



# Traditional and DeFi lending

traditional  
lending

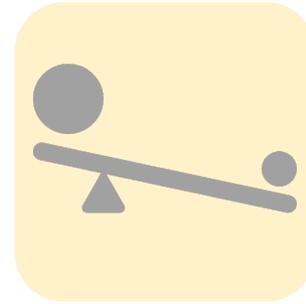


DeFi  
lending



# Traditional and DeFi lending

traditional  
lending

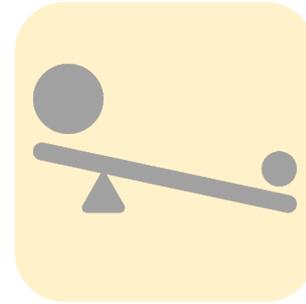


DeFi  
lending



# Traditional and DeFi lending

traditional  
lending

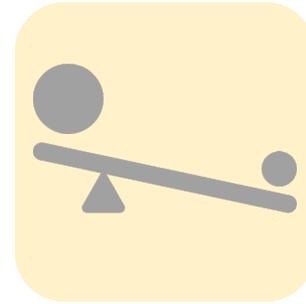


DeFi  
lending



# Traditional and DeFi lending

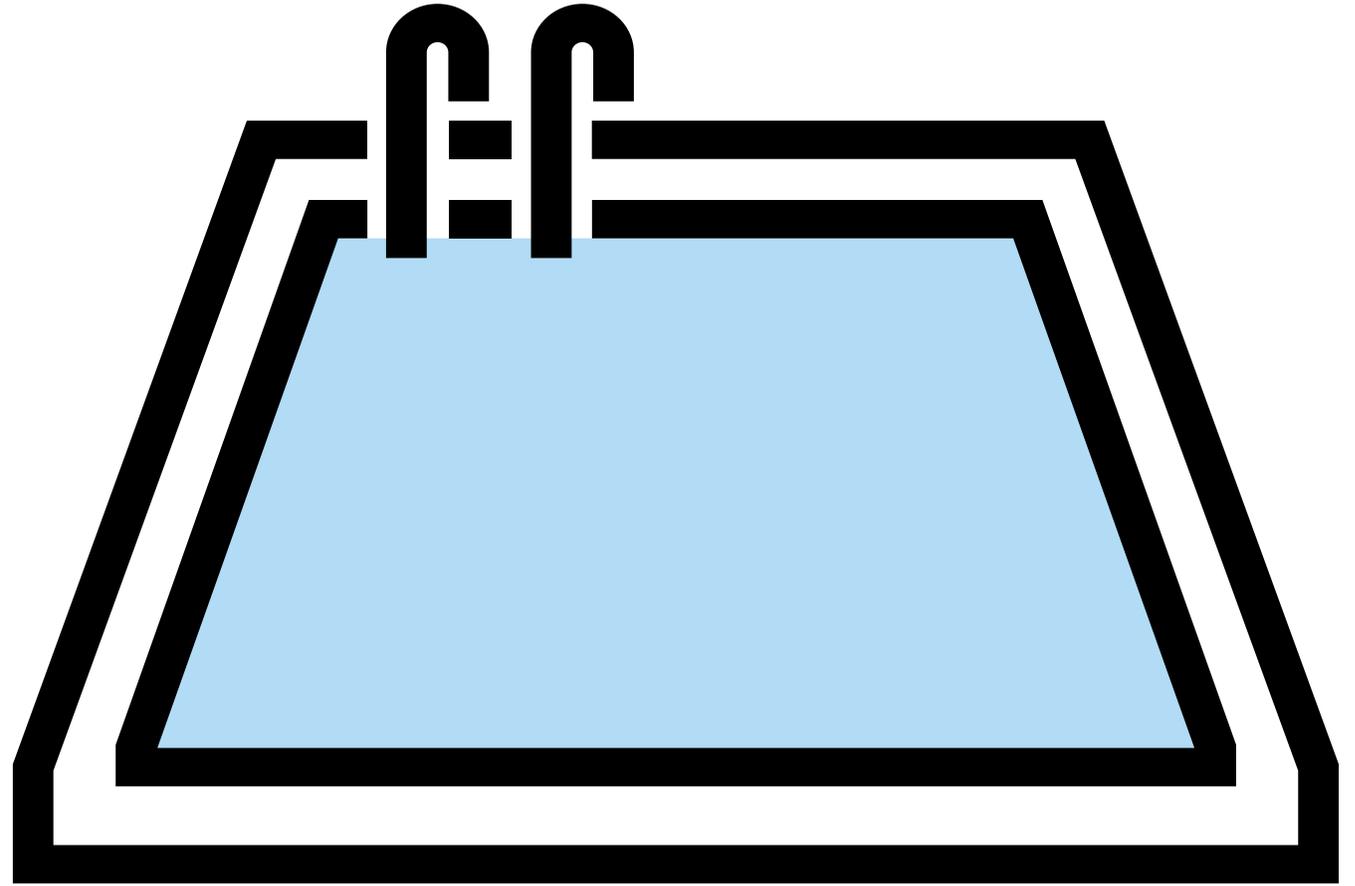
traditional  
lending



DeFi  
lending

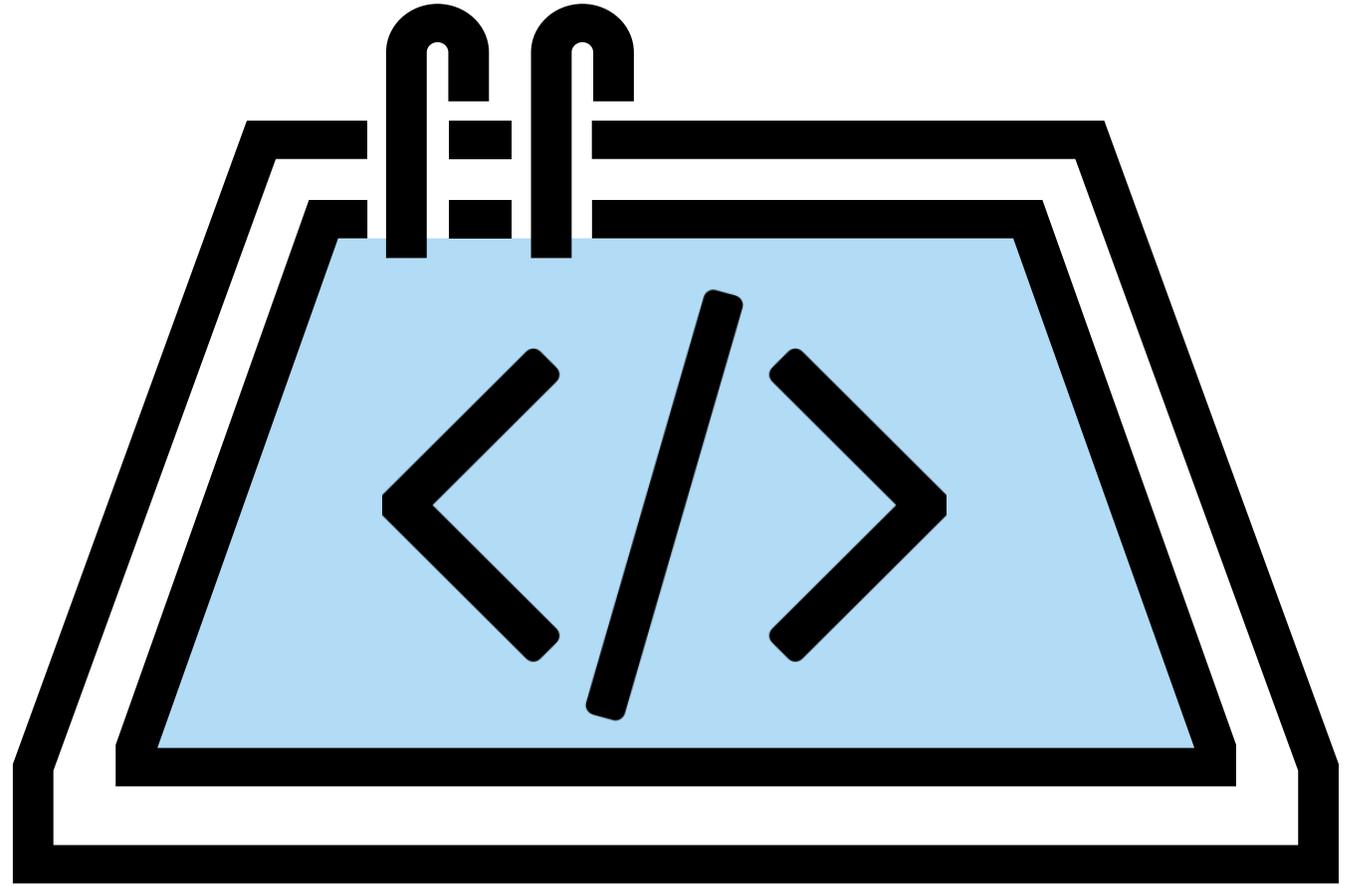


# DeFi lending



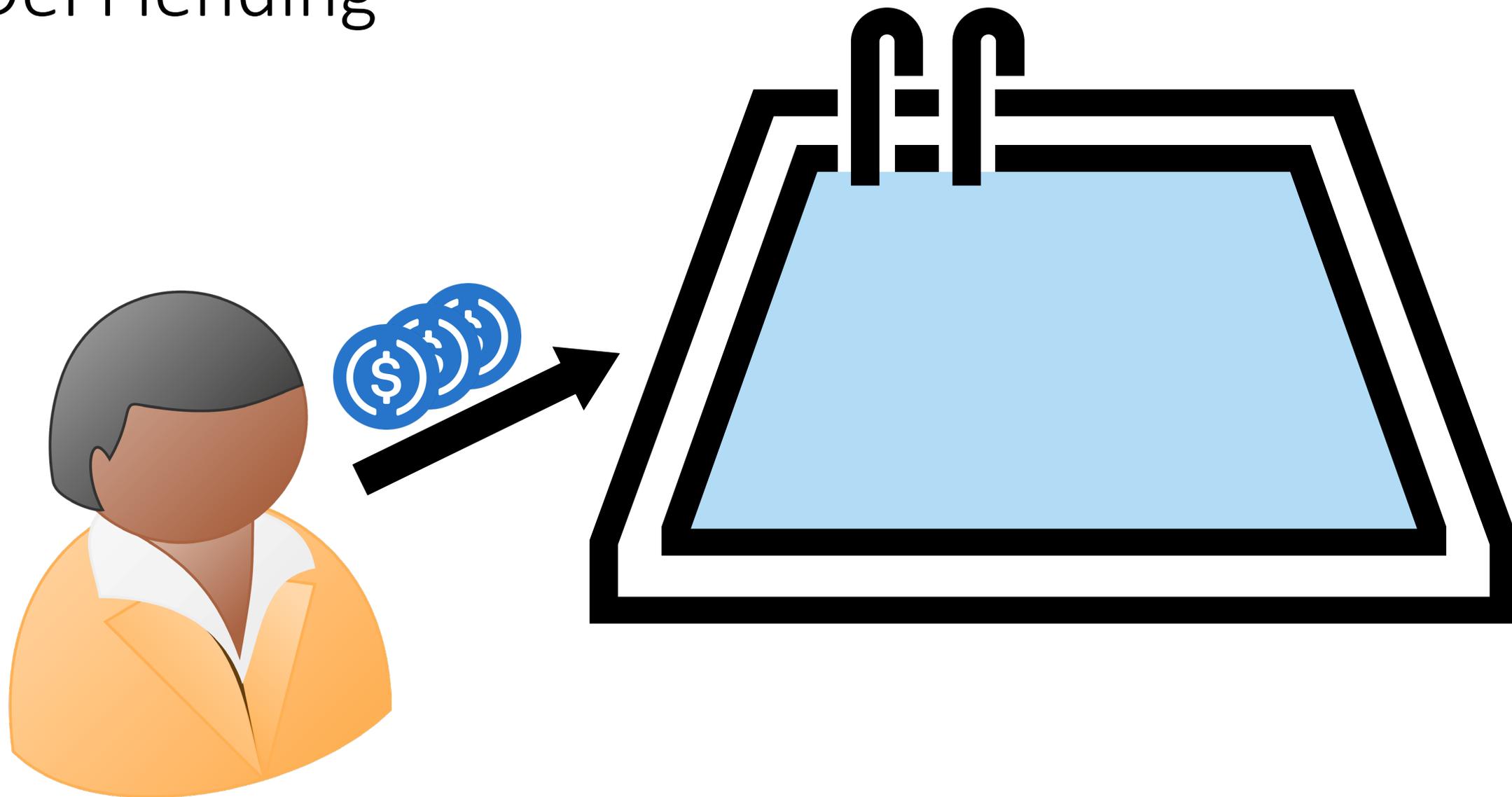
lending pool

# DeFi lending

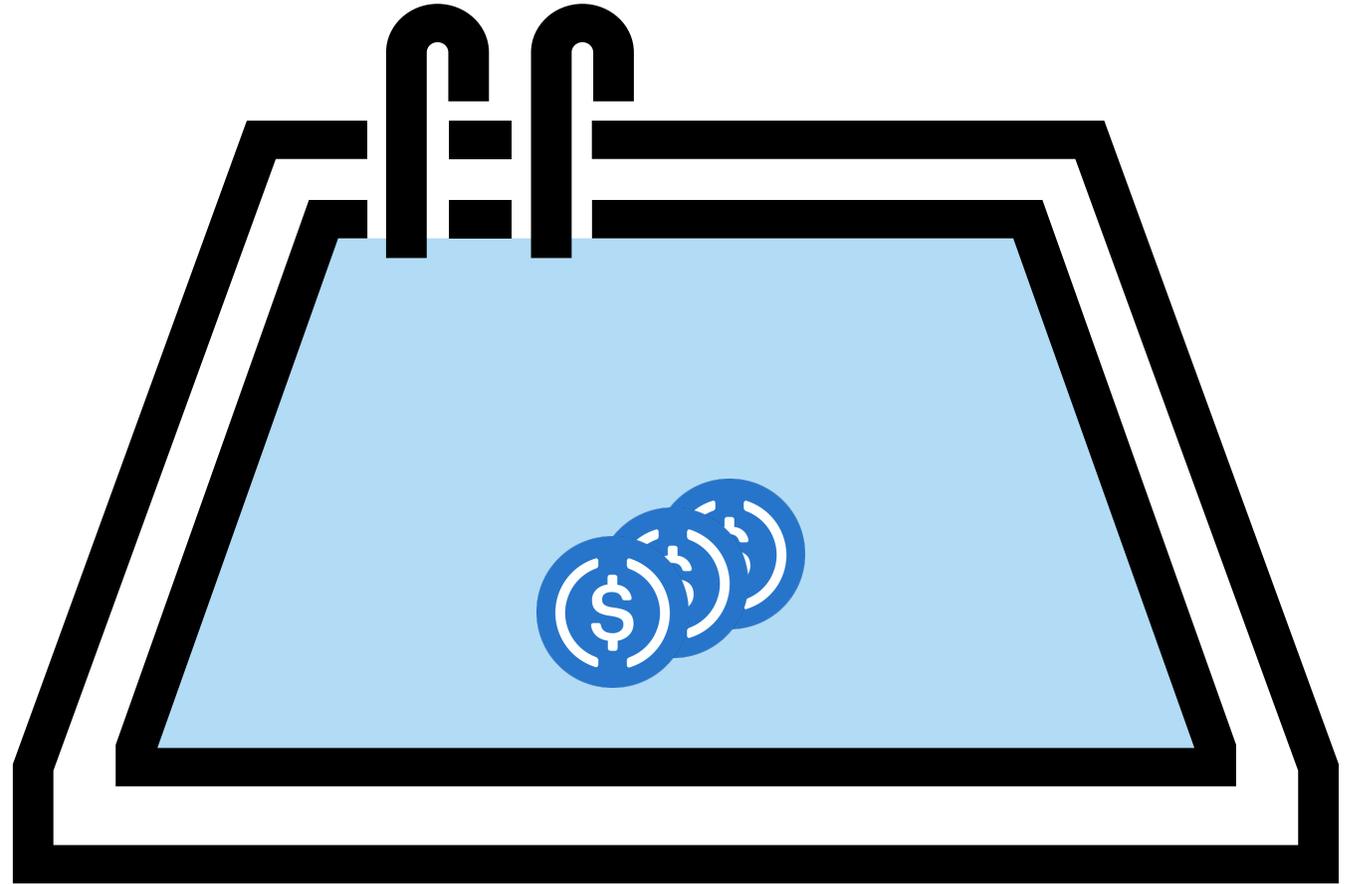


lending pool

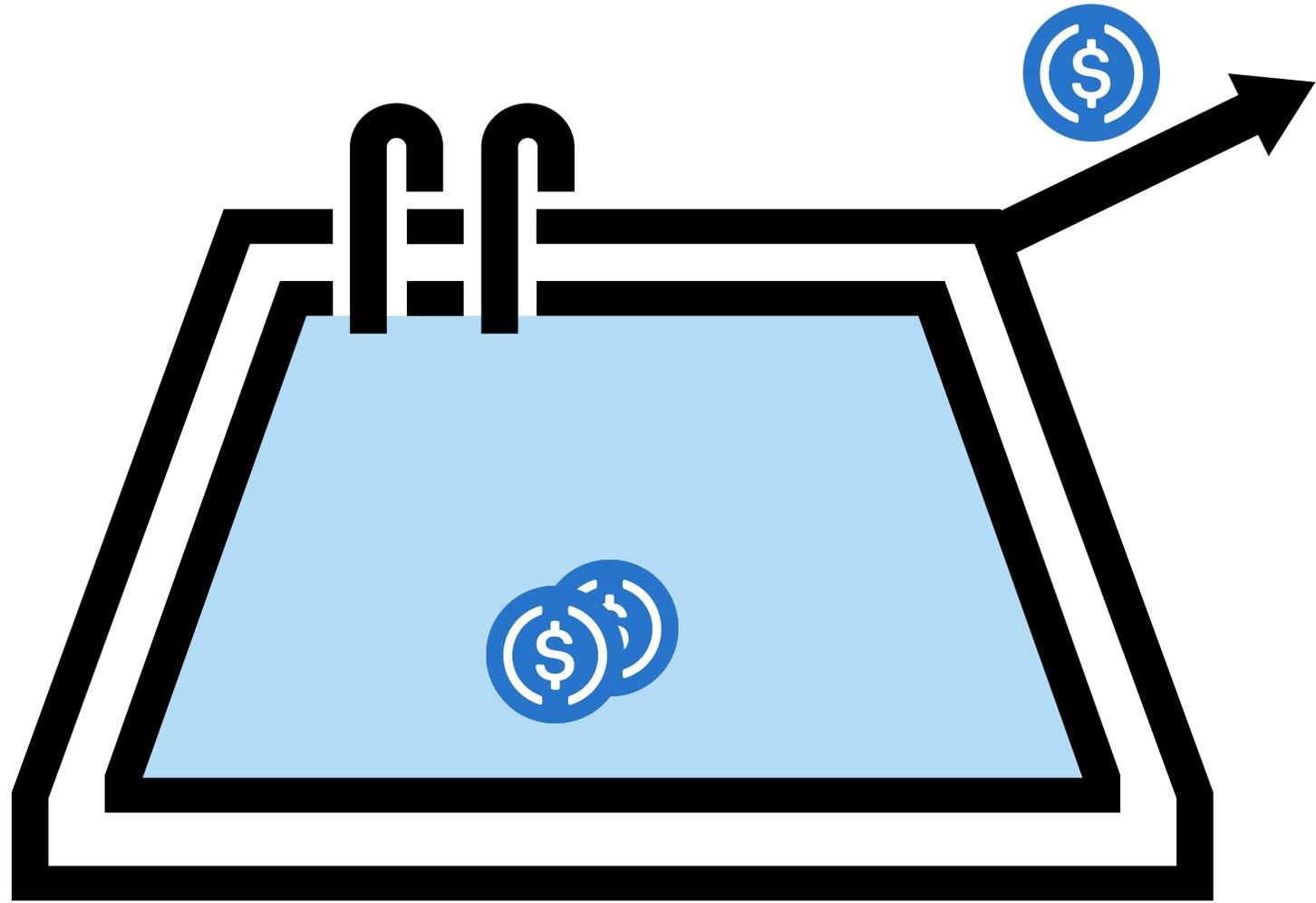
# DeFi lending



# DeFi lending

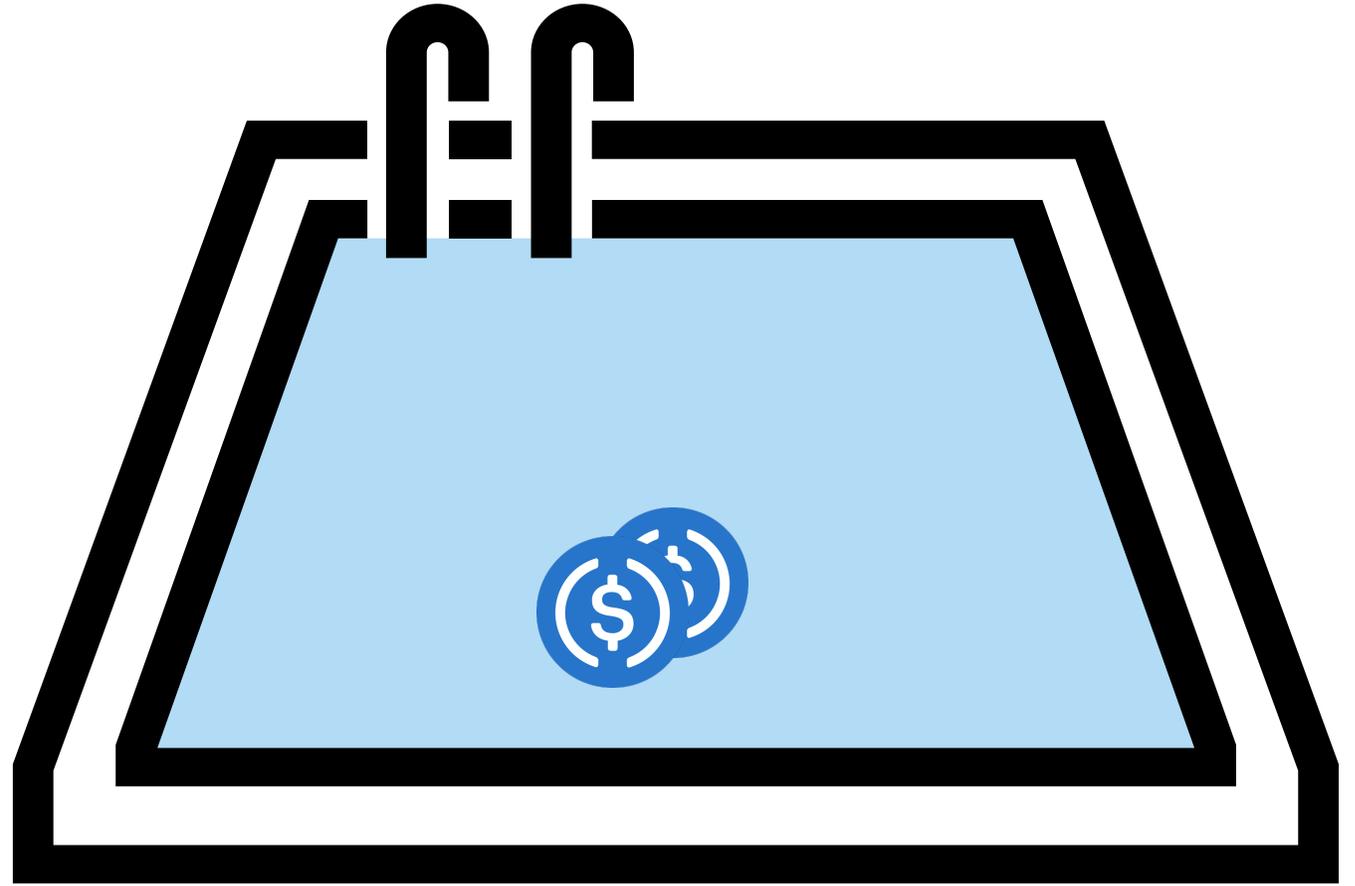


# DeFi lending

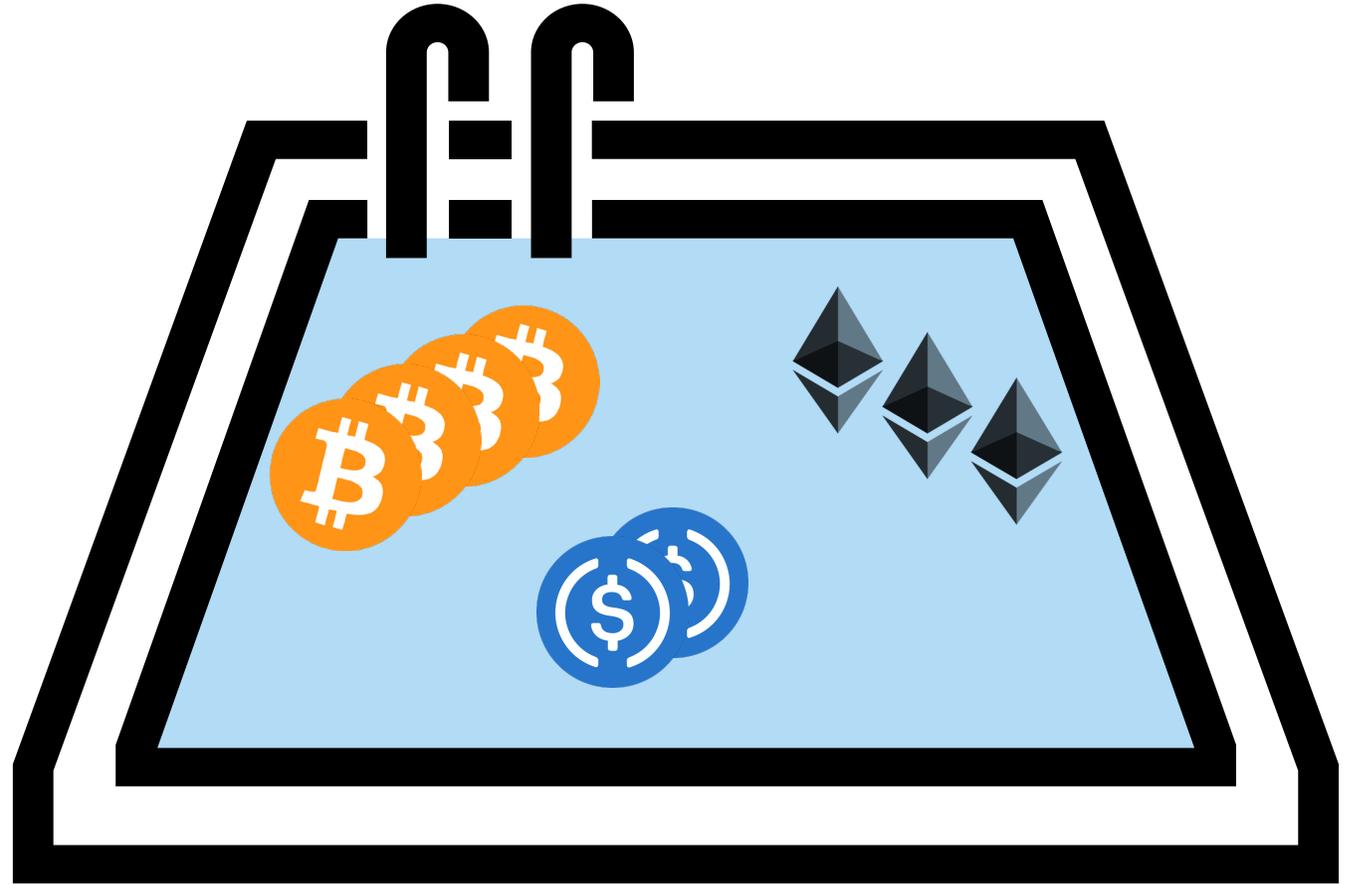


earns interest as liquidity provider

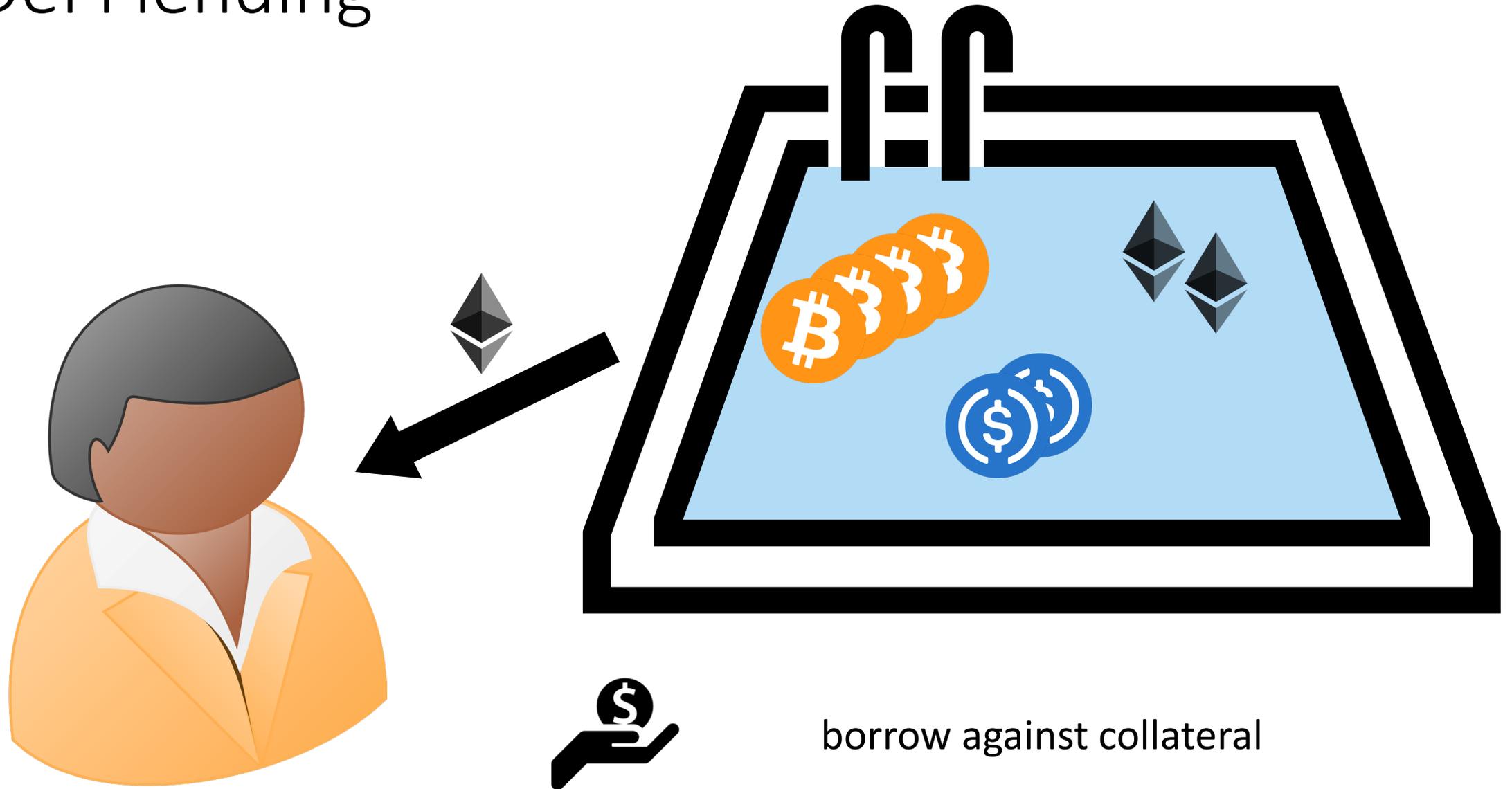
# DeFi lending



# DeFi lending



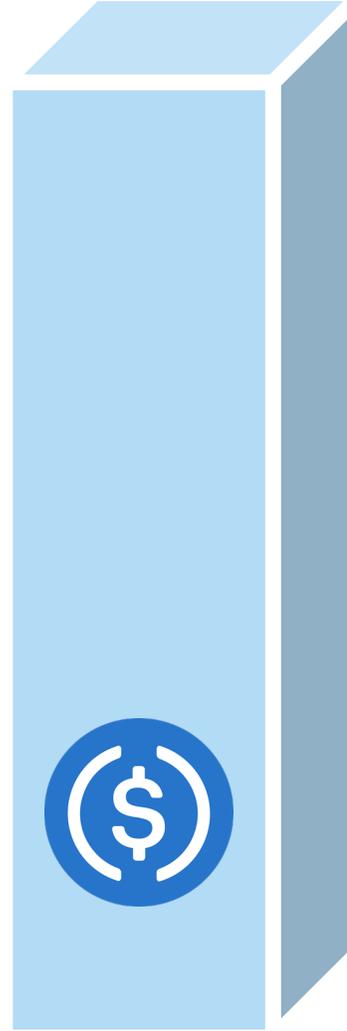
# DeFi lending



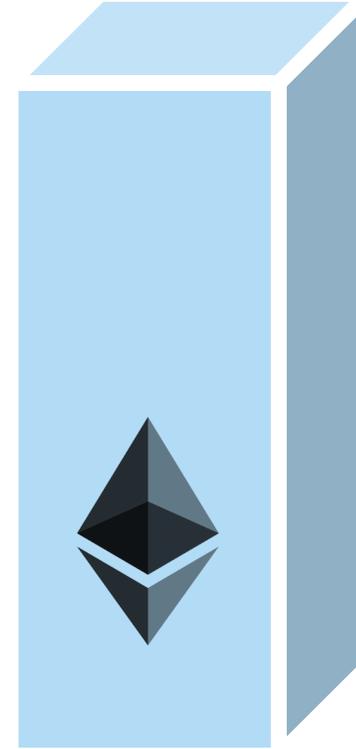
# DeFi lending



collateral



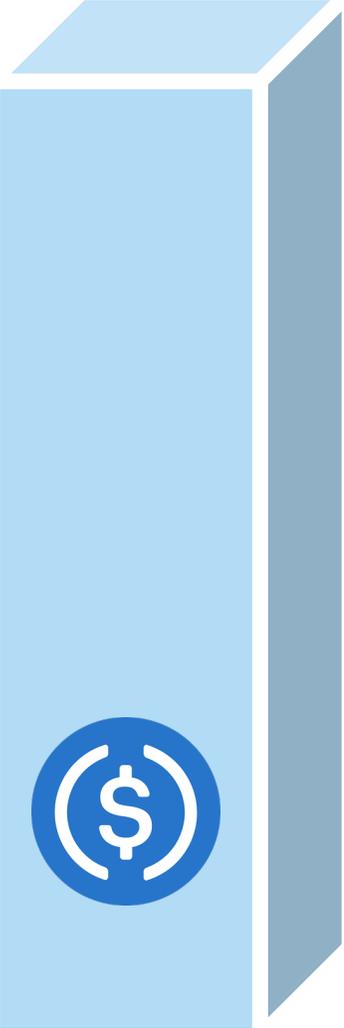
debt



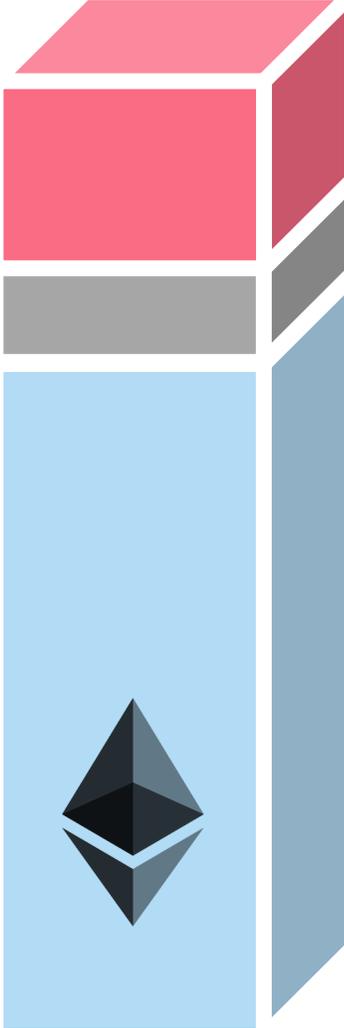
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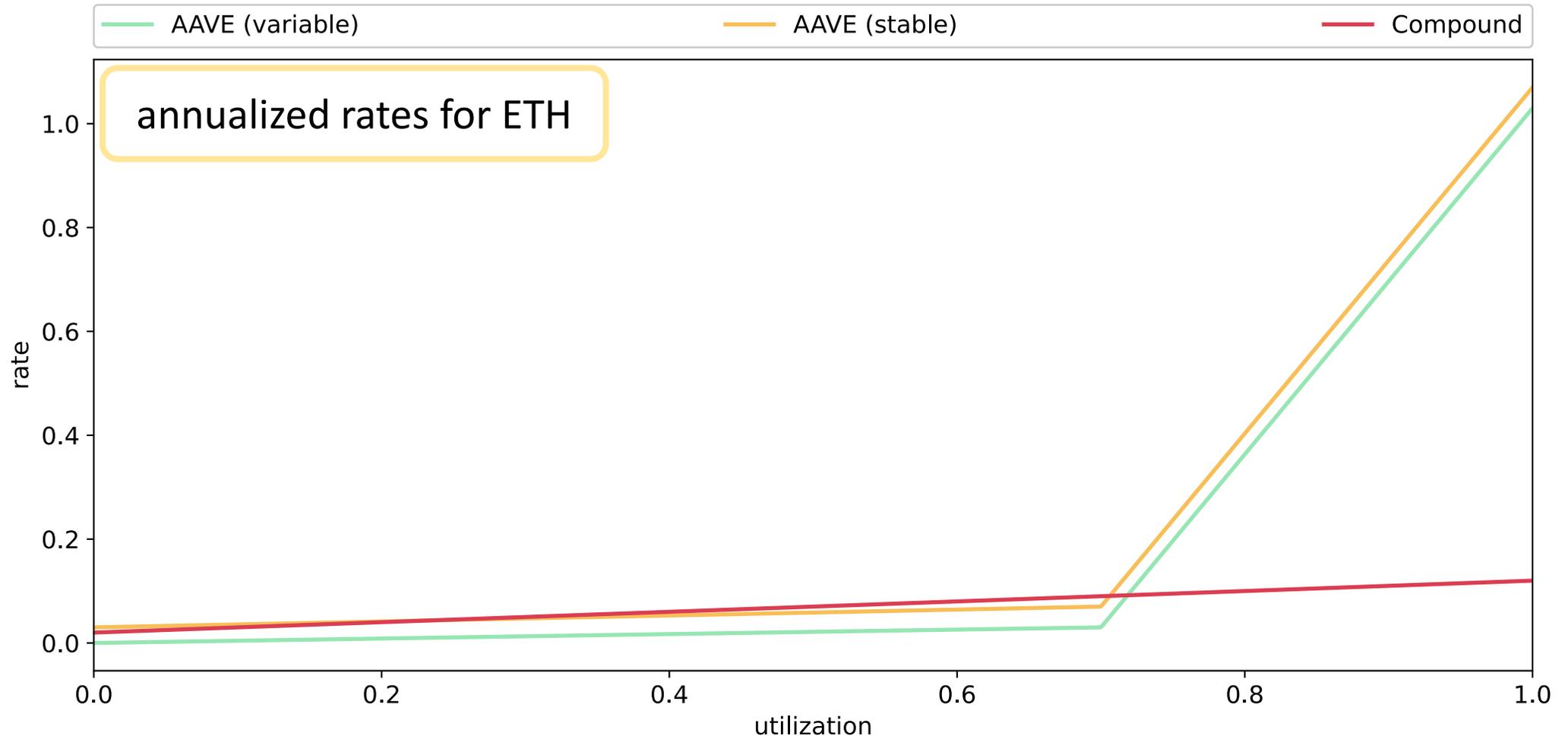
collateral



debt



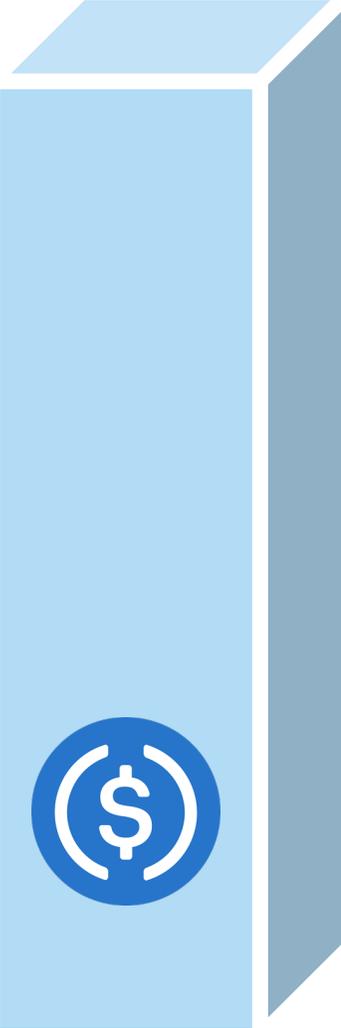
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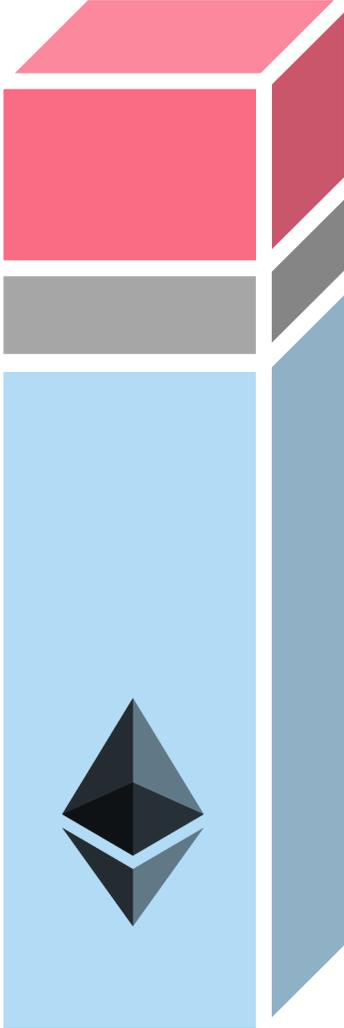
# DeFi lending



collateral



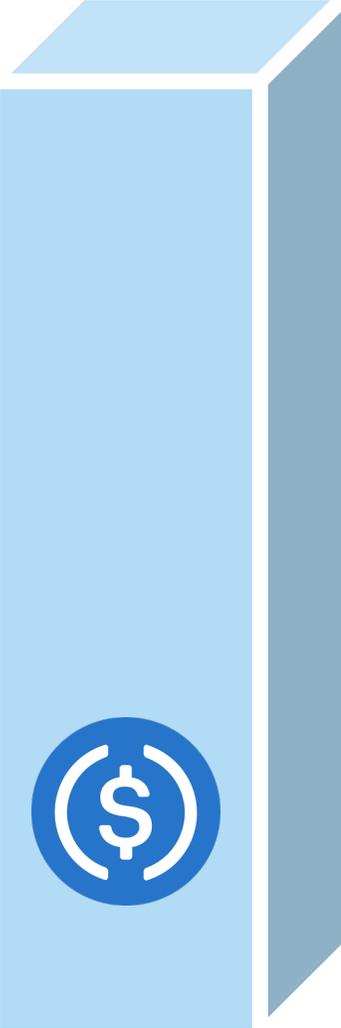
debt



# DeFi lending



collateral



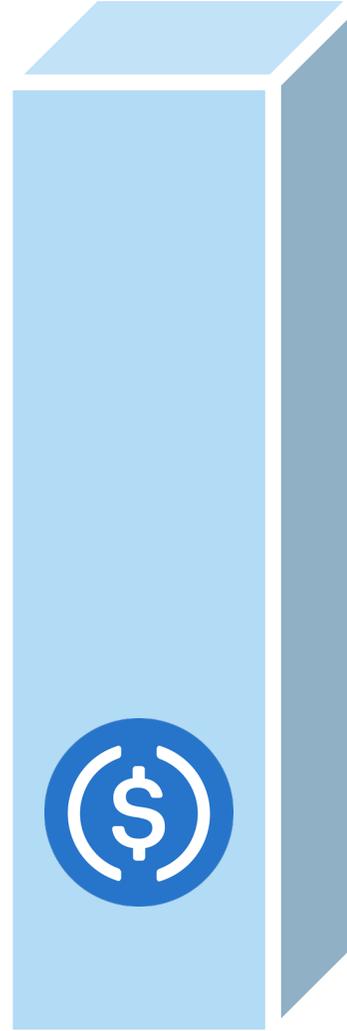
debt



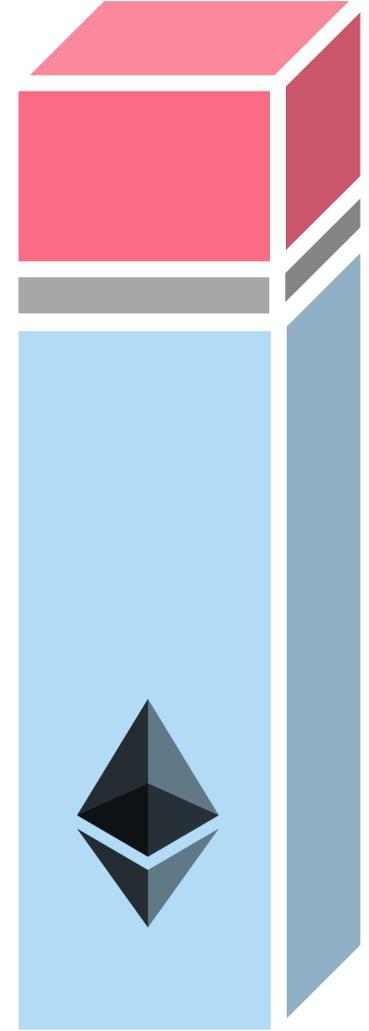
# DeFi lending



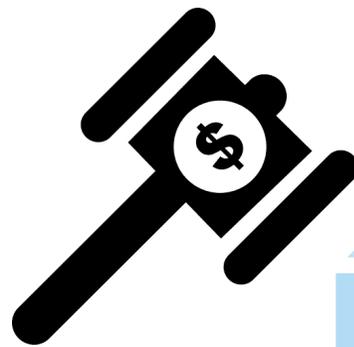
collateral



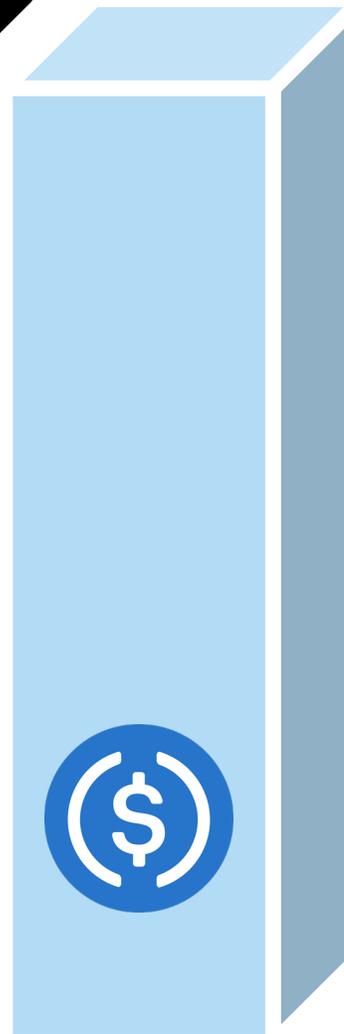
debt



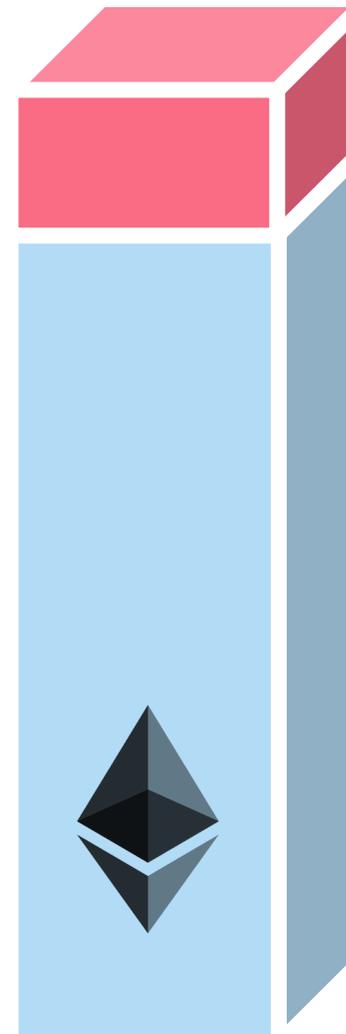
# DeFi lending



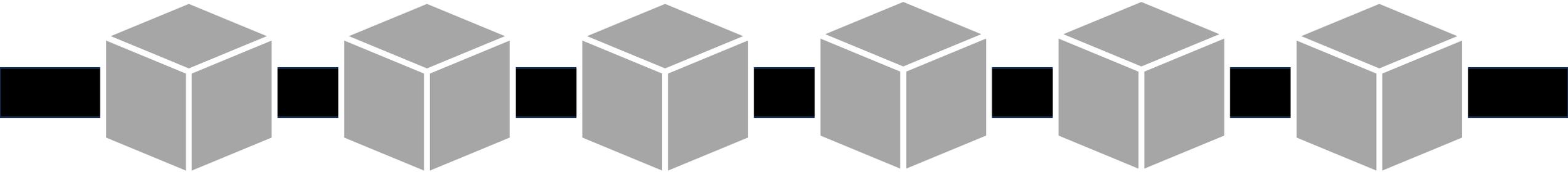
collateral



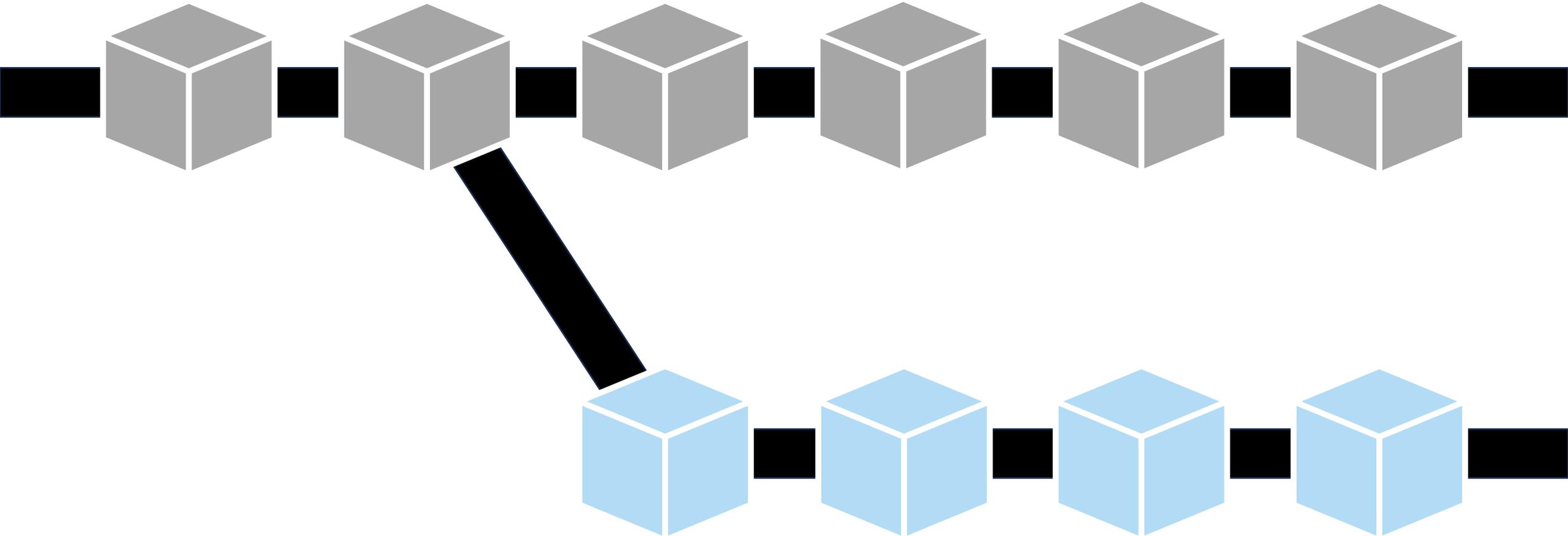
debt



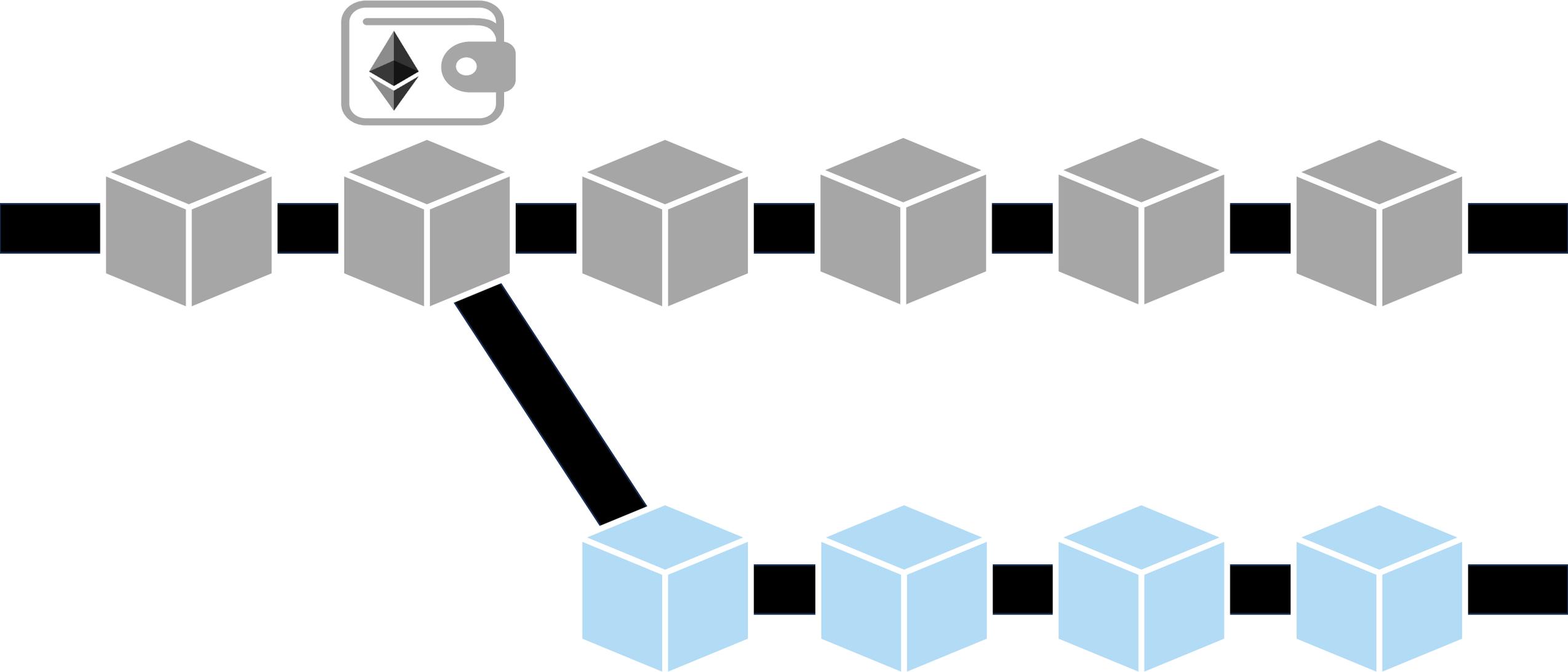
# The Merge



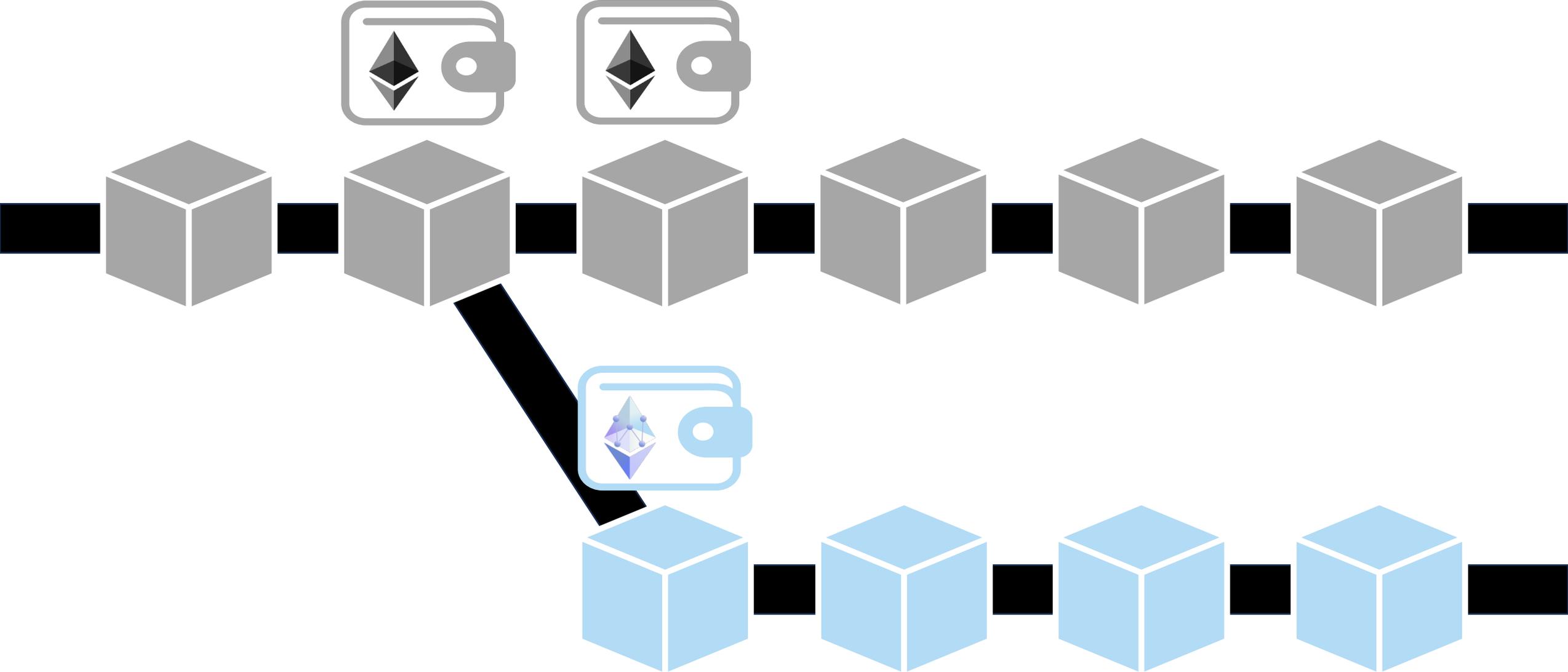
# The Merge



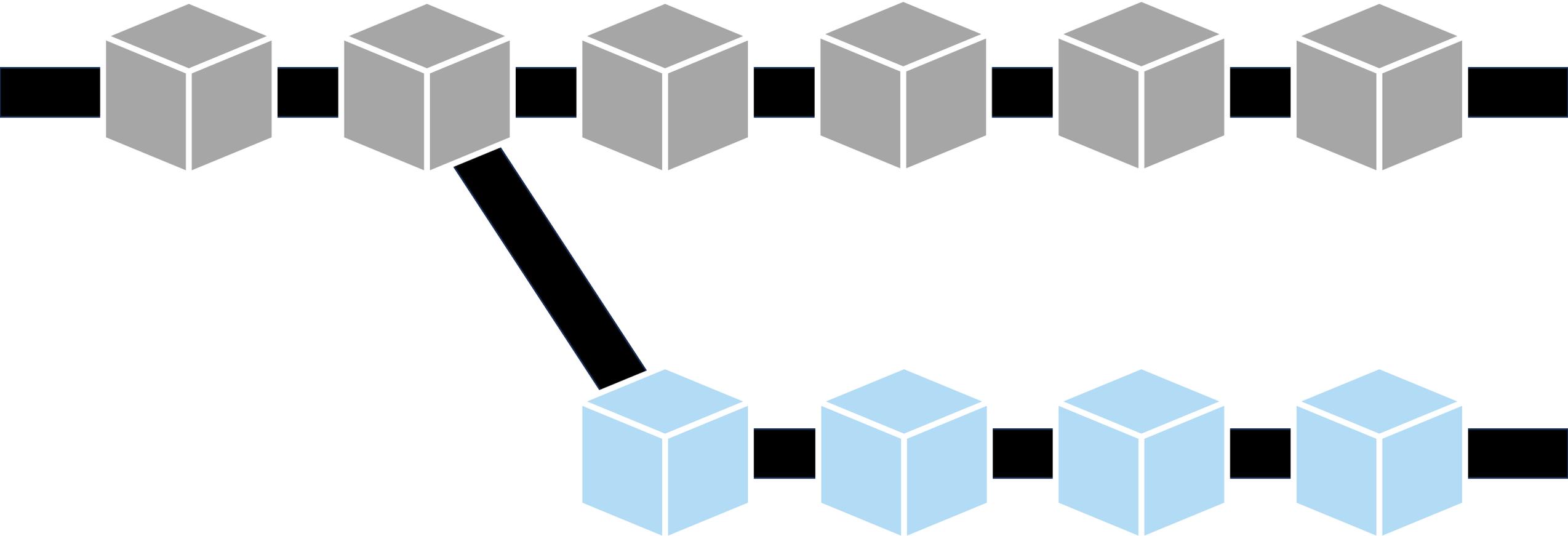
# The Merge



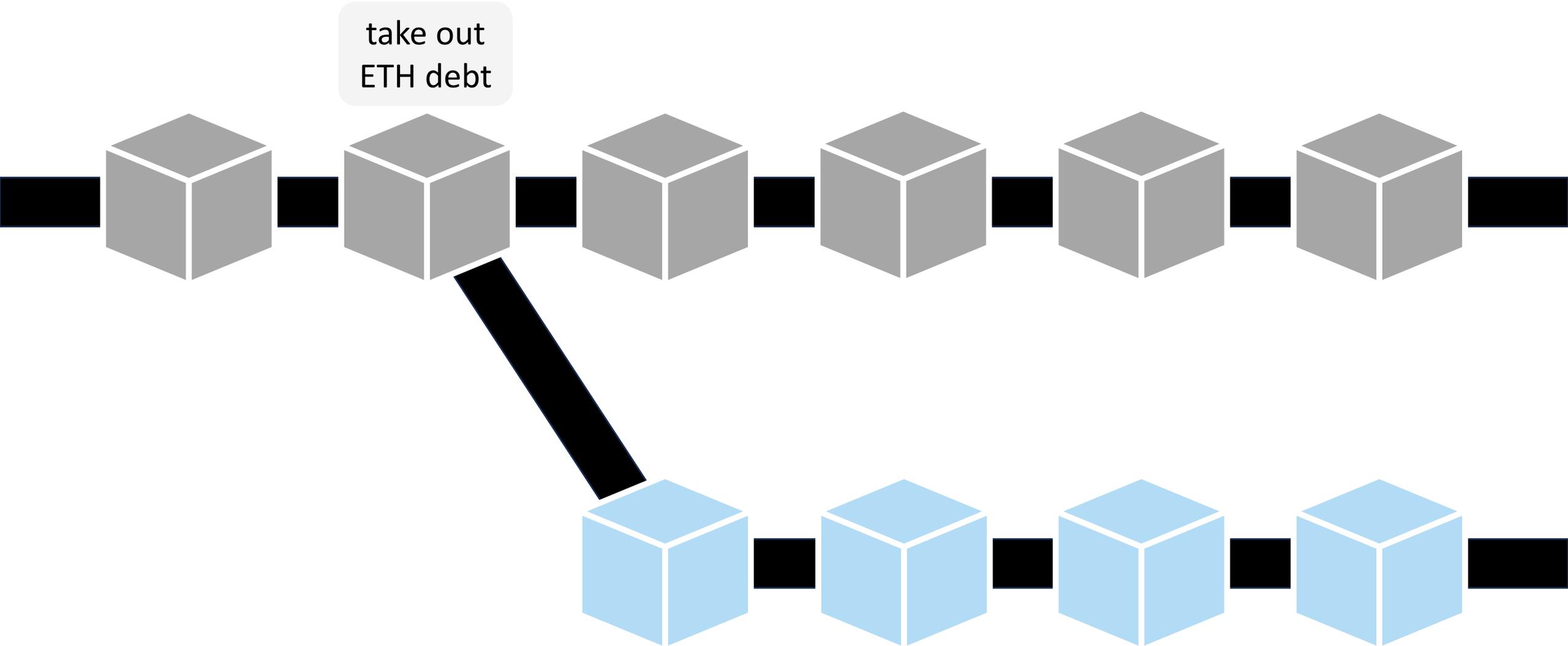
# The Merge



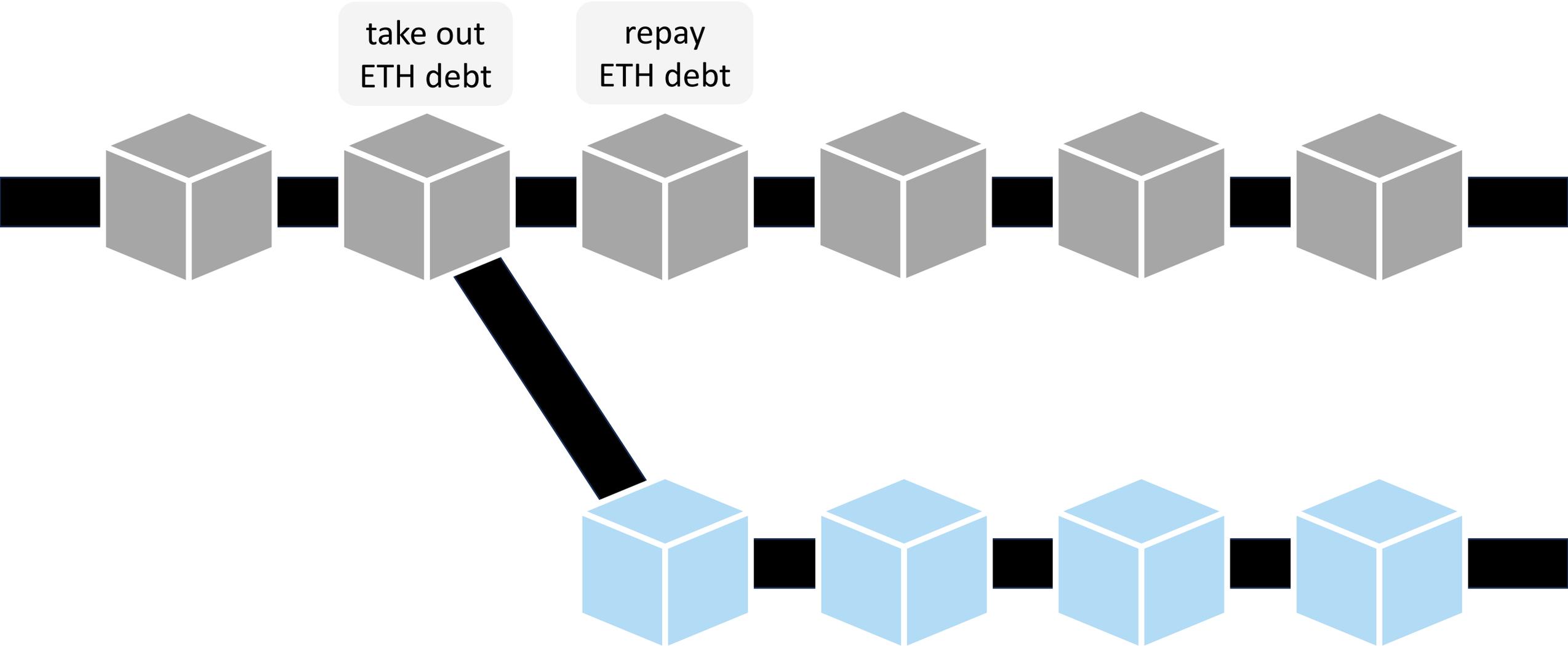
# The Merge



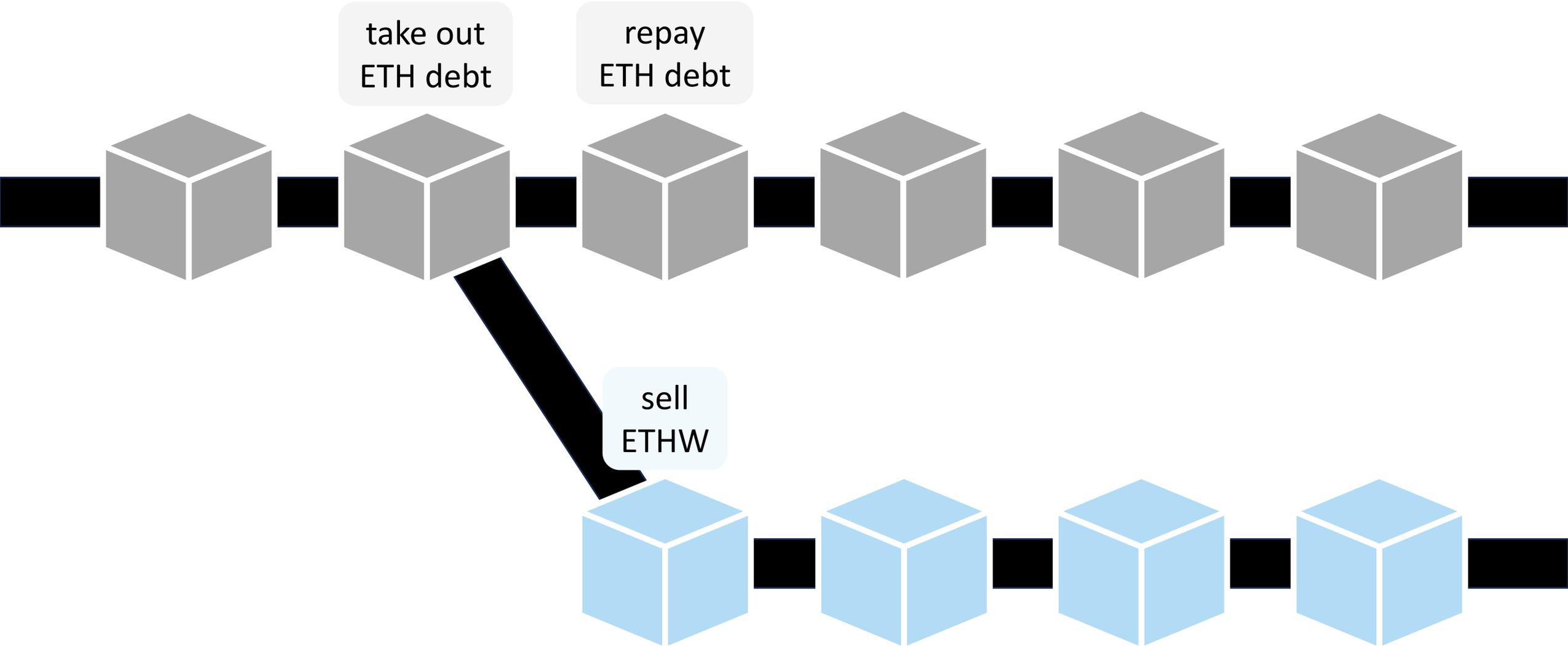
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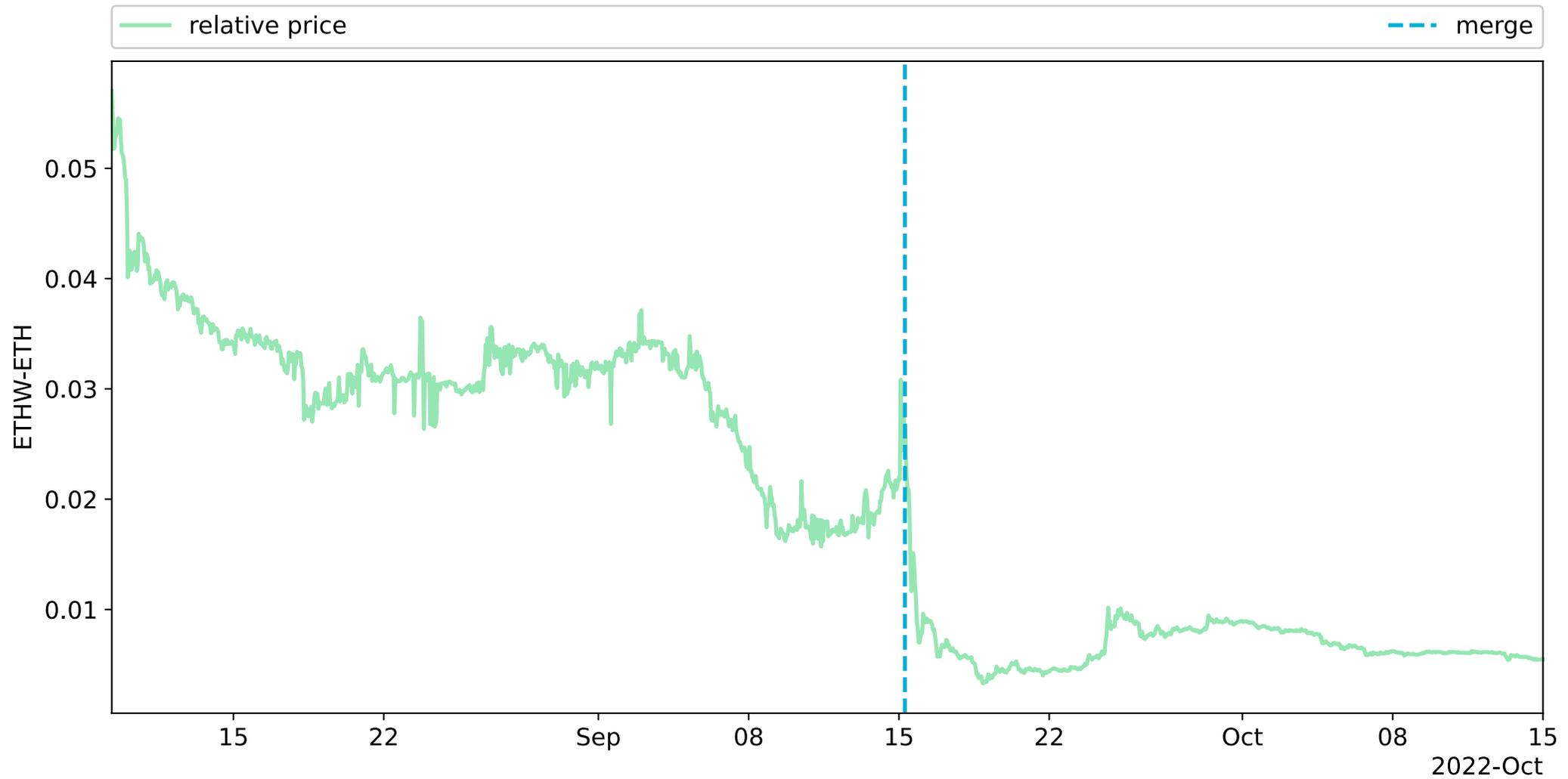
# The Merge



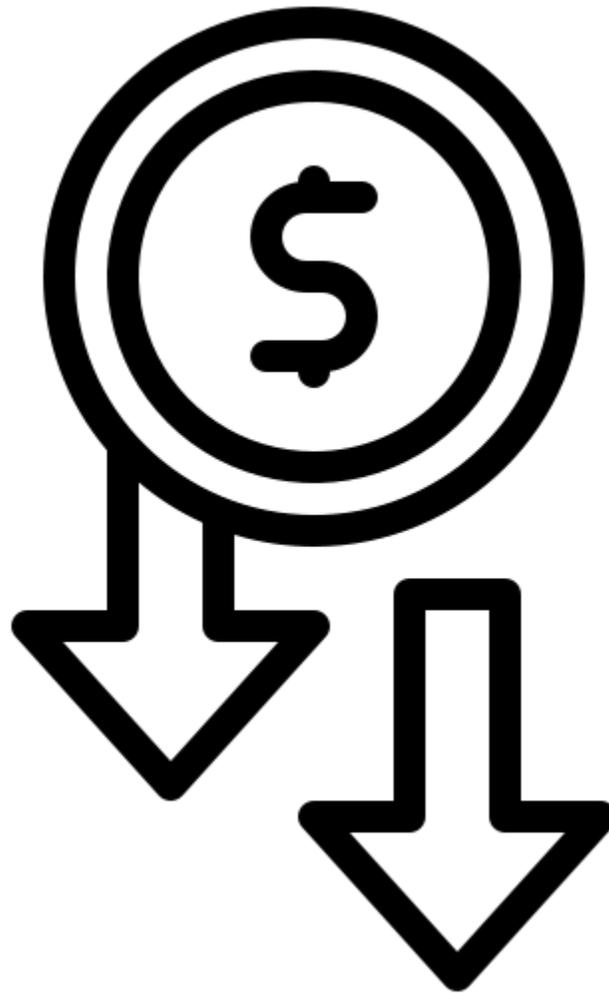
# The Merge



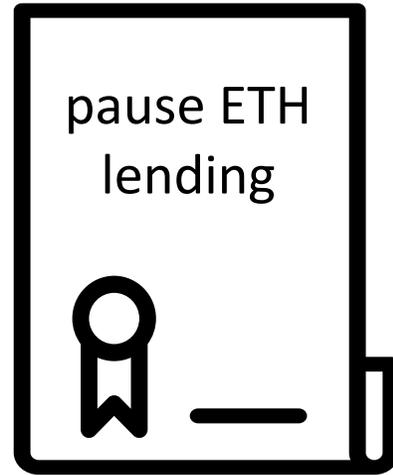
# ETH and ETHW price



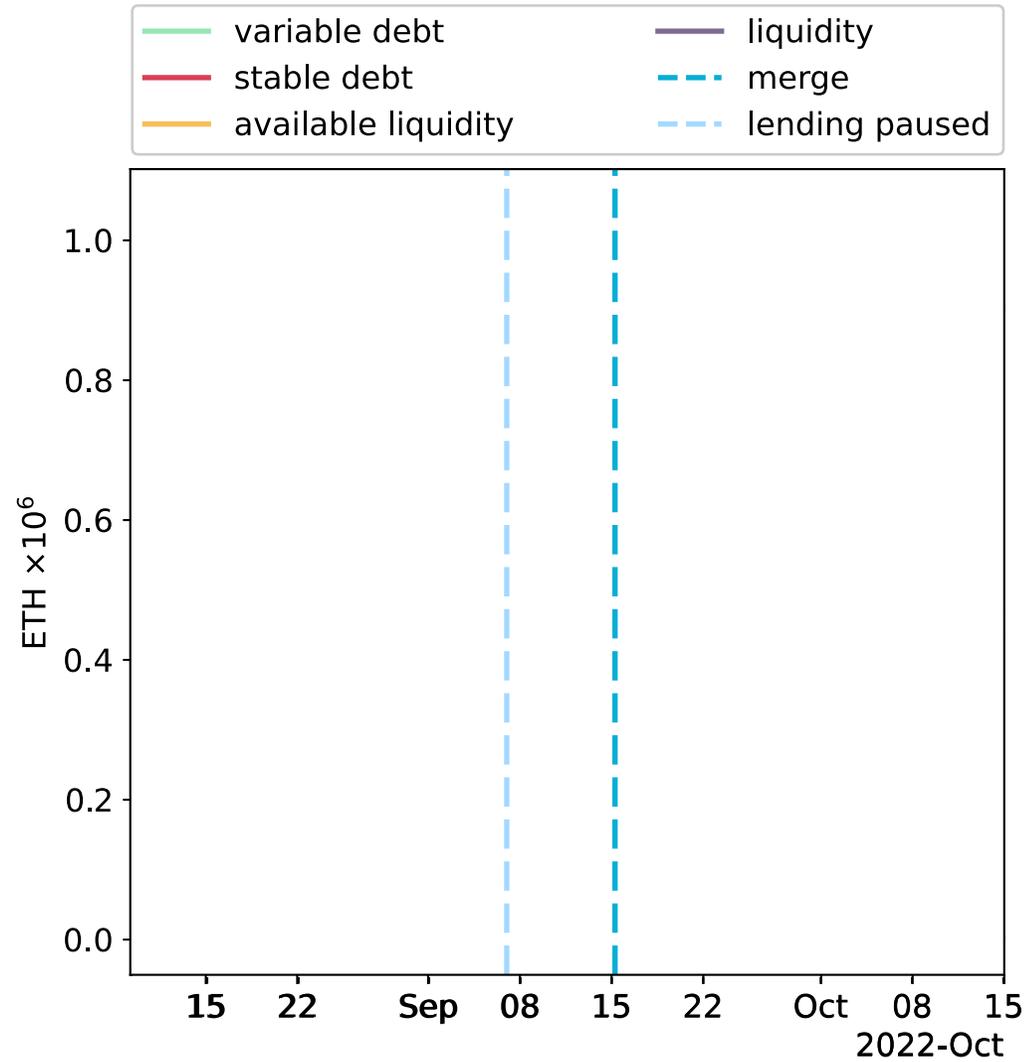
Fear of mass liquidations



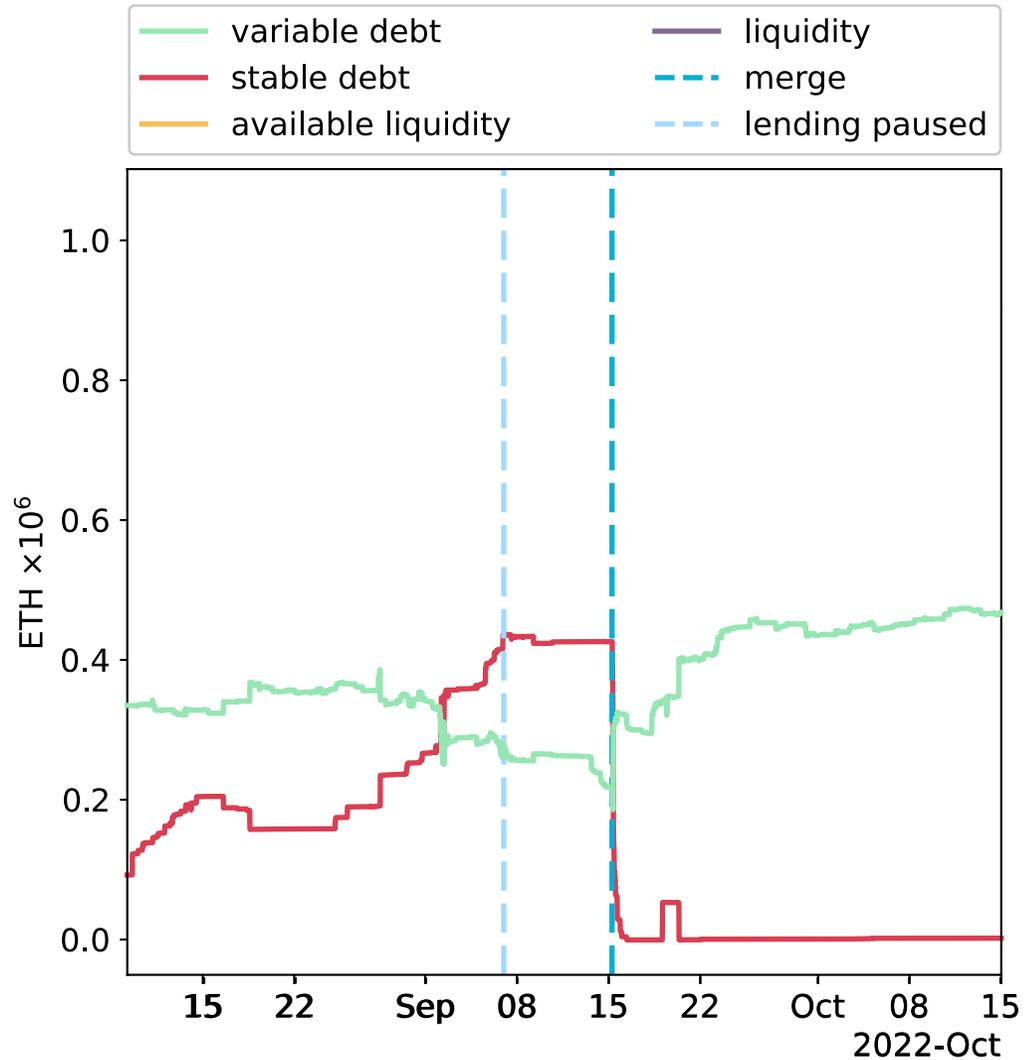
# DeFi lending protocol governance



# Aave lending market

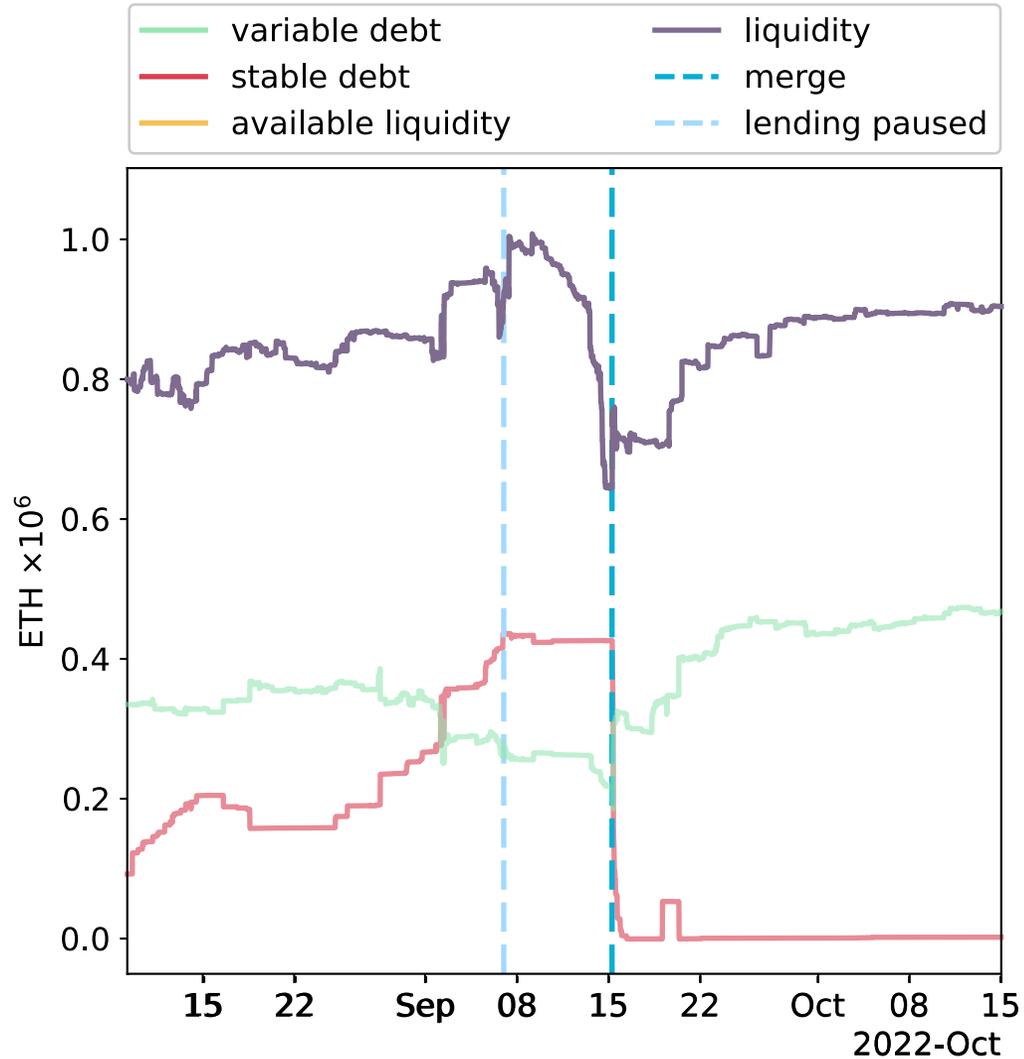


# Aave lending market



debt rises ahead of the merge until lending is paused

# Aave lending market

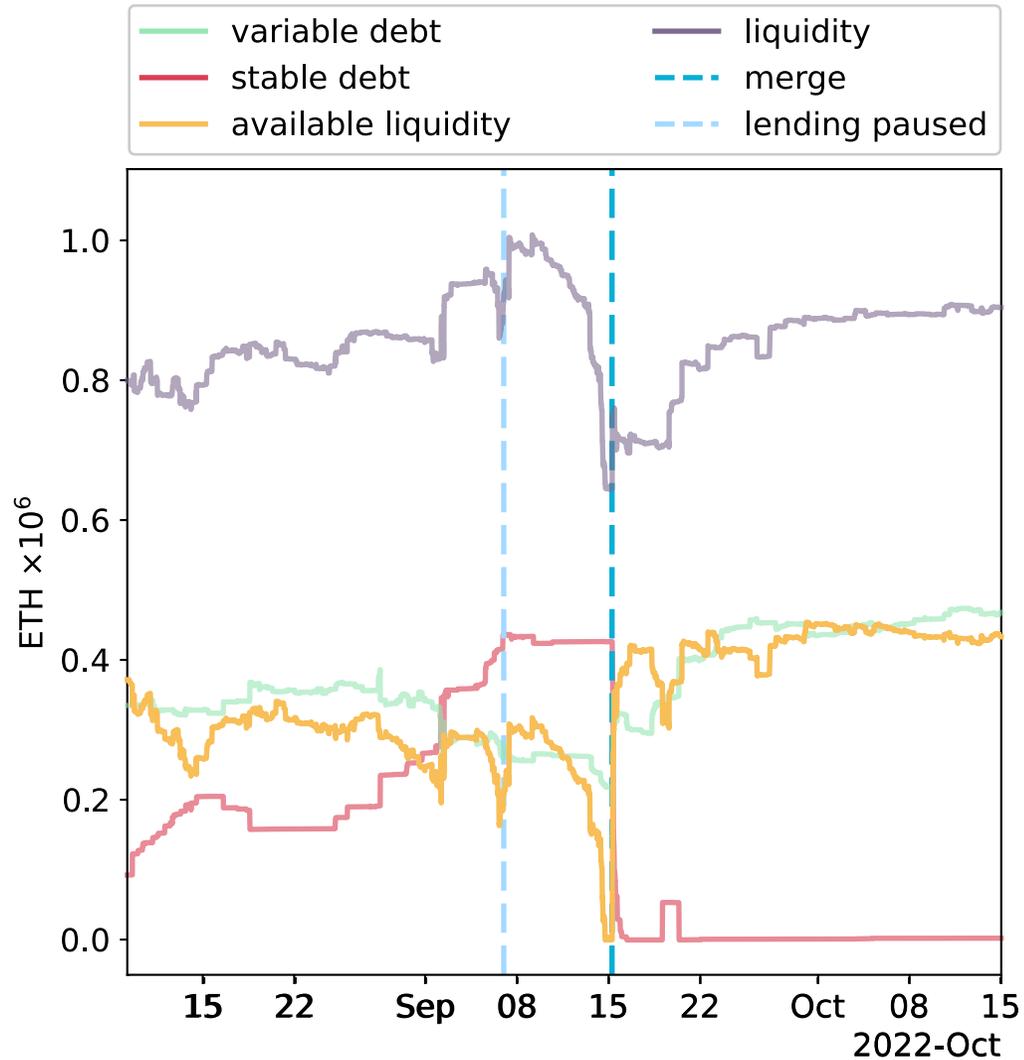


debt rises ahead of the merge until lending is paused



liquidity drops ahead of the merge

# Aave lending market



debt rises ahead of the merge until lending is paused

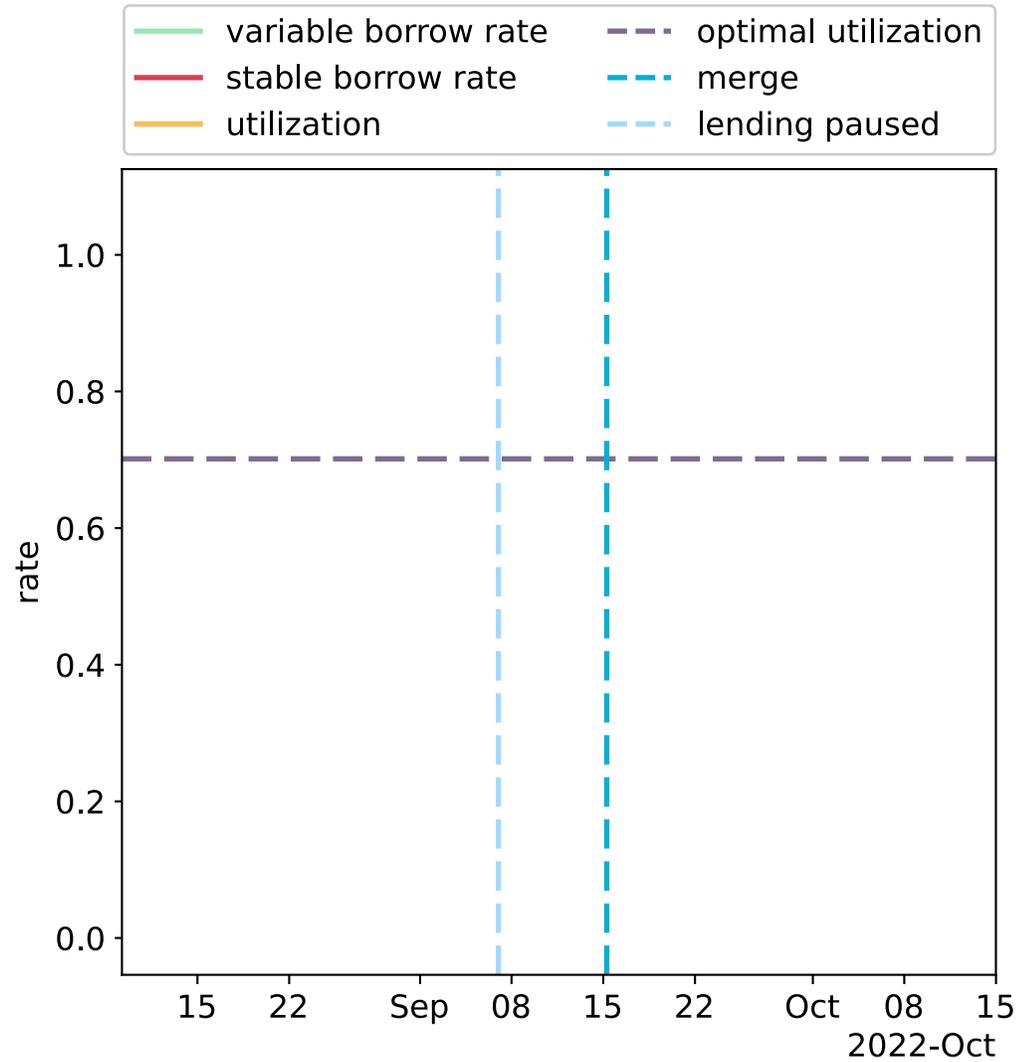


liquidity drops ahead of the merge

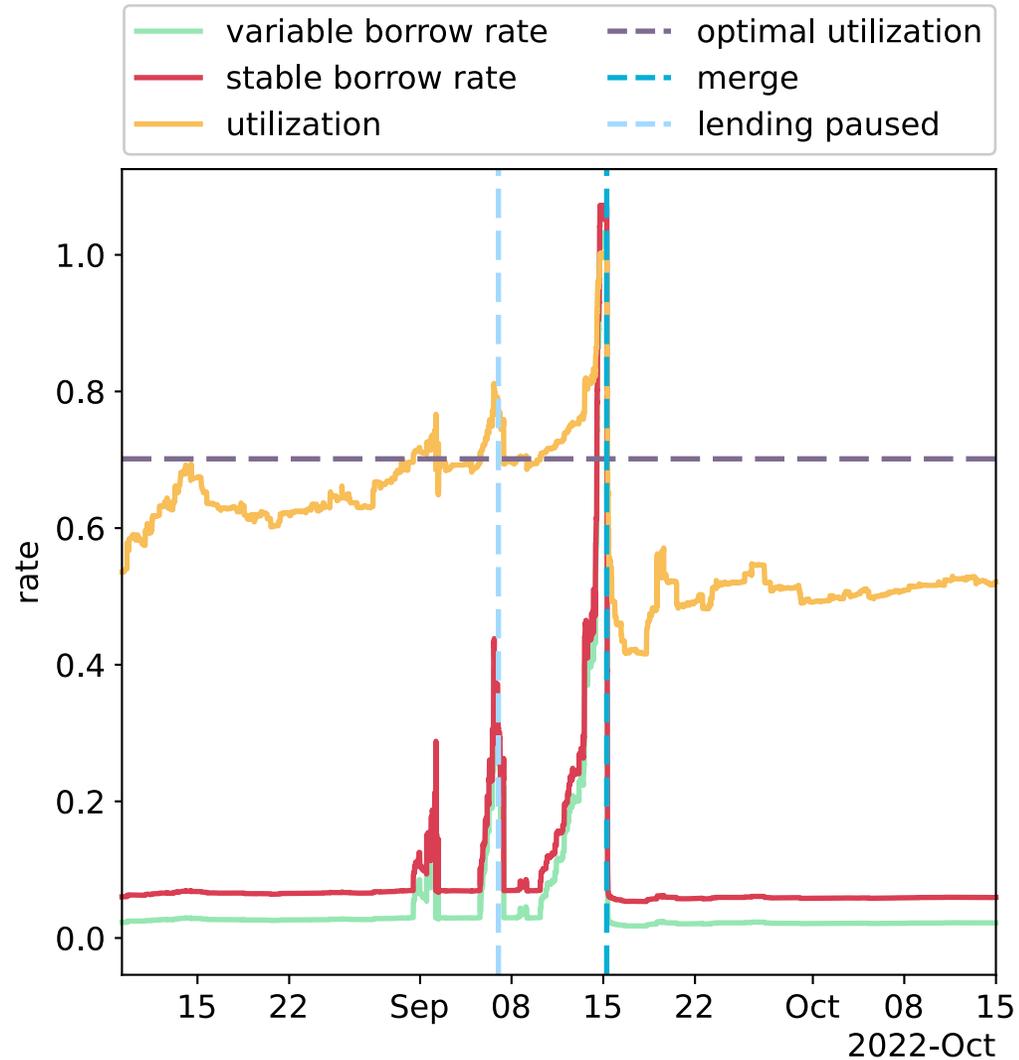
**0**

available liquidity reaches zero  
→ liquidity providers were stuck

# Aave lending market

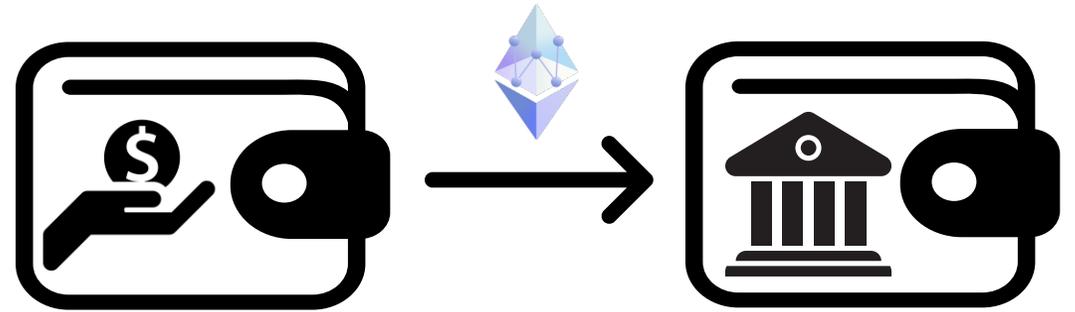
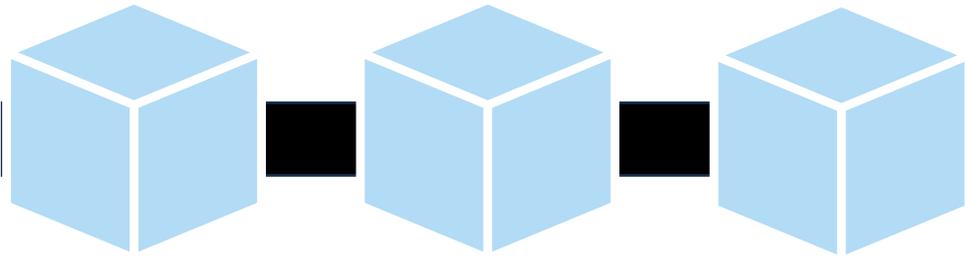
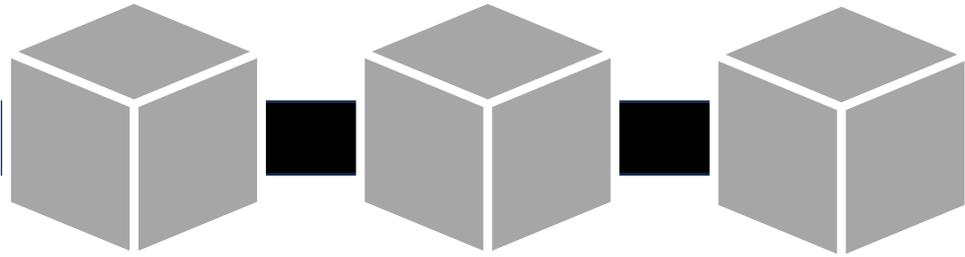


# Aave lending market

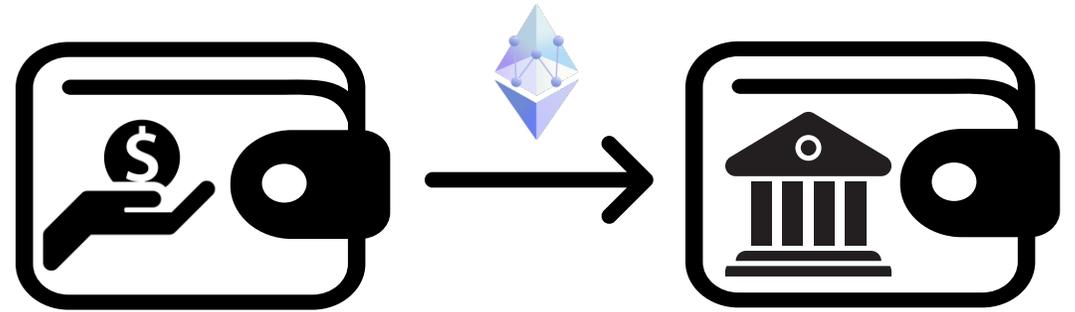
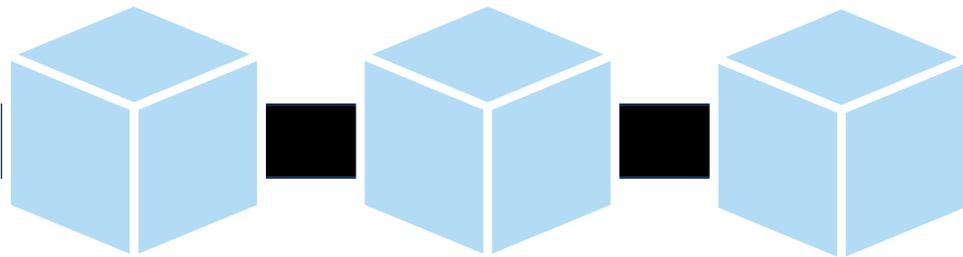
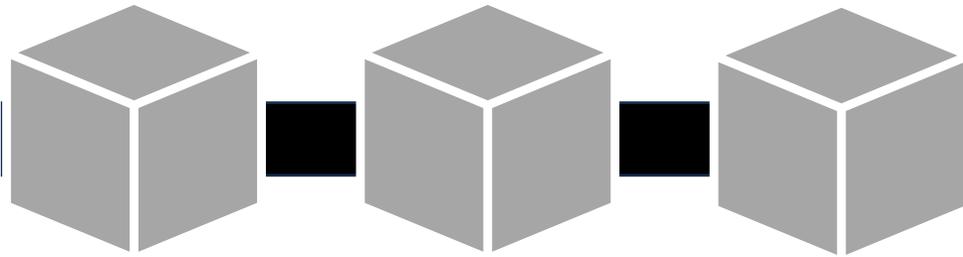


borrowing rates and utilization rise ahead of the merge

# Aave lending market

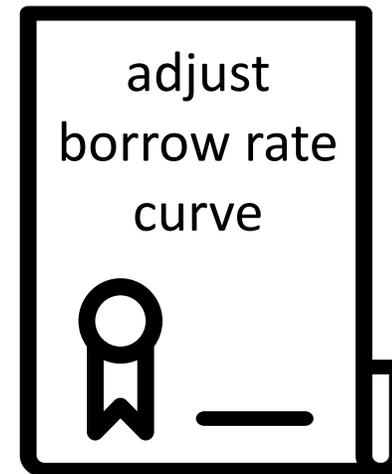
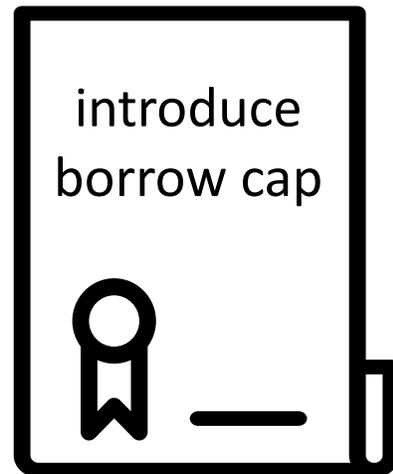
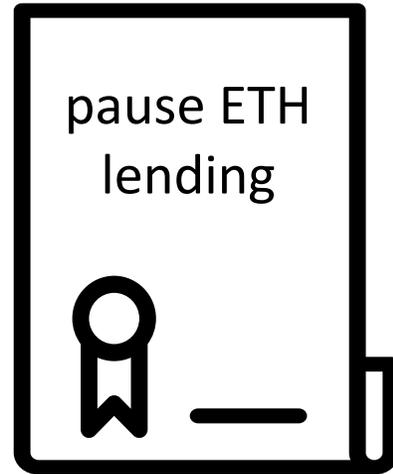


# Aave lending market

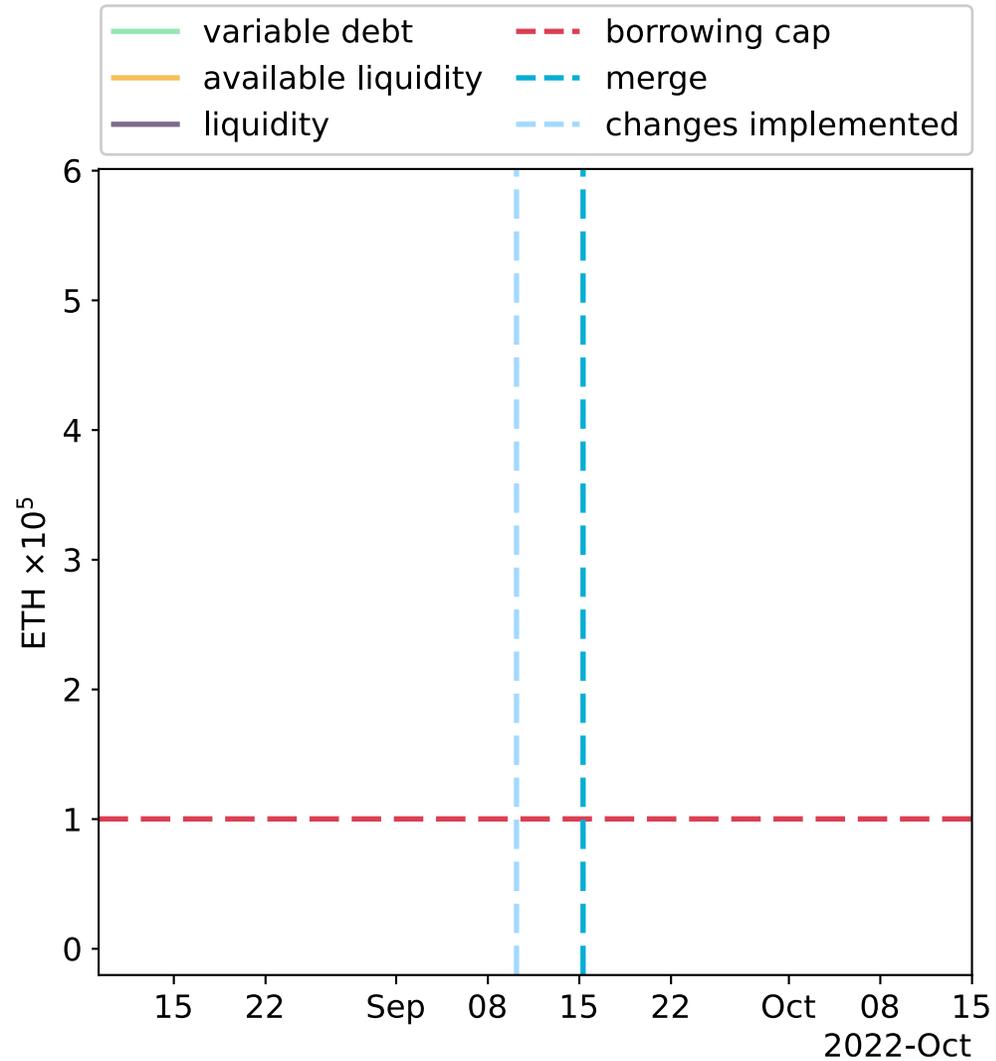


38% of ETHW debt transferred directly to centralized exchanges

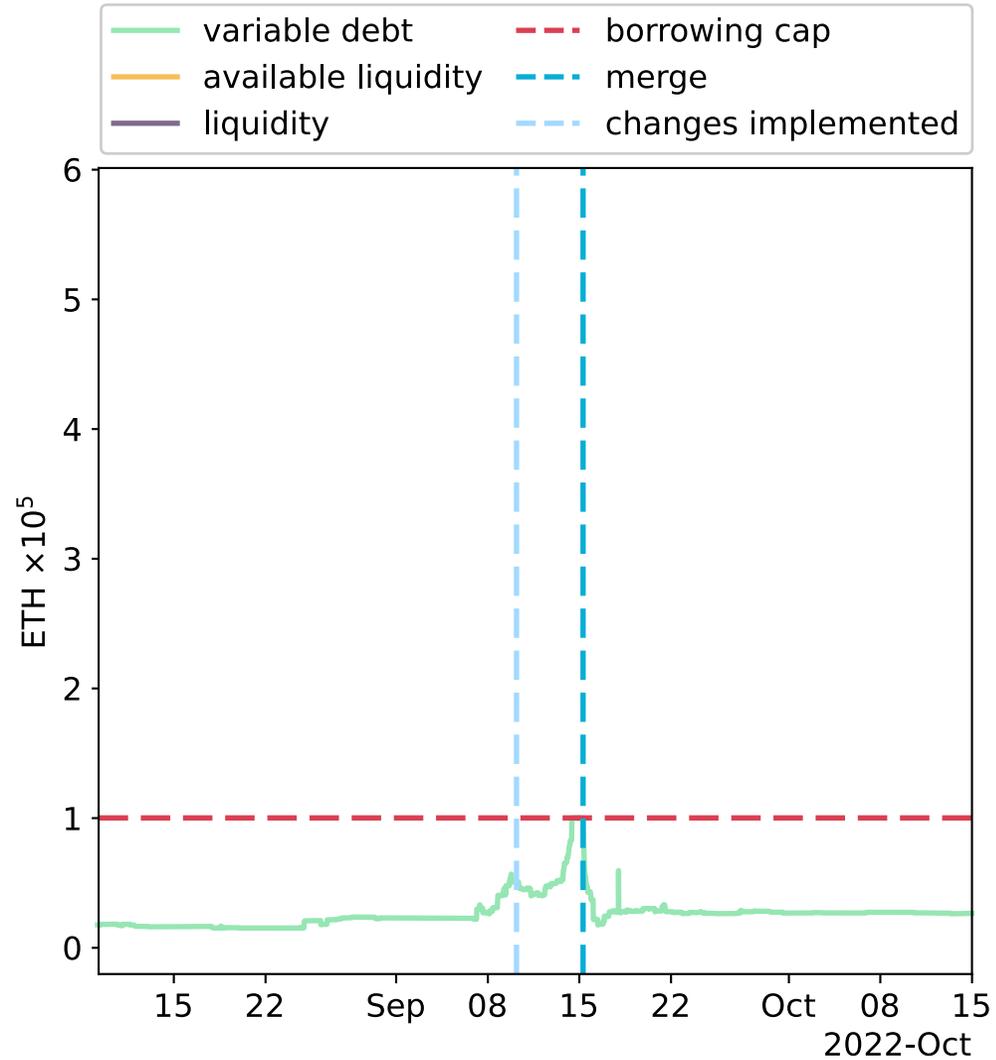
# DeFi lending protocol governance



# Compound lending market

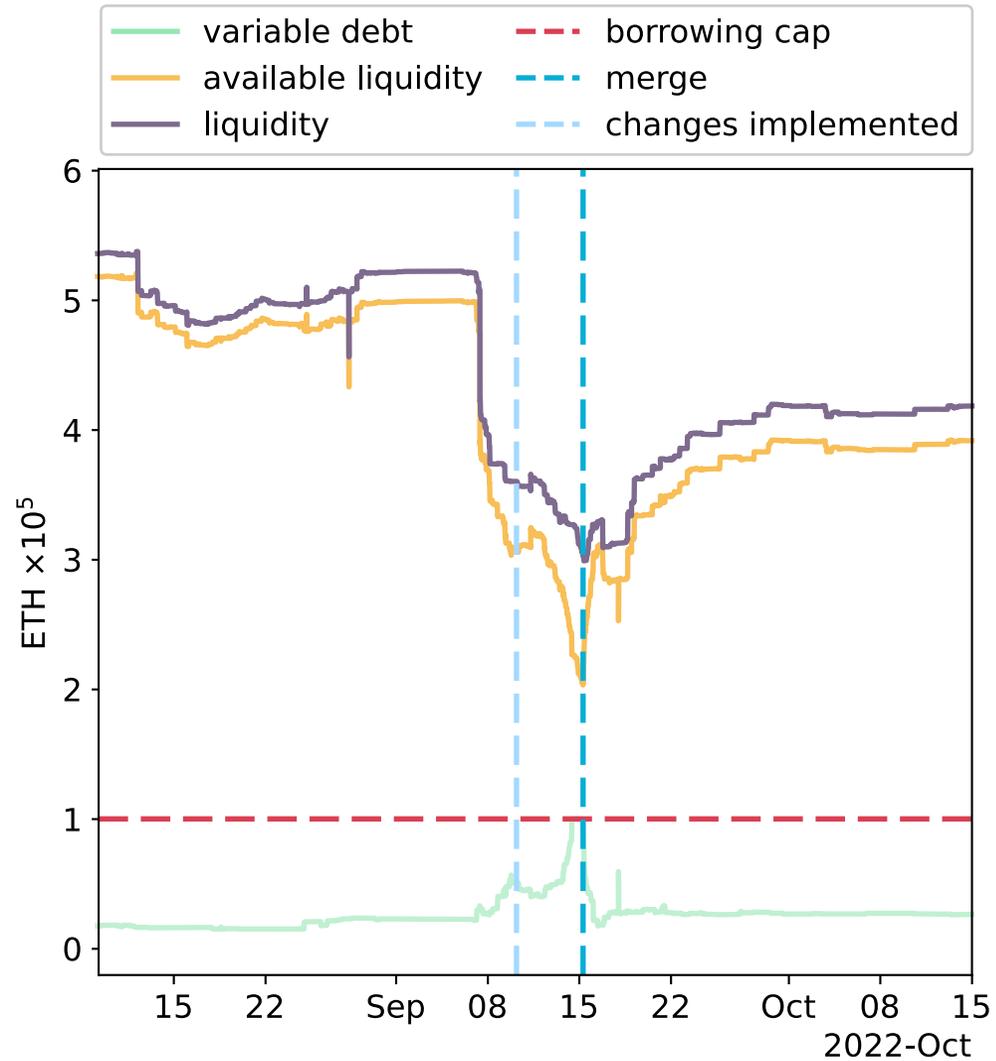


# Compound lending market



debt rises ahead of the merge

# Compound lending market

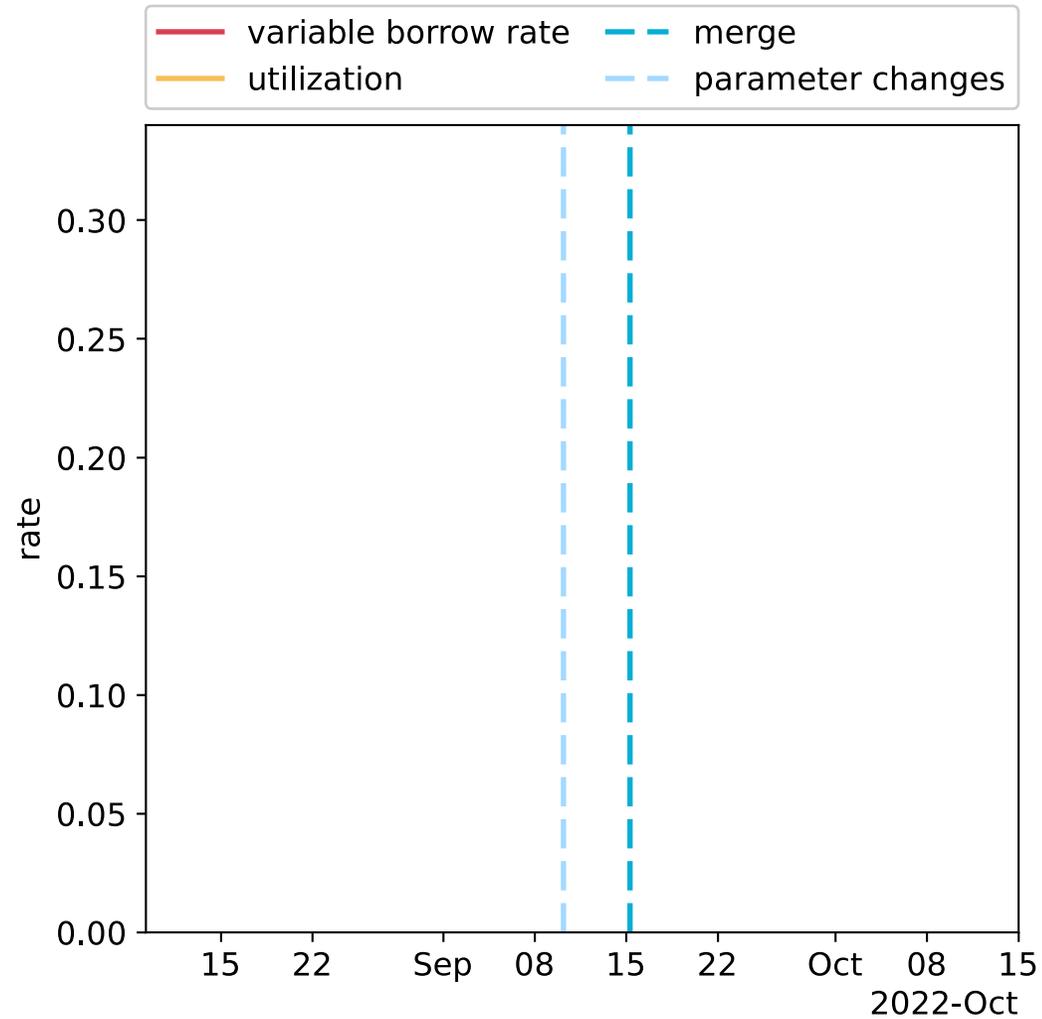


debt rises ahead of the merge

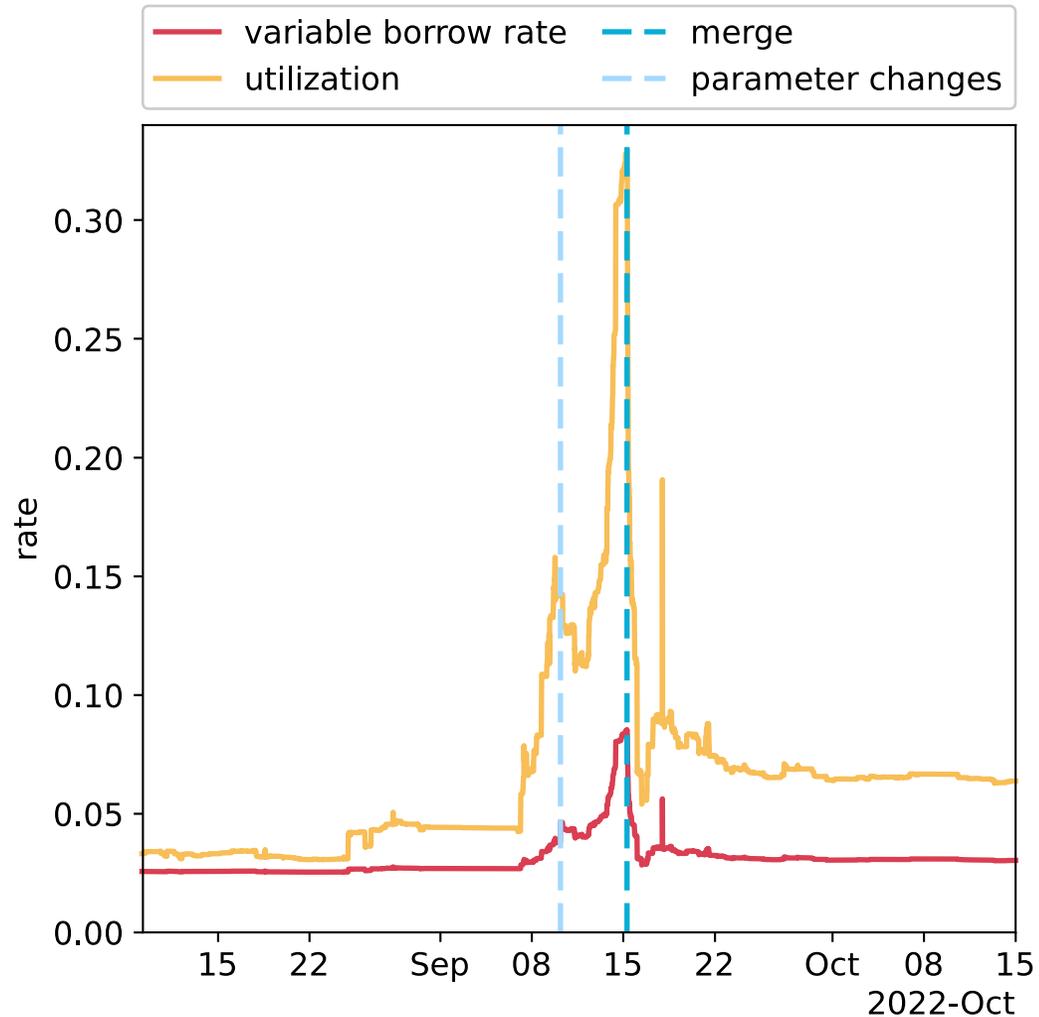


liquidity drops ahead of the merge

# Compound lending market

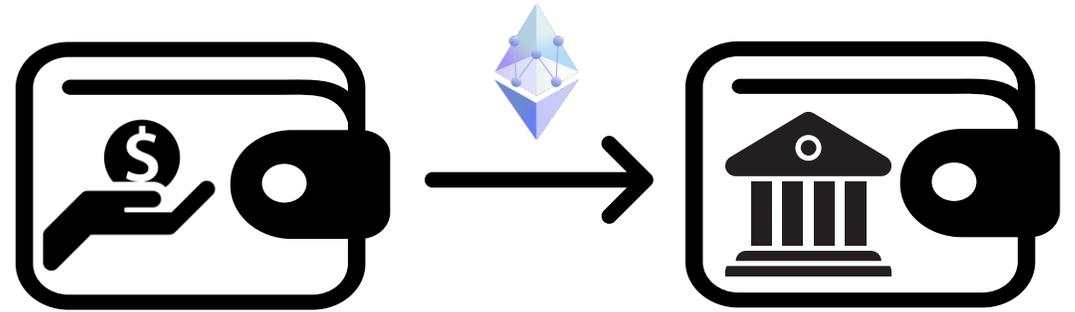
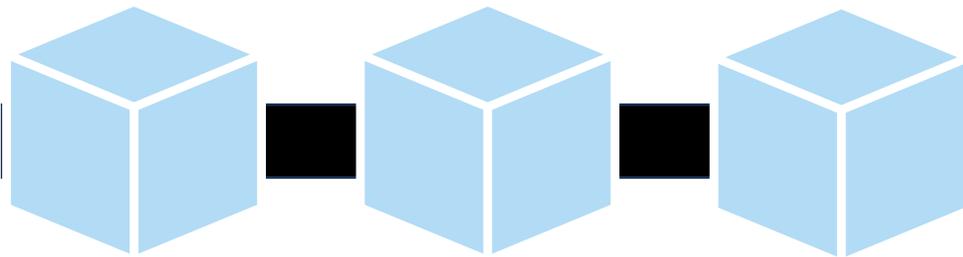
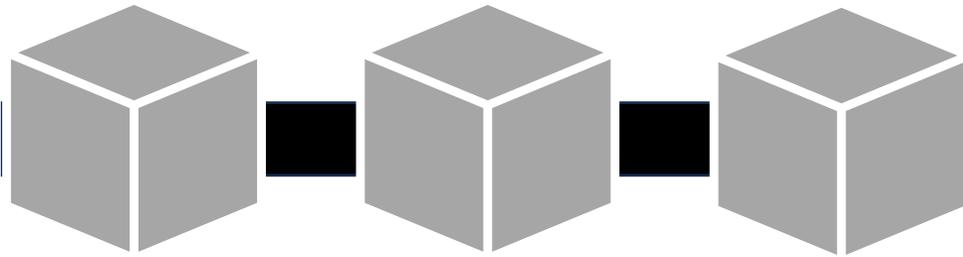


# Compound lending market

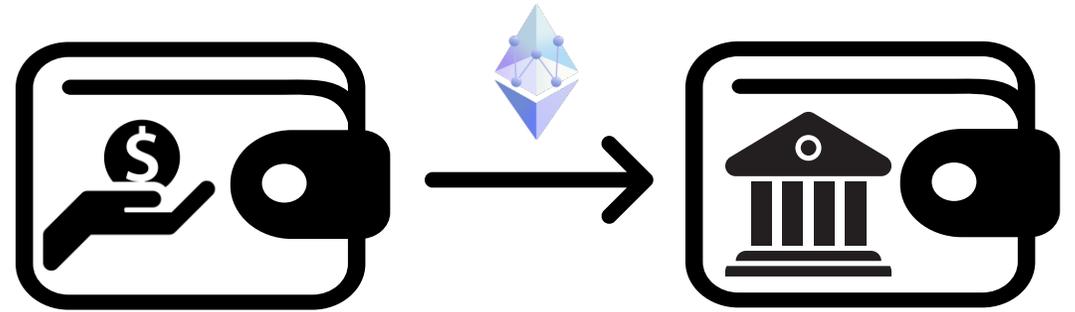
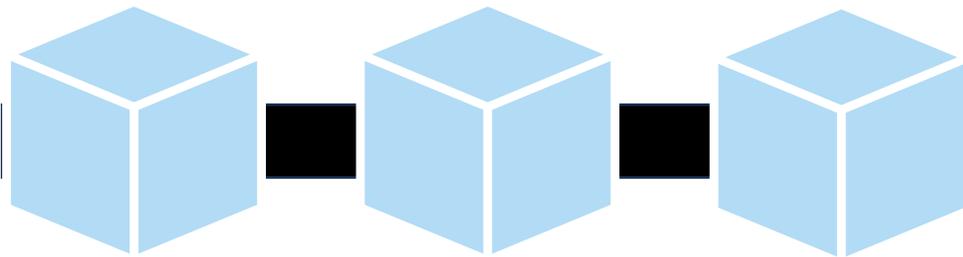
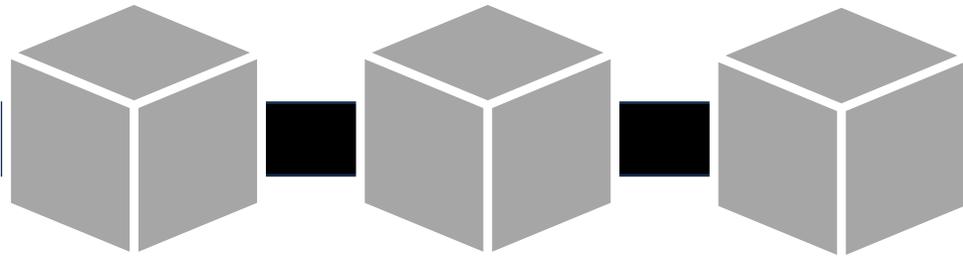


borrowing rates and utilization rise ahead of the merge

# Compound lending market

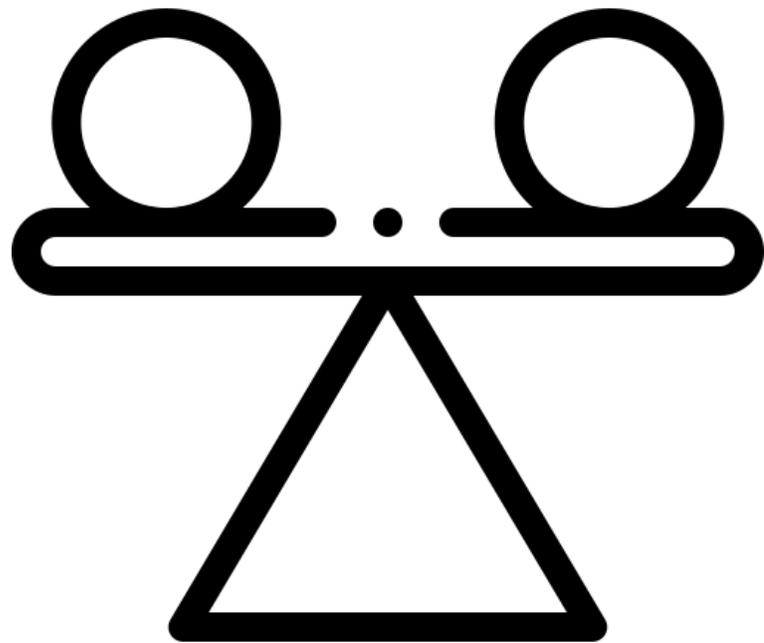


# Compound lending market

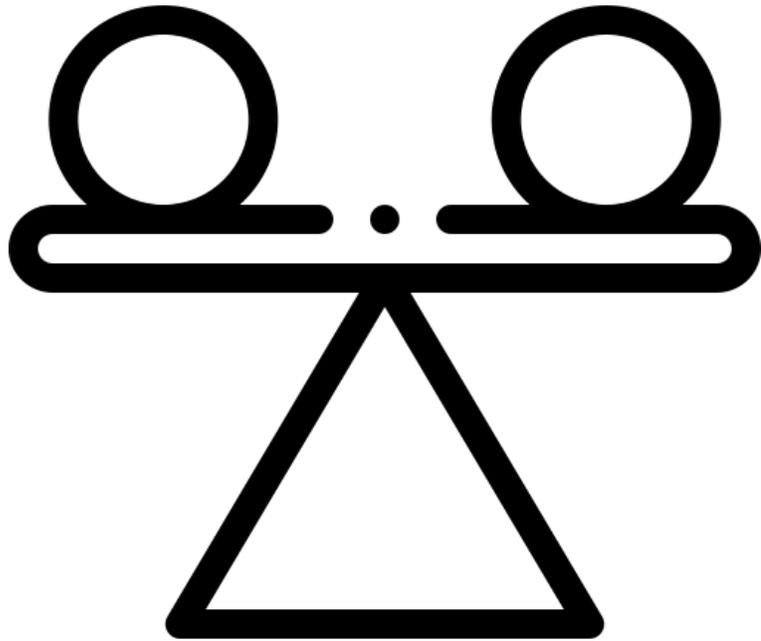


49% of ETHW debt transferred directly to centralized exchanges

# Platform stability

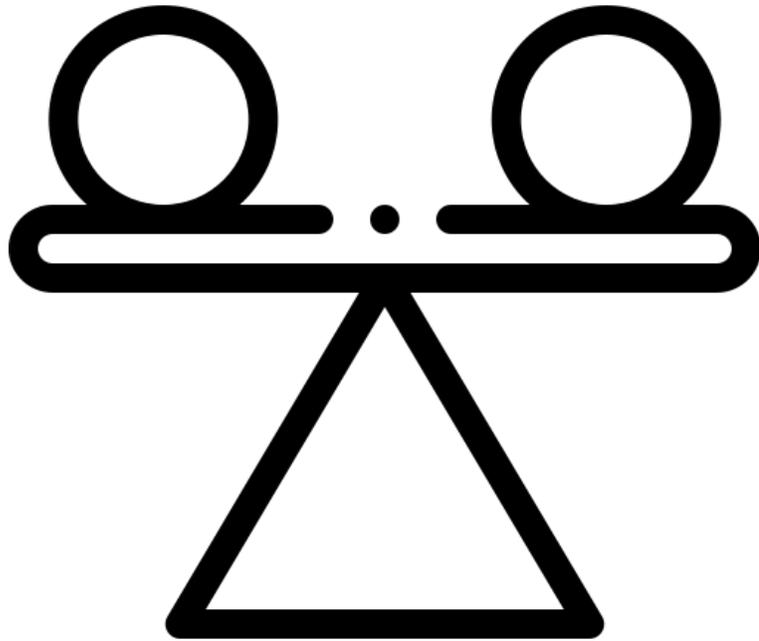


# Platform stability



no noticeable increase in liquidations ahead of the merge

# Platform stability



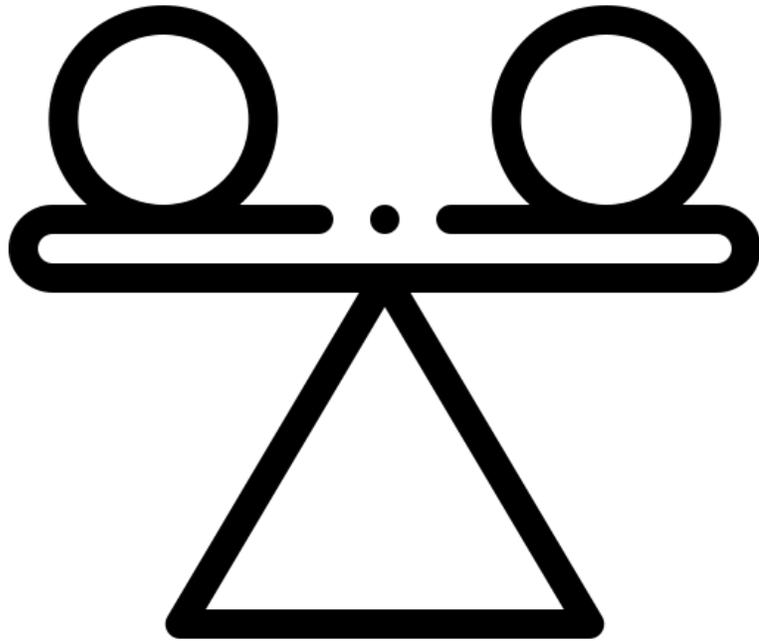
no noticeable increase in liquidations ahead of the merge



no significant increase in bad debt around the merge

# Platform stability

platform was stable



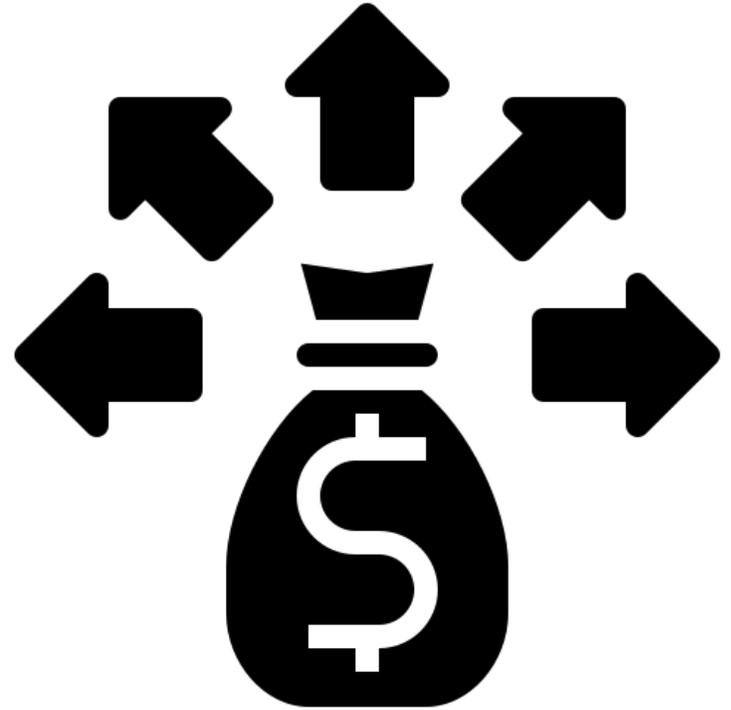
no noticeable increase in liquidations ahead of the merge



no significant increase in bad debt around the merge

# Fair compensation

 arbitrageurs profited at the expense  
of lenders



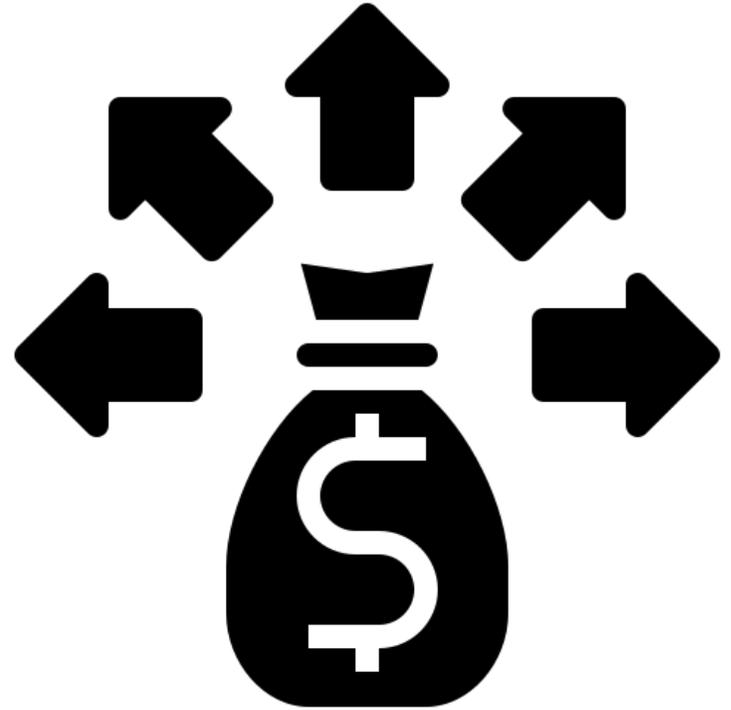
# Fair compensation



arbitrageurs profited at the expense of lenders



ETH lending during the merge is a case study of DeFi market inefficiencies



# Fair compensation



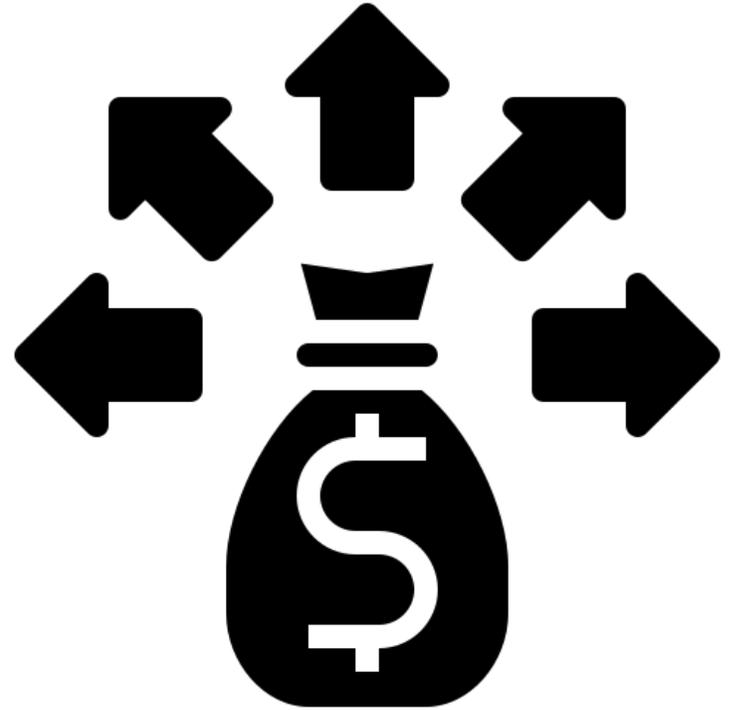
arbitrageurs profited at the expense of lenders



ETH lending during the merge is a case study of DeFi market inefficiencies



on AAVE lenders could no longer leave the protocol before the merge



# Fair compensation



arbitrageurs profited at the expense of lenders

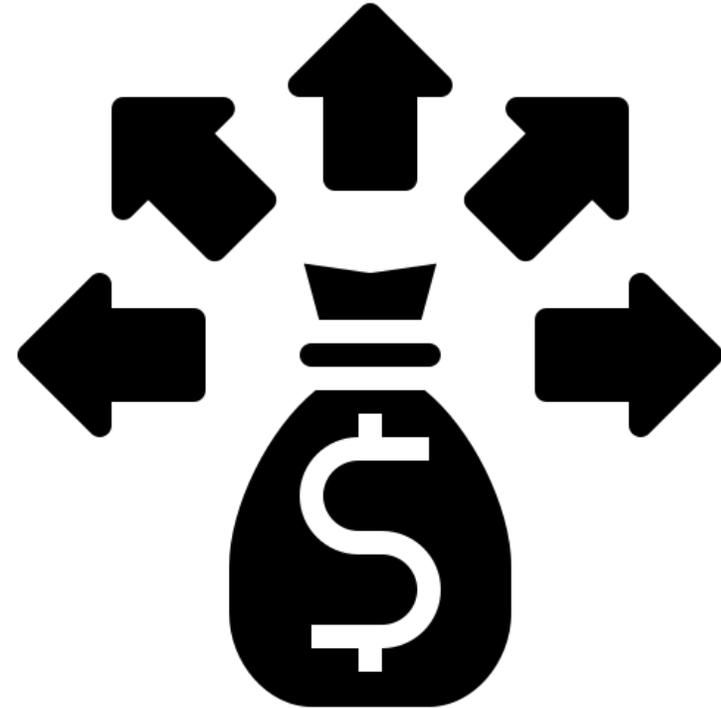


ETH lending during the merge is a case study of DeFi market inefficiencies



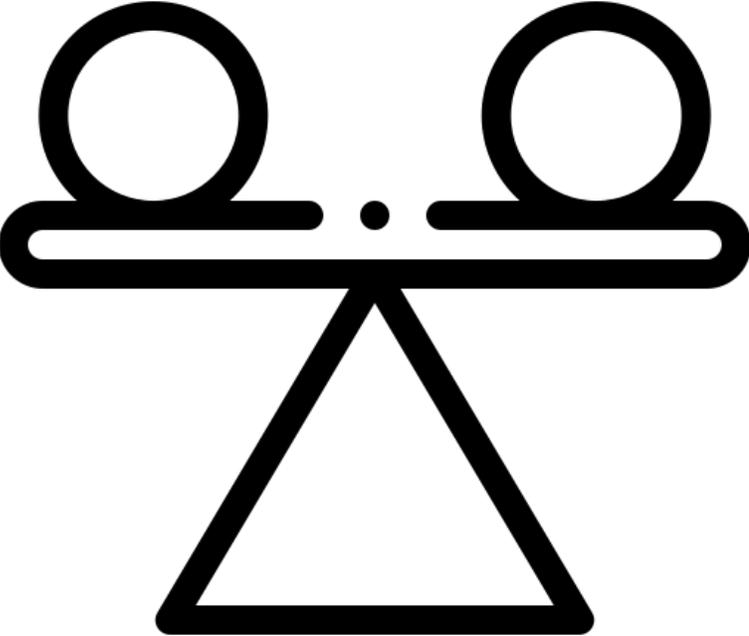
on AAVE lenders could no longer leave the protocol before the merge

losses for liquidity providers

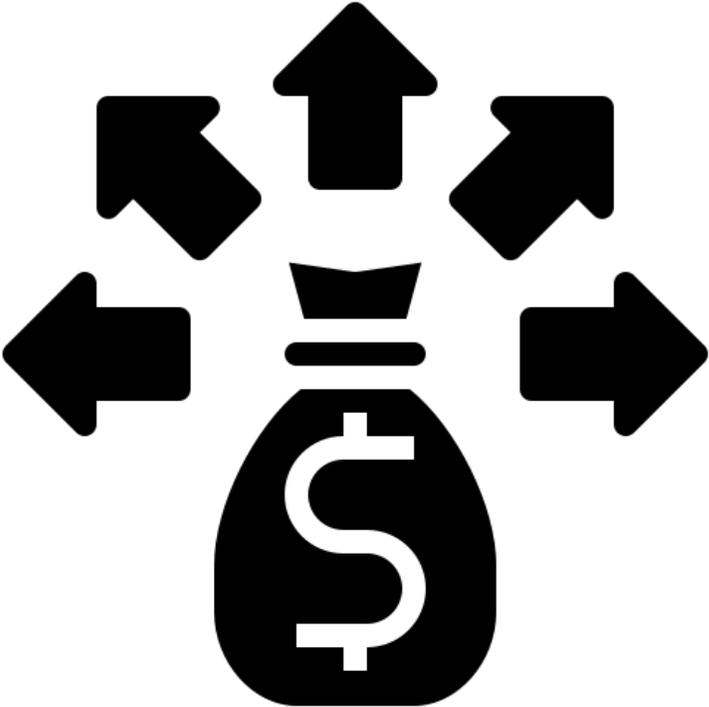


# Target conflict

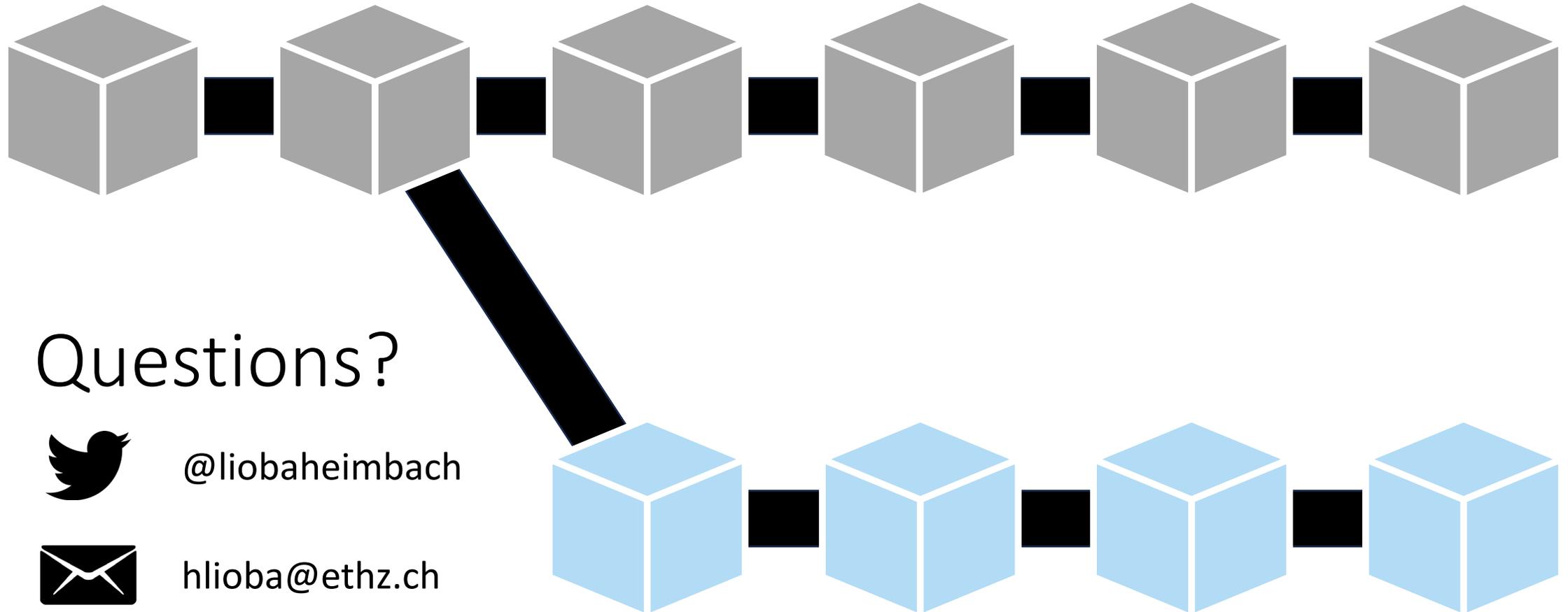
platform was stable



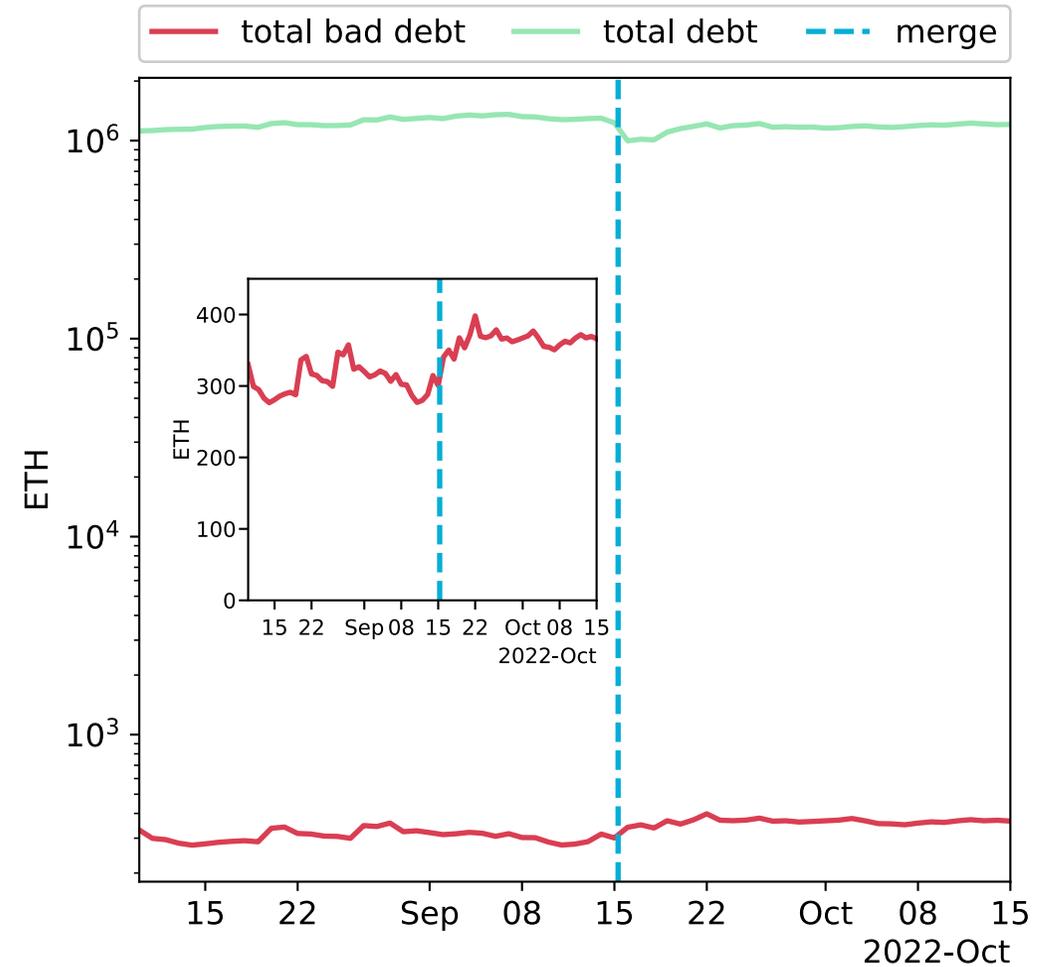
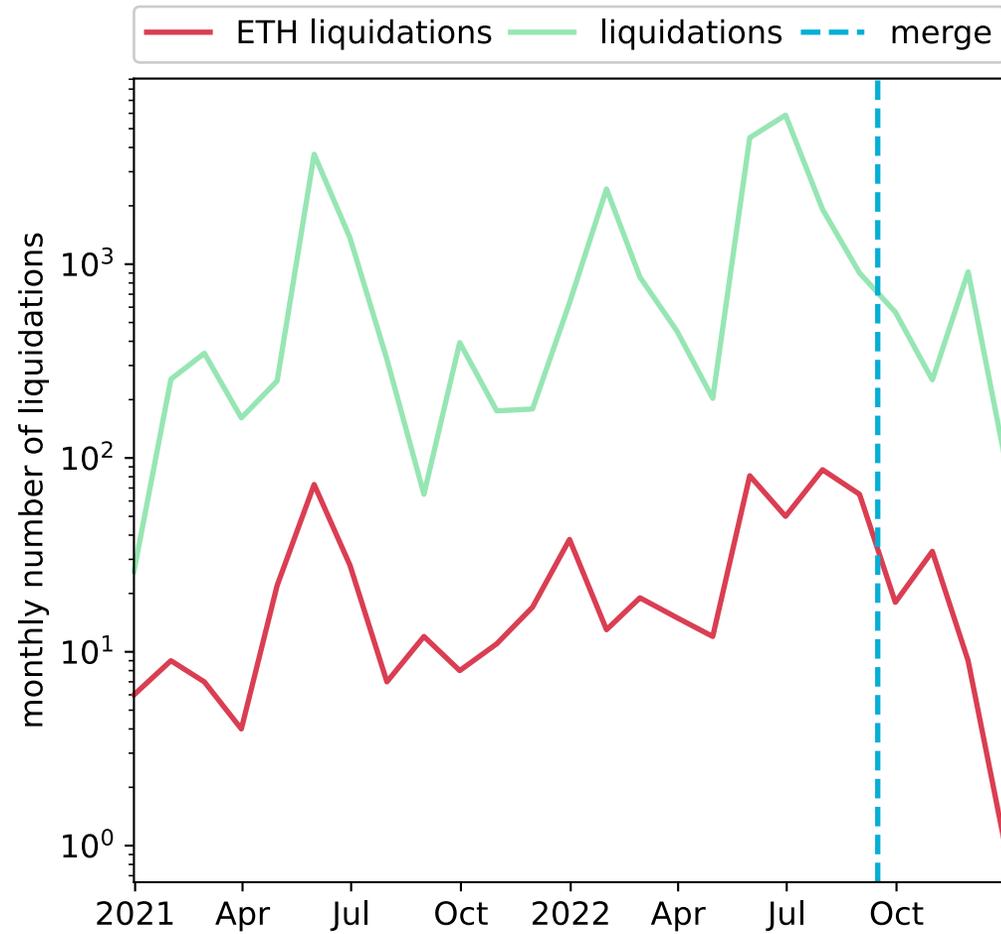
losses for liquidity providers



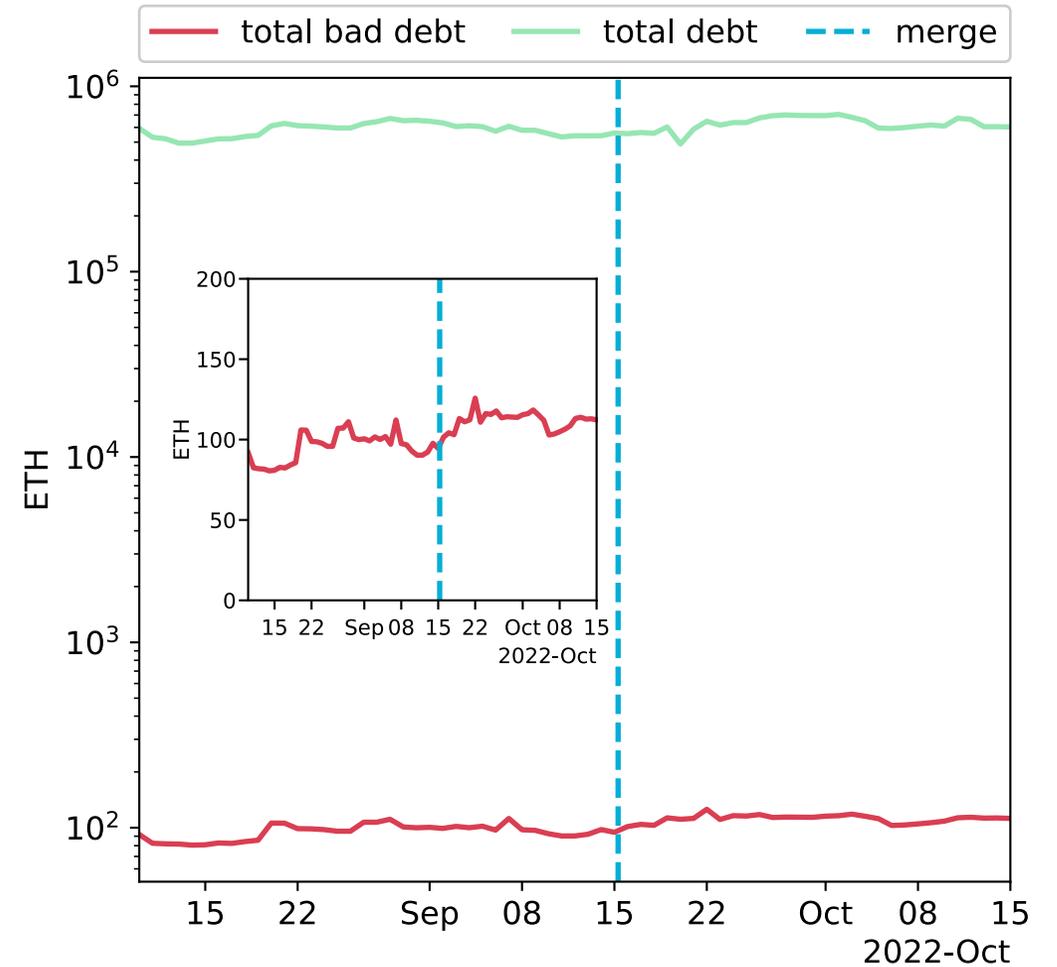
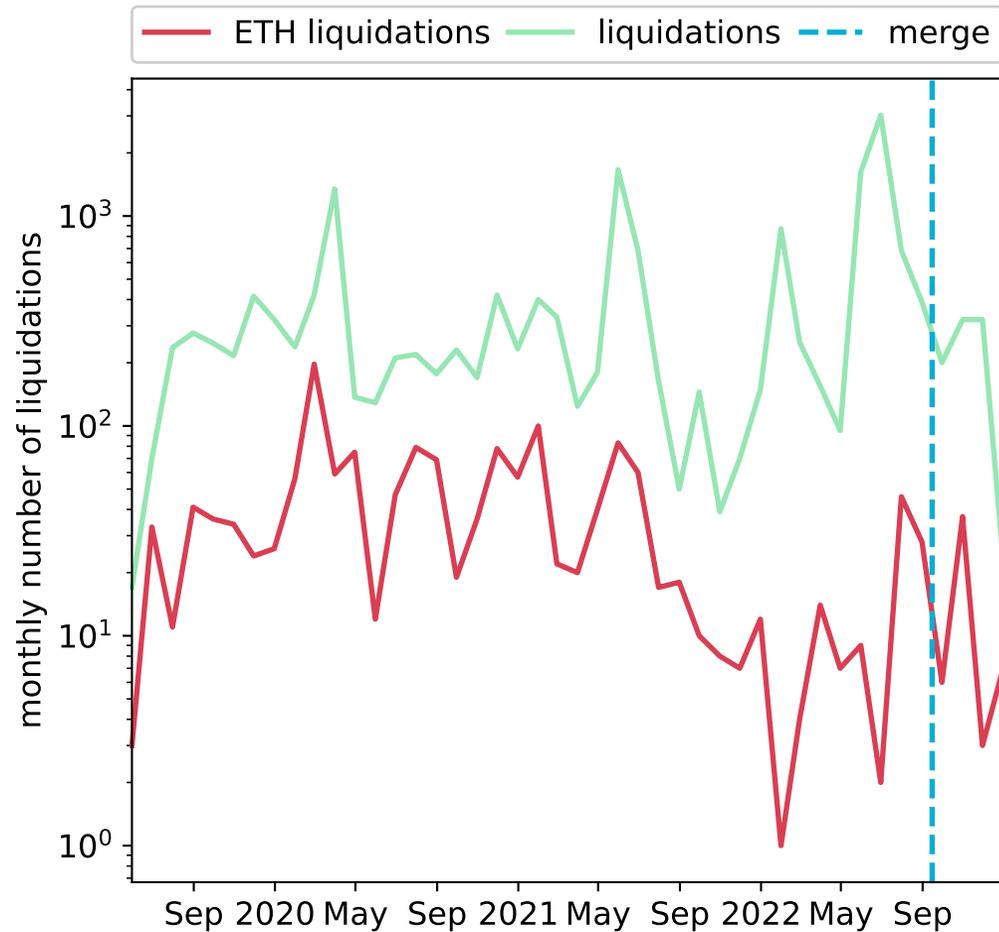
# DeFi Lending During The Merge



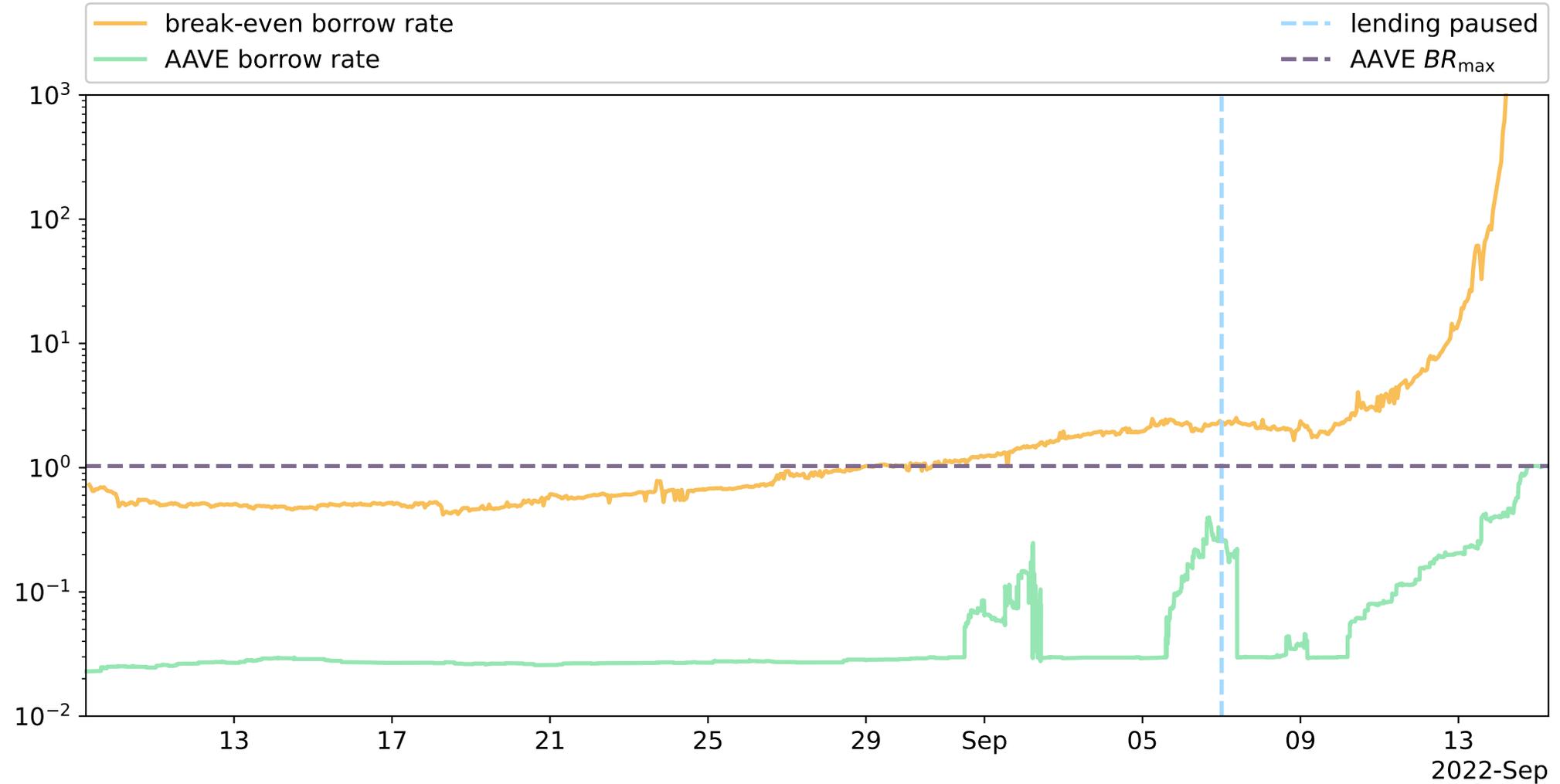
# Aave lending market



# Compound lending market



# Aave break-even borrow rate



# Compound break-even borrow rate

