MEV point form for threads

什麼是 MEV？

MEV，中文是礦工/最大可提取價值，指區塊生產者通過重新排序、排除或修改區塊內的交易來獲取額外利潤。

MEV 要如何運作？

1. 交易進入內存池（mempool）。
2. 區塊生產者選擇交易，通常優先處理手續費較高的交易。
3. 有些會操縱順序以增加利潤（如：前置交易）。

常見的 MEV 策略:

1. 前置交易：以較高的手續費提交類似交易，搶先執行有利可圖的交易。
2. 夾心攻擊：在目標交易前後下單，操縱價格賺取利潤。
3. 套利交易：利用不同去中心化交易所的價格差異。
4. DeFi 清算：優先清算借貸平台上價值降低的抵押品。

MEV的風險和影響？

* 不公平的交易排序。
* 技術門檻高，可能導致網絡中心化。
* 網絡擁堵，手續費上漲。
* 增加交易成本，成為隱性“稅負”。

不過都有應對風險的緩解策略 :

1. 隱私技術：隱藏交易詳情（如零知識證明）。
2. 簡化智能合約：減少 MEV 機會（如比特幣的做法）。

MEV 的而且確提供了利潤，但同時挑戰公平性和去中心化，了解並減輕 MEV 風險對於區塊鏈未來至關重要。

**What is MEV?**

MEV, which stands for Miner Extractable Value (or Maximal Extractable Value), refers to the additional profit that block producers can gain by reordering, excluding, or modifying transactions within a block.

**How does MEV work?**

1. Transactions enter the mempool.
2. Block producers select transactions, usually prioritizing those with higher fees.
3. Some may manipulate the order to increase profits (e.g., front-running).

**Common MEV Strategies:**

1. Front-Running: Submitting a similar transaction with a higher fee to execute it before a profitable transaction.
2. Sandwich Attack: Placing buy and sell orders around a target transaction to manipulate prices and earn profit.
3. Arbitrage Trading: Exploiting price differences between different decentralized exchanges.
4. DeFi Liquidations: Prioritizing the liquidation of collateral on lending platforms when its value drops.

**Risks and Impacts of MEV:**

* Unfair transaction ordering.
* High technical barriers, potentially leading to network centralization.
* Network congestion and increased transaction fees.
* Increased transaction costs, becoming a hidden "tax."

However, there are **mitigation strategies** to address these risks:

* Privacy technologies: Hiding transaction details (e.g., zero-knowledge proofs).
* Simplified smart contracts:Reducing MEV opportunities (e.g., Bitcoin's approach).

MEV indeed provides profit opportunities, but it also challenges fairness and decentralization. Understanding and mitigating MEV risks is crucial for the future of blockchain technology.\*\*