Impact and User Perception of Sandwich Attacks in the DeFi Ecosystem

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Ye WANG

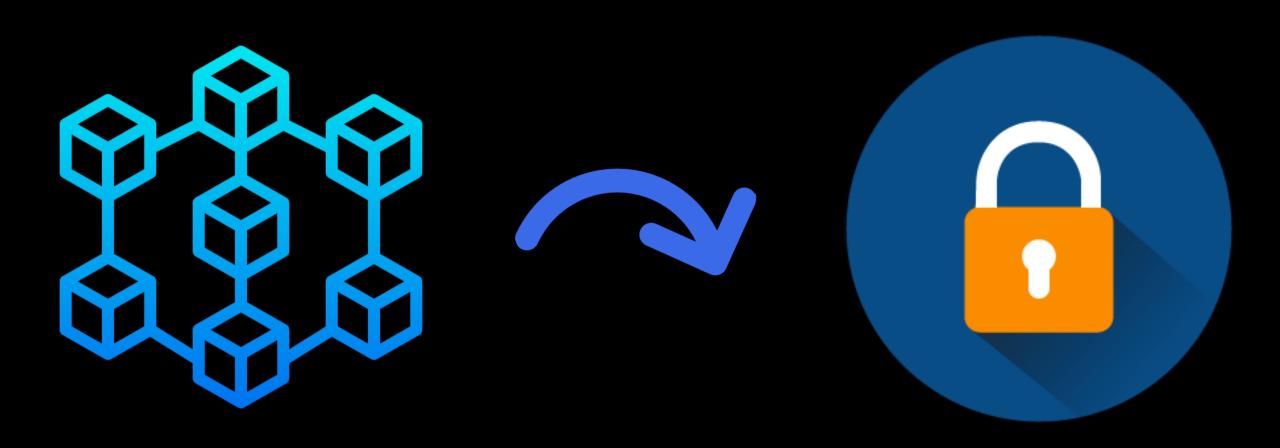
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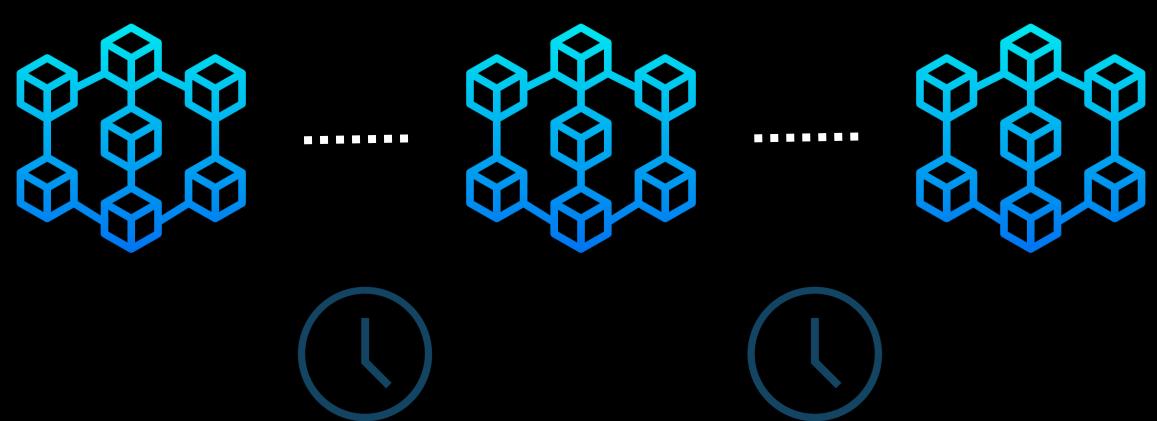
DeFi Ecosystem



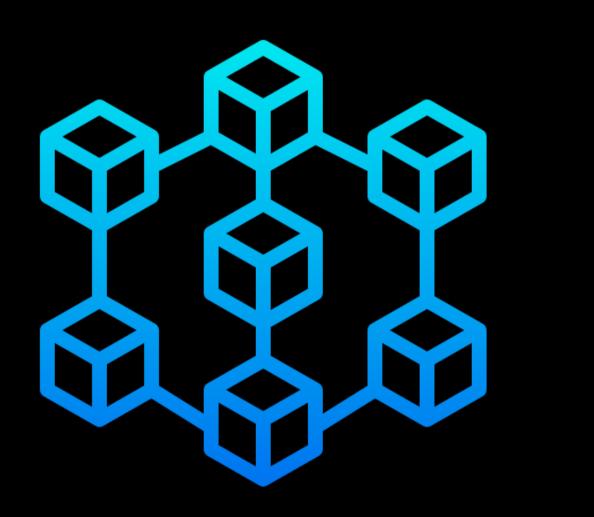




Non-instantaneous Execution



Fee-based Ordering









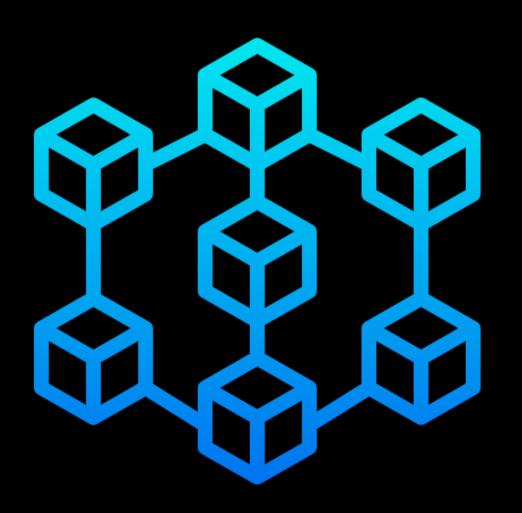


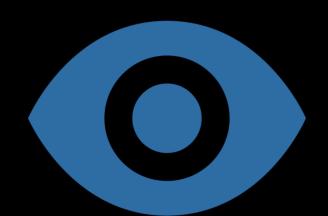


\$7

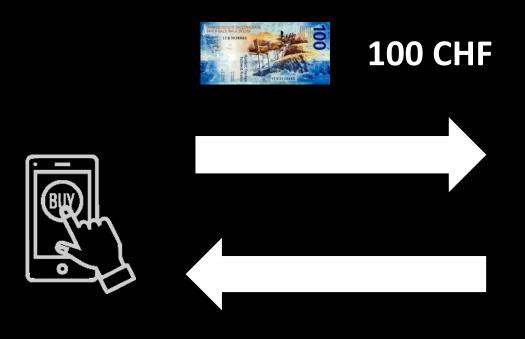


Information Transparency





Sandwich Attacks

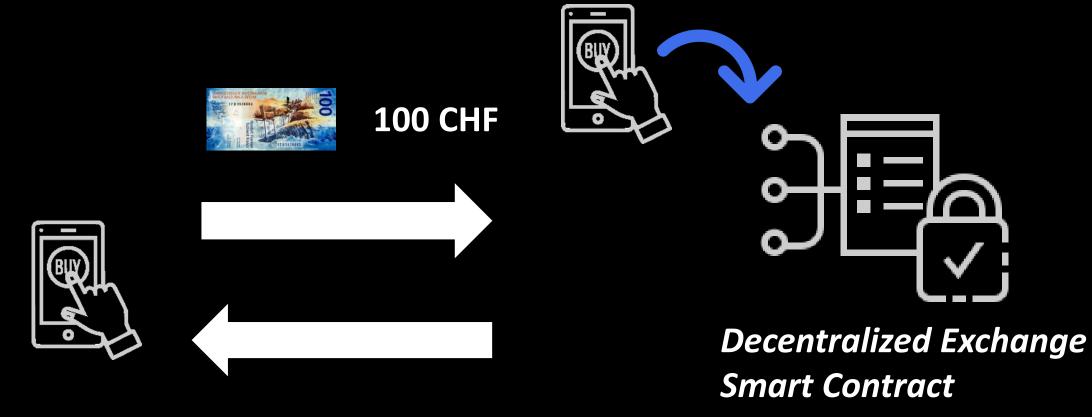




100 USD

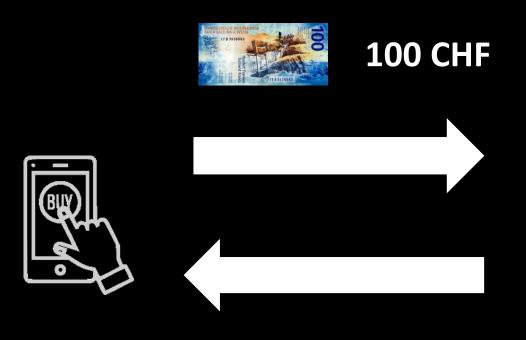


Decentralized Exchange
Smart Contract





80 USD









Decentralized Exchange
Smart Contract



Front-running

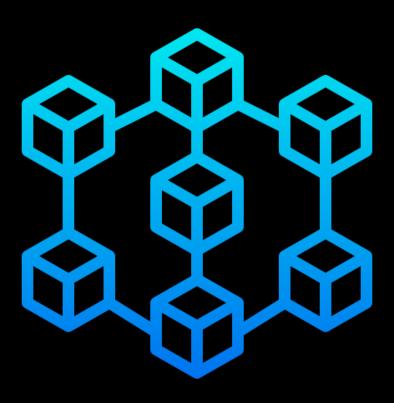


Victim

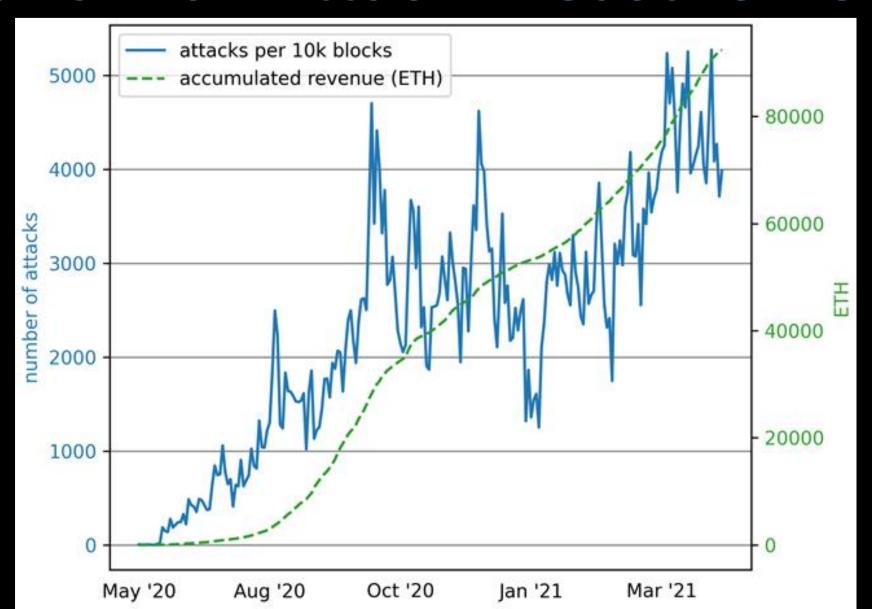


Back-running





Sandwich Attack Measurement



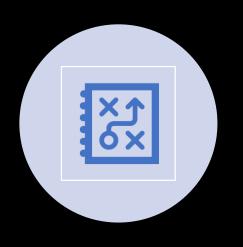
Interview Study

15 Participants

Thematic Analysis

Three Themes

Findings Knowledge of Sandwich Attacks







Challenging

Revenue-related

Global Impact

Findings Attitude to Sandwich Attacks

Individual

Community





Findings Attitude to Sandwich Attacks





Lessons to individual users



Inconspicuous



Community development

Findings Mitigation of Sandwich Attacks









Improving Awareness

Detect Real-time
Attacks

Automated Trading Supporting Various Market

Key Takeaways



Unregulated Market



Information Asymmetries



Collaboration Between Stakeholders



Education Needs

Thank You!

Any questions?

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