

The use of decentralized exchange (DEX) platforms has been growing in the last few years. New Layer 2 (L2) blockchain alternatives provide better scalability and lower fees than the Ethereum blockchain (L1), but the security of L2 relative to L1 is unclear and difficult to identify. Using a structural model and a novel and comprehensive data set, we estimate investors' preferences for blockchain security on two main L2 networks, Polygon and Optimism. We find that traders anticipate an 0.68% (3.29%) chance of losing the transaction value when trading on Polygon (Optimism) compared to L1, and a considerable amount higher than the (0.01%-0.3%) transaction fee charged on each trade. Our work can be seen as empirical evidence of the tradeoff between scalability, security, and decentralization, which is the biggest challenge of blockchain networks.