

Topic: Margin Constraints, Default Aversion, and Optimal Hedging in Bitcoin Futures Markets

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Abstract: We incorporate margin constraint and default aversion into the study of Bitcoin futures. The margin constraint limits an investor's ability to satisfy the margin requirement in futures trading, while losses exceeding the margin constraint leads to a default event. The investor seeks an optimal strategy with dual objectives to minimize the risk of her hedged portfolio and the default probability. By using minute-level data across several dominant Bitcoin spot and futures markets, we conduct empirical analysis and find that both margin constraint and default aversion have a major impact on the optimal strategy and its performance in risk reduction. The optimal strategy achieves superior hedge effectiveness overall and helps reduce the default probability and implied leverage to an acceptable level.

Meeting Recording:

https://unsw.zoom.us/rec/share/2W9mfj8ITCEKdAdRV_qxYQ42pSQvAXjXayphGqh_c7jD7U9n0fZDSjKnQ2JQQ82K6.7aYJcuXq-FkQxLmt