Project Title: Exploring the Use of Prediction Markets as Risk Assessment and Hedging Tools in the Financial Industry

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Project Summary:
With the rising popularity of prediction platforms, such as Polymarket, covering a wide range of event types, from politics to economics to socially related activities, it is observed that the prediction market is an early but growing blockchain-based tool that is under-adopted by large institutions. Due to the potential for growth and increased usage of prediction markets, our team would like to investigate whether market-driven, real-time probability estimates from prediction markets can enhance financial risk management by exploring possible values and hedging opportunities. This project aims to examine how simple derivative-like instruments, that is, binary Yes/No contracts, can be used by rentals and institutional actions to take risk, earn returns or hedge tail exposure. To achieve the project objectives, the following are potential areas to explore in this project:
1. Gaps and use cases identification where the prediction market outperforms traditional risk transfer methods.
2. Mathematical/ Algorithmic framework development for exploiting pricing differences and arbitrage across event categories, improving profitability and precision.
3. Institutional application exploration, including parametric insurance with probabilistic triggers and commodity hedging informed by market consensus.
4. Prototype operation model design for binary (yes/no) prediction-market derivatives
5. Oracle and data-extraction protocol integration for ensuring accurate mapping of real-world outcomes to on-chain contracts
6. Governance consideration assessment for supporting a secure public launch, promoting regulatory and cybersecurity alignment to enhance stakeholder confidence