

Report on Bachelor / Master Thesis

Institute of Economic Studies, Faculty of Social Sciences, Charles University

Student:	Bc. Pavel Řežábek
Advisor:	prof. PhDr. Ladislav Křišťoufek, Ph.D.
Title of the thesis:	Analysis of Prediction Markets in Crypto: Investigating Convergence in Time, Volatility, and Biases in Polymarket

OVERALL ASSESSMENT (provided in English, Czech, or Slovak):

Short summary

The thesis explores decentralized prediction markets within the cryptocurrency space, with a focus on Polymarket. It investigates key aspects such as their operational mechanisms, predictive accuracy, volatility, and the cognitive biases that may influence market behavior. The research aims to compare prediction markets with traditional financial markets, highlighting how decentralized models differ in their dynamics, risk factors, and potential for forecasting future events. The study also addresses the implications of prediction markets for traders and researchers, particularly in decision-making processes.

Contribution

The focus on decentralized prediction markets, within the context of cryptocurrencies, is a relevant field worth exploring. The thesis addresses a growing area of financial technology and contributes valuable insights into the behavior of these emerging markets. The paper thoroughly covers multiple dimensions of prediction markets, including market efficiency, probability convergence over time, volatility comparison, and cognitive biases. Although the field of cryptocurrencies is a highly studied field, the thesis brings interesting results and provides certain value added.

Methods

The methods used in the thesis are adequate, although a more detailed description would be appreciated. The results are discussed in detail and summarized in an easily understandable manner.

Literature

The literature review is well-structured, and it effectively connects theoretical foundations to the practical workings of prediction markets, offering a background for the empirical analysis. The author shows a good knowledge of the literature, works with it properly and explains all the concepts used throughout the thesis nicely.

Manuscript form

The submitted thesis is nicely written using proper language, and reads well. In my opinion, the author should just better structure the Introduction – while it is good to summarize individual chapters, a more comprehensive introduction to the topic would be appreciated.

Overall evaluation and suggested questions for the discussion during the defense

Overall, the presented thesis provides a thorough analysis of decentralized prediction markets, contributing to both academic understanding and practical insights. The author did a good job of describing data and methods in sufficient detail and selecting the most important results. I think the thesis brings interesting empirical results that could be a valuable resource for researchers and market participants alike.

During a defense, the author can discuss the implications of high volatility in decentralized prediction markets.

In my view, the thesis fulfills the requirements for a master thesis at IES, Faculty of Social Sciences, Charles University, I recommend it for the defense and suggest a grade A. The results of the Turnitin analysis do not indicate significant text similarity with other available sources.

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SUMMARY OF POINTS AWARDED (for details, see below):

CATEGORY	POINTS
<i>Contribution</i> (max. 30 points)	27
<i>Methods</i> (max. 30 points)	28
<i>Literature</i> (max. 20 points)	20
<i>Manuscript Form</i> (max. 20 points)	19
TOTAL POINTS (max. 100 points)	94
GRADE (A – B – C – D – E – F)	A

NAME OF THE REFEREE: *František Čech*

DATE OF EVALUATION: 9.9.2024

Referee Signature

EXPLANATION OF CATEGORIES AND SCALE:

CONTRIBUTION: *The author presents original ideas on the topic demonstrating critical thinking and ability to draw conclusions based on the knowledge of relevant theory and empirics. There is a distinct value added of the thesis.*

METHODS: *The tools used are relevant to the research question being investigated, and adequate to the author's level of studies. The thesis topic is comprehensively analyzed.*

LITERATURE REVIEW: *The thesis demonstrates author's full understanding and command of recent literature. The author quotes relevant literature in a proper way.*

MANUSCRIPT FORM: *The thesis is well structured. The student uses appropriate language and style, including academic format for graphs and tables. The text effectively refers to graphs and tables and disposes with a complete bibliography.*

Overall grading:

TOTAL	GRADE
91 – 100	A
81 - 90	B
71 - 80	C
61 – 70	D
51 – 60	E
0 – 50	F