

Report on Bachelor Thesis

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

Student:	Vojtěch Suchánek
Advisor:	Mgr. Nicolas Fanta
Title of the thesis:	Arbitrage on the Cryptocurrency Markets: An Analysis of Potential Opportunities

OVERALL ASSESSMENT

Short summary

With the rise of cryptocurrencies and multiple exchanges, market inefficiencies started to appear, thus bringing new potential for arbitrageurs. In his study, Vojtěch analyses how often and how profitable these arbitrage opportunities between exchanges are. The research is based on simple but efficient methods and confirms the existence of arbitrage potential.

Contribution

In his study, the author manages not only to describe the existence of arbitrage opportunities per se, but he also considers specific investment including various capital allocation and the complete fee structure. Current studies in most cases disregard the trading fees. The thesis therefore provides a complete guidance on how such trading strategy could be executed. Similar research can seldom be found as they are mostly kept secret and monetised.

In terms of data, it should be highlighted that Vojtěch performed meticulous research encompassing high granularity (10 seconds interval) data from 7 exchanges. Due to the large number of included exchanges, the selection of a shorter, 6 months, timespan is therefore understandable.

Methods

From the methodological perspective the study uses simple, but efficient and adequate methods. I appreciate that the study assesses the strategies from different perspectives: capital, trade length (depending on the transaction time) and target profitability – a very similar approach to an algorithmic trading strategy description (professional quantitative researchers are elaborating).

Literature

The literature review reads well. It provides a decent introduction to the topic, summarises well the current strands of literature, however, I would personally expect it to be broader, even though not much literature is available on the topic.

Manuscript form

I do not have any objections in terms of the form. The hypotheses and results are fully backed by summary tables and graphs, the structure is coherent and the level of English high.

Overall evaluation and suggested questions for the discussion during the defence

It has been a pleasure overseeing this thesis. Vojtěch not only demonstrated how well he masters the topic of cryptocurrency arbitrage but also managed to put that into a solid piece of work. The Urkund analysis shows no issue with a score lower than 5% (for all 4 submitted documents). Overall, the thesis fulfils the requirement of a bachelor thesis and I recommend it for defence with a grade A.

In terms of questions:

- I am particularly interested in the spikes in the price deviation in Coinsbank. Do you think it is worth further assessment? If yes, how would you tackle that? What would be your strategy?
- After such research, I believe the next step is monetising it. How would you execute the strategy? Summarise the mechanism on how you plan to leverage that.

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

CATEGORY	POINTS
<i>Contribution</i> (max. 30 points)	30
<i>Methods</i> (max. 30 points)	28
<i>Literature</i> (max. 20 points)	15
<i>Manuscript Form</i> (max. 20 points)	20
TOTAL POINTS (max. 100 points)	93
GRADE (A – B – C – D – E – F)	A

NAME OF THE REFEREE:

Nicolas Fanta

DATE OF EVALUATION:

Digitally signed (27.8.2021)
Nicolas Fanta

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