

Report on Bachelor / Master Thesis

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

Student:	Bc. Jiří Šafka
Advisor:	PhDr. Pavel Vacek, Ph.D.
Title of the thesis:	Virtual currencies in real economy: Bitcoin

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

The thesis investigates a modern phenomenon of virtual currencies with focus on Bitcoin, which is the most used one. Thesis begins with the description of the term virtual currency followed by the legal status of Bitcoin in several countries. Description of MtGox, Bitcoin exchange, which data are used for empirical part is provided afterwards. Empirical research has two parts, one focusing on the time series of data from MtGox, second one connects Bitcoin price movements to “tangible” economy using a few stock indices and gold price as proxy.

From the manuscript perspective, the thesis is well written with no stylistic or grammar mistakes, which makes the thesis easy to read. However, for academic text one would expect better referencing related to figures, tables and parts of appendix (“following table”, “figure above”, “can be found in the appendix”). When using direct quotes from articles or books, page number is necessary, but author fails to provide it, as well as the date of retrieval of webpages, which are used extensively. Web sources are sometimes quoted as general webpage in the text (e.g. Page 27, figure 6 or page 14, figure 4, etc.), but they are not listed in the reference section at the end of the thesis. Since the list of other sources is complete I would consider this rather a technicality not influencing the relevance of the sources.

Methodology used in the thesis is fine, models are tested and introduced with one exception – model with structural breaks dummies. Model is described, tested, results provided and interpreted, however formal definition is missing. When stating a formal definition of model (page 53), name explanatory variables follows from the text on page 52, but it should be stated explicitly. Summary characteristics of these variables is not provided even in the appendix and there is no information about modification of the datasets (except using first differences of logarithmic prices). The aim was to retrieve stationary series of explanatory variables, but was it somehow verified?

Is there some literature that used similar model as one on page 53?

When interpreting results of OLS regressions (page 55): dependent variable is log return of BTC and independent variable is log return of NASDAQ, author states: “The coefficient is positive and surprisingly high (4.6192) meaning that one percent change in NASDAQ index was reflected by more than 4.6% change of Bitcoin price in the same direction.” That is not true.

Thesis is missing an introduction chapter, where the author can state his research question, motivation and added value of the thesis, as well as make a ground for the thesis structure. The reader does not know, why and what the thesis will investigate this topic. Short literature review is merely list of studies with abstracts. Author does not use any information from this part in his following research, which again raise a question, what is the added value of the thesis and motivation behind it and how relevant is such literature for this thesis? About ten pages are used for discussion of legal issues, but it remains unknown why the authors focuses on it, as well as how countries discussed were chosen or and what about other countries?

Volatility inspection is performed with the assumption that Bitcoin is an asset and compared to NASDAQ and gold (chart, basic statistics). However, the whole previous chapter was also spent on the discussion if Bitcoin is a currency. Is Bitcoin a currency in author’s perspective or a stock?

Conclusion is summarizing results only from the empirical part and does not discuss any possible weaknesses of the research or methodology used or advice for future and following research.

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Suggested questions for the defence is:

- How does this thesis follow previous research in this field?
- What is the contribution of this thesis?
- What suggestions does author have for the future research?

In the case of successful defence, I recommend **“velmi dobře” (good, 2)**.

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

CATEGORY	POINTS
<i>Literature</i> (max. 20 points)	15
<i>Methods</i> (max. 30 points)	26
<i>Contribution</i> (max. 30 points)	15
<i>Manuscript Form</i> (max. 20 points)	18
TOTAL POINTS (max. 100 points)	74
GRADE (1 – 2 – 3 – 4)	2

NAME OF THE REFEREE: Petr Polák

DATE OF EVALUATION: 7. 6. 2014

Referee Signature

EXPLANATION OF CATEGORIES AND SCALE:

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

Strong Average Weak
20 10 0

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 analysed.*

Strong Average Weak
30 15 0

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.*

Strong Average Weak
30 15 0

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.*

Strong Average Weak
20 10 0

Overall grading:

TOTAL POINTS	GRADE		
81 – 100	1	= excellent	= výborně
61 – 80	2	= good	= velmi dobře
41 – 60	3	= satisfactory	= dobře
0 – 40	4	= fail	= nedoporučuji k obhajobě