

Report on Bachelor / Master Thesis

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

Student:	Pavel Fišer
Advisor:	PhDr. Jiří Kukačka
Title of the thesis:	Econometric Analysis of Bitcoin and its 2013 Bubbles

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

From the formal as well as quantitative perspective the work matches standards of an excellent bachelor thesis. Especially to the quantitative methods used, I have no critical comments whatsoever. There is however one major methodological point:

It is very plausible as well as widely known, that ends of both of examined „bubbles“ were actually caused by external events - Mt. Gox market outage (April 2013), and police closing the Silk road black market (November 2013), both of which had not much to do with recent Bitcoin price development and were thus hardly predictable by methods presented in thesis. Especially the second drop might have rather been caused by change of fundamentals underlying real non-speculative market for bitcoin, thus **it is hard to call it a bubble burst at all**. Possibility of November drop being (at least partially) a drop in real non-speculative price raises questions regarding plausibility of used methodology (following for example Johansen & Sornete (2001)), that seems to assume existence of bubble driven rather by endogenous market development.

Even if both events were merely triggers of inevitable bubble burst (which I certainly would not consider granted), such proposition should be thoroughly discussed in thesis dealing with the topic. Especially in parts like 8.4.1, where predictability of crashes is discussed, the fact that both of them were caused by exogeneous events might be highly relevant (no wonder that thesis concludes, crashes were rather not predictable).

As much as I appreciate use of quantitative methods well beyond expected skillset of bachelor student, I do consider use of inappropriate methodology a major flaw, which should have been noticed and at least partially discussed by critically thinking student who did elementary reading on examined matter.

I thus conditionally **recommend grading the work as satisfactory**, with strong recommendation of discussing the matter thoroughly during defense. Frankly I am not sure, whether the omission of fundamental facts was a stupid mistake of poor groundwork or a deliberate step of overly abstracting from the real world. The first I would understand, the second is a willful choice of inappropriate methodology, that implies poor analytical judgment, to which corresponds my grading.

Suggested questions:

1. Chapter 6.5 links characteristics of second „bubble“ with inflow of new market entrants. Is for such assertion any other evidence besides larger market volatility?
2. How do the used methods deal with issue of external shocks causing steep changes of market price? How would you demonstrate, that at least part of the price drops were actually bursts of speculative bubbles, which would justify use of chosen methodology?

Report on Bachelor / Master Thesis

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

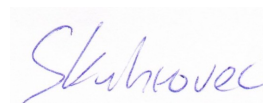
Student:	Pavel Fišer
Advisor:	PhDr. Jiří Kukačka
Title of the thesis:	Econometric Analysis of Bitcoin and its 2013 Bubbles

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

CATEGORY	POINTS
<i>Literature</i> (max. 20 points)	20
<i>Methods</i> (max. 30 points)	20
<i>Contribution</i> (max. 30 points)	0
<i>Manuscript Form</i> (max. 20 points)	20
TOTAL POINTS (max. 100 points)	60
GRADE (1 – 2 – 3 – 4)	3

NAME OF THE REFEREE: Jiří Skuhrovec

DATE OF EVALUATION: 6.9.2015



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 analyzed.*

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