Report on **Bachelor**

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

Student:	**Jan Kubal**
Advisor:	**Prof. PhDr. Ladislav Krištoufek, Ph.D.**
Title of the thesis:	**Exploring the relationship between Bitcoin price and the network's hashrate**

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

Please provide a short summary of the thesis, your assessment of each of the four key categories, and an overall evaluation and suggested questions for the discussion. The minimum length of the report is 300 words.

Short summary

The thesis aims to explore the relationship between price of Bitcoin and the hashrate of the network that ensures its functionality in transactions validation. This is done through approaching the system of equations describing the relationship between the set of important variables of the cryptocurrency. Several interesting relationships have been uncovered, even though some of them might be seen as rather unexpected. Environmental implications are discussed as well.

Contribution

The contribution to the current stream of literature is quite strong as the Bitcoin mining is not as researched on as it would deserve. Even though the paper builds on the results of the supervisor (Kristoufek, 2020, Energy Economics), the topic is approached from a much broader perspective, allowing for a more detailed discussion of interactions among a larger set of variables, also controlling for possible endogeneity.

Methods

The utilized methods, specifically the two- and three-stage least squares as well as seemingly unrelated regressions, are above the standard bachelor's curriculum. However, they have been necessary as the whole system of cryptocurrency variables is tightly interconnected and not allowing/assuming for endogeneity could negatively influence the validity of results, even if the endogeneity is eventually not as strong as one might have expected. All these methods and analyses are carried out with precision, all necessary tests are included, and these are thus reliable and trustworthy.

Literature

The thesis covers all necessary and up-to-date literature. I find no issues there.

Manuscript form

The thesis carefully written with all its parts being given the proper treatment. Based on the Urkund analysis, there is only a 5 % match with other sources, i.e., there is no issue detected.

Overall evaluation and suggested questions for the discussion during the defense

This is an excellent bachelor's thesis that I believe could be defended as a master's thesis as well. I propose grade A without doubts. I also believe that a compressed version of the thesis could be submitted to a decent economics journal.

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

CATEGORY		POINTS
Contribution	*(max. 30 points)*	30
Methods	*(max. 30 points)*	30
Literature	*(max. 20 points)*	20
Manuscript Form	*(max. 20 points)*	20
TOTAL POINTS	*(max. 100 points)*	**100**
GRADE	**(A – B – C – D – E – F)**	**A**

NAME OF THE REFEREE: Ladislav Kristoufek

DATE OF EVALUATION: 29 August 2021

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Referee Signature