

Report on Bachelor Thesis

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

Student:	Adam Tůma
Advisor:	prof. PhDr. Ladislav Křišťoufek, Ph.D.
Title of the thesis:	Analysis of the US stock market during the COVID-19 pandemic

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 studies the dynamics of stock market returns before, during, and „after“ the COVID-19 pandemic. It delivers a nice study via the combination of ARMA and GARCH-family models, focusing on weekly effects. The thesis overall is well conducted, with no evident issues, and can be easily defended.

Contribution

The contribution can be seen from two sides. First, the positive one, is that it delivers a timely study on the very current situation on the market. Second, not necessarily negative but certainly a bit limiting, is the fact that separation between pre-crisis, crisis, and post-crisis can be a bit fuzzy, and of course the separation of the subsets can play an important role in the final results. We have discussed this quite a bit during the thesis writing, trying to connect the separation points to some important events. Probably the most tricky part is the fact that the US government reacted by an unprecedented quantitative easing, inflating the monetary supply above standardly thinkable levels. This of course makes the discussion of the crisis-effect quite challenging as the crisis itself did not have much time to really affect the market at least in the medium term. Anyway, I believe the thesis brings interesting and contributive results to the current literature.

Methods

A combination of ARMA-(T-)GARCH is used to study the changes in dynamical properties of stock returns. These can be seen as rather stable but for a bachelor's thesis, they are above the standard curriculum. The analysis is performed carefully and I found no limiting issues with the reported results.

Literature

As the topic connects a very current topic (COVID-19) with a rather historical one (day-of-the-week effect), a reasonable range of references needs to be covered. The author has been successful in this endeavor.

Manuscript form

The text is nicely organized and it reads well. LaTeX form is very fitting with various formulas and even though the charts come from different softwares, they are prepared well so that it does not disturb the reader.

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Overall evaluation and suggested questions for the discussion during the defense

The results of the Urkund analysis show no issues with 1% score (average of 11% for all documents). In my view, the thesis fulfills the requirements for a bachelor thesis at IES FSV UK and I recommend it for defence and suggest grade A.

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

CATEGORY	POINTS
<i>Contribution</i> (max. 30 points)	28
<i>Methods</i> (max. 30 points)	28
<i>Literature</i> (max. 20 points)	20
<i>Manuscript Form</i> (max. 20 points)	20
TOTAL POINTS (max. 100 points)	96
GRADE (A – B – C – D – E – F)	A

NAME OF THE REFEREE: Ladislav Kristoufek

DATE OF EVALUATION: 28.05.2021

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