

Report on Bachelor / Master Thesis

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

Student:	Bc. Matěj Coufal
Advisor:	PhDr. František Čech, Ph.D.
Title of the thesis:	Influence of stock market variables on correlations among S&P sectors

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 submitted thesis studies the dependence structure among the S&P sectors. The author applies the DCC GARCH model augmented by the exogenous variables such as volatility index and concentrates on the changes in correlations. By focusing on different investment horizons (daily vs weekly), the author detects that the volatility index can predict changes in correlations, the energy sector depends on crude oil prices, and the IT sector depends on the yields on US Treasury Notes.

Contribution

The main contribution of the thesis is the empirical application investigation of the dependence of correlations among sectors on the external variables. The author finds that volatility index has the ability to predict changes in correlations and energy sector, as expected, depends on crude oil prices. Overall, the thesis contributes to the literature devoted to dependence modelling. It also concentrates on S&S 500 index sectors which is relatively novel.

Methods

The methods used in the thesis are standard in the literature. I have discussed the theoretical and empirical application of the methods with the author regularly. Overall all the methods and concepts are well described and applied correctly.

Literature

The submitted thesis contains a detailed overview of the current literature devoted to dependence modelling. All the papers mentioned in the thesis are relevant to the topic, and the majority of them were published in respected economic journals. The author shows a good knowledge of the literature, works with it well and tries to explain all the concepts used throughout the thesis in a clear way.

Manuscript form

The author considered all of my comments on the previous version of the text - the submitted thesis is well structured, nicely written and reads well. The only comment I have regarding manuscript form is a rather mechanical description of the individual correlation pairs results. On the other hand, I am pleased that the author includes summarizing subchapter of all main results, which significantly overweight my previous comment.

Overall evaluation and suggested questions for the discussion during the defense

Overall, I think it is a very nice master thesis. During the defense, the author should explain the possible problem with endogeneity in the analysis – the author is analyzing sectors of S&P 500 but also uses the index itself as the explanatory variable. In my view, the thesis fulfils the requirements for a master thesis at IES, Faculty of Social Sciences, Charles University. I recommend it for the defense and suggest a grade A." The results of the Urkund analysis do not indicate significant text similarity with other available sources

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

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CATEGORY	POINTS
<i>Contribution (max. 30 points)</i>	27
<i>Methods (max. 30 points)</i>	28
<i>Literature (max. 20 points)</i>	19
<i>Manuscript Form (max. 20 points)</i>	19
TOTAL POINTS (max. 100 points)	93
GRADE (A – B – C – D – E – F)	A

NAME OF THE REFEREE: František Čech

DATE OF EVALUATION: 9.6.2022

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