Report on Master Thesis

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

Student:	**Timur Bahodirovich Barotov**
Advisor:	**Jozef Barunik**
Title of the thesis:	**Climate Change Risk Premium, Stock Returns and Volatility Analysis in Relation to ESG Score**

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

Short summary

The thesis aims to quantify how investors perceive risk related to climate change, or in other words how investors evaluate and price business sustainability. In the analysis, author forms portfolios based on the ESG (Environment, Social and Governance) score as a proxy for corporate sustainability and ecology and finds that climate risk is a risk already priced by investors. Author documents negative price of risk being associated with companies with high ESG score, and lower returns as well as volatility of stocks with high ESG score. Although the results are on the edge of significance, they contribute to the recent debate.

Contribution

Timur contributes to the very recent efforts quantifying climate change risk premium in stock markets. In his work, he creates climate factor based on the ESG score and he brings novel empirical results on the European stock market data. The main novelty is creation of the factor proxying the climate change risk.

Methods

Timur uses standard tools used in the empirical asset pricing research. The main work was with data and factor creation, the rest is standard analysis in empirical finance and it is done properly.

Literature

Author works with all relevant literature properly, introduces the climate change risk discussion and all relevant sources in sufficient detail. On the other hand working with ESG scores and proxies for climate change risk, I believe reader would benefit largely from the earlier discussion on what ESG actually is and how literature uses it.

Manuscript form

The text is well written, logical, explains problem in sufficient detail. Motivation as well as some results are presented in slightly confusing way to the reader, especially author explains ESG scores only after introducing the data and reader is left with confusion why an ESG score should actually be used and what type of data this is for long time. Still, after some efforts, one finally learns how author contributes to the literature.

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Overall evaluation and suggested questions for the discussion during the defense

In conclusion, I believe the thesis is a solid piece of work that brings empiral insights into the literature exploring climate change risk. I believe author could discuss following questions during the defense:

1/ I would suggest discussing deeper what is an ESG score especially in relation to other proxies (are there any other reliable?) to support the choice of ESG.

2/ Is portfolio based on the companies sorted on ESG score a good proxy for climate change risk? What is economic rationale behind this.

I believe that the thesis deserves to be defended without doubts. In case author is confident in presenting the details of the work during the defense, and mostly confident in the discussion and response to my questions, I suggest to award the work with grade "B".
Finally, the results of the Urkund analysis do not indicate significant text similarity with any other available sources.

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

CATEGORY		**POINTS**
Contribution	*(max. 30 points)*	25
Methods	*(max. 30 points)*	26
Literature	*(max. 20 points)*	14
Manuscript Form	*(max. 20 points)*	16
TOTAL POINTS	*(max. 100 points)*	**81**
GRADE	**(A – B – C – D – E – F)**	**B**

NAME OF THE REFEREE: Jozef Barunik

DATE OF EVALUATION: 9.8.2022

Jozef Baruník

Digitally signed by Jozef Baruník
Date: 2022.08.09 17:06:57 +02'00'

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**