## **Report on Bachelor Thesis**

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

Student:	Rufat Asadli
Advisor:	RNDr. Michal Červinka, Ph.D.
Title of the thesis:	Analysis of the Czech Trade Structure using the Zipf's Law

## **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 considers international trade of the Czech Republic in the period of 1998 to 2020 and indices which capture the Revealed Comparative Advantage (RCA). The author investigates a hypothesis that these indices are distributed in line with the Zipf's law, i.e. that there is a negative linear relationship between the data and their ranks, to which he provides an affirmative answer. These results are then used for the analysis of power law exponents via VAR models to which the author provides thourough additional analysis and interpretations.

#### Contribution

The author provides evidence for an inovative hypothesis to the analysis of the distribution of indices measuring RCA. Subsequently, he thoroughly analyzes the results and provides detailed discussion. I would like to highlight the section 4.2 which skillfully introduces the mathematical background of the Zipf's law and the Zipfian distribution.

#### Methods

The author shows a good command of the concept of Zeta function and related concepts of Zipfian and Yule-Simon distributions. Furthermore, he employs linear regression, vector autoregression and Bayesian vector autoregression models and related methods. He provides a thorough analysis of the corresponding assumptions and diagnostic tests along with the analysis of Granger causality. Many of these methods go beyond the standard curriculum of Bachelor's studies at IES.

#### Literature

The author demonstrates a good command of the source material both in Chapters 2 and 3, and in the vast list of references. The list of references is presented consistently in a selected citation style.

#### **Manuscript form**

The thesis is well-organized and gradually exposes the reader to the topic, which positively contributes to the readability of the manuscript. Also, the high graphical quality of the figures and organization of tables allows the reader to esily follow the authors arguments.

Furthermore, the author demostrates high English proficiency.

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## Overall evaluation and suggested questions for the discussion during the defense

The results of the Urkund analysis do not indicate significant text similarity with other available sources.

Taking into account the arguments above, in my view, the thesis fulfills the requirements for a bachelor thesis at IES, Faculty of Social Sciences, Charles University, I recommend it for the defense and suggest a **grade A**.

As the author regularly discussed the progress of his work on the thesis, and all my comments have been incorporated in the final version of the manuscript, I do not have any further questions which should be addressed during the thesis defense.

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

CATEGORY		POINTS
Contribution	(max. 30 points)	29
Methods	(max. 30 points)	30
Literature	(max. 20 points)	20
Manuscript Form	(max. 20 points)	19
TOTAL POINTS	(max. 100 points)	98
GRADE (A - B - C - D - E - F)		Α

NAME OF THE REFEREE: Michal Červinka

DATE OF EVALUATION: 27.5.2022

Referee Signature			

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#### **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	В
71 - 80	С
61 – 70	D
51 – 60	E
0 – 50	F