# **Report on Master Thesis**

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

Student:	Bc. Magdaléna Škodová
Advisor:	PhDr. Jana Votápková, Ph.D.
Title of the thesis:	Improvement of risk adjustment for health insurance companies in the Czech Republic – compensation of costs of patients with renal failure

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

Please provide your assessment of each of the following four categories, summary and suggested questions for the discussion. The minimum length of the report is 300 words.

The thesis assesses the efficiency of the current PCG model to predict costs of the most expensive chronic disease – renal failure. It proposes improvements to the model for dialysis procedures in addition to consumption of typical drugs. The proposed amendments increase the explained variation from 26 % to 49 %. Predictive power of the enhanced model also increases compared to the model currently used.

#### Contribution

### Contributions of the thesis are both theoretical and empirical.

If applied, the proposed model has a potential to enhance fairness of fund redistribution for patients with renal failure among Czech health insurance companies with only marginal costs.

The thesis also implicitly poses a question whether additional variables would enhance also other PCG groups.

### **Methods**

The thesis follows the current stream of literature and applies the OLS to estimate the model although distributional properties of healthcare costs can hardly be assumed normal. The author however, justifies her decision in the literature review well. I suggest, Magdalena elaborated on this issue more during the defense too.

# Literature

Literature review is used well to justify Magdalena's points. The sources are well cited. The author does a great job introducing risk adjusment in other countries keeping it brief, concise but informative.

# **Manuscript form**

The thoughts are logical, the text flows well. However, the language is sometimes too extensive and unnecessary fillers are used inspite of the fact that we improved the text significantly during the writing process. The author uses proper academic English

Magdaléna incorporated all my comments as she was writing the thesis. Thus I have no additional comments.

# Summary and suggested questions for the discussion during the defense

# Suggested questions:

1. Do you think that also other PCG groups would benefit from additional controls to enhance efficiency of fund redistribution among health insurance companies? Which ones? Do you think that some groups would benefit from model reconsideration while others not? Why?

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- 2. Elaborate on other econometric models, besides OLS, that may be used for PCG estimation. Why was OLS chosen as the best one although distributional properties of the dataset are questionable?
- 3. Can you imagine that the model you propose would be used in practice? Do you plan to hand it over to the stakeholders concerned? Or how do you plan to use the results next (publication, etc.)?

Magdaléna completed the thesis independently under my guidance. She was dedicated to the work and was nice to work with.

In my view, the thesis fulfills the requirements for a master thesis at the 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):

CATEGORY		POINTS
Contribution	(max. 30 points)	30
Methods	(max. 30 points)	28
Literature	(max. 20 points)	19
Manuscript Form	(max. 20 points)	15
TOTAL POINTS	(max. 100 points)	92
GRADE (A – B – C – D – E – F)		A

NAME OF THE REFEREE:

DATE OF EVALUATION:	September 8, 2020	Digitally signed (September 8, 2020) Jana Votápková
		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	В
71 - 80	С
61 – 70	D
51 – 60	E
0 – 50	F