

# Report on Bachelor / Master Thesis

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

<b>Student:</b>	<b>Bc. Tereza Tachovská</b>
<b>Advisor:</b>	<b>doc. Ing. Vladimír Benáček, CSc.</b>
<b>Title of the thesis:</b>	<b>Factors Determining Czech Export on Different Aggregations with Focus on Electrical Engineering: Gravity Model Approach</b>

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

The author Tereza Tachovská provides in this thesis a very good empirical study on the export function of the Czech Republic and France based on the theory of New Economic Geography. She focuses on the elasticities of three aggregations (total, industry and product level) for both the Czech Republic and France. The author also compares the export equation in two important time points – 1995 and 2013. The author created an original dataset and tested her hypotheses with an appropriate methodology. Her findings that are often not directly intuitive are truly a contribution to the current state of the literature.

Manuscript form: the thesis is well structured and organized, the length of chapters and of the thesis itself is quite balanced and it gives reader all information needed; maybe the description of the evolution of the Czech export is a little long while there is no word about the French export, which could have been added in the form of a paragraph describing some noteworthy events. The author uses good English, however the thesis could have gone through a grammar check by a native speaker – there are sometimes unnecessary mistakes in the text. Generally speaking, except for some minor details I have nothing to object against.

Literature review: In this part the author summarizes relevant literature that is connected with the NEG and the methods used for analysis. The description of the evolution of the Czech export and industry is rather long, but well done. The presented literature is sufficient in length and depth, citing the seminal papers as well as the recent developments in the field. As not an expert in the field, I appreciate that she clearly discusses the pros and cons of her approach and the scientific discussion about it. I see it was not her goal to say which method is better, but to take a reasonable one and apply it in her own way.

Methodology: Well explained and described, I like comparing the linear and PPML approaches. I have only a few remarks on how to improve the presentation of the results which may be of interest before publishing the results.

The selection of variables is sensible and the adjustment due to high VIFs is well done. However, it seems that some carry very similar information. Also, by intuition, if an export partner is a developing country, it has low GDP PPP, high ERDI and with a high probability it is a land-locked country, therefore these variables may be correlated. If VIF analysis does not identify any more problems, the multicollinearity should not be a problem though.

The discussion of assumptions (6.1) of the econometric analysis is nice, but how does it relate to the real estimation – are the assumptions of the estimated models satisfied? Moreover, what about assumptions of PPML model? What are they, and are they satisfied?

I am quite impressed by high R-squared statistics of the PPML models. Is this normal in the literature? Next, apart from reporting the coefficients, what is the frequency of data (monthly/quarterly/yearly) and the total number of observations used in the regressions? Apart from that, the author mentions clustering of the standard errors on the state level. It could be made clear that it is the export partner. The next issue is the reversed causality between GDP & export. If a country has a strong export, it may boost GDP, and vice versa. This is probably an important issue and could have been discussed more and could have been accounted for in the analysis, probably by adding a lag of GDP. The author may look at Awokuse (2007) and Xu (1996).

The null effect of the Euro on Czech export is fully understandable – the exchange risks were not eliminated (only among Eurozone countries) and probably most of the export happened in vehicle currencies already anyway.

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The interpretation of coefficients is good, but could be set into a theoretical framework and be connected to related literature to see how the findings contribute to the overall understanding of the topic.

Generally speaking, the thesis is a demonstration of good quantitative abilities and an original idea of the author.

Suggested question for defense:

Please interpret the different elasticities for the three aggregations. Please also comment on the overall findings concerning the comparison of France and the Czech Republic and their practical (policy) implications.

In case of successful defense I recommend the commission to give the **grade 1 (excellent/výborně)**.

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

<b>CATEGORY</b>	<b>POINTS</b>
<i>Literature</i> (max. 20 points)	20
<i>Methods</i> (max. 30 points)	25
<i>Contribution</i> (max. 30 points)	30
<i>Manuscript Form</i> (max. 20 points)	20
<b>TOTAL POINTS</b> (max. 100 points)	<b>95</b>
<b>GRADE</b> (1 – 2 – 3 – 4)	<b>1</b>

**NAME OF THE REFEREE:**

**PhDr. Lubomír Cingl**

**DATE OF EVALUATION:**

**June 10, 2015**



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**Referee Signature**

### **EXPLANATION OF CATEGORIES AND SCALE:**

**LITERATURE REVIEW:** *The thesis demonstrates author's full understanding and command of recent literature. The author quotes relevant literature in a proper way.*

Strong                  Average                  Weak  
20                          10                          0

**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.*

Strong                  Average                  Weak  
30                          15                          0

**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.*

Strong                  Average                  Weak  
30                          15                          0

**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.*

Strong                  Average                  Weak  
20                          10                          0

### **Overall grading:**

TOTAL POINTS	GRADE		
81 – 100	<b>1</b>	= excellent	= výborně
61 – 80	<b>2</b>	= good	= velmi dobře
41 – 60	<b>3</b>	= satisfactory	= dobře
0 – 40	<b>4</b>	= fail	= nedoporučuji k obhajobě