

# Report on Bachelor / Master Thesis

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

<b>Student:</b>	<b>Bc. Michael Bogren</b>
<b>Advisor:</b>	<b>Ing. Vilém Semerák M.A., Ph.D.</b>
<b>Title of the thesis:</b>	<b>The Cross-Country and Cross-Sectoral Study of TFP and its Determinants</b>

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

*Please provide your assessment of each of the following four categories. The minimum length of the report is 300 words.*

The main topic of this thesis is the impact of R&D and share of merchandise exports on TFP in 15 OECD countries between 1996-2009. Using panel data estimation, it is found that both variables have positive and significant impact on TFP.

### **Contribution and literature**

I'm somewhat curious what has been the motivation to undertake the research in this particular directions. Both hypotheses - of positive impact of R&D and exports on TFP - seem to be quite obvious, at least the first one. I would expect more explicit motivation in the introduction that will explain why this topic is actually worth investigating. What is unknown and whether there is some conflicting evidence on this matter suggesting an additional research contribution. However, I haven't found this neither in Introduction nor in literature review. Thus, it is rather complicated to evaluate the contribution of the thesis.

Unclear motivation implies that the relevancy of the literature review is somewhat questionable.

### **Methods**

The paper relies on random effect model. The empirical part starts with data description, somewhat interestingly the section with descriptive statistics covers more variables than innovations and trade which are the main topic of this thesis (i.e. access to ICT technology that are even not included among regressors).

Also, the choice of data representing the most important variables is somewhat strange. R&D expenditures are represented by total costs and not by their ratio to GDP, which is more common as it takes into account relative scale of the respective economies. Also, the human capital variable is constructed in somewhat non-transparent way to me.

The empirical exercise itself shows relatively simple regression with some results being intuitive, but the other ones not. Importantly, the contribution of human capital to TFP is estimated as being negative, which is quite strange. There is some attempt to explain this result but clearly, one should come up with results that do not look counterintuitively at first sight if there seem to be alternative approaches how to measure various determinants of TFP's.

To me, the main difference between carefully and not that carefully executed exercises is in the quality of the sensitivity analysis. I need to be persuaded that the main results - here the coefficients at innovation and trade variables - are robust to inclusion of other variables or to different ways of measuring or other meaningful changes in methodology. However, such analysis is not present here, just a comparison between RE and Arellano-Bond estimator. This is rather too little.

### **Manuscript form**

Somewhat behind the best theses. The list of contents contains items that are not necessary (i.e. list of tables) and it shows not only starts of sections but also their ends. Second, the text seems to be cluttered into too many subsections and it does not "flow". Many individual subsections could have been merged into broader sections (1 and 2, section with descriptive statistics and data). Finally, the section with results reads really like an empirical exercise, or a solution of a problem set prepared for econometric class, not like a part of an empirical paper.

Let me also note that inclusion of parts of the texts seem to be completely unnecessary, perhaps driven by the need to meet the requirement of number of pages in diploma thesis.

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**My overall evaluation is not very positive.** If I were supervisor of this thesis, I would strongly recommend substantial revisions and improvements before submitting the thesis. But I know some students are somewhat reluctant to these advices and bet on their performance at final defense. So my feeling is that the committee shall carefully assess the value added, methodology of this thesis and the overall understanding of the area of the author during the defense.

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

<b>CATEGORY</b>	<b>POINTS</b>
<i>Contribution</i> (max. 30 points)	10
<i>Methods</i> (max. 30 points)	12
<i>Literature</i> (max. 20 points)	10
<i>Manuscript Form</i> (max. 20 points)	10
<b>TOTAL POINTS</b> (max. 100 points)	<b>42</b>
<b>GRADE</b> (1 – 2 – 3 – 4)	<b>3</b>

**NAME OF THE REFEREE:**

**Jaromír Baxa**

**DATE OF EVALUATION:**

**September 5, 2017**



**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.*

<i>Strong</i>	<i>Average</i>	<i>Weak</i>
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.*

<i>Strong</i>	<i>Average</i>	<i>Weak</i>
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.*

<i>Strong</i>	<i>Average</i>	<i>Weak</i>
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.*

<i>Strong</i>	<i>Average</i>	<i>Weak</i>
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