

# Report on Bachelor / Master Thesis

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

<b>Student:</b>	<b>Bc. Michal Petrouš</b>
<b>Advisor:</b>	<b>Prof. Roman Horváth, Ph.D.</b>
<b>Title of the thesis:</b>	Base Erosion and Profit Shifting of Multinational Firms: Re-Estimation of Firm Level Evidence

## **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.*

### **Contribution**

The thesis estimates the extent of profit shifting and how it depends on anti-tax avoidance rules and financial secrecy using well-established methodology of Hines and Rice (1994). The author states that the contribution of the thesis is estimation of the regression model using updated data.

### **Methods**

The author follows the method developed by Hines and Rice (1994) to assess the extent of profit shifting and to estimate the accompanying semi-elasticity. The method consists of estimating fixed effects models for a panel of firms (multinational corporations).

The author states that the model assumes that if two firms are identical they should have identical profits. The model also assumes that if there are differences in profits between two identical companies they are attributed to profit shifting to low-tax countries (suppose that the companies have the „access“ to low-tax countries). This model assumptions are a bit too restrictive. First, there are observable and (potentially time-varying) unobservable firm characteristics. The model implies that unobservable characteristics such as managerial quality is irrelevant for generating profits. Next, the model assumes that shocks must cancel out in each period.

I find somewhat surprising that while the GDP per capita and GDP growth are used as explanatory variables to assess the extent of profit shifting, the variables such as political stability and rule of law are not. The profit shifting is likely to be linked to political stability or institutional environment.

Firm characteristics are captured in somewhat rudimentary fashion – only the assets and number of employees are considered.

The endogeneity issues are not discussed. The firm characteristics are likely to be simultaneously determined with firm profitability.

The panel model consists of macro and micro level variables. This gives rise to well-known Moulton problem (clustering of standard errors) when some explanatory variables appear significant even if they are not.

### **Literature**

The literature survey is largely comprehensive and discusses extensively various modelling approaches as well as identification details.

### **Manuscript form**

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The thesis sometimes argues that the profit shifting leads to losses (and quantifies these losses). However, the loss is not defined. Is it the welfare loss? Or the loss for the government budget? These are, of course, two (completely) different things, so the accuracy in the arguments would be welcomed.

The thesis includes the normative statements (such as profits should be reported, taxes should be paid) that in the introduction that are distracting the message of the thesis. I prefer first providing some positive analysis and maybe some normative statements (based on this positive analysis) afterwards.

More citations should be provided in the introduction to support the claims made by the author. For example, there is a claim that when „richest companies in the world can avoid paying taxes that it contributes to social tension“, or that „current studies usually estimate the loss in terms of percentage of corporate income tax for a group of countries covered in them or for one single country“ and so on.

Sometimes it is difficult to follow the text. For example, the thesis says that: „Heckemeyer & Overesch (2013) conclude that the first two channels are much more important than the third one.“, but what these channels are one has to check and find eleven lines above.

The section numbering starts with Literature Survey, not the Introduction. The introduction does not contain the summary of results.

The thesis generally reads well but sometimes I do not get the meaning of some sentences at all. For example:“ However, in the regressions between 1,877,763 and 2,728,751 observations were used in the benchmark model“.

Some formatting issues are spotted on page 13:„**Error! Reference source not found**“ but infrequent typos probably should be tolerated.

## Summary and suggested questions for the discussion during the defense

The thesis represents solid applied econometrics project on the issue of global policy relevance. Using firm-level data, it updates the previous estimates of profit shifting and how it depends on financial secrecy and anti- tax avoidance rules. However, I have some reservations to the empirical methodology and manuscript form and therefore, I recommend the grade C.

Questions:

- 1) Why political stability and-or the rule of law are not considered as explanatory variables in the regression model?
- 2) Are there endogeneity issues? Firm characteristics are typically simultaneously determined with firm profitability. Why only assets and the number of employees are considered as determinants of probitability? What are typical determinants of firm profitability found in corporate finance literature?

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

<b>CATEGORY</b>	<b>POINTS</b>
<i>Contribution</i> (max. 30 points)	20
<i>Methods</i> (max. 30 points)	20
<i>Literature</i> (max. 20 points)	20
<i>Manuscript Form</i> (max. 20 points)	14
<b>TOTAL POINTS</b> (max. 100 points)	<b>74</b>
<b>GRADE</b> (A – B – C – D – E – F)	<b>C</b>

**NAME OF THE REFEREE:** Prof. Roman Horváth, Ph.D.

**DATE OF EVALUATION:** August 22, 2018



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**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.*

<i>Strong</i>	<i>Average</i>	<i>Weak</i>
30	15	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

**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

**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	GRADE
91 – 100	<b>A</b>
81 - 90	<b>B</b>
71 - 80	<b>C</b>
61 – 70	<b>D</b>
51 – 60	<b>E</b>
0 – 50	<b>F</b>