

# Report on Bachelor / Master Thesis

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

Student:	Bc. Veronika Wolfová
Advisor:	PhDr. Pavel Vacek PhD.
Title of the thesis:	Spectrum Auctions in Telecommunications

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

The author, Veronika Wolfová, chose for her master thesis a quickly developing field of telecommunications, more precisely spectrum auctions in telecommunications. The topic is very relevant, since auctions are prevailing mechanism of assigning radio spectrum. Furthermore, revenues from auctions for governments depend to the large extent on the auction design. The author presents a case study of determinants of the final price. She studies it on data from different European and non-European countries with the exception of the US which is a special case and has already been studied by other authors.

Veronika starts the thesis with a brief history of telecommunication sector describing rocket development of the industry and responds of regulators to it. Then the author focuses on methods of spectrum assignment and in the next chapter she elaborates the issue of different types of auctions. Various types of auctions are very clearly described and the author is able to stress all important points and risks of the methods. I would only appreciate more detailed survey of lab and field literature of behavioral patterns in individual types of auctions, The literature, Veronika presents, is relevant, however, quite outdated. Most of the works had been done around year 2000 which raises a question if the topic is still a hot issue.

Hypotheses are clearly stated at the beginning of the analysis and then the dataset and variables are introduced. Even though the author builds on Cramton et al. (1997), she extends it by creation of new variables and tailoring the analysis for the non-US data. The model used in the thesis is rather simple but this simplicity is more advantage than disadvantage. Veronika correctly solves the problem of heteroskedasticity with robust standard errors and moreover, she includes *country of auction* in order to control for differences between clusters of auctions. Also other tests are well executed. The results show a few not so surprising but very important results as that number of competitors increases final price. There are also quite surprising results that expected population growth influences final price or that the price is not higher when a license has longer validity. The results are carefully interpreted and possible policy recommendations are suggested. For the master thesis, I would expect a little bit deeper analysis. For example zero effect of number of rounds is probably caused by large differences among auctions (1-993 rounds) and more thoughtful analysis would reveal some patterns.

Overall, the thesis is concise and compact, well written and very easy to follow. As I mentioned above, I would expect deeper analysis for the master level. The second issue is the contribution of the thesis. On one hand, the analysis is done on new dataset which has not been extensively examined yet. On the other hand, since it has not been analysed yet, it offered other possibilities for testing and maybe it could be a way for future research. I recommend the thesis for defence and I suggest grade **good (velmi dobře)**

### **Suggested question for the defence:**

Why the author did not analyze the case of Czech telecommunications as stated in the proposal?

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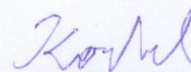
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## **SUMMARY OF POINTS AWARDED** (for details, see below):

CATEGORY	POINTS
Literature (max. 20 points)	15
Methods (max. 30 points)	25
Contribution (max. 30 points)	20
Manuscript Form (max. 20 points)	18
<b>TOTAL POINTS</b> (max. 100 points)	<b>78</b>
<b>GRADE</b> (1 – 2 – 3 – 4)	<b>2</b>

**NAME OF THE REFEREE:**

**DATE OF EVALUATION:**



\_\_\_\_\_  
**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	1	= excellent	= výborně
61 – 80	2	= good	= velmi dobře
41 – 60	3	= satisfactory	= dobře
0 – 40	4	= fail	= nedoporučuji k obhajobě