

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, Ph.D.
Title of the thesis:	Spectrum Auctions in Telecommunications

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

In her master thesis, Veronika Wolfová deals with spectrum auctions in Telecommunications. First, Veronika describes various methods of spectrum assignment and provides a basic overview of auction theory. In the main part of her thesis, Veronika applies a regression model to find determinants of final price achieved in the spectrum auction. Main findings of the thesis are that a) population growth is an important determinant of final auction price, b) final price is increasing with number of auction rounds and number of bidders and c) a new entrant increases final price achieved in the auction.

Well, there are several facts that I like about the thesis:

1. Spectrum auctions in Telco industry are quite up-to-date topic. Recently, there has been a wave of LTE auctions around the world and the Czech tender for the awarding the rights to use radio frequencies ended in November 2013.
2. Veronika has a job in telco industry and it is always nice to see a person to be focused on some specific area with professional and study interests aligned. On top of that, the author came with her own thesis topic and thus showed an ability to work independently.
3. Veronika constructed her own dataset consisting of 108 observations from 31 auctions from 18 countries. Although such number of observations does not need to appear too high, I am sure the author put lots of work in pulling out required data from various and sometimes non-English sources.

I have the following comments and remarks.

In the regression model, there is a variable „entrant“ – and on page 32, the author describes:

„If an entrant is participating (entrant): The variable entrant is another variable that is expected to have a large influence on the final price. Telecommunications are originally monopoly industry that is now changing. As any other monopoly structure, every incumbent is afraid of newcomers and adjust its strategy to this fact. When the new entrant is participating in the auction, the final price is expected to increase.“

Well, possibly yes (and the results would suggest that this is true in this sample data) but there might be also an opposite effect. If the existing operators (incumbents) believe that there will be a new entry, they will project lower ARPU (average revenues per user) for their projects. Since they expect lower revenues due to higher competition in the future, they may not be willing to bid as much for additional holdings of spectrum.

Czech auction exhibits examples of strategic behaviour. Three existing operators (Telefónica, T-Mobile and Vodafone) were „frightened“ by the alleged entry of a new telco firm in the Czech market. In the end there was no new entry and nowadays, instead of the entry of the 4th operator in the CZ, we see that the existing operators have agreed to share their fourth-generation LTE mobile networks nationwide except for the cities of Prague and Brno.

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The thesis would need a little bit of rewriting to look more self-confident – it really looks odd to have a name of a subchapter „5.1 Essential paper“.

The introduction should be re-written. It uses a future tense (e.g. „In the first part of the thesis, existing literature will be analyzed and used to summarize what the telecommunication services are about and what is the history.“ on page 2. When reading the thesis, I was not sure whether I am reading the thesis itself or I am (wrongly) still in the master thesis proposal.

It seems to me that the author just make her introduction from the proposal. E.g. Veronika writes in Introduction (page 2) that „in the end of the fifth chapter of the thesis outcome of the study will be compared to the base article. Afterwards there will be the conclusion to summarize results of the study.“ Well, this is not good – introduction should clearly and concisely say what the author does and what he gets. Nobody has time to read to page 40 (Findings) to find out what the research results are.

Also the Abstract should be more striking and state the thesis results. Instead of „In this thesis the behavior of final price in the spectrum auctions was examined. In the end of the work, recommendations to NRAs were presented to conclude the results of the empirical examination.“ (see the Abstract) I would like to see something like „I find evidence that „ or „My findings are „ or „Contribution of my thesis is threefold: a) ... b) and c) „.

Overall, I consider Veronika's thesis to be a very nice and solid piece of work and I recommend a grade of 2 (good).

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

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CATEGORY	POINTS
<i>Literature</i> (max. 20 points)	16
<i>Methods</i> (max. 30 points)	21
<i>Contribution</i> (max. 30 points)	25
<i>Manuscript Form</i> (max. 20 points)	18
TOTAL POINTS (max. 100 points)	80
GRADE (1 – 2 – 3 – 4)	2

NAME OF THE REFEREE: Pavel Vacek

DATE OF EVALUATION: 19 June 2014

Pavel Vacek

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