Report on Bachelor Thesis

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

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Advisor:	**Michal Červinka**
Title of the thesis:	**Power Spot Market of the European Energy Exchange and Its influence on the Czech Power Market**

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

In this thesis, the author presents a unique comparison of two energy exchanges important for the Czech energy market – Power Exchange Central Europe located in Prague and European Energy Exchange located mainly in Leipzig and partially also in Paris.

The thesis can be divided into three parts. In the first one, the author presents a clear describtion of the two markets including past evolution and future changes to come. The second part focuses on a specific part of the EEX, on the EPEX Spot market located nowadays in Paris. A significat portion of the text is devoted into detailed describtion of the COSMOS algorithm used as a computational tool for market clearing. The author describes with high mathematical precision the underlying optimization problem involving mixed integer variables. It should be noted that the described numerical procedure in COSMOS is based on a rather advanced version of branch-and-bound algorithm for (mixed) integer programming.

The third part is devoted to the empirical analysis of the spot prices on both Czech and German power markets assesing the influence of the price-generating machanism of one market on the other one. The author uses an advaced time-series analysis of vector autoregressive analysis. I believe that the both-directional causality of the price time series is the single most interesting and in a sense surprising result of the author.

The thesis is written in extraordinary level of English and precision. The author processed remarkable amount of source texts to produce a sensible describtion of the exchange makets and at the same time advaced mathematical texts well beyond the bachelor level.

I am convinced that this thesis deserves to be nominated for the price of the dean of the faculty and published in a refereed (possibly international) journal on electricity markets.

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

CATEGORY		POINTS
Literature	*(max. 20 points)*	20
Methods	*(max. 30 points)*	30
Contribution	*(max. 30 points)*	30
Manuscript Form	*(max. 20 points)*	20
TOTAL POINTS	*(max. 100 points)*	**100**
GRADE	**(1 – 2 – 3 – 4)**	**1**

NAME OF THE REFEREE: RNDr. Michal Červinka, Ph.D.

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Referee Signature