Report on Master Thesis

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

Student:	**Bc. Pavel Harnych**
Advisor:	**PhDr. Ladislav Krištoufek, Ph.D.**
Title of the thesis:	**On the link between Spot and Forward Power Prices – A Comparative Analysis of German and Hungarian Power Market Efficiency**

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

The Master thesis named „On the link between Spot and Forward Power Prices – A Comparative Analysis of German and Hungarian Power Market Efficiency" deals with the electric power markets, their dynamics, drivers of power prices with respect to different energy sources and studies in detail the link between spot electricity prices and forward electricity prices.

Regarding the content and the formal elaboration of the thesis, both are above average. There is a very good and recent literature overview followed by German and Hungarian electricity markets analyses.

The author correctly assess the OLS standard assumptions, however I have not found any comments on the possibility of overfitting the data. This is usually a biger problem of predcitions than for example the violation of normality of residuals or violation of homoskedasticity. Another issue is the correlations among predictors. If these are high in absolute value, the t-tests of significance of distinct predictors might not give correct results. The author also should discuss the selection of parameters via for example forward, backward or stepwise regression algorithm. If the author wants to make a prediction model, why he keeps all the predictors in it, including the poor ones? On the other hand the author interpretes the results extensively and provides some further discussion on them including comparisons with results of other authors.

Regarding the formal side of the text and statistics employed, I have only few comments.

1) Auhor uses Nuc as an abbreviation for nuclear energy sourced electricity power. I would welcome to have this abbreviation somewhere explained.
2) The model design for German electricity market seems to be correct. Author claims that he avoids using any information that would had been unknown at the time of calculating the prediction, but for Hungarian market uses variable pwr_$y_{de,t}$, which stands for a front-year power forward price in Germany at time t. How would be the model for Hungary used for predicting a variable in time t, if one of its predictors is the same variable from the same time, only from different country? How can we ensure, the German forward price will be known in the time we are predicting the Hungarian forward price?

The thesis is highly above IES standard and I like it. In case the author provides sufficient comments on the problem of overfitting and on the problem of correlations among predictors, I suggest to evaluate the thesis by the grade **"výborně" (excellent, 1)**.

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***SUMMARY OF POINTS AWARDED**:*

CATEGORY	**POINTS**
Literature (max. 20 points)	20
Methods (max. 30 points)	23
Contribution (max. 30 points)	28
Manuscript Form (max. 20 points)	19
TOTAL POINTS *(max. 100 points)*	**90**
GRADE (1 – 2 – 3 – 4)	**1**

REFEREE'S NAME: Pavel Doležel

DATE: 20. 6. 2015

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REFEREE'S SIGNATURE