Report on Bachelor Thesis

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

Student:	**Kryštof Wolf**
Advisor:	**PhDr. Tomáš Vyležík**
Title of the thesis:	**Electricity Futures Option Pricing**

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

The thesis deals with pricing of options on electricity futures traded at European Energy Exchange (EEX). Since introduction of financial derivatives into energy markets is still relatively new topic, the author deals with the issue that has not been discussed in many papers before. He tries to apply option theory used in financial markets to the specific energy market and compares his findings with real option prices available at EEX.

The thesis is well structured as the theoretical background to option pricing and electricity market's specifics is helpful in the last and empirical part of the thesis where the author tries to apply theoretical knowledge of several option pricing models to market data.
However, in my opinion, part of the thesis could have been devoted to more detailed discussion about the role of option products on energy markets that could serve as additional motivation for writing this thesis. On the other hand, the author sometimes go in too much detail of the option theory that is described in various publications.

The thesis is written in english language that I see as a benefit as it is still not common for bachelor theses. The level of english language the author uses is in line with the requests for bachelor level. Not-neccessary language mistakes sometimes slightly decrease the vaule of language used in the thesis.

The author uses best know literature about option products as well as some actual papers to build a theoretical background for his thesis. His work with literarure and references in my opinion fulfills the requirements for the bachelor degree level.

The main value added of the thesis consists in the third chapter – empirical model testing. With the help of excel tools, pricing of option products with sophisticated pricing methods – including Black, Binomial and Monte Carlo simulations - is provided.
In addition to the option pricing itself, the author also provides other calculations including e.g. volatility estimation of futures prices that are consequently applied in the thesis. The empirical part is supported also by charts and tables supporting results of the author.

For the defence, I would have the following questions for the author:

- What was the author's main motivation for dealing with the topic of electricity options?
- Are there any papers on energy options with which the results could be confronted or do the results correspond with other option pricing (not only electricity) papers?
- Why does the author think that unstable price development of electricity Futures is "huge advantage" over other underlying commodities (chapter 3.1.3.)?
- What is in author's opinion currently the main motivation for option trading on energy markets?

During the writing of the thesis, the author has already incorporated majority of my comments. Although electricity option products are still relatively new topic in the market and option pricing itself is not very common for bachelor theses, this thesis in my opinion fulfills the requirements at Institute of Economic Studies.

For the reasons stated above, in case of successful defence I recommend grade A (výborně).

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

CATEGORY		**POINTS**
Literature	*(max. 20 points)*	18
Methods	*(max. 30 points)*	25
Contribution	*(max. 30 points)*	23
Manuscript Form	*(max. 20 points)*	16
TOTAL POINTS	*(max. 100 points)*	**82**
GRADE	**(1 – 2 – 3 – 4)**	**1**

NAME OF THE REFEREE: PhDr. Tomáš Vyležík

DATE OF EVALUATION: 9.6.2012

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