## **Report on Bachelor Thesis**

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

Student:	Katarína Líšková	
Advisor:	doc. PhDr. Ladislav Krištoufek, Ph.D.	
Title of the thesis:	The impact of renewable resources on price volatility in the European power markets	

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

Please provide your assessment of each of the following four categories. The minimum length of the report is 300 words.

The thesis studies the effect of renewable energy production on the electricity prices in the Czech Republic and Germany. The work follows the most recent literature on the topic and combines the electricity prices/volatility models with realized volatility specified for the electricity markets.

### Contribution

There are two main contributions of the thesis. First, it studies an actual topic of increased focus on renewable sources of energy, specifically so in Germany that phased out the nuclear energy production. And second, the results are presented for the Czech Republic as well. Not only is this important due to the market specifics but also due to the fact that most studies do not focus on small markets such as the Czech one. The main results suggest that the wind penetration leads to increased volatility in Germany, but for the Czech Republic with its photovoltaics, there is no such (statistically significant) evidence. These claims are based on both in-sample and out-of-sample analysis.

#### Methods

The thesis applies advanced methods for a bachelor's thesis, specifically the realized volatility and its specification for the electricity markets which is not computationally trivial (as is the case of standard realized volatility being simply the sum of squared returns), there are many in-between steps and estimations that need to be done. The same applies for the dataset collection. The methods are well presented and described in a sufficient detail.

#### Literature

The thesis works with a wide list of current literature on the topic. All important papers are covered and the Literature review section provides a nice review. I see no issues here.

#### Manuscript form

The thesis is well-structured and it reads well, there are no unnecessary parts. Tables and graphs are appropriately spread across the text. No issues here again.

Overall, this is an extraordinary thesis and it is clear that the author spend a lot of time preparing it. From my perspective, this would easily pass as a master's thesis. I happily suggest the thesis to be defended with grade A (with a total of 100 points) and in addition, it should be considered for the director's distinction.

# **Report on Bachelor Thesis**

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

Student:	Katarína Líšková	
Advisor:	doc. PhDr. Ladislav Krištoufek, Ph.D.	
Title of the thesis:	The impact of renewable resources on price volatility in the European power markets	

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

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

NAME OF THE REFEREE: doc. PhDr. Ladislav Krištoufek, Ph.D.

DATE OF EVALUATION: 7.9.2017

Digitally signed by Ladislav Krištoufek DN: cn=Ladislav Krištoufek, o=Faculty of Social Sciences, Charles University in Prague, ou=Institute of Economic Studies, email=Iadislav.kristoufek@fsv.cuni.cz, c=CZ Date: 2017.09.07 08:27:01 +02'00'

**Referee Signature**