

# Report on Bachelor Thesis

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

<b>Student:</b>	<b>Peter Kravec</b>
<b>Advisor:</b>	<b>prof. Ing. Karel Janda, M.A., Dr., Ph.D.</b>
<b>Title of the thesis:</b>	<b>Price transmission among biofuels and related commodities</b>

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

Please provide your assessment of each of the following four categories, summary and suggested questions for the discussion. The minimum length of the report is 300 words.

### **Contribution**

The author intends to widen the existing literature on biofuels by investigating the price transmission among them and their feedstock on the US, Brazilian, and European markets using the recent dataset from 11/2003 to 04/2020. This is a reasonable effort as the price transmission is time and market specific evolving with the development of biofuels policies and technologies over time.

### **Methods**

The selection of methods used corresponds to the topic and is perfectly sufficient on the level of a bachelor thesis – employing the conventional time-series econometrics methods of Augmented Dickey Fuller Test, Akaike Information Criterion (AIC), Johansen Co-integration Test, Vector Autoregression Model, and Vector Error Correction Model. The methodology chapter is well compiled, although it lacks an introduction of Schwarz Information Criterion which is further employed together with AIC. At the level of bachelor thesis, it would be beneficial to explicitly determine the main hypotheses of the research and later test them.

The thesis substantially benefited from recycling the dataset used already by Filip et al. (2016). There is no clear review of individual time series with description. Although a table of descriptive statistics is provided in the Appendix and the names of individual variables are mostly self-explaining, the author should clearly state what the nature of individual time series is.

### **Literature**

In total, the literature review seems to be thoroughly and in detail describing a vast number of individual papers. Nonetheless, one would also appreciate a provision of a more generalized review. The author only mentions the summarizing paper of Janda & Křištofek (2019) which is a shame as it would be easy and valuable to present its main findings. With respect to that, I would also suggest to further emphasize the contribution of this bachelor thesis in comparison with the existing research.

### **Manuscript form**

The thesis is written in LaTeX. The text is not very coherent and seems to be written in haste due to several typos, few confused passages, and sometimes rather colloquial style and inconsistent usage of grammatical tenses. The author should ensure a proofreading and stick to the academic English. An indicative selection of typos and odd phrases is listed below:

- “[...] or as flex-fuel E85 containing (51% to 83%).” (p. 2) is a misleading mixture of information consisting of the facts that the abbreviation usually refers to a blend of 85% ethanol fuel and 15% gasoline and that the allowable ethanol content in E85 is ranging from 51% to 83% in the U.S.
- “The truth is that [...]” (p. 2 and 26)

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- *"[...] or shortly.. after, the food crisis."* (p. 2)
- *"[...] conclusion in the ??, in which we will summarize our findings."* (p. 3)
- *"They concluded: Firstly, the authors found out that [...]"* (p. 5)
- *"In those set of papers [...]"* (p. 6)
- *"[...] last but least [...]"* (p. 15)
- Axes of the figure are not described on p. 15.
- *"There is no doubt that [...]"* (p. 19)
- Missing dot at the end of the first paragraph on p. 22.
- *"As been already said [...]"* (p. 29)
- *"mysterious"* (p. 13, 31, 36, and 45)
- *"Appendix A: Title of Appendix A"* (p. 52)
- Inconsistency of usage of the date format, percentage format, decimal point format, name and abbreviation standing for the United States, hyphen in co-integration etc.

The citation should be executed more precisely, especially in the case of statistical overview in the Introduction chapter, and the phrases such as "according to [a certain institution]" should be avoided and replaced by a proper citation. Moreover, the citation of online webpages should be more rigorous. Apart from this, the bibliography is well arranged.

## Summary and suggested questions for the discussion during the defense

The author has submitted an analysis of the price transmission between biofuels and a wide range of their feedstocks. The merit of the research is unfortunately overshadowed, to a certain extent, by the form which makes it less reliable. Based on the awarded points, the thesis is assessed by grade D; nonetheless, should the defense be of an excellent quality, grade C could be considered, in my opinion.

Questions for the final defense:

- i) Can you elaborate in greater detail on your contribution and compare it to the existing literature – the paper by Filip et al. (2016), in particular?
- ii) What would you consider as an alternative to "trying and failing method" mentioned, for example, on p. 34? Is there any more sophisticated approach you are familiar with? What are the possible issues linked with the approach used in the thesis?
- iii) How would you suggest to further examine the speculation about discovered co-integration of prices of biodiesel with rapeseed and palm oil presented on p. 42 in section "USA, crisis period (2008-2011)"?

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

<b>CATEGORY</b>	<b>POINTS</b>
<i>Contribution</i> (max. 30 points)	15
<i>Methods</i> (max. 30 points)	24
<i>Literature</i> (max. 20 points)	18
<i>Manuscript Form</i> (max. 20 points)	12
<b>TOTAL POINTS</b> (max. 100 points)	<b>69</b>
<b>GRADE</b> (A – B – C – D – E – F)	<b>D</b>

**NAME OF THE REFEREE:** *Dominik Herman*

**DATE OF EVALUATION:** *August 30, 2020*

*Digitally signed (2020-08-30):  
Dominik Herman*

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**Referee Signature**

**EXPLANATION OF CATEGORIES AND SCALE:**

**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.*

<i>Strong</i>	<i>Average</i>	<i>Weak</i>
30	15	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.*

<i>Strong</i>	<i>Average</i>	<i>Weak</i>
30	15	0

**LITERATURE REVIEW:** *The thesis demonstrates author's full understanding and command of recent literature. The author quotes relevant literature in a proper way.*

<i>Strong</i>	<i>Average</i>	<i>Weak</i>
20	10	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.*

<i>Strong</i>	<i>Average</i>	<i>Weak</i>
20	10	0

**Overall grading:**

TOTAL	GRADE
91 – 100	<b>A</b>
81 - 90	<b>B</b>
71 - 80	<b>C</b>
61 – 70	<b>D</b>
51 – 60	<b>E</b>
0 – 50	<b>F</b>