

# Report on Bachelor Thesis

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

<b>Student:</b>	<b>Václav Kalous</b>
<b>Advisor:</b>	<b>prof. Ing. Karel Janda M.A., Dr., Ph.D.</b>
<b>Title of the thesis:</b>	<b>Biofuels-economical and ecological impact</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 supplement the research on price transmission between biodiesel and its major feedstocks by analysing the EU and US time-series data from the last decade and a half (2003-2019). In comparison to other papers on similar topic, the thesis attempts also to shed some additional light on the environmental impacts of biofuels.

I really miss any key hypotheses to be explicitly stated by the thesis just as they are by the initial proposal. In general, the author himself should more explicitly emphasize the regards of uniqueness of his research and its added value within the abstract, introduction, and conclusion.

### **Methods**

The research investigates the weekly prices of biodiesel, diesel, palm oil, rapeseed, soybeans, sunflower seed, and cotton by the means of the Johansen cointegration test, impulse response function, and vector error correction model. The selection of methods used corresponds to nature of the topic and is more than properly ambitious with respect to the expected level of a bachelor thesis.

Nevertheless, the introductory section of Chapter 5 (Methodology) providing explanation of avoiding the OLS regression approach is not well arranged, and therefore nor very convincing, which is a pity, because I agree that the methods used have been chosen appropriately. An analogous analysis via OLS regression might be conducted in order to make the portfolio of methods employed (and hence the findings) more robust. In addition, I trust there might be a more suitable resource used for the exchange rate's conversion instead of "investing.com". Moreover, the time-series of exchange rates ought to be enclosed in an appendix for the sake of transparency and reproducibility.

### **Literature**

Overall, the literature review is adequately thorough as it covers a large extent of relevant literature concerning economic, legal, and environmental impacts while properly elaborating on the main findings of the enumerated papers as well as their source data (the time period and geographic location). The only exception is the pair of summaries (*Janda & Kristoufek, 2019; Serra & Zilberman, 2013*) which are merely mentioned, but not described. At least an information on their scope, source data, or difference to this thesis should be provided. In addition, I also suggest to support the general assumptions, e. g., "weather trends" (p. 10), by citations of reliable resources. Finally, the food crisis of 2008 plays a substantial role in the whole analysis, so further description and explanation should be dedicated to this phenomenon.

### **Manuscript form**

The thesis is written in LaTeX and is generally easy to read. The level of English is appropriate with an acceptable number of typos in the text (e. g., "consist" instead of "consists" in the abstract; "framers" instead of "farmers" on page 9, row 14; duplication of "only" on page 10, row 2; "cultived" instead of "cultivated" on page 14, row 26; "an" instead of "a" on page 24, row 4; "then" instead of "than" on page 39, row 12; strings of "???" instead of the year of publication throughout the bibliography; string of "â€" instead of the name of publication from *Statista, 2019* etc.). The tables might be better described (only the title is being captioned without any explanation of abbreviations, definition of units of measurement etc.) – the desired information is usually traceable in the text,

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but it would be better to make the tables more self-supporting. Furthermore, I suggest to stick more strictly to academic English and avoid phrases as "hype", "drop in an ocean", "let us look at" etc. Finally, there is an inconsistency in the level of detail of the English and Czech version of abstract which is somewhat cumbersome. There is no reason not to include the list of methods used and other detailed information (e. g., a comment on the EU and US being the two biggest biodiesel markets) in the Czech version. The difference is too obvious even if looking by a naked eye.

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

The submitted bachelor thesis is a fine example of analysis of the price transmission between biodiesel and its major feedstocks. This attempt to broaden discussion on a trending topic has a promising potential for publication. I suggest the author to incorporate all the minor remarks, prepare a shorter version, conduct a proper proofreading, and submit it not only to the IES Working Papers series, but also a corresponding international journal.

Based on the awarded points, the thesis is assessed by grade B; nonetheless, should the defense be of excellent quality and prove high added value of the research, grade A could be considered, in my opinion.

Questions for the final defense:

(i) What had been your major concerns when deciding not to employ a conventional OLS regression? Have you conducted such analysis as a robustness check?

(ii) Elaborate little bit more on the food crisis of 2008. What were its origins? How did it develop? What was its scope? Finally, argue why are (or are not) your main findings in line with the context of these details.

(iii) How would you describe the differences between your thesis and the summary papers of *Janda & Kristoufek (2019)* and *Serra & Zilberman (2013)*? What is the biggest value added in comparison to these papers?

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

<b>CATEGORY</b>	<b>POINTS</b>
<i>Contribution</i> (max. 30 points)	25
<i>Methods</i> (max. 30 points)	28
<i>Literature</i> (max. 20 points)	19
<i>Manuscript Form</i> (max. 20 points)	17
<b>TOTAL POINTS</b> (max. 100 points)	<b>89</b>
<b>GRADE</b> (A – B – C – D – E – F)	<b>B</b>

**NAME OF THE REFEREE:** Dominik Herman

**DATE OF EVALUATION:** May 30, 2019

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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	A
81 - 90	B
71 - 80	C
61 – 70	D
51 – 60	E
0 – 50	F