

# Report on Bachelor / Master Thesis

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

|                             |  |
|-----------------------------|--|
| <b>Student:</b>             | <b>Šimon Otruba</b>  |
| <b>Advisor:</b>             | <b>Mgr. Lukáš Rečka, Ph.D.</b>   |
| <b>Title of the thesis:</b> | <b>Introducing stochasticity into the energy system model Times-CZ - a reflection of a war-related extreme environment</b> |

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

### **Short summary**

Šimon Otruba conducted a comprehensive bachelor thesis with a high added value. He worked independently with my support in form of consultations. Better time planning would allow to further increase the quality of the manuscript form.

### **Contribution**

The thesis contributed to the state of the art of the energy modelling in the Czech Republic, namely to the development of TIMES-CZ model - a dynamic long term energy optimization model of Czech energy system (Rečka Máca and Ščasný, 2023). The thesis enhanced the energy economic model TIMES-CZ by a stochastic element. This allows us to use it in our future research. Although the contribution would be even better if the results would be discussed more in detail.

### **Methods**

The thesis combines time-series econometric methods and energy economic model TIMES-CZ. In order to write this thesis, student had to understand the model TIMES-CZ and its logic. The econometric methods are applied for analyzes of the input data into the TIMES-CZ model. The standard TIMES-CZ model is extended by a stochasticity element. In my view, the applied method would be adequate even for a master thesis.

### **Literature**

The author demonstrates his full understanding and command of recent literature. He quotes relevant literature in a proper way.

### **Manuscript form**

The manuscript is well structured. The thesis was finished in the last moment before the deadline. More time dedicated for the final proofreading and formatting would significantly improve the quality of the manuscript form. Overall academic writing could be improved. There are some repetitive parts mainly in the conclusion. Legends in some of the figures are too small and therefore hard to read.

### **Overall evaluation and suggested questions for the discussion during the defense**

In my view, the thesis fully meets the requirements for a bachelor thesis at IES, Faculty of Social Sciences, Charles University, I recommend the thesis to be defended with grade 1 „excellent“.

The results of the Turnitin analysis do not indicate significant text similarity with other available sources.

I suggest to focus on the benefits of the stochastic version of the TIMES model during the discussion of the thesis.

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

# Report on Bachelor / Master Thesis

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

|                             |  |
|-----------------------------|--|
| <b>Student:</b>             | <b>Šimon Otruba</b>  |
| <b>Advisor:</b>             | <b>Mgr. Lukáš Rečka, Ph.D.</b>   |
| <b>Title of the thesis:</b> | <b>Introducing stochasticity into the energy system model<br/>Times-CZ - a reflection of a war-related extreme<br/>environment</b> |

| <b>CATEGORY</b>                         | <b>POINTS</b> |
|---|---------------|
| <i>Contribution</i> (max. 30 points)    | 28            |
| <i>Methods</i> (max. 30 points)         | 30            |
| <i>Literature</i> (max. 20 points)      | 19            |
| <i>Manuscript Form</i> (max. 20 points) | 15            |
| <b>TOTAL POINTS</b> (max. 100 points)   | <b>92</b>     |
| <b>GRADE</b> (A – B – C – D – E – F)    | <b>A</b>      |

**NAME OF THE REFEREE: Lukáš Rečka**

**DATE OF EVALUATION: 30.8.2023**

*Digitally signed (August 30, 2023):  
Lukáš Rečka*

---

**Referee Signature**