Submitted thesis is focused on *hedging of energy commodities* and the author aims on evaluation of particular model suitability. The topic itself is interesting for researchers as well as practitioners and allows one to select various approaches to its treatment. The author of the thesis focused on a rather simple way based on assumed linear functional relationship between hedged position (energy commodities) and hedging instruments, i.e., futures contracts, and analysed several methods of estimation of the optimal hedge ratio under rather simplifying assumptions. It follows that the presentation is relatively simple and easy to understand, but simultaneously can lead to useful results for both, the theory and practice.

The thesis is structured, besides the Introduction and Conclusion, into 4 chapters. The structure is coherent, well balanced and obviously comes from the aim and the topic – it is natural to describe first the matter (energy commodities), than explain why we should pay attention to such particular activity, i.e., hedging (the price risk), which is the object of the thesis, and only than continue with the description of selected methods and top it by discussing the results.

The introductive chapter is quite extensive with many sections and it is not easy to orient within it. The author very briefly discusses an energy sector as well as the motivation for the aim – though, its novelty should be explained in more details so that the knowledge gap and the importance of this research will be clear without any doubts.

Chapters 1, 2, and 3 provide theoretical foundations of the topic. The author proceeds more or less correctly and mentions the most relevant aspects. He focuses almost solely on *min-variance* hedging, while no details about the alternative of *factor approach* are provided, neither the key differences are stressed.

It would be also useful, if the author could provide more critical way to presented information, since he quite chiefly repeats ideas of somebody else without arguing or discussing it – doctoral thesis should not be about simple repeating but about the ability to
provide critical view.

The core part of the thesis is Chapter 4 since it provides original results of the author. He focuses on various ways to parameter estimation as a first step to hedging ratio calculation, including rather non-standard approaches of wavelets, copulas and Gini’s coefficient leading to original results. Despite chosen method, the ratio mostly approaches to unit measure. Subsequently, hedging effectiveness and its determinants are studied. All results are accompanied with illustrative figures and summarizing tables and broadly discussed, including the differences among particular commodities.

Some parts of Chapter 4 would be worth publishing in internationally recognized journals and it is a pity that it has not been done yet since it would definitely support the quality of the thesis.

Significant drawback of otherwise interesting thesis is that in each chapter one can find various formal errors or ambiguities. Notwithstanding, general picture about the topic is clear.

Summarizing, the presented results are original, their research quality is obvious and despite some minor drawbacks it is apparent that the student shows his own ability to conduct research in a given field of study and the thesis fulfils all common requirements. Thus, it is my pleasure to recommend the thesis for defence in front of the PhD examination committee.

I would consider useful if the author could, within the defence, explain (1) what are the main differences between factor and min-variance approach to hedging, i.e., should assume different results (strategy preferences) if factor approach is adopted?; (2) what is the factor that the hedging ratio mostly approaches to unit measure?

Ostrava, June 22, 2017

Tomáš Tichý