Report on Bachelor / Master Thesis

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

Student:	**Vladimir Nahodil**
Advisor:	**Doc.PhDr.Ladislav Kristoufek Ph.D**
Title of the thesis:	**Entropy as a Measure of Predictability in Financial Time Series**

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

Contribution

The aim of this bachelor thesis is to use entropy as a measure to estimate stock market efficiency and predictability. The author tested the models in a large scope with 77 time series. The results show that the approximate entropy has weak relationship with other measures; however the sample entropy shows its potential of being a predictability estimator. The author not only tested the models in a broden scope but also said to be the first study to test the sample entropy as an estimator of market efficiency and predictability. This is good enough to be taken as originality for a bachelor thesis.

Methods

The data description is in detail. The method chosen and the result presentation all show that the student mastered the needed analytical technics and has the ability to explain the results clearly.

Literature

The plot of the literature review is very clear. Firstly, the development of the theory is introduced in a clear time order. Then the definitions of entropy has been brought in. At last, the empirical reserach concering the entropy as a measure of stock predictability is presented. However, if the author can make comments on the existed litearture and extract the potential gap, that would be even better.

Manuscript form

The format of the thesis strictly followed the scientific research requirement, no matter the reference or the tables,appendix, abbreviation and etc. are all well organized.

In general, this is a high quality thesis. The author is able to apply appropriate economic anlysis method to obtain substantial results and know how to write a standard research paper. It is among the best bachelor thesis I have read. Thus, I recommand "výborně" (excellent ,1) in the case of successful defense.

Suggested question for the defense:
What is the limitation of the using entropy as a measure of predictability in time series?
Comparing with the previous empirical literature like Maasoumi &Racine (2002) or Molgedey & Ebeling (2000)., what is the contribution of this thesis?

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

CATEGORY		**POINTS**
Contribution	*(max. 30 points)*	26
Methods	*(max. 30 points)*	29
Literature	*(max. 20 points)*	29
Manuscript Form	*(max. 20 points)*	20
TOTAL POINTS	*(max. 100 points)*	**94**
GRADE	**(1 – 2 – 3 – 4)**	**1**

NAME OF THE REFEREE: Yao Wang

DATE OF EVALUATION: 21/05/2017

Referee Signature