

# Report on Bachelor Thesis

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

<b>Student:</b>	Robert Kaplan
<b>Advisor:</b>	PhDr. Ladislav Krištofuk, Ph.D.
<b>Title of the thesis:</b>	The fractal dimension and forecasting of financial time series

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

The thesis **The Fractal dimension and forecasting of financial time series** focuses on fractal dimension and whether it would be possible to use it for forecasting of financial time series in practice. Robert finds that fractal dimension might be used, but concludes that further research is necessary.

The theoretical part of the thesis is well structured and Robert describes all relevant literature and methodology behind his research. The literature review is sufficient and shows that Robert investigated the topic closely.

Concerning the data and empirical part of the thesis, I have a few comments. First, the data source is clearly defined and the information about the software used is also provided, even though in a footnote and in the introduction. Next time, I would suggest including the information about software together with the information about data (on p. 18).

Second, methods employed in the thesis belong to more advanced topics and are employed in an innovative way, which is the biggest contribution of this thesis.

Third, Robert aims to describe all results consistently, but in fact it is rather chaotic and could be written in a more structured way. Qualitatively, results of the thesis are not very strong, but the power of this thesis does not lay in results, but in the innovative approach to financial time series forecasting.

Apart from a bit chaotic description of empirical results of the thesis, I did not identify any major shortcomings. To conclude, my overall impression of this thesis is highly positive. The thesis fulfills all standards required for IES bachelor students. Due to this, I suggest grade 1 and propose this thesis for a defense.

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

<b>CATEGORY</b>	<b>POINTS</b>
Literature (max. 20 points)	20
Methods (max. 30 points)	25
Contribution (max. 30 points)	30
Manuscript Form (max. 20 points)	15
<b>TOTAL POINTS</b> (max. 100 points)	<b>90</b>
<b>GRADE</b> (1 – 2 – 3 – 4)	<b>1</b>

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**NAME OF THE REFEREE:** *Hana Džmuráňová*

**DATE OF EVALUATION:** 9.6.2014

*Referee Signature*

**EXPLANATION OF CATEGORIES AND SCALE:**

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

Strong                  Average                  Weak  
20                          10                          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.*

Strong                  Average                  Weak  
30                          15                          0

**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.*

Strong                  Average                  Weak  
30                          15                          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.*

Strong                  Average                  Weak  
20                          10                          0

**Overall grading:**

TOTAL POINTS	GRADE		
81 – 100	1	= excellent	= výborně
61 – 80	2	= good	= velmi dobře
41 – 60	3	= satisfactory	= dobře
0 – 40	4	= fail	= nedoporučuji k obhajobě