# Report on Bachelor / Master Thesis

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

Student:	Markéta Pokorná
Advisor:	PhDr. Boril Šopov, MSc, LL.M.
Title of the thesis:	Estimation and Application of the Tail Index

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

The thesis deals with fat tails of distribution of financial time series returns. Despite such challenging topic exceeding bachelors' level, Marketa has done superb job in assessing this thesis. The thesis itself is a result of a deep research in literature, which we had to streamline to be relevant to the topic.

Marketa analyses the S&P500 index and several of its constituents to calculate the tail index – the measure of fat-tailedness. Uncommon to other empirical studies, she uses more advanced method to deal with threshold selection (a parameter of the calculation, choice of which has usually significant impact on the outcome and is often selected silently). To overcome the sensitivity to the threshold selection, the thesis opted to use the method Huisman et. al.

The structure of the thesis is standard; it begins with literature overview, reviews the relevant methodology and proceeds with the analysis.

The empirical part is very diligent and I would like to draw attention to section 4.2 and plots on p. 41. Another important point is that Marketa analyzed also the positive returns, which can be equally harmful – eg. For short positions.

In general, the thesis is well written and very clear. I have no hesitation to award grade 1.

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

CATEGORY		POINTS
Literature	(max. 20 points)	17
Methods	(max. 30 points)	30
Contribution	(max. 30 points)	26
Manuscript Form	(max. 20 points)	18
TOTAL POINTS	(max. 100 points)	91
GRADE	(1 - 2 - 3 - 4)	1

NAME OF THE REFEREE: Boril Sopov

DATE OF EVALUATION: 9th June 2016

## **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