Report on Bachelor / Master Thesis

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

Student:	Hana Štefanová
Advisor:	Mgr. Lukáš Vácha, Ph.D.
Title of the thesis:	Financial markets modeling – experimental and agent based approach

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

In her thesis, Hana Štefanová scrutinizes financial markets modeling from two perspectives – agent based and experimental. It is an important topic, since both approaches help economists to test different theories about behavior on fin. markets or model regularities and patterns observed in the real data. As the author correctly points out, both approaches do not collide, on contrary they are mutually beneficial. The contribution of this thesis lies not only in careful comparison of advantages and disadvantages of both approaches, but mainly in conducting an experiment on market efficiency.

Hana starts the thesis with a clear motivation in the introduction, the only minor downside is that introduction should not resemble to such extent to the abstract. In the first chapter, she describes basics of agent-based modeling and experimental economics. This chapter is composed thoughtfully with the use of relevant literature (e.g. Gaechter 2009, Smith 1982 or Tesfatsion 2006). Next part highlights major benefits and threads of both approaches in a clear comparison. What I appreciate the most are the emphases on benefits of both approaches. Moreover, it is supplemented with examples of different examples of market modeling where the one by Gode and Sunder (1993) serves for author's own experiment.

The experiment investigates how much is the market efficiency influenced by intelligence and profit motivation of agents. Even though the experimental design builds on Gode and Sunder (1993), Hana adopted few alterations. The reasons for the changes are well explained and also complete instructions are added into the appendix for complete transparency and possibility of replications. The only information I miss is the number of participants involved in the experiment. The results show an important pattern that human agents are able to learn from the past decisions and therefore to be more efficient than computer agents without strategic reasoning.

Overall, the thesis is of high quality. Text is concise, well structured and very easy to follow. The author uses relevant literature and cites it correctly. The main contribution is in conducting own experiment which is contribution exceeding bachelor degree. In case of successful defense I recommend the grade A (výborně). I also recommend to the defense committee to consider awarding the thesis a distinction for an extraordinarily good bachelor thesis.

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

CATEGORY		POINTS
Literature	*(max. 20 points)*	19
Methods	*(max. 30 points)*	30
Contribution	*(max. 30 points)*	30
Manuscript Form	*(max. 20 points)*	27
TOTAL POINTS	*(max. 100 points)*	**96**
GRADE	*(1 – 2 – 3 – 4)*	**1**

NAME OF THE REFEREE: Václav Korbel

DATE OF EVALUATION: 21.8.2014

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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