Report on **Bachelor / Master Thesis**

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

Student:	**Jan Polách**
Advisor:	**PhDr. Jiří Kukačka**
Title of the thesis:	**Prospect Theory and Inertia in a Heterogeneous Agent Model**

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

In his thesis, the author develops and incorporates an extension based on Prospect Theory into a famous agent-based asset pricing model. The extension covers the phenomenon of loss aversion manifested mainly in risk aversion and asymmetric treatment of gains and losses. Additionally, the author explores a special case of the model's intrinsic dynamics affecting selection of trading strategies and mimicking the investor inertia effect. Using Monte Carlo methods, the author investigates behavior and statistical properties of the extended versions of the model and assesses relevance of the extensions with respect to empirical data and stylized facts of financial time series.

The author finds that the Prospect Theory extension is feasible, that it keeps the essential underlying mechanics of the model intact, and that it changes the model's dynamics considerably. Moreover, the extension shifts the model closer to the behavior of real-world stock markets. On the contrary, the Asynchronous Updating feature does not produce statistically different empirical distributions of most of the main variables. However, it dramatically increases chances of fundamentalists to survive in the market even when changes to more profitable strategies are increasingly facile.

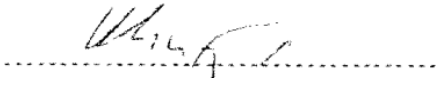
The thesis is well structured and researched and it is written in good English. It includes all the formal requirements such as lists of tables and figures and outputs in appendices. The figures and tables are clear and properly titled. The level of originality and contribution as well as the quality of implementation in Wolfram Mathematica lift this thesis way above the level of even some of the Masters theses. I consider this thesis **excellent** and even worth **consideration for the Dean's Award.**

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

CATEGORY		**POINTS**
Literature	*(max. 20 points)*	20
Methods	*(max. 30 points)*	30
Contribution	*(max. 30 points)*	30
Manuscript Form	*(max. 20 points)*	19
TOTAL POINTS	*(max. 100 points)*	**99**
GRADE	**(1 – 2 – 3 – 4)**	**1**

NAME OF THE REFEREE: Tomas Klinger

DATE OF EVALUATION: 10.6.2015



Referee Signature