

Report on Bachelor / Master Thesis

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

Student:	Bořivoj Vlk
Advisor:	Phdr. Ing. Jiří Skuhrovec
Title of the thesis:	Agent-based modeling of dual currency economy

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

The thesis describes the close relationship between Dynamic programming and reinforcement learning algorithms on the example of a model of a dual currency economy. The author uses previously published Search-Theoretic framework of dual currency economy as a background for development of an original Agent-based Computational model. Both models are compared based on their ability to reach specified equilibria and their assumptions.

The model was programmed in Matlab and I highly appreciate the amount of original work needed to create the computational model. Moreover, the fact that all supporting materials (mostly the source code) are included in the submission makes the research transparent and reproducible.

The thesis is well structured and it is written in good English. The manuscript 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.

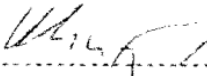
I appreciate mainly that by the thesis, the author confirms that the computational model gives the same results under the same parameter settings and shows that the ABM setting provides more flexibility. Overall, I consider this thesis as **excellent**.

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

CATEGORY	POINTS
Literature (max. 20 points)	20
Methods (max. 30 points)	28
Contribution (max. 30 points)	28
Manuscript Form (max. 20 points)	16
TOTAL POINTS (max. 100 points)	92
GRADE (1 – 2 – 3 – 4)	1

NAME OF THE REFEREE: Tomas Klinger

DATE OF EVALUATION: 10.6.2015



Referee Signature

