

# Report on Bachelor / Master Thesis

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

<b>Student:</b>	<b>Bc. Martin Žofka</b>
<b>Advisor:</b>	<b>PhDr. Jozef Baruník Ph.D.</b>
<b>Title of the thesis:</b>	<b>Modelling Durations Using Artificial Neural Networks</b>

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

The thesis focuses on a development of a neural network based framework with the purpose of modeling financial durations between market events, in particular with the goal of better understanding of the price creation process. For the empirical part of the work CHF, EUR and JPY FX futures contracts were used with data gathered from the Chicago Mercantile Exchange.

In comparison with the benchmark ACD model (Autoregressive Conditional Duration) introduced by Engle and Russel (1998) the author's ANN (Artificial Neural Networks) method proved to be similarly performing in predicting durations. I believe this to be the main value added of the work.

The structure of the thesis is logical and the text itself is clear and well written. The author presents a clear understanding of the topic as well as a good knowledge of the related existing literature. Furthermore the thesis is well written also from the formal point of view.

In conclusion I would like to underline the high value added of the research and the high quality of the thesis as a whole. I recommend evaluating Martin's diploma thesis with grade 1.

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

<b>CATEGORY</b>	<b>POINTS</b>
<i>Literature</i> (max. 20 points)	20
<i>Methods</i> (max. 30 points)	30
<i>Contribution</i> (max. 30 points)	28
<i>Manuscript Form</i> (max. 20 points)	19
<b>TOTAL POINTS</b> (max. 100 points)	<b>97</b>
<b>GRADE</b> (1 – 2 – 3 – 4)	<b>1</b>

**NAME OF THE REFEREE:** Martin Dózsa

**DATE OF EVALUATION:** January 25th, 2014

**Referee Signature**