Review on doctoral dissertation thesis

Title: Disposition Effect in the Context of Experimental Trading on Highly Liquid Financial Markets

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Reviewer: Doc. RNDr. Ing. Miloš Kopa, Ph.D.

Description of the doctoral Thesis

The main goal of the thesis is to study, analyse and verify a disposition effect in trading data which is one of the most important patterns of behavioral finance.

Structure of the doctoral thesis

The doctoral dissertation thesis consists of five chapters. After the Introduction, theoretical background from financial point of view is summarized. Chapter 3 recalls main methodological tools such as statistical testing, logistic regression or fuzzy natural logic. It is followed by the description of the data and presentation of results in Chapter 4. The thesis is concluded and summarized in the last chapter.

Questions

1, How did you built the logistic regression model? Which criteria did you use to choose the regressors? Is there a problem with multicolinearity in the regression model?

2, Can you please explain how did you divide data to training set and evaluation set?

3, Why are the evaluation set results (AUC or Gini) so poor? What is your opinion? What would you suggest next to improve it?

Evaluation

The thesis is nicely written with only a small number of mistakes or imperfections (for example notation in formulae (2.54) is a bit misleading, formulae (3.2) is not correct). All the statistical tests are provided correctly, however, the author relies on the asymptotic normality instead of using more general (non-parametric) versions of the tests. Fortunately, the number of observations (trades) is relatively large, and therefore the asymptotic normality could be a valid argument for using t-tests. Moreover, I have no doubts that the results of corresponding non-parametric tests would confirm the results of t-tests in all cases. Summarizing, the results of the tests are well derived and, moreover, confirms the author's expectation on the presence of disposition effect.

The only weak point of the thesis is the logistic regression model. The results for training data are encouraging and give a good sense. However, the results for evaluation data are very poor. It seems that the model absolutely does not work for the evaluation data set what makes the model questionable.

Summary

Despite of the imperfections and weakness stated above, I believe that the thesis fulfils all the requirements imposed on the doctoral dissertation thesis at EkF VŠB-TU and, therefore, I recommend **accepting the thesis** as doctoral dissertation thesis.

In Prague, 25.8.2020

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