Report on **Bachelor / Master Thesis**

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

Student:	**Bc. Vojtěch Pižl**
Advisor:	**doc. PhDr. Ladislav Krištoufek, Ph.D.**
Title of the thesis:	**Algorithmic Fundamental Trading**

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

Objective of the Current Thesis

The thesis first analyzes the predictive value of some well-known fundamental/risk factors (e.g. book-to-market ratio, price-earnings ratio) for a set of US companies' returns; it estimates a panel data model to examine the effects of selected fundamental variables on stock returns, and also adopts the portfolio approach of Fama and French (1993) to investigate the relevant size and value effects. Next, the thesis implements several trading strategies based on findings from the panel and the portfolio analyses and evaluates their effectiveness relative to benchmark/market strategies.

Main Comments

The thesis is relatively well written, with each section of the thesis providing just enough information relevant to its overall aim(s). The text of the thesis flows easily and avoids redundant, excessive, or irrelevant descriptions sometimes seen in other theses.

The key sections of the thesis are the data section and the estimation/results section. The data section provides a good description of the dataset, while the estimation/results section provides a comprehensive and well written description of the results. I only have a few questions:

- The section on Outliers (Section 4.3) mentions that firms with negative BM ratio and with average monthly returns > 100% are left out from the analysis; what about the firms – if there are any – showing outliers in the PE ratio, in the current ratio, or in the return momentum; Could these affect the analysis and if so, how?
- It is evident (and the author mentions this as well) that the financial crisis had a significant effect on the behavior of nearly all of the fundamental ratios. What challenges (if any) does this represent for the estimation and/or the application of the trading strategies implemented in the study?

Other comments

- The thesis provides almost no information about the source of the data, the "Free US Fundamental Data" from the Quandl dataset (p. 21). It would have been helpful to see more information on this.
- On p. 16 (and further on pages 18, 24, and 27), the author mentions a "BEME ratio". This ratio is not defined anywhere in the text. Is this ratio equivalent to a Book-to-Market ("BM") ratio defined on p. 7? If not, what does it stand for?
- In the estimation/results section, how is compounded annual growth rate (CAGR) calculated?

Sugested question for the defense

On page 2, the author states that the "actual utilization of [fundamental based] methods for algorithmic trading is not that common". Considering the long history of research into the role of fundamental factors in stock price prediction, what does the author think is the main reason for this?

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In the case of successful defense, I recommend "výborně" (excellent, 1).

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

CATEGORY		POINTS
Literature	*(max. 20 points)*	18
Methods	*(max. 30 points)*	26
Contribution	*(max. 30 points)*	24
Manuscript Form	*(max. 20 points)*	18
TOTAL POINTS	*(max. 100 points)*	**86**
GRADE	**(1 – 2 – 3 – 4)**	**1**

NAME OF THE REFEREE: Vít Bubák

DATE OF EVALUATION: 14. 6. 2016

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Referee Signature