

Report on Bachelor Thesis

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

Student: **Jaroslav Rosol**
Advisor: **PhDr. Jiří Kukačka, Ph.D.**
Title of the thesis: **Seasonal Effects on Stock Markets in Europe**

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

The thesis "Seasonal Effects on Stock Markets in Europe" researches the presence of behavioural stock market anomalies such as January effect, Monday effect, and others, in the cross-section of 32 selected European stock market indices. These anomalies were empirically confirmed in various (mainly U.S.) world markets in the history and therefore two important questions arise: 1) can we still detect these effects after their discovery and description in the literature? 2) can we find similar behaviour as mainly detected in the U.S. data also in the most recent European data? The results might have important consequences regarding the European stock market efficiency as well as contribute to the discussion on the "European" Efficient Market Hypothesis.

The main contribution of the thesis is twofold. 1) Jaroslav collected a unique dataset covering the whole Europe and various data frequencies and well managed to aggregate loads of results into an easily comprehensible aggregated outputs from which readers can directly understand the "big picture" of results and from which overall economic interpretation for the entire European market can be made directly. 2) The thesis concludes presence of the Halloween and Turn-of-the-month effects. On the other hand, the empirical evidence for the two other effect (above) is not significant enough and the thesis therefore does not confirm existence of January and Monday effects. Moreover, with relation to results for specific behavioural seasonal effects, Jaroslav discusses various important crises and crashes from the world stock markets history that might have influenced the final conclusion.

Jaroslav collected from the related literature three mostly utilised approaches of the dummy OLS regression to verify presence of given effects in data and well managed to apply standard econometric techniques to a highly quantitative economic problem. Because two of the three OLS dummy approaches lead to very similar results, only two versions of the regression model are finally presented in the thesis. Facing usual issues with theoretical assumptions, Jaroslav applies and discusses the treatments in Section 3.1.

The cooperation with Jaroslav from my advisor's point of view can be described as standard, we had some consultations over year and the intensity of works strongly increased in the last weeks before the deadline. This timing was not very fortunate as it did not allow for further improvements of the methodology or enhancements of the analysis. For instance the research on various stock market historical downturns that had a potential to impact final conclusion might have been used to adjust the dataset so that one can e.g. compare and contrast result with and without apparent outliers; the important issue of stationarity testing is only vaguely stated, etc. Nonetheless, Jaroslav was able to clearly put the hypotheses to test, employ appropriate econometric tools, critically interpret the results and come to interesting and robust conclusions. In additions, detailed model outputs are provided to the interested reader in the Appendix.

The aim of the work, research hypotheses, and conclusions are clearly stated and standardly elaborated. The work is well structured and formally meets academic standards for bachelor theses at IES FSV. Moreover, it brings interesting findings about the efficiency of the European stock markets. The text of the thesis is supplemented by an electronic archive containing complete data and STATA log file so that everyone can verify the results.

Suggested question for the defense:

- The Efficient Market Hypothesis is discussed at the beginning of Chapter 2. What would be your overall opinion about the European stock market efficiency based on results of this thesis? Does your results suggest some potential trading strategies bringing abnormal returns? Do you think these strategies are/are not used in real trading by some investors and why? Explain what might be advantages and drawbacks of such strategies.

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Summary:

I do find this thesis **meeting academic standards for bachelors theses written at IES**. Therefore I am pleased I **can recommend the thesis of Jaroslav Rosol to defense at IES FSV UK**. My personal suggestion based on above mentioned comments is to **grade the work by "2". i.e. "good"**.

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

CATEGORY		POINTS
<i>Literature</i>	<i>(max. 20 points)</i>	17
<i>Methods</i>	<i>(max. 30 points)</i>	17
<i>Contribution</i>	<i>(max. 30 points)</i>	19
<i>Manuscript Form</i>	<i>(max. 20 points)</i>	16
TOTAL POINTS	<i>(max. 100 points)</i>	69
GRADE	(1 – 2 – 3 – 4)	2

NAME OF THE REFEREE: Jiří Kukačka
DATE OF EVALUATION: 2. 6. 2016

Referee Signature

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EXPLANATION OF CATEGORIES AND SCALE:

LITERATURE REVIEW: *The thesis demonstrates author's full understanding and command of recent literature. The author quotes relevant literature in a proper way.*

Strong	Average	Weak
20	10	0

METHODS: *The tools used are relevant to the research question being investigated, and adequate to the author's level of studies. The thesis topic is comprehensively analyzed.*

Strong	Average	Weak
30	15	0

CONTRIBUTION: *The author presents original ideas on the topic demonstrating critical thinking and ability to draw conclusions based on the knowledge of relevant theory and empirics. There is a distinct value added of the thesis.*

Strong	Average	Weak
30	15	0

MANUSCRIPT FORM: *The thesis is well structured. The student uses appropriate language and style, including academic format for graphs and tables. The text effectively refers to graphs and tables and disposes with a complete bibliography.*

Strong	Average	Weak
20	10	0

Overall grading:

TOTAL POINTS	GRADE		
81 – 100	1	= excellent	= výborně
61 – 80	2	= good	= velmi dobře
41 – 60	3	= satisfactory	= dobře
0 – 40	4	= fail	= nedoporučuji k obhajobě