Report on **Bachelor Thesis**

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

Student:	**Tadeáš Kopecký**
Advisor:	**RNDr. Michal Červinka, Ph.D.**
Title of the thesis:	**Inventory Control Problem with Random Demand**

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

This thesis concerns inventory theory, in particular models for optimal quantity of the inventory and reorders. The author clearly describes the classical economic order quantity model which is based on the assumption of a constant demand and illustrates the theory on academic example. Further, the author describes alternatives for variable demand. In practical examples, demand forecast is essential for application of inventory models. The author presents several techniques and focuses on time series forecasting, including the moving averages and (simple and double) exponential smoothing. The last part of the thesis is devoted to a real application of the described theory to storage and reorders of dental implants in one particular dental center in the Czech Republic. This application includes demand forecasting, deriving optimal ordering patterns, sensitivity analysis of the ordering patterns when considering changes in values of the reorder and storage costs, and comparison with the actual inventory policy of the dental center.

The thesis is well-structured and written in clear English. The practical part is well described and reported results are presented in a clear way. The literature reflects both classical and recent texts related to the topic of this thesis. The author clearly shows good understanding of data analysis, econometric methods and software.

The only minor comment concerns the graphs in the Appendix A, where, cometimes, the dashed lines are very hard to see.

In the case of successful defense, I recommend **"výborně" (excellent, 1)**. Reflecting the practical aspect of this thesis, I am convinced that this thesis deserves to be nominated for the price of the dean of the faculty.

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

CATEGORY		POINTS
Literature	*(max. 20 points)*	20
Methods	*(max. 30 points)*	29
Contribution	*(max. 30 points)*	29
Manuscript Form	*(max. 20 points)*	19
TOTAL POINTS	*(max. 100 points)*	**97**
GRADE	**(1 – 2 – 3 – 4)**	**1**

NAME OF THE REFEREE: RNDr. Michal Červinka, Ph.D.

DATE OF EVALUATION: 20.8.2014

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                                   Referee Signature

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