

Report on Bachelor / Master Thesis

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

Student:	David Brandejs
Advisor:	PhDr. Ladislav Kristoufek, Ph.D.
Title of the thesis:	Statistical properties of the liquidity and its influence on the volatility prediction

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

The core of the thesis is concentrated in Section 5 Model and Results. Other chapters provide background information drawing on previous work. The thesis is based on three well defined Hypotheses (p.2).

A serious issue with the analysis is that the key model on p. 26 and additional ones described verbally in section 5.1.4 are not fully identified. In the initial model without any lags (p. 30) none of the parameters is identified. When lagged returns and included in both equations and lagged volatility is included in the second equation, even if we assume that lagged volatility has no impact on returns, only parameters of the first equation are identified but not of the second equation. Unidentified parameters do not have any meaningful economic interpretation and hence the conclusions drawn for Hypotheses 1 and 2 are unwarranted. In the thesis identification is discussed only in terms of necessary but not sufficient conditions (section 3.4 and 5.1.6). The author should refer to any standard econometric text on exclusion restrictions for identification of simultaneous equation models, e.g. Wooldridge ch 16.

The basis of the model that seeks to assess Hypotheses 1 and 2 is stated on p. 26. Additional lagged variables are also used (Section 5.1.4) but the full models are not stated. The thesis should contain the full version of each model used (e.g. in an appendix in a table).

In addressing Hypothesis 3, logit and probit models (sec 5.2.2) assume iid innovations. This assumption (especially independence) is hard to justify in the current setting. The RE/FE model framework is well justified for Hypothesis 3.

Technicality: the Hypotheses are stated differently in the proposal section and on p. 2 (I reference the latter throughout). This should be synchronized.

In the case of successful defense, I recommend "**velmi dobře**" (good, 2).

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

CATEGORY		POINTS
Literature	(max. 20 points)	15
Methods	(max. 30 points)	25
Contribution	(max. 30 points)	10
Manuscript Form	(max. 20 points)	20
TOTAL POINTS	(max. 100 points)	70
GRADE	(1 – 2 – 3 – 4)	2

NAME OF THE REFEREE: Martin Burda

DATE OF EVALUATION: 13. 6. 2016



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