

Report on Bachelor / Master Thesis

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

Student:	Bc. Pavla Stará
Advisor:	Mgr. Magda Pečená Ph.D.
Title of the thesis:	Regulatory Approaches to Credit Risk Quantification

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

The thesis discusses Basel regulation and requirements on credit risk management and compares several approaches to credit risk modeling. The empirical part applies some of the approaches to a small data sample to support the theoretical findings with empirical evidence.

The structure of the text is unusual as it mixes literature review with methodology and empirics but it is consistent and readable when read as a whole. It can be viewed as a complete introductory guide to credit risk modeling for practitioners as it includes all the steps necessary to set up a credit risk management of a corporate loans portfolio. Nevertheless, I do not find many new ideas in the thesis so most of its contribution lies in synthesis of existing approaches.

The author did a good job using existing literature and reviewing the current (and past) regulations. The form of the manuscript is acceptable although I would suggest rewriting the tables and figures cited from the existing literature instead of "print-screening" it. The quality of language varies a lot from very nice texts to some very strange sentence structures and grammar issues (most probably as a result of lack of time for proofreading).

Most of my comments concern the empirical part.

- I find the sample selection not very well documented. Is it completely random (made-up) data or is it real data? It seems that defaulted and non-defaulted companies were selected separately from different samples/datasets. While the non-defaulted companies are Forbes Global 2000 companies I expect the defaulted companies are smaller business with very different characteristics (but no summary statistics is provided). Such a heterogeneous sample may invalidate the results of any statistical inference.
- Moreover, the sample is quite small (69 companies). This is acknowledged in the text but no explanation is provided.
- For model selection the author uses stepwise regression – an automated method which is not statistically well grounded and should be avoided no matter how appealing for practitioners it seems to be. Especially in context of the small data sample and correlated variables such treatment can be very costly in a real world application.
- Besides other (more complex) methods such as BMA or lasso, I would suggest a simple out-of-sample cross-validation technique. The author even introduces some validation measures later in the text but does not employ them in the model selection stage.
- Hypotheses should be (in the setting of the thesis) "tested" and potentially "rejected", not "proved".
- Tables in Annex 2 and 3 are not clear to me.

I suggest these issues as topics for discussion during the defense. In case the author provides reasonable explanations I do recommend the thesis for defense and suggest grade 2 (good).

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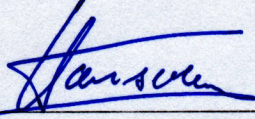
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SUMMARY OF POINTS AWARDED (for details, see below):

CATEGORY	POINTS
Literature (max. 20 points)	18
Methods (max. 30 points)	15
Contribution (max. 30 points)	15
Manuscript Form (max. 20 points)	17
TOTAL POINTS (max. 100 points)	65
GRADE (1 – 2 – 3 – 4)	2

NAME OF THE REFEREE: Václav Hausenblas

DATE OF EVALUATION: 5. 9. 2016



Referee Signature