

Report on Master Thesis

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

Student:	Bc. Filip Hamáček
Advisor:	Mgr. Petr Polák, MSc.
Title of the thesis:	Satellite Model Accuracy in Bank Stress Testing

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

Please provide your assessment of each of the following four categories, summary and suggested questions for the discussion. The minimum length of the report is 300 words.

Contribution – The master thesis deals with credit risk satellite models, that are designed to predict desired financial variables from certain sets of macroeconomic variables. The author claims, these can be also used for stress testing purposes of the banking sector. The predicted variable in this case is a 3M Probability of Default (PD). Several methodologies were compared in the thesis, models applied and calculated predictions were compared to CNB predictions (CNB predictions were based on model, the author claims is out- fashioned).

The thesis relies solely on hard data; it proves the author is advanced econometrician. But on the other hand there is little explanation of the underlying ideas, interpretation and discussion on the underlying issues.

Models may usually nicely work in normal stable times, when respective macroeconomic variables move in more or less expected way. Unfortunately majority of the models have failed in crises („stress“) times so far. That is why stress testing is „more an art, less a science“. Stress testing is an important instrument for measuring resilience of respective banks and the whole banking sector, but for these hard times the „art“ plays much more important role. It is not taken into account at all.

We had no hard banking crises so far in the Czech Republic, that would verify the accuracy of the models, so it is misleading to speak about „model accuracy“ in bank stress testing, there is hardly any „accuracy“.

The lack of discussion and economic interpretation is from my point of view the biggest drawback of the thesis. That is why I can not assign full points.

Methods – I did not identify any shortcomings in methods used: hypotheses are clearly stated, dataset described. The range of (econometric) models used was far above-standard and the application of the models was appropriate (with the comment mentioned in „Contribution“).

Literature – I did not identify any shortcomings in student’s work with literature, the literature used was up-to-date and well sourced.

Manuscript form – I did not find any significant shortcomings in the manuscript form, the level of (English) language is medium to high. The structure of the text follows logic, is clearly structured, the orientation is easy. The student adheres to academic format for graphs, tables and references.

Summary and suggested questions for the discussion during the defense

I ask Mr. Hamáček to discuss:

- Especially smaller institutions („micro stress testing“) do not analyze which variables influence PD (they do not look on drivers of PD development). They just analyze, how a double/triple PD would influence their portfolio/capital adequacy. How do you assess this approach? How would you approach the stress testing issue as a risk manager of a bank, what would you be interested in in the first place?

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

CATEGORY	POINTS
<i>Contribution</i> (max. 30 points)	15
<i>Methods</i> (max. 30 points)	30
<i>Literature</i> (max. 20 points)	20
<i>Manuscript Form</i> (max. 20 points)	20
TOTAL POINTS (max. 100 points)	85
GRADE (A – B – C – D – E – F)	B

NAME OF THE REFEREE: Mgr. Magda Pečená, PhD.

DATE OF EVALUATION: 11.1.2019



(Referee Signature)