

Report on Master Thesis

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

Student:	Zuzana Stehlíková
Advisor:	Mgr. Ing. Adam Kučera
Title of the thesis:	Macroeconomic Uncertainty: An Exogenous Risk in Reinsurance Pricing

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

Contribution

The value added of the thesis is in studying the effect of the uncertainty related to future inflation on reinsurance pricing, a topic that has not yet been systematically studied in the academic literature. This is an important contribution to the literature linking finance and macro as typically only „expected“ inflation is taken into account in underwriting reinsurance contracts. The variance around the central forecast is often omitted, which may underestimate the risk a reinsurer is facing. The author is constructing her own vector autoregression (VAR) models to generate inflation predictions and measures the risk around the central forecast by value at risk (VaR), finding that such an inflation risk measure is significant linked to a measure of the distribution of losses around the mean insurance losses.

Methods

The thesis is using and combines appropriate advanced techniques, such as VAR, VaR and tail VaR (actually, this is better known as the „expected shortfall“). It explains very well in the chapter on methodology how pricing of re-insurance is done using illustrative examples. The chapter on data presents the dataset used, which combines micro data from an Austrian insurance company and macro data on the Austrian economy. The empirical work based on various simulations using the models employed is very well done.

Literature

The thesis includes a good review of literature and there are additional references throughout the thesis. Despite the topic not being a mainstream economic issue and a lack of literature on this particular topic of the thesis, the author has found a number of relevant related studies worth citing.

Manuscript form

The thesis is properly structured, it includes all obligatory part and is very easy to read and understand. It explains very well the concept of reinsurance and reinsurance pricing, includes a review of related literature, the methodologies are well explained, empirical part is flawless and very detailed yet very understandable.

Summary and suggested questions for the discussion during the defense

This is an excellent master thesis bringing an important value added and being very well written. I strongly recommend this thesis for defense, propose the **grade A**, and suggest that this thesis be considered for the Dean's Prize as well as one of the student prizes.

The author should also consider publishing the thesis as a IES Working Paper and, after some shortening, as an article in a suitable journal.

During the defense, the author could elaborate on whether the results would be similar or different if instead of Austria (with a stable economy and typical low levels of inflation), a more volatile country (such as Hungary, Poland, or Russia) was used.

Report on Master Thesis

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

Student:	Zuzana Stehlíková
Advisor:	Mgr. Ing. Adam Kučera
Title of the thesis:	Macroeconomic Uncertainty: An Exogenous Risk in Reinsurance Pricing

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

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

NAME OF THE REFEREE: Doc. Adam Geršl

DATE OF EVALUATION: 5.6.2020



Referee Signature

EXPLANATION OF CATEGORIES AND SCALE:

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.*

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.*

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

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.*

Overall grading:

TOTAL	GRADE
91 – 100	A
81 - 90	B
71 - 80	C
61 – 70	D
51 – 60	E
0 – 50	F