Report on **Master Thesis**

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

Student:	Bc. 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):*

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 thesis is focuses on a field that is subject to research only rarely: the reinsurance. More specifically, the thesis attempts to (1) complexly describe methods used in reinsurance pricing and (2) demonstrate, using inflation as an example of an external factor influencing the price, that explicit inclusion of risks related to the external factors into a pricing formula can improve the pricing.

I assess the overall contribution of the thesis as sufficient. The thesis is extensive, providing detailed explanation of various aspects of reinsurance business and the pricing of reinsurance treaties. The empirical assessment of the exogenous inflation risk and the way it may be included into the pricing formulas offers an interesting insight and opens questions that reinsurance companies might find useful to answer.

Overall, the thesis shows author's deep knowledge of the (re)insurance business. I especially value the theoretical part of the thesis, including the description of methods, that allows the reader of the thesis to obtain a comprehensive insight into the reinsurance business. In this aspect, the author has proven the ability to describe the highly specialized field, as the reinsurance is, also for a reader without prior experience with this topic. As a consequence, the theoretical part is relatively long and represents a dominant part of the thesis.

Methods

The methods are of two kinds. First, the methods of reinsurance pricing are described and used. These methods are, as already mentioned, highly field-specific and their proper usage reflects a good knowledge of the field by the author. Second, a vector autoregression model is used in order to simulate inflation paths that provide basis for demonstrating the inflation risk and the way it may be priced. Author demonstrates ability of estimate, evaluate, and interpret a standard VAR model. Jointly, I consider these methods as sufficiently advanced for the level of the studies.

Literature

The thesis uses a sufficient range of literature. The number of relevant research articles dealing with reinsurance is generally limited, which explains why author mostly builds on a few pivotal studies as the closest benchmark for the thesis. The author faces the need to share relatively significant amount of reinsurance business theory in order to be able to conduct the empirical research. This motivates the somehow "textbook" style of the theoretical part with only limited usage of the literature. As a consequence, in some parts of the thesis, it is not clear whether the ideas and concepts explained are author's own, a general knowledge in the reinsurance field or findings of someone else. This could be slightly fine-tuned.

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Manuscript form

The thesis slightly reflects the "analytical" research question and related business motivation. It therefore in some parts of the text resembles a business case study rather than a research article. On the other hand, given that a typical user of the thesis may be an analyst in a reinsurance company, rather than a full-time researcher, such form may be seen as quite appropriate. The use of English is of a sufficient quality, although in some parts of the thesis, the ways the sentences are formed and joined within the paragraph makes the text excessively long without sufficiently dense information – this contributions the length of the whole thesis. Some fine-tuning in order to make the core messages more clear and the text more dense would be beneficial for the thesis.

Summary and suggested questions for the discussion during the defense

Overall, I evaluate this thesis as interesting, novel and highly applied. I consider the theoretical part as the highest contribution of the thesis, since it provides comprehensive and still quite feasible description of the reinsurance business. At the same time, the empirical part proves sufficient modelling abilities of the author and shows that the author is able to use the common modeling technique for answering empirical question. The manuscript form could be slightly improved in order to make the text more dense.

Possible questions for the defense:

Do you think that also other macroeconomic variables, apart the inflation, have an indirect impact on the prices of the reinsurance treaties? If yes, which variables do you consider as the most important, and which lines of business their impact the most? What are the possible caveats of modelling their risks and pricing them explicitly, compared to your approach used to price the inflation risks?

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

CATEGORY	POINTS
Contribution *(max. 30 points)*	28
Methods *(max. 30 points)*	28
Literature *(max. 20 points)*	19
Manuscript Form *(max. 20 points)*	8
TOTAL POINTS *(max. 100 points)*	**83**
GRADE **(A – B – C – D – E – F)**	**B**

NAME OF THE REFEREE: Adam Kučera

DATE OF EVALUATION: 2020/06/01

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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.*

Strong	*Average*	*Weak*
30	*15*	*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*

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*

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