Reviewer’s diploma thesis assessment

Student: Yihan Gu
Title: Determination of Credit Risk for Debt Assets Portfolio
Reviewer: Ing. Martina Novotná, Ph.D.

The thesis is focused on the area of credit risk management and the special attention is paid to the quantification of credit risk related to Basel Capital Accords. The choice of the topic is relevant and appropriate for a diploma work. The main objective is to estimate the economic capital of ten selected bonds portfolio under CreditMetrics™ model and capital requirements for unexpected losses from credit risk under Basel Accords. It can be stated on the basis of the submitted work that the goal was fulfilled.

The structure of this work reflects the thesis assignment. All chapters are logically arranged according to the main objective. The student proceeded from theoretical background and description of methodology to the practical application. The most extensive chapter of this work is chapter three, where the student describes models of credit risk management, principles of Credit Metrics™ model and regulation of capital requirements under Basel Accords.

The main contribution of this work can be found in chapter four, where the student applies two approaches under Basel Accords on the portfolio of corporate bonds, including companies from financial sector. The portfolio consists of ten bonds with different ratings, ranging from AA to BBB, traded on Frankfurt Stock Exchange. The partial findings are summarized and compared at the end of the chapter and the overall results and recommendations are compiled in the conclusion of the thesis.

The student demonstrated ability to solve a given problem and provide original work. The author proved sufficient capability to work with literature, used sources are quoted in the text. Tables, figures and equations are appropriately included, numbered and adequately commented. The procedure of calculations, including the input data and partial results is clearly elaborated, the student used appropriate terminology with respect to the objective of this work.

Overall, the submitted thesis is elaborated at an average level with respect to the selected topic and processing complexity. However, it is evident that this work satisfies requirements for the elaboration and provides author’s original results. For the reasons above, I recommend the thesis for an oral defence.

Ostrava, May 20, 2019

Ing. Martina Novotná, Ph. D.