REVIEWER’S REPORT ON DIPLOMA THESIS

Title: Modelling the Volatility of Stock Markets

Study Program: Economic Policy and Administration

Field of Study: Finance

Student: Be. Zhuo Zhang

Supervisor: Ing. Petr Sed’a, Ph.D.

Submitted diploma thesis is focused on identify sudden breaks in volatility and determine on impact of these breaks on the volatility of stock market. Volatility model is widely applied in analyzing the financial markets' features and testing specific financial situations. From this point of view the topic for diploma thesis has been chosen appropriately.

The aim of the diploma thesis is identify sudden changes and its influence on volatility persistence, for American market and Chinese market by modified ICSS algorithm. Besides Introduction and Conclusion, the thesis is structured into five chapters. While chapter two might be rough, since there is several missing explanations for both figures and relevant inside items. Also it found the edit errors (i.e. penultimate paragraph on page 11 and second paragraph on page 12, two figure 2.7 on page 19 and page 22) in chapter two. The rest of the theoretical part (i.e. chapter three) is suitable to provide all definitions, terms to understand the application part of chapter four, which is developed in chapter five.

Chapter three is concentrates primarily on the volatility analysis models (ARCH model, GARCH model, FIGARCH model and ICSS algorithm), which will be applied in the practical part of the diploma thesis.

The most important parts of the diploma thesis are chapter four and five which examine the impact of structural breaks on volatility persistence of American stock market and Chinese stock market. Unfortunately, there is rough description with old statistics and situations when before 2007 financial crisis for stock markets. Also to comparing two different indexes in different stock exchange should use same period of time accurate to month. However, author focused on the issue of identification of sudden breaks in volatility and estimation of conditional volatility models then using in-sample forecasting GARCH (1,1) model are fulfilled. The results are appropriately commented throughout the chapter.

On the basis of contents, procedure and results of the diploma thesis that the main objective was fulfilled, it can be recommended for defence.

Ostrava, 18th May 2015

Guo

Ing. Haochen Guo, Ph.D.

Diploma thesis reviewer