



Report on the part of the final state examination Record of the thesis defence

Academic year: 2023/2024

Student's name and surname: Bc. Martin Nedvěď
Student's ID: 80119387

Type of the study programme: Master's (post-Bachelor)
Study programme: Economics and Finance with specialisation in Financial Markets and Data Analysis

Study ID: 754735

Title of the thesis: Predictability of financial returns across horizons using Deep Learning
Thesis department: Institute of Economic Studies (23-IES)
Language of the thesis: English
Language of defence: English
Advisor: doc. PhDr. Jozef Baruník, Ph.D.
Reviewer(s): Mgr. Lukáš Vácha, Ph.D.
Date of defence: 18.09.2024 **Venue of defence:** Praha
Attempt: regular

Course of the examination: The student delivered a high-quality, clear, and very confident presentation. He successfully covered the motivation of his research topic, related literature, a brief intuitive introduction to machine learning, data description, and the setup of the portfolio analysis utilized to evaluate the performance of the LSTM network, and the main results and the main contribution within a limited time. After the summary of the evaluation by the thesis supervisor and thesis opponent, the committee asked for clarification of the intuition of fractional differentiation and the obvious non-stationarity of the resulting series. The student reacted overall convincingly. In accordance with both reports, the committee decided to evaluate the thesis defense by A.

Result of defence: excellent (A)

Chair of the board: Geršl Adam, doc. PhDr., Ph.D. (present)

Committee members: Bauer Michal, prof. PhDr., Ph.D. (present)

Dědek Oldřich, prof. Ing., CSc. (present)

Kukačka Jiří, PhDr., Ph.D. (present)