Abstract

The main intention of this thesis is to analyze the weak form efficiency of Prague Stock Exchange. We conduct our empirical analysis on daily, weekly and monthly return data of the PX index collected in time period 1994-2017. The theory of Markov chains is employed to decide whether the index returns follow a random walk, the evidence of weak form efficiency. Bayesian Information Criterion is used to establish the optimal order of the Markov chain, which is in turn tested against the order 0 by Likelihood ratio criterion. The model assumptions of time homogeneity, irreducibility and aperiodicity of transition probability matrix are validated. We reject the weak form efficiency for daily index returns and establish its optimal Markov chain order to be 1. The weak form efficiency is not rejected for weekly and monthly index returns so is the assumption of time homogeneity for the whole time period 1994-2017. We propose further analysis of daily returns for time period 2006-2017, which exploits the fact of the weak form inefficiency. Discussion of results and related literature is provided as well as the presentation of all contemplated methods.