

APPLICATION OF MARKOV PROCESSES IN FINANCE

ABSTRACT: *Following the 2008 global financial crisis to date, the global economy has been characterized by increased regulation in every sector, and a particular attention given to risk analysis. Predicting future events has become the primary goal in all segments, because the protection against risks in modern business (e.g. frequent changes in market conditions) has become the key to success. The research method used is based on qualitative research, as well as the analyses of pre-existing quantitative studies. The subject of this research is a comprehensive examination of possible applications of Markov processes in the finance sector. The aim of this examination is to identify the key methodological segments in a qualitative sense, and to explain the mathematical instruments used in this field. The expected results of the research will not contain any new or empirical data. The purpose of this paper is to present and emphasize the significance of Markov processes, and the possibilities of their wide application in economics and finance.*

KEY WORDS: *stochastic processes, Markov processes, finance – application*