

ABSTRACT

The theme “Comparative analysis for option’s pricing models”.

Diploma work includes 69 p., 9 fig., 16 tab., 2 appendixes and 17 sources.

OPTION, THEORETICAL PRICE, BINOMIAL MODEL, BLACK-SCHOLES FORMULA, STOCK MARKET, INVESTMENT.

Object of research – the real and stock options.

The purpose of research is determining the theoretical option’s price with different methods and their comparative analysis.

The problem of determining the theoretical option price is important for solving many issues as the scope of option’s theory is very wide, namely speculation on the stock exchange, risk reduction, assessment of assets, investment planning, evaluation of patent products and others. In this work the two most common pricing models are considered: Black-Scholes model and binomial model. A comparative analysis on the basis of solution of two classes of problems is done: calculating the theoretical option price on the Ukrainian stock index UX and feasibility analysis of investment in new project with a real option.

This paper presents the results of solving these problems on real data. Mathematical and financial analyses were done, and from these point of view advantages and disadvantages of the methods were allowed. The algorithms were developed and can be used for calculating the exchange option’s theoretical price and the real option’s theoretical price – for the analysis of investment attractiveness of the new project.