ABSTRACT

The theme: ‘Statistical arbitrage as an example of algorithmic trading strategy on stock exchange’

Diploma work: 87 p., 22 fig., 6 tabl., 2 appendixes, 15 references.

ALGORITHMIC TRADING, STATISTICAL ARBITRAGE, TIME SERIES ANALYSIS, COINTEGRATION, STATIONARITY

The object of the study – financial time series of equities.

The subject of the study – algorithmic trading strategies based on the phenomenon of return to the average value.

The purpose of the study – analyze the subject of research, implement some trading strategies, test strategies and compare results.

The relevance of the study – trading models based on statistical arbitrage are used for securities trading in the stock market, both by banks and hedge funds. The most common among them are strategies for reverting to the average value of a pair of securities.

The results of the study – several strategies for statistical arbitrage were created and tested on historical data. Mean-reversion strategies are found to be profitable, and they have rather low risks.

Further improvements of the study – acquiring more securities to strategies of statistical arbitrage, applying these strategies for trading other financial instruments.