Investment Portfolio Modelling on the Russian Stock Market*

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* Presented at the 37th IBIMA International Conference, 30-31 May 2021, Cordoba, Spain

Abstract

The article examines theoretical and applied aspects of the investment portfolio construction. The Markowitz mean-variance model, the Sharpe single-index model and the EGP algorithm are being analyzed and then implemented to build optimized portfolios using daily data over 5 years on the 28 MOEX listed companies. The calculated returns were compared against the MOEX Russia Index and the hypothesis proposed in the beginning was confirmed in this particular case. Portfolios constructed by using the Sharpe model and the EGP algorithm exceeded not only the Markowitz portfolio but also the market one. The findings need to be generalized carefully due to input data specificities and a number of limitations. The effectiveness of the research results is determined by the possibility of using the considered approaches in investment practices.

Keywords: Investment portfolio, Markowitz model, Sharpe model, EGP algorithm, stock market.