

## VARIANTE DE OPTIMIZARE A PORTOFOLIILOR DE ACȚIUNI DIVERSIFICATE INTERNAȚIONAL ÎN CONDIȚII DE RESTRICȚII ALE POLITICII INVESTIȚIONALE

*(Comparing methods of optimizing internationally diversified stock portfolios with investment policy restrains)*

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### Abstract

The scope of the paper is to compare alternatives to maximizing the returns of internationally diversified stock portfolios having restrains and limitations set by the investment policy, as it is usually the case with portfolios held by institutional investors such as pension funds or undertakings for collective investment in transferable securities.

In the portfolio analysis, the financial instruments will be described and grouped using the Principal Component Analysis (PCA) and the hierarchic cluster by Ward method, carrying out a comparison between the optimized portfolio that accept short-selling and another portfolio that do not accept, considering the Sharpe rate. The volatility of the selected portfolio will be measured the by EGARCH(1,1). Also, other measures of risk will be applied, such as VaR, we will asses the impact of the volatility regimes on the risk of the portfolio.

**Keywords:** Principal Component Analysis, hierarchical cluster, Markowitz Model, Shape Rate, Single Index Model, EGARCH, VaR, CVaR, Backtesting, Regression.

**JEL Classification:** G11, H27, C32, E44

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