

# QUANTIFICATION OF RISK IN ORDER TO OPTIMIZE A STRATEGY FOR INVESTMENT

GRUIESCU Mihaela, DANCIU Aniela Raluca, BUCULEI Gabriela

Academy of Economic Studies Bucharest

[mgruiescu@yahoo.com](mailto:mgruiescu@yahoo.com), [anielaco@hotmail.com](mailto:anielaco@hotmail.com), [gabribuculei@yahoo.com](mailto:gabribuculei@yahoo.com)

**Key words:** risk quantification, market portfolio, investment, risk, venture.

**Abstract:** Resources allocation with a view to making investments stands for a sensitive problem raised in front of any company. It is widely known the fact that, besides the revenues expected by the economic agents, any investment involves risks to a certain extent, which are proportional to the expected revenues as the real economy has proven in most cases.

Risk is a phenomenon that affects and influences all human action, it can be defined as a commitment that carries uncertainty, because the probability of loss or gain. In this case, the risk should always be reported to the expected profitability of the operators, so before he can proceed with making an investment, any rational economic agent will carefully review the risk to which the exhibit and will consider the relationship between risk and return.

Concern for economic analysis and risk prevention began with the first forms of economic activity. Each participant in an economic activity (production or exchange) should more properly assess the value of its efforts, this is even more important as compensation effort is not made immediately but after some period of time.

Due to greater tehnologisation and due to greater access to information, choosing the best investment possible in many investments is becoming more complicated and involves greater efforts to determine the risk associated with each investment and their classification according to the risk-return ratio and the utility of the investor.

Choosing the best investment is in many portfolios on the efficient frontier portfolios to the Pareto depending on the degree of aversion to risk and the utility of the investor. Choosing a portfolio (or asset) corresponding to the best risk profile of investor involves solving a problem of stochastic dominance.

Following the risk characterization and the degree of aversion to risk to the investor, determine the optimal portfolio. This portfolio dominates in terms of probabilities any other portfolio on the frontier of Pareto optimality.

## References:

1. Bădescu A.V., Dobre I. - *Modelarea deciziilor economico-financiare*, Ed. Conphys, 2002;
2. Dimitris N. Chorafas, *Risk Management*, în *Financial Institution*, 1990, London, England.
3. Gravele R., Rees R., - *Microeconomics*, Editura Longman, 1992,
4. Markowitz H.- Portfolio Selection, *The Journal of Finance*, vol. 7, 1952.,
5. William F. Sharpe - Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk - *The Journal of Finance*, vol. 19, No. 3. (Sep., 1964).