

Modeling the portfolio selection problem with constraint programming

de la Barra C.L.

Soto R.

Crawford B.

Allendes C.

Berendsen H.

Monfroy E.

Portfolio selection is a relevant problem in finance and economics. It consists in selecting a portfolio of assets considering a given expected return such that the risk of the portfolio is minimized. Several approaches have been proposed to tackle this problem, which are mainly based on mathematical programming techniques and metaheuristics. In this paper we illustrate how this problem can easily be modeled and solved by a relatively modern and declarative programming paradigm called constraint programming. © Springer-Verlag Berlin Heidelberg 2013.

Constraint modeling

Constraint satisfacion

Portfolio selection problem

Constraint theory

Mathematical programming

Constraint model

Constraint programming

Constraint satisfacion

Declarative Programming

Expected return

Meta heuristics

Portfolio selection

Portfolio selection problems

Computer programming