

**CORR 2000-34**

**Portfolio Selection and Transactions Costs**

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**Abstract** This paper deals with the portfolio selection problem of risky assets with a diagonal covariance matrix, upper bounds on all assets and transactions costs. An algorithm for its solution is formulated which terminates in a number of iterations that is at most three times the number of assets. The efficient portfolios, under appropriate assumptions, are shown to have the following structure. As the risk tolerance parameter increases, an asset's holdings increases to its target, then stays there for a while, then increases to its upper bound, reaches it and stays there. Then the holdings of the asset with the next highest expected return proceeds in a similar way and so on.

**Keywords** Parametric quadratic programming, portfolio optimization, transactions costs

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