

Quantitative Finance > Portfolio Management

Optimal Liquidation Strategies Regularize Portfolio Selection

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We consider the problem of portfolio optimization in the presence of market impact, and derive optimal liquidation strategies. We discuss in detail the problem of finding the optimal portfolio under Expected Shortfall (ES) in the case of linear market impact. We show that, once market impact is taken into account, a regularized version of the usual optimization problem naturally emerges. We characterize the typical behavior of the optimal liquidation strategies, in the limit of large portfolio sizes, and show how the market impact removes the instability of ES in this context.

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