

## Research Paper Number 120

# Omega Portfolio Construction with Johnson Distributions

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Alexander Passow "Omega Portfolio Construction with Johnson Distributions" Risk, April 2005, vol. 18, Issue 4.

### Abstract:

The omega risk-adjusted performance measure with Johnson distributions accounts comprehensively and non-discretionarily for the first potentially persistent moments including skewness and kurtosis. The Johnson-omega ratio thus overcomes the shortcomings of other measures and is inherently less sensitive to input data noise and to changes of the threshold than empirical omega. Alexander Passow derives an explicit representation of the Johnson-omega ratio that was successfully tested in a hedge fund portfolio optimization framework using both historical and forward-looking performances of individual indexes.