Description of the Measure:
Based on a quantile model, Dowd (2000) introduces a performance measure that adjusts the expected excess return of the investor’s portfolio by the α-Value-at-Risk (α-VaR) of the portfolio return distributions.

Interpretation:
This ratio allows the investor to gauge the performance of the managed portfolio rescaled by a measure of extreme risk, instead of total risk.

Note that the Value-at-Risk is widely used in finance and insurance for capital and risk management. However, in recent years, it has been criticized following Artzner et al. (1999) who showed that VaR does not have, theoretically, all the four coherence properties (translation invariance, monotonicity, sub-additivity, positive homogeneity). Those properties are required for any “good” risk measure. In particular, VaR does not respect the sub-additivity principle.

Formula:

\[ \text{RVaR}_p = \left[ E(r_p) - r_f \right] \times |\text{VaR}_{r_p,a}|^{-1}. \]

References: