
MOSES-CHEYNEY-VEIT MEASURE

Description of the Measure:

The Moses-Cheyney-Veit Measure is a relative measure of performance. It is a ratio. Numerator corresponds to the annualized excess return of the fund (the annualized return of the fund deducted the yield of an investment without risk, minus the product of the beta by the market return). The denominator is the return due to specific risk of the fund, defined as the difference between returns of two perfectly diversified funds having the same total risk that the fund under review. Those two funds are defined such as - the first one - having a unitary coefficient correlation index and - the second one - having a beta equal to those of the portfolio under review. In other word, it corresponds to the Jensen measure divided by the yield corresponding to the specific risk of the portfolio considered.

Interpretation:

The Moses-Cheyney-Veit Measure gives the excess return obtained by the manager normalized by the return obtained for a specific risk level equal to those of the fund.

Use:

The magnitude of the Moses-Cheyney-Veit Measure depends on three variables: the return of the fund, the systematic and the specific return.

Potential Misuse:

Accuracy and reliability of this measure is based on the quality of the market proxy.

Formula:

$$PM_{p,t} = \frac{[E_t(R_{p,t}) - R_f] - \hat{\beta}_p [E_t(R_{m,t}) - R_f]}{\left(\frac{\hat{\sigma}_{R_p}}{\hat{\sigma}_{R_m}} - \hat{\beta}_p \right) [E_t(R_{m,t}) - R_f]}$$

where:

$E_t(R_{p,t})$ is the annualized mean return on the fund considered over period;

R_f is a proxy for the riskless rate;

$E_t(R_{m,t})$ is the annualized mean return on the market portfolio considered over period;

$\hat{\beta}_p$ is the estimated sensitivity of the fund return to the market portfolio variations;

$\hat{\sigma}_{R_p}$ is the standard deviation of the fund return over period;

$\hat{\sigma}_{R_m}$ is the standard deviation of the market portfolio return over period.

Two year data of weekly series is considered.

References:

Moses E., J. Cheyney and T. Veit, (1987), "A New and More Complete Performance Measure", *Journal of Portfolio Management*, Summer 1987, 24-33.