AFTALION AND PONCET (1991) INDEX

Description of the Measure:
Proposing a new definition of the market price of risk, Aftalion and Poncet (1991) build an index which compares the expected return of the investor's portfolio in excess of the expected return of its reference portfolio, to the return that should have been reached according to the total risk of the managed portfolio.

Interpretation:
The Aftalion and Poncet (1991) index represents the extra return that investors require on average for each additional point of risk.

Use:
Authors illustrate their measure by doing a comparison between a portfolio invested in cash over 30 years and a diversified portfolio invested in the French stock market. The expected returns of these two portfolios are, respectively, 8.00% and 11.00%, while the corresponding volatilities are equal to 3.00% and 18.00%. In this specific case, the authors conclude that an extra total risk equal to 15.00% is compensated for an extra return of 3.00%. The market price of risk is thus equal to .20, *i.e.* 3.00% over 15.00%.

Formula:

$$AP_p = [E(r_p) - E(r_B)] - PXR(\sigma_{r_p} - \sigma_{r_B}),$$

with:

$$PXR(\sigma_{r_p} - \sigma_{r_B}) = [E(r_p) - E(r_B)] \times (\sigma_{r_p} - \sigma_{r_B})^{-1},$$

where *PXR*(.) is the market price of risk of the portfolio *p*.

References:

Aftalion, F. and P. Poncet, (1991), « Les mesures de performance des OPCVM », *La revue banque* 517, 582-588.