



بيان المعادلات المستخدمة لاحتساب معايير الأداء والمخاطر

A description of formulas utilized for assessing performance and risk measures

|                    |                                                                                                                                                                                                                                                                     |                   |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Standard deviation | $\sqrt{\frac{\sum_{i=1}^n (x_i - \bar{x})^2}{n - 1}}$ <p> <math>x_i</math> = Value of the <math>i^{th}</math> point in the data set<br/> <math>\bar{x}</math> = The mean value of the data set<br/> <math>n</math> = The number of data points in the data set </p> | الانحراف المعياري |
| Sharp indicator    | $\frac{R_p - R_f}{\sigma_p}$ <p> <math>R_p</math> = return of portfolio<br/> <math>R_f</math> = risk-free rate<br/> <math>\sigma_p</math> = standard deviation of the portfolio's excess return </p>                                                                | مؤشر شارب         |
| Tracking error     | <p><i>Standard Deviation of (P - B)</i></p> <p>Where P is portfolio return and B is benchmark return.</p>                                                                                                                                                           | خطأ التتبع        |
| Beta               | $\frac{\text{Covariance}(R_e, R_m)}{\text{Variance}(R_m)}$ <p> <math>R_e</math> = the return on an individual stock<br/> <math>R_m</math> = the return on the overall market </p>                                                                                   | بيتا              |
| Alpha              | <p>ALPHA = Portfolio Return – Benchmark Return</p>                                                                                                                                                                                                                  | ألفا              |