RWM (Professional Level) Formual Sheet

(The assumption and formula sheet are only available in English.)

Assumption

Assumption	$1\ year\ is\ equal\ to\ 365\ days.$

Formula Sheet

Bond Value	$Bond\ Value = \sum_{n=1}^{T}\left(\frac{Coupon}{(1+r)^n} + \frac{Par\ Value}{(1+r)^T}\right)$
Constant Growth Model	$V_j = \frac{D_1}{k-g}$
Dividend Discount Model	$V_j = \frac{D_1}{1+k} + \frac{D_2}{(1+k)^2} + \frac{D_3}{(1+k)^3} + \cdots + \frac{D_\infty}{(1+k)^\infty} = \sum_{t=1}^{n}\frac{D_t}{(1+k)^t}$
Forward Rate	$Foward = Spot\ \times \frac{(1+\ i_{foreign})}{(1+\ i_{domestic})}$
Net Asset Value	$NAV = \frac{\begin{pmatrix}Market\ Value\ of\\ All\ Securities\\ Held\ by\ the\ Fund\end{pmatrix} + \begin{pmatrix}Cash\ and\\ Equivalent\\ Holdings\end{pmatrix} - (Fund\ Liabilities)}{Total\ Fund\ Shares\ Outstanding}$
Price Earnings Ratio	$P/E\ ratio = \frac{Stock\ Price}{Earnings\ Per\ Share}$
Solvency Ratio	$Solvency\ ratio = \frac{Net\ Worth}{Total\ Assets}$
Liquidity Ratio	$Liquidity\ ratio = \frac{Liquid\ Assets}{Monthly\ Expenses}$
Savings Ratio	$Savings\ ratio = \frac{Disposable\ Income}{Income\ After\ Tax}$
Debt Equity Ratio	$Debt\ Equity\ ratio = \frac{Total\ Liabilities}{Net\ Worth}$
Debt Income Ratio	$Debt\ Income\ ratio = \frac{Current\ Liabilities}{Income\ After\ Tax}$
Investment Ratio	$Investment\ ratio = \frac{Investment\ Assets}{Net\ Worth}$
CAPM	$E(R_i) - R_f = \beta_i\left[E(R_M) - R_f\right]$
Coefficient of variation	$\text{Coefficient of variation} = \frac{\sigma}{\mu}$
Correlation coefficient	$\text{Correlation coefficient} = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - (\sum x)^2}\sqrt{n\sum y^2 - (\sum y)^2}}$
Sharpe Ratio	$\text{Sharpe Ratio} = \frac{(Mean\ portfolio\ return - risk\ free\ rate)}{Standard\ deviation\ of\ portfolio\ return}$
Forward rate determination (Direct Quote)	$Forward\ rate = Spot\ rate \times \frac{(1+Int_{domestic})}{(1+Int_{foreign})}$