

RWM (Professional Level) Formula Sheet

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

Assumption

Assumption	1 year is equal to 365 days.
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Formula Sheet

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