

DESCRIPTION	FORMULA
Future value of an n-period investment	$FV_n = PV (1 + i)^n$
Future value with compounding m times per period	$FV_n = PV \times \left(1 + \frac{i}{m}\right)^{mn}$
Present value of an n-period investment	$PV = \frac{FV_n}{(1 + i)^n}$
Present value of a perpetuity	$PVP = \frac{C}{i}$
Present value of a growing perpetuity	$PVP = \frac{C}{i - g}$
Present value of an annuity	$PVA = \frac{C}{i} \times \left[1 - \frac{1}{(1 + i)^N}\right]$
Present value of a growing annuity	$PVA = \frac{C}{i - g} \times \left[1 - \frac{(1 + g)^N}{(1 + i)^N}\right]$
Total holding period return	$R_T = R_{CA} + R_i = \frac{\Delta P + CF_1}{P_0}$
Holding period return with continuous compounding	$R_T = \ln\left[\frac{P_1 + CF_1}{P_0}\right]$
Arithmetic average return	$R_{Arithmetic\ average} = \frac{\sum_{i=1}^n R_i}{n}$
Geometric average return	$R_{Geom} = [(1 + R_1) \times (1 + R_2) \times \dots \times (1 + R_n)]^{1/n} - 1$
Expected return on an asset	$E(R_{Asset}) = \sum_{i=1}^n (p_i \times R_i)$
Variance of return on an asset	$\sigma_R^2 = \sum_{i=1}^n \{p_i \times [R_i - E(R)]^2\}$
Expected return and systematic risk (CAPM)	$E(R_i) = R_{rf} + \beta_i [E(R_m) - R_{rf}]$
Price of a bond	$P_B = \frac{C/m}{1 + i/m} + \frac{C/m}{(1 + i/m)^2} + \dots + \frac{C/m + F}{(1 + i/m)^{mn}}$
Price of a zero-coupon bond	$P_Z = \frac{F_{mn}}{(1 + i/m)^{mn}}$