Market Value Measures	Market Capitalization = Price per share * # Shares Outstanding P/E Ratio = Price Per Share / Earnings Per Share Market to Book Ratio = Market Value per Share / Book Value per Share
External Financing Formulas	$EFN = \left(\frac{\text{Assets}}{\text{Sales}}\right) \times \Delta\text{Sales} - \frac{\text{Spon Liab}}{\text{Sales}} \times \Delta\text{Sales} - (PM \times \text{Projected Sales}) \times (1-d)$ $\text{Internal Growth Rate} = \frac{\text{ROA} \times \text{b}}{1 - \text{ROA} \times \text{b}}$ $\text{Sustainable Growth Rate} = \frac{\text{ROE} \times \text{b}}{1 - \text{ROE} \times \text{b}}$
Present Value Formulas	$FV = C_0 \times \left(1 + \frac{r}{m}\right)^{m \times T}$ $FV = C_0 e^{rT}$ $PV = C/r$ $PV = \frac{C}{r-g}$ $PV = \frac{C}{r}\left[1 - \frac{1}{(1+r)^T}\right]$ $PV = \frac{C}{r-g}\left[1 - \left(\frac{1+g}{(1+r)}\right)^T\right]$
Accounting Ratios	Current Ratio = Current Assets/ Current Liabilities Quick Ratio = (Current Assets – Inventory) / Current Liabilities Cash Ratio = Cash / Current Liabilities Total Debt Ratio = (Total Assets – Total Equity) / Total Assets Debt/Equity = Total Debt / Total Equities Equity Multiplier = Total Assets / Total Equity Times Interest Earned = (Earnings Before Interest And Taxes) / Interest Cash Coverage = (EBIT + Depreciation + Amortization) / Interest Inventory Turnover = Cost of Goods Sold / Inventory Days' Sales in Inventory = 365 / (Inventory Turnover) Receivables Turnover = Sales / Accounts Receivable Days' Sales in Receivables = 365 / Receivables Turnover Total Asset Turnover = Sales /Total Assets Profit Margin = Net Income / Sales Return on Assets = Net Income / Total Assets Return on Equity = Net Income / Total Equity EBITDA Margin = EBITDA / Sales Capital Intensity = Total Assets / Sales
Financial Cash Flow, Break Even Point, OCF Formulas, Salvage Value	C(A)=C(B)+C(S) C(A) =OCF- Change in NWC – Cash Flow to Fixed Assets OCF=EBIT+Depreciation-Tax Change in NWC = Ending NWC – Beginning NWC Cash Flow to Fixed Assets = Ending NFA-Beginning NFA+Depreciation (if we use the gross fixed assets, then = Ending Gross Fixed Assets – Beginning Gross Fixed Assets) C(B) = Interest-(Ending Long Term Debt – Beginning Long Term Debt) C(S) = Dividends – (Stocks sold- Stocks purchased) Accounting: (Fixed Costs+Depr.)/(Sales Price-Variable Cost) Financial(Pres. Value): (EAC+Fixed Costs*(1-t) – t*Depr.) / (Sales Price-Var. Cost)*(1-t)

	Top Down: OCF = Sales-Cash Costs-Taxes, Bottom up: OCF = Net Income+Depreciation Tax Shield: OCF = (Sales-Cash Costs)*(1-t)+t*Dep. Salvage Value = Market Value - t (Market Value-Book Value)
Bond Value	$\text{Bond Value} = \text{C}\left[\frac{1 - \frac{1}{(1+\text{r})^{\text{T}}}}{\text{r}}\right] + \frac{\text{F}}{(1+\text{r})^{\text{T}}}$
Fisher Formula	(1+Nominal Interest Rate)=(1+Real Interest Rate) * (1+Inflation Rate)
Stock Valuation	Zero Growth: $P_0 = \frac{\text{Div}}{R}$ Constant Growth: $P_0 = \frac{\text{Div}_1}{R-g}$ Differential Growth: $P = \frac{C}{R-g_1}\left[1 - \frac{(1+g_1)^T}{(1+R)^T}\right] + \frac{\left(\frac{\text{Div}_{T+1}}{R-g_2}\right)}{(1+R)^T}$
Stock Returns	Holding Period Return: $HPR = (1+R_1)\times(1+R_2)\times\cdots\times(1+R_T)-1$ Arithmetic Average Return: $\overline{R} = \frac{(R_1+\cdots+R_T)}{T}$ Geometric Average Return: $R = \sqrt[T]{(1+R_1)(1+R_2)\ldots(1+R_T)} - 1$
Sample Statistics	$\overline{R} = \frac{(R_1+\cdots+R_T)}{T}$ $SD = \sqrt{VAR} = \sqrt{\frac{(R_1-\overline{R})^2+(R_2-\overline{R})^2+\cdots(R_T-\overline{R})^2}{T-1}}$ $Cov(A,B) = \sigma_{AB} = \sum_i^T (a_i-\bar{a})(b_i-\bar{b})/(T-1)$ Corr(A,B) = $\mu_{A,B} = \frac{\sigma_{A,B}}{\sigma_A\sigma_B}$
Portfolio Analysis	Expected Return on Portfolio: $E(r_P) = x_A E(r_A) + x_B E(r_B)$ Variance of a portfolio: $\sigma^2 = x_A^2\sigma_A^2 + 2x_A x_B \sigma_{AB} + x_B^2\sigma_B^2$ $\beta_i = \frac{Cov(R_i, R_M)}{\sigma^2(R_M)}$ CAPM: $R_i = R_f + \text{beta}_i(R_m - R_f)$