Formula sheet

$V_0 = \frac{D_1}{(1+r)^1} + \frac{P_1}{(1+r)^1} = \frac{D_1 + P_1}{(1+r)^1}$	$r = \frac{D_1 + P_1}{P_0} - 1 = \frac{D_1}{P_0} + \frac{P_1 - P_0}{P_0}$
$V_0 = \frac{D_1}{(1+r)^1} + \frac{D_2}{(1+r)^2} + \frac{P_2}{(1+r)^2} = \frac{D_1}{(1+r)^1} + \frac{D_2 + P_2}{(1+r)^2}$	$V_0 = \frac{D_1}{(1+r)^1} + \ldots + \frac{D_n}{(1+r)^n} + \frac{P_n}{(1+r)^n}$
$V_0 = \sum_{t=1}^{n} \frac{D_t}{(1+r)^t} + \frac{P_n}{(1+r)^n}$	$V_0 = \frac{D_1}{(1+r)^1} + \ldots + \frac{D_n}{(1+r)^n} + \ldots$
$V_0 = \sum_{t=1}^{\infty} \frac{D_t}{(1+r)^t}$	$D_t = D_0 (1+g)^t$
$V_0 = \frac{D_0(1+g)}{(1+r)} + \frac{D_0(1+g)^2}{(1+r)^2} + \ldots + \frac{D_0(1+g)^n}{(1+r)^n} + \ldots$	$V_0 = \frac{D_0(1+g)}{r-g} = \frac{D_1}{r-g}$
$V_0 = \frac{D}{r}$	$r = \frac{D_0(1+g)}{P_0} + g = \frac{D_1}{P_0} + g$
$V_0 = \frac{E}{r} + PVGO$	$\frac{P_0}{E_1} = \frac{D_1 / E_1}{r-g} = \frac{1-b}{r-g}$
$\frac{P_0}{E_0} = \frac{D_0(1+g) / E_0}{r-g} = \frac{(1-b)(1+g)}{r-g}$	$V_0 = \sum_{t=1}^{n} \frac{D_t}{(1+r)^t} + \frac{V_n}{(1+r)^n}$

$D_t = D_0(1+g_s)^t$	$V_0 = \frac{D_0(1+g_S)^n(1+g_L)}{r-g_L}$
$V_0 = \sum_{t=1}^{n}\frac{D_0(1+g_S)^t}{(1+r)^t} + \frac{D_0(1+g_S)^n(1+g_L)}{(1+r)^n(r-g_L)}$	$V_0 = \frac{D_0(1+g_L)}{r-g_L} + \frac{D_0H(g_S-g_L)}{r-g_L} = \frac{D_0(1+g_L)+D_0H(g_S-g_L)}{r-g_L}$
$r = \left(\frac{D_0}{P_0}\right)\left[(1+g_L)+H(g_S-g_L)\right]+g_L$	
$\text{Firm value} = \sum_{t=1}^{\infty}\frac{\text{FCFF}_t}{(1+\text{WACC})^t}$	
$\text{Equity value} = \sum_{t=1}^{\infty}\frac{\text{FCFE}_t}{(1+r)^t}$	$\text{Firm value} = \frac{\text{FCFF}_1}{\text{WACC - g}} = \frac{FCFF_0(1+g)}{WACC-g}$
$\text{Equity value} = \frac{\text{FCFE}_1}{\text{r - g}} = \frac{FCFE_0(1+g)}{r-g}$	
$\text{Firm value} = \sum_{t=1}^{n}\frac{\text{FCFF}_t}{(1+\text{WACC})^t} + \frac{FCFF_{n+1}}{(WACC-g)}\frac{1}{(1+WACC)^n}$	
$\text{Equity value} = \sum_{t=1}^{n}\frac{\text{FCFE}_t}{(1+r)^t} + \frac{FCFE_{n+1}}{r-g}\frac{1}{(1+r)^n}$	
$\frac{P_0}{B_0} = \frac{ROE-g}{r-g}$	$\frac{P_0}{B_0} = 1+\frac{\text{Present value of expected future residual earnings}}{\text{B}_0}$
$\frac{P_0}{S_0} = \frac{(E_0/S_0)(1-b)(1+g)}{r-g}$	$\frac{D_0}{P_0} = \frac{r-g}{1+g}$
$V_0 = B_0 + \sum_{t=1}^{\infty}\frac{RI_t}{(1+r)^t} = B_0 + \sum_{t=1}^{\infty}\frac{E_t - rB_{t-1}}{(1+r)^t}$	$V_0 = B_0 + \sum_{t=1}^{\infty}\frac{(ROE_t - r)\times B_{t-1}}{(1+r)^t}$

$V_0 = B_0 + \frac{ROE - r}{r - g} B_0$	$V_0 = B_0 + \sum_{t=1}^{T} \frac{(E_t - rB_{t-1})}{(1+r)^t} + \frac{P_T - B_T}{(1+r)^T}$
$V_0 = B_0 + \sum_{t=1}^{T} \frac{(ROE - r) \times B_{t-1}}{(1+r)^t} + \frac{P_T - B_T}{(1+r)^T}$	$V_0 = B_0 + \sum_{t=1}^{T-1} \frac{(E_t - rB_{t-1})}{(1+r)^t} + \frac{E_T - rB_{T-1}}{(1+r-\omega)(1+r)^{T-1}}$