The Profit Equation

$\mathbf{K_e}$	Cost of Equity	$\mathbf{E}$	Equity
$\mathbf{K_d}$	Cost of Debt	$\mathbf{D}$	Long term Debt
$\mathbf{K_a}$	Cost of Asset	$\mathbf{V}$	Value of Asset (V = D + E)
ROA	Return on Asset	$\mathbf{P}$	Profit
$\dfrac{D}{E}.(ROA - i)$	Leverage factor	$K_e^{\,L}$	Cost of Equity of levered firm
$\dfrac{D}{E}.\left(K_a - K_d\right)$	Leverage factor	$K_e^{\,U}$	Cost of Equity of unlevered firm - or - Cost of Asset - or - ROA
$\dfrac{D}{E}.\left(K_e^{\,U} - Kd\right)$	Leverage factor		

Development

$$P = (ROA.V) - (Kd.D)$$

$$P = (K_a.V) - (K_d.D)$$

$$P = [K_a.(D + E)] - [K_d.D]$$

$$P = [K_a.D + K_a.E] - [K_d.D]$$

$$\frac{P}{E} = \frac{K_a.D}{E} + \frac{K_a.E}{E} - \frac{K_d.D}{E}$$

$$\frac{P}{E} = K_e = K_a\left[\frac{D}{E} + \frac{E}{E}\right] - K_d.\frac{D}{E}$$

$$K_e = K_a.\left[\frac{D}{E} + 1\right] - K_d.\frac{D}{E}$$

$$K_e = K_a.\frac{D}{E} + K_a - K_d.\frac{D}{E}$$

$$K_e = K_a + K_a.\frac{D}{E} - K_d.\frac{D}{E}$$

$$K_e = K_a + \frac{D}{E}(K_a - K_d)$$

$$- or -$$

$$ROE = ROA + \frac{D}{E}.(ROA - i)$$

$$- or -$$

$$K_e^L = K_e^U + \frac{D}{E}.\left(K_e^U - K_d\right)$$