

Cap. 16

Ex. 21, Cap. 16, RWDL

$$S = 23, B = 7$$

$$R_f = 5\%, E(R_M) = 12\%, \beta = 1.15$$

a) $B/S = 7/23 = 0.30$

b) pre CAPM: $E(R_i) = 5\% + (12\% - 5\%) \cdot 1.15 = 13.05\% = r_s$

pre MM: $r_B = R_f = 5\%$ ①

$$r_{wacc} = 5\% \times \frac{7}{30} + 13.05\% \frac{23}{30} = 11.17\%$$

c) MM $r_s = r_0 + (r_c - r_B) B/S$

$$0.1305 = r_0 + r_0 \cdot \frac{7}{23} - 0.05 \cdot \frac{7}{23}$$

$$-1.3043 r_0 = -0.1305 - 0.0152$$

$$r_0 = 11.17\% (= r_{wacc}) \text{ como posible MM } \textcircled{d}$$

① "We need to remember that an assumption of the MM theorem is that the company debt is risk-free, so we can use the Treasury bill rate as the cost of debt for the company. In the absence of taxes, a firm's weighted average cost of capital is ..." →

② This is consistent with MM proposition that, in the absence of taxes, the cost of capital for an all-equity firm is equal to the weighted average cost of capital of an otherwise identical levered firm.