CH 15 and 16 Qs and As

CH 15

11. 1.b) 2.d) 3.a) 4.c)

25. a) lowering reserve requirements; banks will be able to lend more money out as they will not be restricted to holding as much money in reserves as they were originally required to.

b) buy treasure bills and effectively inject the economy with more funds

c) drop the interest rate to allow for cheaper funds that will stimulate the economy through investments and spending.

CH 16

8. a) ROE = .09 Beta=1.25 b=2/3 E0=3 D0 = (3)\*(1-(2/3)) = 1 Rf = 0.06

Rm-Rf = 0.08 E(g)= 0.09\*2/3 = 0.06 R = 0.06 + 1.25 \* 0.08 = 0.16

b) PE trailing = 10.60 / 3 = 3.533

PE foward = 10.60 / (3\*1.06) = 3.333

c) PVGO = P0 – E1/k = 10.60 – 3.18/0.16 = -9.275

since ROE is less than the required rate of return, there is a negative PV of growth opportunities; this company is not a good investment

d) ROE = 0.09 Beta = 1.25 b = 1/3 E = 3.18 D = 3.18 \* (1-(1/3)) = 2.12

R = 0.16 E(g) = 0.09 \* 1/3 = 0.03

The value of the firm is now greater than the expected price (the price with the previous plowback ratio) because the firm grows at a rate less than expected by the market. Because they are now handing out higher rates of dividend, they are allowing investors to utilize dividends in higher returning investments.

9.a) E(r) = 0.16 D1 = 2 P0 = 50

find g

b)

PE ratio will reduce as the price of the stock is now lower whereas the earnings are still the same. This indicates that the market feels that the firm is worth less, a sign indicative of the reduced growth.

11. ER(m) = 0.15 B = 1 Therefore, ER = 0.15 D1/P0 = 0.04

15. Rf = 0.08 Rf-Rm = 0.07 B = 1.2 (b-1) = 0.4 b = 0.6 E0 = 10 D0 = 4 ROE = 0.2 E(g) = 0.2 \* 0.6 = 0.12 R = 0.08 + 0.07 \* 1.2 = 0.164

a)

b)

16. B = 1.15 Rf = 0.045 Rm-Rf = 0.1

a) E(r) = 0.045 + 0.1\*1.15 = 0.16

b)

c) purchase QuickBrush as there is a positive gain between intrinsic value and current market value; QuickBrush is undervalued and SmileWhite is overvalued

d) strengths include separate valuations for different phases of the company as each company has life cycles; a multi-stage valuation allows to take into account the different stages of the life cycle of a firm. Negatives include the fact that the valuation is sensitive to values that are estimates; a percentage change in cost of capital or expected growth can have a huge effect on the intrinsic value of the firm/stock.

23.

1. although higher dividends result in a larger numerator of the constant-growth dividend model, a larger dividend payout ratio results in a smaller plowback ratio which results in a reduced growth. A smaller growth means that the denominator is larger, resulting in a smaller value. Depending on how good the firm is at creating returns for the investor, increasing dividends can have various results on the price of the firm. With an ROE that is greater than the cost of equity, the firm is better off holding on to a majority of the dividends as it will experience a greater growth rate.
2. i) the sustainable growth rate will be lower as the growth rate is a function of the plowback ratio and the ROE; a higher DPR 🡪 a lower plowback ratio

ii) growth will be less if dividend payout ratio is higher

28. k = 0.08

1. P0 = 58.49
2. No, it will not be good to be used for the company. The Gordon growth model assumes that dividends, earnings, and stock values will grow at the same rate. The company has held dividends constant and do not have it growing at the same percentage as earnings and price.

30. D1 = 0.2\*(1+0.12) = 0.224 K = 13% g = 0.12

Rf – Rm = 0.05 Rf = 0.04 B = 1.8

1. Value of a share of Rio @ Dec 31 2013 using Gordon Growth and CAPM
2. G = (1-payout) \* ROE = (1-(D0/E0)) \* (NI/Equity) = (1-(3.2/30.16))\*(30.16/307.31) = 0.0997 = 9.97%