

## Chapter 10

10-1

$(\text{Price before} - \text{Price After}) / \text{Dividends} = (1 - t_o) / (1 - t_{cg})$ , i.e.,  $3.5/5 = (1 - t_o)/(1 - .4t_o)$

Solving for the ordinary tax rate, ordinary tax rate =  $t_o = .41667$  or 41.67%

10-2

Company	Price change	Dividend	Price change/Dividend
NE Gas	2	4	0.5
SE Bell	3	4	0.75
Western Elec.	5	5	1

As a tax-exempt investor, you make returns based upon the difference between the price drop and the dividend. Consequently, you will make excess returns on the first two stocks. On both an absolute and percentage basis, NE Gas is your best bet.

You would buy NE Gas stock just before the ex-dividend day, hold through and sell after. You will receive the dividend and give up the expected price change, netting you \$2 per share on an expected basis.

10-3

Assume that the true capital gains tax rate =  $\text{Stated Rate}/(1+R)^n$

$(P_b - P_a) / \text{Dividends} = (1 - t_o) / (1 - t_{cg})$  or  $(\$10 - \$9.20) / \$1 = (1 - .5) / (1 - .5/1.1^n)$

Solving for n, n = approximately 3 years

10-4

Tax rate on dividends =  $(40\%) (.15) = 6\%$

Tax rate on capital gains = 28%

Expected price drop on ex-dividend day =  $(\$0.50) (1 - .06)/(1 - .28) = \$0.65$

10-5

I would expect the price to drop since the actual dividend increase of 2% is less than the expected (or usual) dividend increase of 5%.

10-6

The stock price may react negatively. The dividend may signal that Microsoft's project choice is becoming less attractive, and this will have negative consequences for future growth and project returns. In addition, stockholders in Microsoft are likely to be oriented to capital gains and may not like the dividends.

10-7

I would expect the price reaction to be positive. The price increase in this case may send a positive signal to financial markets. The answer is different from the previous problem, because the auto parts industry is a more mature one than the software business (reducing the negative signaling implications of the dividend increase). Furthermore, the fact that the company already pays a substantial dividend implies that its stockholders will be more welcoming to receiving more in dividends.

10-8

The price reaction will be more muted. Since the 35 analysts following the firm are likely to dig up any positive information about the company, the dividend increase at the margin conveys less information than it would for a smaller firm.

10-9

I would expect it to decline. The preceding news on earnings and revenues has probably already conveyed the message that the firm is in financial trouble to financial markets. The decline in dividends, however, may cement this message by indicating that management believes that the earnings decline is not a short term phenomenon.

10-10

I would expect the stock price reaction to be positive. The fact that RJR Nabisco was under stockholder pressure to begin with suggests that their assets were making below-market returns. Selling such assets would therefore be a positive action; returning the cash to stockholders would add to this reaction because it eliminates the chance that this cash will be invested in other poor projects.

10-11

I would expect bond prices to drop. Selling assets (especially liquid ones) and paying dividends makes these bonds much riskier.

10-12

The increase in dividends is signaling to the market that the firm believes that it will have sufficient income in the future to meet its liquidity needs even with the higher dividend payments. The increased dividend is the firm's way of putting its money where its mouth is.

However, markets will not always believe firms that try to signal with increased dividend payments. One, the firm must be established and have a reputation for credibility in capital markets. If its has a history of increasing dividends and then reversing itself in the past, markets may not believe the signal Secondly, the market may read other signals as well, some of which have negative consequences, for the dividend increase. For instance, investors may decide that the increase in dividends is indicative of a lack of investment opportunities at the firm..