**Problems and Questions**

(In the problems below, you can use a risk premium of 5.5% and a tax rate of 40% if either is not specified)

1. If Consolidated Power is priced at $50.00 with dividend, and its price falls to $46.50 when a dividend of $5.00 is paid, what is the implied marginal rate of personal taxes for its stockholders? Assume that the tax on capital gains is 40 percent of the personal income tax.

2. You are comparing the dividend policies of three dividend-paying utilities. You have collected the following information on the ex-dividend behavior of these firms.

<table>
<thead>
<tr>
<th></th>
<th>NE Gas</th>
<th>SE Bell</th>
<th>Western Electric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price before</td>
<td>50</td>
<td>70</td>
<td>100</td>
</tr>
<tr>
<td>Price after</td>
<td>48</td>
<td>67</td>
<td>95</td>
</tr>
<tr>
<td>Dividends/share</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
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If you were a tax-exempt investor, which company would you use to make “dividend arbitrage” profits? How would you go about doing so?

3. Southern Rail has just declared a dividend of $1. The average investor in Southern Rail faces an ordinary tax rate of 50 percent. Although the capital gains rate is also 50 percent, it is believed that the investor gets the advantage of deferring this tax until future years (the effective capital gains rate will therefore be 50 percent discounted back to the present). If the price of the stock before the ex-dividend day is $10 and it drops to $9.20 by the end of the ex-dividend day, how many years is the average investor deferring capital gains taxes? (Assume that the opportunity cost used by the investor in evaluating future cash flows is 10 percent.)

4. LMN Corporation, a real estate company, is planning to pay a dividend of $0.50 per share. Most of the investors in LMN are other corporations that pay 40 percent of their ordinary income and 28 percent of their capital gains as taxes. However, they are allowed to exempt 85 percent of the dividends they receive from taxes. If the shares are selling at
10. $10 per share, how much would you expect the stock price to drop on the ex-dividend day?

5. UJ Gas is a utility that has followed a policy of increasing dividends every quarter by 5 percent over dividends in the prior year. The company announces that it will increase quarterly dividends from $1.00 to $1.02 next quarter. What price reaction would you expect to the announcement? Why?

6. Microsoft, which has had a history of high growth and pays no dividends, announces that it will start paying dividends next quarter. How would you expect its stock price to react to the announcement? Why?

7. JC Automobiles is a small auto parts manufacturing firm, that has paid $1.00 in annual dividends each year for the past five years. It announces that dividends will increase to $1.25 next year. What would you expect the price reaction to be? Why? If your answer is different from the previous problem, explain the reasons for the difference.

8. Would your answer be different for the previous problem if JC Automobiles were a large firm followed by thirty-five analysts? Why or why not?

9. WeeMart, a retailer of children’s clothes, announces a cut in dividends following a year in which both revenues and earning dropped significantly. How would you expect its stock price to react? Explain.

10. RJR Nabisco, in response to stockholder pressure in 1996, announced a significant increase in dividends paid to stockholders financed by the sale of some of its assets. What would you expect the stock price to do? Why?

11. RJR Nabisco also had $10 billion in bonds outstanding at the time of the dividend increase in Problem 10. How would you expect the bonds to react to the announcement? Why?

12. When firms increase dividends, stock prices tend to increase. One reason given for this price reaction is that dividends operate as a positive signal. What is the increase in
dividends signaling to markets? Will markets always believe the signal? Why or why not?