

Problem Set 2

Foundations of Financial Markets

Due date: 26th September 2007 in class

1. ByLine, Inc. just sold 500,000 shares in a public offering for an offering price of \$20 per share. The underwriting fee was 6.5% of the issues's total value based on the offering price. As soon as the shares were issued, the price jumped to \$32 per share. What was the total cost of the issue? (Be sure to include both implicit and explicit costs.)
2. The Toronto Stock Exchange list a bid price of .97 and an ask price of 1.00 for Kick Energy Corporation. At what price can you buy the stock? What is the dealer's bid-ask spread?
3. You purchased XYZ stock at \$50 per share. The stock is currently selling at \$65. Your gains could be protected by placing a limit-buy order, a limit-sell order, or a stop-loss order?
4. You are considering an investment in a portfolio of stock A and stock B or in a municipal bond. Prices and quantities for stock A and stock B are given in the table:

	Prices		Quantities	
	Time 0	Time 1	Time 0	Time 1
Stock A	1	x	3	3
Stock B	4	2	5	5
Total	5	$x + 2$	8	8

The municipal bond promises an interest rate $r_m = 3\%$. Your tax bracket $t = 30\%$.

- Suppose that you are planning to buy one share of stock A and one share of stock B. What is the time 1 price of stock A that will convince you to buy this portfolio and not the municipal bond?
- Suppose that you are planning to buy shares of stock A and stock B that are proportional to the outstanding market quantities of the two stocks. What is the time 1 price of stock A that will convince you to buy this portfolio and not the municipal bond?

5. Buying on Margin.

- (a) Suppose that you just purchased 100 shares of Talk&Tell stock for \$40 per share. If the initial margin requirement is 60%, how much of your own money must you invest? Construct the balance sheet that corresponds to the transaction.
- (b) Now suppose that the price of the stock falls to \$33 per share. What is your current margin percentage? If the maintenance margin is 40%, what will happen? Construct the balance sheet to show the current situation.
- (c) At what stock price would you get a margin call?

6. Short selling.

- (a) Suppose that you just short sold 100 shares of Quiet Minds stock for \$73 per share. If the initial margin requirement is 55%, how much collateral must you invest?
- (b) Now suppose that the price of the stock falls to \$65 per share. What is your current margin percentage? If the maintenance margin is 30%, what will happen?
- (c) Suppose the price of the stock rises to \$80 per share. What is your current margin percentage?
- (d) At what stock price would you get a margin call?