Homework #2

BUSI 408 Summer II 2013

This assignment is due 02 July 2013 at the beginning of class. Answer each question with numbers rounded to two decimal places. For relevant questions, identify the following five pieces of information: N, PMT, PV, FV, I/Y. To receive full credit, you will need to right down the formula used and show your work.

1. Suppose a US company issues a bond with a par value of of $1,000, 25 years to maturity, and a coupon rate of 6.4 percent paid annually. If the yield to maturity is 7.5 percent, what is the current price of the bond?

2. Ninja Co. issued 14-year bonds a year ago at a coupon rate of 6.9 percent. The bonds make semiannual payments. If the YTM on these bonds is 5.2 percent, what is the current bond price?

3. Las Paletas Corporation has two different bonds currently outstanding. Bond M has a face value of $20,000 and matures in 20 years. The bond makes no payments for the first six years, then pays $1,100 every six months over the subsequent eight years, and finally pays $1,400 every six months over the last six years. Bond N also has a face value of $20,000 and a maturity of 20 years; it makes no coupon payments over the life of the bond. If the required return on both of these bonds is 6 percent compounded semiannually, what is the current price of bond M? Of bond N?

4. Suppose that today you buy an 8 percent annual coupon bond for $1,060. The bond has 19 years to maturity. What rate of return do you expect to earn on your investment? Two years from now, the YTM on your bond has declined by 1 percent, and you decide to sell. What price will your bond sell for? What is the realized return on your investment? Why does the realized return differ from the yield to maturity when you first bought the bond?

5. Coccia Co. wants to issue new 20-year bonds for some much-needed expansion projects. The company currently has 8 percent coupon bonds on the market that sell for $1,075, make semiannual payments, and mature in 20 years. What coupon rate should the company set on its new bonds if it wants them to sell at par?

6. You want to have $2 million in real dollars in an account when you retire in 40 years. The real return on your investment is 5.97 percent and the inflation rate is 3.8 percent. What is the inflation-adjusted rate of return? What amount must you deposit each year to achieve your goal? What if your account currently has $25,000 in it?

7. Suppose the real rate is 2.5 percent and the inflation rate is 4.1 percent. What rate would

you expect to see on a Treasury bill?

8. Backwater Corp. has 8 percent coupon bonds making annual payments with a YTM of 7.2 percent. The current yield on these bonds is 7.55 percent. How many years do these bonds have left until they mature?

9. The Sleeping Flower Co. has earnings of $1.75 per shares. The benchmark PE for the company is 18. What stock price would you consider appropriate? What if the benchmark PE were 21?

10. TwitterMe, Inc., is a new company and currently has negative earnings. The company's sales are \$1.2 million, and there are 130,000 shares outstanding. If the benchmark price-sales ratio is 5.2, what is your estimate of the stock price? What if the price-sales ratio is 4.6?

11. Metallica Bearings, Inc., is a young start-up company. No dividends will be paid on the stock over the next nine years because the firm needs to plow back its earnings to fuel growth. The company will pay a \$12 per share dividend in 10 years and will increase the dividend by 5 percent per year thereafter. If the required return on this stock is 13.5 percent, what is the current share price?

12. Feeback Corp. stock currently sells for \$64 per share. The market requires a return of 11 percent on the firm's stock. If the company maintains a constant 4.5 percent growth rate in dividends, what was the most recent dividend per share paid on the stock?

13. Antiques R Us is a mature manufacturing firm. The company just paid a dividend of \$9.40, but management expects to reduce the payout by 4 percent per year indefinitely. If you require a return of 10 percent on this stock, what will you pay for a share today?

14. Thirsty Cactus Corp. just paid a dividend of \$1.30 per share. The dividends are expected to grow at 23 percent for the next eight years and then level off to a growth rate of 6 percent

indefinitely. If the required return is 12 percent, what is the price of the stock today?

15. Storico Co. just paid a dividend of $2.25 per share. The company will increase its dividend by 20 percent next year and will retuce its dividend growth rate by 5 percentage points per year until it reaches the industry average of 5 percent dividend growth. At this point the company will keep a constant growth rate forever. Suppose the current share price for the firm is $39.52, what is the rate of return that investors are requiring?