Finance 499 Review

You should know the following:
1. How to value a bond.
2. How to value a stock.

Not much more complicated than that. You should also be able to interpret WSJ quotations as well. I've put some sample questions at the bottom.

WSJ Quotes

Quotes

Stock Table

YTD %Chg	52 - WEEK Hi	Lo	Stock(SYM)	DIV	YLD %	PE	VOL 100s	Close	NET CHG
-11.6	20.68	9.42	CallwyGlf ELY	0.28	2.4	11	7633	11.71	-0.59
0.3	14.99	1.55	Calpine CPN			5	58166	3.27	-0.38

Yld % is Dividend/Close
PE is price earnings ratio. PE = Price/Earnings

Corporate Bond Table

BONDS	CUR YLD	VOL	CLOSE	NET CHG
AT&T 8 5/8 31	8.6	301	99.88	-0.63
BELLSOT 7 1/2 33	7.1	115	105	…

Quoted with a par value of $1,000, thus 99.88 is really $998.80. Current yield is coupon/current price. The Bell South 7 and ½ pays $75 per year(7.5% of $1,000)

Treasury Bond Table

RATE	MATURITY MO/YR	BID	ASKED	CHG	ASK YLD
8.875	AUG 17	144:24	144:25	-4	4.61
6.125	NOV 27	115:13	115:14	-3	5.03

Quoted is 32nds. Thus the bid of 144:24 is really 144 and 24/32 or 144.75. With a par value of $1,000, the best bid price was $1,447.50.

Preferred Stock Table

STOCK	DIV	YLD	CLOSE	NET CHG
BkOnepfY	2.10	7.5	27.95	0.03
BkOnepfU	1.8	7.6	23.7	0.08

Yld is simply dividend divided by price. Dividend is only paid if corporation has cash available. Preferred stock holders cannot force corporation into bankruptcy if they do not pay.

Formulas

Constant Growth

$P_0 = D_1/(k-g)$

$P_0 = D_0(1+g)/(k-g)$

Non constant growth

$P_0 = D_1/(1+k)^1 + D_2/(1+k)^2 + D_3/(1+k)^3 + ...D_n/(1+k)^n + [D_{n+1}/(k-g)]/(1+k)^n$

where D_{n+1} = Dividend when growth becomes constant.

P_0 = current price of stock

D_0 = current dividend

D_1 = next year=s dividend

g = growth rate

k = cost of capital or required return

1. You buy a 10 year 8% annual coupon bond yielding 8.5%. What is its price?

2. You pay $1,250 for a 15 year 9% semi-annual bond. What is its annualized yield?

3. You buy a 5 year zero coupon bond yielding 8% and sell it one year later when it is yielding 7%. What was your dollar gain/loss? What was your percentage gain/loss?

4. You buy a 12 year 6% annual coupon bond yielding 5% and sell it one year later when it is yielding 4%. What was your dollar gain/loss? What was your percentage gain/loss? Don=t forget about the coupon and don=t forget when pricing the bond one year later, it is an 11 year bond and no longer a 12 year bond.

5. Stock A=s current dividend is $2. If you require a 12% return and dividends are growing at a constant rate of 5%, how much should you be willing to pay for this stock?

6. Stock A=s current dividend is $2. You require a 12% return and dividends are growing at a constant rate of 5%. If you buy this stock today and sell it next year, how much did you make or lose? What was your percentage gain/loss?

7. Stock B=s dividend next year is expected to be $5. If you require a 9% return and the company=s dividend are declining by 5% a year, how much should you be willing to pay for this stock?

8. Stock C=s dividend next year is expected to be $2 and the year after that $3. From that time forward, dividends are expected to grow at a constant rate of 6%. If your required return is 13%, how much should you be willing to pay for this stock?

9. Stock D=s free cash flow to the firm is expected to be $3,000,000 next year. It is expected to increase by 5% per year. If your required return on this company is 8%, what is the value of this firm?

10. Stock D=s free cash flow to the firm is expected to be $3,000,000 next year. It is expected to increase by 5% per year. The firm has $25,000,000 in debt and 1,000,000 shares of stock outstanding. If your required return on this company is 8%, what should be the price per share of the common stock?

For the three problems use the following table:

YTD $ Chg	52 – WEEK Hi	Lo	Stock(SYM)	DIV	YLD %	PE	VOL 100s	Close	NET CHG
3.5	40.90	21.30	GenElec(GE)	.76	?	?	380138	25.21	1.41

11. How many shares of GE traded hands yesterday?
a. 380,138
b. 3,801,380
c. 38,013,800
d. 380,138,000

12. If GE had earnings per share last year of $1.50, what should its PE ratio be? Round to nearest whole number.
a. 2
b. 17
c. 39
d. 21

13. What should the number be for the dividend yield?
a. .03
b. .3
c. 3.0
d. 7.6

14. What was the closing price of GE the day before this price quote? I.E. if the quote above is for Aug. 20, what was GE's price on Aug. 19?
a. $21.30.
b. $26.62
c. $22.61
d. $23.80

For the next two problems, use the following:
Corporate Bond Table

BONDS		CUR YLD	VOL	CLOSE	NET CHG
AT&T 8 1/2	31	8.5	301	99.88	-0.63
BELLSOT 7 1/2	33		115	105	…

15. What is the total amount per year in coupon payments that you would receive from buying the BellSouth bond?
a. $71
b. $75
c. $115
d. $105

16. The current yield number for Bell South got smudged. What should that number be?

Answers

1. $967.19
2. 3.19% each 6 months or (1.0319)^2-1 = 6.48% annualized yield.
3. Bought for $680.58, sold for $762.89, made $82.31 or 12%
4. Bought for $1,088.63, sold for $1,175.21, made $86.58 + $60 coupon for total of $146.58, or 13.46%
5. $30
6. Realize stock price is $30 today and your required return is 12% so you will make 12% of $30 or $3.60, or 12%. Alternatively, calculate price next year based on $2.205 dividend two years from now, subtract current price and add the $2.10 dividend you will receive next year. Again, you should find a $3.60 gain or a 12% return.
7. $5/(.09- -.05) = $5/.14 = $35.71
8. $2/1.13 + $3/$1.13^2$ + [$3.18/(.13-.06)]/$1.13^2$ = $39.69, Note last number is 1.13^2 since we are determining the price two years from now based on the dividend in year 3. Thus, we only discount in back two years.
9. $100 million
10. Again, $100 million is value of firm, subtract $25 million in equity and divide by one million shares, you will end up with $75 per share
11. c
12. b, $25.21/$1.5
13. c, number is quoted in %.
14. d, price is up $1.41.
15. b
16. $75/$1,050