1) What is the difference between lending to a company and owning a company?

Lending gets a fixed return
Lending is more certain
Owning has an uncertain return
Owning gets the benefits of good decisions
Owners share losses with lenders
2) Define the following:
a. Authorized shares Corporation set in incorporation agreement
b. Issued shares

Total number from authorized that have been distributed Not all currently in hands
c. Outstanding shares

Currently owned by investors
Get the profits; get to vote; receive the dividends
d. Treasury Stock

Repurchased shares
Why do companies buy back stock?
Will discuss in more detail in later chapters
3) What does dilution of stock ownership mean?

Profits are divided amongst a greater number of owners
If you issue shares to buy something, the old shareholders will need to share the profits
4) $A D R$

What is an ADR? Play video
https://www.youtube.com/watch?feature=player detailpage\&v=XdZPNrCpEeQ\&list=PLQ cenk-Mor85pMNCHKTG2S79A8AL 9Ssw
5) How the Stock Market works!!

Watch the video
http://www.youtube.com/watch?feature=player detailpage\&v=GnJCOof2HJk
6) How do you make money with stocks?

Dividends taxes? 15\% max

Capital appreciation taxes

Short term marginal rate

Long term 15\% max
7) How are stock prices created?

Supply and demand

Discussed in earlier class
8) What does Market Efficiency mean?

Information is incorporated into the stock price.
Questions
Do prices move in the right direction?
How long does it take to happen?

What kind of information is there?
Historic
Public = historic + current events
Private
EMH forms based on these categories
Weak - historic If you have historic information can you
beat
the stock market on average?
Semi_strong If you have public info ....?
Strong If you have private info ......?
9) Behavioral finance may be the new "theory" behind prices.

People just do not act rational.
Alan greenspan was on the Daily show. Basically said everyone assumed people were logical and rational. Turns out they are "screwy".
http://www.youtube.com/watch?feature=player detailpage\&v=h5JDftgykcg
10) Stock valuation models

$$
P_{0}=\frac{D_{0} \times(1+g)^{1}}{\left(1+r_{s}\right)^{1}}+\frac{D_{0} \times(1+g)^{2}}{\left(1+r_{s}\right)^{2}}+\cdots+\frac{D_{0} \times(1+g)^{\infty}}{\left(1+r_{s}\right)^{\infty}}
$$

$$
P_{0}=\frac{D_{1}}{r_{s}-g}
$$

11) You are considering a common stock that has a required return of $14 \%$. This stock has paid a dividend of $\$ 1.75$ every year in the past. What is this stock worth?

| $\mathrm{K}_{\mathrm{S}}$ | $14.00 \%$ |
| :--- | ---: |
| g | $0.00 \%$ |
| $\mathrm{D}_{1}$ | $\$ 1.75$ |
| Stock Value | $\$ 12.50$ |


| Stock Price |  |
| :--- | :---: |
| Expected return | \#DIV/0! |


| To Find Ks |  |
| :--- | ---: |
| RF |  |
| Km |  |
| Beta |  |
| Ks | $0.00 \%$ |


| Dividends (TV) |  |
| :--- | ---: |
| First |  |
| Last $\left(\mathrm{D}_{0}\right)$ | $\$ 1.75$ |
| $\mathbf{N}$ |  |
| g (if not given) | \#DIV/0! |

12) What are the basic investment rules?

If value >= price buy
If expected return >= required return buy
13) The most recent dividend paid by the corporation was $\$ 3.20$. Historically, this company's dividends have been growing at a $6 \%$ growth rate. The required return on the stock is $14 \%$. What is the value of the stock?

| $\mathrm{K}_{\mathrm{S}}$ | $14.00 \%$ |
| :--- | ---: |
| g | $6.00 \%$ |
| $\mathrm{D}_{1}$ | $\$ 3.39$ |
| Stock Value | $\$ 42.40$ |


| To Find Ks |  |
| :--- | ---: |
| RF |  |
| Km |  |
| Beta |  |
| Ks | $0.00 \%$ |


| Stock Price |  |
| :--- | ---: |
| Expected return | \#DIV/0! | | Dividends (TV) |
| :--- |
| First |
| Last (D ${ }_{0}$ ) |
| $\mathbf{N}$ |
| g (if not given) |

a. What if the growth rate changed to $3 \%$ ? $9 \%$ ?
b. What if the required return decreases to $10 \%$ ? Increases to $18 \%$ ?
14) Go to finance.yahoo.com. Enter TAP in the quote box. On the left hand side find historical prices. Click the radio box for dividends only. Change the beginning date to the same date as the ending date but subtract 5 from the years. Download to a spreadsheet and copy paste as a picture here. Circle each four dividends. Number the circles starting with zero. In the stock valuation spreadsheet determine the historical growth of dividends.
15) What is the beta of your company? What yield did we find for a 30 year Treasury? For now use $12 \%$ as Km . What is the required return?
16) When would the dividend model not work?

No dividends
Dividend growth greater than required return
17) What variables are needed for the FCF model?

FCF, growth of FCF,
WACC avg cost of financing
18) What is the PE multiplier model?

Algebraically manipulate the PE ratio
Substitute forecasts of PE and / or EPS for the numbers in the PE ratio
19) Some interesting you tube videos
a. Value investing
http://www.youtube.com/watch?v=dX2L7JhpXI8\&feature=player detailpage
b. How to read stocks
http://www.youtube.com/watch?feature=player detailpage\&v=Lc791is6X0o
c. A formula (untested but interesting concept)
http://www.youtube.com/watch?v=UOWrhGmCsIA\&feature=player detailpag

Offline Homework (20 points) $\qquad$ Research (100 points) $\qquad$
Name of Company and Ticker $\qquad$

Go to the www.zacks.com
Enter your company name or ticker symbol.

1) Go to Company Reports and then to estimates.
a) Estimates (5)

List 3 of the estimates from this source
EPS
PE
Earnings growth rate
Compare to estimates in chapter 3 or with the yahoo finance data.
Are there any discrepancies? Describe them?
2) go to yahoo finance and find the Insiders (10) insider roster
a) Who are the three largest holders in the past $\mathbf{2}$ years, as listed in the insider roster?
b) what percentage of the company is held by insiders?
take the number of shares held by insiders and divide by the total number of shares
can also switch to key statistics section.
3) Calculate the value of your company's stock. Include the calculations for growth of dividends and the calculation for the required return using the SML.(40)

Complete the following table"

| Beta |  |
| :--- | :--- |
| Dividends 5 years ago |  |
| Most recent dividends |  |
| Yield on 30 year T-Bond |  |
| Average stock market return |  |
| PE ratio |  |
| EPS estimate for next year |  |

Use the Statistics above to calculate:

1) Dividend growth model value
2) PE multiplier model value
3) Go to www.smartmoney.com (50 pts)

Enter your company's ticker symbol and go to key statistics.
In the table below record the data.
Then repeat the exercise for the other companies listed
ROE and price to book found under key stats

| Name | Ticker <br> symbol | Dividend | Dividend <br> Yield | ROE | price to <br> book <br> ratio |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Your company |  |  |  |  |  |
|  | DIS |  |  |  |  |
|  | AIT |  |  |  |  |
|  | LG | LUV |  |  |  |
|  | TAP |  |  |  |  |
|  | GE |  |  |  |  |
|  | BUD |  |  |  |  |
|  | PFE |  |  |  |  |
|  |  |  |  |  |  |

Which companies have the highest dividend yields? Lowest?
Is there any relationship between ROE and dividend yield
what does price to book ratio say? Can you describe what this means for these companies?

## Chap 07 Offline Homework Exercise 21 points

1) Four years ago I purchased 100 shares of the $X Y Z$ Corp preferred stock. The company pays a $\$ 6.75$ annual dividend and had a required return of $19 \%$. The most recent required return for the stock is $14 \%$. (3 points) (Stock Valuation worksheet)
a) What was the stock value when purchased? 35.53
b) What was the stock value at the end of the time frame?
48.21
c) What is the gain (loss)?

$$
12.68
$$

2) A small business has decided to seek new investors for expansion. The company has recently paid a $\$ 4.75$ dividend. The average required return for the industry is $17 \%$ Dividends have historically grown at a $6 \%$ interest rate. The new expansion of the company will increase dividend growth to $10 \%$ for the next 4 years. After that, the managers have decided the growth rate will recover to the industry standard. (6 points)
(super-normal growth Valuation)
a. What is the value of the company's stock today?
52.09
b. What would the value be if the growth rate grew to $8 \%$ in the new period?
48.85
c. What would the value of the firm be if the super growth period was 6 years instead of 4 years?
3) Complete the following PE multiplier model valuation table. (4 points)

| Firm | PE | EPS | Value |
| :--- | :--- | :--- | :--- |
| A | 12.5 | 3.95 | 49.38 |
| B | 5.31 | 5.25 | 27.89 |
| C | 17.5 | 2.85 | 49.78 |
| D | 15.5 | 1.75 | 27.13 |

4) Calculate the following values: (10 points)
a. In 1992 the company paid a dividend of 2.89. In 2012, the dividend was 4.89. What is the growth rate of dividends? (stock Valuation)

b. The company has a beta of 1.79. The risk-free rate and return on the stock market are $3.67 \%$ and $11.5 \%$ respectively. What is the required return for the company?
17.69
c. What is the risk premium for the company?
$14.02 \%$
d. What is the value of the company stock?
33.40
e. If the company completes a renovation that reduces the market risk of the company to a beta of 1.35 , what is the new value of the stock?
43.35
