Investing

Number one reason for investing?
-current income (interest/dividends)
-capital gains (appreciation)

Possible investments:

Common stock
Preferred stock
Corporate bonds
Government bonds
Rights
Warrants
Options
Futures
Mutual funds
Exchange traded funds
Real estate
Real estate investment trusts (REITS)
Unit investment trusts
Collectibles

An investor's required rate of return should compensate the investor for the level of risk taken.

Risk-free security?

Balance Sheet

Assets	=	Liabilities + Stockholder's Equity
Owner "equity"		Lender "liability"

Stockholder’s equity or common equity can be comprised of

1. Common stock listed at par value
2. Paid-in-capital in excess of par value
3. Retained earnings

Ex. Sell 1000 shares of common stock for $30 per share
With a $1 par value

Common stock	$1,000	(1000 sh X $1)
Paid-in-capital	$29,000	(1000 sh X $29)

Rights of the common stockholder:

1. Voting - elect the board of directors (proxy)
2. Pre-emptive right
3. Liquidation value
4. Dividends

Some firms may have different classes of common
Stock: A shares
B shares

Preferred stock is considered a “hybrid” security with some
of the following features:

1. Cumulative-all dividends in arrears must be paid before any common stock dividend can be paid
2. Participating-the preferred stockholder may share in an extra or bonus dividend with the common stockholder
3. Callable-the firm can notify the stockholder and force them to sell back the stock (retire the stock)
4. Convertible-the preferred stockholder may convert their preferred stock into a specified number of common stock shares
5. Terms-the dividend is usually fixed and based on par

Long-term securities (stocks and bonds) are traded in the Capital Markets

Short-term securities (T-bills and commercial paper) are traded in the Money Market

Primary Market (original issue)

A firm needs to raise money (capital) so it decides to sell stock:

a) A public offering is when stock is sold to the general public. The first time stock is sold is called an IPO. Usually the firm will hire an investment banker to sell the stock. The main activity of the investment banker is underwriting-purchasing the new shares from the firm to resell to the general public. Large issues may require an underwriting syndicate.

b) Rights offering for existing stockholders due to the "pre-emptive right".

c) Private placement-the firm will sell a large number of new shares directly to a large investor (insurance companies, pension funds and Warren Buffet)

Secondary Market (reselling of existing securities)

An investor wants to buy some stock, uses a stockbroker

-full service
-discount
-online

Buying stock:

Round lot is buying 100 shares
Odd lot is buying less than 100 shares

Market order- buy or sell at the prevailing market price

Limit order- buy or sell only when the stock hits a specified price
--specified time frame
--'GTC' good till canceled

Stop-loss order-place an order to sell at a price below the purchase price

Stock Exchanges

Organized Exchanges - physical building where the actual trading takes place

1. NYSE- New York Stock Exchange "big board" founded in 1792 (first company listed was the Bank of New York)

2. AMEX- American Stock Exchange- founded in 1849 called the "curb exchange" up to 1921 (Merged With the Nasdaq in 1998)

   -trades "small cap stocks, ETFs (Exchange Traded Funds) and derivatives
   ETFs act and trade like a stock but they track a particular index

a) Spiders- Standard & Poor's Depository Receipt
   a collection of stocks that match the S&P 500

b) Diamonds- Dow Jones Industrial Average
   a collection of stocks that make up the 30 firms in the Dow

c) QQQQ "Quads"- Nasdaq 100 index

the 100 largest and most actively traded non-financial stocks on Nasdaq

OTC over-the counter market-a telecommunications network that connects the brokers (referred to as dealers)

1. Nasdaq- National association of securities dealers automated quotation system. Founded in 1971

2. OTC Bulletin Board (unlisted)

3. OTC Pink Sheets (unlisted)

ECN: electronic communications network
-automated trading using computer systems to match up buyers and sellers (bypass dealers)

How do investors pick stocks to add to their portfolio?

Where can you get advice?

Broker
Publications
Value Line
Investor's Business Daily
Barron's
Wall Street Journal
Forbes
Fortune
Business Week
Money
Consumer Reports

Cable TV

Diversification with fewer dollars:

-mutual funds
-ETFs (spiders, diamonds, QQQQ…)
-unit investment trusts

Stock Valuation theories-

1. Fundamental analysis: a stocks value is based on certain characteristics (future revenue and earnings) of the firm and how sensitive the firm is to economic conditions

2. Technical analysis: a stocks value is based on historical price patterns or trends (charting behavior)

Dividends-are they important to investors?

Dividend history

ATT	1881
Exxon Mobil	1882
Proctor & Gamble	1891
General Electric	1899
Union Pacific	1900
Texaco	1903
Dupont	1904

Dividend dates:

1. Declaration date: board of directors approves the dividend payment
2. Record date (Holder of Record): date by which

the investor must own the stock in order to receive the dividend

"Trade date"		"Record date"
Monday		Thursday
Buy	3 business days	Own

3. Ex-dividend date: starts two business days prior to the record date. Buyer will not receive the dividend
4. Payment date: company actually pays the dividend

Stock split: "2 for 1"	100 sh @ 50 = 5000
	200 sh @ 25 = 5000
Reverse stock split "1 for 10"	100 sh @ 5 = 500
(can be use to enhance image)	10 sh @ 50 = 500

Dividend Reinvestment Plan
- -typically no brokerage fee
- -stock price may be discounted
- -what about taxes?

Securities regulation-
1. Securities Act of 1933-required full disclosure of information by firms on new issues
2. Securities Exchange Act of 1934-put the SEC (Securities and Exchange Commission) in charge of securities regulation
3. Investment Company Act of 1940-deals with protection for investors dealing with mutual funds
4. Securities Investor Protection Act of 1970-protects investors from brokerage firm failure (not stock Performance)

Investment Risks-
1. Business risk-ownership risk

2. Financial risk-added risk for using debt
3. Market risk-overall risk, can't remove by diversification
4. Default risk-chance of losing original investment, largest risk for bonds
5. Purchasing Power risk-loss in value due to inflation
6. Liquidity risk-being able to get your money out quickly and for its actual current value
7. Interest Rate risk-when interest rates change the markets react. Interest rates and bond values are inversely related.
8. Company Specific risk-major impact upon a firm (strike, disaster, death of the CEO…)

Your required rate of return should compensate you for the level of risk taken.
-investments with low risk (T-bills) pay a much lower rate of return than investments with higher risk (stocks) over the long run

Approximate Yield to Maturity (AYTM) is a formula that will give us the approximate annual return for an investment.

$$\text{AYTM} = \frac{\text{Average dividend} + \dfrac{\text{Future - Current}}{\text{years}}}{\dfrac{\text{Future} + 2\,(\text{Current})}{3}}$$

We believe that Builtrite common stock will pay the following annual dividends:

Year	Expected Dividend
1	$3.00
2	$3.20
3	$3.42
4	$3.64
5	$3.89
	$17.15 / 5 years = $3.43 average dividend

Current stock price is $52
Estimated future price is $82
Your required rate of return for similar risk firms is 12%, should you buy Builtrite stock?

$$\text{AYTM} = \frac{3.43 + \frac{82 - 52}{5}}{\frac{82 + 2(52)}{3}} = \frac{9.43}{62.00} = .152\ (15.2\%)$$

$$\text{Dividend yield} = \frac{\text{current dividend}}{\text{current stock price}} = \frac{3}{52} = 5.8\%$$

Capital Gains yield = AYTM - DY = 15.2 - 5.8 = 9.4%

Buying stocks on Margin: using borrowed funds, along with your own money to buy securities.

-margin requirements are set by the Federal Reserve Board (FRB)

Stock value
/ \
Margin "your money" Loan

Two types of margin-

1. Initial margin (50% for common and preferred stock)
-if your account falls below the initial margin it

becomes a restricted account.

2. Maintenance margin
   -if your ownership percentage falls below a specified level (FRB 25%) you will receive a margin call from your broker requiring you to deposit additional money into your account.

Example:

a) Purchase 100 shares of Builtrite at $32 per share:

   Total cost is 100 x 32 = $3200
   Builtrite stock increases to $44
   Total market value of your stock is $4400
   Profit = $4400 - $3200 = $1200

   $$\text{Return on Investment (ROI)} = \frac{\text{Profit or Loss}}{\text{Investment}}$$

   $$\text{ROI} = \frac{\$1200}{\$3200} = .375 \text{ or } 37.5\%$$

b) Purchase 100 shares of Builtrite at $32 per share using 50% margin:

   Total cost $3200
   / \
   $1600 Margin $1600 Loan

   Stock increases to $44 per share or $4400

   $$\text{ROI} = \frac{\$1200}{\$1600} = .75 \text{ or } 75\% \text{ (ignoring interest)}$$

Margin advantages:	Margin disadvantages:
1. Leverage	1. Leverage

2. Smaller investment   2. Interest cost
3. Easier to diversify

$$\text{Margin \%} = \frac{\text{Stock market value} - \text{loan}}{\text{Stock market value}}$$

This formula shows your percentage of ownership.

$$\text{Builtrite stock price @ \$44} = \frac{4400 - 1600}{4400} = 64\%$$

$$\text{Builtrite stock price @ \$24} = \frac{2400 - 1600}{2400} = 33\% \text{ (restricted)}$$

$$\text{Builtrite stock price @ \$20} = \frac{2000 - 1600}{2000} = 20\% \text{ (margin call)}$$

Margin call: need to bring your ownership back to 25%

$$\begin{aligned}
25\% \text{ margin} &= .25 \times \text{ market value} \\
&= .25\ (\$2000) \\
&= \$500 \text{ minimum investment total} \\
&\quad \underline{-\$400 \text{ current equity amount}} \\
&= \$100 \text{ short (deposit with broker)}
\end{aligned}$$

What price would trigger a margin call?

$$\frac{\text{Loan}}{1 - \text{MC\%}} = \frac{\$1600}{1 - .25} = \$2133/100 \text{ shares} = \$21.33$$

Long Position: stocks are expected to increase in price

Short Position: stocks are expected to decrease in price
-can you make money if a stock's price is expected to fall?

Selling Short-

You believe that Builtrite stock will fall in price due to higher levels of competition.

Current stock price is $32

1. Sell 100 shares of Builtrite short using 50% margin = $1600 investment

2. Two months later Builtrite stock is selling for $20 a share

   Purchase 100 shares at $20 a share to cover (replace) the shares you sold earlier for $32

   Cost = 100 sh @ $20 = $2000
   Sold = 100 sh @ $32 = <u>$3200</u>
   $1200 profit
   (ignoring interest)

2b. Two months late Builtrite stock is selling for $40 a share

   Purchase 100 shares at $40 a share to cover (replace) the shares you sold earlier for $32

   Cost = 100 sh @ $40 = $4000
   Sold = 100 sh @ $32 = <u>$3200</u>
   $ 800 loss
   (ignoring interest)