

Personal Finance

Class 8: Investing Your Finance Resources

Investing fundamentals

Investing in stocks

Investing in bonds

Preparing for an Investment Program

- ESTABLISHING INVESTMENT GOALS

Financial goals should be specific and measurable. To develop your goals ask yourself. . .

- How much will you need for your goals?
- How will you obtain the money?
- How long will it take you to obtain the money?
- How much risk are you willing to assume in an investment program?

Preparing for an Investment Program

- What possible economic or personal conditions could alter your investment goals?
- Are you willing to make the sacrifices necessary to meet your investment goals?
- What will the consequences be if you don't reach your investment goals?
- Given your economic circumstances, are your investment goals reasonable?

Preparing for an Investment Program

- PERFORMING A FINANCIAL CHECKUP
 - Ethical Concerns: Pay your bills on time
 - Work to balance your budget
 - Do you regularly spend more than you make?
 - Pay off high interest credit card debt first
 - Start an emergency fund you can access quickly
 - Three to six months of living expenses
 - Have access to other sources of cash for emergencies
 - Line of credit is a short-term loan approved before the money is needed
 - Cash advance on your credit card

Preparing for an Investment Program

- MANAGING A FINANCIAL CRISIS
 1. Establish a larger than usual emergency fund
 2. Know what you owe
 3. Reduce spending
 4. Notify credit companies and lenders if you are unable to make a payments
 5. Monitor the value of your investment and retirement accounts
 6. Consider converting investments to cash to preserve value

Preparing for an Investment Program

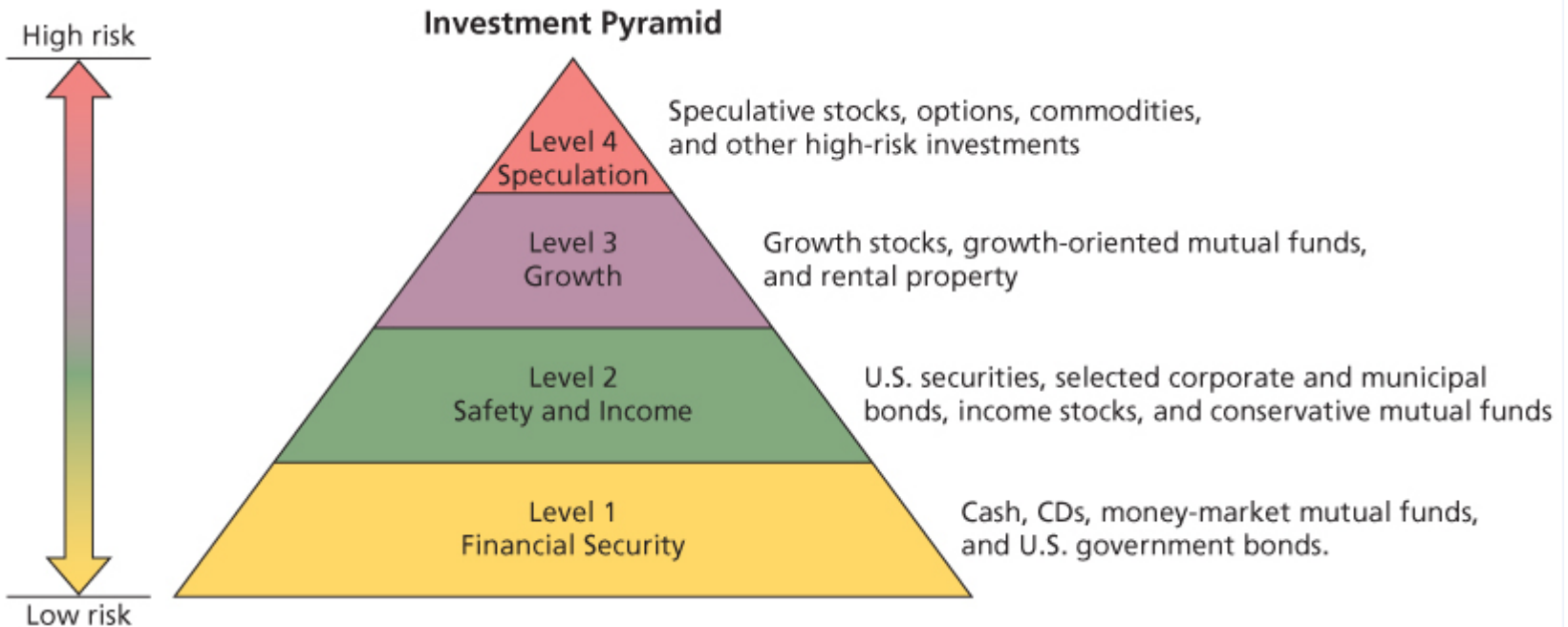
- GETTING THE MONEY NEEDED TO START AN INVESTMENT PROGRAM
 - How badly do you want to achieve your investment goals?
 - Are you willing to sacrifice some purchases to provide financing for your investments?
 - Take advantage of employer-sponsored retirement programs
 - Participate in elective savings programs
 - Payroll deduction or electronic transfer
 - Make extra effort to save one or two months each year

Factors Affecting the Choice of Investments

- SAFETY AND RISK
 - Safety in any investment means minimal risk of loss
 - Risk means a measure of uncertainty about the outcome
 - Investments range from very safe to very risky
 - The potential return on any investment should be directly related to the risk the investor assumes
 - Speculative investments are high risk

Factors Affecting the Choice of Investments

- THE RISK-RETURN TRADE-OFF
 - Choosing higher risk investments, investors expect higher returns



Factors Affecting the Choice of Investments

- Risk Tolerance
- Calculating Rate of Return
 - Add increase or subtract decrease in investment's value (change in value)
 - Plus Annual investment income
 - Divide by the original investment's value



Factors Affecting the Choice of Investments

- COMPONENTS OF THE RISK FACTOR
 - **Inflation risk** - during periods of high inflation your investment return may not keep pace with the inflation rate



- **Interest rate risk** - you may invest in a bond at 6% but when rates for comparable bonds later go up to 8% it means your bond price falls

Factors Affecting the Choice of Investments

- COMPONENTS OF THE RISK FACTOR
 - **Business failure risk** - bad management or products affect stocks, municipal or corporate bonds, and mutual funds that invest in stock
 - **Market risk** - prices fluctuate because of behaviors of investors
 - **Global investment risk** – more difficult to evaluate and changes in currency affect the return on your investment

Factors Affecting the Choice of Investments

- INVESTMENT INCOME
 - Safest investments – predictable income
 - Savings accounts and certificates of deposit
 - U.S. savings bonds
 - United States treasury bills



Factors Affecting the Choice of Investments

- INVESTMENT INCOME

- Higher potential income investments include...

- Municipal bonds
 - Corporate bonds
 - Preferred stocks and income common stocks
 - Income mutual funds
 - Real estate rental property

Factors Affecting the Choice of Investments

- INVESTMENT GROWTH
 - Growth means investment will increase in value
 - Common stock
 - Growth companies pay little or no dividends, but reinvest in the company
 - Mutual funds, government and corporate bonds, and real estate offer growth potential
- INVESTMENT LIQUIDITY
 - Ability to buy or sell an investment quickly without substantially affecting the investment's value; e.g. Real estate is not a very liquid investment

Asset Allocation and Investment Alternatives

- ASSET ALLOCATION AND DIVERSIFICATION
 - **Asset Allocation**
 - The process of placing your assets among several types of investments which lessens your investment risk
 - **Time Factor**
 - The longer that you are invested the better your opportunity for increasing returns
 - **Your Age**
 - The type and style of your investments should change with your age

Asset Allocation and Investment Alternatives

- STOCK OR EQUITY FINANCING
 - Equity capital is provided by stockholders who buy shares of a company's stock
 - Stockholders are owners and share in the success of the company
 - A corporation is not required to repay the money obtained from the sale of stock
 - The corporation is under no legal obligation to pay dividends to stockholders: they may instead retain all or part of earnings
 - Two basic types of stock
 - Common stock
 - Preferred stock

Asset Allocation and Investment Alternatives

- CORPORATE AND GOVERNMENT BONDS
 - A bond is a loan to a corporation, the federal government, or a municipality
 - Bondholders receive periodic interest payments, and the principal is repaid at maturity (1-30 years)
 - Bondholders can keep the bond until maturity or sell it to another investor before maturity

Asset Allocation and Investment Alternatives

- **MUTUAL FUNDS**

- Investors' money is pooled and invested by a professional fund manager
- You buy shares in the fund
- Provides diversification to reduce risk
- Funds range from conservative to extremely speculative
- Match your needs with a fund's objective
- Be aware of fees depending upon different fund chosen

Asset Allocation and Investment Alternatives

- REAL ESTATE
 - The goal of a real estate investment is to buy a property and sell it at a profit. Nationally, 2% to 3% appreciation in price a year is average.
 - However, decreases in value are also possible
 - Location, location, location is important.



Asset Allocation and Investment Alternatives



- Before you buy real estate...
 1. Is the property priced competitively?
 2. What type, if any, of financing is available?
 3. How much are the taxes?
 4. What is the condition of the buildings and houses in the immediate area?
 5. Why are the present owners selling?
 6. Could the property decrease in value?

Asset Allocation and Investment Alternatives

- OTHER INVESTMENT ALTERNATIVES
 - A speculative investment is a high-risk investment made in the hope of earning a relatively large profit in a short time. Typical speculative investments include:
 - Antiques and collectibles
 - Call and put options
 - Derivatives
 - Commodities
 - Coins and stamps
 - Precious metals and gemstones

Asset Allocation and Investment Alternatives

- A PERSONAL PLAN FOR INVESTING
 1. Establish realistic goals
 2. Determine the amount of money needed to meet your goals
 3. Specify the amount of money available to fund your investments
 4. List different investments you want to evaluate
 5. Evaluate risk and potential return for each
 6. Reduce possible investments to a reasonable number
 7. Choose at least two different investments
 8. Continue to evaluate your investment program

Factors that Reduce Investment Risk

- YOUR ROLE IN THE INVESTMENT PROCESS
 - Evaluate potential investments
 - Monitor the value of your investments
 - Keep accurate and current records
 - Seek the assistance of a financial planner
 - (see Appendix A at the back of the text)
 - Consider the tax consequences of selling your investments

Sources of Investment Information

- The Internet
 - A wealth of investment information is available
 - Enter searches through www.yahoo.com,
www.google.com
- Newspapers and news programs
- Business periodicals such as *Money* and government publications
- Corporate Reports
- Investor services and newsletters, such as Value Line or Morningstar and financial calculators

Sources of Investment Information

These websites provide information that you can use to establish a financial plan and begin an investment program.	
Sponsor and Description	Web Address
The CNN/Money website provides current financial news and material that can help investors sharpen their investment skills.	money.cnn.com
The Kiplinger website contains a number of tools to help beginners become better investors. You may also want to study the information in the "Personal Finance Basics" section of the site.	kiplinger.com
The Money Café website provides a large number of links to valuable personal finance and investment websites.	moneycafe.com
The Motley Fool website provides lighthearted but excellent educational materials.	fool.com
The Quicken website provides information about software products that help you track your finances.	quicken.com
The Securities and Exchange Commission provides investment and financial information for both beginning and experienced investors. You can also check to see if a broker or salesperson is licensed.	sec.gov

Common and Preferred Stocks

- Good investors know something about the company before they invest in the company's stock
- Gather information to evaluate a potential investment in a stock
- Learn what the information you gather means
 - Are sales increasing?
 - Is net income increasing over time?
 - Are earnings per share increasing over time?
- There are periods where stocks decline in value
- The key to success is to allow investments to work for you over the long-term

Common and Preferred Stocks

- Why Corporations Issue Common Stock
 - To raise money for start-up costs and help pay for expansion and their ongoing business activities
 - They don't have to repay the money a stockholder pays for stock
 - The stockholder may sell a share of stock to another investor

Common and Preferred Stocks

- Dividends are not mandatory and must be approved by the board of directors.
- Most corporations distribute 30-70% of their earnings to stockholders
- In return for investing in the company, stockholders have voting rights

Common and Preferred Stocks

- Why Investors Purchase Common Stock
 - Investors want the larger returns that stocks offer even though they are aware of the potential for losses

Investors can make money in three ways:

- Income from dividends in the form of cash or additional stock
- Dollar appreciation of stock value
- Possible increased value from stock splits
 - A stock split happens when the shares owned by existing stockholders are divided into a larger number of shares

Preferred Stock

- Investors in preferred stocks receive cash dividends *before* common stockholders are paid any cash dividends
- A “middle” investment and represents an ownership position between common stock and corporate bonds

Preferred Stock

- You are an owner of the stock but have a known rate of return. Shares are safer than common stock because the dividends are more secure
- Investors that need a more predictable source of income will choose preferred rather than common stock

Evaluating a Stock Issue

- **CLASSIFICATION OF STOCKS**

Blue chip stock

Cyclical

Defensive

Growth

Income

Large cap

Mid cap

Small cap

Micro cap

Penny stock

Evaluating a Stock Issue

- THE INTERNET

- Most corporations have a Website, and the information is useful

- The Website is easily accessible

- More up-to-date information than the printed material

- Websites like Yahoo! and other search engines can also be used to obtain information about stock investments

- The Internet can also be used to access professional advisory services

Evaluating a Stock Issue

- STOCK ADVISORY SERVICES

- Prepare printed materials that are more detailed than information in newspapers
- Charge a fee
- Hundreds to choose from
 - Standard and Poor's reports
 - Value Line
 - Morningstar
- As an investor, your job is to interpret the information provided

Evaluating a Stock Issue

- NEWSPAPER COVERAGE AND CORPORATE NEWS
 - Stock quotes are still available in some metropolitan newspapers and *The Wall Street Journal*
 - Basic information is provided
 - Name of company
 - Stock symbol
 - Price

Evaluating a Stock Issue

- The Federal government requires companies to disclose information to the public
- <http://www.sec.gov/> is a website to access much of the information
- Use an annual report to
 - learn about the company
 - learn about management
 - learn about goals
 - learn about past financial performance
 - footnotes have important information

Numerical Measures That Influence Investment Decisions

- WHY CORPORATE EARNINGS ARE IMPORTANT
 - Corporate earnings play a large part in the increase or decrease in the price of a stock
 - Earnings per share (EPS) are the corporation's after-tax earnings divided by the number of outstanding shares of common stock. An increase in earnings is generally a healthy sign.
 - Price-earnings (P/E) ratio is the price per share divided by the earnings per share.

Numerical Measures That Influence Investment Decisions

- OTHER FACTORS THAT INFLUENCE THE PRICE OF A STOCK
 - Dividend payout = $\frac{\text{Annual dividend amount}}{\text{EPS}}$
 - Dividend yield = $\frac{\text{Annual dividend amount}}{\text{Price per share}}$

Numerical Measures That Influence Investment Decisions

- Total return = Dividends + Capital gain

- Annualized holding period yield =

$$\frac{\text{Total return}}{\text{Original investment}} \times \frac{1}{N}$$

N = Number of years investment is held

Numeric Measures That Influence Investment Decisions

- Beta
 - A measure of volatility compared to the S&P 500 Stock Index
- Book value per share
$$\frac{\text{Assets-Liabilities}}{\text{Shares Outstanding}}$$

Numeric Measures That Influence Investment Decisions

- Market-to-Book Ratio

$$\frac{\text{Market value per share}}{\text{Book value per share}}$$



- A low market to book may indicate an undervalued stock
- A high market to book may indicate an overvalued stock

Numeric Measures That Influence Investment Decisions

- INVESTMENT THEORIES

Fundamental analysis

- Based on the assumption that a stock's intrinsic or real value is determined by the company's future earnings
- Fundamentalists consider the...
 - Financial strength of the company
 - Type of industry company is in
 - New-product development
 - Economic growth of the overall economy

Numeric Measures That Influence Investment Decisions

Technical analysis

- Based on the assumption that a stock's value is determined by the forces of supply and demand in the stock market as a whole
- Not based on expected earnings or the intrinsic value of a stock but rather on factors found in the market as a whole
- Chartists plot past price movements and other market averages to observe trends they use to predict a stock's future value

Numeric Measures That Influence Investment Decisions

Efficient market hypothesis

- Based on the assumption that stock price movements are purely random
- A stock's current market price reflects its true value
- It is impossible for an investor to outperform the average for the stock market as a whole over a period of time unless they pick riskier investments

Buying and Selling Stocks

- PRIMARY MARKET
 - A market in which an investor purchases financial securities through an investment bank, or other representative, from the issuer of those securities
 - An **investment bank** is a financial firm that assists corporations in raising funds, usually by helping to sell new security issues
 - An IPO (initial public offering) occurs when a corporation sells stock to the general public for the first time
- SECONDARY MARKET
 - A market for existing financial securities that are currently traded among investors through brokers

Buying and Selling Stocks

- SECONDARY MARKETS FOR STOCKS: SECURITY EXCHANGES
 - A marketplace where member brokers who represent investors meet to buy and sell securities
 - The securities sold at an exchange must be listed, or accepted for trading, at the exchange
 - New York Stock Exchange, Regional Exchanges, or Foreign Security Exchanges

Buying and Selling Stocks

- SECONDARY MARKETS FOR STOCKS: OVER-THE-COUNTER MARKET
 - Most OTC securities are traded over the Nasdaq which is an electronic marketplace
 - Network of dealers who buy and sell the stocks of companies not listed on a securities exchange

Buying and Selling Stocks

- **BROKERAGE FIRMS AND ACCOUNT EXECUTIVES**

- An account executive, or stockbroker, is a licensed individual who buys and sells securities for his or her clients
- Financial objectives should be communicated to the account executives, and the investor must be actively involved in the investment decisions

Buying and Selling Stocks

- Full-Service, Discount, or Online Brokerage Firm
 - How much advice do you want?
 - Nearest office and toll-free phone number?
 - Online and phone trading services and costs?
 - Fees, charges and commissions?



Buying and Selling Stocks

DID YOU KNOW?

The Securities Investor Protection Corporation (SIPC) protects customers as long as their brokerage firm is an SIPC member.

- If your brokerage firm fails, you get back all securities that are already registered in your name or are in the process of being registered.
- You could get up to \$500,000 that includes a maximum of \$250,000 for cash claims if a failed brokerage firm doesn't have enough funds or securities to satisfy claims.

Source: The Securities Investor Protection Corporation website at www.sipc.org, accessed February 27, 2013.

Buying and Selling Stocks

- **COMPLETING STOCK TRANSACTIONS**
 - **Market order:** Request to buy or sell stock at the current market value
 - **Limit order:** Request to buy or sell a stock at a specified price
 - **Stop-loss order:** Request to sell a stock at the next available opportunity after its market price reaches a specified amount

Long-Term and Short-Term Investment Strategies

- LONG-TERM TECHNIQUES
 - Buy and hold
 - Dollar cost averaging
 - Direct investment and dividend reinvestment (DRIPS)



Long-Term and Short-Term Investment Strategies



- SHORT-TERM TECHNIQUES
 - Day trading
 - Buying stock on margin (borrowing money)
 - Selling short (borrowing stock)
 - Trading in options (predetermined price)

Characteristics of Corporate Bonds

- Corporation's written pledge to repay a specified amount of money with interest
- The face value is the dollar amount that the bondholder will receive at the bond's **maturity date**, usually \$1,000



Characteristics of Corporate Bonds

- Bondholders receive interest payments every six months at the stated interest rate
- The legal conditions are described in a **bond indenture**
- A **trustee** is a financially independent firm that acts as the bondholder's representative

Why Corporations Sell Bonds

- To get funds for major purchases
- To fund ongoing business activities
- When it is difficult or impossible to sell stock
- To improve financial leverage
- Interest paid to bondholders is a tax deductible business expense that can be used to reduce the federal and state taxes corporations must pay

Why Corporations Sell Bonds

- TYPES OF BONDS

- **Debenture bond**

- Most corporate bonds are debenture bonds
 - Unsecured - backed only by the reputation of the issuing company

- **Mortgage bond**

- A corporate bond that is secured by various assets of the issuing firm, usually real estate
 - Interest rate is lower because it is secured by the collateral and corporate assets

Why Corporations Sell Bonds

- **Subordinated debenture bond**

- An unsecured bond that gives bondholders a claim secondary to that of mortgage or debenture bond holders with respect to interest payments and claim on assets

- **Convertible bond**

- A special kind of corporate bond that can be exchanged, at the owner's option, for a specified number of shares of the corporation's common stock

Why Corporations Sell Bonds

- **High Yield bond**

- A bond that pays a higher rate of interest but has a higher risk of default
- Often referred to as “junk bonds”

Why Corporations Sell Bonds

- PROVISIONS FOR REPAYMENT

- **Call Feature**

- Corporation can call in or buy back outstanding bonds from current bondholders before the maturity date
 - Most agree not to call bonds for the first 5 to 10 years after they are issued
 - Bonds are typically called if their interest rate is much higher than the going rate
 - Most corporate bonds are callable

Why Corporations Sell Bonds

- **Sinking fund**

- Corporations deposit money into this fund annually or semiannually and use the money to pay off the bondholders when the bond issue comes due

- **Serial bonds**

- Bonds of a single issue that mature on different dates

Why Investors Purchase Corporate Bonds

- **PSYCHOLOGY OF INVESTING IN BONDS**
 - Bonds are another way to use asset allocation to diversify your investment portfolio
 - Investors consider government and corporate bonds a safer investment when compared to stocks because a bond must be repaid at maturity
 - Bonds may provide more growth and income potential than other conservative options

Why Investors Purchase Corporate Bonds

- **INTEREST INCOME**
 - Investors receive interest every six months
 - The annual interest is computed by multiplying the interest rate by the face value of the bond
 - Registered bonds, Registered Coupon bond, or Bearer bonds



Why Investors Purchase Corporate Bonds

- DOLLAR APPRECIATION OF BOND VALUE
 - May be able to sell the bond to someone else at a higher price if the interest rate on the bond is higher than the interest rate of new bonds of comparable quality
 - Approximate Market Value = Dollar amount of annual interest / Comparable interest rate.
 - Inverse relationship between bond's market value and overall interest rates in the economy
- BOND REPAYED AT MATURITY – FACE VALUE

Why Investors Purchase Corporate Bonds

- THE MECHANICS OF A BOND TRANSACTION
 - Bonds can be held until maturity or sold in the secondary market
 - Most bonds sold through full-service brokerage firms, discount brokerage firms, or the Internet
 - Generally a minimum commission of \$5-\$25 on a \$1,000 bond
 - Interest and capital gains from selling bonds are both taxable

Government Bonds and Debt Securities

- Sold to obtain money to finance the national debt and the ongoing costs of government
- Three levels of government issue bonds:
 - Federal (no state income tax on the interest)
 - State
 - Local municipalities

Government Bonds and Debt Securities

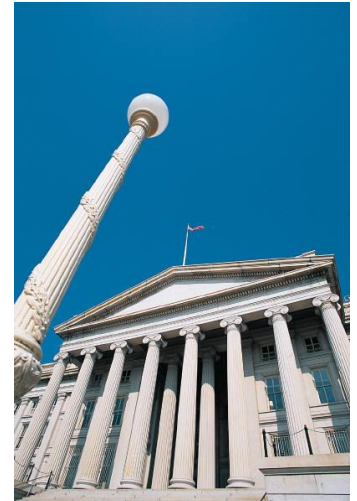
- TREASURY BILLS, NOTES, AND BONDS

Treasury Bills (T-Bills)

- \$100 minimum
- 4, 13, 26, or 52 weeks to mature
- Sold at a discount

Treasury Notes (T-Notes)

- \$100 units
- 2, 3, 5, 7, and 10 year terms
- Interest paid every six months



Government Bonds and Debt Securities

Treasury Bonds

- Issued in minimum units of \$100
- Have maturities of 30 years
- Interest rates are generally higher than those of T-bills and T-Notes
- Interest is paid every 6 months
- Held until maturity or sold before maturity

Government Bonds and Debt Securities

TIPS (Treasury Inflation-Protected Securities)

- Issued in minimum units of \$100
- Sold in 5, 10, and 30 year terms
- Valued based upon the consumer price index
- Principal increases with inflation and decreases with deflation
- Interest is paid every 6 months, and will vary
- Held until maturity or sold before maturity

Government Bonds and Debt Securities

- FEDERAL AGENCY DEBT ISSUES
 - Fannie Mae
 - Federal National *Mortgage* Association
 - Ginnie Mae
 - Government National *Mortgage* Association
 - Freddie Mac
 - Federal Home Loan *Mortgage* Corporation

Federal Agency Debt Securities

- Slightly higher risk than Treasury securities so slightly higher interest rates
- Issued for 1 to 30 years, 5 to 12 year average
- Minimum denominations may be as high as \$5,000-\$25,000
- Agency debt is callable before maturity

Government Bonds and Debt Securities

- STATE AND LOCAL GOVERNMENT SECURITIES
 - **Municipal bonds** (called muni)
 - Issued by a state or local government, such as cities, counties, school districts
 - Use funds for ongoing costs & to build major projects such as schools, airports, and bridges
 - **General obligation bonds** are backed by the state or local government that issues them
 - **Revenue bonds** are repaid from money generated by the project the funds finance, such as a toll bridge

Government Bonds and Debt Securities

– **Features of Municipal Bond**

- People like to invest in projects close to home
- They like insured municipal bonds, or states that guarantee payment
- May be callable, but usually not until after the first 5 to 10 years
- Interest earned may be exempt from federal income tax

Government Bonds and Debt Securities

$$\text{Taxable equivalent yield} = \frac{\text{Tax-exempt yield}}{1.0 - \text{Your tax rate}}$$

Example:

$$\begin{aligned} \text{Taxable equivalent yield} &= \frac{.03}{1.0 - 0.28} \\ &= 0.0417 = 4.17\% \end{aligned}$$

The Decision to Buy or Sell Bonds

- THE INTERNET

The Internet can be used in the following ways to evaluate a bond

- Obtain price information
- Trade bonds online for a lower commission
- Gather research information about corporate or government bond issues

The Decision to Buy or Sell Bonds

- Some relevant Websites are:

<http://www.bonds-online.com/>

<http://www.emuni.com/>

<http://www.buysellbonds.com/>

<http://www.fmsbonds.com/>

<http://www.municipalbonds.com/>

<http://www.investinginbonds.com/>



The Decision to Buy or Sell Bonds

- Bond Information from accessing <http://finance.yahoo.com/bonds>

AMERICAN EXPRESS CO	
OVERVIEW	
1. Price:	115.64
2. Coupon (%):	6.150
3. Maturity Date:	28-Aug-2017
4. Yield to Maturity (%):	3.151
5. Current Yield (%):	5.318
6. Fitch Ratings:	A
7. Coupon Payment Frequency:	Semi-Annual
8. First Coupon Date:	28-Feb-2008
9. Type:	Corporate
10. Callable:	No

The Decision to Buy or Sell Bonds

- OBTAINING ANNUAL REPORTS
 - Write or telephone the corporation to receive the annual report
 - Corporations maintain website that provides access to annual reports

The Decision to Buy or Sell Bonds

- BOND RATINGS

- Bond ratings provide information about quality and risk associated with bond issues
- Moody's Investor Service Inc., Standard & Poor's Corporation, and Fitch ratings provide bond ratings
- Bond ratings generally range from AAA to D

The Decision to Buy or Sell Bonds

- BOND YIELD CALCULATIONS

- Yield is the rate of return earned by an investor who holds a bond for a stated period

Current yield on corporate bond =

$$\frac{\text{Annual income amount}}{\text{Current market value}}$$

The Decision to Buy or Sell Bonds

Yield to Maturity Calculation:

$$\frac{\$ \text{ Amt. Annual Interest} + \frac{(\text{Face value} - \text{Market value})}{\text{Number of periods}}}{\frac{(\text{Market value} + \text{Face value})}{2}}$$

Example:

$$\begin{aligned} & \$60 + \frac{\$1,000 - \$900}{10} \\ & \frac{\$900 + \$1,000}{2} \\ & = 0.074 = 7.4\% \end{aligned}$$