Unit 2: Personal Finance Notes

Cost-Benefit Analysis

- Economics is about "Thinking at the Margin" to make the best decision
- Marginal means one more additional unit of a good or service
- If **MB > MC** then do it!
- If **MB < MC** then it's probably not the best choice to make

Financial Institutions and Investments

- ❖ Financial Institutions receive deposits of money, extend credit, and provide loans.
- ❖ How do banks make money?
- Banks offer checking and savings accounts, take deposits and serve as creditors by loaning out money to debtors with **INTEREST**
- Interest charged: interest the bank charges them to borrow money.
- **Fractional Reserve Banking** is when banks hold only a small portion of deposits to cover potential withdrawals and then loans the rest of the money out. (Banks make a profit from **Interest)**
- If we all went to the bank to withdrawal money at the same time what would happen? **BANK RUN**
- **Federal Reserve (Fed)** is the U.S. central bank, which serves to (1) **Regulate the Nation's Money Supply** and (2) **Oversee all Financial Institutions**
- The Fed is continuously fighting against **inflation (**general rise of all prices)

- **Long periods of unanticipated inflation favor Debtors over Creditors and has the most negative impact on retirees living on a fixed income**

- Banks can literally *"make money appear out of thin air!"* using the **money multiplier**

$$\frac{1}{\text{Reserve Requirement (RR)}}$$

- **Reserve Requirement** is a tool of the **Federal Reserve** (U.S. central bank) that requires banks to hold a certain percentage of money in the vault for customer withdrawals

Example: If you deposit $10,000 into the bank, and the Reserve Requirement is 10%, then the bank must hold $1,000 (10,000 x .1) and can loan out the other $9,000

$$\frac{1}{.1} = 10 \text{ (money multiplier)}$$

$9,000 x 10 = $90,000

So you're $10,000 original deposit just turned into $90,000 total!

- **Credit unions**: are cooperative financial associations that serve only their members.
- **Interest rates on loans are usually less at a credit union than at commercial banks, but you must be a member of that credit union (annual fee)**

Why should you invest?

- Retirement
- Short term purchases: car, down payment for house, etc.
- So your money is making an "income" due to **interest**
  - ➢ Interest earned: interest the bank pays them for the use of their money.

Risk and Return is a direct relationship

- The riskier the investment, the higher the rate of return possible. However, the investor assumes a greater risk that a portion of or all of the money invested could be lost.
  - ➢ Stocks are risky but returns can be high while CD's are low risk but yield low return

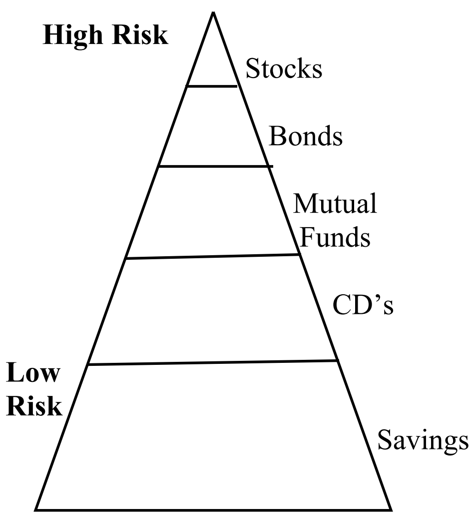
Investments from Riskiest to Least Risky

1) **Stocks** – shares in a company that an individual/organization purchases, giving that person /entity part ownership
2) **Bonds** – loans to either a company or the gov't with interest

- Bonds are like "I.O.U.'s with interest"

3) **Mutual Funds** – pool money from a number of investors to buy a range of investments: stocks, bonds, short-term money-market instruments, or other securities (diversified portfolio)
4) **Certificates of Deposit (CDs)** – timed savings account that pays higher interest rates than savings **but invokes penalties for early withdrawal before the CD matures** (usually 3 months' interest)
5) **Savings Account** – Income that is not spent on consumption but is put aside (very low interest rate; more of a **holding account** than anything)

Investment Pyramid



Debt is money owed (usually with interest) once credit has been extended and assumed

Credit – an agreement under which a buyer receives goods and services at the present time in exchange for a promise to pay for them at a future time

- **Principal** – the amount of money that has been borrowed
  - original amount of debt
- **Interest** – the amount of money that a lender charges a borrower in exchange for the use of their money
  - The cost of credit is **INTREST!**
  - **Interest** is how loaning institutions make their money and how borrowers can get themselves into serious financial trouble!

Credit Cards v. Debit Cards

When you use a **credit card**, you are **borrowing money from the credit issuers as a loan that you will pay back with interest**

- **APR** is the **annual percentage rate** that shows the total cost of the loan, including compounding and other fees.

When you use a **debit card**, you are **using your own money from your banking account**, so **there is no interest**

- But remember that you must have the money in your bank account, or you could be penalized with bank fines

Simple v. Compound Interest

- **Simple Interest** – is a rate that is **applied only to the value of the principal**
  - Simple interest grows slowly

Interest = Principal x Rate x Term

(I = P x R x T)

- **Compound Interest – interest applied to both the principal and the interest**
  - You pay interest on interest; so compound interest grows faster and can double after so many years
  - **Compound Interest is great for you as an investor, but terrible if you're the debtor**

What are some factors that affect Credit Worthiness?

1) Credit History

- **Debt** is the amount of money that you owe a lender from borrowing
- **Credit score** is a number based on your history as a borrower; bad debt damages your credit score
- **Credit worthiness** is when a lender uses your credit score to determine what type of loan you can receive
  - If your credit score is **high,** lenders will loan you money at a lower interest rate (**740-850**)

- ➢ If your credit score is **low,** lenders will loan you money at a higher interest rate (**Below 600**)
- ➢ Just because you have a low credit score doesn't mean you cannot get a loan; it only means that you'll pay a much higher interest rate and it will cost you much more in the long run

2) Job/Income
- How much money you make determines loan amount maximum
- Must be able to prove that you have the ability to pay back the loan (collateral)

3) **Debt-to-Income Ratio –** total monthly debt obligations / amount of total monthly income
- Lower the number the better; it should never exceed 33 (33% of your monthly income goes to pay off debt)

4) Age
- Loans are harder to get if you're very young (little credit history) or very old (might not live long enough to pay back loan)

5) Education
- **Higher your education level, the more credit lenders make available to you because you've prove that you are reliable and can finish what you start** (human capital is so important!!!)

Sometimes the lender may require **collateral** from the debtor before extending a loan
- Collateral is something of value which the bank will receive if the loan is not repaid

Fiscal Policy – Gov't use of (1) Taxing and (2) Spending

Taxes and Types of Tax Structures

1. **Progressive Tax** – % of income paid in taxes increases as income increases
- More you make, more they take, so wealthy bear the burden
- **Federal Income Tax is Progressive**

2. **Proportional Tax** – % of income taxes remains the same for all income levels **(some like to call it a Flat tax)**
- Everyone pays the same %, so no one bears the burden
- Sales Tax

3. **Regressive Tax** – % of income paid in taxes decreases as income increases
- More you make, less they take, so poor bear the burden
- Sales Tax & Sin Taxes (Alcohol, Tobacco, Lottery)

- ❖ **Sales Tax** – a general state or city tax levied on a product at the time of sale
- ❖ **Everyone pays the same percentage of a sales tax but not everyone has the same income, so it's both a proportional and regressive tax because it hurts the lower income earners more than middle and upper class**

Types of Insurance

Insurance – money paid to an insurance company for assurance that, if what they value is lost or damaged, the insurance company will pay for their loss
- ❖ Insurance companies are able to pay their policy holders even if they haven't had it for very long because they share the risk with so many other customers

1. **Automobile – covers cars (vehicles)**
- Costs-determined by the type of car, color, driver's age & experience, city of residence, mileage driven, driver's education/grades
- Paid monthly, quarterly, every six months, or yearly
- Different prices can be quoted by different car insurance companies, so shop around!

2. **Health – covers doctor visits, prescriptions, and other medical costs**
- Costs-determined by the health coverage you pay for and choose
- Different prices determined by different plans for different services/copays/coverage
- **Premiums:** monthly payment for insurance
- **Deductibles**: dollar amount of expenses that must be **paid out of pocket** before an insurer will pay any expenses for loss or liability
  - ➢ **High premium = low deductible**
  - ➢ **Low premium = high deductible (Inverse Relationship)**

3. **Life – covers someone's life**

- Costs-determined by the age of the insured and amount to be paid at death
- Paid premium monthly
- More life insurance is better for younger couples, especially if children are dependent on parents and less important as you retire and get older, minus funereal expenses

4. **Disability – covers income if you are unable to work**

- Costs determined by salary, and benefit if you are out of work
- Paid monthly premium

5. **Property – covers property, land, homes**

- Costs-determined by how much the property is worth, credit score, and location

<u>Importance of Human Capital</u>

- ❖ **Investing in education, training, and skill development typically leads to earning higher income**
- ❖ **If you possess a skill no one else does you will be able to command more money for that skill, will be in high demand, and have great job security**
- ❖ **Investment in human capital not only increases one's job security and earnings, but also is linked with an overall higher quality of life!**
- ❖ **Wages are high when the supply of labor is low and the demand for labor is high. (unskilled v. skilled labor)**