CORPORATE FINANCE & RAISING MONEY THROUGH STOCKS & BONDS

Understanding Corporate Finance

- Scenario:
  - You want to buy a car worth $15000
  - You have $2000 in your bank account
    - This $2000 is your own money, or what you call as equity
  - For the remaining $13000, you decide to take a loan from a bank.
    - This $13000 is considered as your debt or borrowing
    - This is other people's money
  - So to buy that car, you decide to finance or fund that purchase with part of your money ($2000) along with a loan of $13000.
- We spend and invest money looking at risks and returns.
- If you are a sole trader, your risk taking appetite would be different as compared to if you were a manager where the money was coming from shareholders.
- Aspects of Financial Decisions
  - Motivation
  - Money Flow
  - Repercussions
- Types of Stakeholders
  - Shareholders
  - Bond Holders
  - Employees
  - Consumers
  - Government
  - Communities
  - Special Interest Group

Financial Markets

- For corporations to make sound financial decisions, they need reliable price signals and market expectations of future prices.
- If a shareholder wants to invest in a company, he needs to know if the money he is paying for the stock is a good stock compared to what he expects the price to be in the future.
- Financial markets also known as Capital Markets
- Production Cycle and Foreign Currency
  - Example: Apple
    - Buys and imports components (Both domestic and foreign)
    - Since it is importing foreign components, it needs access to foreign currencies
    - After Production, it exports the products overseas as well.
    - These products will be paid for in foreign currency by international customers.
    - Apple then converts foreign currencies to USD.
    - All these activities involve foreign transactions.

        - Apple needs money to manufacture their products, and access to this money will be provided by global capital markets.
- Financial Markets provide financial mediation. That is, it acts as a bridge between investors and lenders that have surplus money, who want to invest it, and the borrowers who need the money to finance or fund their projects. This way, money is transferred to the party which has more efficient use of the capital.
- Virtual markets allow for increased global use of capital and the ability to engage in a wider range of investment opportunities.
- Financial Markets are divided into two markets: Equity markets and Debt Markets
- Equity Market:
    - This is where stocks are traded (Stock Exchanges)
    - Initial Public Offering (IPO): This is the first time a company seeks public investment in its shares.
    - Underwriting: This guarantees that the shares issued will be successfully issued and that there will be investors subscribing and buying the shares.
    - In order to undergo an IPO, a company must prepare and issue a prospectus, which is a legal document which provides all the important financial and legal details about the company. It provides the public with the financial position of the company, helping the investors decide if they want to invest in our company or not.
    - The financial information contained in the prospectus is reviewed by accountants to verify to ensure that the information is accurate and reliable.
    - RoadShow: Where the investment banks seek out interest in the shares of the company. It is the marketing base of the shares.
    - The shares are issued at the issue price indicated by the market where demand meets supply.
    - Shares which are issued in the primary equity market can then further be traded.
    - Trading happens in what we call a secondary market.
    - Continuous price discovery: Process in which the price of the shares of a company fluctuates.
- Debt Market:
    - Two tiered market: Short Term and Long Term Market (which is decided by when the stock matures).
    - Short Term: One year to pay back the loan at face value.
    - Long Term: Bonds are traded. Usually more than a year to pay back with interest.
    - Agencies access the solvency and liquidity of corporations and their ability to pay back debts.
    - Debt instruments have a finite life.
    - Investors in debt do not actually share in the profits of the firm.

Interest Rates

- An interest rate signals the price of money and influences what money can buy.
- For borrowers, it is the cost of borrowing the money.
- Meanwhile for lenders, it is the reward for investing.
- Central bankers and other senior policymakers have the power to change interest rates. These rates can affect the company's economy and the wellbeing of its citizens.
- The central bank's main responsibility is to provide a stable and secure banking system and to help stimulate economic growth while keeping inflation manageable.
- When interest rates go down, there is less incentive to save because the interest we will earn is low.

- Bank Rate: Amount central banks charge commercial banks to borrow.
- Prime Rates: Commercial banks charge their best customers.
- Interest Rates:
  - Real Element = True Value of Money without the effects of inflation.
  - Inflation = Rough measure of losing purchasing power
  - Risk Element = The higher the risk, the greater the return.

Risks and Returns

- Calculating returns:
  - Take your change in price between the beginning of the period and end of a period.
  - Add that to your cash flow
  - Divide that total by the amount you paid for your investment at the beginning.
- Risk is measured by volatility and beta.
- Volatility is also called the standard deviation of returns.
- Standard deviation gives an idea of dispersion of average return.
- Volatility is a measure of uncertainty.
- Capital Asset Pricing Model (CAPM) is the expected or required return of an asset given its risk.
- Beta is a measure of relative risk
- It answers the question how much an asset fluctuates relative to the market.
- Beta can be found everywhere.

Raising Money: Stocks and Bonds

What is a stock?

- Dutch East India Company was the first company credited as the first joint stock company.
- What is a Stock?
  - Stock (or equity) is a security that represents the ownership of a fraction of a corporation.
  - Stocks entitle the owner to a share of the corporation's assets and profits equal to how much stock they own.
  - Stocks are also known as shares.
  - Corporations issue stocks to raise funds to operate their businesses.
  - The holder of the stock may have a claim to the company's assets or earnings.
  - Owning stocks gives you the right to vote in shareholder meetings and receive dividends if and when they are distributed and the right to sell your share to somebody else.
  - Shareholders have the ability to decide who the board of directors will be
  - The board in turn decides who the senior executives will be like CEO, CFO, General Secretary, etc.
  - Stocks are traded in regulated exchanges or over the counter markets.
  - Over the top markets are market places where the participants rate stocks among a network of dealers or among the buyers and sellers themselves outside of an exchange.
  - World's top 5 stock exchanges in terms of their value:
    - New York Stock Exchange
    - NASDAQ Stock Exchange
    - JEG Tokyo Stock Exchange
    - SSE Shanghai Stock Exchange
    - Euronext Amsterdam Stock Exchange
    - Collectively they are estimated to be worth over $40 Trillion.

- Stock prices are a measure of how the market values a company.
- Stock exchange is a place to raise money and gain capital to fund new ideas and innovation in an economy.
- It enables the efficient allocation of capital where worthwhile ideas and innovations are funded so that they can deliver products to the economy.
- Main rule of Finance: Buy low and Sell High

How are stocks Priced?

- If you earn a stock, you expect to get a portion of your earnings back from your investments.
- One way a shareholder gets their profits is through dividends.
- Dividends are distributions of cash or assets to investors as a return on their investments.
- The company's board of directors decide the dividends which the shareholders will get in the future.
- If I own a stock, the value of that stock to me is based on the value of the future cash flows I expect to receive from holding the stock.
- The more dividends I expect to receive, the higher the value of the stock to me, and vice versa.
- This is the intuition behind one of the most common stock pricing models - The Dividend Discount Model.
- The Dividend Discount Model:
  - It values the stock as the present value of all future dividends.
- Earning Per Share (EPS)
  - For Example:
    - A firm expects to earn $6 million annually from its one million stocks.
    - Dividing the two numbers, gives us the Earnings Per Share (EPS).
    - $6 Million / $1 Million = $6 or the Earnings Per Share (EPS).
    - If the company decided to give all the earnings back to Stockholders, then the Dividends Per Share (DPS) of the firm would also be $6 per share.
    - Companies which distribute all their earnings as dividends are typically companies which do not have any new revenue generating investments.
- Time Value Of Money
- Firms that are able to sustain growth for long periods of time are clearly more valuable to stockholders as they can potentially benefit from these growth opportunities.
  Pricing Model For Zero Growth:
  - Dividend Yield:
    - If we isolate 'r' it gives us the dividend yield.
      - Dividend divided by the price.
  - Capital gains or 'g'
    - We know that our return was 15% and that $6/$60 = 10%
      - Capital Gains or g is 5%
- Non Constant Growth Model:
  - This is when we know that a company's growth rate for the coming few years is something and after that it changes to something else.
  - For example.
    - Below, we can see that for the coming two years, the company's growth rate is 5% and after that is 2%.
- Three Step Procedure
  - Forecast further dividend until it becomes constant or zero growth. (Step 1)
  - Calculate the price at the point. (Step 2)
  - We present the value of all the dividends in step 1 and the price in step 2. (Step 3)
- Multiple Approach:

- Used to price stocks that does not pay dividends at all
- The most common multiple approach to use is the Price Earning Multiple (PE Multiple)
- Price Earning Multiple
  - P stands for Price Per share
  - E stands for Earnings Per Share

What is a Bond?

- Companies can also raise money through borrowings of Bonds.
- A bond is a contract between a borrower and a lender and that contract specifies the condition for the borrowing.
- It is a proof of the money that the borrower owes to the lender.
- A document called the Bond Indenture specifies When I pay, How much I pay and When the bond expires. It specifies who the borrowers and lenders are and the terms on which they agree.
- A bond has a principal amount, or what is called as the face value.
- This face value is a nominal number. In the U.S. the nominal value of a bond is typically $1000.
- This value is important as this is the value which the lender gets at the date of maturity or the day the bond expires. It is also used to calculate coupon payments.
- Coupon Payments are periodic payments that the borrower pays to the lender in addition to the face value at the time the bond expires.
  - For example,
    - The face value of the bond is $1000.
    - You pay coupons of 6% of $1000, or $60 every period.
    - When the bond expires, you pay back the face value of $1000 as well.
- Just about anybody can issue bonds. (Mainly Government and Companies issue bonds).
- Coupon Bonds:
  - These are bonds which pay coupons over time up until the maturity date.
  - At the maturity date, you pay a final coupon and the face value.
- Zero Coupon Bonds:
  - You only get the face value at the end of the bond, no coupon.

How are Bonds Priced?

- A Bond is typically a loan to get someone else's money for a long period of time that is typically repaid in long periods of time.
- A bond is also called a fixed income security as they provide the investor with a reliable return of fixed payments each period.
- Face Value is the amount the investor will receive once the bond matures.
- Most bonds have a $1000 face value.
- Bonds are typically addressed in units of 100.
- Current Yield:
  - Bond’s annual rate of return
  - Calculated by dividing the coupon payment by the bond price.
- Yield to Maturity (YTM):
  - Provides the lender with the actual total return of the bond if the bond holder holds that bond until it matures.
  - It is a market decided rate.
- Coupon rate is determined by the borrower and the lender while YTM is determined by the market so often they are different.

- If YTM is greater than the coupon rate, bonds are gonna sell at a discount (vice versa, they are gonna sell at a premium).
- Frequency of compounding: This refers to the rate of compounding that occurs within one year. Semi annual means compounding twice a year while monthly means 12 times a year and daily is 365 times a year.