

Fundamental Analysis

Long-term investment in equity is surest way to healthy wealth creation. But at the same time 90% of people lose money in stock market, especially an average retail investor.

Investing in stock market is easy, but it is not that easy to earn huge profit from it. Many new investors found that, soon after buying their first stock, its value dropped by half.

Reason being an average investor does little or no research about company in which he/she is investing his/her hard earned money. Their investing decisions are based on tips from friends, colleagues, financial channels or even financial influencers. Such investors buy & sell without adequate information about companies in which they are investing money and hence later end up losing money in most occasions.

There are several examples of multi bagger stocks which have given 500%, 1000% or even 10000% returns to the investors in a period of 5-10 years or more. But at the same time there are several examples of wealth destroyer stocks which have fallen by around 85%-95% in its value. Which shows us that stock picking is not that easy.

Fundamental analysis is a method of finding a stock for long-term investment opportunities. It is done by examining related economic, financial and other qualitative and quantitative factors.

- Information may include company's -
 1. Financial results
 2. Estimates of demand growth for product sold by the company, management behaviour, industry comparison.
 3. Economy wide changes.
 4. Changes in government policies.
 5. Stable government.

Basic idea behind long term investing is that, if a company grows so will the value of its shares increases. This in turn will benefit the investors in the long run.

- Apart from fundamental analysis there is another method of analysis used in stock market, I.e. technical analysis.

Basically fundamental analysis is concerned with “why”.{as in why the price of stock will go up or down in the future}

Whereas Technical analysis is concerned with “what”.{as in what was past price & volume pattern & what is its current price and volume pattern.}

Advantages of Fundamental Analysis.

- Apart from studying financial numbers of a company, fundamental analysis also takes into account various macro-economic factors related to the economy and industry, making it a complete analytic approach.
- In many cases it helps us detect various red flags in financial statements of company which can serve as good warning signals and saves us from possible wealth destruction

Disadvantages of Fundamental Analysis.

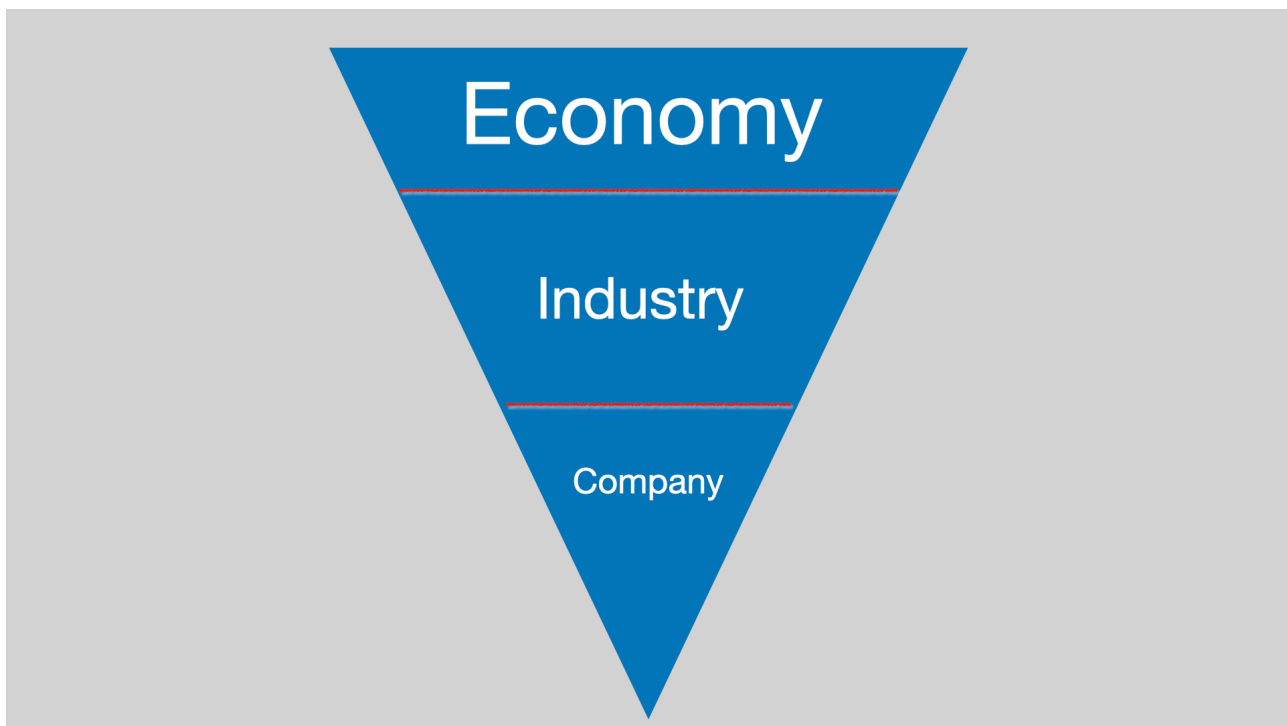
- It is tedious & time consuming, you have to periodically monitor all financial data related to company & other economic and Industrial factors.
- At times it is subjective making use of too many assumptions and interpretations. All this requires knowledge and experience.
- It does not take into account “heard mentality” or human emotions greed and fear which are mainly responsible for bull and bear phases in stock market& share price. Hence it may not ensure you buy stock at the right time.(Technical analysis helps us achieve perfect timing for entry and exit).But if you do not understand technical analysis you may board a fundamentally good stock at a wrong time.

- **Fundamental Analysis** is useful for investors wanting to create wealth in long term, but one must also learn **Technical Analysis** as an add on tool to help one decide when to enter or exit a stock based on long term trends.
- **Short-term Traders** should also make use of the **Fundamental Analysis**, as it will prevent them from taking positions in companies

which are fundamentally weak, thereby increasing the margin of safety.

There are two ways of picking stocks, one is we find companies that we are interested in then do fundamental analysis and then if they are fundamentally sound we invest in them for long term(10 years or more). We will dig into that later. Let's start with EIC analysis that helps us find stocks which might be best for us at a time that will be favourable, reducing chances of failure.

EIC analysis



- This is a top down approach of fundamental analysis. Generally when there is expansion in economy stocks prices move up, & when there is recession stock prices move down.
- Hence first thing we do is analyse the economy.
- After that we need to analyse various sectors or industries & try to find out which are likely to benefit most in the given circumstances. Eg : During growth phase growth oriented sectors like capital and industrial goods, IT, real estate & financials perform better.

- After identifying sectors which can perform well in current set of conditions, it is time to narrowing down the companies in those sectors.
- Company analysis is the final stage wherein investor analyse both qualitative and quantitative aspects of various companies & select a few companies which are good for medium to long term investment.

Important economic factors which a fundamental analyst or a long term investor should keep in mind

1. Political stability - political stability & economic growth are deeply interconnected. A stable political environment is necessary for steady and balanced growth. If a country is ruled by an unstable or coalition government, then it might be difficult for it to carry out major policy decisions & economic reforms. Uncertainty associated with an unstable political environment may reduce investments into the economy. In today's era of globalisation and connected economies not just one country's stability, but political and economic stability of other countries of the world also affect global economy.
2. Gross domestic product (GDP) -Gross Domestic Product (GDP) is a key economic indicator that represents the total monetary value of all goods and services produced within a country's borders over a specific time period. GDP is often used to assess the overall economic health and performance of a country.
3. Index of Industrial Production(IIP) data - is a composite indicator that measures the change in volume of a basket of industrial product during a given period with respect to volume of production in a chosen base period. It's an abstract number, the magnitude of which represents total production activity that happens in the country during a particular period as compared to a reference period. IIP data helps us to understand general level of activity in the economy.
4. Consumer Spending - it is amount of money spent by households in an economy for durable and non-durable goods.
5. Inflation - is the rate at which the general level of prices for goods and services are rising. This results in fall of purchasing power of

currency. It causes rise in prices of energy, food, commodity and all other goods and services. This in turn impact the cost of living, cost of doing business, borrowing money, mortgages, corporate and government bond yields and hence impact the entire economy.

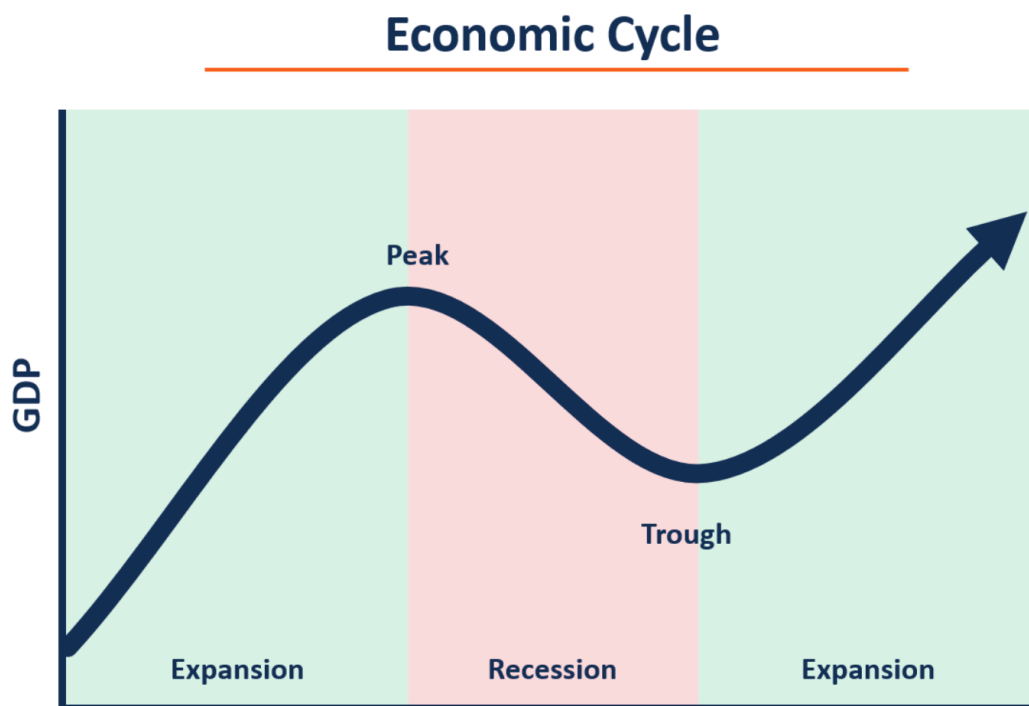
6. Interest rate - also known as lending rate is the interest that will be charged for borrowing money. Interest rates are directly linked with the state of economy & inflation. When economy is growing consumer confidence and spending increases & it often leads to inflation & to control inflation central banks often hike interest rates, similarly when economy is contracting consumer confidence and spending reduces, that often leads to deflation & under such circumstances central banks reduce interest rates.
7. Agriculture & Monsoon - Most Indians Directly or Indirectly depend on farming. This sector contributes to almost a fifth to India's GDP. Not only agriculture but monsoon also affects industries needing water.
8. Government Budget & Deficit - Every year government prepares a central budget which provides complete information on revenue, expenditure & deficit on government for given period.
9. Corporate tax Structure - is a tax levied on the corporate earnings, it is one of the major sources of revenue for the government. The rate of corporate tax has an effect on economy.
10. International crude oil prices - India produces only about fifteen percent of the oil it needs, so it has to import the rest eighty-five percent. Global crude prices have significant impact on Indian economy.

Economic Cycle

Economic cycle is the natural fluctuation of economy between periods of expansion(growth) & contraction(recession). It is usually measured with GDP of a country or region. There are other economic factors as well, such as employment rates, consumer spending, interest rates. Economic cycle is also known as business cycle, & it is fluctuating state of the market based economy. An economy is a term that describes a

set of production and consumption activities that determine how resources ought to be allocated. In today's world virtually every economy is market based in which laws of demand and supply determine prices.

Supply and demand pressures influence the economy through different variables, such as global economic conditions, trade balances, productivity, inflation rate, interest rates & exchange rates. The variables in aggregate shape the economy and the state of economic cycles. Economic cycle is a trend of upward and downward movements of GDP that ultimately determines the overall long term growth of an economy.



○ Stages of Economic cycle

1. Expansion
2. Peak
3. Contraction
4. Trough

Once cycle is complete, it continues from start again, no definite rule exists in determining how long each phase lasts, in fact expansion phases can last many years before hitting a peak. However healthy economy will always go through contraction phase once in a while.

During expansion phase, an economy reaches plateau or maximum rate. It is usually characterised by higher inflation that needs to be corrected.

Correction occurs through the contraction phase, wherein growth of economy slows, unemployment rates rise, & inflation tapers off. It continues until cycle reaches trough.

Trough is characterised as a low point in economy from which it can re-enter expansion phase.

○ Importance of Economic cycle

Every person is a participant in a market-based economy the defining factor of the success of a market-based economy is that it essentially makes everyone better off by producing and consuming more goods & services over time. GDP of an economy captures the increased production & consumption levels, & a growing GDP is an important aspect of successful economy.

Since everyone is a participant in overall economy, it makes sense that everyone is impacted by the state of economic cycle. Hence it is in everyone's best interest for economy to be in an expansive phase accumulate more wealth.

When economy is in expansion businesses generate profits which lead to hiring more employees & provides with more disposable income & spending.

When economy is in contraction phase businesses lose profits which leads to downsizing & laying off of employees. When employees lose their jobs, there is less disposable income & less consumer spending, which leads to even lower business profits.

An economy should not be in continuous expansion, contractions are needed to keep inflation in check & to make sure economy does not overheat.

When to invest in Stock Market ?

- The economy and equity markets exhibit cycles and patterns. The stock market tends to lead the economic cycle, i.e. a bear market will typically start before economy moves into recession & bull market typically leads economy out of recession.
- It is advisable to determine the stage of economic cycle of the country before making any investment.
- Ideally long term investment should be made when economy begins to recover. Similarly, investors should divest either before the end of expansion period or at the start of recession period.

Industry Analysis

After analysing the overall state of economy, we need to analyse various sectors or industries & try to find out which are likely to benefit most in given circumstances.

From an investment point of view, on the basis of the product and business cycles, industries can be classified into -

1. Growth Industry
2. Cyclic Industry
3. Defensive Industry
4. Cyclical Growth Industry

1. Growth Industry - is the sector of economy experiencing a higher than average growth rate.

- These are often associated with new or pioneering industries that did not exist in the past.
- If companies of Industry exhibit solid earning and revenue figures, that industry maybe showing signs that it is in growth stage. It is accompanied by influence of press hype.
- Growth Industry tend to be composed of relatively volatile and risky stocks.

2. Cyclical Industry - are sensitive to business cycles, such as revenues that are generally higher in the period of economic prosperity and expansion & are lower in periods of economic downturn & contraction.

Industries involved in the production of durable goods, such as raw materials & heavy equipment, tend to be cyclical.

Performance of some industries change with the season.

3. Defensive Industry - Sales of defensive industry remains same in both economic downturn and economic upturn, because these are essential.

These companies may lag behind other companies during economic expansion, but these are the ones which offer stable returns even during economic downturn.

4. Cyclical Growth Industries - possess characteristics of both cyclical and growth industries.

Eg Automobile Industry - Not only Industry goes through business cycles, but changes in technology & introduction of new models help the industry to resume their growth path.

Method of performing Industry analysis

One of the most common methods used for performing Industry analysis is competitive Forces Method also known as “porter’s five force model”.

It analyses five competitive forces that shape each industry, & help determine an industry’s strength & weakness.

1. Competition or rivalry in the Industry.
2. Threat of potential new entrants.
3. Threat of substitute Products and services.
4. Bargaining power of suppliers.
5. Bargaining power of customers.



1. Competition or rivalry in the Industry -

- Intensity of rivalry among competitors in an industry refers to the extent to which companies within an Industry put pressure on one another an attempt to steel each other's market share.
- Some level of competition is good as it leads to efficiency, product improvements and innovation but as the competition increases it often leads to price wars, higher advertise spends, lower margin and smaller profits.

2. Threat of potential new entrants -

- This indicates the ease with which companies can enter the market of a particular industry. If it is easy to enter an industry, companies in that industry constantly face the risk of new competitors.
- The most attractive segment is one in which entry barriers are high and exit barriers are low.

3. Threat of substitute products and services -

- This indicates the ease with which one product can substitute another product, both from same or different industry.

- Substitute can take two forms, product with the same function quality but with lesser price, or product with same price but better quality or providing more utility.
- New inventions are always taking place and hence there is always a threat of substitute products & services. An industry that can be replaced or threatened by substitutes is normally an industry one must be careful while investing in.

4. Bargaining power of suppliers -

- It refers to the pressure suppliers can exert on businesses by raising prices, lowering quality, or reducing availability of their products.
- An industry unduly controlled by its suppliers is also under threat & one needs to be careful while investing.
- The more powerful seller is as compared to buyer, the more influence he has on the buyer. This influence can be used to limit the quality of product or service, or shifting some cost onto buyer.
- **But investing in a company that has monopoly is always favourable.**

5. Bargaining Power of customer -

- It refers to how strong is the position of customers, i.e., the pressure customers can exert on business forcing them to lower down the prices, or improve the quality of their product, offering additional discounts on their products.
- **One needs to be careful while investing in such companies, as this influence can be used to reduce the profits of the seller by demanding lower prices, improved quality, better features, additional services, etc.**

Important factors to watch out while selecting any Industry for investment.

1. Stages in life cycle of Industry - The most important factor is the stage of the life cycle of industry that it is currently operating in. It is always wise to invest in an industry during its growth state and divest from it at the start of decline phase. We should try to find and invest in an industry which is growing at a faster pace as compared to other industries.

2. Profitability of Industry - Along with growth in revenues profitability of industry also needs to be analysed. It is better to invest in

Industries which are able to maintain profitability even during tough times.

3. Nature of competition - Nature of competition in any industry affects its profitability, higher the competition, lower will be profitability and vice-versa.

4. Demand Supply Gap - it acts as an important factor to watch out for before investing in any industry. Excess supply reduces profitability of the industry as competition to sell increases & price of that product decreases.

Demand for product tends to change at a steady rate whereas the production capacity tend to change at irregular interval depending upon the installation of additional capacities by existing companies, or entry of a new one. As a result is likely to experience periods of under-supply or over-supply of capacity at different times.

5. Permanence - In today's age of rapid technological change the degree of permanence of an industry is an important consideration in industry analysis, i.e. an industry should be in a position where it can't be easily replaced. Hence it is always better to invest in an industry which has high degree of permanence.

6. Cost structure of the industry - cost structure refers to the proportions of fixed and variable costs that a business incurs. Higher the fixed cost component, higher is the sales volume necessary to achieve break even point. On the other hand, lower the fixed cost component to the variable cost, lower will be break even point of the business, thereby providing higher margin of safety.

7. Attitude of government towards industry - it has a significant impact on the future prospects of industry. Government may encourage some industries by providing them with some incentive, assistance, favourable legislation, etc.

At the same time government may discourage the growth of certain industries by placing certain restrictions on them, it could be excessive taxation, permit etc.

8. Availability of raw materials - It helps in determining the profitability of the industry. Some industries rely on raw materials whose supply becomes scarce at times. In such cases scarcity of raw

materials can cause significant hike in raw material prices thereby affecting profit margins entire industry.

9. Industry valuation - Most important factor which one must consider before investing in any industry, is the valuation which top companies in that industry command. We shall think to invest in any sector when companies in that sector are available at reasonable valuation only. One should avoid investing if the current prices are very high relative to the future earning growth.

Company analysis

Company analysis is the final stage of fundamental analysis wherein investor analyses two important aspects of various companies and select a few companies which are good from a medium to long term investment point of view. The two aspects to properly analyse a company are -

1. **Qualitative Aspects**
2. **Quantitative Aspects**

1. **Qualitative Aspects** - are non-numerical characteristics of a business or company.

a. Economic moat of company - economic moat is a term popularised by legendary investor Warren Buffet, which refers to the ability of a business to maintain competitive advantages over its competitors in order to protect its long term profits and market share from its rivals. Some of the ways by which companies can create economic moat that allows them to have significant advantage over its competitors include cost advantage due to economic scale, high switching cost, company's intangible assets like patent, brand recognition, government licenses etc. Apple, Amazon, Reliance are easily identified because of their wide economic moat.

How to identify companies having economic moat ?

- A lot of cash in hand.
- Better financial performance compared to competitors in same industry.
- Product dominance in market.
- Powerful intellectual property.

- High brand recognition.

b. Promoters or management background - management background should be most important factor, one should consider before investing in a company. Many a time with change in top management we can see major jump or fall in the stock price of company.

Next thing we must try to find out is, has the management of company ever been punished or penalised by SEBI or other regulatory body in the past?, Are there any court cases against promoter or management of the company?, have they been involved in any kind of fraud or dispute?

We can simply try searching name of the company with certain keywords like fraud, penalty, SEBI, RBI, dispute, court case, etc. on any search engine, by doing so you may get to know about any critical information related to the company. If you find any information you must stay away from the company.

c. Promoters faith in business - before making investment in a company, try to find out the levels of faith the promoter or management has in the long term prospects of their company. High promoters shareholding in a company is good indication and shows that the promoter or management has faith in the company.

Ideally promoters should have a majority shareholding in the company. More than shareholding, it is important to keep eye on the trend of change in promoter shareholding, i.e. whether it is increasing or decreasing.

2. Quantitative Aspects - These are numerical characteristics of a company or business & mainly revolve around the financial results of the company. These include -

- Revenue and its growth
- Profitability and its growth
- Margins and its growth
- Operating efficiency
- Pricing power
- Matters related to expenses & taxes.
- Dividend payout
- Cashflow
- Debt
- Working capital management
- Asset Growth

- Investments
- Financial ratios

Annual Report of a company.

Annual report is a comprehensive report on company's activities throughout the preceding year. It is intended to give shareholders and other interested people information about the company's activities & financial performance.

Since it is published by the company itself, whatever is mentioned in it is assumed to be official and true, hence any misrepresentation of facts in it can be held against the company.

Common components of an annual report include -

1. Financial Highlights
2. Letter to shareholders
3. Director's report
4. Management discussion and analysis
5. Corporate governance information
6. Auditor's report
7. Financial statement
8. Notes to the financial statements.

1. Financial Highlights - is normally the first page of the annual report of any company & it gives a glance on how the financials of a company look for the previous year. The data in this section showcases key financial data like revenue, EBITDA, net profit, earnings per share (EPS) & a year on year comparison for one or more years (normally 5 years).
2. Letter to shareholders - is written by a company's top executive normally chairman of the company to its shareholders to provide them a broad overview of the company's operations throughout the year. It is generally written once a year. Apart from talking about financial results of past and present, it can also convey to shareholders of the company about the success achieved & challenges faced by the company during the year, and also about future goals and ambitions of the company.
3. Director's report - provides shareholders with the important piece of information about current state of the company and its compliance

with set of financial, accounting & corporate social responsibility standards. And many more important information, that may include risk management policy, corporate social responsibility, dividend distribution or dividend declared if any, Details of inter corporate loans investments and guarantees given by the company during the year if any.

4. Management discussion and analysis - the report is basically the opinion of management of the company about company's current financial and business health and it's future growth potential. It also covers information about the overall economic activity in the country and across the globe, macroeconomic performance of the industry in which the company operates, companies vision and strategy, threats and opportunities that the company faces and some key financial data. the word management here refers to the complete structure of organisation including the top middle and lower management levels. It also includes future outlook for industry and company in general.
5. Corporate governance information - It is the system of rules, practices and processes by which a company is directed and controlled and involves balancing the interest of many stakeholders of a company such as customers suppliers shareholders management financiers government and the community.
6. Auditor's report - auditor is deemed to be a 3rd party, whose job is to study the accounting process of the company and offer an impartial opinion about the authenticity of the books maintained by the company and accounting procedures adopted by the company.

Balance sheet

Balance Sheet details the financial position of an organisation on a particular date, that is assets, liabilities and equity capital.

It tells us how much a company owns and how much it owes. The difference between what it owes and what it owns is the company's equity which is commonly known as shareholders equity.

Balance sheet can be used to understand how the company has evolved financially over the years of its existence.

Components of a balance sheet - components of balance sheet are broadly divided into 2 main sections the assets and the liabilities(Loans, EMI, rent, deposit).

Following are components of a balance sheet, first let's start with Liabilities -

- Shareholders funds - Money of shareholders and accumulated profit after giving dividend to shareholders.

How is it a liability?

i) Equity financing- equity financing is company's money and company doesn't have to return that money and for that money, investor gets ownership in the company. So as owners company's profit or loss is shareholders, as they are now part owners of the company. Companies share their profit through dividends with its investors.

Since companies are sharing ownership and profits with the investors it is a liability, because profit belongs to investors and not the company.

Assets are equal to liabilities in a balance sheet.

for example - let us say company takes a loan of Rs 100 crores, now in balance sheet Rs 100 crores is a liability.

Now let us say out of this 100 crores, company bought a factory worth Rs 80 crores, and rest is the cash reserve, but now factory and cash reserve both are assets of the company. say company does not construct a factory but keeps all Rs 100 crore with them, it too is an asset of the company.

that's how a company's assets and liabilities are always balanced i.e., source of fund = Use of fund

- Assets and liabilities are always balanced in a balance sheet and hence it is called so.

ii) Debt financing - loan from a bank or from another company, that has to be repaid.

Every share has a face value(Nominal value) - when a company offers its shares, then company decides a face value, it is an accounting term that has nothing to do with a share's market value.

- Let's say a company offers 10 crore shares with the face value of Rs 10.

Now, equity share value = face value x Number of shares issued
 = 10 x 10
 = 100 crores.

But company instead of face value sold it share at ₹100 i.e., At a premium of Rs 90.

$$\begin{aligned}
 \text{Now, share premium} &= \text{Premium} \times \text{Number of shares issued} \\
 &= 90 \times 10 \text{ crore} \\
 &= 900 \text{ crore}
 \end{aligned}$$

Money generated through share premium is showed in reserve and surplus. Profit remaining after dividend payout also comes under reserve and surplus.

there are 2 types of liabilities

1. Non current liability also known as long term liability(>1 year)
2. Current liability also known as short term liability(< 1 year)

1. Non current liabilities are

- Long term Loan
- other long term liabilities - security deposit, rent deposit, Deferred credit(Money that is received by a company but not immediately reported as income because it has not yet been earned, it is recorded on the balance sheet as a liability, it includes consulting fees,, subscription fees, and any other revenue stream That is intricately tied to future promise).
- long term provisions - company knows about some future expenses, but company is not sure about how much, so company keep some money aside for these expenses. for example, warranty, gratuity(Gratuity refers to the amount that an employer pays his employee in return for services by him to the company).

2. Current liabilities are –

- trade payables - got the bill but still have to pay to raw material supplier.
- other current liabilities include unclaimed and unpaid dividends, current maturities of long term borrowing, bank overdraft.

Most companies take debt to expand but a lot of debt on a company is dangerous, There are a couple of ratios that helps us find out whether debt is manageable by the company or not, they are -

- debt to equity ratio
- debt to burden ratio

Now let's talk about assets

Assets are everything that a company owns. Just like equity there are 2 types of assets-

- i) Non current assets also known as long term assets
- ii) Current assets also known as short term assets

i) Following are non current assets

a) Tangible assets - tangible assets are assets that can be seen and touched like building, machines, etc.

- machines last for many years but their value depreciates every year.
- Their value depreciates even faster when a newer technology arrives, And company may have to buy a new machine that can cause an old machine to get outdated quickly, land is exception, since it is an appreciating asset and it never expires.
- If a company bought a plot for 1,00,00,000 15 years earlier, today its value will be much higher but on the balance sheet it will be still ₹1,00,00,000.

b) Intangible assets - intangible assets are the assets that cannot be seen or touched, for example computer software, patent, goodwill (If a company acquires other company over its net worth, then that extra cost is called goodwill).

Just like tangible assets value of intangible assets also depreciates and it is known as amortisation.

c) Capital work in progress - these are the projects which are not yet complete, but do cost money, for example building under construction. These are all fixed assets because these are long term assets and they cannot be converted into cash easily.

d) Non current investment - investments that are longer than a year are called non current investments, for example bonds, stocks, mutual funds.

e) Long term loans and advances - these are the loans that are given to other companies.

f) Other non current assets - interest on FD, Prepaid expenses, other advances, etc.

- ii) Current assets - current assets are short term assets that can be converted into cash easily.

a) Current investment - these are investments that are made for short term and can be converted into cash easily.

b) Inventory - raw material inventory, work in progress inventory, finished goods.

c) Trade receivables - selling goods on credit, And waiting to receive money is known as trade receivable. Sometimes people don't pay the money they owe to company which makes it a bad debt for them.

Hence, trade receivables = credit sale - Bad debt.

d) Cash and cash equivalents – cash and assets that can be easily converted into cash are included in this section. For example commercial paper and treasury bills that are expiring within 3 months.

e) Short term loans and advances - These are loans or advances that are given to other companies for a short time.

f) other current assets - Assets that are not included above are mentioned here.

Notes and schedules- let us say, company has a long term borrowing of ₹100 crore, then it has to detail the source and tenure of the Loan. There are many assumptions while writing a balance sheet and they are detailed. It is given in the annual report of company.

Profit and loss statement

Profit and loss statement is also known as income statement, it gives details of the financial performance of an Organisation over a particular period. It shows what day to day operations of business look like, it summarises money coming in or going out of the business, it tells us about a company's ability or inability to generate profit by increasing revenue, reducing cost or both.

Basic components of a profit loss account, include income, expenditure, profit before exceptional and extraordinary items, tax, Tax expense, Profit loss from operations, basic and diluted EPS, etc.

Now let us understand the components of profit and loss statement-

- i) Income - income head of the profit and loss statement consists of income from operations and other income. Income or revenue of a company is sometimes referred to as a company's top line.
- Income from operations- this represents the amount received or receivable by the company from its customers for sale of its goods and services. It is also known as net phase or net revenues. It is the main source of revenue for the company.
 - Companies often give discounts, or cash incentives, or some other lucrative deal to attract customers. The incentive given for early payments are considered as financial expense and are shown as expense and not deducted from revenue.
 - Other income – it refers to source of income that does not include income company receives from sale of its products and services.
 - It may include profit from sales of investments or assets, dividends received or shares held of other companies, rent income on commercial buildings and apartments leased out by the company, interest received on deposits and loans given to other companies, interest on income tax refund, foreign exchange gains etc.
 - Usually, the other income should form small portion of the total income of a company. A larger amount of other income usually draws a red flag and it would demand further investigation.
- ii) Expenses - expenses head of the profit and loss statement consist of cost of materials consumed, purchases of stock in trade, change in inventories of finished goods, work in progress, employee benefits, finance costs, other expenses, etc.
- Cost of materials consumed – it is basically cost of raw materials required to manufacture finished goods. In most of the cases it is largest expense incurred by the company. It helps us analyse what key raw materials are used, that helps us analyse what factors affect their prices, Availability of key raw materials, supply demand scenario of those raw materials etc.
 - Purchase of stock in trade – This refers to all purchases of all finished goods by the company for conducting its business.
 - Changes in inventories of finished goods, work in progress, and stock in trade - this refers to difference between closing stock and opening stock for finished goods, work in progress and stock in trade. It can be either negative or positive value. Negative value

means closing inventory is less than opening inventory, whereas a positive inventory means vice versa. This amount is deducted from the revenues in the profit and loss account as it is an expense not accounted in the current financial year, since it has not been converted into revenue or sales, but will be added to the revenues in a later period. When the goods are converted into revenue or sales.

- Employees benefit expenses - employee benefit expenses includes expenses incurred in terms of salaries, wages, bonuses, contribution to Provident fund, gratuity, staff welfare expenses, etc.
- Finance cost - it is the interest cost and other costs that a company pays when it borrows funds from its lenders.
- Depreciation and amortisation expenses - Depreciation represents the wear and tear incurred by the fixed assets of a company (Other than land). Businesses depreciate long term assets for both accounting and tax purposes. The depreciation amount is used as a tax deduction, thus reducing tax liability. When the same principle is applied to non tangible assets it is called Amortisation.
- Exceptional items - exceptional items are usually a large and uncommon transaction which are typically recorded as a one time charge or income and it is not expected to recur in the future.
- Earning before interest, tax, Depreciation and amortisation (EBITDA) – It is a measure of a company's operating performance. It is a way to measure profits without having to consider other factors such as financing cost (interest), Accounting practices (depreciation & amortisation) And tax payable.

EBITDA = total income – total expense.

EBITDA (excluding interest, tax, depreciation & amortisation).

- Profit before tax (PBT) - Profit before tax represents company's profit on which it has to pay corporate income tax. It is obtained by deducting all expenses excluding tax payable from total income of the company. Exceptional items if any are also deducted.

PBT = total income – total expense (excluding tax)

- Net profit/ Profit after tax (PAT) - Is obtained by deducting the tax amount from the profit before tax. Net profit appears at the bottom end of profit and loss account and hence it is also called bottom line of the company.
- Basic and diluted earnings per share (EPS) - It is one of the most frequently used financial ratio in fundamental analysis. it

serves as an indicator of a company's profitability. EPS is calculated by dividing a company's net income by its number of shares outstanding.

$EPS = PAT / \text{outstanding number of shares}$

If a company has any convertible securities like outstanding convertible preferred shares, convertible debt equity options (Mainly employee based options) and warrants then,

$\text{Diluted EPS} = PAT / \text{outstanding number of shares} + \text{convertible securities}$.

Hence we can say, diluted EPS \geq basic EPS

Cash flow statement

cash flow statement allows investors to understand how a company's operations are running i.e., from where and how much money is coming in and how that money is spent. in short it reveals the true cash position.

Investors often look out for companies which have a good cash flow, ie income should be greater than expenses. if a company has more expenses than income then investor should be careful before investing his/her hard earned money in that company. Thorough further investigation should be done, before making any decision.

It is divided into 3 business activities

- i) **Cash flow from operations**
- ii) **cash flow from investing**
- iii) **cash flow from financing**

- i) **Cash flow from operations** - it includes transactions from all operational business activities typically operating activities including sales, marketing, manufacturing, technology upgrade, resource hiring, etc.
 - Cash flow from operations tells about the cash generated by the company's products and services. Cash flow from operations tells about the cash generated by the company's products and services.
 - If cash flow from operating activities is consistently higher than the net income it can be safely assumed that company's earning is of high quality.

- If cash flow from operating activities is consistently much lower than net income, it can raise the red flag. In such cases one should analyse the reason for why reported net income is not turning into cash for the company.
- ii) **Cash flow from investing** - it includes transactions from all investing activities carried out with an intention of reaping benefits at a later stage in the future.
 - Typically investing activities include investing in core assets like land, property, machinery, and equipments, investing in intangible and non current assets, investing surplus funds in fixed deposits mutual fund units, equity, shares, etc.
 - cash flow from investing is negative when any fixed asset is purchased or surplus funds are invested, cash moves out of the company. However when company divests i.e., sells off any fixed cash or en-cashes its investment, cash comes into the company and in such cases cash flow from investing is positive.
 - Investing activities tend to consume cash. healthy investing activity shows the company's seriousness About its business expansion.
 - iii) **Cash flow from financing** - it includes transactions from all activities related to business financing, for example - distributing dividends, paying interest to service debt, raising fresh debt, issuing corporate bonds, etc.

Importance of cash flow

- i) Whether the company is spending cash in a right manner by using every possible means for cost and wastage reduction.
- ii) Whether the company is spending cash on right things, by allocating appropriate amount of funds for company's core activities
- iii) Whether the company is distributing the funds in an equitable manner among companies stakeholders.

All this helps an investor in analysing a company for long term investment.

Accounting gimmicks & red flags

Investors should be vigilant when analysing financial reports to identify potential accounting gimmicks or red flags that could indicate financial manipulation or misrepresentation. Here are some common warning signs to look out for -

- Aggressive revenue recognition - recognising revenue too early, especially before goods or services are delivered. Overstating the significance of sales agreements or booking sales prematurely.
- Expense manipulation - delaying the recognition of expenses to artificially inflate profits. Capitalising normal operating expenses, such as advertising and research costs.
- Asset valuation issue - overstating the value of assets, such as inventory, property, or intangible assets. Failing to show asset's depreciation, when there are clear indications of decline in value.
- Off-balance sheet items - hiding liabilities by keeping them off the balance sheet. Using special purpose entities to move debt off the books.
- Unrealistic valuation of investments - marking up the value of investments in an unrealistic manner. Failing to recognise issues with investment when there are clear signs of a decline in value.
- Provisions and reserves manipulation - creating excessive or inadequate provisions for bad debts, warranties, or other contingent liabilities, using discretionary estimates to manipulate the size of reserves.
- Inconsistent cash flow and earnings - a significant divergence between reported earnings and cash flows. Frequent changes in accounting policies that make it difficult to compare financial statements over time.
- Complex financial structure - involvement in complex financial transaction that are difficult to understand. Use of special purpose, entities or complex financial instruments to obscure the true financial picture.
- High degree of management turnover - frequent changes in key financial or executive positions may indicate internal problems. Sudden resignation of key executives without clear explanation.
- Unrealistic growth projections - consistently, aggressive and unrealistic growth forecasts. Overemphasis on pro-forma earnings that exclude certain expenses to paint a more favourable picture.
- Related party transactions - transactions with entities or individuals related to company insiders that may not be at arms length. Lack of transparency or disclosure regarding related party transactions.

Investor should carefully review financial statements, footnotes, and management discussions to gain a comprehensive understanding of a company's financial health. Additionally, staying informed about industry trends, economic conditions, and the company's competitive position can provide valuable context when evaluating financial reports. If something seems too good to be true, or if the financials appear inconsistent or unclear, further investigation may be warranted.

Statement of changes

It is financial statement which explains the changes in a company's equity share capital, reserves and surplus and other comprehensive income over the reporting period. It basically explains how the figure of shareholders equity arrived on the balance sheet.

There are 2 reasons for change in shareholders equity –

- 1) **Changes from capital** - when a company issues common equity share then it increases the equity capital, and when a company redeems or buyback its shares it reduces the equity capital. Here par value of increment or reduction is considered separately in the equity capital while the increment or reduction in capital due to premium to the par value is reflected in other equity in the securities premium account.
- 2) **Changes from earnings** - whenever a company makes profit, it increases the other equity capital. The earnings or losses of the company for the accounting year are added to the retained earning account, similarly, when a company pays dividend to its shareholders it reduces the other equity capital, this reduction is also done in the retained earnings account.

Standalone and consolidated financials

Standalone financial statement show the financial position of the company alone, without taking into consideration of its subsidiaries, joint ventures or associate companies.

Consolidated financial statements show the financial position of the company itself along with it's subsidiary companies and joint ventures. There are many single entity companies which do not have any subsidiaries, joint ventures, or associated companies, these companies

declare stand alone financial statements, on the other hand the companies that have subsidiaries, joint ventures, or associated companies, will declare financial statement of the parent company as well as consolidated financial statement of the entire business group.

If a company does not have any subsidiary then it is going to release standalone financials only, and hence stand alone financials will be used, on the other hand if a company does have subsidiaries then Investors should always make use of consolidated financial statements. for analysis of stocks. this is because the consolidated financial statement show the complete picture of the financial position and business performance of an entire group of company's as opposed to one company's standalone position. But it does not mean that we completely ignore the standalone results.

Financial Ratios

The best and easiest way to analyse a company, is by studying its financial ratios. financial ratios not only help interpreting the financial results of a company but also allow comparison of them with previous year's results of other companies operating in the same industry. It helps us understand whether the performance of the company is improving or deteriorating financially, when we compare financial ratios of a company for the current year with the ratios of another company operating in the same industry and the same or similar size then we can come to know which company is financially better to invest in. Hence, no person should invest in a company until he has analysed its financial ratios, while studying financial ratios we should remember one important thing – “ No single ratio tells the complete story”. It is only when various financial ratios are calculated and studied in conjunction that the complete picture about company emerges.

Let us understand above mentioned points with the help of few examples -

let's say a company have a price to earning ratio of around 8 may appear to be cheap but when we see that other companies operating in the same sector have price to earning ratio between 4 and 5, the company may appear valuation wise expensive.

A profit making company whose current price is around 10 may appear to be cheap and impressive but when we come to know that company has book value of just one per share making its P/BV ratio around 10, The company appears to be overvalued and expensive.

Similarly, a company having annual sales of ₹500 crores and net profit of ₹200 crores may appear to be impressive but when we come to know that the company has a debt of around ₹10,000 crore then the company does not appear to be impressive.

financial ratios

financial ratios can be broadly classified into –

1. Profitability ratios
2. Liquidity ratios
3. Management efficiency ratios
4. Leverage ratios
5. Valuation ratios

1. **Profitability ratios** - profitability ratios are used to evaluate the company's ability to generate income as compared to its expenses and other cost associated with the generation of income during a particular period. These ratio convey how well the company is able to perform in terms of generating profits. These are most popular in fundamental analysis of securities as it is the profits which are not only needed for business expansion but are also needed to pay dividends to shareholders. Most commonly used profitability ratios include –

- i) **Gross profit margin** - gross profit margin is a measurement of a company's gross profit as a percentage of its net sales. Gross profit margin tells us about the efficiency of the company in using its raw materials, labour and manufacturing related fixed assets to generate profit.

$$\text{Gross profit margin} = \frac{\text{Net sales} - \text{cost of goods sold}}{\text{Net sales}}$$
 Where, cost of goods sold = Cost of material consumed + Purchase of stock in trade + Cost of labour + Cost of fuel + Cost of space used + Any other significant cost. This ratio tells us about the companies profitability(In percentage terms) At gross level, just calculating gross profit and gross profit margin in isolation cannot help us to analyse a company, we need to compare gross profit margin of various other competing companies Operating in the same sector. We also need to see gross profit margin of company for past few years to see if it is on an increasing trend or in a decline.
- ii) Earning before interest tax depreciation and amortisation (EBITDA) – EBITDA Margin is Measurement of a company's

earning before interest, taxes, depreciation and amortisation as a percentage of its net sales. it is also called. operating margin

$\text{EBITDA margin} = \text{EBITDA} / \text{Net sales.}$

This important financial ratio tells us about the company's profitability at operating level. It tells us about efficiency of management and operational efficiency of company.

Just calculating EBITDA and EBITDA margin In isolation.

cannot help us to analyse a company. We need to compare EBITDA Margin of the company with EBITDA Margin of various other companies operating in the same sector, we also need to check EBITDA Margin of the company for past few years to see if it is on an increasing trend or on a decline.

iii) PAT(Profit after tax) Margin - is the measurement of a company's net profit as a percentage of its net sales.

$\text{PAT margin} = \text{PAT} / \text{Net sales.}$

EBITDA Margin is calculated at the operating level where we consider only operating expenses while pat margin is calculated at the final profitability level taking into account all other expenses including, interest cost, depreciation and tax expenses.

Pat margin is very important. In case of many companies you will see that EBITDA Margin is good enough ranging around 15% - 25%, but the pat margin is very low around 5% - 6% only. This may be because of high interest cost burden or huge depreciation expense due to working in an asset intensive business. Just looking at EBITDA here will make company look tempting, but after looking at PAT we can see that, it is not as tempting as previously believed.

iv) ROE (Return on equity) - Measures how much profit a company generates with the money shareholders have invested, it is also known as return on net worth.

$\text{ROE} = [\text{net profit} / \text{average shareholder equity}] \times 100.$

It can be said higher return on equity, the better it is for shareholders. However, we shouldn't trust high Roe blindly. one of the biggest weakness of ROE is that it completely ignores debt. Hence, for companies having high debt, ROE will give you a higher value.

v) Return on capital employed(ROCE) - It measures how much profit a company generates with its total capital employed. here the total capital includes both equity and debt and

hence it can be said that ROCE overcomes a major weakness of ROE that is, it takes debt into consideration.

$ROCE = \left[\frac{\text{profit before interest \& tax}}{\text{total capital employed}} \right] \times 100.$

Here, total capital employed = Shareholders equity + Short term debt + Long term debt.

vi) Return on asset(ROA) - Return on asset measures how much profit a company generates using its total assets.

$ROA = \frac{\text{Net Income} + \text{interest} (1 - \text{tax rate})}{\text{Total average assets}}.$

It can be said that higher the ROA, The better it is for shareholders. It tells the shareholders about how efficient a company's management is at using its assets to generate income. ROA reflects capital intensity of a company. the number will be different for different industries, hence you must make use of ROA to compare companies in the same industry. ROA Over 5 percent is generally considered to be a decent value.

2. Liquidity ratios - Liquidity ratios measures how quickly assets are converted into cash. These ratios are used to evaluate the company's ability to meet short term obligations without raising external capital. Liquidity ratios affect the credibility of the company as well as the credit rating of the company. It indicates financial stability of the company.

some of the commonly used liquidity ratios are –

- i) Current ratio
- ii) quick ratio
- iii) cash ratio

i) Current ratio - is calculated by dividing current assets with current liabilities. This shows the liquidity position, i.e., how equipped is the company in meeting it's short term obligations with short term assets. A higher figure signals that the company's day to day operations will not get affected by working capital issues. a current ratio of less than one is a matter of concern.

current ratio= current assets / Current liabilities.

current assets = Cash equivalents + Short term investments + Accounts receivables + Inventories.

Sometimes companies find it difficult to convert inventory into sales or receivables into cash, this may hit its ability to meet obligations, in such cases investors may calculate quick ratio.

- ii) Quick ratio - is also known as acid test ratio, it measures a company's ability to meet its short term obligations with its most liquid assets. It is more conservative than current ratio, because it excludes inventory and other current assets, which can be more difficult to turn into cash. In situations where inventories are illiquid, quick ratio may be a better indicator of liquidity than current ratio.
 Quick ratio = $(\text{Current asset} - \text{inventory}) / \text{Current liabilities}$.
- iii) Cash ratio - is the ratio of a company's total cash and cash equivalents to its current liabilities. It is even more conservative than quick ratio.
 Cash ratio = $(\text{Cash} + \text{Cash equivalent}) / \text{Current liabilities}$
 Cash ratio is rarely used, as it is not advisable for any company to maintain a high level of cash or cash equivalent to cover the current liabilities. Cash and its equivalent generate the lowest possible return and hence holding a large amount of cash or cash equivalents on the balance sheet is considered to be poor utilisation of the assets.
 Companies that have excessive cash often use this cash to either make acquisition, pay off high interest bearing debt, buyback shares or pay additional dividends to shareholders.
3. Management efficiency ratios - Management efficiency ratios help us to evaluate the ability of management to use its assets and manage its liabilities effectively. Commonly used management efficiency ratios are –
- i) Fixed asset turnover ratio
 - ii) Working capital turnover ratio
 - iii) Total asset turnover ratio
 - iv) Inventory turnover ratio
 - v) Inventory number of days
 - vi) Receivables turnover ratio
 - vii) Days of sales outstanding.
- i) Fixed asset turnover ratio - fixed asset turnover ratio is the ratio of net sales to the fixed assets of the company.
 Fixed asset turnover ratio = $\text{net sales} / \text{average net fixed assets}$.
 This ratio is used to measure the operating performance of the company, i.e., how efficiently a company is producing sales with its machines and equipments. Higher fixed asset turnover

ratio indicates that a company has more effectively utilised investment in fixed assets to generate revenue.

A declining ratio needs to be analysed whether it is bad or good. There could be many reasons for that, like it may be because of decline of sales or maybe due to increase in fixed assets, which may be because of expansion carried out by the company and its results are yet to be seen in companies performance.

Like ROA, Fixed asset turnover ratio reflects the capital intensity of a company. The number will be different for different industries, hence you must make use of fixed asset turnover ratio to compare companies in the same industry.

ii) Working Capital turnover ratio - first, let us understand working capital. It is the capital required by the company to run its day to day operations. It is calculated as the current asset minus the current liabilities. A positive value is considered to be working capital surplus, indicating that the company can easily manage its day-to-day operations. However, a negative value is considered to be working capital deficit, indicating that the company needs a working capital loan to manage its day-to-day operations.

Working capital turnover ratio is the ratio of net sales of the company to its working capital. This ratio gives an indication of a company's effectiveness in using working capital.

Working Capital Turnover Ratio = Net Sales / Average working capital.

High working capital turnover ratio indicates that management is being extremely efficient in using a company's short-term assets and liabilities to support sales. Conversely, a lower ratio indicates that a business is investing in too many accounts, receivable and inventory assets to support its sales, which could eventually lead to an excessive amount of bad debt and obsolete inventory. Like most of the financial ratios, you should compare working capital turnover ratio to other companies in the same industry, because every industry has different business fundamentals.

iii) Total asset turnover ratio - total asset turnover ratio is the ratio of sales to the total assets of the company which includes both the fixed assets and current assets.

Total asset turnover = net sales / average total assets.

iv) Inventory turnover ratio - inventory turnover ratio is the ratio of cost of goods sold to the average inventory. This ratio helps us to analyse how popular are a company's products. If they're popular, then inventory turnover ratio will be high otherwise it will be low.

○ Inventory turnover ratio = net sales / average inventory.

v) inventory number of days - inventory number of days tells us about how much time(days) the company takes to convert its inventory into cash.

○ Inventory number of days = 365 / inventory turnover ratio.

On one hand, lower number can indicate that company's products are fast moving and popular which is a good sign, but on the other hand, it can also indicate that company has a limited production capacity, which is a bad sign. This can be due to company's inability to grow business, that could be due to shortage of funds or inability to raise fresh money, shortage of raw materials, etc.

Reading company's annual report helps us understand this. If you find any issue, you need to be careful while investing. Hence, try to check production detail whenever you see an impressive inventory number of days figure.

vi) Receivables turnover ratio - receivables turnover ratio is the ratio of net sales to the average account receivable.

○ Accounts receivable = revenue / average receivable.

It indicates how many times in a given period of time, the company receives money from its debtors and customers. In other words, it shows a company's effectiveness in extending credit, and in collecting debts on that credit. Higher the ratio, better it is, as a high number indicates that the company collects cash more frequently.

vii) Days of sales outstanding(DSO) - days of sales outstanding also known as average collection period / the day sales in receivables, it shows the average cash collection period for the company i.e., the time lag between billing and collection. Both receivables turnover and DSO indicate credit policy of the company.

○ Days of sales outstanding = 365 / accounts receivable turnover ratio

Lesser number of days, better it is, as quicker the cash collected from the creditors, faster the cash can be used for other activities. A high number indicates that customer are taking much longer time to pay their bills. If DSO has been on an increasing trend since last few years, then it is a warning sign, and needs to be thoroughly investigated before investing in the company.

Leverage ratios

Leverage ratios measure the extent to which a company relies on debt financing in comparison to equity financing in its capital structure. That involves borrowing money to be repaid, plus interest, while equity involves raising money by selling interest in the company. Companies normally prefer debt financing rather than equity financing. This is because of the cost of debt is lower than cost of equity, mainly because of one important fact that interest payment on debt is tax deductible. While the dividend paid to the equity shareholder is taxable, debt creates with it a requirement for fixed payment in form of interest. That's not all, debt must at some point be repaid.

In a situation when proceeds of debt can yield much high returns than the cost of debt, it may be wise to take on debt to fund the growth of the company. But at the same time if a company takes on too much debt, then interest paid on debt might eat a substantial share of profits earned by the company. When the scenario or business cycle turns to be unfavourable, then such companies may face hard times. There is very thin line between the good and bad debt. This is where expertise and experience of a good management is verified. Leverage ratios help us to understand the company's financial leverage in a better manner.

○ Most commonly used leverage ratios are -

1. Interest coverage ratio
2. Debt to equity ratio
3. Debt to asset ratio
4. Financial leverage ratio

1. Interest coverage ratio - interest coverage ratio is also known as debt service ratio, it helps us to measure a company's ability to meet its interest obligations on its outstanding debt. Interest ratio is

calculated by dividing a company's earnings before interest and taxes (EBIT) by the company's interest expenses for the same period.

○ Interest coverage ratio = $\text{EBIT} / \text{interest expense}$.

This ratio tells us how much a company is earning relative to its interest burden. Hence, we can determine how much easily a company can pay interest on its outstanding debt. A lower ratio indicates an inability to service debts, while too high ratio indicates a lack of debt on company's balance sheet. Ideally, higher the value of interest coverage ratio, better it is. One should prefer investing in companies which have their interest coverage ratio much above 2.5. If a company's interest coverage ratio fall below 1.5, its ability to meet its interest expenses maybe questionable and any downtime in business, in such a condition can increase the possibility of default by the company on interest payments in severe conditions it can even lead the company to possible default or bankruptcy. An interest coverage ratio of below one, indicates that company is currently facing difficulties, generating the cash necessary to pay its interest obligations.

2. Debt to equity ratio (D/E) - D/E ratio is another leverage ratio that compares company's liabilities to its shareholder's equity. D/E ratio indicates how much debt a company is using to finance its assets, relative to the value of shareholders equity.

○ $\text{D/E ratio} = \text{debt} / \text{shareholder equity}$.

Lower the ratio, better it is. D/E ratio varies from one industry to another but in general it should not be above two. If the ratio is higher than that, it means the company is getting more of their financing from borrowing which may pose a risk to it if debt levels are too high.

A greater degree to which operations are funded by borrowed money means a greater risk of bankruptcy if business declines. If D/E ratio is close to 0, it means the company practically has no debt on its balance sheet.

3. Debt to asset ratio - debt to asset ratio is also known as debt ratio, it compares the company's total debt to its total assets. Here, both the short-term and long-term debt is considered. This ratio tells us how much of the total assets of the company are financed through debt capital.

○ Debt to asset ratio = total debt / total assets.

Lower the ratio, better it is, higher ratio means higher the degree of leverage and greater the financial risk.

4. Financial leverage ratio -financial leverage ratio is also known as equity multiplier, it compares company's total assets to its total shareholders equity. This ratio tells how much of the total assets of the company are financed through equity capital. Higher the ratio, higher the degree of leverage and consequently, greater the financial risk and hence investor needs to be more careful.

Valuation ratios

Valuation is the process of determining the financial worth of a company. These ratios are used to get an idea about attractiveness of stock price from an investment point of view, i.e., whether shares of a company are undervalued or overvalued. Sometimes decent business at a very cheap valuation may be great investment option as against an exciting business with an extremely high valuation. In case of all the valuation ratios, the company's current market price or share price is compared with another financial parameter.

○ Some of the commonly used valuation ratios are -

- i) price to earning(P/E) ratio
- ii) Price to book value(P/BV) ratio
- iii) Price to sales ratio
- iv) Price to growth ratio
- v) Enterprise multiple(EV:EBITDA) ratio
- vi) Dividend yield

i) Prize to earning(P/E) ratio - price to earning ratio is also known as company's price multiple or earnings multiple, it is obtained by dividing the current stock price by the earning per share(EPS).

○ $P/E = \text{price of share} / \text{EPS}$.

It is perhaps the most popular ratio. It measures the willingness of market participants to pay for the stock, for every rupees that the company generates. P/E ratio is the reflection of market's opinion of the earning capacity and future business prospects of a company. Companies which enjoy high investor confidence and have a higher

market standing usually command high P/E ratio. For example, blue-chip companies and some high growth mid-cap companies have P/E ratio that are as high as 20-60. However, most of the small-cap and mid-cap companies in India have a P/E ratio between 5 to 20.

On the face, it would seem that companies with low P/E ratios would offer most attractive investment opportunities, but this is not always true. Companies with high current earnings, but dim future prospects often have a low P/E ratio. As an investor, your primary concern is with the future prospects of a company and not so much with its present performance. This is the main reason why companies with low current earnings, but bright future prospects usually command high P/E ratio. It is better to invest in a stock with a P/E ratio of 30 having good future growth prospects, rather than investing in a company having a low P/E ratio of 5 or 6, but has an uncertain or bleak future growth prospects. But at the same time avoid buying companies with too high valuations. Hence, it is always advisable to judge the P/E ratio in conjunction with prospect of future earnings and growth of the company. This can be done using P/E ratio in conjunction with PEG ratio.

ii) Price to book value(P/BV) ratio - it is obtained by dividing the current stock price by the book value per share.

○ $P/BV = \text{price of share} / \text{book value per share}$.

A lower P/BV ratio could mean the stock is under value and a higher P/BV ratio means stock might be over valued. Lower P/BV ratio also indicate that investor sentiments and confidence towards the company is negative. Most companies have a P/BV ratio greater than one. However, value investors often consider companies trading at P/BV ratio of over seven or eight as expensive, and are always in search of good companies trading at P/BV ratio close to 1. Don't blindly use P/BV ratio to judge a company as book value is just the paper value of a company. An event of liquidation the value of the assets would most probably be much less than their book value as shown on balance sheet.

iii) Price to sales ratio - the price to sales ratio is obtained by dividing current stock price by the sales per share. It can also be calculated by dividing companies market capitalisation by total sales over the past 12 months.

○ $\text{Price to sale}(P/S) \text{ ratio} = \text{price of the share} / \text{sales per share}$.

Where, sales per share = total sales / total number of shares.

Lower the ratio, the more attractive is the investment. Price to sales ratio vary greatly from sector to sector, so most useful in comparing similar stocks within a sector or sub-sector. It is more useful in case of companies which are cyclic in nature, especially those which are experiencing a cyclical low in their earning or are currently unprofitable due to some reason. In such cases, P/S ratio does not give a clear picture or it gives a negative P/S ratio which has no meaning.

iv) price-earnings to growth(PEG) ratio - PEG ratio is calculated by dividing P/E ratio by growth ratio of its earning from a specified time period.

○ $PEG \text{ ratio} = P/E \text{ ratio} / \text{annualised EPS growth}$

$\text{Annualised EPS growth} = [\text{EPS current year} - \text{EPS previous year}] - 1$

PEG ratio gives better picture about valuation of a company as compared to P/E ratio. Since it takes into consideration the company's earning growth. In cases where companies are having high growth rates, their P/E ratio might be high, maybe above 30 or 40 and in such cases using just the P/E ratio, we may conclude that company is overvalued relative to others and in such cases, it is better to use PEG ratio to get the clear picture about company's valuation. An investment can use the PEG ratio to determine if a stock is overvalued or undervalued.

A PEG ratio greater than one means the stock is relatively expensive. Whereas a PEG ratio lower than one means stock is below its "fair value". PEG ratio will be negative when there is de-growth in earnings compared to previous period.

v) Enterprise multiple(EV: EBITDA) ratio - enterprise multiple is also known as EBITDA multiple, it is used to determine the value of a company. It is obtained by dividing the enterprise value of the company by the earning before interest, taxes, depreciation and amortisation. The enterprise multiple looks at a company in the way a potential acquired look at it by considering the company's debt, which other multiples like P/E or P/BV do not consider. Investors mainly use a company's enterprise multiple to determine whether a company is undervalued or overvalued.

A lower ratio indicates that a company might be undervalued, and a high ratio indicates that the company might be overvalued. Typically for good companies this value ranges from 10 to 15 the lower the value better it is.

○ EV: EBITDA ratio = enterprise value / EBITDA

Where, enterprise value = market capitalisation + debt - cash.

vi) Dividend yield - dividend yield is a financial ratio that indicates how much a company pays out in dividends each year relative to its share price. It is used to calculate earnings or investment(shares) considering only the returns in the form of total dividends declared by the company during the year.

○ Dividend yield = (annual dividend per year / price per share) x 100.

In India, except for a few companies where dividend yield is high(5% - 10%) most of the companies have a dividend yield between 0.5%-2%. I personally feel that investors should never pick a stock only by looking at the dividend yield.

==> after calculating all ratios, we need to do two things -

1. Compare company's financial ratios with financial ratios of its peers in the same accounting period. This helps to evaluate whether the company is undervalued or overvalued compare to its peers.
2. Compare company's current period, financial ratios with financial ratios of same company for the past few years(preferably 3-5 years). This helps to evaluate whether a company is growing or not.

==> Now, don't worry you don't need to calculate all these ratios in reality as in today's age of Internet technology, there are various stock screening websites from where you can get all these values for all companies traded on stock exchanges for free.

Valuation Methods

○ After analysing the company's management, its financial now is the time to analyse its price valuations. Some of the most common valuation methods are -

1. **DCF(discounted cash flow) valuation** - it is calculated by finding intrinsic value of a stock. Intrinsic value is a way of describing the perceived or true value of an asset. It is always recommended to buy a stock at a price below its intrinsic value. This is not always identical to the current market price because assets can be over or under valued. It is also called real value. It requires proper evaluation and systematic approach to select right stocks at the right time. Investors believe that price of a stock tends to move towards the intrinsic value, ie., if intrinsic value of a stock is above the current market price, then investors would sell the stock because they know the stock price in future would move towards its intrinsic/ real value. Similarly if intrinsic value is below current market price, they would buy the stock.

- Challenges with intrinsic value are
- Method of computing intrinsic value is subjective exercise. The technique involves numerous assumptions to project the cash flow, thus, final value can be different for different methods.
- While computing the weighted average cost of capital, the factor such as beta, market risk premium etc can be calculated differently also possibility factor that is used is subjective.
- By definition, future is uncertain, different investors can arrive at different value for the same asset the difference is everyone has different way of looking at future. Moreover, there is no way to say which Number is accurate.

2. **Relative valuation** -Relative valuation is a method used to value an asset by comparing it to similar assets in the market. Instead of examining the intrinsic value of the asset, relative valuation looks

at how the asset is priced relative to comparable assets. The idea is that the market prices of similar assets should reflect their underlying economic fundamentals.

Here are some common methods of relative valuation:

- **Price-to-Earnings (P/E) Ratio:**
The P/E ratio is calculated by dividing the market price per share by the earnings per share (EPS). It gives an indication of how much investors are willing to pay for a company's earnings. A higher P/E ratio may suggest that investors expect higher future growth.
- **Enterprise Value-to-EBITDA (EV/EBITDA) Ratio:**
This ratio compares a company's enterprise value (market capitalisation plus debt minus cash) to its earnings before interest, taxes, depreciation, and amortisation (EBITDA). It is often used to value companies with varying levels of debt.
- **Price-to-Book Value (P/BV) Ratio:**
The P/BV ratio compares a company's market value to its book value (total assets minus intangible assets and liabilities). A P/BV ratio below 1 may suggest that the stock is undervalued.
- **Dividend Yield:**
Dividend yield is calculated by dividing the annual dividend per share by the stock's current market price. It reflects the return on investment from dividends. Investors may compare dividend yields across similar stocks.

Basically what we do here is **Comparable Company Analysis (CCA)**:

In CCA, analysts compare the valuation multiples (such as P/E, EV/EBITDA, P/sales ratio, PEG) of the target company with those of similar companies in the industry.

It's important to note that while relative valuation can provide useful insights, it has its limitations. The choice of comparable companies is crucial, and differences in business models, growth prospects, and risk profiles must be considered. Additionally, market sentiment and macroeconomic factors can influence relative valuation metrics. Investors often use a combination of absolute and relative valuation methods to make well-informed investment decisions.

3. SOTP (sum of the parts) valuation - under this valuation process, a value of a company is determined by summing up the value of each of its business divisions. This method of stock selection is most commonly used to value a company comprised of business units in different industries. Since valuation methods differ across industries depending on the nature of revenue. The basic idea of this method of valuation is to calculate the birth of each business division of company if they were spun off, or acquired by another company. Hence this method of analysis is also known as break up analysis.

SOTP valuation = [(value of segment A) +(value of segment B) +(value of segment C).....]-(Net Debt).

One of the best examples of application of SOTP valuation method in India could be Reliance Industries Ltd(RIL) which has presence in energy, petrochemicals, textiles, natural resources, retail and telecommunication sectors.