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Study Notes for
NISM Series XV :
Research Analyst Certification Exam

Version – September 2019

Prepared By

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NISM Series XV: Research Analyst

Exam Details

Total Questions	**100 X 1 Marks**
Type	**Multiple Choice**
Pass Score	**60%**
Duration	**2 Hours**
Negative marks	**-0.25**

Chapterwise Weightages

Chapter	Name	Weightages %
1	Introduction to Research Analyst Profession	**3%**
2	Introduction to Securities Market	**6%**
3	Terminology in Equity and Debt Markets	**6%**
4	Fundamentals of Research	**5%**
5	Economic Analysis	**7%**
6	Industry Analysis	**10%**
7	Company Analysis – Qualitative Dimensions	**7%**
8	Company Analysis – Quantitative Dimensions	**15%**
9	Corporate Actions	**6%**
10	Valuation Principles	**15%**
11	Fundamentals of Risk and Return	**5%**
12	Qualities of a good Research Report	**5%**
13	Legal and Regulatory Environment	**10%**
Total		**100%**

CHAPTER 1: INTRODUCTION TO RESEARCH ANALYST PROFESSION

Economic information may be collected from government statistics and data provided by the central bank i.e. the Reserve Bank of India. Data on global factors may be collected from International agencies such as the International Monetary Fund (IMF), Asian Development Bank (ADB) and other Global Development Financial Institutions. Industry-specific journals and publications may be used to collect information on industries/sectors. Company specific information may be collected from the financial statements filed by the companies as part of regulatory compliance requirements.

Sell-side Analysts - They typically publish research reports on the securities of companies or industries with specific recommendation to buy, hold, or sell the subject security. These recommendations include the analyst's expectations of the earnings of the company and future price performance of the security ("price target"). These analysts work for firms that provide investment banking, broking, advisory services for clients.

Buy-side Analysts - They generally work for money managers like mutual funds, hedge funds, pension funds, or portfolio managers that purchase and sell securities for their own investment accounts or on behalf of their clients. These analysts generate investment recommendations for their internal consumption viz. use by the fund managers within organization. Research reports of these analysts are generally circulated among the top management/investment managers of the employer firms as these reports contain recommendations about which securities to buy, hold or sell.

Independent Analysts - They work for research originators or boutique firms separate from fullservice investment firms and sell their research to others on a subscription basis. Their clients could be investors, institutions, investment bankers, regulators, stock exchanges, fund managers etc

In a nutshell, role of a research analyst is that of a selector - to do a comprehensive study of companies, evaluate their past performance, analyse how a company is expected to perform in the future and make recommendations based on this analysis.

Understanding economy:

- Changes in various macro-economic factors like - National income, Inflation, Interest rate and Unemployment rate
- Fiscal and Monetary Policies and their impact on the economy
- Flows from Foreign Direct Investment (FDI) and Foreign Portfolio Investors (FPIs)
- Savings and investment patterns
- Global factors that impact the GDP growth based on export and import transactions

Qualities that are desired in a good research analyst are:

- Good with numbers
- Good Excel/spreadsheet and other data analytical tools
- Clarity in financial concepts
- Ability to read and comprehend financial statements and reports
- Ability to ask pertinent questions
- Attention to details
- Communication Skills – Written and Verbal

CHAPTER 2: INTRODUCTION TO SECURITIES MARKET

Securities are financial instruments issued to raise funds. The primary function of the securities market is to enable the flow of capital from those that have it to those that need it. Securities market helps in transfer of resources from those with idle or surplus resources to others who have a productive need for them

Financial Market consists of:
- Investors (buyers of securities)
- Borrowers/Seekers of funds (sellers of securities)
- Intermediaries (providing the infrastructure to facilitate transfer of funds and securities)
- Regulatory bodies (responsible for orderly development of the market)

The term "securities" has been defined in the Section 2(h) of Securities Contracts (Regulation) Act, 1956(SCRA).
The term 'Securities' include:
1. Shares, scrips, stocks, bonds, debentures, debenture stock or other marketable securities of a like nature in or of any incorporated company or other body corporate
2. Derivative
3. Units or any other instrument issued by any collective investment scheme to the investors in such schemes units
4. Security receipt as defined in clause (zg) of Section 2 of the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002
5. Units or any other such instrument issued to the investors under any mutual fund scheme
6. Any certificate or instrument (by whatever name called), issued to an investor by an issuer being a special purpose distinct entity which possesses any debt or receivable, including mortgage debt, assigned to such entity and acknowledging beneficial interest of such investor in such debt or receivable, including mortgage debt .
7. Government securities
8. Such other securities as may be declared by the Central Government to be securities
9. Rights or interest in securities

Debentures/Bonds/Notes

Issued by: Companies, Government, Special Purpose Vehicles (SPVs)
Investors: Institutional and Individual
Medium: Direct issuance by issuers and Stock Exchange
Regulator: RBI, SEBI, Regulators under the Companies Act
Debentures/Bonds/Notes are instruments for raising long term debt. Debentures are either

unsecured or secured (backed by collateral support) in nature. There are variety of debentures/bonds such as fully convertible, non-convertible and partly convertible debentures.

- Fully convertible debentures are fully convertible into ordinary shares of the issuing company. The terms of conversion are specified at the time of issue itself.
- Partly convertible debentures (PCDs) are partly convertible into ordinary shares of the issuing company under specified terms and conditions as specified at the time of issue itself.

The non-convertible part of these debentures is redeemed as happens in any other vanilla debenture.

- Non-Convertible Debentures (NCDs) are pure debt instruments without a feature of conversion. The NCDs are repayable/redeemable on maturity.

Thus, debentures can be pure debt or quasi- equity.
Further, short-term debt instruments are used to raise debt for periods not exceeding one year. These instruments include Treasury Bills issued by the government, Commercial Papers issued by the companies and Certificate of Deposit issued by the bank

Indices

The most widely tracked indices in India are the NSE's Nifty 50, S&P BSE Sensex and MSEI's SX40. The S&P Sensex has been computed as the market cap weighted index of 30 chosen stocks on the BSE. The SX40 is composed of 40 most representative stocks listed on Metropolitan Stock Exchange of India Ltd (MSEIL) and the Nifty 50 is composed of 50 most representative stocks listed on the National Stock Exchange. The shares included in these indices are chosen on the basis of factors such as liquidity, availability of floating stock and size of market capitalization.

The major uses of indices are:

- The index can give a comparison of returns on investments in stock markets as opposed to asset classes such as gold or debt.
- For the comparison of performance with an equity fund, a stock market index can be the Benchmark.
- The performance of the economy or any sector of the economy is indicated by the index.
- Real time market sentiments are indicated by indices.
- Indices act as an underlying for Index Funds, Index Futures and Options

Exchange Traded Funds (ETFs)

Issued by: Mutual Funds
Investors: Institutional and Individual

Medium: Direct issuance by mutual funds and Stock Exchange
Regulator: SEBI, RBI

Exchange Traded Fund (ETF) is an investment vehicle that invests funds pooled by investors to track an index, a commodity or a basket of assets. It is similar to an index fund in the sense that its portfolio reflects the index it tracks. But, unlike an index fund, the units of the ETF are listed and traded in demat form on a stock exchange and their price changes continuously to reflect changes in the index or commodity prices.
ETFs provide the diversification benefits of an index fund as well as the facility to sell or buy at real-time prices, even one unit of the fund. Since an ETF is a passively managed portfolio, its expense ratios are typically lower than that of a mutual fund scheme.

Hybrids/Structured Products
Preference Shares:
Preference shares resemble equity as preference shareholders are called shareholders of the company (not creditors), payment to them is termed as dividend and the same is paid from the Profit after Tax and dividend payment is not an obligation. However, unlike common equity shares, preference shares do not carry voting rights or a right over the residual assets of the company, in case of winding up
There are variety of preference shares – cumulative (unpaid dividend is carried forward), noncumulative (unpaid dividend lapses), convertible partly or fully etc.

Convertible Debentures & Bonds:
Convertible debentures are debt instruments that can be converted into equity shares of the company at a future date. This security also has features of both debt and equity. It pays periodic coupon/interest just like any other debt instrument till conversion. And, at a predefined time, this debt instrument may get converted into equity shares. These debentures may be of different kinds:
• *Fully convertible debentures (FCD)* - where the entire face value of the debenture is converted into equity shares
• *Partly convertible debentures (PCD)* - where a portion of the debenture is converted into equity. The non-convertible portion continues to remain as debentures, earns interest income and gets repaid on redemption
• *Optionally convertible debentures (OCDs)* are convertible into equity shares at the discretion of the debenture holders, who may choose to convert them into equity, or continue to hold the instrument as debt depending on their desire and the terms of conversion.
The issuer specifies the details of the conversion at the time of making the issue itself. These will generally include:

- Date on which or before which the conversion may be made
- Ratio of conversion i.e. the number of shares that the investor will be eligible to get for each debenture
- Price at which the shares will be allotted to the investor on conversion. Usually, this is at a discount to the market price
- Proportion of the debenture that will be converted into equity shares (in case of partially convertible debentures

Indian Depository Receipts (IDRs), Global Depository Receipts (GDRs) and American Depository Receipts (ADRs):

Depository receipts (DRs) are financial instruments that represent shares of a local company but are listed and traded on a stock exchange outside the country of its origin/registration. DRs are issued in foreign currency.

To issue a DRs, a specific quantity of underlying equity shares of the company is lodged with a custodian bank, which authorizes the issue of depository receipts against these shares. Each DR represents certain number of underlying shares of the issuer company.

Various kinds of DRs are:

- *American Depository Receipts (ADRs)* - if DRs are issued only in U.S. and listed on a stock exchange in the U.S. such as the New York stock exchange.
- *Global Depository Receipts (GDRs)* - if DRs are issued in several countries together and listed on a stock exchange outside the U.S. say on London Stock Exchange.
- *Indian Depository Receipts (IDRs)* – if DRs are issued in India and listed on an Indian Stock Exchange with foreign stocks as underlying shares

DRs may feature **two-way fungibility**, subject to regulatory provisions of the countries involved. This means that shares can be bought in the local market and converted into DRs to be traded in the foreign market. Similarly, DRs can be bought and converted into the underlying shares which are traded on the domestic stock exchange.

Foreign Currency Convertible Bonds (FCCBs):

FCCBs or Foreign Currency Convertible Bonds are foreign currency (usually dollar) denominated convertible debt papers issued by companies in international markets. These instruments are to be understood the way convertibles are with only difference that they are generally optionally convertible and issued offshore in different denomination under guidelines as defined by Reserve Bank of India (RBI) from time to time.

The payment of interest and repayment of principal (if happens) on these bonds is in foreign currency. However, once conversion of instrument happens in equity, dividend is paid in Indian Rupees with conversion obligation (currency risk) lying with the investors.

FCCBs are regulated by RBI notifications under the Foreign Exchange Management Act (FEMA).

Equity Linked Debentures (ELDs):
Equity Linked Debentures (ELDs) are floating rate debt instruments whose interest is based on the returns of the underlying equity asset such as Nifty 50, S&P Sensex, individual stocks or any customized basket of individual stocks.

Commodity Linked Debentures (CLDs):
Just like ELDs, CLDs are floating rate debt instruments whose interest is based on the returns of the underlying commodity asset.

Mortgage Backed Securities (MBS) and Asset Backed Securities (ABS):
MBS and ABS are debt instruments issued by institutions against the receivables and cash flows from financial assets such as home loans (MBS), auto loans, rent receivable, credit card receivables and others. The cash flows accruing from these assets are used to meet the interest and principal repayment obligations on the bonds issued. The issuer is able to create liquidity in an otherwise illiquid asset by securitizing them. The instruments are credit rated and may be listed on stock exchange

Structure of Securities Market
Primary Market: The primary market, also called the new issue market, is where issuers raise capital by issuing securities to investors. Fresh securities are issued in this market.
Secondary Market: The secondary market facilitates trades in already-issued securities, thereby enabling investors to exit from an investment or new investors to buy the already existing securities.
Public issue- Securities are issued to the members of the public, and anyone eligible to invest can participate in the issue. This is primarily a retail issue of securities.
Initial Public Offer (IPO) - An initial public offer of shares or IPO is the first sale of a corporate's common shares to investors at large. The main purpose of an IPO is to raise equity capital for further growth of the business.
Follow on Public Offer (FPO)- When an already listed company makes either a fresh issue of securities to the public or an offer for sale to the public, it is called FPO. When a company wants additional capital for growth or desires to redo its capital structure by retiring debt, it raises equity capital through a fresh issue of capital in a follow-on public offer. A follow-on public offer may also be through an offer for sale, which usually happens when it is necessary to increase the public shareholding in the company to meet the regulatory requirements.

Private Placement - When an issuer makes an issue of securities to a select group of persons and which is neither a rights issue nor a public issue, it is called private placement. This is primarily a wholesale issue of securities to institutional investors. It could be in the form of a Qualified Institutional Placement (QIP) or a preferential allotment.
According to Companies Act 2013, an offer to subscribe to securities, made to less than 200 persons, is called private placement of securities.

Qualified Institutional Placements (QIPs)- is a private placement of shares made by a listed company to certain identified categories of investors known as Qualified Institutional Buyers (QIBs).QIBs include financial institutions, mutual funds and banks among others.

Preferential Issue- means an issue of specified securities by a listed issuer to any select person or group of persons on a private placement basis

Onshore and Offshore Offerings - While raising capital, issuers can either issue the securities in the domestic market and raise capital or approach investors outside the country. If capital is raised from domestic market, it is called onshore offering and if capital is raised from the investors outside the country, it is termed as offshore offering.
Offer for Sale (OFS)– is a form of share sale where the shares offered in an IPO or FPO are not fresh shares issued by the company, but an offer by existing shareholders to sell shares that have already been allotted to them. An OFS does not result in increase in the share capital of the company since there is no fresh issuance of shares. The proceeds from the offer go to the offerors, who may be a promoter(s) or other large investor(s).
The disinvestment program of the Government of India, where the government offers shares held by it in Public Sector Undertakings (PSUs), is an example of OFS. It may be stated that OFS is a secondary market transaction done through the primary market route.

Secondary Market

Over-The-Counter Market (OTC Market) - OTC markets are the markets where trades are directly negotiated between two or more counterparties. In this type of market, the securities are traded and settled over the counter among the counterparties directly.
Exchange Traded Markets - The other option of trading in securities is through the stock exchange route, where trading and settlement is done through the stock exchanges. The trades executed on the exchange are settled through the clearing corporation, which acts as a counterparty and guarantees the settlement of the trades to both buyers and sellers.

Market Intermediaries

Stock Exchanges, Depositories, Depository Participant, Trading Members/Stock Brokers & Sub-Brokers, clearing Corporations, Clearing Banks.

Authorised Person –is any person (individual, partnership firm, LLP or body corporate), who is appointed by a stock broker or trading member as an agent to reach out to the investors scattered across the country. A stock broker may appoint one or more authorised person(s) after obtaining specific prior approval from the stock exchange concerned for each such person. The approval as well as the appointment of authorized person(s) is for a specific segment of the exchange.

Custodians- is an entity that is charged with the responsibility of holding funds and securities of its large clients, typically institutions such as banks, insurance companies, and foreign portfolio investors. Besides safeguarding securities, a custodian also settles transactions in these securities and keeps track of corporate actions on behalf of its clients. It helps in:

- Maintaining a client's securities and funds account
- Collecting the benefits or rights accruing to the client in respect of securities held
- Keeping the client informed of the actions taken or to be taken on their portfolios.

Underwriters - Underwriters are intermediaries in the primary market who undertake to subscribe any portion of a public offer of securities which may not be bought by investors. They serve an important function in the primary market, providing the issuer the comfort that if the securities being offered to public do not elicit the desired demand from investors, they (underwriters) will step in and buy the securities. When the underwriters make their commitments at the initial stages of the IPO, it is called hard underwriting. Soft underwriting is the commitment given once the pricing is determined. The shares that devolve are usually placed with other financial institutions, thereby limiting the risk to the underwriter. Soft underwriting also comes with a clause that provides the option to exit from the commitment in the event of certain events occurring. The risk in hard underwriting is much higher than in soft underwriting.

Institutional Participants

Foreign Portfolio Investors (FPIs) - A Foreign Portfolio investor (FPI) is an entity established or incorporated outside India that proposes to make investments in India. These international investors must register with the regulator - Securities and Exchange Board of India (SEBI) to participate in the Indian Securities Market.

P-Note Participants - Participatory Notes (P-Notes or PNs) are instruments issued by SEBI registered foreign portfolio investors to overseas investors, who wish to invest in the Indian stock markets without registering themselves with the market regulator - Securities and Exchange Board of India. P-Notes provide access of Indian securities to these investors.

Mutual Funds - A mutual fund is a professionally managed collective investment scheme that pools money from many investors to purchase securities on their behalf.

Venture Capital Funds - A venture capital fund refers to a pooled investment vehicle like mutual fund but with mandate to invest money in enterprises that are in the early stage of development but with the potential of long-term growth. The longer gestation period and higher risk of failure make it difficult for such companies to access conventional sources of finance, such as banks and the capital markets. Venture capitalists bring managerial and technical expertise as well along with capital to their investee companies.

Private Equity Firms - Private equity is a term used to define funding available to companies in the early stages of growth, expansion or buy-outs. Investee companies may be privately held or publicly traded companies. The term private equity includes venture capital firms. The money in the fund is contributed by investors, called limited partners, and invested and managed by the general partner(s). Some of the private equity funds are specialized funds with competence in a particular industry, stage of the company, or targeted deals such as funding buyouts.

Hedge Funds - A hedge fund is an investment vehicle that pools capital from a number of investors and invests that across the assets, across the products and across the geographies.These fund managers generally have very wide mandate to generate return on the invested capital. They hunt for opportunities to make money for their investors wherever possible. In that sense, actually, term hedge fund is misnomer as these funds may not necessarily be hedged.

Alternative Investment Funds - Generally, investments in stocks, bonds, fixed deposits or real estate are considered as traditional investments. Anything alternate to this traditional form of investments is categorized as alternative investment. Even within investments in stocks, if the investments are in the stocks of small and medium scale enterprises (SMEs), it gets categorized as alternative investments in many jurisdictions (For instance, the SME exchange is called as Alternative Investment Market (AIM) in UK)

Retail Participants - individual investors, HNIs or High Net-worth Individuals and UHNIs (Ultra High net-worth individuals), Non Resident Indians (NRIs), Person of Indian origin (PIOs) and Qualified Foreign Investors (QFIs

Cash, Tom and Spot Trades/Transactions

Cash trades are the trades where settlement (payment and delivery) occurs on the same trading day (T+0, where 0 defines the time gap in days between trade day and

settlement day). Cash trades in Financial Markets are unusual as most contracts are settled between two to three days from the date of trade.

Tom trades are the trades where settlement (payment and delivery) occurs on the day next to the trading day (T+1, where 1 defines the time gap in days between trade and settlement day). Some of the transactions in Foreign Exchange Market (FX market) settle on T+1 basis.

Spot trades are the trades where settlement (payment and delivery) occurs on the spot date, which is normally two business days after the trade date.

Forward transactions

Forward contracts are contractual agreement between two parties to buy or sell an underlying asset at a certain future date for a particular price that is decided on the date of contract

Futures

Futures are standardized exchange traded forward contracts. They are standardized as to the market lots (traded quantities), quality and terms of delivery - delivery date, cash settlement or physical delivery etc.

Options

An Option is a contract that gives the right, but not an obligation, to buy or sell the underlying asset on or before a stated date and at a stated price

Based on the type of contract, options can be divided into two types.

- ***Call*** gives the buyer the right, but not the obligation, to buy a given quantity of the underlying asset, at a given price on or before a given future date.
- ***Put*** gives the buyer the right, but not the obligation, to sell a given quantity of the underlying asset at a given price on or before a given date

Swaps

A swap in the financial markets is a derivative contract made between two parties to exchange cash flows in the future according to a pre-arranged formula. Swaps help market participants manage risks associated with volatile interest rates, currency rates and commodity prices

Trading - Trading or speculating is an act of purchase or sale of an asset in the expectation of a gain from changes in the price of that asset over a short period of time

Hedging- Hedging is an act of taking position in the financial transactions to offset potential losses that may be incurred by another position

Arbitrage – is simultaneous purchase and sale of an asset in an attempt to profit from discrepancies in their prices in two different markets. Buying a stock in the spot market and simultaneously selling that in the futures market to benefit from the price differential is an example of an arbitrage transaction

Dematerialization - Dematerialization is the process of converting securities held in physical form into holdings in book entry (electronic) form

Rematerialization - Rematerialization is reverse of dematerialization and is the process of converting securities held in electronic form into physical form

CHAPTER 3: TERMINOLOGY IN EQUITY AND DEBT MARKETS

Face Value (FV) - The nominal price of a share is known as its face value. The equity capital of the company is calculated by multiplying the no. of shares issued by its face value

Book Value - Book Value of a company is the net-worth of the company. To compute book value per share, net-worth of the company is divided by the number of outstanding shares. In simple terms, book value per share means the theoretical amount of money each share would get in case the company was to wind up.

Market Value - This is the market price of a share. The market value of the entire equity of a company is termed as market capitalization and is computed as market price per share multiplied by total number of outstanding shares.

Replacement Value

This refers to the market value of all the assets of a company at any point of time. If a new company were to set up with all the infrastructure/plants, which an already existing company has, then the cost which it would have to bear today is known as the 'Replacement Value' of the existing firm.

Intrinsic Value

Intrinsic Value of an asset is the present value of expected free cash flows from the asset. Warren Buffett defines the intrinsic value as *"It is the discounted value of the cash that can be taken out of a business during its remaining life."* In simple terms, the intrinsic value of an equity share is the discounted value of its future benefits to the investors

Market Capitalization (Market Cap)

Market Capitalization (Market Cap), is the amount of money required to buy out an entire

company at its current market price. It is computed as market price per share of the company multiplied by total number of outstanding shares.

Enterprise Value

Enterprise Value (EV) is the theoretical takeover price of a firm. Along with Equity, it considers the debt as well as cash reserves of the company in determining its value. It is implicitly assumed that the debt of the company is a liability that also has to be taken over and accounted for in the price by the acquirer, while the cash reserves are available to the buyer and therefore deducted from the total value. EV may be defined mathematically as follows:

Enterprise value = Market value of equity (Market capitalization) + Market value of debt – cash and cash equivalents

EPS = Net Profit/ Number of shares outstanding

Dividend Per Share (DPS) - 40% dividend declared by company will translate into a dividend of Rs.4 per share with a face value of Rs 10 (10*40% =4). This is known as Dividend Per Share (DPS)

Price to Earnings Ratio (PE Ratio) = **Market price per share/Earnings per share**

P/S Ratio = Current Market Price (CMP) / Annual Net Sales per Share

P/S Ratio = Market capitalization / Annual Net Sales

A low P/S ratio may indicate an undervalued stock, and if it is paired with a trend of strong growing sales then it may be an attractive investment proposition. While a high P/S ratio indicates a highly priced stock, it may also indicate an expectation of high future growth rate in sales and therefore the market's willingness to pay a high price for it.

Price-to-Book Value Ratio (P/BV) = Market Price / Book Value

Book value is calculated by dividing net-worth by the number of outstanding shares.

Differential Voting Rights (DVR)

A DVR is just like a normal share of a company, except that it carries less than 1 voting right per share unlike a common share. Such an instrument is useful for issuers who wish to raise capital without diluting voting rights. Investors who wish to invest only for dividends and capital appreciation and are not really bothered about voting rights find these shares attractive. The number of voting rights for a DVR differ from company to company. DVRs typically trade as a separate category of instrument and are available at a discount to the common shares of a company. The Companies Act, 2013 defines the eligibility of a company to issue such shares.

This includes a dividend of at least 10% over the preceding 3 years and such shares shall not exceed 25% of the total post-issue paid up capital of the company.

Coupon Rate - Interest paid on the bond/debt security is known as Coupon rate, expressed as a percentage of its face value. The actual amount of money which the investor receives as interest is equal to the product of the face value and the coupon rate

Maturity - Every loan will have a tenure. This is known as 'tenor' or 'maturity' or 'term to maturity' in bond markets

Principal - This is the amount of borrowing of the issuer represented by the security. This is the initial investment which an investor makes when the bond is issued and is represented by face value.On redemption, this entire principal is returned to the investor.

Holding Period Returns (HPR) - is the return earned on an investment during a specific period when it was bought and held by the investor. An investor may purchase the bond from the issuer directly when it is issued, or may purchase at any later date from the secondary market. Similarly, the investor may hold the bond till maturity or may exit earlier in between by selling on the secondary market. The returns to the investor for the period for which the bond was held is known as HPR.

If an investor purchases a bond at Rs. 104, earns Rs. 8 as coupon, which he reinvests at 7% for a period of 1 year, and finally sells the bond at Rs. 110 after 1 year then his HPR would be: HPR = [(8) + (8 * 7%) + (110-104)]/ 104 = 14.00%
It must be noted that HPR is single period return and does not annualize the return to the investors.

Current Yield - coupon is divided with the current market price of the bond and the result is expressed as percentage. This method does not take into account future cash flows coming from the bond, which is the biggest drawback of this method and hence this method is not really used widely

Yield to Maturity (YTM) is a more comprehensive and widely used measure of return calculation of a debt security than current yield. This method takes into consideration all future cash flows coming from the bond (coupons plus the principal repayment) and equates the present values of these cash flows to the prevailing market price of the bond. The rate which equates the present outflow (price of the bond which the investor needs to pay in order to purchase the bond) with the present value of future inflows (coupons plus

principal) is known as YTM. Thus, it can be understood as the Internal Rate of Return (IRR) of the bond.

Duration - Duration measures the sensitivity of the price of a bond to changes in interest rates. Bonds with high duration experience greater increases in value when interest rates decline and greater losses in value when rates increase, compared to bonds with lower duration.
Duration is the weighted average maturity of the bond, where the present values of the future cash flows are used as weights. Duration thus incorporates the tenor, coupon and yield in its calculation.
Higher the time to maturity, higher the duration and hence higher the interest rate risk of the bond. Lower the coupon rate, higher the duration and hence higher the interest rate risk of the bond. And, Lower the yield, higher the duration and hence higher the interest rate risk of the bond.

Modified Duration (M Duration) - Modified Duration measures the impact of changes in interest rates on the price of the bond. While Duration gives us sensitivity of bond prices to change in interest rates, Modified Duration gives us the magnitude of this change.
M Duration is calculated as:
M Duration (D*) = - Duration/ (1 + YTM)

Convexity - The impact of change in interest rates on bond prices is inverse but not linear. This means when rates go up, bond prices go down; but they don't fall as much as they would rise when rates go down by the same magnitude.

Zero-Coupon Bond - Bonds which do not pay coupon in their entire term are known as Zero Coupon Bonds or simply 'Zeroes'. Such bonds are issued at a discount to their face values and are redeemed at par.
Thus, the return on these bonds is not in the form of periodic payment of interest but in the form of difference between the issue price and redemption value.

Floating – Rate Bonds - These are bonds whose coupon is not fixed, as in the case of vanilla bonds, but is reset periodically with reference to a defined benchmark. This could be the inflation index or interbank rates or call rates or some other relevant benchmark. Resetting the coupon periodically ensures that these bonds pay interest that reflect current market rates. Due to their unique nature of constant adjustment of coupon rates, these bonds carry lower interest rate risk or 'price risk'.

Convertible Bond or debenture is generally issued as a debt instrument with the option to investors to convert the amount invested into equity of the issuer company later. This security has features of both debt and equity. The issuer specifies the details of the conversion at the time of making the issue itself.

Amortization Bonds - Bonds usually pay interest during the tenor and the principal is repaid as a bullet payment upon maturity. However, there is a type of bond, known as 'Amortization Bond', in which each payment carries interest and some portion of the principal as well.

Callable Bonds allow the issuer to redeem the bonds prior to their original maturity date. In other words, bonds which have embedded call option in them are known as Callable Bonds. This feature poses a risk for investors but is beneficial for the issuers.

Puttable Bonds - A Puttable bond gives the investor the right to seek redemption from the issuer before the original maturity date. These bonds have embedded Put options in them. In this case, the risk is on the issuer, as the investor can, at any point of time give the bond back to the issuer and ask for his principal, earlier than maturity. This would mean cash flow problems for the issuer.

Payment in Kind (PIK) Bonds - These are bonds in which the coupon is not paid in cash but by way of more bonds. Companies which have cash flow problems issue such kind of securities and hence by nature these instruments are risky

Principal – Protected Note (PPN) - PPN is a relatively complex debt product which aims at providing protection of the principle amount invested by investors, if the investment is held to maturity. Typically, a portion of the amount is invested in debt in such a way that it matures to the principal amount on expiry of the term of the note. The remaining portion of the original investment is invested in equity, derivatives, commodities and other products which have the potential of generating high returns

CHAPTER 4: FUNDAMENTALS OF RESEARCH

Fundamental analysis considers both qualitative and quantitative dimensions of a business. While financials will reveal history of the business and the financial readiness to grow in the future, evaluating factors such as the economic conditions favourable to the business, the ability of the management to identify and exploit opportunities, the operating efficiencies that the business possesses and the risks that may affect the plans and its ability to meet these

contingencies, will define the attractiveness of the business as an investment proposition. Accordingly, fundamental analysis includes following:

1. Economic analysis
2. Industry analysis
3. Company analysis

Technical Analysis

Technical analysis is based on the assumption that all information that can affect the performance of a stock, company fundamentals, economic factors and market sentiments, is reflected already in its stock prices. Accordingly, technical analysts do not care to analyze the fundamentals of the business. Instead, the approach is to forecast the direction of prices through the study of patterns in historical market data - price and volume. Technicians (sometimes called chartists) believe that market activity will generate indicators in price trends that can be used to forecast the direction and magnitude of stock price movements in future.

CHAPTER 5: ECONOMIC ANALYSIS

National Income of an economy is defined through a variety of measures such as gross domestic product (GDP) and gross national product (GNP). Computation of these numbers is a humongous task in terms of data-collection and its processing. Broadly stating, national income of an economy can be measured through three methods: (i) Product Method (ii) Income Method, and (iii) Expenditure Method.

Product Method - national income is measured as an aggregated flow of goods and services in the economy from the different sectors: agriculture, industry and services. Economists calculate money value of all final goods and services produced in the economy during a specified period. Final goods refer to only those goods which are consumed by economy participants and not the ones used in further production processes (intermediate goods). Product method deals with the economy sector-wise. The total output in the economy is computed as the sum of the outputs of various sectors

Income Method - In this method, national income is measured as the aggregate income of individuals in the economy. Robert Kiyosaki, an author and businessman, divides the whole working population in the world in four broad categories – Employees (labour and other employees), Professionals, Entrepreneurs and Investors. Employees earn wages and salaries, Professionals earn their income based on their services, Entrepreneurs earn profits (including undistributed corporate profits) and Investors earn return on their capital and

rent on their land. Sum of all these incomes for a specified period is called National Income for the economy.

Expenditure Method - As all the goods and services produced in an economy are bought (consumed) by someone, National Income may also be calculated from the consumption end. Expenditure method attempts to undertake the same philosophy while computing the National Income. Consumers in an economy are broadly divided into three categories – individuals, corporates and government.

Savings and Investments - As defined above, there are three constituents in an economy - Individuals, Corporates and Government. Savings, defined as income over expenses, are computed for all three categories separately. Savings of individuals is called "personal savings", savings of corporates (undistributed profits) is called "corporate savings" and savings of government is called public savings (rarely there; governments generally run budget deficits). Individuals and corporate entities may be clubbed together as private savings. Economists arrive at National Saving by summing savings of these three constituents - personal, corporate and public savings

Inflation - is measured in two ways - at wholesale level in terms of Wholesale Price Index (WPI) and retail level in terms of Consumer Price Index (CPI).

Foreign Direct Investment (FDI) and Foreign Portfolio Investments (FPI)
Foreign capital flows to a country can be either in active form known as Foreign Direct Investment (FDI) or passive form known as Foreign Portfolio Investment (FPI). In case of FDIs, investing entities participate in decision making and drive the businesses. However, Portfolio Investment, as name indicates is investment in markets – equity or bonds by the Foreign Portfolio Investors (FPIs) without any management participation. There are upper limits on the individual and combined holding by FPIs in the paid up capital of the Indian companies.
FDI is welcomed by all the developing economies and has multiple benefits in addition to bring
in capital to the country:
- Job creation
- New technologies
- New managerial skills
- New products and services

While FDI is long term in nature and stable money, FPIs money is considered as hot money as they can pull out the money at any time which could create systemic risk for the economy

Neutral fiscal policy – When governments' income and expenditure are in equilibrium. No major changes required in the Fiscal policies.
Expansionary fiscal policy – Fiscal measures when government's spending exceeds its income. This policy stance is usually undertaken during recessions/slow moving economy.
Contractionary fiscal policy – Fiscal measures when government's spending is lower than its income. Government uses excess income to repay its debts/obligations or acquire assets.

General Anti-Avoidance Rules (GAAR) - Entities in an economy adopt various methods to reduce their tax liabilities and the same may be categorized as: "Tax Evasion", "Tax avoidance", "Tax Mitigation" and "Tax Planning". General Anti-Avoidance Rules (GAAR) are framed to minimize tax avoidance. Simple example of tax avoidance is routing of investments by investors through tax havens such as Mauritius.
General Anti-Avoidance Rules empower the revenue authorities in a country to deny the tax benefits to the entities on a transaction, which is primarily carried out in a specific manner to avoid taxes.

CHAPTER 6: INDUSTRY ANALYSIS

Michael Porter's Five Force Model for Industry Analysis - this model analyses any industry on the basis of five broad parameters or
forces. These 5 forces are divided into 2 vertical and 3 horizontal ones, as listed below:

Horizontal Forces:
1. Threat of Substitutes
2. Threat of New Entrants
3. Threat of Established Rivals

Vertical Forces:
1. Bargaining Power of Suppliers
2. Bargaining Power of Customers

Industry Rivalry
An industry where rivalry is high, like the aviation and telecom space, the end result will be lower pricing power and lower incomes for the industry participants. Innovation in products and customer service and engagement initiatives become essential in such an industry. A strong competitor with deep pockets can easily adopt the tactics such as continuously dumping

products/services at prices lower than the cost to drive others out of the industry. Not everyone can sustain losses for long period

Threat of Substitutes

Industries go through significant changes from time to time. Telegram does not exist anymore as Short Messaging Service (SMS) emerged as cheaper and easier alternative with significant accessibility. Cement pipes industry lost its relevance to steel and plastic pipes. Typewriters got substituted by computers totally. IPods, mobiles etc. have rendered radio and two-in-ones a thing of the past.

Bargaining Power of Buyers

Buyers can exert a lot of pressure and dictate prices, if there are a large number of sellers with similar products/services. On the contrary, they may not be such a big influencer in case there are few sellers for a product/service. In nutshell, it is the function of number of buyers and sellers and differentiation in their products/services, which may determine buyers' bargaining power in an industry.

Bargaining Power of Suppliers

A consumer will rarely bargain over the fees charged by hospitals or schools? But, the same consumer will bargain with the vegetable or fruits vender all the time. In the first case, the bargaining power of suppliers is absolute and in the second case, bargaining power of suppliers is nil (until he/she is the only vendor and close substitute is pretty far)

Barriers to entry (Threat of new entrants)

An industry which does not face the threat of new competitors coming in would be an attractive industry for investors/owners. There could be several barriers to entry for new entrants in a business - licensing, required competence/skills (IT products), capital (oil and gas), distribution reach (banking and finance), brand loyalty of customers with the existing participants (toothpaste, coffee markets) etc. etc. This is what Warren Buffet calls as 'the moat'; he says "In business, I look for economic castles protected by unbreachable 'moats'." This essentially means he looks for businesses with high entry barriers. Such businesses will have pricing power viz. can sell the products at a premium without fear of losing customers

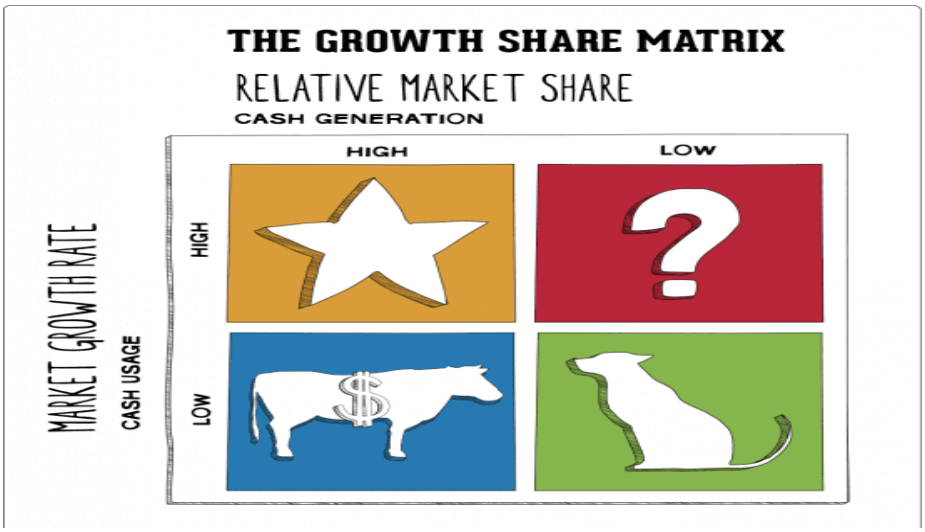
Political, Economic, Socio-cultural, Technological, Legal and Environmental (PESTLE) Analysis

PESTLE Analysis stands for Political, Economic, Socio-cultural, Technological, Legal and Environmental Analysis. Some models also extend this to include Ethics and Demographics,

thus modifying the acronym to STEEPLED. This analysis is done more from the perspective of a business which is looking to setup unit offshore and analyzing several countries to choose from. This model primarily analyses the external environmental factors that will act as influencers for a business.

Boston Consulting Group (BCG) Analysis

While models such as Porter's and PESTLE are used to analyze the industries and economies, the BCG Analysis, developed by the Boston Consulting Group, looks at different segments of a business unit at portfolio basis through the lenses of market growth and cash generation. BCG created a matrix based on sensitivity of growth and cash generation as defined below in pictorial manner



Stars: These are segments in a business where market is growing rapidly and company is having a large market share. This segment generates increasing cash for the business with the passage of time.

Cash Cows: These are segments which require low cash infusion for investment to maintain market shares because of low growth prospects but at the same time steadily generate cash for the company from the established market share

Question Marks Business segments in a fast growing market, but having low market share. The right strategies and investments can help the market share of the business grow, but they also run the risk of consuming cash in the process of increasing market share and in the end turning out to be not enough cash generating

Dogs: Business segments, which have slow growth rates and intensive competitive dynamics which lead to low generation of cash are categorized as Dogs.

Structure Conduct Performance (SCP) Analysis: Another method of analyzing industries is to look at the industry structure (monopoly, oligopoly), its conduct

(commoditized or specialized, seasonal or round the year, cyclical or noncyclical etc.) and finally its performance (RoE, RoIC, WACC, etc.). Structure, Conduct, Performance (SCP) analysis approaches the industry evaluation exactly with this categorization.
SCP analysis may be seen as extension of Porter's model where probably first two points structure and conduct were captured. Under SCP model, one also goes into the financial dimension of industry from analysis perspective

CHAPTER 7: COMPANY ANALYSIS – QUALITATIVE DIMENSIONS

Critical Business Drivers/Success Factors

Each industry/sector has a specific set of factors which affect its profitability and prospects. For example:

Retail sector closely monitors footfalls and same store sales (SSS)
- Banking works on Net Interest Income (NII)/ Net Interest Margin (NIM)
- Telecom discussions revolve around Average Revenue Per User (ARPU)
- Hotels focus on average room tariffs and occupancy levels
- Currency levels are critical for export oriented IT companies & import oriented oil companies
- On-line businesses are dependent on internet penetration and changing habits of people on shopping

CHAPTER 8: COMPANY ANALYSIS – QUANTITATIVE DIMENSIONS

Basics of Profit and Loss Account (P/L) - Profit and Loss statement (P/L) statement is a document which contains information on the revenues, costs and profitability of a firm for any given period. Financial results are published each quarter by companies and hence we get quarterly P/L statements as well the final audited P/L statement with the annual report

Net Sales: This is the income which the company generates by selling its goods and services. Applicable indirect tax (GST) has to be deducted from the Gross Sales to get the Net Sales figure as these taxes are collected by the business for the government and don't belong to the business

Direct Costs: These are costs which can be attributed directly to business. Examples of these types of costs are raw material, salary, electrical costs, and others. Reducing operating costs will translate into higher profitability. Lower the direct costs, higher the operating efficiency of the firm. Costs may be variable, such as raw materials, semi-variable, such as employee costs or fixed, such as plant and machinery

Earnings Before Interest Tax Depreciation and Amortization (EBITDA): This is the difference between Net Sales and Direct Costs. EBIDTA is a measure of the operating efficiency of the company. It enables comparison between companies that may have different capital structures, depreciation policies and tax rates. Higher the EBITDA, better the firm

EBITDA Margin: This is a ratio which calculates the EBITDA as a percentage of Net Sales

Depreciation/ Amortization: Whenever a company purchases an asset, it is used for a long period of time and hence, it does not make sense to show entire expenditure at once in the P/L statement.

Amortization is the term used for depreciation of intangible assets such as copyrights and brands.
While depreciation or amortization is shown as an expense in the P/L account, there is no actual cash outflow on account of this expense each year. The expense has been met upfront when the asset is bought.
Deducting Depreciation/ Amortization from EBITDA gives us EBIT

Other Income: This is recurring income from other sources such as rent, interest, dividend, commission etc. It should at best be small portion of the Net revenues of the company. If this income is quite high in comparison to sales, it warrants analysis of the business model of the company

Profit Before Tax (PBT): Deducting Interest and Depreciation/Amortization from EBITDA and then adding other income to it gives us the total profit of the company for the period after meeting all the expenses. Taxes need to be paid on this profit and hence it is known as PBT.

Profit After Tax (PAT): This is the final residual amount which remains with the company after paying all its stakeholders other than shareholders.

Basics of Balance Sheet (B/S)

A Balance Sheet contains the sources of funds for a company and application of those funds at any point of time. As is logical, sources of funds and their application must match at aggregate level, hence, both the sides of the balance sheet must match at all times (as also the name suggests)

Sources of Funds: A company has two primary sources of funds, owners' funds or equity capital and borrowed funds or debt capital

Reserves & Surplus: As the company makes profits, they are moved each year from the P/L statement into the balance sheet under the head 'Reserves & Surplus'. Thus, this is also shareholder's money, which they chose to keep in the company and reinvest in the business. While equity may be called contributed capital, reserves and surplus is called retained capital.

Net-worth: Equity Capital and Reserves & Surplus together represent Shareholder's Funds also known as Net-worth or owners' capital.

Long Term Debt: Any debt taken for a period of more than 1 year is considered to be noncurrent liability or a long term loan. This may be in the form of term loans taken from financial institutions or debt securities issued such as debentures.

Current Liabilities: These are liabilities or payments, which have to be made within a year. Salaries, Utility payments, Trade payables, working capital loans, short-term debt raised through the issue of commercial papers, unclaimed dividends, maturing long term debt and others are typical examples of current liabilities. Current liabilities are analysed to determine the efficiency with which the working capital is managed.

Application of Funds: This is the right side of the Balance Sheet, where details of assets are given. A company can have fixed long term assets like plant and machinery or short term assets like investments in liquid funds or inventory.

Fixed Assets: These are assets which a company builds to produce goods and services. A manufacturing plant would need heavy machines, a software company would need computers, a real estate company would need land, etc. these are all assets from which the company would generate revenues

Current Assets: Current Assets are those which can be converted into cash within a year. Inventory, trade receivables, investments, short term loans and advances and cash are all examples of current assets. Current assets analysis is important to understand the working capital situation of the company. A large level of inventory or trade receivables may mean capital tied up and the company may be paying a high cost for debt

Basics of Cash Flows

Operating cash flows – Cash flows from business operations (P/L items). Incoming cash is positive and outgoing cash is negative. The net profit of a company can be converted into the operating cash flow number by adding back non-cash expenditures such as depreciation and amortization and changes in account receivables and payables.

- ***Investing cash flows*** - Cash flows on account of assets (B/S items). Buying assets is negative cash flow and selling assets is positive cash flow.
- ***Financing cash flows*** – Cash flows on account of liabilities (B/S items). Borrowing money or issuing/expanding equity is positive cash flow and redeeming debt and/or equity is negative cash flow.

Contingent Liabilities are liabilities that may be incurred by an entity depending on the outcome of an uncertain future event.

Off-Balance Sheet Items:

Simply stating, any asset or liability that does not appear on a company's balance sheet is an off-balance sheet item. For example, loans taken are part of liability in the books of the company, operating lease, which is an alternative way of financing an asset is an off-balance sheet item. Contingent liabilities, as defined above, are also off-balance sheet items

Profitability Ratios

EBITDA Margin and Net Profit Margin (NPM) or **Profit After Tax margin (PAT margin)**.

EBITDA Margin = EBITDA / Net Sales

A firm with a higher EBITDA margin, indicates that it is able to operate with greater efficiency than other peer group companies. The EBITDA margins are useful in identifying profitability trends in an industry since it is not affected by the depreciation policies, funding decisions and taxation rates of the companies. .

In our example EBITDA Margin is 80% (80/ 100).

PAT Margin: Shareholders of a business get their dues only at the end, i.e. after paying all stakeholders, including the government. Hence, they would like to know how much of the business generated by the company actually comes their way. This is found by calculating PAT Margin. **PAT Margin = PAT/ Net Sales**

Return Ratios

Return on Equity (ROE): This is the single most important parameter for an investor to start digging for more information about a company. ROE communicates how a business

allocates its capital and generates return. An efficient allocator of capital would have high ROE and a poor quality of business would have low ROE.
ROE, sometimes also known as Return on Net-worth (RoNW), is calculated as
ROE = PAT/ Net-worth
Net-worth = Equity Capital + Reserves & Surplus
Higher the ROE, better the firm.
ROE is further decomposed into 3 steps, known as Du Pont Analysis:
PAT / Net-worth = (PAT / Net Sales) * (Net Sales / Fixed Assets) * (Fixed Assets / Net-worth)
ROE = Net Profit Margin * Asset Turnover * Equity Multiplier
In other words, RoE considers the operating efficiency of the firm, the efficiency with which the assets are used by business to generate revenues and the financial leverage used by the business.

Return on Capital Employed (ROCE): This ratio uses EBIT and calculates it as a percentage of the money employed in the firm by way of both equity and debt.
ROCE = EBIT/ Capital Employed
Capital Employed = Total Assets – Current Liabilities or Total Equity + Total Debt
Higher the ratio, better the firm since it is generating higher returns for every rupee of capital employed. Investors can use this to analyse the returns of companies with different sizes in the same industry.

Leverage Ratios
D/ E Ratio = Long Term Debt / Net-worth
Interest Coverage Ratio = EBIT / Interest Expense

Liquidity Ratios
Current Ratio = Current Assets / Current Liabilities
Quick Ratio = (Current Assets – Inventories) / current liabilities

Efficiency Ratios

Accounts Receivable Turnover: This ratio indicates how fast company converts its sale in to cash. Higher the ratio, better the firm, as it means that very small portion of its revenues are in the form of credit
Accounts Receivable Turnover = Revenue / Accounts Receivable
Accounts Payable Turnover: This ratio indicates how much of a company's purchases are on credit. This ratio is calculated as:
Accounts Payable Turnover = Purchases / Accounts Payable

Asset Turnover = Net Sales / Total Assets
Inventory Turnover = Sales / Inventory

Equity dilution is an outcome of the issue of additional shares by a company. This increase in the number of shares outstanding can result from a primary market offering (including an initial public offering or Follow on Offering or Rights issue), employees exercising stock options, or by conversion of convertible bonds, preferred shares or warrants into stock.

CHAPTER 9: CORPORATE ACTIONS

A company may declare 'interim dividends' during the financial year and a 'final dividend' at the end of the year. A company has to pay dividends within 30 days of its declaration.
SEBI has mandated that listed companies shall declare dividends in rupees terms on per share basis as against the earlier practice of declaring dividends as a percentage of the face value.

Rights Issue - When a company needs additional equity capital, it has two choices – ask more money from existing shareholders or go for fresh set of investors. If company chooses latter i.e. issues shares to fresh set of investors, proportionate holding of existing shareholders gets diluted.
Subscribing to the rights issue is choice and not compulsion for investors. They may buy shares offered to them under rights issue or let the choice expire without any action or may choose to transfer their rights/entitlement to another person for consideration (sell) or without consideration (under love and affection). This is called renunciation of rights. Rights entitlements also get traded on the stock exchange for a defined period.
A rights issue is open for subscription for a minimum period of 15 days and a maximum period of 30 days.

Bonus Issue - A bonus issue, also known as equity dividend, is an alternative to cash dividend. Bonus shares are issued to the existing shareholders by the company without any consideration from them.
The reserves lying in the books of the company (shareholders' money) gets transferred to another head i.e. paid-up/subscribed capital. The shareholders do not pay anything for these shares and there is no change in the value of their holdings in the pre and post-bonus stages.
The issuance of bonus shares is more to influence the psychology of investors without any economic impact. Issuance of bonus shares is termed as capitalization of reserves

Stock Split - A stock split is a corporate action where the face value of the existing shares is reduced in a defined ratio. A stock split of 1:5 means split of an existing share into 5 shares. Accordingly, face value of shares will go down to 1/5th of the original face value. For example, if an investor holds 100 shares of a company with a face value of Rs.10 each, a stock split in the ratio of 1:5 will increase the number of shares held by him to 500 but the face value of each share will go down to Rs. 2. From the company's perspective, there is no change in its share capital since an increase in the number of shares is offset by a fall in the face value and resultant multiplier of face value and outstanding no. of shares remains the same

Share Consolidation - Share consolidation is the reverse of stock split. In a share consolidation, the company changes the structure of its share capital by increasing the par value of its shares in a defined ratio and correspondingly reducing the number of shares outstanding to maintain the paid up/subscribed capital. A stock consolidation of 5:1 means consolidation of 5 existing share into 1 share.
Accordingly, face value of shares will go up 5 times of the original face value and no. of outstanding shares will become one fifth the original number.

Loan Restructuring - Loan or debt restructuring is a mechanism available to companies in financial distress who are unable to meet their obligations to their lenders to restructure their debt by modifying one or more of the terms of the loans. This may include the amount of loan, rate of interest, the mode of repayment: funds and/or equity in the company, and the term of the loan and so that the repayment obligation is within the payment capacity of the borrower

Buy Back of Shares - A company may deploy excess cash on the balance sheet in various ways. It may use the money to expand business and grow or reduce its liability by paying back/reducing its borrowings, if any, and/or to distribute to the shareholders. If it chooses the third option, management needs to choose between homogenous distribution of this money among all shareholders through dividend or it would offer a choice to the shareholders to have the money through selling their shares back to the business or in kind in terms of enhanced value of each share in terms of Earning Per Share (EPS) and Book Value Per Share (BV).

Delisting of Shares - Delisting of shares refers to the permanent removal of the shares of a company from being listed on a stock exchange. Delisting may be compulsory or voluntary. In a compulsory delisting, the shares are delisted on account of non-compliance to regulations and the clauses of the listing agreement by the company. In a voluntary delisting, the company chooses to get the shares delisted and go private.

S**hare Swap -** Swap, simply means, exchange of something. Accordingly, share swap means exchanging one set of shares with another set of shares. Term share swap is often used during a merger or acquisition of a company when acquiring company uses its own stock as cash to purchase the business. Each shareholder of the acquired company receives a pre-determined amount of shares from the acquiring company

CHAPTER 10: VALUATION PRINCIPLES

Earnings Based Valuation Matrices

Dividend Yield = Dividend per share (DPS) / Current price of stock

Earning Yield = Earnings Per Share (EPS) / Current price of stock

The reverse of Earning Yield is the popularly known Price to Earnings Ratio which can be defined as:

Price to Earnings Ratio = Current price of stock/ Earnings Per Share (EPS)

PEG ratio is defined as:

Growth adjusted Price to Earnings Ratio = [Current Price of Stock / Earnings Per Share] /
Growth rate

PEG Ratio was the term coined by Peter Lynch, a savvy investor and fund manager. He believed that sometimes a high price to earnings ratios could be justified on the foundation of high growth potential in the business.

For a buyer of the entire business, what matters is the value of the entire firm or what he would have to pay to take over the entire business including value of equity and value of debt. This is called Enterprise Value (EV) and it considers the value of the equity and the debt as debt becomes the liability of the acquirer on acquisition of 100% equity. It is calculated as:

Enterprise value = Market value of equity (Market capitalization) + Market value of debt – cash and cash equivalents

Enterprise Value (EV) to Sales Ratio

When EV to EBIT or EV to EBITDA ratios start showing signs of expensiveness, then market participants, to justify cheapness of businesses, move to measures such as EV to Sales Ratio. It is used as a comparative metric when the firm makes no operating profits. If a business is making sales but losing money continuously even at the operating level, it may be a candidate for restructuring

Assets based Valuation Matrices

ROE = Net Profits / Equity capital or Net-worth
ROCE = EBIT / Total Capital Employed (Debt + Net-worth)
Return on Invested Capital = Earnings / Invested Capital
Return on Equity (ROE) Based Valuation
Price to book value ratio = Market price per share/ Book value per share
Or
Price to book value ratio = Market capitalization/ Book value of equity or net-worth
Return on Capital Employed (ROCE) based valuation
EV = Value of Equity + Value of Debt – cash and cash equivalents
EV to Capital Employed ratio = Enterprise Value / Capital Employed (Total Equity + Total Debt)

Net Asset Value Approach

Net asset value (NAV) of equity is the market value of an entity's assets minus the value of its liabilities. This is different from the book value or net-worth of equity as one is using the market value of asset (not book value of assets) to arrive at the NAV.
This valuation methodology is used in some businesses which are extremely assets oriented such as Real Estate, Shipping, Aviation etc.

CHAPTER 11: FUNDAMENTALS OF RISK AND RETURN

Return on Capital/investment (ROI) is the comparison of returns with the investment and can be defined for single period as:
Return on investment (%) = (Net profit / Investment) × 100

Inflation Risk: Inflation risk represents the risk that the money received on an investment may be worth less when adjusted for inflation. Inflation risk is also known as purchasing power risk. It is a risk that arises from the decline in value of security's cash flows due to the falling purchasing power of money

***Interest Rate Risk*:** Interest rate risk refers to the risk that bond prices will fall in response to rising interest rates, and rise in response to declining interest rates. Bond prices and interest rates have an inverse relationship

Business Risk: Business risk is the risk inherent in the operations of a company. It is also known as operating risk, because this risk is caused by factors that affect the operations of the company. Common sources of business risk include cost of raw materials, employee costs, introduction and position of competing products, marketing and distribution costs.

Market Risk: Market risk refers to the risk of the loss of value in an investment because of adverse price movements in an asset in the market. The price of an asset responds to information that impacts its intrinsic value

Credit Risk: Credit Risk or default risk refers to the possibility that a particular bond issuer will not be able to make expected interest rate payments and/or principal repayment. Debt instruments are subject to default risk as they have pre-committed pay outs.

Liquidity Risk: Liquidity risk refers to an absence of liquidity in an investment. Thus, liquidity risk implies that the investor may not be able to sell his investment when desired, or it has to be sold below its intrinsic value, or there are high costs to carrying out transactions

Call Risk: Call risk is specific to bond issues and refers to the possibility that a debt security will be called prior to its maturity. Call risk usually goes hand in hand with reinvestment risk

Reinvestment Risk: Re-investment risk arises from the probability that income flows received from an investment may not be able to earn the same interest as the original interest rate.

Political Risk: Risk associated with unfavourable government actions - possibility of nationalization, change in tax structures, licensing etc. is called political risk

Country Risk refers to the risk related to a country as a whole. There is a possibility that it will not be able to honour its financial commitments. When a country defaults on its obligations, this can affect the performance of all other securities in that country as well as other countries it has relations with. Country risk applies to all types of securities issued in that country

Concepts of Market Risk (Beta) - Beta is a measure of the systematic risk of a security or a by comparing the volatility in the investment relative to the market, as represented by a market index. It measures the risk of an investment that cannot be diversified away

Loss-aversion bias: Loss aversion refers to investor's tendency to strongly prefer avoiding losses to acquiring gains. The fear of loss leads to inaction. Studies show that the pain of loss is twice as strong as the pleasure of gain of a similar magnitude. Investors prefer to do

nothing despite information and analysis favouring a particular action that in the mind of the investor may lead to a loss

Confirmation bias: Confirmation bias, also called my side bias, is the tendency to search for, interpret, or prioritize information in a way that confirms one's beliefs or hypotheses. It is a type of cognitive bias and a systematic error of inductive reasoning

Ownership bias: Things owned by us appear most valuable to us. Sometimes known as the endowment effect, it reflects the tendency to place a higher value on a position than others would. It can cause investors to hold positions they would themselves not buy at the current level

Gambler's fallacy: Predicting absolutely random events on the basis of what happened in the past or making trends when there exists none. It is the mistaken belief that if something happens more frequently than normal during some period, then it will happen less frequently in the future, or that if something happens less frequently than normal during some period, then it will happen more frequently in the future (presumably as a means of balancing nature).

Winner's curse: Tendency to make sure that a competitive bid is won even after overpaying for the asset. While behaviourally it is a win, financially, it may be a loss.

Herd mentality: This is a common behaviour disorder in investing community. This bias is an outcome of uncertainty and a belief that others may have better information, which leads investors to follow the investment choices that others make. Such choices may seem right and even be justified by short-term performance, but often lead to bubbles and crashes

Anchoring: Anchoring is a cognitive bias that describes the common human tendency to rely too heavily on the first piece of information offered when making decisions. Investors hold on to some information that may no longer be relevant, and make their decisions based on that. New information is labelled as incorrect or irrelevant and ignored in the decision making process

Projection bias: We project recent past to the distance future completely ignoring the distant past.

CHAPTER 12: QUALITIES OF A GOOD RESEARCH REPORT

Fact-based sections in research report:
Peer group analysis, shareholding pattern, company fundamentals, key financial indicators and financials.
Source of information: Annual reports, quarterly reports, calculations.

View-based section in research report:
Company Business, Key Strengths, Key concerns, Industry Overview.
Source of information: Communication with management, Personal Understanding of the business and industry.

Rating Conventions
In financial markets, while rating stocks, various conventions are used by the research analysts. The prevalent recommendations include: **"buy", "overweight", "hold", "underweight" and "sell"**.

Analysts also use recommendations such as 'accumulate' and 'reduce' to reflect a view that triggers for the stock's performance is expected in the defined time frame, which will result in the returns materialising. 'Outperformer',
'performer or neutral' and 'underperformer' indicate the expectation of the stock's returns relative to the sector or market. The analyst may even indicate the expected level of out/underperformance

CHAPTER 13: LEGAL AND REGULATORY ENVIRONMENT

Ministry of Finance
The Ministry of Finance is an important ministry within the Government of India. It handles issues related to taxation, financial legislation, financial institutions, capital markets, state finances and the Union Budget. It comprises of five departments:
Department of Economic Affairs is the nodal agency of the Central Government to formulate and monitor India's macroeconomic policies, covering monetary and fiscal policy as well as the functioning of the Capital Market including stock exchanges. Other responsibilities include the mobilization of external resources and issuance of bank notes and coins. A principal responsibility of this Department is preparation of the Union Budget annually.
Department of Expenditure oversees the expenditure management of Government of India. It is concerned with, among other things, the administration of various financial rules and regulations including service conditions of all Central Government employees. The department is also involved with matters such as financial assistance to states and borrowings by states.

Department of Revenue: This department handles the matters relating to all the Direct and Indirect Taxes through two statutory Boards namely, the Central Board of Direct Taxes (CBDT) and the Central Board of Excise and Customs (CBEC)

Department of Financial Services: This department covers Banks, Insurance, Financial Services provided by various government agencies and private corporations, pension reforms and Industrial Finance and Micro, Small and Medium Enterprise.

Department of Disinvestments*:* This department is responsible for systematic policy approach to disinvestment and privatization of Public Sector undertakings. The department is also concerned with the financial policy relating to the utilization of proceeds of disinvestment.

Ministry of Corporate Affairs - is primarily concerned with administration of the Companies Act and other allied Acts, rules and regulations framed there-under mainly for regulating the functioning of the corporate sector in accordance with law. The issuance of securities by companies is also subject to provisions of the Companies Act. The Registrar of Companies (ROC) is the authority appointed under the Companies Act to register companies and to ensure that they comply with the provisions of the law. The Ministry is also responsible for administering the Competition Act 2002 which has replaced the Monopolies and Restrictive Trade Practices Act, 1969 (MRTP). The Ministry also supervises three professional bodies, viz., the Institute of Chartered Accountants of India (ICAI), the Institute of Company Secretaries of India (ICSI) and the Institute of Cost and Works Accountants of India (ICWAI).The Ministry of Corporate Affairs is also vested with the responsibility of administering the Partnership Act, 1932, the Companies (Donations to National Funds) Act, 1951 and Societies Registration Act, 1980.

Reserve Bank of India is the central bank of the country which has the responsibility of administering the monetary policy. Its key concern is to ensure the adequate growth of money supply in the economy so that economic growth and financial transactions are facilitated, but not so rapidly which may precipitate inflationary trends

Securities and Exchange Board of India is the regulatory authority for the securities market in India. SEBI was established under Section 3 of SEBI Act, 1992 under an act of Parliament

Insurance Regulatory and Development Authority of India (IRDAI) regulates the insurance sector in India in accordance with the terms of the IRDA Act, 1999. IRDAI is the licensing authority for insurance companies and defines the capital and networth requirements for insurance companies. IRDAI's mission is to regulate, promote and

ensure orderly growth of the insurance sector, including the re-insurance business, while ensuring protection of the interest of insurance policyholders.

Pension Fund Regulatory and Development Authority (PFRDA)
The PFRDA is the authority entrusted to act as a regulator of the pension sector in India under the PFRDA Act, 2013. It was constituted in October 2003 with the following responsibilities: (a) To promote old age income security by establishing, developing and regulating pension funds, (b) To protect the interests of subscribers to schemes of pension funds and related matters. The PFRDA has been assigned the responsibility of designing the structure of funds and constituents in the National Pension System (NPS)

Securities Contracts (Regulation) Act, 1956 - The Securities Contracts (Regulation) Act, 1956 (SC(R)A), provides for direct and indirect control of virtually all aspects of securities market to SEBI – instruments, intermediaries, issuers and investors.

Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 2015

The regulations prohibiting insider trading have been made pursuant to section 30 of the SEBI Act, 1992.
The regulations define "insider" as any person who is a connected person or one in possession of or having access to unpublished price sensitive information.
A connected person is defined by the act as anyone who has been associated with the company in the six months prior to the connected act and include any person who has been in frequent communication with the officers of the company in pursuit of contractual, fiduciary or employment relationship or as an officer, employee or director of the company or holds any position that provides access to such unpublished price sensitive information..
Further, an explanation is provided of the expression, "person is deemed to be a connected person" in detail. Such persons are deemed to be connected persons until
the contrary is established. Examples of such a person are:
a) An immediate relative of a connected person including spouse, parent, sibling and child and other dependent persons
b) A holding company, subsidiary or associate company under the same management or group
c) An intermediary as specified in section 12 of the SEBI Act, 1992, Investment Company, Trustee Company, Asset Management Company or an employee or director thereof or an official of a stock exchange or of clearing house or corporation
d) A merchant banker, share transfer agent, registrar to an issue, debenture trustee, broker, portfolio manager and others, as specified

e) A member of the Board of Directors or an employee of a public financial institution as defined in section 4A of the Companies Act, 1956
f) A relative of any of the aforementioned persons
g) A banker of the company
The regulations define unpublished price sensitive information (UPSI) that affect the company or its securities as those that is not generally available and which can materially affect the price of the securities. Such information includes the following:
1. Periodical financial results of the company
2. Intended declaration of dividends, both interim and final
3. Issue of securities, or buyback of securities and other change in capital structure
4. Mergers, acquisition, demergers, delisting, disposal of business
5. Any change in key personnel
6. Material events as defined under the listing agreement

Chinese Wall - To prevent the misuse of confidential information the organisation / firm shall adopt a "Chinese Wall" policy which separates those areas of the organisation/firm which routinely have access to confidential information, considered "insider areas" from those areas which deal with sale/ marketing/investment advice or other departments providing support services considered public areas and processes which would permit any designated persons to cross the wall".

These regulations also state that "Analysts, if any, employed with the organization /firm while preparing research reports of client company(s) shall disclose their shareholdings/interest in such company(s) to the Compliance Officer and the Analysts who prepare research report of listed company shall not trade in securities of that company for thirty days from preparation of such report."

Chapter III of SEBI (Research Analyst) Regulations

Regulation 18: Limitations on publication of research report, public appearance and conduct of business, etc.

(1) Research analyst or research entity shall not publish or distribute research report or research analysis or make public appearance regarding a subject company for which he has acted as a manager or co-manager at any time falling within a period of:
(a) 40 days immediately following the day on which the securities are priced if the offering is an initial public offering; or
(b) 10 days immediately following the day on which the securities are priced if the offering is a further public offering

Regulation 25: Maintenance of records

(1) Research analyst or research entity shall maintain the following records:
(i) research report duly signed and dated;
(ii) research recommendation provided;
(iii) rationale for arriving at research recommendation;
(iv) record of public appearance.
(2) All records shall be maintained either in physical or electronic form and preserved for a minimum period of five years:

IMPORTANT NOTE :

1. Attend ALL Questions
2. For the questions you don't know the right answer – Try to eliminate the wrong answers and take a guess on the remaining answers.
3. DO NOT MEMORISE the question & answers. It's not the right to way to prepare for any NISM exam. Good understanding of Concepts is essential.

All the Best ☺

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