6th SEMESTER BBA

CALICUT UNIVERSITY

INVESTMENT MANAGEMENT

2019 ADMISSIONS

SEMESTER NOTE

Prepared by

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BACHELOR OF BUSINESS ADMINISTRATION

BBA6B16(Elective 4) INVESTMENT MANAGEMENT

Lecture hours per week: 5 **Credit: 4**

Internal 20: **External 80**

Course Objectives:

To familiarise the students with the world of investments and to provide a theoretical framework for the analysis and valuation of investments.

Course outcome : By completing the course students will be able to aware of various investment opportunities from an investor's perspective of maximizing return on investment.

Module 1 : Investments: meaning and definition – objectives - factors affecting investment decisions– differences of investment with speculation and gambling - steps in investment process – investment policy and investment avenues. **10 Hours**

Module II : Investment Analysis: return, risk and time value of money – risk-return analysis in investment management: systematic and unsystematic risks- measures of risk and return. **15 Hours**

Module III : Approaches to Investment Valuation: Fundamental analysis – meaning and importance- rationale of fundamental analysis. EIC framework: Analysis of Economy, Industry and Company factors – sources of investment information. **15 Hours**

Module IV : Technical analysis: meaning – trading strategies- Dow theory- Charts and Chart patterns. Efficient Market Hypothesis: weak, semi-strong and strong forms of efficiency-random walk theory – modern portfolio approach. **20 Hours**

Module V : Portfolio management: portfolio analysis – Markowitz model- Capital Asset Pricing Model-portfolio evaluation: Sharpe, Treynor and Jensen performance measures- portfolio revision: active and passive strategies. **20 Hours**

Reference Books:

1. Rustagi RP, Investment Analysis and Portfolio Management, Sultan Chand & sons, NewDelhi.
2. S.Kevin, Portfolio management, Prentice Hall of India Pvt Ltd.
3. Bhalla, Investment analysis, Sultan Chand & Sons New Delhi.
4. Avadhani V A Security Analysis and Portfolio Management, Himalaya Publishing House.
5. Donald E Fisher and Ronald J Jordan, Security Analysis and Portfolio Management,Himalaya Publishing House.
6. Preethi Sing, Investment Management, Himalaya Publishing House, New Delhi.
7. Benjamin Graham and David Dodd, Security Analysis, McGraw Hill Education

Module 1

INVESTMENT ENVIRONMENT

The income that a person receives may be used for purchasing goods and services that he currently requires or it may be saved for purchasing goods and services that he may require in the future .In other words, income can be what is spent for current consumption. savings are generated when a person or organization abstain from present consumption for a future use .The person saving a part of his income tries to find a temporary repository for his savings until they are required to finance his future expenditure .this result in investment.

Meaning of investment

Investment is an activity that is engaged in by people who have savings, i.e. Investments are made from savings, or in other words, people invest their savings. But all savers are not investor's .investment is an activity which is different from saving. Let us see what is meant by investment. It may mean many things to many persons. If one person has advanced some money to another, he may consider his loan as an investment. He expect to get back the money along with interest at a future date .another person may have purchased on kilogram of gold for the purpose of price appreciation and may consider it as an investment. In all these cases it can be seen that investment involves employment of funds with the main aim of achieving additional income or growth in the values. The essential quality of an investment is that it involves something for reward. Investment involves the commitment of resources which have been saved in the hope that some benefits will accrue in future. Thus investment may be defined as "a commitment of funds made in the expectation of some positive rate of return "since the return is expected to realize in future, there is a possibility that the return actually realized is lower than the return expected to be realized. This possibility of variation in the actual return is known as investment risk. Thus every investment involves return and risk.

Amling defines investment as "purchase of financial assets that produces a yield that is proportionate to the risk assumed over some future investment period."

According to sharpe,”investment is sacrifice of certain present value for some uncertain future values”.

Characteristics of investment

- Expected return
- Risk
- Liquidity or marketability
- Tax consideration

Investment alternatives

- Cash and deposits
- Fixed income securities
- Shares
- Properties
- Derivatives
- Commodities
- Life insurance
- Annuities

Investment objectives

- Safety
- Rate of return
- Risk
- Marketability
- Taxes
- Convenience
- Growth of capital

Need and benefits of investment

- Income
- Capital appreciation
- Highly regulated
- Tax advantages
- Collateral
- Confidentiality
- Flexibility
- Operating convenience

- Liquidity
- Hedge against inflation
- Spreading of risk and maximization of return
- Preparation towards personal pension plan

Investment decision process

Investing has been an activity confined to the rich and business class in the past. But today, we find that investment has become a house hold word and is very popular with people from all walks of life .India appears to be slowly but surely closing in some of the top savers among countries in the global peaking order. Savings in Indians touched a new high of 31percent of the GDP during2011-2012.chain leads the pack of savers with the saving figure at close to 49 percent of GDP followed by other emerging market economies like Bangladesh 36 percent, Bhutan 48 percent of their GDP. The escalating cost due to, inflation are decreasing the value of saved money with each passing year .consider the cost buying a home ,of getting admitted in a hospital or paying for the higher education of a child. One's life's savings could vanish in a blink. Knowledgeable investing requires the investing to be aware of his needs the amount of money he can invest and the investment options available to him .These will relate to the investment decision process. A typical investment decision goes through a five step procedure which is known as investment process these steps are:

1. Defining the investment objective

2. Analyzing securities

3. Construct a portfolio

4. Evaluate the performance of portfolio

5. Review the portfolio

- **Defining the investment objective**
  Investment objective may vary from person to person .it should be stated in terms of both risk and return .In other words ,the objective of an investor is to make money accepting the fact of risks that likely to happen .The typical objectives of investor include the current income ,capital appreciation, and safety of principal. More over constrains arising due to liquidity, the time

horizon, tax and other special circumstances, if any must also be considered this steps of investment process also identifies the potential financial Assets that may be included in the portfolio based on the investment objectives.

- **Analyzing securities**
  The second steps of analyzing securities enable the investor to distinguish between underpriced and overpriced stock. Return can be maximized by investing in stocks which are currently underpriced School of Distance Education Fundamentals of Investment Page 8 but have the potential to increase .it might be useful to remember the golden principle of investment; buy low sell high. There are two approaches used for analyzing securities; technical analysis and fundamental analysis.
- **Construct a portfolio**
  The actual construction of portfolio, Which can be divided into three sub parts a) How to allocate the portfolio across different asset classes such as equities, fixed income securities and real assets b) The assets selection decision, this is the step where the stocks make up the equity component, the bonds that make up the fixed income component. c) The final component is execution, where the portfolio is actually put together, where investors have to trade off transaction cost against transaction speed.
- **Evaluate the performance of portfolio**
  The performance evaluation of the portfolio done on the in terms of risk and return. Evaluation measures are to be developed .CAGR (compounded annual growth rate) may be one criterion. Hindustan uniliver gave a CAGR of 21 percent in returns to the shareholders for the last 13 years.
- **Review the portfolio**
  It involves the periodic repetition of the above steps. The investment objective of an investor may change overtime and the current portfolio may no longer be optimal for him. so the investor may form a new portfolio by selling certain securities and purchasing others that are not held in the current portfolio.

Types of Investments

Nonnegotiable securities

Deposits earn fixed rate of return. Even though bank deposits resemble fixed income securities they are not negotiable instruments. Some of the deposits are dealt subsequently.

a) Bank deposits
   It is the simplest investment avenue open for the investors. He has to open an account and deposit the money. Traditionally the banks offered current account, Saving account and fixed deposits account. Current account does not offer any interest rate. The drawback of having large amount in saving accounts is that the return is just 4 percent. The saving account is more liquid and convenient to School of Distance Education Fundamentals of Investment Page 9 handle. The fixed account carries high interest rate and the money is locked up for a fixed period. With increasing competition among the banks, the banks have handled the plain saving account with the fixed account to cater to the needs of the small savers.
b) Post office deposits
   Post office also offers fixed deposit facility and monthly income scheme. Monthly income scheme is a popular scheme for the retired, an interest rate of 9 percent is paid monthly .the term of the scheme is 6 years, at the end of which a bonus of 10 percent is paid .the annualized yield to maturity works out to be 15.01 per annum, after three years, premature closure is allowed without any penalty .if the closure is one year, a penalty of 5 percent is charged.

NBFC deposits

In recent years there has been a significant increase in the importance of nonbanking financial companies in the process of financial intermediation. The NBFC come under the purview of the RBI. The Act in January 1997, made registration compulsory for the NBFCs 1) Period the period ranges from few months to five years. 2) Maximum limit the limit for acceptance of deposit has been on the credit rating of the company. 3)Interest NBFCs have been debarred from offering an interest rate exceeding 16% per annum and a brokerage fee over 2% on public deposit. The interest rate differs according to maturity period.

Tax sheltered saving scheme

The important tax sheltered saving scheme is

a) Public provident fund scheme(PPF)

PPF earn an interest rate of 8.5% per annum compounded annually. This is exempted from the income tax under sec80C. The individuals and Hindu undivided families can participate in this scheme. There is a lock in period of 15years.PPF is not indented for those who are liquidity and short term returns. At the time of maturity no tax is to be given.

b) National saving scheme (NSS) This scheme helps in deferring the tax payment. Individuals and HUF are eligible to open NSS account in the designated post office.

c) c) National saving certificate This scheme is offered by the post office. These certificate come in the denomination of Rs.500,1000,5000 and 10000.the contribution and the interest for the first five years are covered by sec 88.the interest is cumulative at the rate of 8.5%per annum and payable biannually is covered by sec 80 L

Life insurance

Life insurance is a contract for payment of a sum of money to the person assured on the happening of event insured against. Usually the contract provides for the payment of an amount on the date of maturity or at a specified date or if unfortunate death occurs. The major advantage of life insurance is given below;

1) Protection saving through life insurance guarantees full protection against risk of death of the saver. The full assured sum is paid, whereas in other schemes only the amount saved is paid.

2) Easy payments for the salaried people the salary saving schemes are introduced. Further there is an installment facility method of payment through monthly, quarterly, half yearly or yearly mode.

3) Liquidity loans can be raised on the security of the policy

4) Tax relief tax relief in income tax and wealth tax is available for amounts paid by way of premium for life insurance subject to the tax rates in force.

Type of life insurance policy

a) Endowment policy; the objective of this policy is to provide an assured sum, both in the event of the policy holders' death or at the expiry of the policy.

b) Term policy: In a term policy investor pays a small premium to insure his life for a comparatively higher value. The objective behind the scheme is not to get any amount on the expiry of the policy. But simply to ensure the financial future of the investors dependents.

c) Whole life policy It is a low cost insurance plan where the sum assured is payable on the death of the life insured and premium are payable throughout life.

d) Money back policy

The insurance company pays the sum assured at periodical intervals to the policy holder plus the entire sum assured to the beneficiaries in case of the policy holders demise before maturity.

ULIPs:

Unit Linked Insurance Policies are a combination of mutual fund and life insurance. Investments in ULIPs have two component-one part is used as a premium for life insurance while the other part acts s the investment fund. The investment component works exactly like mutual fund money is invested in stocks, bonds; government securities etc., an investor receive money in return.

Mutual fund

Investing directly in equity shares, and debt instruments may be difficult task for a large number of customers because they want to know more about the company, promoter, prospects, competition for the product etc.in such a case, investor can go for investing in financial assets indirectly through mutual fund. A mutual fund is a trust that pools the savings of a number of investors who share a common financial goal. Each scheme of a mutual fund can have different character and objectives.

Types of return

- Capital appreciation: an increase in the value of the units of the fund is known as capital appreciation ¬
- Dividend distribution: the profit earned by the fund is distributed among unit holders in the form of dividends.

Type of mutual funds

- Open ended schemes: In this scheme there is an uninterrupted entry and exist into the funds. The open ended scheme has no maturity period and they are not listed in the stock exchanges. The open ended fund provides liquidity to the investors since repurchase available.

- Closed ended funds: The closed ended funds have a fixed maturity period. The first time investments are made when the close ended scheme is kept open for a limited period. Once closed, the units are listed on a stock exchange .investors can buy and sell their units only through stock exchanges.

Other classification

- Growth scheme: aims to provide capital appreciation over medium to long term. Generally these funds invest their money in equities.
- Income scheme: aims to provide a regular return to its unit holders. Mostly these funds deploy their funds in fixed income securities.

Balanced scheme

A combination of steady return as well as reasonable growth. The fund of this scheme is invested in equities and debt instruments.

- Money market scheme: this type of fund invests its money to money market instruments.
- Tax saving scheme: this type of scheme offers tax rebates to investors.
- Index scheme: Here investment is made on the equities of the Stock index.

Real estate

The real estate market offers a high return to the investors. The word real estate means land and buildings. There is a normal notion that the price of the real estate has increased by more than 12% over the past ten years. Real estate investments cannot be enchased quickly. Liquidity is a problem. Real estate investment involves high transaction cost. The asset must be managed, i.e. painting, repair, maintenance etc.

Commodities

Commodities have emerged as an alternative investment option now a days and investors make use of this option to hedge against spiraling inflation- commodities may be broadly divided into three. Metals, petroleum products and agricultural commodities .Metals can be divided in to precious metals and other metals. Gold and silver are the most preferred once for beating inflation.

Gold

Off all the precious metals gold is the most popular as an investment. Investors generally buy gold as a hedge against economic, political, social fiat currency

crisis. Gold prices are soaring to the new highs in recent years comparing to the previous decades because School of Distance Education Fundamentals of Investment Page 13 whenever the signs of an economic crisis arises in the world markets may find shelter in gold as safest asset class for investors all around the world.

Silver

Yellow metal is treated as safe haven .but silver is used abundantly for industrial applications. Investment in silver has given investor, super returns than what gold has given.

Module 2

Concept of risk and return

Any rational investor, before investing his or her investable wealth in the stock, analysis the risk associated with the particular stock. The actual return he receives from a stock may vary from his expected return and is expressed in the variability of return.

Risk

The dictionary meaning of risk is the possibility of loss or injury; risk the possibility of not getting the expected return. The difference between expected return and actual return is called the risk in investment. Investment situation may be high risk, medium and low risk investment.

Ex;

1. Buying government securities low risk
2. Buying shares of an existing Profit making company Medium risk
3. Buying shares of a new company High risk

Types of risk

- Systematic risk: The systematic risk is caused by factors external to the particular company and uncontrollable by the company. The systematic risk affects the market as a whole
- Unsystematic risk: In case of unsystematic risk the factors are specific, unique and related to the particular industry or company.

Sources of risk

- Interest rate risk: Interest rate risk is the variation in the single period rates of return caused by the fluctuations in the market interest rate. Most commonly the interest rate risk affects the debt securities like bond, debentures.
- Market risk: Jack clarkfrancis has defined market risk as that portion of total variability of return caused by the alternating forces of bull and bear market. This is a type of systematic risk that affects share .market price of shares move up and down consistently for some period of time.
- Purchasing power risk another type of systematic risk is the purchasing power risk .it refers to the variation in investor return caused by inflation.
- Business risk: Every company operates with in a particular operating environment; operating environment comprises both internal environment within the firm and external environment outside the firm. Business risk is thus a function of the operating conditions faced by a company and is the variability in operating income caused by the operating conditions of the company.
- Financial risk it refers to the variability of the income to the equity capital due to the debt capital. Financial risk in a company is associated with the capital structure of the company. The debt in the capital structure creates fixed payments in the form of interest this creates more variability in the earning per share available to equity share holders .this variability of return is called financial risk and it is a type of unsystematic risk.
- Return The major objective of an investment is to earn and maximize the return. Return on investment may be because of income, capital appreciation or a positive hedge against inflation .income is either interest on bonds or debenture, dividend on equity, etc.

Rate of return:

The rate of return on an investment for a period is calculated as follows:

Rate of return =annual income + (ending price –beginning price) Beginning price
Ex: Ajay brought a share of a co.for Rs.140 from the market on 1/6/2012.the co. paid dividend of Rs.8 per share .later ajay sold the share at Rs.160 on 1/6/2013

The rate of return= 8+ (160-140)x100 = 20percent

Security Market Indices

Stock market indices are the barometers of the stock market. They mirror the stock market behavior. With some 7,000 companies listed on the Bombay stock exchange, it is not possible to look at the prices of every stock to find out whether the market movement is upward or downward. The indices give a broad outline of the market movement and represent the market. Some of the stock market indices are BSE Sensex, BSE-200, Dollex, NSE-50, CRISIL-500, MCX-SX 40, Business Line 250 and RBI Indices of Ordinary Shares.

Usefulness of Indices

1. Indices help to recognize the broad trends in the market.
2. Index can be used as a bench mark for evaluating the investor's portfolio.
3. Indices function as a status report on the general economy. Impacts of the various economic policies are reflecting on the stock market.
4. The investor can use the indices to allocate funds rationally among stocks. To earn returns on par with the market returns, he can choose the stocks that reflect the market movement.
5. Index funds and futures are formulated with the help of the indices. Usually fund managers construct portfolios to emulate any one of the major stock market index. ICICI has floated ICICI index bonds. The return of the bond is linked with the index movement.
6. Technical analysts studying the historical performance of the indices predict the future movement of the stock market. The relationship between the individual stock and index predicts the individual share price movement

Sources of Investment Information

The following sources of investment information are intended as a starting point. They are stepping stones. As you proceed to research, investigate, educate yourself and learn, you will find that one place of information will lead you to the next, and you will find yourself gaining the knowledge that you need in order to become a most successful investor. Becoming investment literate is an on-going process.

1. Books

"The Intelligent Investor", written by Benjamin Graham - recognized as one of the classic texts on investing, value investing specifically. A comprehensive, essential text for any serious student of investing.

2. Financial websites

MSN Money (moneycentral.msn.com) - up to date financial news, an educational/investing center, stock, bond, and mutual fund research and evaluation resources, help with personal finance and more. CNNMoney.com (money.cnn.com) - as with MSN Money, a comprehensive financial site including current news affecting the economy and the investment community. The site also provides a very helpful, step-by-step, personal finance money guide, Money 101. Morningstar (www.morningstar.com) - a comprehensive research and evaluation site for stocks, bonds, ETF's (exchange traded funds), and mutual funds, utilizing the Morningstar rating system for investment screening.

3. Newspapers and periodicals

Following are the major financial dailies available in Indian newspaper industry • The Hindu- Business LINE • The Economic TIMES Following are the major financial periodicals available in Indian newspaper industry The Business Enterprise Business India Business Today (business magazine) Businessworld Dhanam Magazine

Module 3

APPROACHES TO SECURITY ANALYSIS

Security analysis is the analysis of tradable financial instruments called securities. These can be classified into debt securities, equities, or some hybrid of the two. More broadly, futures contracts and tradable credit derivatives are sometimes included. Security analysis is typically divided into fundamental analysis, which relies upon the examination of fundamental business factors such as financial statements, and technical analysis, which focuses upon price trends and momentum. Another form of security analysis is technical analysis which uses graphs and diagrams for price prediction securities. Simply the process of analyzing return and risks of financial securities may termed as security analysis.

Fundamental analysis

Fundamental analysis is really a logical and systematic approach to estimating the future dividends and share price it is based on the basic premise that share price is determined by a number of fundamental factors relating to the economy, industry and company. In other words fundamental analysis means a detailed analysis of the fundamental factors affecting the performance of companies.

Each share is assumed to have an economic worth based on its present and future earning capacity .this is called its intrinsic value or fundamental value. the

purpose of fundamental analysis is to evaluate the present and future earning capacity of a share based on the economy, industry and company fundamentals and thereby assess the intrinsic value of the share .the investor can compare the intrinsic value of the share with the prevailing market price to arrive at an investment decision. if the market price of the share is lower than its intrinsic value, the investor would decide to buy the share as it is underpriced. The price of such share is expected to move up in the future to match with its intrinsic value.

On the contrary, when the market price of a share is higher than its intrinsic value, it is perceived to be overpriced. The market price of such a share is expected to come down in future and hence, the investor should decide to sell such a share. Fundamental analysis thus provides an analytical framework for rational investment decision making. This analytical framework is known as EIC framework, or economy –industry –company analysis.

Fundamental analysis thus involves three steps:

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

Economy analysis

The performance of a company depends on the performance of the economy. Let us look some of the key economic variables that an investor must monitor as part of his fundamental analysis.

Growth rate of national income

The rate of growth of the national economy is an important variable to be considered by an investor. GNP (gross national product), NNP (net national product), GDP (gross domestic product) are the different measures of the total income or total economic output as a whole. The estimated growth rate of the economy would be a pointer towards the prosperity of the economy. An economy typically passes through different stages of prosperity known as economic or business cycle. The four stages of an economic cycle are

1. Depression: is the worst of the four stages. During a depression, demand is low and declining. Inflation is often high and so are interest rates.
2. Recovery stage: the economy begins to receive after a depression. Demand picks up leading to more investments in the economy. Production, employment and profits are on the increase.

3. Boom: The phase of the economic cycle is characterized by high demand. Investments and production are maintained at a high level to satisfy the high demand. Companies generally post higher profits
4. . 4. Recession: The boom phase gradually slowdown .the economy slowly begin to experience a downturn in demand, production employment etc, the profits of companies are also start to decline. This is the recession stage of the economy.

Inflation

Inflation leads to erosion of purchasing power in the hands of consumers, this will result in lower the demand of products Inflation prevailing in the economy has considerable impact on the performance of companies. Higher rate of inflation upset business plans.

Interest rates

Interest rates determine the cost and availability of credit for companies operating in an economy. a low interest rate stimulates investment by making credit available easily and cheaply. On the contrary, higher interest rates result in higher cost of production which may lead to lower profitability and lower demand.

Government revenue, expenditure and deficits

Government is the largest investor and spender of money, the trend in government revenue and expenditure and deficit have a significant impact on the performance of industries and companies' expenditure by the government stimulates the economy by creating jobs and generating demand. The nature of government spending is of greater importance in determining the fortunes of many companies.

Exchange rates

The performance and profitability of industries and companies that are major importers or exporters are considerably affected the exchange rates of the rupee against major currencies of the world. a depreciation of the rupee improves the competitive position of Indian products in the foreign markets ,thereby stimulating exports .but it would also make import more expensive .a company more depending on imports may find it devaluation of the rupee affecting its profitability adversely.

Infrastructure

The development of an economy depends very much on the infrastructure available. The availability of infrastructure facilities such as power, transportation,

and communication systems affects the performance of companies bad infrastructure lead to inefficiencies, lower productivity, wastage and delays.

Monsoon

The Indian economy is essentially an agrarian economy and agriculture forms a very important sector of the Indian economy. The performance of agriculture to a very extent depends on the monsoon; the adequacy of the monsoon determines the success or failure of the agricultural activities in India.

Economic and political stability

A stable political environment is necessary for steady and balanced growth. Stable long term economic policies are what are needed for industrial growth, such stable policies emanate only from stable political systems as economic and political factors are interlinked.

Industry analysis

An industry ultimately invests his money in the securities of one or more specific companies, each company can be characterized as belonging to an industry. the performance of companies would therefore ,be influenced by the fortunes of the industry to which it belongs. an industry "as a group of firms producing reasonably similar products which serve the same needs of common set of buyers."

Industry life cycle

The industry life cycle theory is generally attributed to Julius grodinsky. According to the industry life cycle theory, the life of an industry can be segregated into to the pioneering stage the expansion stage, the stagnation stage, and the decay stage .this kind of segregation is extremely useful to an investor because the profitability of an industry depends upon its stage of growth.

Pioneering stage

This is the first stage in the industrial life cycle of a new industry where the technology as well as the product are relatively new and have not reached a state of perfection. Pioneering stage is characterized by rapid growth in demand for the output of industry. As a result there is a greater opportunity for profit. Many firms compete with each other vigorously. Weak firms are eliminated and a lesser number of firms survive the pioneering stage. Ex; leasing industry.

Expansion stage

Once an industry has established itself it enters the second stage of expansion or growth. These companies continue to become stronger. Each company finds market for itself and develops its own strategies to sell and maintain its position in the market. The competition among the surviving companies brings about improved products at lower prices. Companies in the expansion stage of an industry are quite attractive for investment purposes.

Stagnation stage

In this stage the growth of the industry stabilizes. The ability of the industry to grow appears to have been lost. Sales may be increasing but at a slower rate than that experienced by competitive industries or by the overall economy. The transition of an industry from the expansion stages to stagnation stages is very slow. Important reason for this transition is change in social habits and development of improved technology.

Ex: the black and white television industry in India provides s a good example of an industry which passed from the expansion stages to stagnation stage.

Decay stage

Decay stage occurs when the products of the industry are no longer in demand. New products and new technologies have come to the market. Customers have changed their habits, style and liking. As a result, the industry become obsolete and gradually ceases to decay of an industry.

Industry characteristics

In an industry analysis there are a number of key characteristics that should be considered by the analyst.

Demand supply gap

The demand for the product usually trends to change at a steady rate, whereas the capacity to produce the product tends to change at irregular intervals, depending upon the installation of additional production capacity. as result an industry is likely to experience under supply and over supply of capacity at different times. Excess supply reduces the profitability of the industry through a decline in the unit price realization. on the contrary, insufficient supply tends to improve the profitability through higher unit price realization.

Competitive conditions in the industry

The level of competition among various companies in an industry is determined by certain competitive forces. These competitive forces are: barriers to entry, the threat of substitution, bargaining power of the suppliers and the rivalry among competitors.

Permanence

Permanence is the phenomenon related to the products and the technology used by the industry. If an analyst feels that the need for a particular industry will vanish in a short period, or that the rapid technological changes would render the products obsolete within short period of time, it would be foolish to invest such industry.

Labour conditions

In our country the labor unions are very power full .if the labour in a particular industry is rebellious and is inclined to resort to strikes frequently, the prospects of that industry cannot become bright.

Attitude of government

The government may encourage certain industries and can assist such industries through favorable legislation. On the contrary, the government may look with disfavor uncertain other industries .in India this has been the experience of alcoholic drinks and cigarette industries. A prospective investor should consider the role of government is likely to play in the industry.

Supply of raw materials

This is also one of the important factor determine the profitability of an industry. Some industry may have no difficulty in obtaining the major raw materials as they may be indigenously available in plenty. Other industries may have to depend on a few manufactures within the country or on imports from outside the country for their raw material supply.

Cost structure

The cost structure that is the fixed and variable cost, affect the cost of production and profitability of the firm. The higher the fixed cost component, higher is the sales volume necessary to achieve breakeven point. conversely, the lower the proportion of fixed cost relative to variable cost ,lower would be the breakeven point provides higher margin of safety an analyst would consider favorably an industry that has a lower breakeven point.

Company analysis

Company analysis is the final stage of fundamental analysis. The economy analysis provides the investor a broad outline of the prospects of growth in the economy, the industry analysis helps the investor to select the industry in which investment would be rewarding. Now he has to decide the company in which he should invest his money. Company analysis provides answer to this question.

In company analysis, the analyst tries to forecast the future earnings of the company because there is a strong evidence that the earnings have a direct and powerful effect upon share prices. The level, trend and stability of earnings of a company, however depend upon a number of factors concerning the operations of the company. Financial statements The financial statements of a company help to assess the profitability and financial health of the company. The two basic financial statements provided by a company are the balance sheet and the profit and loss account. The balance sheet indicates the financial position of the company on a particular date, namely the last day of the accounting year. The profit and loss account, also called income statement, reveals the revenue earned, the cost incurred and the resulting profit and loss of the company for one accounting year.

Analysis of financial statements

Financial ratios are most extensively used to evaluate the financial performance of the company, it also help to assess the whether the financial performance and financial strengths are improving or deteriorating, ratios can be used for comparative analysis either with other firms in the industry through a cross sectional analysis or a time series analysis.

Four groups of ratios may be used for analyzing the performance of the company Liquidity

Ratios

These ratios measure the company's ability to fulfill its short term obligations and

Reflect its short term financial strength or liquidity. The commonly used liquidity ratios are:

1. Current ratio = Current Assets/Current liabilities

2. Quick ratio (acid test) ratio=(current assets –inventory-prepaid expenses)/Current liabilities

Leverage ratios

These are also known as capital structure ratios. They measure the company's ability to meet its long-term debt obligations. The commonly used leverage ratios are the following.

1. Debt equity ratio = long term debt/Shareholders equity

2. Total debt ratio or debt to total assets ratio= Total debt/Total assets

3. Proprietary ratio = shareholders equity/Total assets

4. Interest coverage ratio= earnings before interest and taxes/(EBIT) Interest

Profitability ratios

The profitability of the company can be measured by the profitability ratios. These ratios are calculated by relating the profits either to sales, or to investment,or to the equity shares.

1. Profitability related to sales

a) Gross profit ratio= Gross profit (sales-cost of goods sold)/Sales

b) Operating profit ratio = EBIT/Sales

c) Net profit ratio = earnings after tax (EAT)/Sales

d) Administrative expenses ratio = administrative expenses/Sales

e) Selling expenses ratio = selling expenses/Sales

f) Operating expenses ratio = Administrative expenses +selling expenses/Sales

g) Operating ratio = cost of goods sold + operating expenses/Sales

Profitability related to investment

h) Return on assets =Earnings after tax/Total assets

i) Return on capital employed = EBIT/Total capital employed

j) Return on equity= EAT/Shareholders' equity

2. Profitability related to equity shareholders

a)earnings per share (EPS)= net profit available to equity shareholders/Number of equity shares

b) Earning yield = EPS/Market price per share

c) Dividend yield = DPS (dividend per share)/Market price per share

d) dividend payout ratio = DPS/EPS

e) price earnings ratio (P/E ratio) = market price per share/EPS

There are also known as turnover ratios. These ratios measure the efficiency in asset

management. They express the relationship between sales and the different types of assets.

ACTIVITY OR EFFICIENCY RATIO

1. Current assets turnover = sales/

Current assets

2. Fixed assets turnover = sales/

Fixed assets

3. Total assets turnover = sales/

Total assets

4. Inventory turnover = sales Average/

Inventory

5. Debtors turnover = sales/

Average debtors

MODULE 4

TECHNICAL ANALYSIS

A technical analysis believes that the share price is determined by the demand and supply forces operating in the market. A technical analysis concentrates on the movement of share prices. He climes that by examining past share price movements future share price can be accurately predicted.

The basic premise of technical analysis is that prices move in trends or waves which may be upward or downward. A rational behind the technical analysis is that share price behavior repeat itself over time and analyst attempt to drive methods to predict this repetition.

Dow Theory

The theory formulated by Charles H.Dow.Dow who the editor of the Wall Street Journal in U.S.A

Charles Dow formulated a hypothesis that the stock market does not move on Random basis but is influenced by three distinct cyclical trends that guide its direction. According to Dow Theory, the market has three movements and these movements are Simultaneous in nature. These movements are the primary movements, secondary reactions and minor movements.

The primary movement is the long range cycle that carries the entire market up or down. This is the long term trend in the market. The secondary reactions act as a restraining force on the primary movement these are in the opposite direction to the primary movement and last only for a short while these are also known as corrections. These are secondary reactions. The third movement in the market is the minor movements which are the day to day fluctuations in the market. The minor movements are not significant and have no analytical value as they are of very short duration. The three movements of the market have been compared to the tides, the waves and the ripples in the ocean.

Bullish trend

During the bull market (upward moving market), in the first phase the price would advance with the revival of confidence in the future of business. During the second phase, price would advance due to improvements in corporate earnings, in the third phase, prices advance due to inflation and speculation. According to Dow Theory, the formulation of higher bottoms and higher tops indicates a bullish trend.

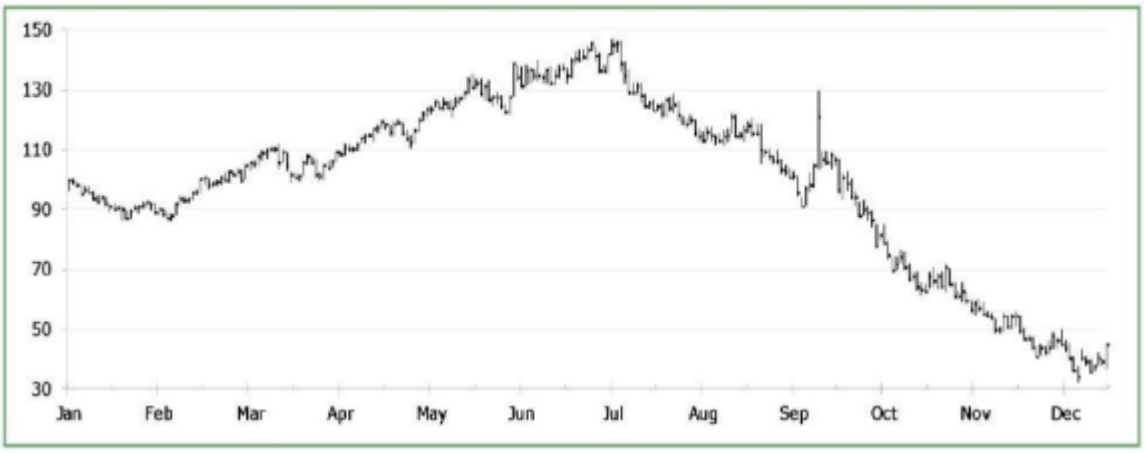
Bearish trend

The bear market is also characterized by three phases, in the first phase, price begin to fall due to abandonment of hopes. In the second phase, companies start to reporting lower profits and lower dividends, in the final phase, price fall still further due to distress selling .a bearish market would be indicated by the formulation of lower tops and lower bottoms.

Price chart

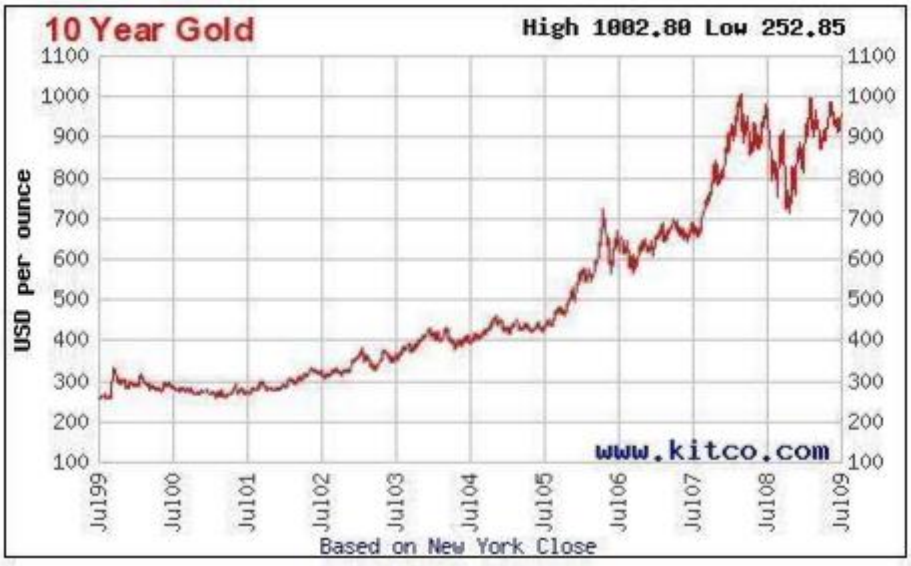
Price chart is the basic tool used by the technical analyst to study the share price movement. The prices are plotted on an XY graph where the X axis represents the trading days and Y-axis denotes the prices.

Three types of price charts are currently used by technical analysts. These are the line chart or the closing price chart, the bar chart and the Japanese candlestick chart.



Line chart

It is the simplest price chart. In this chart, the closing prices of a share are plotted on the XY graph on a day to day basic .the closing price of the each day would be represented by a point on the XY graph. All these points would be connected by a straight line which would indicate the trend of the market.

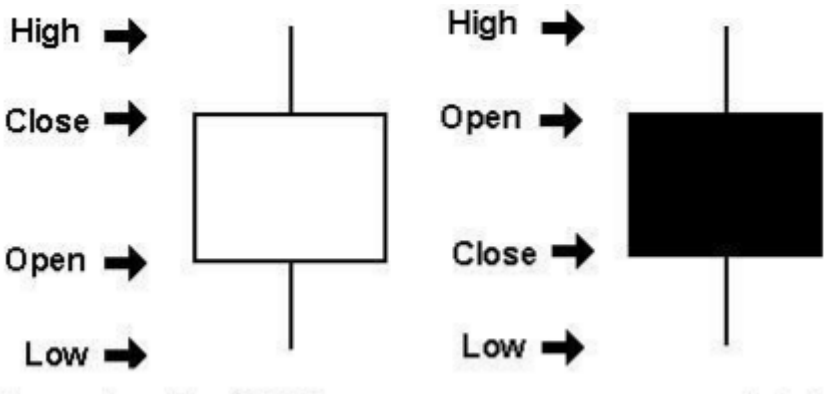


Bar chart

It is the most popular chart used by technical analysts. In this chart the highest price, the lowest price and the closing price of each day are plotted on a day to day basis .a bar is formed by joining the highest price and lowest price of a particular day by a vertical line. The top of the bar represents the highest price of the day, the bottom of the bar represents the lowest price of the day and a small horizontal hash on the right of the bar is used to represent the closing price of the day. Sometimes, the opening price of the day is marked as a hash on the left side of the bar.

Japanese candlestick charts

The Japanese candle stick chart shows the highest price, the lowest price, the opening price and the closing price of shares on a day to day basis. The highest price and the lowest price of a day are joined by a vertical bar. The opening price and closing price of the day which would fall between the highest and the lowest prices would be represented by a rectangle so that the price bar chart looks like a candlestick. Thus, each day's activity is represented by a candlestick. Looks like a candlestick. Thus, each day's activity is represented by a candlestick.



Trends and trend reversal

Trend is the movement of share prices in the market. When the prices move

Upwards, it is a rising trend or uptrend. When the prices move downwards, we have a falling trend or downtrend. We have a flat trend when the prices move within a narrow range. The change in the direction of trend is referred to as trend reversal. A share that exhibits a rising trend may start to move narrowly or fall after sometime. This change in the direction of movement represents a trend reversal.

Chart patterns

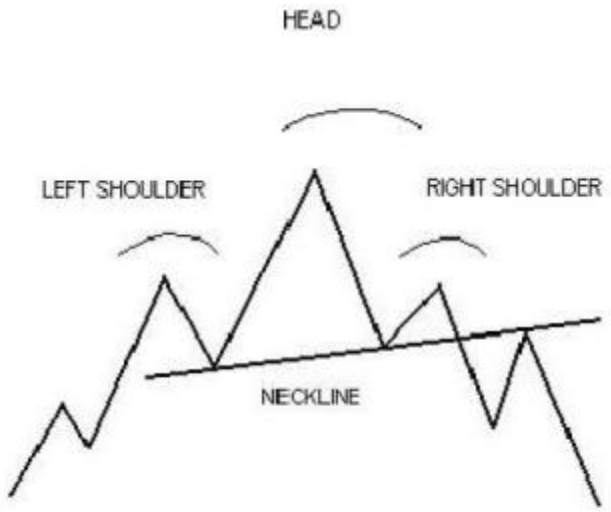
When the price bar charts of several days are drawn together, certain patterns emerge. These patterns are used by the technical analysts to identify trend reversal and predict the future movement of prices, the chart patterns may be classified as support and resistance patterns, reversal patterns and continuation patterns.

Support and resistance

Support and resistance are price levels at which the downtrend or uptrend in price movements is reversed. Support occurs when price is falling but bounces back or reverses direction every time it reaches a particular level. When all these low points are connected by a horizontal line, it forms the support line. Resistance occurs when the share price moves upwards. The price may fall back every time it reaches a particular level. A horizontal line joining these tops form the resistance level

Head and shoulder formation

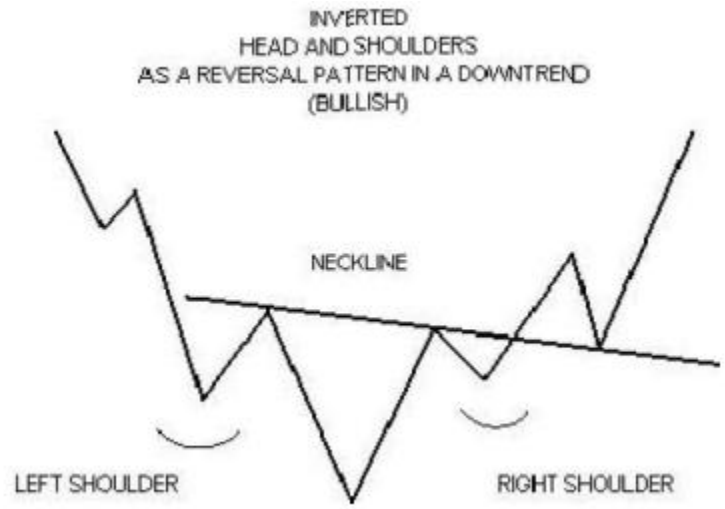
Head and shoulder formation occurs at the end of a long uptrend. This formation exhibits a hump or top followed by a still higher top or peak and then another hump or lower top. This formation resembles the head and two shoulders of a man and hence the name head and shoulder formation.



HEAD AND SHOULDERS
AS A REVERSAL PATTERN IN AN UPTREND
(BEARISH)

Inverse head and shoulder formation

This pattern is the reverse of the head and shoulder formation describe above and is really an inverted head and shoulder pattern .this occurs at the end of a bear phase and consist of three distinct bottoms.



Elliot wave theory

Wave theory formulated by Ralph Elliot, known as Elliot wave theory in 1934 by Elliot after analyzing seventy five years of stock price movements and charts .from his studies he concluded that the market movement was quit orderly and followed by a pattern of waves. A wave is a movement of the market price from one change in the direction to the next change in the same direction .the wave is the result of

buying and selling impulses emerging from the demand and supply pressures on the market. Depending on the demand and supply pressures, wave is generated in the prices.

According to this theory, the market moves in waves. A movement in a particular direction can be represented by five distinct waves .of these five waves, three waves are in the direction of the movement and are termed as impulse waves. Two waves are against the direction of the movement and are termed as corrective waves or reaction wave.

One complete cycle consists of waves made up of two distinct phases, bullish and bearish .once the full cycle of waves is completed after the termination of the 8 wave movement, there will be a fresh cycle starting with similar impulses arising out of market trading.

The Elliot wave theory is based on the principle that action I followed by reaction. Although the wave theory is not perfect and there are many limitations in its practical use, it is accepted as one of the tools of technical analysis. The theory is used for predicting the future price changes and in deciding the timing of investments.

Efficient Market Hypothesis

Efficient Market Hypothesis asserts that financial markets are "informationally efficient". In consequence of this, one cannot consistently achieve returns in excess of average market returns on a risk-adjusted basis, given the information available at the time the investment is made.

There are three major versions of the hypothesis: "weak", "semi-strong", and “strong". The weak-form EMH claims that prices on traded assets (e.g., stocks, bonds, or property) already reflect all past publicly available information. The semi strong-form EMH claims both that prices reflect all publicly available information and that prices instantly change to reflect new public information. The strong-form EMH additionally claims that prices instantly reflect even hidden or "insider" information.

ADVANTAGES OF TECHNICAL ANALYSIS

- Focus on price
- Support or resistance level find
- Pictorial price history

DISADVANTAGES OF TECHNICAL ANALYSIS

- Bias of analyst
- Open to many interpretations of graph
- Lack of uniformity

MODULE 5

PORTFOLIO MANAGEMENT

PORTFOLIO

A group of securities held together in an investment is known as portfolio. The process of creating such portfolio is called diversification.

Types of portfolios

1. Patient portfolio: it consists of well-known stocks and investors would like to buy and hold for long periods.
2. Aggressive portfolio: it includes high risk securities which offer higher return.it consists stock of rapidly growing companies.
3. Conservative portfolio: they are focusing safety of investment than more return. Investors are risk averse. Risk free investments like bank deposits, government bonds are included in conservative portfolios.
4. Efficient portfolios: it is also known as optimal portfolio is one that provides the best expected return on given level of risk or alternatively the minimum risk for a given expected return.

Factors to be considered while selecting portfolio

1. Equity market
2. Knowledge and skill
3. Diversification
4. Regulatory issues
5. Amount size
6. Liquidity
7. Convenience

Type of investors

1. Aggressive investor
2. Conservative investors

Portfolio management

It means managing the money of an investor under expert guidance of portfolio managers. “The art of selecting the right investment policy for the individuals in terms of minimum risk and maximum return is called portfolio management.

Objectives of portfolio management

1. Stable current return
2. Marketability
3. Tax planning
4. Appreciation in the value of capital
5. Liquidity
6. Safety of investment

Scope of portfolio management

1. Opportunity identification
2. Value forecasting
3. Project prioritization
4. Capacity planning
5. Work scheduling
6. Project management and execution
7. Project performance and assessment

Process of portfolio management

1. Setting the objective
2. Selection of asset mix
3. Formulation of portfolio strategy
4. Selection of securities
5. Portfolio execution
6. Portfolio revision
7. evaluation of performance

Investment strategies

It is defined as set of rules, a definite behavior or procedure guiding an investor to choose his investment portfolio.it is always based on a risk return tradeoff for a potential investor.

There are two types of investment strategies:

1. Passive investment strategy: it makes the assumption that the market is efficient and securities are fairly priced. They also called fatalists of financial markets. They buy and hold a portfolio and they keep it weather market goes up or down.
2. Active investment strategy: it is used to maximize return based on buying and selling of securities at proper market timing. It means buying at low price and selling at high price.

Need and importance of portfolio

1. It presents the best investment plan to the individuals as per income and ability to undertake risk.
2. It minimizes the risks involved in investing and also increases the chance of making profits.
3. Portfolio managers understand the clients financial need and suggest best unique investment policy for them with minimum risk
4. It enables portfolio managers to provide customized investment solutions.

Diversification

It is the process of investing money in different asset classes and securities in order to minimize the overall risk of portfolio.

Portfolio Selection model

Markowitz model

The foundation for modern portfolio theory was established in 1952 by Harry Markowitz. The most important aspect of Markowitz model was his description of the impact on portfolio diversification by the number of securities within a portfolio and their covariance relationships.

Harry M. Markowitz is credited with introducing new concepts of risk measurement and their application to the selection of portfolios. He started with the idea of risk aversion of average investors and their desire to maximize the expected return with the least risk. Markowitz model is thus a theoretical framework for analysis of risk and return and their interrelationships. He used the statistical analysis for measurement of risk and mathematical programming for selection of assets in a portfolio in an efficient manner. Return is considered to be the price appreciation of any stock and also any capital inflows such as dividends. It is important to understand risk. There would be no expected return without it. Investors are compensated for bearing risk and, the higher the risk, the higher the return. In general statistical measure, standard deviation used to measure the risk and select of assets should be based on lowest risk. Markowitz introduced the concept of diversification. According to this concept, a combination of securities will significantly reduce the overall risk of a portfolio. Risk, therefore, has to be seen as a cumulative factor for the portfolio as a whole and not as simple addition of single risks. In short, investors should select portfolios not individual securities for maximizing income reducing risk. Each individual investor puts his wealth in a combination of assets depending on his wealth, income and preferences. MPT says that it is not enough to look at the expected risk and return of one particular stock. By investing in more than one stock, an investor can reap the benefits of diversification; the important among them is reduction in the riskiness of the portfolio. Markowitz emphasized that quality of a portfolio will be different from the quality of individual assets within it. Thus, the combined risk of two assets taken separately is not the same risk of two assets together.

Assumptions

1. Investors are rational. They seek to maximize return while minimizing risk

2. Investors are only willing to accept higher amounts of risks if they are compensated by higher expected returns,

3. Investors timely receive all pertinent information related to their investment decision.

4. Investors can borrow or lend an unlimited amount of capital at a risk free rate of Interest.

5. Markets are perfectly efficient and absorb information quickly and perfectly

6. Markets do not include transaction costs or taxes.

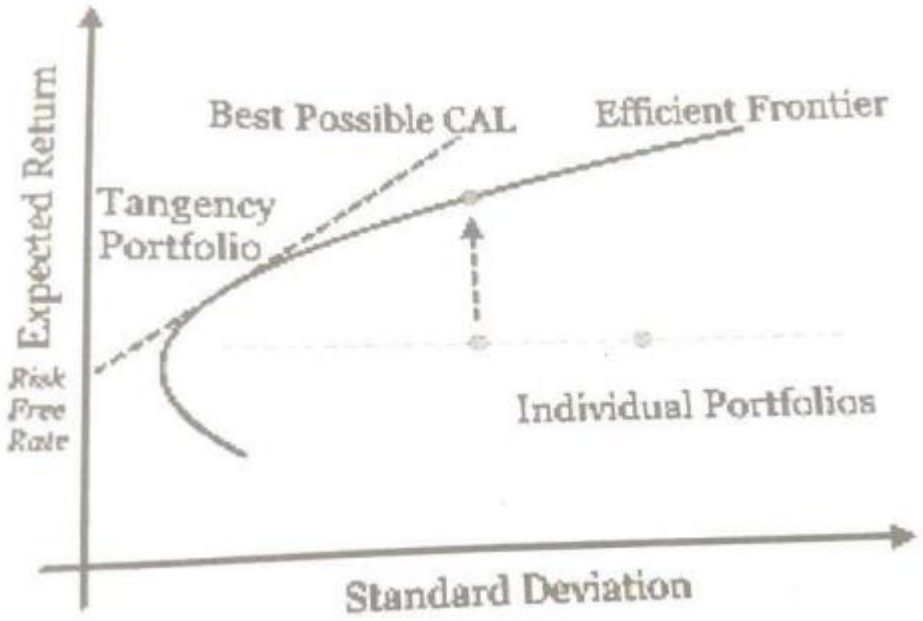
7. It is possible to select securities whose individual performance is independent of other portfolio investment.

Efficient portfolio

Markowitz showed that investment is not just about picking stocks, but about choosing the right combination of stocks among which to distribute one's risk. In other words, the variability of each security and covariance for their returns reflected through their interrelationships should be taken into account. Thus, as per the modern portfolio theory, expected return, the variance of these return and covariance of the return of the securities with the portfolio are to be considered for the choice of portfolio

Efficient frontier

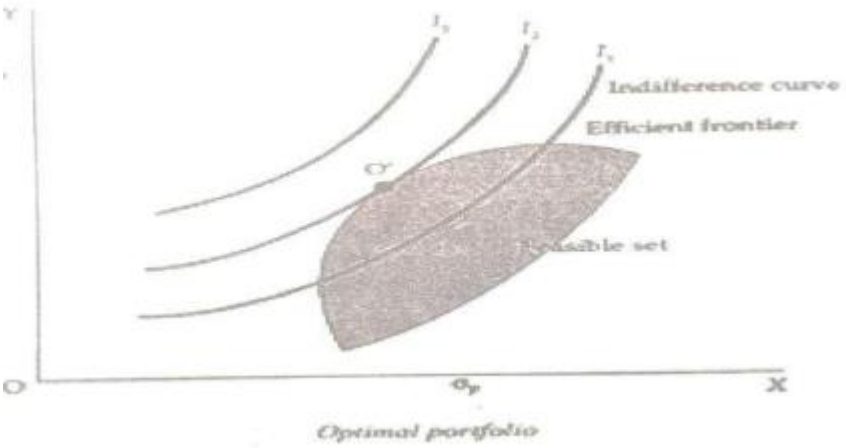
The concept of efficient frontier was also introduced by Markowitz. It is a graphical representation of all the possible mixtures of risky assets for an optimal level of return given any level of risk, as measured by standard deviation. The chart given below shows a hyperbola showing all the outcomes for various portfolio combinations of risky assets, where standard deviation is plotted on the x axis and return is plotted on the Y axis.



Optimal portfolio

Harry Markowitz introduced the idea of the optimal portfolio in 1952. The concept of optimal portfolio comes from the modern portfolio theory. One of the

assumptions of this theory is that investors will act rationally considering risk and return, and that they will always make decisions with the goal of maximizing return for a given acceptable level of risk. This model shows that it is possible for different portfolios to have different levels of risk and return. This means that individual investor should determine how much risk they are willing to take on, and then they can allocate or diversify their portfolios according to the results of that decision. The optimal portfolio for an investor would be the one at the point of tangency between the efficient frontier and the risk return utility or indifference curve. This is shown in the following figure. The point 'O' represents the optimal portfolio



Single index model:

$$R_i = \alpha_i + \beta_i R_m + e_i$$

Where

α_i = Component of security i's return that is independent of the market's performance.

R_m = Rate of return on the market index.

β_i = Constant that measures the expected change in R_i given a change in R_m .

e_i = Error term representing the random or residual return.

Capital asset pricing model

The relationship between risk and return established by security market line is known as CAPM.

$$E(R_i) = R_f + \beta_i(E(R_m) - R_f)$$

$E(R_i)$ = capital asset expected return
R_f = risk-free rate of interest
β_i = sensitivity
$E(R_m)$ = expected return of the market

Portfolio revision

The revision of portfolio involves portfolio rebalancing and upgrading. It means changing the existing mix of securities. There are two revision strategies

1. Active revision strategy
2. Passive revision strategy

Portfolio evaluation

Evaluation of portfolio performance is considered to be the last stage of investment process.it provides a feedback about performance of portfolio.it includes 3 types of measures of evaluation.

1. **Sharpe ratio**
   Developed by William Sharpe

   > **SI =(Rt – Rf)/σf**

   Where,

   - SI = Sharpe's Index
   - Rt = Average return on portfolio
   - Rf = Risk free return
   - σf = Standard deviation of the portfolio return.

2. **Treynor ratio**

   > **$T_n = (R_n - Rf)/\beta_m$**

   Where,

   - T_n = Treynor's measure of performance
   - R_n = Return on the portfolio
   - Rf = Risk free rate of return
   - β_m = Beta of the portfolio (A measure of systematic risk)

3. Jenson measures

$$R_p = R_f + (R_{MI} - R_f) \times \beta$$

Where,

- R_p = Return on portfolio
- R_{MI} = Return on market index
- R_f = Risk free rate of return