**Renaissance College of Commerce & Management**

**Security Analysis & Portfolio Management**

**STOCK EXCHANGES**

There are 19 Stock Exchanges at present in India. All of them are regulated in terms of SCRA, 1956 & SEBI Act, 1992. The stock exchanges are managed by the board of Directors or Councils of Management consisting of elected brokers and representatives of Government and Public appointed by SEBI.

Membership of stock exchanges is given to the persons of financially sound background and with adequate experience of trading in stock markets. This grant of membership is regulated and controlled by SEBI. Every member has to pay an annual fee to SEBI. A member is also acts as a broker if he is trading on behalf of his clients and in return gets a brokerage fees.

**BOMBAY STOCK EXCHANGE LTD.**

Bombay Stock Exchange Ltd., popularly known as "BSE" was established in 1875 as "The Native Share and Stock Brokers Association". It is the oldest one in Asia, even older than the Tokyo Stock Exchange, which was established in 1878. It is a voluntary non-profit making Association of Persons (AOP) and is currently engaged in the process of converting itself into demutualised and corporate entity. It has evolved over the years into its present status as the premier Stock Exchange in the country. It is the first Stock Exchange in the Country to havs obtained permanent recognition in 1956 from the Govt. of India under the Securities Contracts (Regulation) Act. 1956.

**Trading at BSE**

The scrips traded on BSE have been classified into various groups.

BSE has, for the guidance and benefit of the investors, classified the scrips in the Equity Segment into 'A', 'B', 'T', and 'Z' groups on certain qualitative and quantitative parameters.

The "F" Group represents the Fixed Income Securities.

The "T" Group represents scrips which are settled on a trade-to-trade basis as a surveillance measure.

Trading in Government Securities by the retail investors is done under the "G" group.

The 'Z' group was introduced by BSE in July 1999 and includes companies which have failed to comply with its listing requirements.

**NATIONAL STOCK EXCHANGE OF INDIA LTD. (NSEIL)-**

Based on Pherwani Committees report submitted in June, 1991, The National Stock Exchange of India Limited (NSEIL) was established to provide an efficient system eliminating all the deficiencies of stock exchanges and is geared to meet the requirements of the large investor population. It is a single stock exchange and all other centres are electronically linked to this exchange.

**Capital Market Segment**

The Capital Market (CM) segment of NSEIL provides a fully automated screen based trading system for trading of equity and preference shares, debentures, warrants and coupons. The trading system, known as the National Exchange for Automated Trading (NEAT) system, is an anonymous order-driven system and operates on a strict price/time priority. It enables members from across the country to trade simultaneously with enormous ease and efficiency. It provides tremendous flexibility to the users in terms of kinds of orders that can be placed on the system. Several time-related (Good-till-Cancelled, Good-till-day, Immediate-or-Cancel), price-related (buy/sell limit and stop-loss orders) or volume related (All-or-None, Minimum Fill, etc.) conditions can be easily built into an order. Orders are sorted and matched automatically by the computer keeping the system transparent, objective and fair. The trading system also provides complete market information on-line, which is updated on real time basis.

**Wholesale Debt Market Segment**

The WDM segment provides the only formal trading platform for trading of a wide range of debt securities. Initially, government securities, treasury bills and bonds issued by public sector undertakings (PSUs) were made available for trading. Thsi range has been widened to include non-traditional instruments like floating rate bonds, zero coupon bonds, index bonds, commercial papers, certificates of deposit, corporate debentures, state government loans, SLR and non-SLR bonds issued by financial institutions, units of mutual funds and securitised debt.

The WDM trading system, known as NEAT (National Exchange for Automated Trading) is a fully automated screen based trading system that enables members across the country to trade simultaneously with enormous ease and efficiency. The trading system is an order driven system, which matches best buy and sell orders on a price/time priority.

**TRADING AND SETTLEMENT AT NSE**

NSE introduced for the first time in India, fully automated screen based trading. It uses a modern, fully computerised trading system designed to offer investors across the length and breadth of the country a safe and easy way to invest.

The NSE trading system called 'National Exchange for Automated Trading' (NEAT) is a fully automated screen based trading system, which adopts the principle of an order driven market.

**National Securities Clearing Corporation Limited (NSCCL)**

This company incorporated as a wholly owned subsidiary of the National Stock Exchange of India Limited carries out clearing and settlement of the trades executed in the capital market segment of National Stock Exchange. This company completes the settlement promptly without delay or deferment. It operates on behalf of the clearing members from and to regional clearing centres and central clearing centres at Mumbai.

 This corporation is connected to National Securities Depository Limited (NSDL) and Central Depositories Services (India) Limited (CDSL) and carries out clearing and settlement services for other exchanges as well as for Index Futures.

**CONCEPT OF DEPOSITORY SYSTEM**

The Depositories Act, 1996 has introduced the system of depositories in India. It has come into force with effect from 20th September, 1995.

A depository is an organisation where the securities of an investor are held in the electronic form at his request through the medium of a Depository Participant (DP). If the investor wants to utilize the services offered by a Depository, the investor has to open a beneficiary account (also known as Demat Account) with the Depository through a DP. DP is the representative or agent in the depository system and it maintains the investor’s securities account balances and intimates to him the status of his holdings from time to time. The investor can open accounts with one or more DPs. When a person buys any security e.g. shares and debentures already in the depository mode, the buyer will become owner of the said security in the depository within a day of settlement being made is completed. The buyer is not required to apply to the company for registering the security in his name. The investor has to pay charges to the Depository and the DP for opening of account and also for every transaction in the account.

**SCRIPLESS TRADING**

It refers to trading in securities without transferring the securities in physical form. Scrips are the share certificates issued by the borrowers to the investors indicating their beneficial ownership. Scripless trading allows investors to buy and sell securities in electronic (paperless) form. The physical form of securities could be held in electronic form by way of immobilization and dematerialization.

There are two depository players in the market i.e., **National Securities Deposity Limited (NSDL) and Central Depository Service (India) Limited (CDSL).**

**DEFINITION & MEANING OF DEPOSITORY PARTICIPANTS**

Depository Participant (DP) is the agent of the depository and is the interface between the depository and the investor. According to SEBI Guidelines, financial institutions, banks, custodians, stock brokers etc. can become depository participants.

Stocking Holding Corporation of India Limited (SHCIL) is the first depository participant in India registered with NSDL. Besides SHCIL, a number of new and private and foreign banks like Times Bank, HDFC Bank, ICICI Bank, IDBI Bank, Hong Kong Bank, Standard Chartered Bank are providing shares depository services to its customers from its various branches. There are some private depository participants like Alankit and Aphibra also.

The main characteristics of a depository participant are as under:

1. Acts as agent of Depository
2. Customer interface of Depository
3. Functions like securities bank
4. Account opening
5. Facilitates dematerialization
6. Instant transfer on pay-out
7. Credits to investor in IPO, rights, bonus
8. Settles trades in electronic segment

**ADVANTAGES OF HOLDING SECURITIES IN ELECTRONIC MODE**

1. Elimination of bad delivery.
2. Immediate transfer and registration of securities.
3. No odd lot — trading is possible in any lot.
4. Eliminates risks associated with physical certificates such as loss, theft, forgery etc.
5. Eliminates handling of large volumes of paper.
6. Facilitates pledge and hypothecation.
7. Reduction in brokerage.
8. Faster disbursement of non – cash corporate benefits like bonus, rights
9. Elimination of problems related to selling securities on behalf of a minor.
10. **BOOK BUILDING**

Book building means a process undertaken to elicit demand and to assess the price for determination of the quantum or value of specified securities or Indian Depository Receipts, as the case may be.

The book building process in India is very transparent. All investors including small investors can see on an hourly basis where the book is being built before applying. According to this method, share prices are determines on the basis of real demand for the shares at various price levels in the market.

**DIFFERENCE BETWEEN FIXED PRICE PROCESS & BOOK BUILDING PROCESS**

|  |  |  |
| --- | --- | --- |
| **Features** | **Fixed Price Process** | **Book Building Process** |
| Pricing | Price at which the securities are offer/allotted is known in advance to the investor | Price at which securities will be offered/allotted is not known in advance to the investor. Only an indicative price range is known. |
| Demand | Demand for the securities offered is known only after the closure of the issue | Demand for the securities offer can be known everyday as the book is built |
| Payment | Payment if made at the time of subscription wherein refund is given after allocation | Payment only after allocation |

**GREEN SHOE OPTION FACILITY:**

* Green Shoe Option means an option for allocating shares in excess of the shares included in the public issue and operating a post-listing price stabilizing mechanism.
* ICICI bank has used Green Show Option first time in its public issue through book building mechanism in India.
* A company desirous of availing this option, should in the resolution of the general meeting authorizing the public issue, seek authorization also for the possibility of allotment of further shares to the “Stabilizing Agent’ (SA) at the end of the stabilization period.
* The company should appoint one of the merchant bankers or book runners, amongst the issue management team, as the “stabilizing agent” (SA) who will be responsible for the price stabilization process, if required. THE SA shall enter into an agreement with the issuer company, prior to filing of offer document with SEBI, clearly stating all the terms and conditions relating to this option including fees charged/expenses to be incurred by SA for this purpose.
* The SA should also enter into an agreement with the promoter’s or pre-issue shareholders who will lend their shares under the provision of this scheme, specifying the maximum number of shares that may be borrowed from the promoters or the shareholders, which shall not be in excess of 15% of the total issue size.
* The stabilization mechanism should be available for the period disclosed by the company in the prospectus which shall not exceed 30 days from the date when trading permission was given by the exchange(s).
* The SA should open a special account with a bank to be called “Special Account for GSO proceeds of ……….. company” (hereinafter referred to as the GSO Bank Account) and a special account for securities with a depository participant to be called the “Special Account of GSO shares of ………..company” (hereinafter referred to as the GSO Demat Account)
* The money received from the applicants against the over-allotment in the green show option should be known as the GSO Bank Account.
* The shares bought from the market by the SA, if any during the stabilization period, should be credited to the GSO Demat Account.
* The shares bought from the market and lying in the GSO Demat Account should be returned to the promoters immediately, in any case not later than 2 working days after the close of the stabilization period.
* The prime responsibility of the SA should be to stabilize the post listing price of the shares. To this end, the SA should determine the time of buying the shares, the quantity to be bought, the price at which the shares are to be bought etc.
* On expiry of the stabilization period, in case the SA does not buy shares to the extent of shares over-allotted by the company from the market, the issuer company shall allot shares to the extent of the shortfall in dematerialized form to the GSO Demat Account, within five days of the closure of the stabilization period.
* These shares shall be returned to the promoters by the SA in lieu of the shares borrowed from them and the GSO Demat Account shall be closed thereafter.

The shares returned to the promoters as above, as the case may be, shall be subject to the remaining lock-in period as provided in lock-in or pre-issue share capital of an unlisted company.

FUNDAMENTAL ANALYSIS

Fundamental analysis is the process of looking at a business at the most basic or fundamental financial level. This type of analysis examines the key ratios of a business to determine its financial health. Fundamental analysis can also give you an idea of the value of what a company's stock should be. It takes several factors into account, including revenue, asset management, and the production of a business as well as interest rate.

Many investors use fundamental analysis alone, but it can be particularly helpful to use it in combination with other tools to evaluate stocks for investment purposes. The goal is to determine the current worth of the stock, and, perhaps more importantly, to identify how the market values the stock.

Even if you don't plan to do an in-depth fundamental analysis yourself, understanding the key ratios and terms can help you follow stocks more closely and accurately.

It's the Earnings

It's [all about earnings](https://www.thebalance.com/it-s-the-earnings-3140774). That's the bottom line that investors want and need to know: How much money is the company making and how much is it likely to make in the future?

Earnings are profits. They can be complicated to calculate, but that's what buying a company is all about. Increasing earnings generally leads to a higher stock price and, in some cases, a regular dividend.

When earnings fall short, the market can hammer the stock. Companies report earnings every quarter, and analysts follow major companies closely. They sound the alarm when and if those companies fall short of projected earnings.

### Fundamental Analysis Tools

Although earnings are important, they can't really tell you anything by themselves. They don't identify how the market values the stock on their own. You'll also need some fundamental analysis tools to begin building a picture of how the stock is valued.

These are some of the factors you'll want to identify and include:

* [**Earnings per Share (EPS)**](https://www.thebalance.com/understanding-earnings-per-share-3140784)**:**How much of a company's profit is assigned to each share of stock? Earnings per share is calculated as net income fewer dividends on preferred stock divided by the number of outstanding shares.
* [**Price to Earnings Ratio (P/E)**](https://www.thebalance.com/understanding-price-to-earnings-ratio-3140787)**:**This ratio [compares](https://www.thebalance.com/cma-comparative-market-analysis-1799036) the current sales price of a company's stock to its per-share earnings.
* [**Projected Earnings Growth (PEG)**](https://www.thebalance.com/understanding-the-peg-3140788): PEG anticipates the one-year earnings growth rate of the stock.
* **Price to Sales Ratio (P/S)**: The price to sales ratio values a company's stock price as compared to its revenues. It's also sometimes called the PSR, revenue multiple, or sales multiple.
* [**Price to Book Ratio (P/B)**](https://www.thebalance.com/understanding-price-to-book-ratio-3140786): This ratio, also known as the price to equity ratio, compares a stock's book value to its market value. You can arrive at it by dividing the stock's most recent closing price by last quarter's book value per share. [**Book value**](https://www.thebalance.com/understanding-book-value-3140780)is the value of an asset as it appears in the company's books. It's equal to the cost of each asset less cumulative depreciation.
* [**Dividend Payout Ratio**](https://www.thebalance.com/understanding-dividend-payout-ratio-3140781): This compares dividends paid out to the stockholders to the company's total net income. It accounts for retained earnings, income that is not paid out, but rather retained for potential growth.
* [**Dividend Yield**](https://www.thebalance.com/understanding-dividend-yield-3140782)**:**This, too, is a ratio: yearly dividends compared to share price. It's expressed as a percentage. Divide dividends paid in a one-year period per share by the value of a share.
* [**Return on Equity**](https://www.thebalance.com/understanding-return-on-equity-3140790): Divide the company's net income by shareholders' equity to find its return on equity. You might also hear this expressed as the company's return on net worth.

TECHNICAL ANALYSIS

Technical analysis is a trading discipline employed to evaluate investments and identify trading opportunities by analyzing statistical trends gathered from trading activity, such as price movement and volume. Unlike fundamental analysts, who attempt to evaluate a security's intrinsic value, [technical analysts](https://www.investopedia.com/terms/t/technical-analyst.asp) focus on patterns of price movements, trading signals and various other analytical charting tools to evaluate a security's strength or weakness.

Technical analysis can be used on any security with historical trading data. This includes stocks, [futures](https://www.investopedia.com/terms/f/futures.asp), [commodities](https://www.investopedia.com/terms/c/commodity.asp), fixed-income, currencies, and other securities. In this tutorial, we’ll usually analyze stocks in our examples, but keep in mind that these concepts can be applied to any type of security. In fact, technical analysis is far more prevalent in commodities and [forex](https://www.investopedia.com/terms/f/forex.asp) markets where [traders](https://www.investopedia.com/terms/d/daytrader.asp) focus on short-term price movements.

 technical analysis is based on three main assumptions:

#### 1: The market discounts everything.

Many experts criticize technical analysis because it only considers price movements and ignores fundamental factors. Technical analysts believe that everything from a company’s fundamentals to broad market factors to [market psychology](https://www.investopedia.com/terms/m/marketpsychology.asp) are already priced into the stock. This removes the need to consider the factors separately before making an investment decision. The only thing remaining is the analysis of price movements, which technical analysts view as the product of supply and demand for a particular stock in the market.

#### 2: Price moves in trends.

Technical analysts believe that prices move in short-, medium-, and long-term trend. In other words, a stock price is more likely to continue a past trend than move erratically. Most technical trading strategies are based on this assumption.

#### 3: History tends to repeat itself.

Technical analysts believe that history tends to repeat itself. The repetitive nature of price movements is often attributed to market psychology, which tends to be very predictable based on emotions like fear or excitement. Technical analysis uses chart patterns to analyze these emotions and subsequent market movements to understand trends. While many form of technical analysis have been used for more than 100 years, they are still believed to be relevant because they illustrate patterns in price movements that often repeat themselves.

## **Dow Theory Principles**

1. **The Averages Discount Everything.**
Every knowable factor that may possibly affect both demand and supply is reflected in the market price.
2. **The Market Has Three Trends.**
According to Dow an uptrend is consistently rising peaks and troughs. And a downtrend is consistently rising lowering peaks and troughs.
Dow believed that laws of action and reaction apply to the markets just as they do to the physical universe, meaning that each significant movement is followed by a certain pullback.

Dow considered a [trend](https://www.ifcmarkets.co.in/en/ntx-indicators/trend) to have three parts:

	1. **Primary** (compared to tide, reaching further and further inland until the ultimate point is reached).
	2. **Secondary** (compared to waves and representing corrections in the primary trend, normally retracing between one-third and two-thirds of the previous trend movement and most frequently about half of the previous move)
	3. **Minor (ripples)** (fluctuations in the secondary trend).
3. **Major Trends Have Three Phases.**
Dow mainly paid attention to the primary (major) trends in which he distinguished three phases:
	1. **Accumulation phase** – the most astute investors are entering the market feeling the change in the current market direction.
	2. **Public participation phase** – a majority of technicians begin to join in as the price is rapidly advancing.
	3. **Distribution phase** – a new direction is now commonly recognized and well hiked; economic news are all confirming which all ends up in increasing speculative volume and wide public's participation.
4. **The Averages Must Confirm Each Other.**
Dow used to say that unless both Industrial and Rail Averages exceed a previous peak, there is no confirmation of inception or continuation of a bull market. Signals did no have to occur simultaneously, but the quicker one followed another – the stronger the confirmation was.
5. **Volume Must Confirm the Trend.**
Volume increases or diminishes according to whether the price is moving in direction of a trend or in reverse. Dow considered volume a secondary indicator. His buy or sell signals were based on closing prices.
6. **A Trend Is Assumed to Be Contiunous Until Definite Signals of Its Reversal.**
The overall technical approach in market analysis is based upon the idea that trends continue in motion until there is an external force causing it to change its direction - just like any other physical objects. And of course there are reversal signals to be looking for.

### Efficient Market Hypothesis (EMH)

The Efficient Market Hypothesis, or EMH, is an investment theory whereby share prices reflect all information and consistent alpha generation is impossible. Theoretically, neither technical nor fundamental analysis can produce risk-adjusted excess returns, or alpha, consistently and only inside information can result in outsized risk-adjusted returns.

According to the EMH, stocks always trade at their fair value on stock exchanges, making it impossible for investors to either purchase [undervalued](https://www.investopedia.com/terms/u/undervalued.asp) stocks or sell stocks for inflated prices.

As such, it should be impossible to outperform the overall market through expert stock selection or [market timing](https://www.investopedia.com/terms/m/markettiming.asp), and the only way an investor can possibly obtain higher returns is by purchasing riskier investments.

Though the [efficient market hypothesis](https://www.investopedia.com/terms/e/efficientmarkethypothesis.asp) as a whole theorizes that the market is generally efficient, the theory is offered in three different versions: weak, semi-strong and strong.

The basic efficient market hypothesis posits that the market cannot be beaten because it incorporates all important determinative information into [current share prices](https://www.investopedia.com/ask/answers/061615/how-companys-share-price-determined.asp). Therefore, stocks trade at the fairest value, meaning that they can't be purchased [undervalued](https://www.investopedia.com/terms/u/undervalued.asp) or sold [overvalued](https://www.investopedia.com/terms/o/overvalued.asp). The theory determines that the only opportunity investors have to gain higher returns on their investments is through purely speculative investments that pose substantial risk.

### Weak Form

The three versions of the efficient market hypothesis are varying degrees of the same basic theory. The [weak form](https://www.investopedia.com/terms/w/weakform.asp) suggests that today’s stock prices reflect all the data of past prices and that no form of [technical analysis](https://www.investopedia.com/terms/t/technicalanalysis.asp) can be effectively utilized to aid investors in making trading decisions. Advocates for the weak form efficiency theory believe that if [fundamental analysis](https://www.investopedia.com/terms/f/fundamentalanalysis.asp) is used, undervalued and overvalued stocks can be determined, and investors can research companies' [financial statements](https://www.investopedia.com/terms/f/financial-statements.asp) to increase their chances of making higher-than-market-average profits.

### Semi-Strong Form

The [semi-strong form](https://www.investopedia.com/terms/s/semistrongform.asp) efficiency theory follows the belief that because all information that is public is used in the calculation of a stock's [current price](https://www.investopedia.com/terms/c/currentprice.asp), investors cannot utilize either technical or fundamental analysis to gain higher returns in the market. Those who subscribe to this version of the theory believe that only information that is not readily available to the public can help investors boost their returns to a performance level above that of the general market.

### Strong Form

The [strong form](https://www.investopedia.com/terms/s/strongform.asp) version of the efficient market hypothesis states that all information – both the information available to the public and any information not publicly known – is completely accounted for in current stock prices, and there is no type of information that can give an investor an advantage on the market. Advocates for this degree of the theory suggest that investors cannot make returns on investments that exceed normal market returns, regardless of information retrieved or research conducted.

### Anomalies

There are [anomalies](https://www.investopedia.com/terms/a/anomaly.asp) that the efficient market theory cannot explain and that may even flatly contradict the theory. For example, the [price/earnings](https://www.investopedia.com/terms/p/price-earningsratio.asp) (P/E) ratio shows that firms trading at lower P/E multiples are often responsible for generating higher returns. The [neglected firm effect](https://www.investopedia.com/terms/n/neglectedfirm.asp) suggests that companies that are not covered extensively by market [analysts](https://www.investopedia.com/terms/a/analyst.asp) are sometimes priced incorrectly in relation to their true value and offer investors the opportunity to pick stocks with hidden potential. The [January effect](https://www.investopedia.com/terms/j/januaryeffect.asp) shows historical evidence that stock prices – especially smaller cap stocks – tend to experience an upsurge in January.

**POWERS AND FUNCTIONS OF SEBI**

Chapter IV of SEBI Act, 1992 deals with the powers and functions of SEBI. Section 11 of the Act lays down that it shall be the duty of SEBI to protect the interests of the investors in securities and to promote the development of, and to regulate the securities markets by such measures as it thinks fit. Section 11(2) provides that these measures would include:

(a) regulating the business in stock exchanges and any other securities markets;

(b) registering and regulating the working of stock brokers, sub-brokers, share transfer agents, bankers toan issue, trustees of trust deeds, registrars to an issue, merchant bankers, underwriters, portfoliomanagers, investment advisers and such other intermediaries who may be associated with securitiesmarkets in any manner;

(ba) registering and regulating the working of the depositories, participants, custodians of securities, foreigninstitutional investors, credit rating agencies and such other intermediaries as SEBI may, by notification,specify in this behalf;

(c) registering and regulating the working of venture capital funds and collective investment schemes,including mutual funds;

(d) promoting and regulating self-regulatory organisations;

(e) prohibiting fraudulent and unfair trade practices relating to securities markets;

(f) promoting investors’ education and training of intermediaries of securities markets;

(g) prohibiting insider trading in securities;

(h) regulating substantial acquisition of shares and takeover of companies;

(i) calling for information from, undertaking inspection, conducting inquiries and audits of the stockexchanges, mutual funds, other persons associated with the securities market, intermediaries and self regulatoryorganisations in the securities market;

(ia) calling for information and records from any person including any bank or any authority or board orcorporation established or constituted by or under any central or state Act, which in the opinion of SEBI,shall be relevant to any investigation or inquiry by SEBI in respect of any transaction in securities.

(ib) calling for information from or furnishing information to other authorities. Whether in India, or outside India having functions similar to those of SEBI, in the matters relating to the prevention or detection of violation in respect of securities laws, subject to the provisions of other laws for the time being in force in this regard.

A portfolio manager is one who helps an individual invest in the best available investment plans for guaranteed returns in the future.

Some roles and responsibilities of a Portfolio manager:

* **A portfolio manager plays a pivotal role in deciding the best investment plan for an individual as per his income, age as well as ability to undertake risks**. Investment is essential for every earning individual. One must keep aside some amount of his/her income for tough times. Unavoidable circumstances might arise anytime and one needs to have sufficient funds to overcome the same.
* **A portfolio manager is responsible for making an individual aware of the various investment tools** available in the market and benefits associated with each plan. Make an individual realize why he actually needs to invest and which plan would be the best for him.
* **A portfolio manager is responsible for designing customized investment solutions for the clients**. No two individuals can have the same financial needs. It is essential for the portfolio manager to first analyze the background of his client. Know an individual’s earnings and his capacity to invest. Sit with your client and understand his financial needs and requirement.
* **A portfolio manager must keep himself abreast with the latest changes in the financial market**. Suggest the best plan for your client with minimum risks involved and maximum returns. Make him understand the investment plans and the risks involved with each plan in a jargon free language. A portfolio manager must be transparent with individuals. Read out the terms and conditions and never hide anything from any of your clients. Be honest to your client for a long term relationship.
* **A portfolio manager ought to be unbiased and a thorough professional**. Don’t always look for your commissions or money. It is your responsibility to guide your client and help him choose the best investment plan. A portfolio manager must design tailor made investment solutions for individuals which guarantee maximum returns and benefits within a stipulated time frame. It is the portfolio manager’s duty to suggest the individual where to invest and where not to invest? Keep a check on the market fluctuations and guide the individual accordingly.
* **A portfolio manager needs to be a good decision maker**. He should be prompt enough to finalize the best financial plan for an individual and invest on his behalf.
* Communicate with your client on a regular basis. A portfolio manager plays a major role in setting financial goal of an individual. Be accessible to your clients. Never ignore them. Remember you have the responsibility of putting their hard earned money into something which would benefit them in the long run.
* Be patient with your clients. You might need to meet them twice or even thrice to explain them all the investment plans, benefits, maturity period, terms and conditions, risks involved and so on. Don’t ever get hyper with them.
* **Never sign any important document on your client’s behalf**. Never pressurize your client for any plan. It is his money and he has all the rights to select the best plan for himself.

**Return**

A return, also known as a financial return, in its simplest terms, is the money made or lost on an investment. A return can be expressed nominally as the change in rupee value of an investment over time.

Return on investment is the profit expressed as a percentage of the initial investment. Profit includes income and capital gains

**Types of Returns:**

1. Holding Period Return
2. Realized Return
3. Expected Return
4. Required Return
5. Discount Rate

**Risk**

Risk takes on many forms but is broadly categorized as the chance an outcome or investment's actual return will differ from the expected outcome or return. Risk includes the possibility of losing some or all of the original investment.

Sources of Risk:

1. Market Risk
2. Interest Rate Risk
3. Inflation Risk
4. Foreign Exchange Risk
5. Credit Risk

**Classification of Risk:**

1. Systematic Risk
2. Unsystematic Risk

**Measurement of Risk**

Risk is nothing but variability of returns in an investment. More volatile or fluctuating the asset, more risky it is. This variation is measured using statistical tools to get a numeric value of risk.

There are five principal risk measures:

1. Alpha
2. Beta
3. Standard Deviation
4. R-Squared
5. Sharpe Ratio

**Portfolio Management**

Portfolio management refers to managing an individual’s investments in the form of bonds, shares, cash, mutual funds etc so that he earns the maximum profits within the stipulated time frame.

Portfolio management refers to managing money of an individual under the expert guidance of portfolio managers.

In a layman’s language, the art of managing an individual’s investment is called as portfolio management.

**Features of a Portfolio:**

Portfolio management presents the **best investment plan** to the individuals as per their income, budget, age and ability to undertake risks.

Portfolio management **minimizes the risks** involved in investing and also increases the chance of making profits.

Portfolio managers understand the client’s financial needs and suggest the best and unique investment policy for them with minimum risks involved.

Portfolio management enables the portfolio managers to **provide customized investment solutions** to clients as per their needs and requirements.

**Types of Portfolio Management**

Portfolio Management is further of the following types:

* **Active Portfolio Management:** As the name suggests, in an active portfolio management service, the portfolio managers are actively involved in buying and selling of securities to ensure maximum profits to individuals.
* **Passive Portfolio Management:** In a passive portfolio management, the portfolio manager deals with a fixed portfolio designed to match the current market scenario.
* **Discretionary Portfolio management services:** In Discretionary portfolio management services, an individual authorizes a portfolio manager to take care of his financial needs on his behalf. The individual issues money to the portfolio manager who in turn takes care of all his investment needs, paper work, documentation, filing and so on. In discretionary portfolio management, the portfolio manager has full rights to take decisions on his client’s behalf.
* **Non-Discretionary Portfolio management services:** In non discretionary portfolio management services, the portfolio manager can merely advise the client what is good and bad for him but the client reserves full right to take his own decisions.

**Portfolio Manager**

An individual who understands the client’s financial needs and designs a suitable investment plan as per his income and risk taking abilities is called a portfolio manager. A portfolio manager is one who invests on behalf of the client.

A portfolio manager counsels the clients and advises him the best possible investment plan which would guarantee maximum returns to the individual.

A portfolio manager must understand the client’s financial goals and objectives and offer a tailor made investment solution to him. No two clients can have the same financial needs

**PORTFOLIO SELECTION:**

The objective of every rational investor is to maximise his returns and minimise the risk. Diversification is the method adopted for reducing risk. It essentially results in the construction of portfolios. The proper goal of portfolio construction would be to generate a portfolio that provides the highest return and the lowest risk. Such a portfolio would be known as the optimal portfolio. The process of finding the optimal portfolio is described as portfolio selection. The conceptual framework and analytical tools for determining the optimal portfolio in disciplined and objective manner have been provided by Harry Markowitz in his pioneering work on portfolio analysis described in 1952 Journal of Finance article and subsequent book in 1959. His method of portfolio selection has come to be known as the Markowitz model. In fact, Markowitz‘s work marks the beginning of what is known today as modern portfolio theory. Feasible set of portfolios: With a limited number of securities an investor can create a very large number of portfolios by combining these securities in different proportions. These constitute the feasible set of portfolios in which the investor can possibly invest. This is also known as the portfolio opportunity set.

Each portfolio in the opportunity set is characterised by an expected return and a measure of risk, viz., variance or standard deviation of returns. Not every portfolio in the portfolio opportunity set is of interest to an investor. In the opportunity set some portfolios will obviously be dominated by others. A portfolio will dominate another if it has either a lower standard deviation and the same expected return as the other, or a higher expected return and the same standard deviation as the other. Portfolios that are dominated by other portfolios are known as inefficient portfolios. An investor would not be interested in all the portfolios in the opportunity set. He would be interested only in the efficient portfolios.

**Efficient set of Portfolios:**

Let us consider various combinations of securities and designate them as portfolios 1 to n. The expected returns of these portfolios may be worked out. The risk of these portfolios may be estimated by measuring the standard deviation of portfolio returns. The table below shows illustrative figures for the expected returns and standard deviations of some portfolios.

|  |  |  |
| --- | --- | --- |
| **Portfolio Number** | **Expected Return (%)** | **Standard Deviation (Risk)** |
| **1** | **5.6** | **4.5** |
| **2** | **7.8** | **5.8** |
| **3** | **9.2** | **7.6** |
| **4** | **10.5** | **8.1** |
| **5** | **11.7** | **8.1** |
| **6** | **12.4** | **9.3** |
| **7** | **13.5** | **9.5** |
| **8** | **13.5** | **11.3** |
| **9** | **15.7** | **12.7** |
| **10** | **16.8** | **12.9** |

If we compute portfolio nos. 4 and 5, for the same standard deviation of 8.1 portfolio no. 5 gives a higher expected return of 11.7, making it more efficient than portfolio no. 4. Again, if we compare portfolio nos. 7 and 8, for the same expected return of 13.5 per cent, the standard deviation is lower for portfolio no. 7, making it more efficient than portfolio no. 8.

Thus, the selection of portfolio by the investor will be guided by two criteria:

1. Given two portfolios with the same expected return, the investor would prefer the one with the lower risk.

2. Given two portfolios with the same risk, the investor would prefer the one with the higher expected return.

These criteria are based on the assumption that investors are rational and also risk-averse. As they are rational they would prefer more return to less return. As they are risk-averse, they would prefer less risk to more risk.

**What Is Modern Portfolio Theory (MPT)?**

Modern portfolio theory (MPT) is a theory on how risk-averse investors can construct portfolios to optimize or maximize [expected return](https://www.investopedia.com/terms/e/expectedreturn.asp) based on a given level of [market risk](https://www.investopedia.com/terms/m/marketrisk.asp), emphasizing that risk is an inherent part of higher reward. According to the theory, it's possible to construct an "[efficient frontier](https://www.investopedia.com/video/play/explaining-efficient-frontier/)" of optimal portfolios offering the maximum possible expected return for a given level of risk. This theory was pioneered by [Harry Markowitz](https://www.investopedia.com/terms/h/harrymarkowitz.asp) in his paper "Portfolio Selection," published in 1952 by the Journal of Finance.

Modern portfolio theory argues that an investment's risk and return characteristics should not be viewed alone, but should be evaluated by how the investment affects the overall [portfolio's](https://www.investopedia.com/terms/p/portfolio.asp) risk and return.

MPT shows that an investor can construct a portfolio of multiple assets that will maximize returns for a given level of risk. Likewise, given a desired level of expected return, an investor can construct a portfolio with the lowest possible risk. Based on statistical measures such as [variance](https://www.investopedia.com/terms/v/variance.asp) and correlation, an individual investment's return is less important than how the investment behaves in the context of the entire portfolio.

### Portfolio Risk and Expected Return

MPT makes the assumption that investors are risk-averse, meaning they prefer a less risky portfolio to a riskier one for a given level of return. This implies that an investor will take on more risk only if he or she is expecting more reward.

The expected return of the portfolio is calculated as a [weighted](https://www.investopedia.com/terms/w/weighted.asp) sum of the individual assets' returns. If a portfolio contained four equally-weighted assets with expected returns of 4, 6, 10 and 14%, the portfolio's expected return would be:

(4% x 25%) + (6% x 25%) + (10% x 25%) + (14% x 25%) = 8.5%

The portfolio's risk is a complicated function of the variances of each asset and the correlations of each pair of assets. To calculate the risk of a four-asset portfolio, an investor needs each of the four assets' variances and six correlation values, since there are six possible two-asset combinations with four assets. Because of the asset correlations, the total portfolio risk, or [standard deviation](https://www.investopedia.com/terms/s/standarddeviation.asp), is lower than what would be calculated by a weighted sum.

**The Efficient Frontier**

The efficient frontier is the set of optimal portfolios that offer the highest expected return for a defined level of risk or the lowest risk for a given level of expected return. Portfolios that lie below the efficient frontier are sub-optimal because they do not provide enough return for the level of risk. Portfolios that cluster to the right of the efficient frontier are sub-optimal because they have a higher level of risk for the defined rate of return.

* Efficient frontier comprises investment portfolios that offer the highest expected return for a specific level of risk.
* Returns are dependent on the investment combinations that make up the portfolio.
* The standard deviation of a security is synonymous with risk. Lower covariance between portfolio securities results in lower portfolio standard deviation.
* Successful optimization of the return versus risk paradigm should place a portfolio along the efficient frontier line.
* Optimal portfolios that comprise the efficient frontier tend to have a higher degree of diversification.

### Optimal Portfolio

One assumption in investing is that a higher degree of risk means a higher potential return. Conversely, investors who take on a low degree of risk have a low potential return. According to Markowitz's theory, there is an optimal portfolio that could be designed with a perfect balance between risk and return. The optimal portfolio does not simply include securities with the highest potential returns or low-risk securities. The optimal portfolio aims to balance securities with the greatest potential returns with an acceptable degree of risk or securities with the lowest degree of risk for a given level of potential return. The points on the plot of risk versus expected returns where optimal portfolios lie are known as the efficient frontier.

### Selecting Investments

Assume a risk-seeking investor uses the efficient frontier to select investments. The investor would select securities that lie on the right end of the efficient frontier. The right end of the efficient frontier includes securities that are expected to have a high degree of risk coupled with high potential returns, which is suitable for highly risk-tolerant investors. Conversely, securities that lie on the left end of the efficient frontier would be suitable for [risk-averse](https://www.investopedia.com/terms/r/riskaverse.asp) investors.

**Capital Asset Pricing Model (CAPM)**

The Capital Asset Pricing Model (CAPM) describes the relationship between systematic risk and [expected return](https://www.investopedia.com/terms/e/expectedreturn.asp) for assets, particularly stocks. CAPM is widely used throughout finance for pricing risky [securities](https://www.investopedia.com/terms/s/security.asp) and generating expected returns for assets given the risk of those assets and [cost of capital](https://www.investopedia.com/terms/c/costofcapital.asp).

Investors expect to be compensated for risk and the [time value of money](https://www.investopedia.com/terms/t/timevalueofmoney.asp). The [risk-free rate](https://www.investopedia.com/terms/r/risk-freerate.asp) in the CAPM formula accounts for the time value of money. The other components of the CAPM formula account for the investor taking on additional risk.

The [beta](https://www.investopedia.com/terms/b/beta.asp) of a potential investment is a measure of how much risk the investment will add to a portfolio that looks like the market. If a stock is riskier than the market, it will have a beta greater than one. If a stock has a beta of less than one, the formula assumes it will reduce the risk of a portfolio.

A stock’s beta is then multiplied by the [market risk premium](https://www.investopedia.com/terms/m/marketriskpremium.asp), which is the return expected from the market above the risk-free rate. The risk-free rate is then added to the product of the stock’s beta and the market risk premium. The result should give an investor the [required return](https://www.investopedia.com/terms/r/requiredrateofreturn.asp) or [discount rate](https://www.investopedia.com/terms/d/discountrate.asp) they can use to find the value of an asset.

The goal of the CAPM formula is to evaluate whether a stock is fairly valued when its risk and the time value of money are compared to its expected return.