1. **Capital Asset Pricing Model**

Capital Asset Pricing Model also abbreviated as CAPM was proposed by Jack Treynor, William Sharpe, John Lintner and Jan Mossin.

When an asset needs to be added to an already well diversified portfolio, Capital Asset Pricing Model is used to calculate the asset's rate of profit or rate of return (ROI).

In Capital Asset Pricing Model, the asset responds only to:

- Market risks or non diversifiable risks often represented by beta
- Expected return of the market
- Expected rate of return of an asset with no risks involved

What are Non Diversifiable Risks?

Risks which are similar to the entire range of assets and liabilities are called non diversifiable risks.

Where is Capital Asset Pricing Model Used?

Capital Asset Pricing Model is used to determine the price of an individual security through security market line (SML) and how it is related to systematic risks.

What is Security Market Line ?

Security Market Line is nothing but the graphical representation of capital asset pricing model to determine the rate of return of an asset sensitive to non diversifiable risk (Beta).

$$\mathrm{SML} : E(R_i) = R_f + \beta_i[E(R_M) - R_f]$$

2. **Arbitrage Pricing Theory**

Stephen Ross proposed the Arbitrage Pricing Theory in 1976.

Arbitrage Pricing Theory highlights the relationship between an asset and several similar market risk factors.

According to Arbitrage Pricing Theory, the value of an asset is dependent on macro and company specific factors.

3. **Modern Portfolio Theory**

Modern Portfolio Theory was introduced by Harry Markowitz.

According to Modern Portfolio Theory, while designing a portfolio, the ratio of each asset must be chosen and combined carefully in a portfolio for maximum returns and minimum risks.

In Modern Portfolio Theory emphasis is not laid on a single asset in a portfolio, but how each asset changes in relation to the other asset in the portfolio with reference to fluctuations in the price.

Modern Portfolio theory proposes that a portfolio manager must carefully choose various assets while designing a portfolio for maximum guaranteed returns in the future.

4. **Value at Risk Model**

Value at Risk Model was proposed to calculate the risk involved in financial market. Financial markets are characterized by risks and uncertainty over the returns earned in future on various investment products. Market conditions can fluctuate anytime giving rise to major crisis.

The potential risk involved and the potential loss in value of a portfolio over a certain period of time is defined as value at risk model.

Value at Risk model is used by financial experts to estimate the risk involved in any financial portfolio over a given period of time.

What is Portfolio Management ?

The art of selecting the right investment policy for the individuals in terms of minimum risk and maximum return is called as 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.

Need for Portfolio Management

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.

Who is a 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 management refers to the art of managing various financial products and assets to help an individual earn maximum revenues with minimum risks involved in the long run. Portfolio management helps an individual to decide where and how to invest his hard earned money for guaranteed returns in the future.