RISKS IN MUTUAL FUND INVESTMENTS

Classification of Investors

- Investors can be classified based on their 'Risk Tolerance Levels':

  - Low Risk Tolerance
  - Moderate Risk Tolerance
  - High Risk Tolerance

Fund Classification Based on Risk Levels

Low Risk Funds :

- Money Market Fund
- Government Securities Fund

Medium Risk Funds :

- Income Fund
- Balanced Fund
- Growth & Income Fund
- Growth Fund
- Short Term Bond Fund
- Intermediate Bond Fund
- Index Fund

High Risk Funds :

- Aggressive Growth Fund
- International Fund
- Sector Fund
- Specialized Fund
- Precious Metal Fund
- High Yield Fund
- Commodity Fund
- Index Fund

Model Recommendations for Portfolio Allocation based on risk

Low Risk (Conservative) Portfolio :

- 50% - Gilt Fund + 50% Money Market Fund

Moderate Risk (Cautiously Aggressive) Portfolio :

- 40% - Growth and Income Funds
- 30% - Gilt Funds
- 20% - Growth Funds
- 10% - Index Funds

High Risk (Aggressive) Portfolio :

- 25% - Aggressive Growth Funds
- 25% - International Funds
- 25% - Sector Funds
- 15% - High Yield Funds
- 10% - Gold Funds

Risks involved in Mutual Fund

- Risk in a generic sense means the possibility of financial loss
- Different mutual fund categories as previously defined have inherently different risk characteristics and should not be compared side by side.
    - A bond fund with below-average risk, for example, should not be compared to a stock fund with below average risk. Even though both funds have low risk for their respective categories, stock funds overall have a higher risk/return potential than bond funds.
- A fund with stable, positive earnings (though smaller) is less risky than a fund with high fluctuations in total return
- Risk is thus equated with **volatility of earnings** (a statistically measurable concept)

Risks in Equity Funds

- Following is a glossary of some risks to consider when investing in mutual funds.
  - **Call Risk**. The possibility that falling interest rates will cause a bond issuer to redeem—or call—its high-yielding bond before the bond's maturity date.
  - **Country Risk**. The possibility that political events (a war, national elections), financial problems (rising inflation, government default), or natural disasters (an earthquake, a poor harvest) will weaken a country's economy and cause investments in that country to decline.
  - **Credit Risk**. The possibility that a bond issuer will fail to repay interest and principal in a timely manner. Also called default risk.

Risks in Equity Funds

- **Currency Risk**. The possibility that returns could be reduced for Americans investing in foreign securities because of a rise in the value of the U.S. dollar against foreign currencies. Also called exchange-rate risk.
- **Income Risk**. The possibility that a fixed-income fund's dividends will decline as a result of falling overall interest rates.
- **Industry Risk**. The possibility that a group of stocks in a single industry will decline in price due to developments in that industry.
- **Inflation Risk**. The possibility that increases in the cost of living will reduce or eliminate a fund's real inflation-adjusted returns.

Risks in Equity Funds

- **Interest Rate Risk**. The possibility that a bond fund will decline in value because of an increase in interest rates.
- **Manager Risk**. The possibility that an actively managed mutual fund's investment adviser will fail to execute the fund's investment strategy effectively resulting in the failure of stated objectives.
- **Market Risk**. The possibility that stock fund or bond fund prices overall will decline over short or even extended periods. Stock and bond markets tend to move in cycles, with periods when prices rise and other periods when prices fall.
- **Principal Risk**. The possibility that an investment will go down in value, or "lose money," from the original or invested amount

Risk Measures of Equity Funds

- Beta Co-efficient Measure of Risk
- Ex-Marks or ‘R Squared’ Measure of Risk
- Standard Deviation Measure of Risk

Risk Measures of Equity Funds

- <u>Beta:</u>
  - Beta relates a fund’s return with a market index
  - It measures a fund's volatility compared to that of a benchmark. It tells you how much a fund's performance would swing compared to a benchmark
  - Measures the sensitivity of the Fund’s returns to changes in the Market Index

<u>Funds based on Beta</u>

- Beta of 1– Fund moves with the market i.e. Passive Fund
- Beta of less than 1 – Fund less volatile than the market i.e., Defensive Fund
- Beta of More than 1 – Greater returns in rising markets and higher losses in falling markets i.e. Aggressive Fund

  ex: If a fund has a bet of 2.0, it means that for every 10% upside or downside, the fund's NAV would be 20% in the respective direction

Risk Measures of Equity Funds

- <u>Standard Deviation:</u>
  - A statistical concept, which measures volatility
  - It measures the volatility of the returns from a mutual fund scheme over a particular period. For example If a fund has a 11% average rate of return and a standard deviation of 14%, its return will range from -3% to 25%
  - Measures the fluctuations (deviation) of Fund's returns around a mean level
  - Basically gives you an idea of how volatile are your earnings
- <u>Ex-Marks or 'R-squared':</u>
  - Ex-Marks represents co relation with markets
  - Higher the Ex-Marks, lower the risk of the Fund
  - A Fund with higher Ex-marks is better diversified than a Fund with a lower Ex-Mark

Measuring Risk Adjusted Performance

- Risk and Returns have positive co-relation, i.e. higher risk, higher returns and lower risk, lower returns
- Risk adjusted Return is measured by using Sharpe Ratio
  - **Sharpe Ratio:** This measures how well the fund has performed vis-a-vis the risk taken by it. It is the excess return over risk-free return (usually return from treasury bills or government securities) divided by the standard deviation. The higher the Sharpe Ratio, the better the fund has performed in proportion to the risk taken by it.

$$\text{SHARPE RATIO} = \frac{\text{Risk Premium}}{\text{Fund's Standard Deviation}}$$

- Risk Premium :- Difference between the Fund's Average return and Risk free return on Government Securities or Treasury Bills over a given period
- <u>Price Earning Multiples :</u>
  - Higher the Fund's P/E, Higher the probability of its fall in fund values in future

Risk Measurement of Debt Funds

- In case of debt funds, Beta or P/E Ratio is not relevant and cannot be used to measure risk
- Debt Funds exposed to Risk of loss through
  - Default (Non Performing Assets)
  - Interest Rate changes
- Necessary to analyze credit quality of the Fund
  - Higher the credit rating, safer the Fund
- Necessary to consider the average maturity (duration) of a debt portfolio
  - If the duration is high, greater loss of fund value if interest rates go up