Mutual Funds in India

What is a Mutual Fund?

Professionally Managed entity ⟷ Collective Pool of Money ⟷ Money from many investors

Money from many investors → Invested into

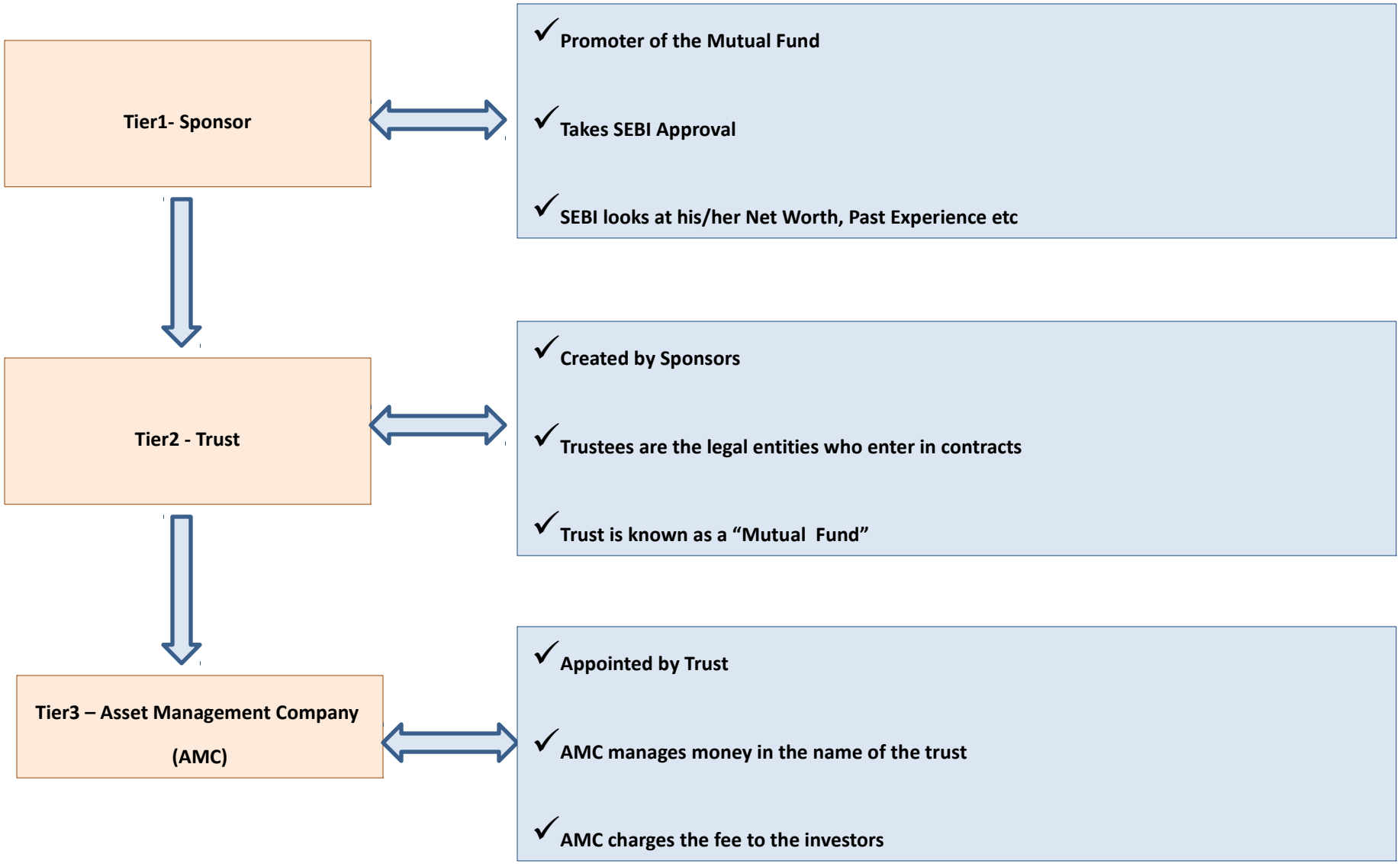
- **A.** Stocks
- **B.** Bonds
- **C.** Money Market
- **D.** Gold

→ Managed by a Fund Manager

Advantage of Mutual Fund

- Professional Management Team
- Diversification benefit
- Economies of scale
- Divisibility
- More liquidity

3- Tier structure of Mutual Fund



Basic Terminologies Associated with Mutual Fund

New Fund Offer (NFO)

The AMC launches new schemes, under the name of the Trust, after getting approval from the Trustees and SEBI. The launch of a new scheme is known as a**New Fund Offer (NFO).**

NFO is equivalent to an IPO as in case of equity market.

Most NFO’s are launched at a face value of Rs.10.

Net Asset Value (NAV)

Net asset value (NAV) represents a fund's per unit market value.

It is derived by dividing the total value of all the cash and securities in a fund's portfolio, less any liabilities, by the number of shares outstanding.

An NAV computation is undertaken once at the end of each trading day based on the closing market prices of the portfolio's securities.

NAV Calculation

Assets	Rs. Crs.	Liabilities	Rs. Crs.
Shares	345	Unit Capital	300
Debentures	23	Reserves & Surplus	85.7
Money Market Instruments	12	Accrued Expenditure	1.5
Accrued Income	2.3	Other Current Liabilities	0.5
Other Current Assets	1.2		
Deferred Revenue Expenditure	4.2		
Total	387.7	Total	387.7

Units Issued (Cr.)	30
Face Value (Rs.)	10

NAV =(Total Assets-Accrued Expenditure - Other Current Liabilities)

Total No of units

NAV in the above case is = (387.7-1.5-0.5)/30

= 12.86

Basic Terminologies Associated with Mutual Fund

Assets Under Management (AUM)

Assets under Management (AUM) represent the total money which is managed by a mutual fund in a scheme. Adding AUMs for all schemes of a fund house gives the AUM of that fund house and the figure arrived at by adding AUMs of all fund houses represents the industry AUM.

AUM= NAV multiplied by number of units

A change in AUM can happen either because of fall in NAV or redemptions.

In case of sharp market falls, the NAVs move down, because of which the AUMs will reduce.

Basic Terminologies Associated with Mutual Fund

Expense Ratio

Expense Ratio is defined as the ratio of expenses incurred by a scheme to its Average Weekly Net Assets.

It means how much of investors money is going for expenses and how much is getting invested.

This ratio should be as low as possible.

e.g. Assume that a scheme has average weekly net assets of Rs 100 cr. and the scheme incurs Rs. 1 cr as annual expenses, then the expense ratio would be 1/ 100 = 1%.

Ideally as net assets increase, the expense ratio of a scheme should come down.

Basic Terminologies Associated with Mutual Fund

Portfolio Turnover

A measure of how frequently assets within a fund are bought and sold by the managers.

Portfolio turnover is calculated by taking either the total amount of new securities purchased or the amount of securities sold - whichever is less - over a particular period, divided by the total net asset value (NAV) of the fund.

A scheme with Rs. 100 cr as net assets sells Rs 20 cr of its investments. Thus its Portfolio Turnover Rate would be 20/ 100 = 20%.

Basic Terminologies Associated with Mutual Fund

Exit Load

Exit Loads, are paid by the investors in the scheme, if they exit one of the scheme before a specified time period.

Exit Loads reduce the amount received by the investor.

Some schemes have Contingent Deferred Sales Charge (CDSC).

As per CDSC if the investor exits early, he will have to bear more Exit Load and if he remains invested for a longer period of time, his Exit Load will reduce.

Exit Time CDSC

Exit within first 3 years 3%

Exit within 3 to 5 years 2%

Exit after 5 years Nil

Basic Terminologies Associated with Mutual Fund

Income Funds

Income Funds in India usually invest their principal in companies that give high payouts of dividends and also in securities of fixed income such as corporate debentures, government securities, and bonds.

The advantage of Income Funds in India is that it provides regular income to the investor either on a monthly or quarterly basis.

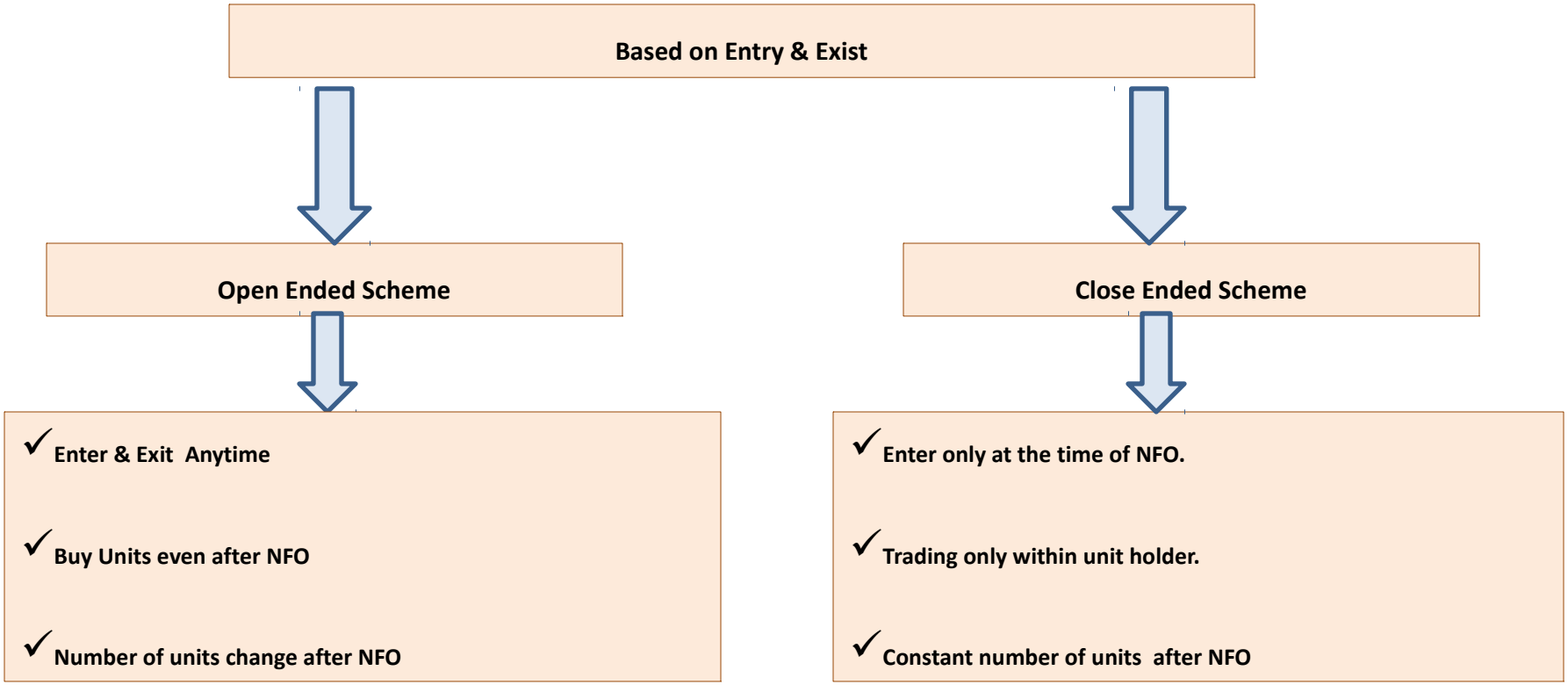
Further the advantage of Income Funds in India is that it also provides stability of capital to the investor.

Income Funds unit prices are not fixed for they have a tendency to grow with the fall in interest rates and fall with the rise of the interest rates.

The bonds that are there in Income Funds are usually of the investment grade.

The other bonds are of such credit quality that they assure the protection of the capital.

Types of Mutual Fund



Interval Funds:

A fund that combines the features of open-ended and closed-ended schemes, making the fund open for sale or redemption during pre-determined intervals.

This is a mutual fund with redemption features in between those of closed-end and open-end funds

Types of Mutual Fund

Based on Investments

Equity Funds

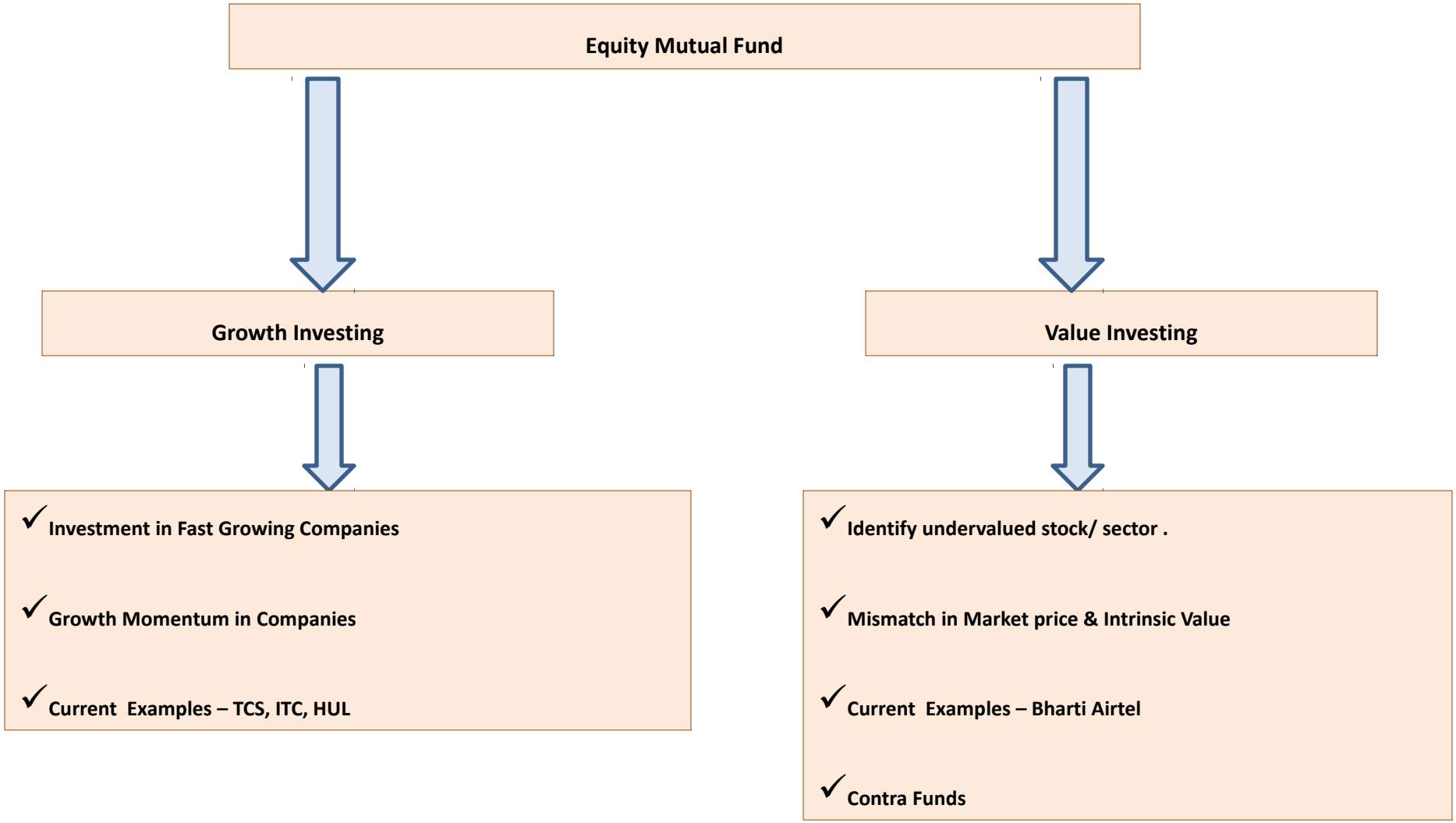
- ✓ Index Funds
- ✓ Large/Mid/Small Cap Funds
- ✓ Sectoral Funds
- ✓ Arbitrage Funds, Quant Funds , P/ E Ratio Fund etc

Debt Funds

- ✓ Fixed Maturity Plans
- ✓ Capital Protection Funds
- ✓ Gilt Funds
- ✓ Liquid Funds

Other than the above mentioned funds we have Income Funds, Balance Funds, Gold Funds, Gold ETF , Fund of Funds and Multi-Asset Funds which cover Gold as an Asset Class.

Investment Style in Equity Mutual Fund



Investment Style in Mutual Funds

Systematic Investment Plan (SIP)

SIP is way of investing in Mutual funds monthly, where a fixed amount of money goes from investors Bank Account to Mutual funds.

e.g. If you do a SIP of 1,000 for 1 yr; it means that every month on a fixed date (chosen by you) 1,000 will be invested in a Fixed Mutual fund you choose.

Advantages of SIP

- **Reduction in Risk**
- **No need or effort to time the market.**
- **Discipline in the investment**

Investment Style in Mutual Funds

Systematic Transfer Plan (STP)

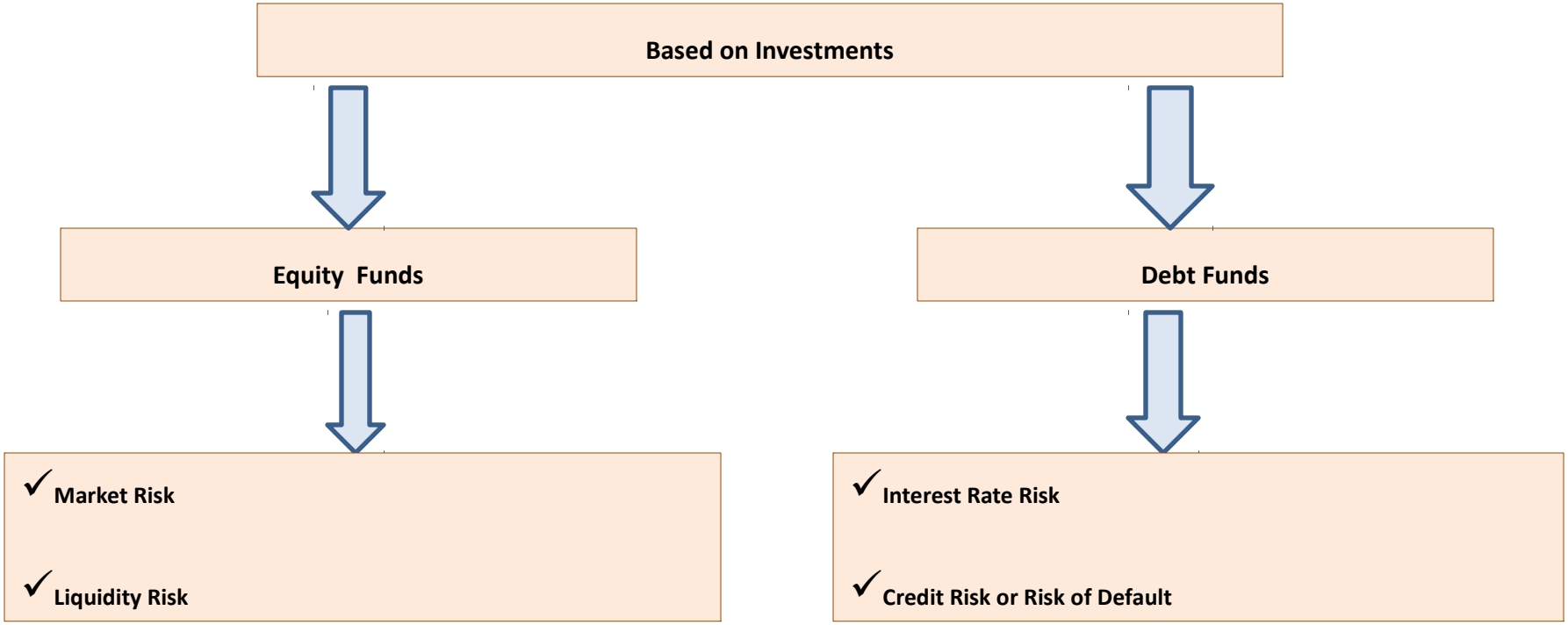
STP refers to Systematic Transfer Plan where in an investor invests a lump sum amount in one scheme and regularly transfers (i.e. switches) a pre-defined amount into another scheme.

Generally switch happens from Debt to Equity Schemes

Advantages of STP

- **Reduction in Risk**
- **No need or effort to time the market.**
- **Discipline in the investment**

Risks Associated with Mutual Funds



Taxation of the Mutual Fund

	Equity Scheme Min. 65% invested in Indian Equities	Debt Scheme
Long Term Capital Gains (Holding period- Morethan 12months for equityfunds and more than 36 months for Debt Schemes)	0%	20% - With Indexation
Short Term Capital Gains (Less than or equal to12 for equityfunds and less than 36 months for Debt Schemes)	15%	Marginal Rate ofTax Profit added to income

Evaluation of Mutual Funds

Sharpe Ratio

Sharpe Ratio

The Sharpe ratio is calculated by subtracting the risk-free rate - such as that of the 10-year Indian Treasury bond - from the rate of return for a portfolio and dividing the result by the standard deviation of the portfolio returns.

Higher is the Sharpe Ratio better is the performance of the fund.

The Sharpe ratio formula is:

$$= \frac{\bar{r}_p - r_f}{\sigma_p}$$

Where:

$\bar{r}_p$ = Expected porfolio return

r_f = Risk free rate

σ_p = Portfolio standard deviation

Sharpe ratio indicates excess return generated by the fund over Risk free rate per unit risk taken.

Calculation of Sharpe Ratio

Sharpe Ratio Example

Consider two funds A & B, A has given 20% annualised return over 3 years whereas B has given 32% annualised return over the same period. As per the Sharpe ratio which fund has done better if Annualised Standard deviation in returns of funds A & B is 6% and 16% respectively. Risk free rate is 8%

Sharpe Ratio for fund A =(20% - 8%)

6%

= 2

Sharpe Ratio for fund B =(32% - 8%)

16%

= 1.5

So as per Sharpe Ratio concept fund A has done better than fund B.

Treynor Ratio

Treynor Ratio

The ratio can be expressed as excess return generated by the fund over the risk free rate divided by the systematic risk or beta.

Higher is the Treynor Ratio better is the performance of the fund.

The Treynor Ratio formula is:

Treynor ratio=(Rp-Rf)/ß

Where,

Rp=return on the portfolio,

Rf= risk free rate and

ß= portfolio beta

Treynor Ratio indicates excess return generated by the fund over Risk free rate per unit of systematic risk taken.

Calculation of Treynor Ratio

Treynor Ratio Example

Consider two funds A & B, A has given 30% annualised return over 3 years whereas B has given 25% annualised return over the same period. As per the Treynor ratio which fund has done better if the beta's of funds A & B is 2 and 1.7 respectively. Risk free rate is 8%

Treynor Ratio for fund A =(30% - 8%)

2

= 11%

Treynor Ratio for fund B =(25% - 8%)

1.7

= 10%

So as per Treynor Ratio concept fund A has done better than fund B.

Information Ratio

Information Ratio

Information ratio is used to measure the performance of an active fund manager.

It is expressed as the active return or alpha (α) of a portfolio divided by the tracking error.

Active return or alpha return is the excess return generated by the fund over its benchmark.

Tracking error measures the standard deviation of the alpha return.

Higher is the Information Ratio better is the performance of the fund.

The Information ratio formula is:

Information ratio= $(R-Rb)/\sigma = = \alpha/ \sigma$

Where

R= return on the portfolio

Rb= Return on the benchmark

$\alpha = R-Rb$

σ = Standard deviation of the alpha return

Calculation of Information Ratio

Information Ratio Example

Consider two equity funds A & B, A has given 25% annualised return over 3 years whereas B has given 20% annualised return over the same period. As per the Information ratio which fund has done better if Annualised Standard deviation in excess returns of funds A & B is 10% and 8% respectively. They were benchmarked against the index which gave 12% returns.

Information Ratio for fund A =(25% - 12%)

10%

= 1.3

Information Ratio for fund B =(20% - 12%)

8%

= 1

So as per Information Ratio concept fund A has done better than fund B.