After going through the chapter student shall be able to understand

- Basics of Mutual Funds - Including its concepts and benefits etc.
- Evolution of the Indian Mutual Fund Industry
- Types of Mutual Funds
  - Structural Classification
  - Portfolio Classification
- Evaluating performance of Mutual Funds
  - Net Asset Value (NAV)
  - Costs incurred by Mutual Fund
  - Holding Period Return (HPR)
- The criteria for evaluating the performance
  - Sharpe Ratio
  - Treynor Ratio
  - Jensen’s Alpha
  - Sortino Ratio
- Advantages and Disadvantages of Mutual Fund
- Factors influencing the selection of Mutual Funds
- Signals highlighting the exit of the investor from the Mutual Fund Scheme
- Money Market Mutual Funds (MMMFS)
- Exchange Traded Funds
- Real Estate Investment Trusts (ReITs)
- Infrastructure Investment Trusts (Invits)
1. MEANING

A Mutual Fund is a pool of funds from a diverse cross section of society, that impart the benefits of scale and professional management to the investors, which otherwise would not have been available to them. The rationale for any pooling of service is two-fold: affordability and convenience. Office commuters can go to office by own vehicle or taxi cab, which is the synonym for do-it-yourself in the context of investments. The other way of doing the office commute is by public transport like bus or train, which essentially is the pooling concept, bringing transport within the reach of those people who cannot afford an own vehicle. The synonym here is the Mutual Fund. To be noted, it is not just affordability due to which people may take to public transport; there could be reasons like saving the hassles of maintaining and driving own vehicle. The other benefit in the mutual fund context is professional management and tracking of investments.

The diagram above illustrates that a mutual fund is a common pool of investments of a cross section of investors. To understand the concept better, please look at the following diagram:
A Mutual Fund is a pool of investment funds of a number of investors who have a common investment objective. The asset management company, that manages the day-to-day running of the fund, invests the money collected in securities like stocks, bonds etc. The investors, called unit-holders as they hold units in the pool proportionate to their investment, earn from the appreciation in the investments and dividend / coupon received in the fund. Thus a Mutual Fund is the most suitable investment for the common man as well as HNIs since it offers an opportunity to invest in a diversified, professionally managed basket of securities at a relatively low cost.

2. EVOLUTION

2.1 History of Mutual Funds (Global)

A mutual fund, as the term suggests, is a pooling of resources of many investors and is managed by professionals. The concept of pooling money for investments has been there for a long time. It began in the Netherlands in the 18th century; today it is a growing, international industry with fund holdings accounting for trillions of dollars in the United States alone. The closed-end investment companies launched in the Netherlands in 1822 by King William I is supposedly the first mutual funds. Another theory says a Dutch merchant named Adriaan van Ketwich whose investment trust created in 1774 may have given the king the idea. The concept spread to Great Britain and France, and then to the United States in the 1890s.

2.2 Expansion

By the late 1920s, there were quite a few mutual funds in the USA. With the stock market crash of 1929, some funds were wiped out, particularly the leveraged ones. The creation of the Securities and Exchange Commission (SEC), and the Securities Act of 1933 put certain safeguards for investor protection.

Despite the global financial crisis of 2008-2009, the story of the mutual fund is far from over. In fact, the industry is still growing. In the U.S. alone there are more than 10,000 mutual funds and fund holdings are measured in the trillions of dollars.

2.3 History of Mutual Funds in India

The evolution of the mutual fund industry in India has been relatively more ‘administered’ i.e. there have been quite a few administrative interventions. The history, as delineated by AMFI, is as follows:

The mutual fund industry in India started in 1963 with the formation of Unit Trust of India, at the initiative of the Government of India and Reserve Bank of India. The history of mutual funds in India can be broadly divided into four distinct phases:
2.3.1 **First Phase – 1964-87**

Unit Trust of India (UTI) was established on 1963 by an Act of Parliament. It was set up by the Reserve Bank of India and functioned under the Regulatory and administrative control of the Reserve Bank of India. In 1978 UTI was de-linked from the RBI and the Industrial Development Bank of India (IDBI) took over the regulatory and administrative control in place of RBI. The first scheme launched by UTI was Unit Scheme 1964. At the end of 1988 UTI had ₹ 6,700 crore of assets under management.

2.3.2 **Second Phase – 1987-1993 (Entry of Public Sector Funds)**

1987 marked the entry of non- UTI, public sector mutual funds set up by public sector banks and Life Insurance Corporation of India (LIC) and General Insurance Corporation of India (GIC). SBI Mutual Fund was the first non- UTI Mutual Fund established in June 1987 followed by Canbank Mutual Fund (Dec 87), Punjab National Bank Mutual Fund (Aug 89), Indian Bank Mutual Fund (Nov 89), Bank of India (Jun 90), Bank of Baroda Mutual Fund (Oct 92). LIC established its mutual fund in June 1989 while GIC had set up its mutual fund in December 1990. At the end of 1993, the mutual fund industry had assets under management of ₹ 47,004 crore.

2.3.3 **Third Phase – 1993-2003 (Entry of Private Sector Funds)**

With the entry of private sector funds in 1993, a new era started in the Indian mutual fund industry, giving the Indian investors a wider choice of fund families. Also, 1993 was the year in which the first Mutual Fund Regulations came into being, under which all mutual funds, except UTI were to be registered and governed. The erstwhile Kothari Pioneer (now merged with Franklin Templeton) was the first private sector mutual fund registered in July 1993.

The 1993 SEBI (Mutual Fund) Regulations were substituted by a more comprehensive and revised Mutual Fund Regulations in 1996. The industry now functions under the SEBI (Mutual Fund) Regulations 1996.

The number of mutual fund houses went on increasing, with many foreign mutual funds setting up funds in India and also the industry has witnessed several mergers and acquisitions. As at the end of January 2003, there were 33 mutual funds with total assets of ₹ 1,21,805 crore. The Unit Trust of India with ₹ 44,541 crore of assets under management was way ahead of other mutual funds.

2.3.4 **Fourth Phase – since February 2003**

In February 2003, following the repeal of the Unit Trust of India Act 1963 UTI was bifurcated into two separate entities. One is the Specified Undertaking of the Unit Trust of India with assets under management of ₹ 29,835 crore as at the end of January 2003, representing broadly, the assets of US 64 scheme, assured return and certain other schemes. The Specified Undertaking of Unit Trust of India, functioning under an administrator and under the rules framed by Government of India and does not come under the purview of the Mutual Fund Regulations.
The second is the UTI Mutual Fund, sponsored by SBI, PNB, BOB and LIC. It is registered with SEBI and functions under the Mutual Fund Regulations. With the bifurcation of the erstwhile UTI which had in March 2000 more than ₹ 76,000 crore of assets under management and with the setting up of a UTI Mutual Fund, conforming to the SEBI Mutual Fund Regulations, and with recent mergers taking place among different private sector funds, the mutual fund industry has entered its current phase of consolidation and growth.

Growth in terms of quantum of funds managed

Source: AMFI

2.4 Mutual Fund Organization
There are various entities involved in the overall structure. They are explained as below:

**Sponsor**

Sponsor is the entity that creates a mutual fund. The rules are set by the Securities and Exchange Board of India, in the Mutual Fund Regulations of 1996.

**Trust**

The Mutual Fund is a trust under the Indian Trusts Act, 1882. The trust deed is registered under the Indian Registration Act, 1908. The Trust oversees the safekeeping of the unit-holders’ investments.

**Trustee**

The Board of Trustees i.e. the body of individuals, looks after the safeguarding the interest of the unit holders. At least 2/3rd of the Trustees are independent i.e. not associated with the Sponsor.

**Asset Management Company (AMC)**

The AMC is the piece of the mutual fund system that looks after the operations and investments of the MF. Formation of the AMC requires approval by SEBI. The AMC needs to have a net worth of ₹ 50 crore.

### 3. TYPES OF MUTUAL FUNDS

There are various types of mutual funds, classified primarily on the basis of underlying portfolio.

#### 3.1 On the basis of Structure

##### 3.1.1 Open Ended Funds

It is a commonly used term in the mutual fund industry; let us understand the term for the investor. Most of the funds (or Schemes, technically) are open ended, ones that are available for purchase from the AMC and redemption with the AMC on an on-going basis, round the year on all working days, till it is wound up. What it means for the investor is, there is liquidity round the year - can be purchased anytime and can be sold (redeemed, technically) anytime. Listed open ended funds can be sold at the Exchange as well, but in case of redemption with the AMC, liquidity is assured. There is no additional cost for this liquidity as AMCs do not charge any premium for redemption.

Sometimes there is an exit load in an open ended fund. It means if the investor exits within that period, there will be a penalty charged on the exit value, but liquidity is available nonetheless though at the cost of the exit load. It is a matter of discipline so that the investor comes in with the requisite horizon in mind and if he/she exits within that period, s/he pays adequate compensation to the other investors who are staying back.

The implication of open ended funds for the AMC is fund (or Scheme) corpus size volatility; fund size increases when investors purchase units from the AMC and fund size comes down when investors redeem units.
An open ended fund comes into existence through the New Fund Offer (NFO) process and the Fund (or Scheme) parameters are decided by the NFO documents - Scheme Information Document (SID) and Key Information Memorandum (KIM). There is another document called Scheme Additional Information (SAI).

There is no defined maturity date for open ended funds; as long as there is a single investor, the Scheme continues to be in existence. There are limitations on maximum holding by a single investor: it is referred to commonly as the 20/25 rule - there has to be minimum 20 investors to float a Scheme and maximum permissible holding per investor is 25%.

3.1.2 Close Ended Funds

Close ended funds are available for subscription only during the New Fund Offer (NFO) period and not beyond that. The initial subscription amount is collected from investors and the fund is ‘closed’ after the NFO closure date i.e. no further purchase is allowed. There is no redemption possible with the AMC. Hence from the AMC’s perspective, the fund (or Scheme) corpus size is stable and there is no need to manage ‘liquidity’ in the fund no need to keep some portion in liquid or easily marketable securities to meet sudden redemption pressure.

Close ended funds may have a defined maturity date e.g. fixed maturity plans (FMPs) that have a maturity date. In an open-ended structure, it is practically not feasible to have a maturity date as it is meant to be available for investment and redemption on an on-going basis. Close ended funds are listed at the Exchange, but are not as liquid as open ended funds as there is no defined liquidity like redemption with the AMC.

Broadly, open ended funds are much more popular than close ended as the fund industry is supposed to provide investment solutions along with liquidity that it available at any point of time. Close Ended Funds are meant to fulfil a particular requirement.

3.2 On the basis of Investment Portfolio

The Schemes would be broadly classified in the following groups:

a. Equity Schemes
b. Debt Schemes
c. Hybrid Schemes
d. Solution Oriented Schemes
e. Other Schemes
## A. Equity Schemes:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category of Schemes</th>
<th>Scheme Characteristics</th>
<th>Type of scheme (uniform description of scheme)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Multi Cap Fund</td>
<td>Minimum investment in equity &amp; equity related instruments – 65% of total assets</td>
<td>Multi Cap Fund – An open ended equity scheme investing across large cap, mid cap, small cap stocks</td>
</tr>
<tr>
<td>2</td>
<td>Large Cap Fund</td>
<td>Minimum investment in equity &amp; equity related instruments of large cap companies – 80% of total assets</td>
<td>Large Cap Fund – An open ended equity scheme predominantly investing in large cap stocks</td>
</tr>
</tbody>
</table>
| 3       | Large & Mid Cap Fund        | Minimum investment in equity & equity related instruments of large cap companies – 35% of total assets  
Minimum investment in equity & equity related instruments of mid cap stocks – 35% of total assets | Large & Mid Cap Fund – An open ended equity scheme investing in both large cap and mid cap stocks           |
| 4       | Mid Cap Fund                | Minimum investment in equity & equity related instruments of mid cap companies – 65% of total assets | Mid Cap Fund – An open ended equity scheme predominantly investing in mid cap stocks                           |
| 5       | Small Cap Fund              | Minimum investment in equity & equity related instruments of small cap companies – 65% of total assets | Small Cap Fund – An open ended equity scheme predominantly investing in small cap stocks                      |
| 6       | Dividend Yield Fund         | Scheme should predominantly invest in dividend yielding stocks.  
Minimum investment in equity – 65% of total assets | An open ended equity scheme predominantly investing in dividend yielding stocks                               |
<p>| 7       | Value Fund*                 | Scheme should follow a value investment strategy.                                       | An open ended equity scheme following a value investment strategy                                           |</p>
<table>
<thead>
<tr>
<th>Fund Type</th>
<th>Minimum Investment in Equity &amp; Equity Related Instruments – 65% of Total Assets</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contra Fund*</td>
<td>Minimum investment in equity &amp; equity related instruments – 65% of total assets</td>
<td>Scheme should follow a contrarian investment strategy.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>An open ended equity scheme following contrarian investment strategy.</td>
</tr>
<tr>
<td>8 Focused Fund</td>
<td>Minimum investment in equity &amp; equity related instruments – 65% of total assets</td>
<td>A scheme focused on the number of stocks (maximum 30).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>An open ended equity scheme investing in maximum 30 stocks (mention where the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>scheme intends to focus, viz; multi cap, mid cap, small cap).</td>
</tr>
<tr>
<td>9 Sectoral / Thematic</td>
<td>Minimum investment in equity &amp; equity related instruments of a particular sector/ particular theme – 80% of total assets</td>
<td>Minimum investment in equity &amp; equity related instruments of a particular sector/ particular theme – 80% of total assets</td>
</tr>
<tr>
<td></td>
<td></td>
<td>An open ended equity scheme investing in - sector (mention the sector).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>An open ended equity scheme following – theme (mention the theme).</td>
</tr>
<tr>
<td>10 ELSS</td>
<td>Minimum investment in equity &amp; equity related instruments – 80% of total assets (in accordance with Equity Linked Saving Scheme, 2005 notified by Ministry of Finance)</td>
<td>Minimum investment in equity &amp; equity related instruments – 80% of total assets (in accordance with Equity Linked Saving Scheme, 2005 notified by Ministry of Finance)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>An open ended equity linked saving scheme with a statutory lock in of 3 years and tax benefit</td>
</tr>
</tbody>
</table>

For classification of companies as per market capitalization, the definition is as follows:

- **Large Cap**: 1st -100th company in terms of full market capitalization
- **Mid Cap**: 101st -250th company in terms of full market capitalization
- **Small Cap**: 251st company onwards in terms of full market capitalization
### Debt Schemes:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category of Schemes</th>
<th>Scheme Characteristics</th>
<th>Type of scheme (uniform description of scheme)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Overnight Fund</td>
<td>Investment in overnight securities having maturity of 1 day</td>
<td>An open ended debt scheme investing in overnight securities</td>
</tr>
<tr>
<td>2</td>
<td>Liquid Fund</td>
<td>Investment in Debt and money market securities with maturity of upto 91 days only</td>
<td>An open ended liquid scheme</td>
</tr>
<tr>
<td>3</td>
<td>Ultra Short Duration Fund</td>
<td>Investment in Debt &amp; Money Market instruments such that the Macaulay duration of the portfolio is between 3 months – 6 months</td>
<td>An open ended ultra – short term debt scheme investing in instruments with Macaulay duration between 3 months and 6 months</td>
</tr>
<tr>
<td>4</td>
<td>Low Duration Fund</td>
<td>Investment in Debt &amp; Money Market instruments such that the Macaulay duration of the portfolio is between 6 months – 12 months</td>
<td>An open ended low duration debt scheme investing in instruments with Macaulay duration between 6 months and 12 months</td>
</tr>
<tr>
<td>5</td>
<td>Money market Fund</td>
<td>Investment in Money Market instruments having maturity upto 1 year</td>
<td>An open ended debt scheme investing in money market instruments</td>
</tr>
<tr>
<td>6</td>
<td>Short Duration Fund</td>
<td>Investment in Debt &amp; Money Market instruments such that the Macaulay duration of the portfolio is between 1 year – 3 years</td>
<td>An open ended short term debt scheme investing in instruments with Macaulay duration between 1 year and 3 years</td>
</tr>
<tr>
<td>7</td>
<td>Medium Duration Fund</td>
<td>Investment in Debt &amp; Money Market instruments such that the Macaulay duration of the portfolio is between 3 years – 4 years</td>
<td>An open ended medium term debt scheme investing in instruments with Macaulay duration between 3 years and 4 years</td>
</tr>
<tr>
<td>No.</td>
<td>Fund Type</td>
<td>Investment Strategy</td>
<td>Description</td>
</tr>
<tr>
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<td>---------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>8</td>
<td>Medium to Long Duration Fund</td>
<td>Investment in Debt &amp; Money market instruments such that the Macaulay duration of the portfolio is between 4 – 7 years</td>
<td>An open ended medium term debt scheme investing in instruments with Macaulay duration between 4 years and 7 years</td>
</tr>
<tr>
<td>9</td>
<td>Long Duration Fund</td>
<td>Investment in Debt &amp; Money Market Instruments such that the Macaulay duration of the portfolio is greater than 7 years</td>
<td>An open ended debt scheme investing in instruments with Macaulay duration greater than 7 years</td>
</tr>
<tr>
<td>10</td>
<td>Dynamic Bond</td>
<td>Investment across duration</td>
<td>An open ended dynamic debt scheme investing across duration</td>
</tr>
<tr>
<td>11</td>
<td>Corporate Bond Fund</td>
<td>Minimum investment in corporate bonds – 80% of total assets (only in highest rated instruments)</td>
<td>An open ended debt scheme predominantly investing in highest rated corporate bonds</td>
</tr>
<tr>
<td>12</td>
<td>Credit Risk Fund</td>
<td>Minimum investment in corporate bonds – 65% of total asset (investment in below highest rated instruments)</td>
<td>An open ended debt scheme investing in below highest rated corporate bonds</td>
</tr>
<tr>
<td>13</td>
<td>Banking and PSU Fund</td>
<td>Minimum investment in Debt instrument of banks, Public Sector Undertakings, Public Financial Institutions – 80% of total assets</td>
<td>An open ended debt scheme predominantly investing in Debt instruments of banks, Public Sector Undertakings, Public Financial Institutions</td>
</tr>
<tr>
<td>14</td>
<td>Gilt Fund</td>
<td>Minimum investment in Gsecs – 80% of total assets (across maturity)</td>
<td>An open ended debt scheme investing in government securities across maturity</td>
</tr>
<tr>
<td>15</td>
<td>Gilt Fund with 10 year constant duration</td>
<td>Minimum investment in Gsecs – 80% of total assets such that the Macaulay duration of the portfolio is equal to 10 years</td>
<td>An open ended debt scheme investing in government securities having a constant maturity of 10 years</td>
</tr>
</tbody>
</table>
16. **Floater Fund**

Minimum investment in floating rate instruments – 65% of total assets

An open ended debt scheme predominantly investing in floating rate instruments

For debt funds, the classification is on the basis of Macaulay Duration, and not on the basis of Average Maturity of Modified Duration.

### Hybrid Schemes:

<table>
<thead>
<tr>
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<th>Scheme Characteristics</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Conservative Hybrid Fund</td>
<td>Investment in equity &amp; equity related instruments – between 10% and 25% of total assets; Investment in Debt instruments – between 75% and 90% of total assets</td>
<td>An open ended hybrid scheme investing predominantly in debt instruments</td>
</tr>
<tr>
<td>2</td>
<td>Balanced Hybrid Fund</td>
<td>Equity &amp; Equity related instruments – between 40% and 60% of total assets; Debt instruments – between 40% and 60% of total assets; No arbitrage would be permitted in this scheme</td>
<td>An open ended balanced scheme investing in equity and debt instruments</td>
</tr>
<tr>
<td></td>
<td>Aggressive Hybrid Fund</td>
<td>Equity &amp; Equity related instruments – between 65% and 80% of total assets; Debt instruments – between 20% and 35% of total assets</td>
<td>An open ended hybrid scheme investing predominantly in equity and equity related instruments</td>
</tr>
<tr>
<td>3</td>
<td>Dynamic Asset Allocation or Balanced Advantage</td>
<td>Investment in equity / debt that is managed dynamically</td>
<td>An open ended dynamic assets allocation fund</td>
</tr>
<tr>
<td>4</td>
<td>Multi Assets Allocation</td>
<td>Invests in at least three asset classes with a minimum allocation of at least 10% each in all three asset classes</td>
<td>An open ended scheme investing in the three different asset classes</td>
</tr>
</tbody>
</table>
### D. Solution Oriented Schemes:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category of Schemes</th>
<th>Scheme Characteristics</th>
<th>Type of scheme (uniform description of scheme)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Retirement Fund</td>
<td>Scheme having a lock – in for at least 5 years or till retirement age whichever is earlier</td>
<td>An open ended retirement solution oriented scheme having a lock – in of 5 years or till retirement age (whichever is earlier)</td>
</tr>
<tr>
<td>2</td>
<td>Children’s Fund</td>
<td>Scheme having a lock – in for at least 5 years or till the child attains age of majority whichever is earlier</td>
<td>An open ended fund for investment for children having a lock – in for at least 5 years or till the child attains age of majority (whichever is earlier)</td>
</tr>
</tbody>
</table>

### E. Other Schemes:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category of Schemes</th>
<th>Scheme Characteristics</th>
<th>Type of scheme (uniform description of scheme)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Index Funds / ETFs</td>
<td>Minimum investment in securities of a particular index (which is being replicated / tracked) – 95% of total assets</td>
<td>An open ended scheme replicating / tracking _index</td>
</tr>
<tr>
<td>2</td>
<td>FOFs ( Overseas / Domestic)</td>
<td>Minimum investment in the underlying fund – 95% of total assets</td>
<td>An open ended fund of fund scheme investing in – fund (mention the underlying fund)</td>
</tr>
</tbody>
</table>
4. **NET ASSET VALUE (NAV)**

There is a valuation of the fund done at the end of every business day, so that the investor knows the value of his/her investments as on that date. The term ‘value’ here refers to the market value i.e. if hypothetically the entire portfolio were to be liquidated, how much would be realized. Since each investor holds units in the pool of funds, the valuation is published in terms of per unit, so that the value of one’s holdings can be computed. The formula for computation of NAV is:

\[
\text{NAV} = \frac{\text{Market Value of Investments held by the Fund} + \text{Value of Current Assets} - \text{Value of Current Liabilities and Provisions}}{\text{No. of Units on the valuation date before redemption or creation on units}}
\]

The value at the end of the day is not only the market value of the investments as on that day - to the market value of the investments we have to add the cash equivalents or other current assets and need to deduct any expenses that have accrued but not paid out, so that the NAV represents a true and fair picture. That is the reason it is called ‘net’ asset value i.e. it is net of liabilities, expenses, etc.

NAV is published on every business day for all funds; for Liquid Funds, NAV is published on Sundays as well.

In equity funds, returns come mostly from price movement. Hence the differential in NAV between two dates is mostly the difference in market value of the investments.

In debt funds, returns come mostly from interest accrual. Hence the differential in NAV between two dates is mostly the accrual, provided the period is sufficiently long to absorb short term volatilities.

5. **PERFORMANCE MEASUREMENT**

It comes as a statutory warning that “mutual fund investments are subject to market risks . . . past performance is not an indication of future performance”. Very few people read it or understand the import of the statement. The implication of the statement is that, the performance we are looking at today, is the result of certain investment decisions taken by the fund manager in the past. The fund manager is ultimately a human being, and future decisions may or may not be as effective and hence future returns from that fund may or may not be as good.

Even though past performance may not be repeated in future, there is no logic to go for a Fund that has been an underperformer, because that particular fund manager could not prove himself / herself efficient over the period under consideration. The outperformer has something going for himself / herself. Hence, let us look at past performance also as a hygiene factor.
What should be avoided is,

- looking at past performance over a short period of time
- looking at returns only till a particular date and comparing the numbers
- basing a decision on a ranking system, ranked only by returns till a particular date.

Let us now understand why the above practices should be avoided.

A short period of time is not adequate to judge the performance of a fund manager, just like the runs scored or wickets taken by a cricketer over 5 matches is not enough to judge his class - at best it shows his current form. Similarly, if a bond fund is outperforming the peer group over a period of say 1 or 2 months, it may be that the calls (investment decisions) taken by the fund manager over 1 or 2 months have proved better than other fund managers and that’s it. Fund managers who have proven himself / herself over a long period of time should be preferred.

Point to point returns till the date of review may be influenced by the outperformance / underperformance over the recent past. That is to say, if we are looking at 1 month, 3 month, 6 month and 1 year returns till the date of review, if that particular fund has done very well or very poorly over the last 1 month, it will influence the 6 month and 1 year returns as well. Hence returns at various intermittent periods are as relevant.

As discussed earlier, a Fund may have done well over say a 1 year period which makes it eligible for ‘5 stars’ (performance ranking done by some agencies / websites) as against another Fund which is say ‘4 stars’ or ‘3 stars’ and you take the decision to invest in the 5 star rated Fund, it may not be an entirely correct decision. Nothing wrong about a fund doing well, more so if the performance-based ranking is over an adequate period of time and it is done on a ‘risk-adjusted basis’ i.e. adjusted for volatility in returns. The point is, there are certain ‘hygiene factors’ which should be considered. Lay investors would be attracted by the ‘5 stars’ and would not be aware that a 5 star rated Fund may be low on the hygiene factors. For example, a Fund with a corpus of ₹ 1,000 crore from a leading AMC / sponsor with 4 star performance should be preferred over a 5 star rated Fund with a corpus of ₹ 20 crore which is from an AMC that ranks among the bottom 5 in terms of corpus / their sponsor is not so well known or if the credit quality of the Fund is relatively poor.

5.1 Performance Measures

There are various ways of measuring performance; what is most commonly used is looking at point to point returns (i.e. returns from one particular date to today’s date) over various time periods e.g. 1 month, 3 month, 6 months, 1 year, 2 years, etc.

As a matter of regulation, returns from fixed income Funds for a period less than 1 year should be simple annualized and for a period more than 1 year it should be annualized on a compounded basis.
There are more refined methods of looking at point to point returns, which are

- looking at risk-adjusted (i.e. adjusted for volatility) returns
- looking at various statistical ratios e.g. Sharpe Ratio, Alpha Ratio, Treynor Ratio, etc.

### 5.1.1 Costs incurred by Mutual Fund

Costs when high reduce the returns of an investor. High Costs are the cause of below par performance of some mutual funds. Costs carry two components: (1) Initial Expenses attributable to establishing a scheme under a Fund and (2) Ongoing recurring expenses (Management Expense Ratio) which is made up of (a) Cost of employing technically sound investment analysts (b) Administrative Costs (c) Advertisement Costs involving promotion and maintenance of Scheme funds. The Management Expense Ratio is measured as a % of average value of assets during the relevant period.

\[
\text{Expense Ratio} = \frac{\text{Expense}}{\text{Average value of Portfolio}}
\]

If Expenses are expressed per unit, then Expense Ratio = Expenses incurred per unit / Average Net Value of Assets.

The Expense Ratio relates to the extent of assets used to run the Mutual Fund. It is inclusive of travel cost, management consultancy and advisory fees. It however excludes brokerage expenses for trading as purchase is recorded with brokerage while sales are recorded without brokerage.

### 5.1.2 Point to Point Returns

Point to point simply measures returns from a past date to the current date, by taking the NAV at these two dates. For measurement of returns, the growth option NAV should be taken and not the dividend option as there would be complications of adding back dividend. As an example, the return over one year from 31 December 2017 to 31 December 2018 is the increment in the growth option NAV divided by the NAV as on 31 Dec 2017.

Similarly, returns over three months from 30 September 2018 to 31 December 2018 is the increment in the growth option NAV divided by the NAV as on 31 December 2017. The return over three years from 31 December 2015 to 31 December 2018 is the increment in the growth option NAV divided by the NAV as on 31 December 2015. To be noted, returns from equity funds over a period of less than one year is expressed as absolute and for more than one year, it is annualized on a compounded basis. For fixed income funds for a period less than one year should be simple annualized and for a period more than one year it should be compound annualized.

### 5.1.3 Rolling Returns

The method to iron out the possible skew in point to point returns which may result from outperformance / underperformance in the recent past, is to look at rolling returns. Measurement of rolling returns works like this: over the period under consideration, take many short periods of fixed
frequency, measure the return from the Fund over these shorter time periods, and take the average of all the data over the entire period.

Example of computation:

Performance of a Liquid Fund over a 3-month period:

- Point-to-point: simply measure the performance of the growth option NAV from the start date to today’s date, annualized.
- Rolling return of daily frequency: measure the return from the start date to next date, from next to next-to-next date and so on, and take the average of all these observations.
- Rolling return of weekly frequency: measure the return from the start date to next week, from next week to next-to-next week and so on, and take the average of all these observations.

Performance of an Equity / Bond Fund over a 3-year period:

- Point-to-point: simply measure the performance of the growth option NAV from the start date to today’s date, compound annualized.
- Rolling return of monthly frequency: measure the return from the start date to one-month-later date, from next to next-to-next month and so on, and take the average of all these observations.
- Rolling return of quarterly frequency: measure the return from the start date to three-month-later date, from next quarter to next-to-next quarter and so on, and take the average of all these observations.

The superiority of rolling return as a performance measurement over simple point-to-point return is that it irons out the various smaller pockets of outperformance and underperformance against the peer group and throws up a more dependable (smoothened out) data.

5.2 Statistical Ratios

5.2.1 Sharpe Ratio (Reward to Variability)

Investors prefer stocks or portfolios with relatively less risk or less volatility. Therefore, how do we evaluate portfolios with different returns and different levels of risk?
<table>
<thead>
<tr>
<th></th>
<th>Portfolio A</th>
<th>Portfolio B</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annualized return</td>
<td>7.9%</td>
<td>6.9%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Annualized risk</td>
<td>5.5%</td>
<td>3.2%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Sharpe ratio</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Risk-free rate = 2%)</td>
<td>7.9% - 2.0%</td>
<td>6.9% - 2.0%</td>
<td>7.5% - 2.0%</td>
</tr>
<tr>
<td>( SR = \frac{r_p - r_f}{\sigma_p} )</td>
<td>5.5%</td>
<td>3.2%</td>
<td>4.5%</td>
</tr>
<tr>
<td></td>
<td>= 1.07</td>
<td>= 1.53</td>
<td>= 1.22</td>
</tr>
</tbody>
</table>

\( r_p \) is the portfolio return

\( r_f \) is the risk-free rate

As we see in the table above, though the return as such of portfolio A (7.9%) is higher than portfolio B (6.9%) and Benchmark (7.5%), variability also is higher. The Sharpe Ratio of portfolio A (1.07) is much lower than portfolio B (1.53) and also lower than benchmark portfolio (1.22).

The higher the Sharpe ratio, the better because the portfolio has given that much higher return to compensate for the higher variability. The Sharpe ratio is a very popular method for measuring risk-adjusted return.

### 5.2.2. Treynor Ratio

The output of Treynor ratio is similar to Sharpe, the difference being that the denominator, instead of standard deviation in Sharpe, takes the systematic risk calculated by beta of the portfolio.

\[
TR = \frac{r_p - r_f}{\beta_p}
\]

The Treynor ratio measures excess return generated per unit of risk in the portfolio i.e. excess return earned above the risk-free investment. Treasury bills are usually taken as the proxy for risk-free return as it is issued by the Government and duration is not very long. Risk refers to the portfolio beta i.e. the extent to which the portfolio performance varies along with the relevant market.
5.2.3 Jensen’s Alpha

This is the difference between a fund’s actual return and those that could have been made on a benchmark portfolio with the same risk - i.e. beta. It measures the ability of active management to increase returns above those that are purely a reward for bearing market risk. Caveats apply however since it will only produce meaningful results if it is used to compare two portfolios which have similar betas.

Assume Two Portfolios

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>Market Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return</td>
<td>12</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>Beta</td>
<td>0.7</td>
<td>1.2</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Risk Free Rate = 9%

The return expected = Risk Free Return + Beta portfolio (Return of Market - Risk Free Return)

Using Portfolio A, the expected return = 0.09 + 0.7 (0.12 - 0.09) = 0.09 + 0.021 = 0.111

Alpha = Return of Portfolio - Expected Return = 0.12 - 0.111 = 0.009

As long as “apples are compared to apples” - in other words a computer sector fund A to computer sector fund b- it is a viable number. But if taken out of context, it loses meaning. Alphas are found in many rating services but are not always developed the same way- so you can’t compare an alpha from one service to another. However we have usually found that their relative position in the particular rating service is to be viable. Short-term alphas are not valid. Minimum time frames are one year- three year is more preferable.

5.2.4 Sortino Ratio

Sortino ratio is a variation of the concept of Sharpe or Treynor ratios; instead of measuring it against any type of risk, Sortino measures it against only downside risk in the portfolio.
SR = \frac{r_p - r_f}{\sigma_D}

Here,

\sigma_D is the standard deviation on the downside i.e. not just the entire deviations in the portfolio but the downside deviations only.

Sortino ratio penalizes only returns below a specified rate. Sharpe and Sortino measure risk-adjusted return, but they are different. Sortino ratio differentiates negative volatility from entire volatility by taking the standard deviation of negative returns, called downside, rather than total standard deviation.

5.2.4 Portfolio or Fund Alpha

The Alpha is the excess return over broad market, represented by the benchmark. Beta is the systematic return or return along with the market whereas Alpha is the return over and above the market generated by active fund management and by taking risks i.e. unsystematic risks. To gauge the excess return over the market, the index or benchmark is taken to represent the market return and the excess return over the index / benchmark is the Alpha. Alpha may be positive or negative i.e. active portfolio calls or portfolio churning can go either way.

5.2.5 Computation of statistical ratios

The measures discussed above, like Sharpe or Treynor ratio, is to be calculated by taking a series of growth option NAVs of the fund and that relevant values of the benchmark.

5.2.6 Benchmarking

For any performance evaluation, benchmarking is very relevant. Question is, what is the correct benchmark? In most literature on mutual funds and on communications from AMCs, the standard / official benchmark is mentioned. For example, for a large cap equity fund, the Nifty50 Index can be used or if it is a Short Term Bond Fund, the CRISIL index for Short Term Bond Funds (STBex) would be mentioned.

6. ADVANTAGES AND DISADVANTAGES OF MUTUAL FUND

6.1 Advantages

(i) Professional expertise: Except for some large corporate investors with dedicated treasury departments, it is not possible for an investor to replicate the expertise and professional fund management skills of MFs. The market is dynamic and portfolio reshuffling calls have to be taken as and when required. Active tracking of portfolio is not the job of the archetype investor.
(ii) **Operational / Transaction ease:** The process of buying and selling an instrument in the secondary market is quite cumbersome as compared to the process of investing / redeeming in MFs. For a similar / comparable return, the investor would rather settle for an easier process.

(iii) **Accessibility:** Mutual Funds are easy to access, through distributors, online, acceptance centers etc.

(iv) **Ticket Size:** All ticket sizes are available, from as small as ₹ 5000 to multiples of crores.

(v) **Liquidity:** In mutual funds, liquidity is just a redemption away. Nowadays, it can be done online and the money gets credited to your bank account. The time period for getting the credit depends on the nature and terms of the fund; it may be T+1 day to T+3 days.

(vi) **Option of multiple funds:** There are multiple categories of funds discussed earlier, there is one to suit your requirement, managed by professionals. That is not the case with direct investment in equity stocks / bonds.

6.2 **Advantages typical of debt funds**

(i) **Wholesale nature of the market:** The fixed income market, by nature, is wholesale. Unlike the equity market where both individuals and institutions participate, in the fixed income market, the participants are institutions like banks, insurance companies, etc. Deals are struck in multiples of ₹ 5 crore. This is not to say the minimum deal size is ₹ 5 crore, but to say that an individual with an investible corpus of say ₹ 10 lakh would not find a toehold in the fixed income market. Size / scale is of critical importance, which is possible only by pooling of funds, which, as discussed above, is the concept of MFs.

(ii) **Liquidity requirements:** Even if an individual is able to obtain an investible lot of say ₹ 10 lakh, when it comes to selling it to book profits or to obtain cash, it could be an issue. It takes time to find a buyer, given the wholesale nature of the market. Through the MF route, liquidity is just a redemption away, for the investor.

From an AMC perspective, all redemption requests may not result in a sale of an instrument in the secondary market. There are new investors coming in, and to the extent the amount is netted off, it does not require a market transaction. To clarify here, MFs do not operate as Ponzi Schemes to match redemptions with fresh investments - they invest in saleable securities. Only if fresh investments are coming in, it may not require selling an instrument from the portfolio.

(iii) **Tax Efficiency in growth option over 3 years:** In bonds, most of the returns come from coupons, which is taxable at the marginal slab rate i.e. 30% + surcharge and cess. Capital gains of bonds is a small component of returns. In mutual funds, if you have a horizon of 3 years, there is significant tax efficiency. You get the benefit of indexation for computation of long term capital gains tax, and the tax rate is 20% + surcharge and cess.
6.3 Disadvantages of Mutual Fund

(i) **Flexibility:** If you are running your own portfolio, you can run your own strategies. In mutual funds, you are following the fund manager.

(ii) **Alpha:** In developed markets like USA, there is a shift towards passively managed funds i.e. ETFs (discussed below) as there is not much of alpha generated over the broad market. ETFs run at a much lower cost than actively managed funds. While ETFs also are mutual funds, the point is, the alpha is missing in developed markets due to better information and efficiency in markets.

7. FACTORS INFLUENCING THE SELECTION OF MUTUAL FUNDS

(1) **Past Performance** – The Net Asset Value is the yardstick for evaluating a Mutual Fund. The higher the NAV, the better it is. Performance is based on the growth of NAV during the referral period after taking into consideration Dividend paid.

\[
\text{Growth} = \frac{(\text{NAV}_1 - \text{NAV}_0) + \text{D}_1}{\text{NAV}_0}.
\]

(2) **Timing** – The timing when the mutual fund is raising money from the market is vital. In a bullish market, investment in mutual fund falls significantly in value whereas in a bearish market, it is the other way round where it registers growth. The turns in the market need to be observed.

(3) **Size of Fund** – Managing a small sized fund and managing a large sized fund is not the same as it is not dependent on the product of numbers. Purchase through large sized fund may by itself push prices up while sale may push prices down, as large funds get squeezed both ways. So it is better to remain with medium sized funds.

(4) **Age of Fund** – Longevity of the fund in business needs to be determined and its performance in rising, falling and steady markets have to be checked. Pedigree does not always matter as also success strategies in foreign markets.

(5) **Largest Holding** – It is important to note where the largest holdings in mutual fund have been invested.

(6) **Fund Manager** – One should have an idea of the person handling the fund management. A person of repute gives confidence to the investors.

(7) **Expense Ratio** – SEBI has laid down the upper ceiling for Expense Ratio. A lower Expense Ratio will give a higher return which is better for an investor.

(8) **PE Ratio** – The ratio indicates the weighted average PE Ratio of the stocks that constitute the fund portfolio with weights being given to the market value of holdings. It helps to identify the risk levels in which the mutual fund operates.

(9) **Portfolio Turnover** – The fund manager decides as to when he should enter or quit the market. A very low portfolio turnover indicates that he is neither entering nor quitting the market very
frequently. A high ratio, on the other hand, may suggest that too frequent moves have lead the fund manager to miss out on the next big wave of investments. A simple average of the portfolio turnover ratio of peer group updated by mutual fund tracking agencies may serve as a benchmark. The ratio is lower of annual purchase plus annual sale to average value of the portfolio.

8. SIGNALS HIGHLIGHTING THE EXIT OF THE INVESTOR FROM THE MUTUAL FUND SCHEME

(1) When the mutual fund consistently under performs the broad based index, it is high time that it should get out of the scheme. It would be better to invest in the index itself either by investing in the constituents of the index or by buying into an index fund.

(2) When the mutual fund consistently under performs its peer group instead of it being at the top. In such a case, it would have to pay to get out of the scheme and then invest in the winning schemes.

(3) When the mutual fund changes its objectives e.g. instead of providing a regular income to the investor, the composition of the portfolio has changed to a growth fund mode which is not in tune with the investor’s risk preferences.

(4) When the investor changes his objective of investing in a mutual fund which no longer is beneficial to him.

(5) When the fund manager, handling the mutual fund schemes, has been replaced by a new entrant whose image is not known.

9. MONEY MARKET MUTUAL FUNDS (MMMFS)

The Government of India thought of introducing Money Market Mutual Funds (MMMFs) on Indian financial canvass in 1992. The aim of the Government was to develop the money market and to enable individual investors to gain from money market instruments since it is practically impossible for individuals to invest in instruments like Commercial Papers (CPs), Certificate of deposits (CDs) and Treasury bills (TBs) which require huge investments. The Government constituted a Task Force on MMMFs under the chairmanship of Shri D. Basu.

The broad framework of guidelines in respect of MMMFs issued by RBI are as follows:

- The investment by individuals and other bodies would be in the form of negotiable and transferable instruments and MMMF deposit accounts.
- The minimum investments would be ₹ one lakh.
- The re-purchase would be subject to a minimum lock-in-period of 3 months.
- The funds will not be subject to reserve requirements as these will be invested in money market instruments.
Minimum of 20 per cent of funds will be invested in 182 days treasury bills.

Maximum of 20 per cent of funds will be diverted to call money markets.

Money market funds are generally the safest and most secure of mutual fund investments. The goal of a money-market fund is to preserve principal while yielding a modest return. Money-market mutual fund is akin to a high-yield bank account but is not entirely risk free. When investing in a money-market fund, attention should be paid to the interest rate that is being offered.

10. EXCHANGE TRADED FUNDS (ETFS)

10.1 Introduction

An exchange-traded fund (ETF) is a Mutual Fund Scheme that is traded on stock exchanges, much like stocks. If the ETF represents a portfolio, it being listed as an ETF means the entire portfolio is being traded as one unit at the Stock Exchange. ETFs can be diverse; the portfolio may comprise stocks, bonds, commodities, index, etc. It usually trades close to its intrinsic value or market value of the underlying assets, but it is nothing hard and fast.

10.2 Advantages of ETFs

Fund management expenses are low in ETFs than actively managed funds, as these are passively managed funds, investing in assets like gold or equity index.

- ETFs offer intra-day purchase and sale on the Exchange, which suits active traders. This is not possible in conventional funds.

- Close-ended funds have a fixed corpus. ETFs also have a given corpus, but that may change as per demand. Authorized Participants can create new units or redeem existing units with the AMC. This makes the ETF price realistic i.e. it moves with the movement in the underlying market.
<table>
<thead>
<tr>
<th>Issuer Name</th>
<th>Name</th>
<th>Underlying</th>
<th>Launch Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edelweiss AMC</td>
<td>Edelweiss Exchange Traded Scheme - NIFTY</td>
<td>NIFTY 50 Index</td>
<td>08-May-2015</td>
</tr>
<tr>
<td>ICICI Prudential AMC</td>
<td>ICICI Prudential NIFTY ETF</td>
<td>NIFTY 50 Index</td>
<td>20-Mar-2013</td>
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<td>Kotak NIFTY ETF</td>
<td>NIFTY 50 Index</td>
<td>02-Feb-2010</td>
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<td>Motilal Oswal AMC</td>
<td>MOST Shares M50</td>
<td>NIFTY 50 Index</td>
<td>28-Jul-2010</td>
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<tr>
<td>Quantum AMC</td>
<td>Quantum Index Fund - Growth</td>
<td>NIFTY 50 Index</td>
<td>10-Jul-2008</td>
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<td>Religare AMC</td>
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<td>21-Jul-2011</td>
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<td>NIFTY Midcap 100</td>
<td>31-Jan-2011</td>
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<td>NIFTY Next 50</td>
<td>20-Mar-2015</td>
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<td>Management Limited</td>
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<td></td>
<td>CPSE ETF</td>
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<td>28-Mar-14</td>
</tr>
</tbody>
</table>
11. REAL ESTATE INVESTMENT TRUSTS (REITs)

11.1 Introduction

A Real Estate Investment Trust (REIT) is a form of investing in real estate, where the operator, the REIT, owns, and operates the real estate. REITs may own commercial real estate like warehouses, offices, etc. REITs can be publicly traded or private. The unit-holders of a REIT earn their income from real estate without directly owning it. As a regulation, REITs must pay out at least 90% of their income to unit-holders.

<table>
<thead>
<tr>
<th>Type of ReIT</th>
<th>Holdings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>Own and operate income-producing real estate</td>
</tr>
<tr>
<td>Mortgage</td>
<td>Provide mortgages on real property</td>
</tr>
<tr>
<td>Hybrid</td>
<td>Own properties and make mortgages</td>
</tr>
</tbody>
</table>

11.2 Indian Context

SEBI notified regulations for investment trusts in September 26, 2014: specifically, real estate investment trusts (REITs) and infrastructure investment trusts (InvITs) – which was subsequently amended in September 23, 2016. REITs and InvITs allow sponsors to monetize revenue-generating real estate and infrastructure assets while enabling investors or unit holders to invest in these assets without actually owning them. REITs and InvITs enjoy favourable tax treatment, including exemption from dividend distribution tax and relaxation of capital gains tax.
11.3 Structure of investment trust

Investment trusts to hold assets either directly or through SPV. Investment trusts can invest in two-level SPV structure through Holding Company (Holdco), subject to sufficient shareholding in the Holdco and the underlying SPV and other safeguards including the following:

a. Investment trusts to have right to appoint majority directors in the SPV(s),
b. Holdco to distribute 100% cash flows realized from underlying SPVs and at least 90% of the remaining cash flows.

Mandatory sponsor holding of not less than 25% of the total units of the REIT after initial offer on a post-issue basis (the minimum sponsor holding specified in this clause shall be held for a period of at least three years from the date of listing of such units). The sponsor shall together hold not less than 15% of the outstanding units of the listed REIT at all time. In the case of InvIT, mandatory sponsor holding is 15%. There is no limit on the number of sponsors both in the case of REIT and InvIT. REITs can invest up to 20% in under-construction assets, while InvITs (through public issue) can invest up to 10% in under-construction assets.

Investment trusts to hold controlling interest and not less than 50% equity share capital or interest in the SPVs (except in the case of public private partnership projects where such holding is disallowed by the government or regulatory provisions).

SPVs to hold not less than 80% of assets (90% in case of InvITs) directly in properties (infrastructure projects for InvITs) and not invest in other SPVs.

SPVs to not engage in any activity other than those pertaining and incidental to the underlying projects.

11.4 Stipulations to ensure transparency

Trustee to hold assets for the benefit of unit holders, oversee activities, and ensure compliance with respect to reporting and disclosure requirements.

A full valuation shall be conducted by an independent valuer not less than once in every financial year; a half yearly valuation of the assets shall be conducted by the valuer for the half-year ending September 30 for incorporating any key changes in the previous six months.

All related-party transactions to be on an arm’s-length basis.

11.4.1 Distribution requirements

Not less than 90% of net distributable cash flow of the SPV to be disbursed to the investment trust in proportion to its holding in the SPV subject to applicable provisions in the Companies Act, 2013, or the Limited Liability Partnership Act, 2008.

Not less than 90% of net distributable cash flow of the investment trust to be distributed to unit holders.
11.4.2 Leverage restrictions

The aggregate consolidated borrowing and deferred payment of the investment trust net of cash and cash equivalents should never exceed 49% of the value of the investment trust assets.

If the aggregate consolidated borrowing and deferred payment of the investment trust, net of cash and cash equivalents, exceeds 25% of the value of the assets, for any further borrowing, credit rating has to be obtained from a registered credit rating agency.

An investment trust is a vehicle created to primarily invest in revenue-generating real estate or infrastructure assets. These entities are ‘trusts’ by definition, and their ‘units’ (shares), after the initial offer, are to be listed on exchanges and regulated by the Securities and Exchange Board of India (SEBI). The units are traded based on their net asset value. These entities have a pass-through structure and are therefore required to distribute majority of their earnings to unit holders. As per SEBI’s regulatory requirement, if the aggregate consolidated borrowing and deferred payment of the investment trust, net of cash and cash equivalents, exceeds 25% of the value of the assets, for any further borrowing, credit rating has to be obtained from a registered credit rating agency.

Given regulatory oversight of these entities, investment trusts have a number of aspects that lend a relatively positive bias to the creditors compared to direct credit to real estate and infrastructure assets. These aspects include limits on under-construction assets, cap on aggregate gearing levels, mandatory listing, ensuring minimum sponsor holding in the investment trust, ensuring minimum controlling stake in the Special Purpose Vehicle (SPV), independent valuation of the assets, trustee monitored transparency, compliance and disclosure requirements. Investment trusts also have flexibility in holding the assets either directly or through an SPV or an intermediate holding company.

![Structure of REIT](https://www.financemalaysia.blogspot.com)

Source: Google to [https://commercialobserver.com/2013/03/reit-so-sweet-investors-reconsider-real-estate-investment-trusts/](https://commercialobserver.com/2013/03/reit-so-sweet-investors-reconsider-real-estate-investment-trusts/)
ReITs are yet to take off in India; the first IPO of REIT has just been announced. Embassy Office Parks REIT, backed by Blackstone Group, plans to raise about ₹ 4,750 crore ($682 million) in India’s first real estate investment trust listing. The REIT, which includes Embassy Group properties, will offer 158.6 million units at ₹ 299 to ₹ 300 apiece. It will start taking orders from anchor investors before moving on to a public offering March 18 through March 20. A successful listing of the REIT, expected by April 3 according to the terms, will potentially open a fundraising avenue for India’s cash-starved property companies. The nation’s real estate developers are struggling with sluggish sales and price declines. The trust’s portfolio comprises about 33 million square feet of office space across four Indian cities, Bengaluru, Pune, Mumbai and Noida, as per Offer Document filed with SEBI. Its Express Towers property, located in Mumbai’s central business district, counts Wells Fargo & Co., Warburg Pincus as well as Blackstone as tenants.

The following chart illustrates the relationship between the Embassy REIT, the Trustee, the Manager and the Unitholders (which include the Sponsors) on the Listing Date.
An InvITs is a pool of money for investing in infrastructure projects and distribution of the earnings to the unit holders. An InvIT issues units that are listed at the Stock Exchange. In that sense, InvITs are like Exchange Traded Funds (ETFs) of Mutual Funds. The difference is, in a Mutual Fund, the underlying portfolio of shares or bonds change in value every day and there is an NAV declared every day. An InvIT invests in the projects which are identified as Special Purpose Vehicles (SPVs) that are not valued everyday but once in six months for publicly offered InvITs. Both InvITs and Mutual Funds are regulated by SEBI.

InvITs are set up as a trust and registered with SEBI. An InvIT involves four entities: Trustee, Sponsor, Investment Manager and Project Manager. The trustee, who oversees the role of an InvIT, is a SEBI registered debenture trustee and he cannot be an associate of the Sponsor or Manager. ‘Sponsor’ means promoters and refers to any company or body corporate with a net worth of ₹ 100 crore which sets up the InvIT and is designated as such while applying to SEBI. Promoters or Sponsor, collectively, have to hold at least 25% in the InvIT for minimum 3 years. Value of the assets owned/proposed to be owned by InvIT shall be at least ₹ 500 crore. Minimum issue size for initial offer is ₹ 250 crore. InvITs are allowed to add projects in the same vehicle in future so that investors can benefit from diversification as well as growth in their portfolio.

Given the challenging phase of infrastructure in the country today, InvITs may provide an alternate source of funds. Several existing infrastructure projects which are under development in India are delayed and ‘stressed’ on account of varied reasons like increasing debt finance costs, lack of international finance flowing to Indian infrastructure projects, project implementation delays caused by various factors like global economic slowdown, cost overruns, etc. InvITs may offer a source of long-term re-finance for existing infrastructure projects. InvITs may help in attracting international finance into Indian infrastructure sector. These would also enable the investors to hold a diversified portfolio of infrastructure assets.

Among Asian markets, Singapore is a success story for listed Trusts. In Singapore, there are 39 listings with a market capitalization of approx $70 billion, but the bias is on REITs than on InvITs. Over a period of time, India may go the Singapore way, but the initial experience of investors from REITs and/or InvITs, from the one InvIT getting listed and others in the pipeline, should be sanguine.

There is a debate on whether an InvIT, by nature of investment, is equity or debt as it has features of both. It is somewhere in between; loosely, debt-plus or equity-minus in terms of risk return profile. The equity-like features are that the units are listed, can change hands like equity stocks, there is periodic valuation of the projects akin to periodic results of companies and economic factors like higher GDP growth or higher inflation would lead to expectation of higher revenue and hence higher price of the units at the Exchange. The debt-like feature is that are that there is periodic pay-out of the earnings of the InvIT from the underlying SPVs, which is not exactly like contractual coupon pay-out on bonds but somewhat comparable as the valuation gives a perspective on how much to expect. It is a hybrid instrument with a somewhat predictable cash flow yield (akin to debt) and potential appreciation with growth of the economy (akin to equity).
Taxation wise, an InvITs is a pass-through vehicle. There is a mandate to distribute at least 90% of net-distributable cash flows. Interest component of income distributed by trust to the unit holders would attract withholding tax @ 10% for resident unit holders. Interest income is taxable in the hands of the unit holder. Dividend income is exempt in the hands of the unit holder and there is no dividend distribution tax.

At this point of time, InvIT is not a retail product, the minimum primary application amount being ₹10 lakh and the minimum secondary transaction amount being ₹5 lakh. The restriction is imposed because there is no track record and lack of awareness. There is a liquidity risk as well, in the secondary market the units may not be traded every day as the investor base is not wide at this point of time. May be over a period of time, with the development of this market, SEBI would look to easing the threshold amount for REITs and InvITs. As of now, investors should keep it on the radar and participate through the mutual fund route who have a better understanding of the risk factors and can handle secondary market liquidity issues.

The first two listed InvITs are currently trading below their issue price. As on October 2017, the price of the two listed InvITs was as follows:

<table>
<thead>
<tr>
<th>Issuer</th>
<th>Issue price (Rs)</th>
<th>High (Rs)</th>
<th>Low (Rs)</th>
<th>Current (Rs)</th>
<th>Yield at the time of initial issue (%)</th>
<th>Current yield (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>India Grid Trust</td>
<td>100</td>
<td>100</td>
<td>90.5</td>
<td>95.5</td>
<td>10.9</td>
<td>11.4</td>
</tr>
<tr>
<td>IRB InvIT Fund</td>
<td>102</td>
<td>105</td>
<td>92.76</td>
<td>94.5</td>
<td>12</td>
<td>13.0</td>
</tr>
</tbody>
</table>

13. CASE STUDY: IL&FS DEFAULT AND HANDLING BY MUTUAL FUNDS

13.1 IL&FS: chronology of events

While the Group was under cash flow issues for some time, the first noticeable incident was a default by a group company called IL&FS Transportation Networks Limited (ITNL). This led to a one notch downgrade of the flagship company, IL&FS, on 6 August 2018. For the first time, IL&FS lost the AAA status.
Over the month of October, issues in the Group started surfacing and the market started selling off IL&FS debt papers i.e. in the secondary market, yields were moving up and prices were coming down. There was speculation whether they would default or they would be able to manage the situation. Things came to a halt in September 2018.

**Infrastructure Leasing & Financial Services Limited**

August 06, 2018

### Summary of rated instruments

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Previous Rated Amount (Rs. crore)</th>
<th>Current Rated Amount (Rs. crore)</th>
<th>Rating Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial paper programme</td>
<td>2,500.00</td>
<td>2,500.00</td>
<td>[ICRA]A1+&amp;; reaffirmed and placed under Watch with Developing Implications</td>
</tr>
<tr>
<td>Long Term – Term Loans</td>
<td>350.00</td>
<td>350.00</td>
<td>[ICRA]AA+&amp;; downgraded from [ICRA]AAA(stable) and placed under Watch with Developing Implications</td>
</tr>
<tr>
<td>Non-Convertible Debenture Programme</td>
<td>4,475.00</td>
<td>4,475.00</td>
<td>[ICRA]AA+&amp;; downgraded from [ICRA]AAA(stable) and placed under Watch with Developing Implications</td>
</tr>
<tr>
<td>Total</td>
<td>7,325.00</td>
<td>7,325.00</td>
<td>&amp; - Under rating watch with developing implications; *Instrument details are provided in Annexure-1;</td>
</tr>
</tbody>
</table>

On 8 September 2018, it was downgraded to junk. The debentures were downgraded to BB from AA+ and Commercial Papers were dumped to as low as A4. On 17 September 2018, it was downgraded straight to default grade.

**Infrastructure Leasing & Financial Services Limited**

September 08, 2018

### Summary of rated instruments

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Previous Rated Amount (Rs. crore)</th>
<th>Current Rated Amount (Rs. crore)</th>
<th>Rating Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Convertible Debenture Programme</td>
<td>5,225.00</td>
<td>5,225.00</td>
<td>[ICRA]BB+; downgraded from [ICRA]AA+&amp; and remain under watch with developing implications</td>
</tr>
<tr>
<td>Commercial paper programme</td>
<td>2,500.00</td>
<td>2,500.00</td>
<td>[ICRA]AA+&amp;; downgraded from [ICRA]A1+&amp; and remain under watch with developing implications</td>
</tr>
<tr>
<td>Long Term – Term Loans</td>
<td>350.00</td>
<td>350.00</td>
<td>[ICRA]BB+; downgraded from [ICRA]AA+&amp; and remain under watch with developing implications</td>
</tr>
<tr>
<td>Total</td>
<td>8,075.00</td>
<td>8,075.00</td>
<td></td>
</tr>
</tbody>
</table>
Now the question is, how the Mutual Funds would treat the bonds for valuation purposes. As per SEBI rules, AMCs have as much as 18 month to write off. The SEBI rule on write off is as follows:

“The value of the asset shall be provided in the following manner or earlier at the discretion of the Mutual Fund. Mutual Funds will not have discretion to extend the period of provisioning. The provisioning against the principal amount or instalments shall be made at the following rates irrespective of whether the principal is due for repayment or not.

a. 10 percent of the book value of the asset shall be provided for after 6 months past due date of interest i.e. 3 months form the date of classification of the asset as NPA.

b. 20 percent of the book value of the asset should be provided for after 9 months past due date of interest i.e. 6 months from the date of classification of the asset as NPA.

c. Another 20 percent of the book value of the assets shall be provided for after 12 months past due date of interest i.e. 9 months from the date of classification of the asset as NPA.

d. Another 25 percent of the book value of the assets shall be provided for after 15 months past due date of interest i.e. 12 months from the date of classification of the asset as NPA.

The balance 25 percent of the book value of the asset shall be provided for after 18 months past due date of the interest i.e. 15 months from the date of classification of the assets as NPA.”

That is, AMCs have the leeway to write-off over the period of 18 months. However, there was a meeting of the valuation committee of AMFI and though it is not legally binding on AMCs, they took an initial hit of 25% of the holding amount. Within a short span of time, AMCs wrote off the entire holding i.e. did 100% write off. The loss was passed on to investors.

Another fallout of the write-off was that the units were available at a discount so to say, in the sense if IL&FS pays back something at a later date after the 100% write-off, it will be like a bonus.
Moreover, as a rule, AMCs cannot stop redemptions, which may be one of the options to prevent a run on the fund due to an exposure turning bad. However, purchases can be stopped as it is a business decision. The initial reaction of AMCs was to stop purchases after the 100% write-off. Here is one example:

Union Liquid Fund wrote off the exposure to IL&FS in their Liquid Fund and stopped purchases on 19 September 2018, as in a way the units of Liquid Fund were available at a discount, assuming IL&FS will pay back something in future.

Since business was being impacted, they opened up after sometime. In spite of opening up and the apparent discount on NAV of units, they did not receive much of inflows. Sentiments on the Fund were impacted as well, and corporate investors are particular about the corpus size of the Fund they invest in. After sentiments getting impacted, corporate investors were wary of the size of the Fund going forward.

Like Union, there were multiple other AMCs who wrote off their exposure to IL&FS, closed their Fund for subscriptions, and opened up gradually.

### 13.2 What was the issue with IL&FS?

Funding long term projects with short term funding sources.

Infrastructure sector cash flows are slow. Anything getting stuck means debt servicing getting impacted.

Maze of 348 subsidiaries. Risk committee, which included the LIC Chairman, had not met for a long time.

Serious Fraud Investigation Office (SFIO) and Enforcement Directorate (ED) are involved, in case there was some other fraud / wrong-doing.
The AAA credit rating was based on the nature of ownership i.e. shareholding of the company, assuming support from parents in case of any issue. This is popularly known as ‘name-rating’, something similar to ‘name-lending’. Shareholding pattern of IL&FS is as follows:

<table>
<thead>
<tr>
<th>No</th>
<th>Name of Shareholder</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Life Insurance Corporation of India</td>
<td>32,541,123</td>
<td>25.34</td>
</tr>
<tr>
<td>2</td>
<td>ORIX Corporation, Japan</td>
<td>30,227,509</td>
<td>23.54</td>
</tr>
<tr>
<td>3</td>
<td>Abu Dhabi Investment Authority</td>
<td>16,129,252</td>
<td>12.56</td>
</tr>
<tr>
<td>4</td>
<td>IL&amp;FS Employees Welfare Trust</td>
<td>15,407,658</td>
<td>12.00</td>
</tr>
<tr>
<td>5</td>
<td>Housing Development Finance Corporation Ltd</td>
<td>11,587,194</td>
<td>9.02</td>
</tr>
<tr>
<td>6</td>
<td>Central Bank of India</td>
<td>9,843,386</td>
<td>7.67</td>
</tr>
<tr>
<td>7</td>
<td>State Bank of India</td>
<td>8,237,967</td>
<td>6.42</td>
</tr>
<tr>
<td>8</td>
<td>UTI - Unit Linked Insurance Plan</td>
<td>1,051,111</td>
<td>0.82</td>
</tr>
<tr>
<td>9</td>
<td>India Discovery Fund</td>
<td>1,104,211</td>
<td>0.86</td>
</tr>
<tr>
<td>10</td>
<td>Others</td>
<td>2,273,865</td>
<td>1.77</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>128,403,276</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

### 13.3 Judgement by NCLAT

For proceeding ahead with the resolution of the beleaguered Group and settlement of debts, the new management of the Group proposed segregation of the companies into three categories:

- **Green**: those in a position to pay all creditors
- **Amber**: those in a position to pay only operational creditors
- **Red**: doubtful.

This was accepted by the NCLAT.

As per an announcement by the IL&FS Group on 3 April 2019, the situation stands as under:

**Domestic entities: Green, Amber, Red categorisation**

- Categorization based on cash-flow solvency test was carried out to determine course of action i.e. managing liquidity, implementing payment protocol etc. until resolution is implemented
- 157 (out of 169) Domestic IL&FS entities have been categorized in 3 categories viz. “Green”, “Amber” & “Red”

<table>
<thead>
<tr>
<th>Category</th>
<th># of Entities</th>
<th># of Entities with External Debt</th>
<th>External FB Debt (INR Cr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>54</td>
<td>19</td>
<td>10,472 (12%)</td>
</tr>
<tr>
<td>Amber</td>
<td>13</td>
<td>13</td>
<td>16,372 (18%)</td>
</tr>
<tr>
<td>Red</td>
<td>82</td>
<td>33</td>
<td>61,375 (69%)</td>
</tr>
<tr>
<td>Under Liquidation /CIRP/ Striking Off Entities</td>
<td>8</td>
<td>1</td>
<td>6 (0.007%)</td>
</tr>
<tr>
<td>Entities Categorized (A)</td>
<td>157</td>
<td>66</td>
<td>88,225 (99%)</td>
</tr>
</tbody>
</table>

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The Mutual Fund Schemes with exposure to Red entities and to an extent even Amber entities, stand to lose a part of the investments, as only a part of the money may be recovered.

13.4 Learnings from the IL&FS case

Mutual Funds are investment vehicles. In equity-oriented funds, NAV moves along with the movements in the underlying market. This is true for debt-oriented funds also, but the debt market is relatively less volatile. Any loss / default in a fixed income instrument will be passed on to investors.

Mutual Funds cannot stop redemptions, but can stop purchases and can open up for purchases, as an in-house decision, without any SEBI intervention.

For writing off any loss, though AMCs have 18 months, they can do it earlier also.

A mark-to-market loss due to market movement e.g. volatile movement in equity market can be recovered from positive market movement in future. A loss due to bond default can be recovered through the legal process, partially.

Credit risk is part of the risk of investing in debt funds.

14. CASE STUDY: LOAN AGAINST SECURITIES EXPOSURE TO ESSEL GROUP ENTITIES OF MUTUAL FUNDS

Among other instruments, debt mutual funds invest in what is popularly known as 'promoter funding' i.e. loan given to promoters of a company, against pledge of shares of the company / Group entity. Since a Mutual Fund Scheme cannot give a one-to-one loan, it is done in the form of a bond / debenture of one of the entities of the Group. This bond, as against being formally secured by charge against the assets of the company, is secured by pledge of shares.

Recently, Essel Group entities are in cash flow trouble and when the share cover dipped below the agreed level, they could not top-up with more shares or pay up part of the loan. The MF industry have agreed to a moratorium period upto 30 September 2019, that they will not sell pledged equity shares of Zee Group entities, even if share cover dips below the contracted level. This is done to prevent a run on the shares of the company, which would lead to dip in share price and dip below contracted level of security for all holders of the Loans-against-Shares (LAS) of Essel Group.

In an open ended MF Scheme, it is possible to handle the problem as only part of the fund would be redeemed on a given day or given period. When some Fixed Maturity Plans (FMPs) came up for maturity, one large AMC is seeking to extend the FMP for one more year. Another AMC is maturing the good part of the FMPs on due date and the balance will be matured on 30 September 2019.
Learning Outcome

Bonds are of two types, secured and unsecured. Secured means the bonds are secured by charge against assets of the company, which could be land or building or machinery or receivables. If a company defaults, the security i.e. the charged assets can be sold off and the money realized. However, if a company defaults, or is not in good shape, the bank would rather not realize the assets but ‘evergreen’ the loan. Even if the lender intends to sell the charged assets, it is not the bank’s discretion but it has to go through the court of law. Once a case goes to the court of law, how much time it takes to settle, years or decades, is anybody’s guess. The first ray of light came in the form of The Securitization and Reconstruction of Financial Assets and Enforcement of Securities Interest Act, 2002 (also known as the SARFAESI Act). We were told, by the provisions of the Act, that it allows banks and other financial institution to auction residential or commercial properties (of the defaulter) to recover loans.

In the Loan-Against-Securities (LAS) deals discussed above, the promoters did not put up additional collateral shares / pay up cash when the equity shares price crashed and coverage dipped below the stipulated minimum. To be noted, in case of default, shares can be sold by the lender, without the intervention of the court of law as in case of ‘secured’ bonds with charge against physical assets. These LAS deals, post non-top-up, are being given a shady description and there is a perception that bonds secured by equity shares are effectively unsecured. Let’s pause a moment and think, what’s the security in a ‘secured bond’? The charge against physical assets is typically 1 to 1.25 times of the value of the bond, though it may be a higher coverage. The audit on whether it is being maintained at the stipulated coverage is done once a year and there too I am not sure whether it is monitored religiously. The point is, the security coverage or lack of it is not as optically visible and we tend to believe it is secured. Basically, it is lack of information. In a LAS deal, if the stipulated coverage is 2 times, there is a share price discovery every day and the extent of security coverage can be monitored by the lender every day.

It is not so much about the security collateral. It is about whether the borrowing corporate pays the interest on due dates and principal on maturity. That in turn depends on whether the corporate has the money to pay and the intention to pay. Ownership stocks are closer to the heart of the promoter and bind them better than losing some physical assets.