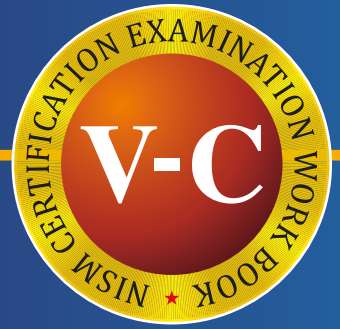




Mutual Fund Distributors

Level-2



**Workbook for
NISM-Series-V-C:
Mutual Fund Distributors (Level 2)
Certification Examination**



National Institute of Securities Markets

www.nism.ac.in

This workbook has been developed to assist candidates in preparing for the National Institute of Securities Markets (NISM) NISM-Series-V-C: Mutual Fund Distributors (Level 2) Certification Examination.

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Dr. C.K.G. Nair
Director

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About the Examination

The NISM-Series-V-C: Mutual Fund Distributors (Level 2) Certification Examination (MFD-L2) seeks to enhance knowledge of associated persons, i.e., distributors, agents or any persons employed or engaged or to be employed or engaged in the sale and/or distribution of mutual fund products in order to enable a better understanding of features of advanced mutual fund products, fund valuation, fund performance measurements, investor service and related regulations.

MFD-L2 is a voluntary examination and seeks to fulfil the aspiration of mutual fund distributors and employees, who wish to assess themselves against higher standards of overall expertise related to mutual funds sales and distribution functions. The examination is voluntary and is open to all. In case of examinees who have qualified in the NISM-Series-V-A: Mutual Fund Distributors Certification Examination (MFD) and are now appearing for the NISM-Series-V-C: Mutual Fund Distributors (Level 2) Certification Examination (MFD-L2), performance in MFD examination already obtained, will not be impacted.

Case studies used in this workbook may cover applicative aspects of content covered in MFD workbook. Candidates are therefore advised to be fully conversant with the curriculum of the MFD examination, before they attempt this Level 2 examination.

Examination Objectives

On successful completion of the examination the candidate should:

- Understand the salient features of Fund of Funds, Exchange Traded Funds, Real Estate Mutual Funds, Real Estate Investment Trusts (REITs), Infrastructure Investment Trusts (InvITs) Venture Capital Funds, Private Equity Funds and International Funds
- Know the legalities of real estate mutual funds, REITs and InvITs; investment restrictions applicable to mutual fund schemes; and the processes for making changes in the structure of a mutual fund or any of its schemes
- Appreciate the working of alternate channels of distribution viz. stock exchange and internet
- Get acquainted with the approaches fund managers take to manage investments and associated risks
- Understand how equities, debt, derivatives and real estate are valued in mutual fund schemes
- Get oriented to the accounting aspects of NAV determination, investor's transactions with the fund and corporate actions by investee companies
- Know how taxation affects mutual fund schemes and investors
- Understand the processes underlying investment in NFO, open-end schemes, closed-end schemes and ETF as well as nomination and pledge processes relating to mutual funds
- Appreciate how schemes are evaluated
- Get a historical perspective on returns earned in different asset classes
- Get acquainted with the issues involved in selling alternate investment products
- Understand ethical requirements and measures to protect mutual fund investors

Assessment Structure

The NISM-Series-V-C: Mutual Fund Distributors (Level 2) Certification Examination consists of 50 multiple choice questions of 1 mark each and 25 multiple choice questions of 2 marks each and adding up to 100 marks. The examination should be completed in 2 hours. There is negative marking of 25% of the marks assigned to a question. The passing score for the examination is 60 marks.

How to register and take the examination

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Important

- *Please note that the Test Centre workstations are equipped with either Microsoft Excel or Open Office Calc. Therefore, candidates are advised to be well versed with both of these softwares for computation of numericals.*
- *The multiple choice questions illustrated in the book are for reference purposes only. The level of difficulty may vary in the actual examination.*

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UNIT 1: INVESTMENT THEORY AND BUILDING BLOCKS

Learning Objectives:

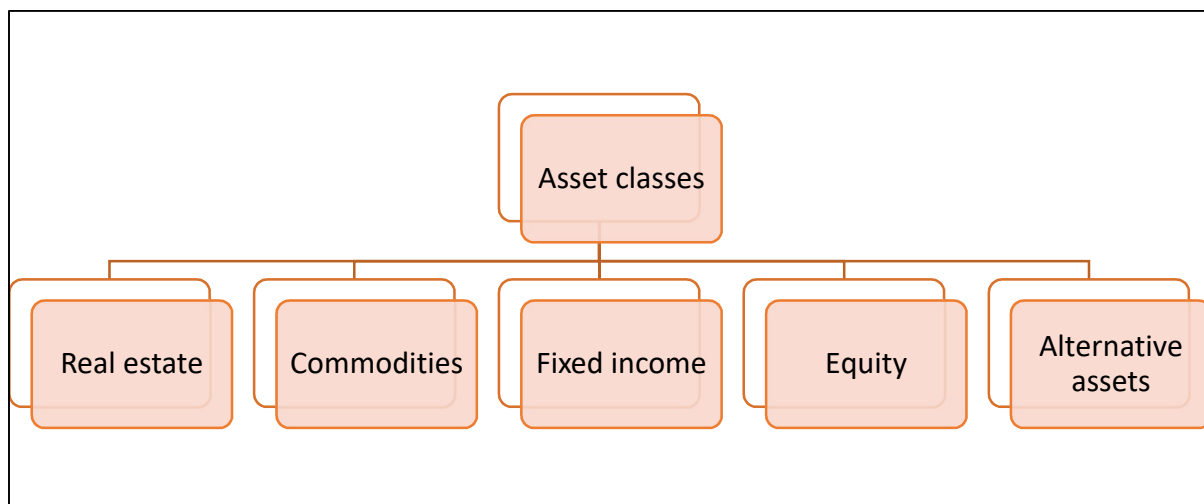
After studying this chapter, you should understand about:

- Asset allocation and diversification
- Equity Investment Management Strategies
- Debt Investment Management Strategies
- Derivatives for Mutual Funds
- Multi asset portfolios

1.1 Understand Asset allocation and diversification

1.1.1 Understanding asset classes

There are four broad asset categories or asset classes, and then there are various sub-categories, within each of these. The four broad categories are: Equity, Fixed income, Real estate, and Commodities. The assets other these are often categorized as alternative assets¹.



Let us understand the characteristics of each of these four asset classes.

¹ The term “alternative assets” may not be confused with the “Alternate Investment Funds (AIFs)”

Real estate

This is arguably the most important and popular among all the asset classes. However, the popularity of this asset class is largely because of a reason not related to investment. For those who have bought their own houses, it is the biggest expense incurred in life. The word used here is “expense”, and not “investment”.

As an asset class for the purpose of investment, real estate exhibits certain traits, some of which are listed as under:

1. Location is the most important factor impacting the performance of the investment in real estate
2. Real estate is illiquid. In the physical form, it is not divisible
3. While the prices of real estate could fluctuate, it is difficult to see the fluctuations since the transactions are few and far between.
4. One can invest in physical real estate, as well as in financial form through innovative instruments like Real Estate Mutual Funds (REMFs) and Real Estate Investment Trusts (REITs). Some portfolio managers have also offered PMS products that help investors take exposure to this asset category.
5. Apart from capital appreciation, it can also generate current income in the form of rents
6. In the case of real estate, the transaction costs, e.g. brokerage charges, registration charges, etc. are quite high. This would bring down the return on investment.
7. The cost of maintenance of the property, as well as any taxes payable to the competent authorities, must be adjusted before calculating the return on investment, something that many individual investors do not. These expenses are also quite high, and cannot be ignored.
8. Given the large ticket size, it is difficult to diversify across multiple real estate investments, if done in the physical form. At the same time, a diversified portfolio of physical real estate would need superior property management.

Real estate could be further classified into various sub-categories, viz., residential real estate, land, commercial real estate, etc.

Commodities

This is another investment that we are familiar with in various ways. On a regular basis, we consume many commodities, e.g. agricultural commodities like spices; petroleum commodities like petrol and diesel; or metals like gold and silver. However, we cannot invest in most of these, as many of these are either perishable and hence cannot be stored for long, or storage of the same could take a lot of space, creating a different kind of difficulties.

Though there are commodity derivatives available on many commodities, it may not be wise to call these investments for two reasons, (1) these are leveraged contracts, i.e. one has to put in a

small amount of money to take a much larger exposure; and (2) these are normally short term contracts, whereas the investors' needs may be for a long term.

On the other hand, there are at least two commodities that many investors are quite familiar with as investment avenues, viz., gold, and silver.

When someone invests in these commodities, the prices are almost in-sync across the world. It is easy to understand the prices of gold and silver across countries by simply looking at the foreign exchange rate between the two countries' currencies, and making adjustments for various costs and restrictions imposed by any of the countries. In this manner, these two are globally accepted assets.

Both these commodities have been used as investments or store of value for a long time. In fact, the history of currency would be incomplete without the mention of these two. Gold has also been considered by many as a safe haven asset. In case of failure of an economy, or a currency, gold is considered to be the final shelter. However, the opposite camp also comes with very strong arguments. Many currencies across the world were pegged to the gold reserves available with the central bank of the country for a long time. However, this so-called gold standard has been done away with few decades ago. And still, most of the central banks hold gold in their reserves.

An investor in these commodities would have to count only on capital appreciation since these do not generate any current income.

Gold and silver come in varying degrees of purity. Each one can be bought at different prices from the market. However, for a large majority of investors, it is almost impossible to make out the level of purity. If we opt for a purity certificate, the cost goes up and without one, the risk of getting lower quality metal is high.

What makes the metals popular for investors also carries another type of risk. With the price associated with gold and silver, one can store a large value in a small piece, e.g. at the current rate, the price of 10grams of 24k gold is Rs. 48,980 on 1st February 2022. (Source: www.mcxindia.com). That allows a value of Rs. 48,980 to be stored in a very small piece of metal. And that poses a threat – what if that small piece of metal is lost or stolen? That could be a huge loss. In such a case, the metal must be stored properly, and in a safe and secured manner. This cost must be factored in while calculating investment returns.

Fixed income

When someone borrows money, one has to return the principal borrowed to the lender in the future. There could also be some interest payable on the amount borrowed. There are various forms of borrowing, some of which are through marketable instruments like bonds and debentures².

There are many issuers of such papers, e.g. companies, Union Governments, State Governments, Municipal Corporations, banks, financial institutions, public sector enterprises, etc.

As mentioned earlier, many bonds pay regular interest, thus the investors can expect current income. At the same time, if someone has invested at the time of issuance of the bond and hold the same till maturity, in almost all cases, there would be no capital gains. On the other hand, a transaction through a secondary market – whether at the time of buying or at the time of selling, or both – may result in capital gains or losses.

Bonds are generally considered to be safer than equity, which we would discuss next. However, these are not totally free from risks. We will have a detailed discussion on the various risks later in the chapter.

Bonds can be further classified into subcategories. Let us look at two kinds of differentiation:

1. Bonds can be classified based on the issuer, especially between the government of the country, and private corporations. Those issued by the government of the country are considered to be the safest for domestic investors.
2. The bonds are also classified based on the maturity date – short term bonds, medium-term bonds, and long term bonds. The bonds with very short term maturity would be ideal for an investor's liquidity needs, whereas medium to long term bonds may be used for income generation.

Equity

This is the owner's capital in a business. Someone buying shares in a company is becoming a part-owner in the business. In that sense, this is risk capital, since the owner's earnings from the business are linked to the fortunes, and hence the risks, of the business.

²We would use the two words bonds and debentures interchangeably in this discussion.

If the business does well over time and becomes a successful enterprise, the owners enjoy the fruits of the same. On the other hand, if the business fails, the owners can lose the entire amount invested in the business.

While this is understandable, there is a difference in reality – you buy the shares of the company through the secondary market, mostly. In such a case, the price of the share is a function of the collective opinion of the players in the market. That means the share price could be too high or too low at times in comparison to the fair price. The price in the market fluctuates regularly. Often, the price fluctuations may have no relation to the changes in the business prospects of the firm.

There are two sides to this. While on one hand, such fluctuations make many uncomfortable, at the same time, some understand that these ups and downs allow one to buy at low prices and sell at higher prices to make profits.

Historically, equity investing has generated returns over and above inflation, which means the purchasing power of one's money has increased over the years. It has also delivered higher returns than other investment avenues, most of the time if one considers long investment periods. Since the base year of 1979, Sensex³ has grown from a level of 100 to around 36,000 now. This is an appreciation of a little less than 16% p.a., compounded annually.

Apart from long term capital appreciation, equity shareholders may also receive dividends from the company. Such dividends are distributed out of the profit that the company has generated from its business operations. If the company does well, the dividends tend to grow over the years. The numbers discussed in the previous paragraph do not include the dividends paid by the companies, since the Sensex value is calculated without adding back the dividends. Going by the current numbers, the dividend yield of Sensex is around 0.93% according to the website of BSE Ltd. (**Source:** www.bseindia.com dated February 1, 2022). The Sensex closed at 58,862.57 (on February 1, 2022). This means that the dividend received by an investor who invested in one unit of Sensex would be roughly Rs.547. Extending this example further, this means that someone who had bought one unit of Sensex in the base year at Rs. 100, would be receiving this year dividend of more than 5.47 times the original amount invested. This is just an example of the potential of equity investing. (**Disclaimer:** This example is shown illustration only and to highlight the potential of equity as an asset class. Though the base year is 1979, the Sensex was

³Sensex is a benchmark index representing shares of 30 large sized companies. It is also considered to be one of the bellwether indices, a barometer of what is happening in the stock market in India.

conceptualized much later. Hence, there is no way for one to buy the same stocks included in the Sensex way back in 1979).

To sum up, equity share prices generally fluctuate a lot, often without regard to the business fundamentals. However, over long periods, the share prices follow the fortunes of the firm. If the profits of the company continue to grow over the years, the share price follows.

Let us continue the discussion further by looking at some key similarities and differences between the various asset classes.

Investments in equity and bonds can be done only in financial form, whereas one can buy the other two assets, viz., real estate and commodities either in financial or in physical form. It is this physical form that gives a feeling of safety to many. Anything tangible is perceived to be safer than something intangible.

Real estate and commodities differ from equity and bonds in another way, too. These could be bought as an investment or for consumption purposes. For example, one may invest in residential property and give it on rent to generate income. This is an investment. At the same time, one may also buy a flat to live in – for residential purposes. Such a self-occupied house may not be an investment. A similar logic may be applied to gold and silver by checking whether one has invested in the metal or bought the same for personal use.

When someone invests in equity shares, part of the profits made by the company may be shared with the investor. With a careful analysis of various equity shares, it is possible to receive a periodic income (though without any guarantee about how much would one receive, and whether one receives anything at all). Similarly, real estate could be given on rent to generate intermittent cash flow. Bonds pay interest income. It is the commodities where such intermittent cash flow is not generated.

An investor in equity, real estate and commodities is an owner of the asset, whereas an investor in bonds has lent money to someone. In such a case, the lender's receipts – be its interest payments or return of principal amount invested – are agreed at the time of the issue of such instruments. In all the other three cases, the investor's cashflows (or receipts) are unknown. To that extent, the future returns from these assets, which may also be called ownership assets, would be highly uncertain in comparison to the lending assets like bonds or fixed deposits.

We have discussed various investment avenues and their characteristics by grouping these into various asset categories.

Let us now go back to the list of investment avenues we looked at earlier in the chapter to see which asset category these belong to:

Investment avenue	Asset category
Fixed deposit with a bank	Fixed income ⁴
Recurring deposit with a bank	Fixed income
Life insurance policies	
Unit linked insurance plans (ULIP)	Investment vehicle (maybe representing different asset categories, or even a combination of more than one)
Children's plans	Investment vehicle (maybe representing different asset categories, or even a combination of more than one)
Unit Linked Pension plans (ULPP)	Investment vehicle (maybe representing different asset categories, or even a combination of more than one)
Gold	Commodities
Silver	Commodities
Public Provident Fund (PPF)	Fixed income
Property –	
Residential,	Real estate
Commercial	Real estate
Sukanya Samruddhi Yojana (SSY)	Fixed income

⁴In order to avoid confusion, we would use the term “fixed income” to describe the bonds and debentures kind of asset.

Investment avenue	Asset category
Senior Citizens' Savings Scheme (SCSS)	Fixed income
Post Office Monthly Income Scheme (POMIS)	Fixed income
Recurring deposit with a post office	Fixed income
Equity shares:	
Bluechip companies	Equity
Mid-sized companies	Equity
Small-sized companies	Equity
Unlisted companies	Equity
Foreign stocks	Equity
Company fixed deposits	Fixed income
Debentures / bonds	Fixed income
Mutual Funds (MF)	Investment vehicle (maybe representing different asset categories, or even a combination of more than one)
Equity funds	Equity
Debt funds	Fixed income
Liquid funds	Fixed income
Gold funds	Commodities
Hybrid funds	A combination of two or more asset categories
National Pension Scheme (NPS)	Investment vehicle (maybe representing different asset

Investment avenue	Asset category
	categories, or even a combination of more than one)
Alternative investments	Alternative ⁵
Rare coins	
Art	
Rare stamps	
Unsecured deposit with the next-door business/friend's business	Fixed income

The above discussion would help us understand the characteristics of various asset classes, and also allow us to understand which avenue falls into which asset category.

1.1.2 Investment risks

In order to get a better understanding of the investment avenues, we need to take a look at the risks involved. No discussion about investments can be completed without talking about the risks involved. As we saw earlier, if you want to earn returns, you must be prepared to take risks. There is a relationship between risks and returns, which can be stated as under:

To earn high returns, one must take risks. However, if one wants to stay away from risks, one must settle down for low returns. There is no such thing as low risk – high return.

One may ask: “What if one does not want high returns? What is wrong with earning low returns?” The answer is simple: “There is nothing wrong with low returns, except that if one earns lower returns in comparison to inflation, one is constantly losing the purchasing power of one's money.”

With that, let us start with the first risk – inflation.

⁵ For the purpose of this book, alternative asset class is one that cannot be classified as any of the four major categories, viz., equity, fixed income, real estate, or commodities

Inflation Risk

Inflation or price inflation is the general rise in the prices of various commodities, products, and services that we consume. Inflation is a major risk that investors should worry about as it erodes the purchasing power of the money. As things get costlier, the purchasing power of one's money reduces. Let us look at the following table to understand what inflation can do to the purchasing power of our money. (**Note:** Inflation numbers are taken based on random assumptions, and only for illustration purposes).

How much money would you need to buy the goods you can buy with Rs. 10,000 today	If inflation is assumed at 8% p.a.
After 5 years	Rs. 14,693
After 10 years	Rs. 21,589
After 20 years	Rs. 46,610
After 30 years	Rs. 1,00,627

The above table shows how fast the purchasing power of the money goes down. This risk hits hard over long periods. If this is not properly accounted for in the investment plan, one may fall short of the target when the need arises.

We may also look at the impact of inflation in another way. If one could buy 100 units of something with Rs. 10,000 today, assuming inflation of 8% p.a., one would be able to buy only 68 units of the same thing after 5 years, and only 46 units after 10 years. This clearly shows the loss of purchasing power. (**Note:** Inflation numbers are taken based on random assumptions, and only for illustration purposes).

One may wonder why we are discussing purchasing power, which is related to expenses while talking about investments. That is because one invests one's money to be able to meet financial goals in the future, and these goals are nothing but deferred expenses.

Now, different people may have different expenses. Rent for a house would be quite different not just from city to city, but also across locations within the same city. The expenses are different and the growth in expenses is also different for different people. So, which inflation number should one take? Well, to maintain standardization, the reference inflation rate is taken as the government published number – the Consumer Price Index Inflation, popularly known as CPI Inflation, by a large number of people.

In this context, it is pertinent to take a look at whether the investments can protect purchasing power or not. To protect the purchasing power, the investment return should be at least as much as inflation. If the same is higher than inflation, the purchasing power increases, whereas if one earns lower returns than inflation, the purchasing power drops.

Incidentally, when one seeks the total safety of invested capital, along with anytime liquidity, the investment returns are usually lower than inflation. Take for example, if you earn an interest rate of 7% p.a. on your fixed deposit when the inflation is at 8% p.a., it is obvious that the investment grows at a slower pace than the rise in prices. If your personal inflation happens to be higher than the government published number, you have a bigger problem. The returns on investment that we calculate is known as “nominal rate”. However, when we adjust this number for inflation, we get the “real rate of return”. If the investment returns are higher than inflation, you are earning a positive real rate, and vice versa.

This is the reason why one must consider taking risks while investing.

Even at the cost of repeating, we would like to highlight that a prudent approach would be to understand the risks carefully.

Broadly, when we consider the risks in this context, we are looking at a few possibilities:

1. Potential loss of capital, or
2. Uncertainty or irregularity of income, or
3. Lack of liquidity – or availability of money when the need arises.

Let us take a look at various risks that may result in any of the above situations:

Liquidity risk:

While discussing the fixed income asset class, we discussed that such investments are usually considered less risky than equity. Even within that, government securities are the safest. To avail the full benefits of the investments, or to earn the promised returns, there is a condition attached. The investment must be held till maturity. In case if one needs liquidity, there could be some charges or such an option may not be available at all.

Let us understand this with an example. Let us say that an investor has invested one's money in a safe investment option, a bank deposit for a goal that is due five years from now. For such a goal, one chose to invest in a five year fixed deposit. As is clear, the term of the deposit is five years, and the promised returns would accrue to the investor only if the money is kept in the deposit for the entire period. In case for some reason the investor needs the money before

maturity, there could be some reduction in the interest, which reduces the investment return. Some other products like PPF (Public Provident Fund) may offer no liquidity for a certain period, and even after that, there may be only partial liquidity.

This risk is also very closely associated with real estate. As we all know, this is one avenue, where liquidity is very low, and often it takes weeks or months to sell the investment.

An associated risk is the non-divisibility of the investment. Once again, it applies to many avenues within the real estate asset category. You cannot sell an apartment block in parts. You have got to sell the entire thing.

Some investment options offer instant access to funds, but the value of the investment may be subject to fluctuations. Equity shares, listed on stock exchanges are an example of this. While it is easy to sell shares to get cash in case of a large number of listed shares, the equity prices go up and down periodically. Such investments are not appropriate for funding short term liquidity needs.

Credit risk:

The word credit is derived from Greek roots – the word “Credo” means faith. Credit or lending money to someone is all about faith. Will I get my money back on time? Will the borrower honour the commitment?

When someone lends money to a borrower, the borrower commits to repay the principal as well as pay the interest as per the agreed schedule. The same applies in the case of a debenture or a bond or a fixed deposit. In the case of these instruments, the issuer of the instruments is the borrower, whereas the investor is the lender. The issuer agrees to pay the interest and repay the principal as per an agreed schedule. There are three possibilities in such arrangements: (1) the issuer honours all commitments in time, (2) the issuer pays the dues, but with some delay, and (3) the issuer does not pay principal and the interest at all. While the first is the desirable situation, the latter two are not. Credit risk is all about the possibility that the second or the third situation may arise.

Any delay or default in the repayment of principal or payment of interest may arise due to a problem with one or both of the two reasons: (1) the ability of the borrower, or (2) the intention of the borrower.

While the ability of the borrower, if the same happens to be a company, is also a function of the business stability and profitability of the company. Stable companies, which may be market

leaders in their respective segments, may pose a lower risk, in comparison to a new company, or a small-sized company in the same industry. Some industries may also exhibit higher stability in comparison to some other.

The intention of the borrower, on the other hand, can be evaluated through the history of the borrower. One may consider getting answers to the following questions:

- Has the borrower generally been disciplined with the repayment of dues?
- Are there instances of defaults or delays in repayment of dues?
- Are any cases registered with the borrower with respect to financial irregularities?

A lender tries to assess both before lending them money or expects enough compensation in case the ability appears to be low. In the case of debentures or bonds, the investor would expect higher interest from bonds with low safety.

In this context, the bonds issued by the government of their own country would be considered to be the safest for investors. Such bonds normally offer the lowest interest rates for the citizens of the country, due to the high (highest) safety of capital. All the other bonds/debentures available in the country would offer a higher rate of interest.

The higher interest offered by bonds of lower safety in comparison to those of higher safety is called the “credit spread”. This is the compensation for taking the extra risk.

A measure of credit risk, especially with respect to the bonds and debentures is credit rating. Such ratings are assigned by designated agencies, known as credit rating agencies.

What is a credit rating?

It is an opinion of a credit rating agency about the ability of a borrower to honour its commitment to repay the principal and the interest, on time. It is not a recommendation to buy, sell or hold a security, but just an opinion of the rating agency, based on available information and a detailed analysis thereof. Credit rating is mentioned as a symbol, using a combination of alphabets, numbers and certain other symbols, e.g. ‘+’, or ‘-’.

While credit rating is not a final recommendation, it could be a good indicator, to begin with. Also, the credit rating must be seen together with the credit spread, to check whether the spread is enough for the risk taken.

Does it mean that one should lap up a bond that offers a higher yield compared to the others with the same credit rating? Not always. It is important to keep in mind that this is an opinion of

an agency based on the information available to them. It is possible that the market has some more information than the credit rating agency, and it is pricing the bond accordingly.

Hence, independent research may be a good idea, in addition to the credit rating assigned by the agency.

The credit rating for a bond may go up or down, even during the period for which the rating is assigned. For example, the credit rating assigned to a 5-year maturity bond may or may not remain the same throughout the term. As the ability of the borrower firm to repay changes, the rating may change; or if the firm delays or defaults on any commitment, the rating may change. Thus, credit assessment is a continuous exercise – for the rating agency, as well as the investor in the bond.

Market risk and Price risk

When securities are traded in an open market, people can buy or sell the same based on their opinions. It does not matter whether these opinions are based on facts, or otherwise. Since the opinions may change very fast, the prices may fluctuate more wildly in comparison to the change in facts related to security. Such fluctuations are also referred to as volatility.

While volatility is often referred to in the negative sense, it is important to understand here that these fluctuations happen in both directions – up and down. When people are pessimistic about the future, the prices tend to move down, and vice versa.

The fluctuations, as we discussed earlier, happen due to opinions. However, that is a too simplistic explanation. There are a large number of factors that impact one's opinion, this opinion then triggers an action or a non-action. An action could be when someone buys or sells an investment; whereas a non-action is when one stays away from doing a transaction. The opinion would be formed based on the information received, the way the information is processed, how the new information is perceived against the existing opinions or beliefs, and one's emotions.

The information could be about the individual company, an industry, the economy of a country, or even the world at large, the political scenario, expected changes in tax structure, or the interest rates, availability of money (also known as liquidity in the system), the presence of a large buyer or a seller ... the list is endless. There are many factors at play.

The important point here is that since the prices go up and down, there is a possibility that one may buy at high prices or sell at low prices or both. Especially when one needs to sell the investments to fund some of the financial goals, and if the prices are down at that time, there is

a possibility that there may not be enough amount available for the goal, or that one might have to pull out money from some other place. This may impact some other financial goals.

This risk may be broken down into two parts – (1) specific to a security's prices, and (2) across the market.

Let us understand this through an example. When there is a possibility of a country getting into a warlike situation, there is a widespread fear that this may impact the economy and the companies within it. Due to such a fear, it is quite possible that the prices of all stocks (or at least a large number of stocks) in the market may witness a fall. This is a marketwide fall. On the other hand, when the sales of a company's products fall, due to technological changes, or the arrival of a better product, the company's share price falls. During such times, there could be many other companies, whose share prices may rise. This is an example of a company-specific risk. As is evident from the discussion, the stability of the company's business and the profitability of the firm play a major role with respect to company-specific risk factors. Between the general, marketwide factors and firm-specific factors, there could be some industry-specific factors, which would impact all the firms within the same industry. For example, if the Government policy changes with respect to a particular industry, all the firms may get impacted. Similarly, if a new and better technology becomes available, all the firms within the same industry that use the old technology may get impacted. This happened when mobile phones started becoming popular, the pager industry totally vanished in less than a couple of decades.

The risk specific to the security can be reduced through diversification across unrelated securities, but the one that is marketwide cannot be reduced through diversification.

Interest rate risk

While most investors are familiar with the concept of debentures, they normally buy and hold these bonds till maturity. On maturity of the bond, they get the maturity amount, since it is part of the bond agreement (assuming the company does not default on the commitment).

On the other hand, if an investor sells the bond in the secondary market, one would have to do the transaction at the current market price. This price depends on many factors, but chief among these is the change in the interest rates in the economy. The relationship between interest rates and bond prices is inverse.

When the interest rates in the economy move up, the prices of existing bonds move down, since they continue to offer the old interest rates. Let us elaborate on this further. Assume that a bond was issued at Rs. 1000 for one year, and it is offered at an interest rate of 8%. Immediately after

the bond was issued, the interest rates in the economy moved up, and new bonds are now offering 8.5% interest. In such a case, the earlier bond is less attractive. If the investor who invested in that bond wants to sell, it can only be done at a discount. The reverse is also true. If in the above example, had the interest rate moved down, the price of the bond would have moved up.

The interest rate risk varies for bonds with different maturities. Those with longer maturity would witness higher price fluctuations in comparison to those with shorter maturities.

Such movements in bond prices on account of changes in interest are referred to as “interest rate risk”. This is a marketwide factor affecting the prices of all bonds. So, one may reduce the risk by investing in lower maturity securities, but the risk cannot be reduced through diversification.

Measuring the risks

After the above discussion on the risks, the natural questions are: so, what do we do about the risks? How do we get rid of the risks? If we cannot eliminate the risks, is there a way to manage those? Can we at least reduce the impact of those risks on the portfolio?

Before we go to the discussion of how to manage the risks, we need to measure these. Out of the risks mentioned earlier, we have already discussed the measurement of credit risk through credit rating and credit spreads. Now, we would cover the measures of the risks related to volatility in prices, primarily the fluctuations that happen in investment returns. We will also discuss the measurement of interest rate risk.

Measuring interest rate risk:

Modified Duration and Macaulay’s Duration

We discussed earlier that the interest rate risk is high for debt securities with higher maturity. However, the measure of the interest rate risk is called “**duration**”, a number that is a function of the maturity of the bond, as well as the coupon rate, coupon payment frequency, current market price and the maturity amount. Duration is also known as a measure of the average life of a bond, defined as the weighted average of the time until each payment is made, with weights proportional to the present value of the payment. This duration is also called **Macaulay’s duration**.

When we divide Macaulay's duration by $(1 + \text{YTM of the bond})$, we get **modified duration**, which is the measure of the bond's sensitivity to interest rate risk. It gives a good approximation of how much the bond price would change when the interest rates change.

$$\text{Change in bond price} = (-1) \times \text{change in interest rate} \times \text{modified duration of the bond}$$

If the bond's modified duration is 2 years, the above equation suggests that a rise of 1% in interest rates would result in a 2% $(-1 \times 1\% \times 2)$ fall in bond price. If the interest rate falls by 0.5%, the bond price would move up by 1% $(-1 \times -0.5\% \times 2)$.

Measuring price fluctuations or volatility:

While we attempt to measure the price volatility, we are measuring the volatility of investment returns. This is achieved through two measures, viz. standard deviation and beta.

Standard deviation is a statistical measure to denote variation or dispersion of a set of data values. The dispersion is measured with reference to an expected value, or the average value. In the context of investment returns, the standard deviation denotes the dispersion from expected returns while looking at future returns, and from the average return while evaluating past performance.

By itself, it means nothing. It must be seen in comparison to something else. A higher standard deviation indicates a higher risk of fluctuations in comparison to another investment with a lower standard deviation.

Another measure of volatility is variance, which is the square of standard deviation. In fact, while calculating the risk, we first measure variance and then take a square root of the same to arrive at standard deviation.

As measured by standard deviation, a small-cap stock may exhibit higher volatility in comparison to a large-cap stock. A bond with short maturity would exhibit a lower standard deviation compared to one with longer maturity. Equity as an asset class may witness higher fluctuations when compared with bonds. So, to evaluate the risk of volatility of a security's prices, the same may be compared with some reference. This reference is often referred to as the "benchmark", which is considered to be a representative of the asset class or a section of the same. So, when we want to evaluate whether a stock is risky within the asset category called equity, we should compare the volatility of the stock's returns with that of an equity-related benchmark. Such a comparison is called "Beta".

Beta is a statistical measure of the tendency of a security's returns to respond to swings in the broad market. In other words, beta measures how much more or less does the security's returns move when the broad market moves. Beta is also called the measure of systematic risk. The value of beta is always positive.

A stock with a beta of 1 is considered to be as volatile as the benchmark. Securities with lower volatility compared to the benchmark would have a beta of less than 1. Similarly, securities with a beta of more than 1 are considered more volatile, and hence riskier than the benchmark, or the broad market.

Managing the risks

Many of the risks cannot be eliminated, and the investor must take some of those, to earn decent returns on one's investment portfolio. However, one needs to manage the risks that one is taking.

One may consider among the following strategies for management of the investment risks:

- Avoid

One may avoid certain investment products if one does not want to take the respective risk. However, this may also mean giving up the opportunity to benefit from the said investment. Many experts recommend that one should avoid the investment avenues that one does not understand.

- Take a position to benefit from some event/development

An investor can also take an investment position in anticipation of some development in the market. Let us take an example here: a bond investor expects the interest rates to go down. In such a case, one may sell the short maturity bonds and invest in long-maturity bonds. If the interest rates move down, the investor's judgment would be rewarded handsomely. At the same time, if the judgment is wrong, there could be losses, too. This is an example of managing the interest rate risk.

Similarly, some investors manage their investment portfolios using such strategies across multiple asset categories.

In order to take and dynamically change such positions, the investor must have superior knowledge than a large number of investors in the market. This is difficult and hence risky. Due to the amount of skill required, and the risks involved, such strategies are not recommended for a large number of investors.

- Diversify

While the previous strategy is possible when one has superior knowledge, not everyone would possess the same. For those who do not know everything about everything, a prudent approach would be to diversify across various investment options. This spreads the risk of loss and thus the probability of losing everything can be significantly reduced through diversification.

In the 1970s, the University of Chicago was a leading institution for the study of financial markets (it still continues to remain one, even today). A very popular saying there was *"There ain't no such thing as free lunch."* This meant that to earn higher returns, one must take high risks, and these risks cannot be reduced without compromising on the returns. However, later research revealed that at least the specific risk can be reduced through diversification.

1.1.3 Markowitz Portfolio Diversification

In 1990, Harry Markowitz was awarded the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel (popularly known as the Nobel Prize in Economics). This award was given to him for his contribution to constructing a micro theory of portfolio management for individual wealth holders.

While diversification was practised much before Markowitz, he added Math to the process of diversification. When you combine two or more securities, the portfolio return would be the weighted average of the returns of all the components. However, the risk may not be equal to the weighted average risk. The risk of the portfolio, as measured by variance, would depend on the following factors:

1. Variance of each component,
2. Percentage allocation to each component, and
3. Correlation between the components

The third component works magic. When the investor invests in two risky securities, but with a low correlation between the two, the portfolio risk is much lower than the weighted average of the risks of the two securities. If the coefficient of correlation is +1, the portfolio risk is exactly equal to the weighted average. However, finding such a pair of investments are rare. In all the other cases, since the coefficient of correlation is less than 1, the portfolio risk comes down. If one is able to find two investments with a coefficient of correlation exactly equal to -1, the portfolio risk becomes zero. Such a pair of investments is virtually non-existent.

1.1.3.1 Understanding the limits of diversification

The risks can also be categorized as “diversifiable risks”, and “non-diversifiable risks”. The latter impact all sectors of the economy, whereas the former could be specific to some securities, companies, or sectors or industries. These specific risks can be reduced through diversification. The diversifiable risks are also known as unsystematic risks or idiosyncratic risks, whereas the non-diversifiable risks are called systematic risks.

Within the factors leading to the volatility of prices, once again there are factors that are specific to a company, and those that affect the broader market – the specific or idiosyncratic factors, and the systematic factors. Volatility on account of specific factors can be diversified away. For example, company A is earning foreign exchange by exporting products manufactures in India, whereas company B is importing goods from abroad by spending foreign exchange and selling the stuff in India. The profits of both these firms would be impacted exactly in opposite directions when the Indian Rupee strengthens or weakens. If one invests in both the companies, one’s profits would be neutral to the foreign exchange movements, or the so-called currency risk is diversified away in this case.

Credit risk is a company-specific risk. Hence, an investment across bonds of different companies can reduce the credit risk.

Two major risks that cannot be diversified away are inflation and interest rates. Both these risks impact businesses across the spectrum.

There is another way to decide which risks to take under which situations. The impact of certain risks reduces with time. For example, for long holding periods, a diversified portfolio of carefully chosen stocks should deliver enough returns to compensate for the risk of volatility. Though, there is no guarantee, the probability of earning positive returns goes up in such cases. However, the conditions are – it has to be a diversified portfolio of carefully chosen stocks. This would happen since if the underlying businesses do well over the period, the profits of the firm may grow, and so would the stock price.

Liquidity risk also can be taken if the investment horizon is long since one can afford to put the money aside.

On the other hand, the impact of inflation is negligible in shorter periods, which increases as the period increases. Given this, investors can allocate money to the assets keeping these risks in mind.

This process of allocating money across various asset categories is known as “asset allocation”. (We will discuss this concept later in the chapter).

Portfolio diversification and the contribution of Harry Markowitz

Harry Markowitz was a student of the stock markets and was writing his dissertation on the application of mathematics to stock market analysis. At that time, he took special interest in the work of John Burr Williams, especially his “Theory of Investment Value”, which emphasized investors’ consideration of the expected value of assets within the portfolio. However, there was a limitation, which Markowitz realized – the argument lacked the considerations of risk.

Markowitz considered variance, the measure of volatility from mean, as the representative of risk. Another huge contribution of Markowitz was to separately treat the idiosyncratic risk, which he identified as the diversifiable risk. Idiosyncratic risk is specific to an asset or a security, and the same can be removed through diversification across non-correlated assets or securities. Mathematically, the measure of correlation is the covariance, which is the correlation of movement between different assets.

The Mathematics of diversification

The principle of diversification suggests that investors can eliminate a great deal of investment risk by spreading their portfolios across diverse investments. However, it must be understood that diversification, by itself is not the objective. The goal is to bring down the risk without compromising on the returns or increasing the return without increasing the risk. This goal can be achieved through diversification. And that is why as they say “diversification is the only free lunch in investing”.

If one constructs a portfolio consisting of three securities A, B and C each with the expected return of 7%, 8% and 12% respectively. The expected return of the portfolio would be the weighted average of the three securities. Let us say the portfolio is constructed with 40% in security A, 25% in security B and 35% in security C, as shown below:

Instrument	Expected return	Weight in the portfolio
A	7%	40%
B	8%	25%
C	12%	35%
Total		100%

In such a case, the expected return from the portfolio would be as under:

$$7\% \times 40\% + 8\% \times 25\% + 12\% \times 35\% = 2.8\% + 2.0\% + 4.2\% = 9.0\%$$

While the portfolio return is the average of the securities, what happens to the portfolio risk? Does that also get averaged out?

The risk, as measured by portfolio variance, is represented by portfolio price movements. The same is caused by two factors:

1. Macroeconomic shocks that affect a large number of securities, or the entire market; and
2. Idiosyncratic shocks that impact individual firms

The former is known as systematic risk, whereas the latter is referred to as unsystematic risk. The process of diversification tends to remove all idiosyncratic risks, thus narrowing the portfolio risk only to macroeconomic factors. The systematic risk, thus, is also referred to as “non-diversifiable” risk.

Before Markowitz, though the benefit of diversification was understood intuitively, the approach was quite naïve. It was limited to spreading the investments across different investment options. This was quite similar to the approach of some investors during the technology boom when the money was ‘diversified’ across many technology sector companies. This is not optimal diversification. This is as naïve as it could be.

Optimal diversification means spreading investments across poorly correlated investment avenues. It is the poor correlation that brings the portfolio variance down. Correlation explains the degree of co-movement of two variables, which in this case are the portfolio returns. The co-efficient of correlation varies from -1 to +1. The co-efficient of correlation being -1 indicates a perfectly negative correlation, whereas if the same is +1, the securities are said to be perfectly correlated. If the same is 0, it means that the two variables are independent.

Risk of the portfolio

- is less than the weighted average of individual asset risk, if the correlation between the two assets is less than 1.
- reduces further if the correlation between the two assets is <0 and lowest at -1.
- is the weighted average of individual asset risk, if the correlation between the two assets is 1 and highest.

Let us understand this with an example of Portfolio P comprising two securities A and B. The following information is available:

	Stock A	Stock B
Expected return (E_R)	14%	20%
Standard deviation (SD)	25%	40%
Allocation (W)	50%	50%
Coefficient correlation (COR)	0.40	

Let us calculate the expected return and the risk of the portfolio.

$$\text{Expected return} = 14\% \times 50\% + 20\% \times 50\% = 17\%$$

$$\text{Covariance of the portfolio} = \text{Correlation between A \& B} \times SD_A \times SD_B = 40 \times 25 \times 40 = 400$$

$$\text{Risk of the portfolio } P = SD_P = (W_A^2 \times SD_A^2 + W_B^2 \times SD_B^2 + 2 \times W_A \times W_B \times COR \times SD_A \times SD_B)^{(1/2)}$$

$$= [0.5^2 \times 25^2 + 0.5^2 \times 40^2 + 2 \times 0.5 \times 0.5 \times 0.4 \times 25 \times 40]^{(1/2)}$$

$$= [0.25 \times 625 + 0.25 \times 1600 + 200]^{(1/2)}$$

$$= [156.25 + 400 + 200]^{(1/2)}$$

$$= (756.25)^{(1/2)} = 27.5$$

As we can see here, the portfolio risk is almost as much as the security A, but the return is higher. On the other hand, for a drop of 3% in return in comparison to security B, the risk of the portfolio is significantly lower than security B.

This could happen since the coefficient of correlation is lower than 1.

Modern Portfolio Theory (MPT)

Using risk and return as the primary considerations of investors, Markowitz pioneered the Modern Portfolio Theory (MPT), published in 1952 by the Journal of Finance. He continued his work with colleague George Dantzig, where he refined his research on optimal portfolio allocation. His resulting work on graphing the Modern Portfolio Theory (MPT) would later be named the efficient frontier. He went on to receive a PhD in economics and published his new findings on portfolio allocation.

Harry Markowitz' contribution changed the way the world looked at diversification. It changed the way investors practiced diversification.

Before MPT, the focus of portfolio management used to be on the risk and return of individual assets or securities. Post MPT, the focus has shifted to the risk of the entire portfolio, allowing for optimization of the risk and return in line with the investor's risk profile.

A few questions remained unanswered before MPT:

- How does combining risky securities (or assets) impact the risk of the portfolio?
- What is the interaction of returns and risks across different securities (or assets)?

In the absence of answers to these questions, the entire approach to portfolio construction remained subjective. It also did not provide any insight into the expected returns from a portfolio vis-à-vis the risk taken. The MPT also provided the base from which many tools could be developed to evaluate the fund manager performance.

The theory suggests that

- It is possible to combine risky assets and produce a portfolio whose expected return reflects its components, but with considerably lower risk.
- It is possible to construct a portfolio whose risk is smaller than the sum of all its individual parts

In other terms, MPT caused a shift from an intuitive approach to a scientific one to portfolio management.

Markowitz's work earned him the John von Neumann Theory Prize in 1989 and the Nobel Memorial Prize in Economic Sciences in 1990. Almost a decade after Markowitz's initial publication on MPT, the famous capital asset pricing model (CAPM) was introduced, based on Markowitz's theory of risk and diversification.

1.1.4 The Capital Asset Pricing Model

A remarkable mathematical model, known as the Capital Asset Pricing Model, helps one estimate the expected returns from a security or a portfolio. It describes the relationship between expected return and the risk of investing in security (or a portfolio). The risk in this case is represented by the beta of the security (or the portfolio).

It shows that the expected return on a security is equal to the risk-free return plus a risk premium, which is based on the beta of that security. In other words, the investor expects to be rewarded over and above the risk-free rate of return for taking the risk of investing in a security or a portfolio. The risk is represented by the Beta.

The CAPM shows a way to estimate the return from security (or a portfolio) given expected market return, risk-free rate of return and the security's (or the portfolio's) beta.

Mathematically, CAPM can be presented as under:

$$R_p = R_f + \beta_p (R_m - R_f)$$

Where,

R_p = Expected return from security 'P'

R_f = Risk-free rate of return

β_p = Beta of security 'P'

R_m = Expected return from the market

The value of $(R_m - R_f)$ is also referred to as the risk premium of the respective market, which is nothing but the expected compensation for taking the market risk.

If the investor does not take any risk, one should expect to earn the risk-free rate of return and nothing more. To earn anything more, one must take some risk. If the investor invests the entire sum in a market index, one would get market returns. This can be seen from the CAPM equation, too, as the Beta for the market index is 1.

The CAPM also offers a means to develop many tools to evaluate the performance of a portfolio or even a fund manager.

1.2 Equity Management Strategies

As we saw CAPM suggests that it is possible to generate higher than market returns by taking higher risks than what the market contains. At the same time, it is also possible to earn market returns without taking extra risks in the form of Beta.

This essentially means, an investor could take one of two approaches:

1. Replicate a market index;
2. Take higher (or lower) risks compared to the market and earn commensurate returns in line with the investor's risk profile

The former, also known as indexing, became quite popular over the last fifty years since the launch of the first index fund in the early 1970s. An index fund would track a benchmark index,

which is also known as the market average. On the other hand, those who seek to generate higher returns than the index would have to do something different from the index.

That requires the portfolio managers to adopt certain approaches to select securities. These approaches may be broadly classified into two types:

1. Fundamental Analysis
2. Technical Analysis

The former is an attempt to identify securities by studying the business and financial details of a company to decide whether the stock should be part of the portfolio or not. The latter, on the other hand, is about identifying the correct timing of getting in or out of a stock or even the broader market.

1.2.1 Fundamental analysis

As mentioned, the analysts study the company's business and financial statements to understand the fundamental strength of the company to generate sustainable profits over the long term. The financial details are used to estimate the 'fair value' of the company. The current market price of the stock is then compared with the 'fair value' thus estimated in order to decide the buy-hold-sell decision for the stock.

The fundamental analysis is typically carried out using the E-I-C framework. The three alphabets E-I-C stand for Economy, Industry and Company, respectively.

1.2.2 Technical analysis

While fundamental analysis focuses on the business of the company, technical analysis looks at the price-volume patterns in the security markets to decide the right time to enter or exit a stock or an entire market. The analysts study various patterns using price and volume charts to identify whether a certain price trend would sustain itself or is likely to reverse. Among the popular approaches are Elliot Wave analysis, candlestick charts, Fibonacci Series analysis, etc.

It is generally believed that fundamental analysis is used to pick up long term investment opportunities, whereas technical analysis is a more short term approach. However, this may not always be true as technical analysts often attempt to identify very long term trends, of periods longer than a decade or two.

1.2.3 Quantitative analysis

This is another approach involving numbers, as the name suggests. However, the numbers may pertain to both the company financials as well as stock prices, which means that the quantitative techniques may be used to do fundamental analysis, technical analysis or a combination of the two.

Quantitative analysis uses historic data to validate its formula. And then recommends whether the prices of stocks will go up or go down. Quantitative Analysis uses human intelligence only to strategize this mathematical formula and once this formula is tested, it can be used without any human intervention. Quantitative analysis uses algorithms to run through stock prices and in which the stock prices fulfil the present conditions mentioned in the formula, a recommendation is triggered.

This approach especially became popular with the increase in computing power and access to data.

Passive strategies with a touch of active management

All the above approaches are aimed at beating the market averages and hence a good amount of active management is involved. “Does active management make sense?” This question remains central to many debates for more than half a century now. Since there is a cost attached to active investing, it is logical to ask whether the cost is justified in some way. Considering that a large number of active managers have failed to outperform the benchmark indices, many investors have turned towards passive strategies. At the same time, the lure of active management and giving a try to outperformance draws a large number of investors towards active strategies. While outperformance is possible, the costs of active management are certain. In such a case, experts tried to work out a solution that tries to offer the best of both – a potential outperformance while keeping the costs low.

1.2.4 Smart Beta investing

This is one of the strategies that fall between active management and passive strategies. The idea is to combine the best of both – an attempt to outperform the indices combined with a lower cost structure.

The goal of smart beta is to (1) obtain alpha, or (2) lower risk or (3) increase diversification by keeping the cost lower than traditional active management and marginally higher than straight index investing. Smart beta seeks to combine the benefits of passive investing and the

advantages of active investing strategies. Smart beta emphasizes capturing investment factors or market inefficiencies in a rules-based and transparent way.

1.2.5 Leveraged indexing

While an index fund aims to simply replicate a benchmark index, it underperforms the index after adjusting for the costs.

A leveraged exchange-traded fund (ETF) is a marketable security that uses financial derivatives and debt to amplify the returns of an underlying index. While a traditional exchange-traded fund typically tracks the securities in its underlying index on a one-to-one basis, a leveraged ETF may aim for a 2:1 or 3:1 ratio.

Leverage involves a different kind of risk and hence such funds may not be suitable for most investors. SEBI does not permit Indian mutual funds to launch such schemes.

1.2.6 Fundamental Indexing / Quality Indexing

This is yet another category of funds that falls somewhere between passive strategy and active management. A fundamentally weighted index is a type of equity index in which components are chosen based on fundamental criteria as opposed to market capitalization. An index fund could be conceived that tracks such an index. The objective here is to focus on the fundamental strengths of the company rather than the size.

While some of the strategies may appear to be less risky, they do carry a certain amount of risks and hence ensuring suitability to investor's risk profile is key.

1.3 Fixed Income Investment Management

1.3.1 Understanding Debt and Money Markets

Debt markets serve an important purpose of helping companies raise capital for a limited period without diluting the shareholder's capital. It is also called financial leverage since the equity shareholders can expect a higher return on equity if the company is able to earn more than the interest cost. The same debt markets also allow the governments of countries, states, and municipal corporations to raise funds for their requirements. These requirements could be for short term or long term.

While bank loans and similar means of debt is always available for corporations and governments, capital markets offer potential liquidity through a listing of these bonds.

Depending on the term of borrowing, the markets are divided into two separate segments, viz., money markets and debt markets. Essentially, money markets facilitate short term borrowing and debt markets facilitate long term borrowing programs. For example, companies use money markets to borrow to fund their working capital requirements, whereas debt markets are for funding capacity building or capital investments.

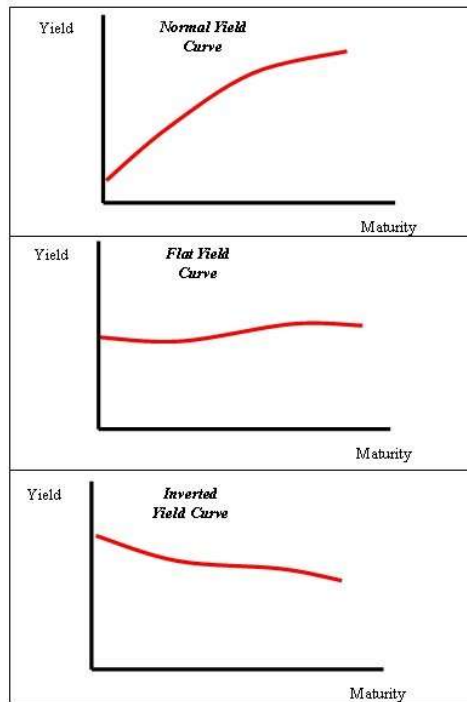
The following are some of the major differences between the two markets:

	Debt markets	Money markets
Borrowing program	Long term	Short term
Maturity of the instruments at the time of issuance	Longer than one year	Shorter than one year
Coupon payment	Multiple options	Mostly issued as zero-coupon bonds, i.e. discount bonds
Regulator	SEBI	RBI

1.3.2 Understanding yield curve

There are broad benchmarks used to understand the level of the market, e.g. in the equity market, we often take a look at indices like Sensex and Nifty. In the bond markets too, there are some indicators that people turn to, e.g. the policy rates announced by the Reserve Bank of India (or other central banks, depending on the country whose bond and money markets we are tracking), interest rates on the treasury bills, interest rates on government bonds with a 10-year maturity, etc. to name a few.

Serious players in the bond markets are interested in tracking the structure of interest rates across different bond maturities. A graph plotted with the maturity profile on the X-axis and the YTM on the bonds on Y-axis is called the yield curve. One can check the yield curve from the website of Clearing Corporation of India Ltd (www.ccilindia.com).



Shape of the yield curve

The yield curve is believed to be a forward indicator of what is likely to happen in the economy and the capital markets. A normal yield curve is upward sloping, as the short term interest rates are most of the time lower than the long term rates. Such a curve is an indicator of a growing economy. An inverted yield curve is one in which the shorter-term yields are higher than the longer-term yields, which can be a sign of an upcoming recession. In a flat or humped yield curve, the shorter- and longer-term yields are very close to each other, which is also a predictor of an economic transition.

While the yield curve pertains to the bond markets, it is often used as an important forward indicator by analysts in the stock and real estate markets apart from the economic policymakers and analysts.

One of the key indicators being watched is the maturity spread or the difference between the yields of bonds across different maturity periods. Let us understand the same using the data of yields across maturities for a recent date, i.e. 12th July 2021.

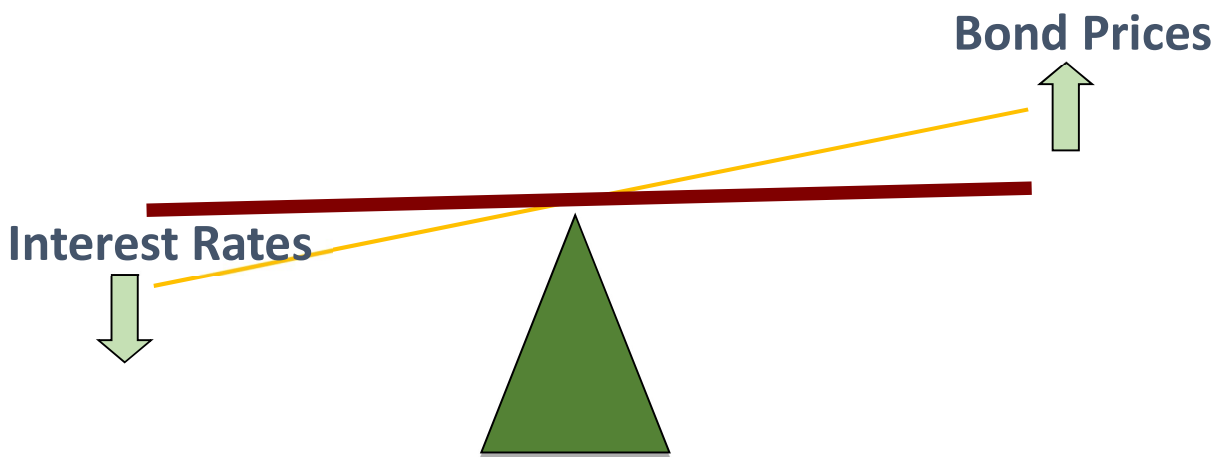
Yield comparison	Spread (bps)
2 yrs v/s 1 yr	26.5
5 yrs v/s 2 yrs	141.6
10 yrs v/s 2 yrs	187.2

(Source: <http://www.worldgovernmentbonds.com/country/india/> dated 12th July 2021)

The comparison of spreads across time periods for similar maturity profiles is a good indicator of whether the yield curve is normal, steep, flat, or inverted between different maturity periods. This allows the fund managers to decide which bonds could be more attractive than some others.

1.3.3 Relation between interest rates and bond prices

The bond price adjusts to the changes that happen in the interest rates in the market. The bond prices have an inverse relationship with the interest rates. As the rates go up, the bond prices go down and vice versa.



The other factors affecting the extent of the change in bond prices due to change in interest rates are:

- Term to maturity (residual maturity)
- Coupon rate
- Coupon payment schedule
- Principal repayment terms

All these can be summed up into one number called “duration”, which gives a good measure of the risks associated on account of change in interest rates. The most commonly used duration is

the Modified Duration. Modified Duration measures the expected per cent change in a bond's price (or a Debt Fund's NAV) for every per cent change in interest rates.

Investors holding onto their debt instruments are unaffected by the interest rate risk. This risk affects those investors, who are likely to sell their bonds before maturity in the secondary market or the investment portfolios, where the securities are valued at market prices. Example: mutual funds.

Under the discussion on investment risks, we have covered this relationship along with the ways to measure the same using duration and modified duration.

The understanding of the relationship between interest rates and bond prices helps the portfolio managers decide the portfolio allocation. The fund managers deploy many approaches to the active management of debt portfolios. A few are listed below:

- **Restricting the investment universe to a certain duration basket**

This is a simple approach to staying invested within defined limits of duration. The average duration of the portfolio being more or less static ensures that the portfolio is exposed to a more-or-less uniform level of interest rate risk. This allows an investor to decide how much interest rate risk does one expose oneself to.

When mutual fund managers adopt such an investment approach, the investors can shift from one duration basket to another, depending on their view on interest rate movement.

- **Dynamic duration management**

While in the former approach, the portfolio manager does not take any calls on the expected future movement of interest rates, dynamic duration management is one where the portfolio manager is actively looking for clues and indicators of interest rate movements. Based on such an assessment, the portfolio manager then allocates money towards long-duration bonds or short duration bonds that look to benefit from the expected movement of interest rates.

If the interest rates are expected to move up, the portfolio manager would actively reduce the duration of the portfolio and vice versa.

- **Rolling down the yield curve**

On most occasions, the yield curve is steep at the short end and then tapers off as the maturity increases. We also know that the change in interest rates have an impact on the price of the bond and that the coupon on the bond remains constant throughout the term (well, in most cases, except certain types of bonds like floating rate bonds). In such a case, a strategy of buying a bond and then selling it before maturity often adds to the portfolio returns at substantially low risk. Let us understand this with an example:

Let us consider a AAA-rated debenture D with 2-year maturity and coupon of 5% p.a. Let us assume that currently, the YTM on AAA-bonds with 2-year maturity is 5% p.a. and those of 1-year maturity is 4.5% p.a. An investor invests in debenture D with a view to sell it after holding it for 1 year. In such a case, the investor would earn the coupon @ 5% for the first year and then sell the debenture in the market at prevailing prices.

What could the price of the bond be after a year, i.e. the time when the investor wants to sell it? It would be a function of the interest rates for similar bonds at that time. Similar bonds in this case would mean bonds with similar credit ratings and similar maturity.

It is important to note here that debenture D, which has a maturity of 2 years, would have a residual maturity of 1 year exactly a year from now. This is an important point to compare the interest rates in the economy at that time. This comparison would allow us to estimate the market price for the debenture.

Scenario	Interest rates for 1-year maturity AAA-rated debentures 1 year hence	change in Bond price 1 year hence	1-year return
1	4.50%	0.50%	5.50%
2	4.00%	1.00%	6.00%
3	5.00%	0.00%	5.00%
4	5.50%	-0.50%	4.50%

The first column in the above table represents various scenarios. The interest on AAA-rated debentures with 1-year maturity is assumed to be 4.5% currently. Hence, scenario 1 depicts that the rates remain at the same level as they are at present, whereas scenario 2 depicts a fall in interest rates. Scenarios 3 and 4 depict a rise in the interest rate in the economy, hence the bond price should fall to the extent of change in interest rates multiplied by the modified duration, which is taken as 1 year (equal to the maturity, for the sake of simplicity).

As can be seen above, even in a scenario where the interest rates rose by 1%, the investor still earned as much as what one would have earned by simply holding onto a 1-year maturity bond till maturity.

Such an investment strategy of buying longer maturity bonds and then selling in the market before maturity, or at a time coinciding with one's investment horizon is known as "rolling down the yield curve". If the yield curve is steep at the short end, this strategy generally works out to be a winning one.

All the above strategies exploit the interest rate risk and try to generate excess return. The portfolio managers may also adopt certain other strategies, e.g. managing the credit risk.

1.3.4 Managing credit risk

Earlier in the chapter, we looked at the credit risk and we also discussed the credit spread, which is the extra yield expected by the market for taking exposure to the credit risk of the respective debt security. The credit spread is measured with YTM on government security as the base and is tracked for similar maturity profiles. For example, YTM for a 5-year AAA bond would be compared with that for a 5-year Government Security. As of June 30, 2021, the credit spread for a 5 year AAA-rated debenture was 34 basis points, whereas the same for a 5 year AA-rated debenture was 3.61%. In such a case, different investors may take different views – one stating that the market is right and hence the spread for AA-rated debentures is so high, whereas another one may consider that as an opportunity.

1.3.5 Managing liquidity

The debt markets in India are reasonably evolved, and yet there are some securities that may not have enough secondary market liquidity. While the Central Government Securities, State Development Loans, and Money market Securities are quite liquid, many corporate bonds lack trading in the secondary market. At the same time, since the debt instruments have a defined maturity period and periodic coupon payment, these two cash flows help in getting cash periodically – depending on the type of security one has invested in.

In most cases, liquidity can be managed by carefully assessing the requirement for liquidity – either planned or contingent. Such amount of money must be invested in securities with ample liquidity, e.g. money market instruments. At the same time, one can also choose investment avenues that match certain specific requirements. For example, if one needs money exactly after two years, one may invest the sum in a corporate bond maturing after two years.

1.4 Derivatives for mutual funds

Mutual funds are allowed to use derivatives, primarily for two purposes, viz., for hedging or portfolio rebalancing. Derivatives are available in both the equity as well as debt markets and mutual funds are allowed to make use of both. Let us take a look at some of these uses of derivatives by mutual funds.

1. Hedging

This was amongst the most commonly discussed strategies. Hedging refers to the act of protecting a portfolio against a potential downside by taking offsetting positions which minimize risks. Mutual funds can short sell futures contracts or buy put options in order to hedge the portfolio of securities. This ensures that the fund manager is able to protect the portfolio downside at a reasonably low cost and better ease.

The hedging strategy is deployed only when the fund manager is expecting a short term downward movement. This is different from market timing in the sense that the upside is either capped or reduced while largely eliminating the downside. However, there are costs associated with such a strategy. Hence, if deployed for long periods, the cost may turn out to be prohibitively high.

2. Arbitrage

Often hedging and arbitrage may end up in similar-looking portfolios. However, the purpose in both cases would be very different. Arbitrage is a strategy that earns small profits due to the price difference between two markets. This is largely a market-neutral strategy, in that the net equity exposure would be zero.

In the Indian markets, arbitrage is largely deployed between the cash markets and futures markets. If one buys a security in the cash market and short sells the same in the futures markets, one earns a small profit on such trade. Such returns are very close to money market rates, most of the time, barring exceptional circumstances.

3. Paired arbitrage

This form of arbitrage attempts to identify mispricing opportunities in similar securities. To that extent, it is different from pure arbitrage. Let us understand the same with an example of two banking stocks, viz., HDFC Bank and State Bank of India.

In case of pure arbitrage, discussed in the previous point, one may simply buy the stock of State Bank of India from the cash market and short sell Futures Contract on the same stock. On the other hand, in case of a paired arbitrage, the investor may buy the share of State Bank of India in the cash market, while short-selling Futures Contract on HDFC Bank's stock, if one finds such a strategy more attractive, based on one's assessment.

The former is a very low-risk strategy, whereas the latter involves the risk of security selection, as well as adverse price movement.

4. Alpha hedging

The stock return is often divided into two components, alpha and beta. The former comes from a company or stock-specific factors, whereas the latter is contributed by the broad market. An alpha hedging strategy looks at capturing the alpha while at the same time removing the market risk. This can be achieved by buying the stock in the cash market and short selling Futures Contracts on the market index. Like the paired arbitrage strategy, this also carries the risks of security selection and adverse price movement.

5. Covered call writing

This is another strategy that many investors employ, to earn some income on their existing portfolios. While the purpose of hedging is to eliminate or reduce the downside risk without selling the portfolio, covered call writing replaces the short-selling of futures contracts or buying of put options with the selling of call options. The risk in such a case is the possibility of losing the portfolio, in case the market moves sharply in an adverse direction.

6. Securities lending

Another way of using the existing investment portfolio to earn additional income is through lending the securities. Both the premier stock exchanges in India offer this facility. Under this mechanism, known as "Securities Lending and Borrowing (SLB)", certain players are able to borrow securities from those who are willing to lend these.

SLB is available through automated screen based trading platform with online matching of trades based on price-time priority. At the same time, both the lender and borrower get an additional safety mechanism in the form of settlement guarantee, as the clearing corporation or the clearing house would act as counter-party to each leg of the trade.

In other words, this provides both the lender and the borrower a transparent and secured platform to transact without the worries of counter-party default.

SEBI permits SLB transactions in securities on which derivatives contracts are available.

7. Credit risk derivatives

CDOs (or Collateralised Debt Obligations) are mortgage-backed securities, which could obtain AAA ratings from credit rating agencies if structured properly. Various mortgage loans are bundled together and then this pool of loans is converted into bonds, which are issued to investors looking for good yield. In a falling interest rate scenario, this turned out to be a good investment option since one could buy AAA-rated CDOs offering higher yields than other AAA-rated debentures. The rating of the CDOs was a function of the quality of the underlying mortgage loans. The quality could be determined by the historical loan payment record across various risk buckets (prime loans v/s sub-prime loans, for example) as well as the documentation. The pool is divided into various buckets based on quality, with the highest quality bucket getting AAA rating and the lowest quality portfolio being considered equivalent to equity in terms of risk.

With the AAA rating, these CDOs became eligible for investment by certain investors, who could not invest in low-quality instruments. Many endowment and pension funds are invested in these AAA-rated CDOs. These long-term investors had the ability to hold onto these CDOs till their maturity. With the popularity of these instruments, even short-term investors became interested.

CDS (or Credit Default Swaps) worked like an insurance policy. In the case of an insurance policy, the policyholder is protected against the consequences of a negative outcome (loss of life, loss of property, etc.) by paying a regular premium. The same concept was brought into the world of investing – investors in corporate bonds or municipal bonds could buy protection in the form of CDS against potential default by the issuers of the bonds.

8. Portfolio rebalancing and replicating an index

An investor can also use derivatives to replicate an index. This is especially important when an index fund does not have enough corpus, or if a fund has to quickly deploy money in the market or remove money from the market, on account of large purchases or redemptions. Derivatives often provide a cheaper and faster mechanism for such a purpose.

1.4.1 Risk factors associated with investing in Derivatives

As we saw earlier, the fund manager may use various derivative products from time to time. The purpose of the same would be to protect the value of the portfolio and thus to enhance the interests of the unit holders. Derivative products differ from stocks and bonds as these specialized products, which means the investment techniques and risk analysis needed for derivatives must be different from those employed for stocks and bonds. The use of derivatives requires proper understanding of the underlying instruments as well as the derivative product itself, including the construct of the same.

The risks associated with the use of derivatives are different from or possibly greater than, the risks associated with investing directly in securities and other traditional investments. Let us understand some of the general risk factors associated with derivative products:

- Derivative products are leveraged instruments and can provide disproportionate gains as well as disproportionate losses to the investor. Execution of such strategies depends upon the ability of the fund manager to identify such opportunities. Identification and execution of the strategies to be pursued by the fund manager involve uncertainty and the decision of the fund manager may not always be profitable. No assurance can be given that the fund manager will be able to identify or execute such strategies.
- Credit risk: In a derivative transaction, the credit risk pertains to the default by the counterparty. However, given that there is no exchange of principal amount, this risk is relatively low.
- Market risk: Derivative instruments are subject to the market risk associated with the underlying assets as well as the derivative contract itself, depending on whether these are marketable or not. Market risk as represented by the market price movements may adversely affect the pricing and settlement of derivatives.
- Illiquidity risk: Like all other financial products, derivatives may be exposed to illiquidity risk, too. In a situation of lack of liquidity, the derivative product may not sell quickly enough at a fair price.
- Basis risk associated with imperfect hedging using interest rate futures (IRF): Basis risk results from the imperfect correlation between the prices of securities in the portfolio and the IRF contract used for the purpose of hedging the interest rate risk. This risk may lead to a situation when the loss in the portfolio may not exactly match the gain on the hedged position, rendering the hedging worthless or less effective.

Other risks include the risk of mispricing or improper valuation and the inability of derivatives to correlate perfectly with underlying assets, rates and indices.

1.5 Understanding asset allocation

The basic meaning of asset allocation is to allocate an investor's money across asset categories in order to achieve some objective. In reality, most investors' portfolio would have the money allocated across various asset categories. However, in almost all such cases, the same would be done without any process or rationale behind it.

Given that, let us modify the definition of asset allocation: It is a process of allocating money across various asset categories in line with a stated objective.

The underlined words are very important. First, it is a “process”, which always involves several steps, and those steps should not be ignored or skipped. Second, the whole idea behind asset allocation is to achieve some objective. Whichever approach one selects, one must go through the steps of the process in order to achieve the objective.

It is in line with the above definitions that we would discuss two of the popular approaches to asset allocation⁶.

Strategic asset allocation

This is an approach to maintain a target allocation across various asset categories. Such a target asset allocation across the asset categories is decided based on the analysis of the needs and risk appetite of the investor. Such an analysis would help a mutual fund distributor to arrive at allocation between various asset categories in percentage terms.

This percentage target is also called the “strategic asset allocation”.

Tactical asset allocation

As opposed to the strategic asset allocation, one may choose to dynamically change the allocation between the asset categories. The purpose of such an approach may be to take advantage of the opportunities presented by various markets at different points time, but the primary reason for doing so is to improve the risk-adjusted return of the portfolio. In other words, the attempt is to either reduce the portfolio risk without compromising the returns or to enhance portfolio returns without increasing the risk. Tactical asset allocation is also referred to as dynamic asset allocation.

⁶Norte: In order to keep the discussion simple, and to understand the concept of asset allocation well, we will use a two-asset portfolio, consisting equity and debt, as example in all the discussion under this topic.

There are many approaches adopted by various investors, which are largely related to the investment universe or the market. Some of the popular factors are either the investor's view regarding the future returns from the respective asset category or various valuation measures. We will discuss this later in the book at the time of discussing the dynamic asset allocation funds.

Such dynamic asset allocation funds could be divided into two broader categories, viz., (1) schemes that achieve the target asset allocation through exposure to stocks, bonds and derivatives; and (2) the fund-of-funds schemes that achieve the asset allocation targets through investing in other mutual fund schemes. The former may further be divided into two categories, viz., (1) that use derivatives for the purpose of rebalancing and (2) those that do not use derivatives.

Rebalancing

Whichever approach one may select, there may be a need to make modifications in the asset allocation.

Let us first start with the strategic allocation. In that case, the asset allocation is likely to change periodically, since the different assets may not move together in the same direction and may not move equally, even when the direction is the same. In such a case, it is quite possible that the current asset allocation may be different from the target allocation. What should one do in such a scenario?

Well, many practitioners advocate that the portfolio should be rebalanced to restore the target asset allocation. They argue that the asset allocation was decided by an analysis of the needs and risk appetite of the investor. We need to reduce the allocation to the risky asset if that has gone up. On the other hand, if the allocation has gone down in the asset that has the potential to generate higher returns, we need to correct that as well.

Such a rebalancing offers a huge benefit – it makes the investor buy low and sell high. Let us understand this through an example:

Assume that the target asset allocation for an investor is 50:50 between asset categories A and B. A year later, asset category A went up by 20%, whereas asset B went down by 5%. In such a case, the allocation has deviated from the target. If we started investment of Rs. 1,000 each in both the cases, the value in both the cases would stand at Rs. 1,200 in asset A and Rs. 950 in asset B, with the total portfolio value at Rs. 2,150. The current allocation stands at 55.81% in asset A and 44.19% in asset B. This needs to be restored to 50:50. That means selling some part of the investment in asset A (worth Rs. 125) and buying some in asset B.

As we can see here the asset A, which has gone up, is sold; and asset B, which has gone down, is bought. This happens automatically, without the investor having to take a view on the direction of the markets.

The rebalancing approach can work very well over the years when the various asset categories go through many market cycles of ups and downs.

On the other hand, one may also need to do a rebalancing of the asset allocation, when the investor's situation changes and thus the needs or the risk appetite might have changed.

While we discussed about rebalancing in the case of strategic asset allocation, it is also required in case of tactical asset allocation, too. However, in that case, it is not about rebalancing to the target allocation, but to rebalance in line with the change in the market valuation.

The difference between asset allocation and diversification

Some people confuse asset allocation with diversification. While diversification means investing across different avenues, asset allocation may result in the same thing. However, it is possible that a portfolio that is constructed for a particular target allocation may not be diversified. Let us understand this with a stretched example. In case of an investment objective of parking all the money only for a month, the entire portfolio may be invested in a fixed deposit with a bank or a liquid fund. One has achieved a strategic asset allocation, but the portfolio is not diversified across asset categories. It is invested in a single asset.

Chapter 1: Sample Questions

1. Which one these is true with respect to Real Estate?
 - a. Real Estate is relatively illiquid
 - b. Real Estate may generate capital appreciation and/or rental income
 - c. **Both (a.) and (b.)**
 - d. Only (b.)

2. Which of these are most widely accepted metal commodities used as an investment avenue
 - a. Gold
 - b. Silver
 - c. Copper
 - d. **Both (a.) and (b.)**

3. Bonds are generally classified based:
 - a. On the issuer e.g. governments, private corporations
 - b. On the maturity date e.g. short, medium and long term
 - c. **Both (a.) and (b.)**
 - d. Only (a.)

4. Which one these is true with respect to Equity?
 - a. Also known as 'Risk Capital'
 - b. Equity shareholders' returns are based on the performance of the business
 - c. **Both (a.) and (b.)**
 - d. Only (a.)

UNIT 2: INVESTMENT STRATEGIES AND FUND CATEGORIES

Learning Objectives:

After studying this chapter, you should understand about:

- Equity Funds
- Debt Funds
- Hybrid Funds
- Solution Oriented Funds
- Index Funds and ETFs
- Fund of funds / Feeder funds
- International funds
- Infrastructure debt funds (NBFC IDF & MF IDF)
- REMF
- Comparison among fund categories

In December 2017, SEBI issued a circular streamlining the classification and categorization of mutual fund schemes.

The objective was to bring uniformity in the characteristics of similar type of schemes launched by different mutual fund houses so that the investor is able to objectively evaluate the schemes chosen for investment. Accordingly, there are five broad categories within the open-ended mutual fund schemes. Within each category, there are many sub-categories.⁷

- A. Equity Schemes (10 sub-categories)
- B. Debt Schemes (15 sub-categories)
- C. Hybrid Schemes (7 sub-categories)
- D. Solution-Oriented Schemes (2 sub-categories)
- E. Other Schemes (4 sub-categories)

Subsequently, in 2020, within the equity funds category, the definition of “multi-cap funds”⁸ was modified and a new sub-category “flexicap funds”⁹ was introduced.

⁷ SEBI Circular No. SEBI/HO/IMD/DF3/CIR/P/2017/114 dated October 6, 2017 and SEBI/HO/IMD/DF3/CIR/P/2017/126 dated December 4, 2017

⁸SEBI circular no. SEBI/HO/IMD/DF3/CIR/P/2020/172 dated September 11, 2020

⁹SEBI circular no. SEBI/HO/IMD/DF3/CIR/P/2020/228 dated November 6, 2020

2.1 Equity schemes

1. Multi-Cap Fund: An open-ended equity scheme investing across large-cap, mid-cap, small-cap stocks (See Box 2.1 for the definition of large-cap, mid-cap and small-cap). The minimum investment in equity and equity-related instruments shall be 65 percent of total assets. Later, in September 2020 SEBI issued a circular to define the asset allocation for this category more specifically. As per the circular, the scheme characteristics of the Multi-Cap Funds would be modified as under:

Minimum investment in equity & equity related instruments - 75% of total assets in the following manner:

- Minimum investment in equity & equity related instruments of large-cap companies - 25% of total assets
- Minimum investment in equity & equity related instruments of mid-cap companies - 25% of total assets
- Minimum investment in equity & equity related instruments of small-cap companies - 25% of total assets

In other words, a multi-cap fund must have a certain minimum allocation to all the three market capitalization categories.

Box 2.1: Definition of Large-cap, Mid-cap and Small-cap:

SEBI has also defined the categories in terms of market capitalization of the firms. The circular defines large cap, mid cap and small cap as follows:

1. Large Cap: 1st-100th company in terms of full market capitalization
2. Mid Cap: 101st-250th company in terms of full market capitalization
3. Small Cap: 251st company onwards in terms of full market capitalization

Mutual funds would be required to adopt the list of stocks prepared by AMFI in this regard and AMFI is required to adhere to the following points while preparing the list:

- a) If a stock is listed on more than one recognized stock exchange an average of full market capitalization of the stock on all such stock exchanges will be computed.
- b) In case a stock is listed on only one of the recognized stock exchanges, the full market capitalization of that stock on such an exchange will be considered.
- c) This list would be uploaded on the AMFI website and the same would be updated every six months based on the data as on the end of June and December of each year. The data shall be available on the AMFI website within 5 calendar days from the end of the 6 months period.

2. Flexi Cap Fund: Once the scheme characteristics of the Multi-Cap Fund category was modified, there was a need to create a new category, giving the fund managers flexibility to decide the allocation levels across market capitalization. Through a circular in November 2020, SEBI allowed one more category, the Flexi Cap Fund. Such a scheme would invest a minimum 65 per cent of total assets in equity and equity-related instruments.

3. Large Cap Fund: An open-ended equity scheme predominantly investing in large-cap stocks. The minimum investment in equity and equity-related instruments of large-cap companies shall be 80 percent of total assets.

4. Large and Mid-Cap Fund: An open-ended equity scheme investing in both large-cap and mid-cap stocks. The minimum investment in equity and equity-related instruments of large-cap companies shall be 35 percent of total assets. The minimum investment in equity and equity-related instruments of mid-cap stocks shall be 35 percent of total assets.

5. Mid Cap Fund: An open-ended equity scheme predominantly investing in mid-cap stocks. The minimum investment in equity and equity-related instruments of mid-cap companies shall be 65 percent of total assets.

6. Small-cap Fund: An open-ended equity scheme predominantly investing in small-cap stocks. Minimum investment in equity and equity-related instruments of small-cap companies shall be 65 percent of total assets.

7. Dividend Yield Fund: An open-ended equity scheme predominantly investing in dividend-yielding stocks. Scheme should predominantly invest in dividend-yielding stocks. The minimum equity investment shall be 65 percent of total assets.

8. Value Fund or Contra Fund: A value fund is an open-ended equity scheme following a value investment strategy. Minimum investment in equity & equity related instruments shall be 65 percent of total assets. A contra fund is an open-ended equity scheme following a contrarian investment strategy. Mutual Funds will be permitted to offer either Value fund or Contra fund.

9. Focused Fund: An open-ended equity scheme investing in a maximum of 30 stocks (the scheme needs to mention where it intends to focus, viz., multi-cap, large-cap, mid-cap, small-cap). Minimum investment in equity & equity related instruments shall be 65 percent of total assets.

10. Sectoral/ Thematic: An open-ended equity scheme investing in a specific sector such as a bank, power is a sectoral fund. While an open-ended equity scheme investing in line with an investment theme. For example, an infrastructure thematic fund might invest in shares of companies that are into

infrastructure, construction, cement, steel, telecom, power etc. The minimum investment in equity & equity related instruments of a particular sector/ particular theme shall be 80 percent of total assets.

11. Equity Linked Savings Scheme (ELSS): An open-ended equity-linked saving scheme with a statutory lock-in of 3 years and tax benefit. The minimum investment in equity and equity related instruments shall be 80 percent of total assets (in accordance with Equity Linked Saving Scheme, 2005 notified by the Ministry of Finance).

2.2 Debt schemes

1. Overnight Fund: An open-ended debt scheme investing in overnight securities. The investment is in overnight securities having a maturity of 1 day.

2. Liquid Fund: An open-ended liquid scheme whose investment is into debt and money market securities with maturity of upto 91 days only.

3. Ultra-Short Duration Fund: An open-ended ultra-short term debt scheme investing in debt and money market instruments with Macaulay duration between 3 months and 6 months.

4. Low Duration Fund: An open-ended low duration debt scheme investing in debt and money market instruments with a Macaulay duration between 6 months and 12 months.

5. Money Market Fund: An open-ended debt scheme investing in money market instruments having maturity upto 1 year.

6. Short Duration Fund: An open-ended short term debt scheme investing in debt and money market instruments with Macaulay duration between 1 year and 3 years.

7. Medium Duration Fund: An open-ended medium-term debt scheme investing in debt and money market instruments with Macaulay duration of the portfolio being between 3 years and 4 years. Portfolio Macaulay duration under anticipated adverse situation is 1 year to 4 years.

8. Medium to Long Duration Fund: An open-ended medium-term debt scheme investing in debt and money market instruments with Macaulay duration between 4 years and 7 years. Portfolio Macaulay duration under anticipated adverse situation is 1 year to 7 years.

9. Long Duration Fund: An open-ended debt scheme investing in debt and money market instruments with a Macaulay duration greater than 7 years.

10. Dynamic Bond: An open-ended dynamic debt scheme investing across duration.

11. Corporate Bond Fund: An open-ended debt scheme predominantly investing in AA+ and above rated corporate bonds. The minimum investment in corporate bonds shall be 80 percent of total assets (only in AA+ and above rated corporate bonds)

12. Credit Risk Fund: An open-ended debt scheme investing in below highest-rated corporate bonds. The minimum investment in corporate bonds shall be 65 percent of total assets (only in AA (excludes AA+ rated corporate bonds) and below rated corporate bonds).¹⁰

13. Banking and PSU Fund: An open-ended debt scheme predominantly investing in debt instruments of banks, Public Sector Undertakings, Public Financial Institutions and Municipal Bonds. The minimum investment in such instruments should be 80 percent of total assets.

14. Gilt Fund: An open-ended debt scheme investing in government securities across maturity. The minimum investment in G-secs is defined to be 80 percent of total assets (across maturity).

15. Floater Fund: An open-ended debt scheme predominantly investing in floating rate instruments (including fixed-rate instruments converted to floating rate exposures using swaps/derivatives). Minimum investment in floating rate instruments (including fixed-rate instruments converted to floating rate exposures using swaps/derivatives) shall be 65 percent of total assets.

2.3 Hybrid Schemes

Conservative Hybrid Fund: An open-ended hybrid scheme investing predominantly in debt instruments. Investment in debt instruments shall be between 75 percent and 90 percent of total assets while investment in equity and equity instruments shall be between 10 percent and 25 percent of total assets.

Balanced Hybrid Fund: An open-ended balanced scheme investing in equity and debt instruments. The investment in equity and equity related instruments shall be between 40 percent and 60 percent of total assets while investment in debt instruments shall be between 40 percent and 60 percent. No arbitrage is permitted in this scheme.

Aggressive Hybrid Fund: An open-ended hybrid scheme investing predominantly in equity and equity related instruments. Investment in equity and equity related instruments shall be between 65 percent and 80 percent of total assets while investment in debt instruments shall be between 20 percent and 35 percent of total assets.

¹⁰Vide SEBI Circular (SEBI/HO/IMD/DF3/CIR/P/2017/114 October 6, 2017) words / phrases that highlight / emphasize only return aspect of the scheme shall not be used in the name of the scheme (for instance credit opportunities fund, high yield fund, credit advantage etc.)

Mutual funds in India are permitted to offer either Aggressive Hybrid Fund or Balanced Fund.

Dynamic Asset Allocation or Balanced Advantage: It is an open-ended dynamic asset allocation fund with investment in equity/debt that is managed dynamically.

Multi-Asset Allocation: An open-ended scheme investing in at least three asset classes with a minimum allocation of at least 10 percent each in all three asset classes. Foreign securities are not treated as a separate asset class in this kind of scheme.

2.3.1 Arbitrage Fund: An open-ended scheme investing in arbitrage opportunities. The minimum investment in equity and equity related instruments shall be 65 percent of total assets.

2.3.2 Equity Savings: An open-ended scheme investing in equity, arbitrage and debt. The minimum investment in equity and equity related instruments shall be 65 percent of total assets and the minimum investment in a debt shall be 10 percent of total assets. The minimum hedged & unhedged investment needs to be stated in the SID. Asset Allocation under defensive considerations may also be stated in the Offer Document.

2.4 Solution-Oriented Schemes

2.4.1 Retirement Fund: An open-ended retirement solution-oriented scheme having a lock-in of 5 years or till retirement age (whichever is earlier). Scheme having a lock-in for at least 5 years or till retirement age whichever is earlier.

2.4.2 Children's Fund: An open-ended fund for investment for children having a lock-in for at least 5 years or till the child attains the age of majority (whichever is earlier). Scheme having a lock-in for at least 5 years or till the child attains the age of majority whichever is earlier.

2.5 Other Schemes

2.5.1 Index Funds/ Exchange Traded Fund: An open-ended scheme replicating/ tracking a specific index. This minimum investment in securities of a particular index (which is being replicated/ tracked) shall be 95 percent of total assets.

2.6 Fund of Funds (Overseas/ Domestic)

An open-ended fund of fund scheme investing in an underlying fund. The minimum investment in the underlying fund shall be 95 percent of total assets.

There can be only one scheme per category, except in the following cases:

1. Index funds and ETFs replicating or tracking different indices,

2. Fund of Funds having different underlying schemes, and
3. Sector funds or thematic funds investing in different sectors or themes

This restriction applies to open-ended funds. Hence, there could be multiple close-ended funds operating within the same category, so long as these are different in terms of launch dates, or the term of the scheme.

This circular has brought in a very big change in that there is a greater degree of standardization across schemes launched by different AMCs.

Apart from the above, let us also take a look at certain other categories permitted by SEBI:

Fixed maturity plans are a kind of close-ended debt fund where the duration of the investment portfolio is closely aligned to the maturity of the scheme. AMCs tend to structure the scheme around pre-identified investments. Further, being close-ended schemes, they do not accept money post-NFO, therefore, the fund manager has a little ongoing role in deciding on the investment options. Such a portfolio construction gives more clarity to investors on the likely returns if they stay invested in the scheme until its maturity (though there can be no guarantee or assurance of such returns). This helps them compare the risk and returns of the scheme with alternative investments.

2.7 Infrastructure Debt funds

IDFs are investment vehicles which can be sponsored by commercial banks and NBFCs in India in which domestic/offshore institutional investors, specially insurance and pension funds can invest through units and bonds issued by the IDFs. IDF-NBFCs would take over loans extended to infrastructure projects which are created through the Public Private Partnership (PPP) route and have successfully completed one year of commercial production. Such take-over of loans from banks would be covered by a Tripartite Agreement between the IDF, Concessionaire and the Project Authority for ensuring a compulsory buyout with termination payment in the event of default in repayment by the Concessionaire.

Infrastructure debt funds act as vehicles for refinancing existing debt of infrastructure companies. This creates extra headroom for the banks, allowing them to lend to fresh infrastructure projects. IDFs can be set up either as trusts or companies. A trust based IDF would be a SEBI regulated mutual fund, whereas a company based IDF would be a RBI regulated NBFC.

IDFs are investment vehicles which can be sponsored by commercial banks and NBFCs in India in which domestic/offshore institutional investors, specially insurance and pension funds can invest through units and bonds issued by the IDFs. IDF-NBFCs would take over loans extended to infrastructure projects which are created through the Public Private Partnership (PPP) route and

have successfully completed one year of commercial production. Such take-over of loans from banks would be covered by a Tripartite Agreement between the IDF, Concessionaire and the Project Authority for ensuring a compulsory buyout with termination payment in the event of default in repayment by the Concessionaire.¹¹

Under SEBI regulations, “Infrastructure debt fund scheme” means a mutual fund scheme that invests primarily (minimum 90% of scheme assets) in the debt securities or securitized debt instrument of infrastructure companies or infrastructure capital companies or infrastructure projects or special purpose vehicles which are created for the purpose of facilitating or promoting investment in infrastructure, and other permissible assets in accordance with these regulations or bank loans in respect of completed and revenue generating projects of infrastructure companies or projects or special purpose vehicles.

If launched by a mutual fund, an infrastructure debt fund scheme shall be launched either as close-ended scheme maturing after more than five years or interval scheme with lock-in of five years and specified transaction period of not more than forty five days as may be specified in the scheme information document. The units of such a fund would be compulsorily listed on a stock exchange in order to provide liquidity option to the investors.

The minimum size of one unit of the fund would be Rs. 10 lacs and the investors need to give a minimum commitment of investing at least Rs. 5 crores in the scheme.

Every infrastructure debt fund scheme shall invest at least ninety percent of the net assets of the scheme in the debt securities or securitized debt instruments of infrastructure companies or projects or special purpose vehicles which are created for the purpose of facilitating or promoting investment in infrastructure or bank loans in respect of completed and revenue generating projects of infrastructure companies or special purpose vehicle.¹²

2.8 Real Estate Mutual Fund

Scheme invests directly or indirectly in real estate assets or other permissible assets in accordance with the SEBI (Mutual Funds) Regulations, 1996. SEBI’s regulations require that at least 35 percent of the portfolio should be held in physical assets. Not less than 75 percent of the net assets of the scheme shall be in real estate assets, mortgage-backed securities (but not directly in mortgages), equity shares or debentures of companies engaged in dealing in real estate assets or in undertaking real estate development projects. Assets held by the fund will be valued every 90 days by two valuers accredited by a credit rating agency. The lower of the two values will be taken to calculate the NAV. These funds are closed-end funds and have to be listed on a stock exchange.

¹¹ Source: <https://www.rbi.org.in/Scripts/FAQView.aspx?Id=90>

¹² Source: <https://www.sebi.gov.in/acts/mfamendaug2011.pdf>

Capital protection-oriented schemes are close-ended schemes designed in a manner that aims to protect the invested capital at the end of the term of the scheme, while also attempting to generate higher returns than fixed-income funds. Towards this purpose, the scheme would invest in a combination of equity and debt securities. The allocation to debt securities would be such that the maturity amount and the accumulated interest would grow to the original capital invested in the scheme. That means, even if the value of equity investments drops to zero, the investor would get the capital back. Let us understand this with an example:

Let us say, the scheme raises Rs. 100. Now the fund manager has to decide on allocating the funds between equity and debt securities.

Let us assume that the scheme has a tenure of 5 years and that the debt portion is invested in AAA-rated corporate debentures. Let us also assume that the yield on these papers is 6% p.a. on average.

In such a case an investment of roughly Rs. 75 would grow to Rs. 100.37 over 5 years if all the interest is reinvested in the same debenture. The balance, i.e., Rs. 25 would be invested in equity securities, so even if this Rs. 25 becomes zero, in a most unlikely event, the investor would get back the capital. However, if equity securities deliver a higher return than debentures, the overall scheme returns would be higher than a debt fund investing entirely in AAA-rated debentures.

Having said that, since the money is invested in AAA-rated corporate bonds, which are not completely free from credit risk, unlike Government Securities, the scheme cannot be called a capital protection scheme.

Exchange Traded funds (ETFs)

Exchange Traded Funds (ETFs) are those mutual fund schemes, whose units are traded on a stock exchange just like any other stock. These funds usually track an index or have a fixed portfolio strategy based on some index so they are passive in nature. In effect they are like a normal mutual fund but the only difference being that while an open-ended fund would have a single NAV at the end of the day at which all the transactions take place the situation is different for the ETF. Since the ETF is traded for the entire day it gives multiple opportunities and prices at which the investor can either enter or exit the fund. This is similar to any other listed securities where there are multiple prices at which transactions take place and this is witnessed for an ETF too. ETFs provide additional liquidity for investors and enable them to take benefit of changes that take place in prices during the day. The downside to this is that the prices might fluctuate quite a bit

and there might be a big gap with the NAV of the fund too. So, investors need to be careful about the price at which they are undertaking their transactions. There is ease of investing in an ETF because one can buy them just like a stock and the minimum investment here is also so small that any investor can participate by having these in their portfolio. Investors who already transact on the stock exchanges and have a demat account can use these for investing in ETFs.

There is a huge variety in terms of the indices on which ETFs are based and hence this provides investors with a lot of choice in terms of their investments and the kind of exposure that they can take. Increasingly mutual funds are also coming out with different variants that employ varying strategies for their ETF offerings.

Internationally, there are ETFs based on three of the four major asset categories we discussed earlier, viz., equity, debt and commodities. Over and above that, there are also ETFs investing in the crypto currencies, too. Apart from the plain vanilla ETFs, internationally, there are many complex ETFs available, viz., leveraged ETFs, inverse ETFs, etc.

In India, ETFs are allowed to invest only in equity, debt and gold. We have ETFs investing in broad and popular indices, as well as sub segments. A list of ETF categories available in India is as under:

1. ETFs investing in equity securities
 - a. Diversified indices, e.g. Nifty, Sensex, Nifty Next 50, etc.
 - b. Sector indices, e.g. Bank Nifty, PSU Banks, Healthcare, etc.
 - c. Theme based, e.g. CPSE ETF, Shariah ETF, ESG Leaders, etc.
2. ETFs investing in international equity securities
 - a. S&P 500 ETF
 - b. Nasdaq ETF
 - c. Hang Seng ETF
3. ETFs investing in debt securities
 - a. ETFs investing in Gilts
 - b. ETFs investing in SDLs and PSU bonds
 - c. ETFs investing in corporate bonds
4. Gold ETFs

2.9 Comparison among fund categories:

Corporate debt funds vs Credit risk funds

	Corporate debt funds	Credit risk funds
Investment universe	Predominantly in high credit quality debt papers issued by companies	Predominantly in low credit quality debt papers issued by companies
Investment restriction	At least 80% of total assets to be invested in papers having AA+ and above rating	At least 65% of total assets to be invested in AA and below rated papers

Liquid funds vs Arbitrage funds

	Liquid funds	Arbitrage funds
Investment universe	Invests in short term debt papers and money market securities	Invests in arbitrage opportunities
Investment restriction	Can invest in debt and money market securities having maturity of up to 91 days only	At least 65% of AUM should be invested in equity and equity related instruments
Scheme category (as per SEBI circular on scheme categorization)	Classified as liquid fund within the broad debt funds category	Classified under the hybrid fund category
Scheme category (for the purpose of taxation)	Non-equity oriented scheme	Equity oriented scheme

Liquid funds vs Ultra-short term bond funds

	Liquid funds	Ultra-short term bond funds
Investment universe	Invests in short term debt papers and money market securities	Invests in short term debt papers and money market securities
Investment restriction	Can invest in debt and money market securities having maturity of up to 91 days only	The scheme's Macaulay Duration to be between 3 months to 6 months

Equity savings funds vs. Conservative hybrid funds

	Equity savings funds	Conservative hybrid funds
Investment universe	Can invest in equity, debt and arbitrage	Predominantly in debt instruments, with some allocation to equity
Investment restriction	Minimum investment in equity and equity related instruments shall be 65 percent of total assets and the minimum investment in a debt shall be 10 percent of total assets	Investment in debt instruments shall be between 75 percent and 90 percent of total assets while investment in equity and equity instruments shall be between 10 percent and 25 percent of total assets
Scheme category (for the purpose of taxation)	Non-equity oriented scheme	Equity oriented scheme

Value funds vs. Dividend yield funds

	Value funds	Dividend yield funds
Investment universe	Predominantly investing in stocks that are priced cheap in the market in comparison to the intrinsic value as per the assessment of the fund manager	Predominantly investing in dividend-yielding stocks
Investment restriction	At least 65% of AUM should be invested in equity and equity related instruments	At least 65% of AUM should be invested in equity and equity related instruments

Value funds vs. Contra funds

	Value funds	Dividend yield funds
Investment style universe	Scheme follows value investment style. Predominantly investing in stocks that are priced cheap in the market in comparison to the intrinsic value as per the assessment of the fund manager	Scheme follows contrarian investment style.
Investment restriction	At least 65% of AUM should be invested in equity and equity related instruments	At least 65% of AUM should be invested in equity and equity related instruments

Sectoral funds vs Thematic funds

	Sectoral funds	Thematic funds
Investment universe	Investing in a specific sector such as a bank, power	Investing in line with an investment theme for example, an infrastructure fund
Investment restriction	Minimum investment in equity & equity related instruments of a particular sector shall be 80 percent of total assets	Minimum investment in equity & equity related instruments of a particular theme shall be 80 percent of total assets

Multi-cap funds vs Large-and-mid cap funds

	Multi-cap funds	Large-and-mid-cap funds
Investment universe	Invests across large-cap, mid-cap and small-cap stocks	Invests predominantly in large-cap and mid-cap stocks
Investment restrictions	Minimum investment in equity and equity-related instruments of large-cap, mid-cap and small-cap companies shall be at least 25 percent of total assets each	Minimum investment in equity and equity-related instruments of large-cap companies as well as mid-cap companies shall be 35 percent of total assets each.

Multi-cap funds vs Flexi-cap funds

	Multi-cap funds	Flexi-cap funds
Investment universe	Invests across large-cap, mid-cap and small-cap stocks	Can invest across large-cap, mid-cap and small-cap stocks
Investment restrictions	Minimum investment in equity and equity-related instruments of large-cap, mid-cap and small-cap companies shall be at least 25 percent of total assets each	Minimum investment in equity and equity-related instruments shall be 65 percent of total assets, with no restriction within various market-cap segments

Multi-cap funds vs Focused funds

	Multi-cap funds	Focused funds
Investment universe	Invests across large-cap, mid-cap and small-cap stocks	Can invest across market-capitalisation or within one or two market cap segments as defined in the Scheme Information Document
Investment restrictions	Minimum investment in equity and equity-related instruments of large-cap, mid-cap and small-cap companies shall be at least 25 percent of total assets each	Minimum investment in equity and equity-related instruments shall be 65 percent of total assets. Can invest in maximum 30 stocks only

Chapter 2: Sample Questions

1. Which one of these is correct with respect to certain minimum allocation across market cap in Multi-Cap Funds?
 - a. Minimum 30% of total assets in Large-cap and Small-cap companies
 - b. 25% of total assets in Large-cap, Mid-cap and Small-cap companies**
 - c. Minimum 30% of total assets in Large-cap and Mid-cap companies
 - d. Minimum 35% of total assets in Small-cap and Mid-cap companies

2. In a Flexi-cap fund minimum investment required in equity and equity-related instruments is
 - a. 70%
 - b. 75%
 - c. 60%
 - d. 65%**

3. Which of these is true with respect to Focused Funds?
 - a. Maximum investments in 30 stocks
 - b. Scheme needs to mention multi-cap, large-cap, mid-cap, small-cap
 - c. 65% of total assets in equity & equity related instruments
 - d. All of these**

4. Identify the key features of a Liquid Fund
 - a. Open-ended scheme
 - b. Investments in debt and money market schemes
 - c. Maturity of up to 91 days
 - d. All of these**

UNIT 3: COMPETITIVE LANDSCAPE

Learning Objectives:

After studying this chapter, you should understand about:

- Portfolio Management Services
- Alternate Investment Funds
- REIT & INVITs
- Index linked debenture
- NPS
- ULIP/ULPP

While many investors still manage their investments, there is an increasing trend towards taking professional help. That is where products like mutual funds step in. However, that is not the only option available. This workbook is about mutual funds, whereas this chapter is dedicated to the universe of products that compete with mutual funds.

The following is a list of some products (not an exhaustive list) that compete with mutual funds for the wallet share of an investor:

- 1) PMS
- 2) Alternative Investment Funds
 - a. Venture Capital Funds
 - b. Angel Funds
 - c. Private Equity Funds
 - d. Hedge Funds
- 3) NPS
- 4) ULIP/ULPP
- 5) REITs
- 6) INVITs

3.1 Portfolio Management Services (PMS)

Portfolio Management Service is a managed investment vehicle, which can potentially offer tailored solutions to meet specific investment objectives. The portfolio manager manages the investors' money through investing the same in stocks, bonds, and other securities. The asset allocation would be in line with the specific investment objective.

As defined by the securities markets regulator SEBI, a portfolio manager is a body corporate, which, pursuant to a contract with a client, advises or directs or undertakes on behalf of the client

(whether as a discretionary portfolio manager or otherwise) the management or administration of a portfolio of securities or goods or funds of the client.

There are three types of PMS accounts, viz., (i) discretionary portfolio management, (ii) non-discretionary portfolio management, (iii) advisory services.

1. In discretionary portfolio management service, the portfolio manager individually and independently manages the funds and securities of each client in accordance with the needs of the client. Most of the PMS investors opt for this service.
2. Under the non-discretionary portfolio management service, the portfolio manager manages the funds in accordance with the directions of the client. When investors have certain restrictions regarding where they can or cannot invest or what kind of investments they would like to avoid, such services become ideal.
3. Advisory services differ from the above two, as under this option, the portfolio manager only suggests the investment ideas. The choice as well as execution of the investment decisions rest solely with the investor.

PMS is ideal for an investor who has large capital to invest and is looking for personalised investment solutions and/or personalised interaction with the portfolio managers. It must be noted here that the minimum ticket size for starting a PMS account is Rs. 50 lacs.

3.2 Alternative Investment Funds (AIF)

While PMS offers customisation, there are many restrictions regarding the investments by these schemes. Investors seeking more exotic investments, especially in the unlisted space as well as employing leverage, may look at AIFs.

Alternative Investment Fund or AIF means any fund established or incorporated in India which is a privately pooled investment vehicle that collects funds from sophisticated investors, whether Indian or foreign, for investing it in accordance with a defined investment policy for the benefit of its investors.

AIF does not include funds covered under the SEBI (Mutual Funds) Regulations, 1996, SEBI (Collective Investment Schemes) Regulations, 1999 or any other regulations of the Board to regulate fund management activities. Further, certain exemptions from registration are provided under the AIF Regulations to family trusts set up for the benefit of 'relatives' as defined under Companies Act, 1956, employee welfare trusts or gratuity trusts set up for the benefit of employees, 'holding companies' within the meaning of Section 4 of the Companies Act, 1956 etc.¹³

¹³ Source: https://www.sebi.gov.in/sebi_data/attachdocs/1471519155273.pdf

There are three broad categories under which an AIF can be set up:

1. Category I AIF

AIFs which invest in start-up or early-stage ventures or social ventures or SMEs or infrastructure or other sectors or areas which the government or regulators consider as socially or economically desirable and shall include venture capital funds, SME Funds, social venture funds, infrastructure funds and such other Alternative Investment Funds as may be specified. The sub-categories within this category are:

- a. Venture capital and angel funds
- b. SME funds
- c. Social venture funds
- d. Infrastructure funds

2. Category II AIF

These are AIFs that do not fall in Category I and III and which do not undertake leverage or borrowing other than to meet day-to-day operational requirements.

3. Category III AIF

These AIFs deploy the most complex strategies among the three. These AIFs employ diverse or complex trading strategies and may employ leverage including through investment in listed or unlisted derivatives.

“Social venture fund” means an Alternative Investment Fund which invests primarily in securities or units of social ventures and which satisfies social performance norms laid down by the fund and whose investors may agree to receive restricted or muted returns. A “social venture” means a trust, society or company or venture capital undertaking or limited liability partnership formed with the purpose of promoting social welfare or solving social problems or providing social benefits and includes,

1. public charitable trusts registered with Charity Commissioner;
2. societies registered for charitable purposes or for promotion of science, literature, or fine arts;
3. company registered under section 8 of the Companies Act, 2013;
4. micro finance institutions

“Infrastructure fund” means an Alternative Investment Fund which invests primarily in unlisted securities or partnership interest or listed debt or securitized debt instruments of investee companies or special purpose vehicles engaged in or formed for the purpose of operating, developing or holding infrastructure projects

“SME fund” means an Alternative Investment Fund which invests primarily in unlisted securities of investee companies which are SMEs or securities of those SMEs which are listed or proposed to be listed on a SME exchange or SME segment of an exchange. “SME” means Small and Medium Enterprise and shall have the same meaning as assigned to it under the Micro, Small and Medium Enterprises Development Act 2006 as amended from time to time;

3.2.1 Venture capital fund

“Venture capital fund” means an Alternative Investment Fund which invests primarily in unlisted securities of start-ups, emerging or early-stage venture capital undertakings mainly involved in new products, new services, technology or intellectual property right based activities or a new business model.

3.2.2 Angel fund

An “Angel fund” is a sub-category of “Venture Capital Funds”, which predominantly invest in start-ups through the funds raised from angel investors.

3.3.3 Private equity fund

“Private equity fund” means an Alternative Investment Fund which invests primarily in equity or equity linked instruments or partnership interests of investee companies according to the stated objective of the fund.

3.3.4 Hedge fund

A “hedge fund” means an Alternative Investment Fund which employs diverse or complex trading strategies and invests and trades in securities having diverse risks or complex products including listed and unlisted derivatives.

Unlike PMS, which is a separate account, AIF is a pooled investment vehicle. However, unlike mutual funds, an AIF is a privately pooled vehicle and hence cannot make a public offer. In case of AIF too, the investor must start with large capital. The minimum investment required is Rs. 1 crore as per the regulations.

3.3 National Pension Scheme (NPS)

National Pension System (NPS) is a voluntary¹⁴, defined contribution retirement savings scheme designed to enable the subscribers to make optimum decisions regarding their future through systematic savings during their working life. NPS seeks to inculcate the habit of saving for retirement amongst the citizens. It is an attempt towards finding a sustainable solution to the problem of providing adequate retirement income to every citizen of India.

¹⁴ While NPS is voluntary for others, it is mandatory for government employees

- Under the NPS, individual savings are pooled into a pension fund which are invested by PFRDA regulated professional fund managers as per the approved investment guidelines into the diversified portfolios comprising of government bonds, bills, corporate debentures and shares. These contributions would grow and accumulate over the years, depending on the returns earned on the investment made.
- At the time of normal exit from NPS, the subscribers may use the accumulated pension wealth under the scheme to purchase a life annuity from a PFRDA empanelled life insurance company apart from withdrawing a part of the accumulated pension wealth as lump-sum, if they choose so.

This investment option is slowly and steadily gaining ground as an important choice for accumulating retirement corpus.

3.4 Unit linked Insurance Plan (ULIP)

A ULIP is a Unit Linked Insurance Plan, a hybrid product offering both investment and insurance combined in one product.

ULIPs are essentially savings vehicles with a very small component of life insurance. The policyholder retains the flexibility of investing his savings and switching them amongst the various styles of investment portfolios operated by the insurance company. Unlike in traditional insurance products – term, whole-life or endowment insurance – the policyholder bears all the investment risks in the hope of higher expected returns on his savings. As such, they compete mainly with plain mutual funds.

Unit Linked Pension Plan (ULPP)

Unit Linked Pension Plans are pension accumulation products issued by insurance companies. Most of these products come without any insurance cover, and in that sense, these are almost like mutual funds. However, since these pension plans, certain lock-in provisions are applicable. Like ULIP, these also directly compete with mutual funds. Sometimes, these are also offered as an alternative to NPS.

3.4 Real Estate Investment Trust (REIT)

The Real Estate Investment Trust or REIT is a very popular investment vehicle for investors to diversify into the real estate sector. REITs are financial instruments, and in that sense, they remove or reduce many of the risks associated with physical real estate investing. REITs need a smaller investment amount, and the investors need not worry about some of the risks like encroachment or legal ownership disputes.

The structure of REIT is similar to the mutual funds, in that there is a sponsor, a manager and a trust. The trust owns the real estate on behalf of beneficiary investors and protects their interests

while the manager manages the real estate, as well as takes the buy and sell decisions. The sponsor creates trust, which in turn appoints the manager. The trust also monitors and scrutinizes the dealings and performance of the manager.

Infrastructure Investment Trust (InvIT)

InvITs are collective investment vehicle just like mutual funds. InvITs raise funds from a large number of investors and directly invest in infrastructure projects or through a special purpose vehicle.

The sponsor is usually an infrastructure company that sets up a trust. The trust raises capital by issuing units. The sponsor is required to invest at least up to 15% of the units issued and stay invested for at least three years. In other terms, a sponsor can divest up to 85% of the existing infrastructure projects so that cash is available for new projects. This means InvITs is another avenue to help source funds for the infrastructure companies, through fundraising from securities markets.

Two types of InvITs have been allowed: one, which invests in completed and revenue generation infrastructure projects; the other, which has the flexibility to invest in completed or under-construction projects. InvITs that invest in completed projects take the route of the public offer of its units, while those investing in under-construction projects take the route of a private placement of units. Both forms are required to be listed on stock exchanges.

There is a multi-tier structure, under which there are four parties, viz., trustee, sponsors, investment manager and project manager. Like in the case of mutual funds, the sponsors set up the InvIT – the Infrastructure Investment Trust. The investment managers or the investment management company is like the asset management company in the case of a mutual fund. The project manager or the project management firm is responsible for the execution of various infrastructure projects the InvIT has invested in. This constituent is not present in the case of mutual funds, since MFs invest in various companies' securities. Finally, the trustees oversee the functioning of all three to ensure that all the laws, regulations and rules are complied with and the InvIT is managed in the best interests of the investors.

InvITs allow investors to participate in the growth in the infrastructure sector. Different investment options may offer an opportunity for capital growth or regular income depending on the structure of InvIT.

As per the SEBI board meeting held in June 2021, the minimum size of the market lot for REITs and InvITs has been reduced to be in Rs. 10,000 to Rs. 15,000 range¹⁵.

3.5 Market-linked debentures

A debenture is generally a security issued by a company or a bank or a government that promises a certain rate of interest periodically and return the principal amount at the maturity. Thus, debentures are also called fixed income investment options since majority debentures offer a regular, fixed income to the investors. However, there are a few variants within the debentures, too.

One such variation is available under the “Structured Products” category, where the income or the returns are not fixed unlike traditional debentures. In such debentures, the returns to the debenture holders are linked to the movement of a stock market index, while providing some amount of or complete downside protection.

Such debentures are called “Market-linked debentures” (MLDs, in short), as the investment returns are linked to market price movements. The money collected under these debentures would be invested in a combination of fixed income securities, equity and derivatives. While some basic structured products like capital protection products use only equity and fixed income securities, the market linked debentures mostly use a combination of fixed income securities and derivatives.

The structure

The most basic structure is that of a capital protection product. Let us understand that here:

Let us say the requirement is to create a capital protection structure with a 5-year term. The invested capital is then divided between government security and equity. Some part of the money is invested in government securities with a 5-year maturity period, so that the maturity value including the cumulative interest grows to the original capital invested, while the other portion is exposed to the equity market.

Let us assume that the interest rate on the 5-year government securities is roughly 5.70% p.a. and that a cumulative interest option is available in case of such a security. If we invest a sum of Rs. 75.79, the same would grow to Rs. 100 after 5 years, i.e. on maturity.¹⁶

¹⁵ Circular in this regard is awaited

¹⁶ Using the formula $P = A / (1 + r)^n$; where A = Rs. 100, r = 5.70% p.a., and n = 5 years

So, the product could be structured as one investing Rs. 75.79 in 5-year government security and Rs. 24.21 in a portfolio of equity shares or an index. Let us look at various scenarios assuming various rates of returns on the equity portfolio:

Assumed RoI		-25%	-20%	0%	5%	10%	25%
Value after 5 years	Equity	₹ 5.74	₹ 7.93	₹ 24.21	₹ 30.90	₹ 38.99	₹ 73.88
	Portfolio	₹ 105.74	₹ 107.93	₹ 124.21	₹ 130.90	₹ 138.99	₹ 173.88

Since the fixed income part of the portfolio is likely to grow from Rs. 74.79 to Rs. 100, the overall portfolio value would be a function of the value of the equity portfolio.

In an unlikely event of the equity portfolio losing all the value, i.e. if the value of the entire equity portfolio becomes zero, the investor would still get the capital back, since the value of government securities would have been Rs. 100.

This is the simplest of the structures under the structured products. With the use of derivatives, the product features can be enhanced and customized to suit the investor needs.

There are few important aspects to keep in mind:

- Downside protection

Depending on the risk profile of the investor, one may want 100% capital protection, as we saw earlier, or one may be ready to accept some downside, say not more than 10% or 20% over the term of the debenture. The upside may vary depending on how much downside an investor is ready to accept.

- Participation rate

There are structured products where the participation rate in the equity markets can be customized, e.g. 80% participation would mean that if the index moves up by 100% over the term, the portfolio value would move up by 80%.

The risk-return trade-off must always be remembered. Someone asking for higher participation would have to be ready for higher risk of potential downside.

- Floor and ceiling

With the use of option contracts, in particular, one may decide to put a floor rate on the downside. However, in most such cases, the upside may also get capped in terms of a ceiling commensurate with the floor rate.

Size of various markets:

In order to take a look at the market size, one needs to look at the data. However, different products and different segments report their numbers in different ways. While some report the assets under management, some others report funds raised or sales generated during a period. Still, it gives a fair idea of the size of the respective markets, as presented below.

Portfolio Management Service

PMS reported for the month - September 2021

	Discretionary	Non-Discretionary	Advisory**
No. of Clients	1,21,186	7,974	1,854
AUM (Rs. Crore)			2,04,026
Listed Equity	2,16,768	19,397	
Unlisted Equity	470	277	
Plain Debt Listed	16,07,375	99,183	
Plain Debt Unlisted	32,881	1,382	
Structured Debt Listed	2,122	1,397	
Structured Debt Unlisted	89	1	
Derivative-Equity	447	-	
Derivative-Commodity	-	-	
Derivative-Others	4	-	
Mutual Fund	19,004	27,126	
Others	11,270	5,254	
Total	18,90,431	1,54,018	
Grand Total #	22,48,475		
	Discretionary	Non-Discretionary	Total
EPFO/PF	16,36,135	2,269	16,38,404
Non EPFO	2,54,296	1,51,749	4,06,045

Notes :

**Value of Assets for which Advisory Services are being given.

of the above AUM Rs. 1,638,404/- Crores are contributed by funds from EPFO/PFs.

The above data is based on the monthly report received from Portfolio Managers.

Source: REPORT OF PORTFOLIO MANAGERS - As on September 30, 2021; www.sebi.gov.in

Fund raising by REITs and InvITs

April 2020 - March 2021

Mode of Fund raising	Number	Amount (INR crores)
Total funds mobilised by REITs	3	14300
Listed REITs	3	14300
Total funds mobilised by InvITs	2	40431.55
Listed InvITs	1	25215
Unlisted InvITs	1	15216.55
Total funds mobilised by REITs & InvITs*	5	54731.55
Listed	4	39515
Unlisted	1	15216.55

** includes funds raised through public issue, private placement, preferential issue, institutional placement, rights issue*

April 2021 - September 30, 2021

Mode of Fund raising	Number	Amount (INR crores)
Total funds mobilised by REITs	0	0
Listed REITs	0	0
Total funds mobilised by InvITs	5	10460.27
Listed InvITs	4	10078.64
Unlisted InvITs	1	381.63
Total funds mobilised by REITs & InvITs*	5	10460.27
Listed	4	10078.64
Unlisted	1	381.63

** includes funds raised through public issue, private placement, preferential issue, institutional placement, rights issue*

Source: Fund raising by REITs and InvITs; www.sebi.gov.in

Industry wise Cumulative Investment Details of SEBI Registered Venture Capital Funds (VCF) and Foreign Capital Investors (FVCI)			
Particulars	as on March 31, 2017 (Rs. in Crore)		
Sectors of Economy	VCF	FVCI	Total*
Information Technology	1210	4805	5776
Telecommunication	707	5664	6063

Pharmaceuticals	313	192	494
Biotechnology	150	275	425
Media/Entertainment	391	771	1039
Services Sector	2738	2518	3638
Industrial Products	1018	492	1230
Real estate	8190	485	8238
<u>Others</u>	14096	30830	37768
Total	28813	46031	64670

**excludes Rs.10219 crore of FVCI investments through VCFs*

Note: The above report is compiled on the basis of quarterly information submitted to SEBI by registered Venture Capital Funds and Foreign Venture Capital Investors.

Source: www.sebi.gov.in

National Pension Scheme / Atal Pension Yojana

Sector	AUM as on Sept-2019	AUM as on Sept-2020
Central Govt	1,24,703	1,60,606
State Govt	1,86,849	2,50,260
Corporate	3,631	50,730
All citizens model	8,743	16,224
NPS lite	36,340	4,068
APY	11,127	13,042
Total	3,71,393	4,94,930

All figures are in Rs. Crores

(Source: PFRDA Annual Report 2019-20)

Life Insurance

	LIC	Private sector	Total
Linked premium	761.58	82,288.08	83,049.66
Non-linked premium	3,78,628.02	1,11,232.51	4,89,860.53

(All figures are in Rs. Crores)

(Source: IRDAI Annual Report 2019-20)

Chapter 3: Sample Questions

1. Which one of these is/are type of accounts in Portfolio Management Services (PMS)
 - a. Discretionary portfolio management
 - b. Non-discretionary portfolio management
 - c. Advisory services
 - d. **All of these**

2. Discretionary portfolio management has the following characteristics:
 - a. Portfolio Manager independently manages funds and securities
 - b. Funds and securities are managed in accordance with client's investment needs
 - c. **Both (a.) and (b.)**
 - d. Neither (a.) and (b.)

3. Portfolio Management Services (PMS) is most suitable to
 - a. Investors with an investible capital of Rs 50 lakhs or more
 - b. Investors looking for personalized investment solutions
 - c. Prefer a dedicated portfolio manager
 - d. **All of these**

4. Identify the key characteristics of a Social Venture Fund
 - a. An Alternative Investment Fund (AIF) investing primarily in securities or units of social ventures
 - b. Social Ventures mean trust, society or company formed for promoting social welfare
 - c. **Both (a.) and (b.)**
 - d. Only (a.)

UNIT 4: VALUATION OF SECURITIES FOR MUTUAL FUND SCHEMES AND ACCOUNTING

Learning Objectives:

After studying this chapter, you should understand about:

- Understand and analyse how investments are valued in schemes
- Computation of Net Assets of Mutual Fund Scheme and NAV
- Income Distribution and Capital Withdrawal (ICDW – erstwhile Dividend) & Distributable Reserves

Part A: Valuation of Securities for Mutual Fund Schemes

Fair Valuation Principles

As we have seen earlier, a mutual fund is a pooled investment vehicle. An investor in a mutual fund scheme is the beneficial owner of the fund in proportion to the units one owns. This means the ownership of the mutual fund scheme is collectively in the hands of all the investors at any point in time. At the same time, the investors can sell their units and new investors can buy. Thus, periodically, the ownership could also change. New unitholders can enter the scheme and at the same time, existing unitholders can sell all or part of their holdings. In such a case, it becomes very important that any investor in the scheme gets a fair price for one's investments and redemptions.

In order to ensure such fair treatment to all investors, SEBI has laid down certain fair valuation principles.

The asset management companies are required to compute and carry out valuation of investments made by its scheme(s) in accordance with the investment valuation norms specified in the Eighth Schedule of SEBI (Mutual Funds) Regulations, 1996. The primary objective behind the introduction of these principles was to ensure fair treatment to all investors including existing investors as well as investors seeking to purchase or redeem units of mutual funds in all schemes at all points of time. At the same time, the valuation principles also address the mispricing risk and reduce the vulnerability of short-term debt-oriented schemes to redemption pressure.

The 10 principles as laid out by SEBI are as under¹⁷:

Principle No.1:

The valuation of investments shall be based on the principles of fair valuation i.e., valuation shall be reflective of the realizable value of the securities/assets. The valuation shall be done in good faith and in a true and fair manner through appropriate valuation policies and procedures.

Principle No.2:

The policies and procedures approved by the Board of the Asset Management Company shall identify the methodologies that will be used for valuing each type of securities/assets held by the mutual fund schemes. Investment in a new type of securities/assets by the mutual fund scheme shall be made only after the establishment of the valuation methodologies for such securities with the approval of the Board of the asset management company.

Principle No.3:

The assets held by the mutual funds shall be consistently valued according to the policies and procedures. The policies and procedures shall describe the process to deal with exceptional events where market quotations are no longer reliable for a particular security.

Principle No.4:

The asset management company shall provide for the periodic review of the valuation policies and procedures to ensure the appropriateness and accuracy of the methodologies used and its effective implementation in valuing the securities/assets. The Board of Trustee and the Board of an Asset Management Company shall be updated on these developments at appropriate intervals. The valuation policies and procedures shall be regularly reviewed (at least once in a Financial Year) by an independent auditor to seek to ensure their continued appropriateness.

¹⁷ EIGHTH SCHEDULE: Securities and Exchange Board of India (Mutual Funds) Regulations, 1996 [Regulation 25(19), 47]:
INVESTMENT VALUATION NORMS

Principle No.5:

The valuation policies and procedures approved by the Board of asset management company should seek to address conflict of interest.

Principle No.6:

Disclosure of the valuation policy and procedures (with regard to valuation of each category of securities/assets where the scheme will invest, situation where these methods will be used, process and methodology and impact of the implementation of these methods, if any) approved by the Board of the asset management company shall be made in Statement of Additional Information, on the website of the asset management company /mutual fund and at any other place where the Board may specify to ensure transparency of valuation norms to be adopted by Asset Management Company.

Principle No.7:

The responsibility of true and fairness of valuation and correct NAV shall be of the asset management company, irrespective of disclosure of the approved valuation policies and procedures i.e., if the established policies and procedures of valuation do not result in fair/ appropriate valuation, the asset management company shall deviate from the established policies and procedures in order to value the assets/ securities at the fair value provided that:

- any deviation from the disclosed valuation policy and procedures may be allowed with appropriate reporting to the Board of Trustees and the Board of the asset management company and appropriate disclosures to investors.

Principle No.8:

The Asset Management Company shall have policies and procedures to detect and prevent incorrect valuation.

Principle No.9:

Documentation of rationale for valuation including inter scheme transfers shall be maintained and preserved by the asset management company as per regulation 50 of SEBI (Mutual Fund) Regulations, 1996 to enable audit trail.

Principle No.10:

In order to have fairness in the valuation of debt and money market securities, the asset management company shall take into consideration prices of trades of the same security or similar security reported at all available public platform.

In addition to the above, a mutual fund may value its investments according to the Valuation Guidelines notified by SEBI. In case of any conflict between the Principles of Fair Valuation and Valuation Guidelines, the Principles of Fair Valuation detailed above shall prevail. The computation of Net Assets of the mutual fund scheme and the NAV is carried out on the basis of these principles and guidelines.

4.1 Valuation

A mutual fund scheme invests the investors' money in a portfolio of securities created and managed based on the investment objective and strategy of the scheme. The investments include securities, money market instruments, privately placed debentures, securitised debt instruments, gold and gold-related instruments, real estate assets and infrastructure debt instruments and assets. The NAV of the scheme will depend upon the value of this portfolio, which in turn, depends upon the value of the securities held in it. The valuation of these securities to determine the net asset value has to be done in accordance with the valuation guidelines laid down by SEBI and AMFI.

The principle of mark-to-market valuation

The process of valuing each security in the investment portfolio of the scheme at its current market value is called '*mark to market*' i.e., marking the securities to their market value. Why is this done?

The NAV is meant to reflect the true worth of each unit of the scheme because investors buy or sell units on the basis of the information contained in the NAV. If investments are not marked to market, then the investment portfolio will end up being valued at the cost at which each security was bought. Valuing shares of a company at their acquisition cost, say Rs.15, is meaningless if those shares have appreciated to, say Rs. 50. If the scheme were to sell the shares at the time, it would recover Rs. 50 and not Rs. 15. When the NAV captures the movement of the share from Rs.15 to Rs. 50, then it is meaningful for the investors.

What happens if the portfolio was not marked to market and investors are issued units post the NFO also at the face value of the unit?

Consider the following example:

Unit Capital	Rs. 1,00,000
Face Value per unit	Rs. 10
No. of units issued (Unit Capital / Face Value per unit)	10,000 units (Rs. 1,00,000/ Rs. 10 per unit)
Net Asset of the scheme	Rs. 1,50,000
Net Asset Value (Net Asset of the scheme/ No. of units issued)	Rs. 15 (Rs. 1,50,000/ 10,000)

CASE 1

Assume an investor buys 100 units when the NAV is Rs. 15 and the units are issued to him at the face value of Rs. 10. Post the purchase, the schemes numbers will be as follows:

Particulars	Value	Calculation
Unit Capital	Rs. 101000	Rs. {100000 + (100 * 10)}
No. of outstanding units	10100 units	(10000 + 100) units OR (Rs. 101000 / Rs. 10 per unit)
Net Assets	Rs. 151000	Rs. {150000 + (100 * 10)}
Net Asset Value (NAV)	Rs. 14.95	Rs. (151000 / 10100)

CASE 2

Assume an investor redeems 100 units when the NAV is Rs. 15 and the units are redeemed at the face value of Rs. 10. Post the redemption the schemes numbers will look as follows:

Particulars	Value	Calculation
Unit Capital	Rs. 99000	Rs. {100000 – (100 * 10)}
No. of outstanding units	9900 units	(10000 – 100) units OR (Rs. 99000 / Rs. 10 per unit)
Net Asset	Rs. 149000	Rs. {150000 – (100 * 10)}
Net Asset Value	Rs. 15.05	Rs. (149000 / 9900)

Issuing fresh units at a price lower than the NAV will result in the post-issue NAV coming down for all investors (Case 1). Redeeming units at price lower than the NAV will increase the NAV for the remaining investors (Case 2).

Thus, marking-to-market (MTM) helps investors buy and sell units of a scheme at fair prices, which are determined based on transparently calculated and freely shared information on NAV.

Such mark-to-market based NAV also helps in assessing the performance of the scheme/fund manager.

Looking at the other way, the NAV of a mutual fund is also known as the net realisable value. From that point of view also, mark-to-market valuation is in line with the basic principle behind NAV calculation.

4.1.1 Valuation of equity securities

Mutual funds are allowed to invest in listed as well as unlisted equity securities. Even within listed securities, some could be thinly traded or non-traded. The valuation of listed and traded securities is quite straightforward since the valuation is determined by market forces. However, even there, question may arise as to which price should be taken if the stock is trading on more than one stock exchanges. As per the SEBI regulations, when the securities are traded on more than one recognised stock exchange, the securities shall be valued at the last quoted closing price on the stock exchange where the security is principally traded. It would be left to the asset management company to select the appropriate stock exchange, but the reasons for the selection should be recorded in writing. There should, however, be no objection for all scrips being valued at the prices quoted on the stock exchange where a majority in value of the investments are principally traded. However, once a stock exchange has been selected for valuation of a particular security, reasons for the change of the exchange shall be recorded in writing by the asset management company.

These provisions would work quite well when the security is regularly traded on the principal (or the selected) stock exchange. However, what would happen if even a single trade does not take place?

- When on a particular valuation day, security has not been traded on the selected stock exchange, the value at which it is traded on another stock exchange may be used.
- When a security is not traded on any stock exchange on a particular valuation day, the value at which it was traded on the selected stock exchange or any other stock exchange, as the case may be, on the earliest previous day may be used provided such date is not more than thirty days prior to the valuation date.

Valuation of thinly-traded and non-traded securities

SEBI regulations define thinly-traded equity securities. When trading in an equity and/or equity-related security (such as convertible debentures, equity warrants etc.) in a month is both less than Rs.5 lacs and the total volume is less than 50,000 shares, the security shall be considered as thinly traded security and valued accordingly. In order to determine whether a security is thinly

traded or not, the volumes traded in all recognized Stock Exchanges in India may be taken into account.

Let us look at three examples:

- a. Volume of trade: 60,000 shares; value of trade: Rs. 3,00,000 – these shares do not qualify as thinly traded
- b. Volume of trade: 30,000 shares; value of trade: Rs. 6,00,000 – these shares do not qualify as thinly traded
- c. Volume of trade: 30,000 shares; value of trade: Rs. 3,00,000 – these shares would qualify as thinly traded

When a security is not traded on any stock exchange for a period of thirty days prior to the valuation date, the scrip must be treated as a 'non-traded scrip'.

AMCs shall value non traded and/or thinly traded securities "in good faith" based on the Valuation norms prescribed below:

1. Net Worth per share = [Share Capital+ Reserves (excluding Revaluation Reserves) – Miscellaneous expenditure and Debit Balance in Profit and Loss Account] / Number of Paid-up Shares.
2. Average Capitalization rate (P/E ratio) for the industry based upon either BSE or NSE data (which shall be followed consistently and changes, if any, noted with proper justification thereof) shall be taken and discounted by 75 per cent i.e., only 25 per cent. Of the industry average P/E shall be taken as Capitalization rate (P/E ratio). Earnings per share (EPS) of the latest audited annual accounts shall be considered for this purpose.
3. The Net Worth per share (as calculated in 1 above) and the capital earning value (as calculated in 2 above) shall be averaged and further discounted by 10 per cent to adjust for illiquidity so as to arrive at the fair value per share.
4. In case the EPS is negative, the EPS value for that year shall be taken as zero for arriving at capitalised earning.

In case where the latest Balance Sheet of the company is not available within nine months from the close of the year, unless the accounting year is changed, the shares of such companies shall be valued at zero.

In case of trading in an equity, security is suspended for up to thirty days, then the last traded price shall be considered for valuation of that security. If equity security is suspended for more than thirty days, then the AMC(s) or Trustees shall decide the valuation norms to be followed and such norms shall be documented and recorded.

Valuation of equity-related securities

There could be certain equity-related securities in the scheme's portfolios, which need to be fairly valued. If the same are non-traded, the following principles should be adopted: —

- a. Equity instruments shall generally be valued on the basis of capitalization of earnings solely or in combination with the net asset value, using for the purposes of capitalization, the price-to-earnings ratios of comparable traded securities and with an appropriate discount for lower liquidity;
- b. In respect of convertible debentures and bonds, the non-convertible and convertible components shall be valued separately. The non-convertible component should be valued on the same basis as would be applicable to a debt instrument. The convertible component should be valued on the same basis as would be applicable to an equity instrument. If, after conversion, the resultant equity instrument would be traded pari passu with an existing instrument which is traded, the value of the latter instrument can be adopted after an appropriate discount of the non-traceability of the instrument during the period preceding the conversion while valuing such instruments, the fact whether the conversion is optional should also be factored in;
- c. In respect of warrants to subscribe for shares attached to instruments, the warrants can be valued at the value of the share which would be obtained on the exercise of the warrant as reduced by the amount which would be payable on exercise of the warrant. A discount similar to the discount to be determined in respect of convertible debentures [as referred to above] must be deducted to account for the period which must elapse before the warrant can be exercised

Valuation of unlisted equity securities

SEBI regulations also define which equity securities should be classified and treated as non-traded securities.

When security (other than Government Securities, money market and debt securities) is not traded on any Stock Exchange for a period of thirty days prior to the valuation date, the scrip shall be treated as non-traded security.

Unlisted equity shares of a company shall be valued "in good faith" as below:

- a. Based on the latest available audited balance sheet, Net Worth shall be calculated as the lower of the item (a.1) and (a.2) below:
 - a.1 Net Worth per share = [Share Capital + Free Reserves (excluding revaluation reserves) – Miscellaneous expenditure not written off or deferred revenue expenditure, intangible assets and accumulated losses] / Number of Paid-up Shares.
 - a.2 After taking into account the outstanding warrants and options, Net Worth per share shall again be calculated and shall be = [Share Capital + consideration on exercise of

Option and/or Warrants received/receivable by the Company + Free Reserves(excluding Revaluation Reserves) – Miscellaneous expenditure not written off or deferred revenue expenditure, intangible assets and accumulated losses] / Number of Paid-up Shares plus Number of Shares that would be obtained on conversion and/or exercise of Outstanding Warrants and Options.

- b Average capitalisation rate (P/E ratio) for the industry based upon either BSE or NSE data (which shall be followed consistently and changes, if any, noted with proper justification thereof) shall be taken and discounted by 75 per cent. i.e., only 25 per cent of the industry average P/E shall be taken as capitalisation rate (P/E ratio). Earnings per share (EPS) of the latest audited annual accounts will be considered for this purpose. In case the EPS is negative, the EPS value for that year shall be taken as zero for arriving at capitalised earning.

The lower of (a.1) and (a.2) above shall be used for the calculation of Net Worth per share. Then the average of this net worth and the capitalization (as calculated in b above) shall be taken and further discounted by 15 per cent for illiquidity so as to arrive at the fair value per share. If the Net Worth of the company is negative, the share would be marked down to zero.

Since these are unlisted securities, there are stringent conditions imposed, e.g., the lower of two figures is to be taken for the purpose of calculation of the net worth, and then even the lower number is reduced by further discounting the same by 15%. The PE ratio for valuation is also discounted by 75% of the industry average. However, since the net worth is derived from the financial statements, the same must be audited and current. If the latest Balance Sheet of the company is not available within nine months from the close of the year, unless the accounting year is changed, the shares of such companies shall be valued at zero.

At the discretion of the AMCs and with the approval of the Trustees, unlisted equity shares may be valued at a price lower than the value derived using the aforesaid methodology. The valuation cannot be higher than the valuation arrived at using the method discussed here. At the same time, Mutual Funds shall not make Investment in unlisted equity shares at a price higher than the price obtained by using the aforesaid methodology. However, this restriction is not applicable for the investment made in the Initial Public Offers (IPOs) of the companies or firm allotment in public issues where all the regulatory requirements and formalities pertaining to public issues have been complied with by the companies and where the Mutual Funds are required to pay just before the date of public issue.

Accounting for dividend in case of equity securities

The dividend paid by the company would be accounted for in full on the record date.

4.1.2 Valuation of Debt securities

The valuation of debt securities is different from equity since the current income in form of interest is factored in the valuation. At the same time, there is a need to make provisions for Non-Performing Assets (NPAs) in the valuation, too.

Before we get into the discussion regarding the valuation of debt securities, it is important to take a look at some definitions:

Traded or non-traded money market/debt security:

A money market or debt security shall be considered as traded when, on the date of valuation, there are trades (in marketable lots) in that security on any recognized Stock Exchange or there are trades reported (in marketable lots) on the trade reporting platform of recognized stock exchanges or The Clearing Corporation of India Ltd. (CCIL).

The security would be considered as non-traded if no trades are reported as above on the valuation date.

Below investment grade

A money market or debt security shall be classified as “below investment grade” if the long-term rating of the security issued by a SEBI registered Credit Rating Agency (CRA) is below BBB- or if the short-term rating of the security is below A3.

Default

A money market or debt security shall be classified as “Default” if the interest and/or principal amount has not been received, on the day such amount was due or when such security has been downgraded to “Default” grade by a CRA. In this respect, Mutual Funds shall promptly inform the valuation agencies and the CRAs, any instance of non-receipt of payment of interest and/or principal amount (part or full) in any security.

4.1.2.1 Role of CRAs as valuation agencies

AMFI has appointed valuation agencies to provide the AMCs with valuation models. The valuation of untraded securities must be done in line with these models. Based on various statistical models, these agencies arrive at an estimated valuation for securities within various buckets. These buckets are a combination of duration and credit rating.

Mutual Funds shall promptly inform the valuation agencies and the CRAs, any instance of non-receipt of payment of interest and/or principal amount (part or full) in any security. This would ensure uniformity of valuation across the entire mutual fund industry.

Valuation approaches for debt securities

The valuation of debt and money market securities is done on a mark-to-market basis in case of traded securities. However, Amortization based valuation is permitted for money market and debt securities including floating rate securities, with residual maturity of upto 30 days, subject to certain conditions.

Floating rate securities with residual maturity of up to 30 days and a floor and cap on the coupon rate, the valuation would be done on an amortization basis. However, the coupon rate would be considered as the floor rate.

Valuation of money market and debt securities which are rated below investment grade

1. In order to have uniformity and consistency across the Mutual Fund industry on the valuation of money market and debt securities rated below investment grade, the following has been decided:

- i. All money market and debt securities that are rated below investment grade shall be valued at the price provided by valuation agencies.
- ii. Till such time the valuation agencies compute the valuation of money market and debt securities classified as below investment grade, such securities shall be valued on the basis of indicative haircuts provided by these agencies. These indicative haircuts shall be applied on the date of credit event i.e., migration of the security to sub-investment grade and shall continue till the valuation agencies compute the valuation price of such securities. Further, these haircuts shall be updated and refined, as and when there is the availability of material information that impacts the haircuts.
- iii. Consideration of traded price for valuation:
 - a) In case of trades during the interim period between the date of credit event and receipt of valuation price from valuation agencies, AMCs shall consider such traded price for valuation if it is lower than the price post standard haircut. The said traded price shall be considered for valuation till the valuation price is determined by the valuation agencies.
 - b) In case of trades after the valuation price is computed by the valuation agencies as referred above and where the traded price is lower than such computed price, such traded price shall be considered for the purpose of valuation and the valuation price may be revised accordingly.
 - c) The trades referred above shall be of a minimum size as determined by valuation agencies.

- iv. AMCs may deviate from the indicative haircuts and/or the valuation price for money market and debt securities rated below investment grade provided by the valuation agencies subject to the following:
 - a) The detailed rationale for deviation from the price post haircuts or the price provided by the valuation agencies shall be recorded by the AMC.
 - b) The rationale for deviation along with details such as information about the security (ISIN, issuer name, rating etc.), the price at which the security was valued vis-a-vis the price post haircuts or the average of the price provided by the valuation agencies (as applicable) and the impact of such deviation on scheme NAV (in amount and percentage terms) shall be reported to the Board of AMC and Trustees.
 - c) The rationale for deviation along with details as mentioned in para (b) above shall also be disclosed to investors. In this regard, all AMCs shall immediately disclose instances of deviations under a separate head on their website. Further, the total number of such instances shall also be disclosed in the monthly and half-yearly portfolio statements for the relevant period along with an exact link to the website wherein the details of all such instances of deviation are available.
- v. Treatment of accrued interest, future interest accrual and future recovery:
 - a) The treatment of accrued interest and future accrual of interest, in case of money market and debt securities, classified as below investment grade or default, is detailed below:
 - 1. The indicative haircut that has been applied to the principal should be applied to any accrued interest.
 - 2. In case of securities classified as below investment grade but not default, interest accrual may continue with the same haircut applied to the principal. In case of securities classified as default, no further interest accrual shall be made.
 - b) The following shall be the treatment of how any future recovery should be accounted for in terms of principal or interest:
 - 1. Any recovery shall first be adjusted against the outstanding interest recognized in the NAV and any balance shall be adjusted against the value of principal recognized in the NAV.
 - 2. Any recovery in excess of the carried value (i.e., the value recognized in NAV) should then be applied first towards the amount of interest written off and then towards the amount of principal written off.

4.1.3 Segregated portfolios

The segregated portfolios do not have separate valuation norms in comparison to the normal portfolio. However, since the segregated portfolios can only be created in case of a credit event, the norms stipulated for securities below investment grade would be applicable.

Valuation of debt securities with Put/Call Options:

As discussed earlier, some bonds have call and/or put options. These are also known as option embedded securities. In such cases, the valuation method must factor these options instead of only looking at the maturity. In other words, one may need to look at Yield-To-Call or Yield-To-Put apart from Yield-To-Maturity for the respective security.

The option embedded securities would be valued as follows:

Securities with call option

The securities with call option shall be valued at the lower of the value as obtained by valuing the security to final maturity and valuing the security to call option. In case there are multiple call options, the lowest value obtained by valuing the various call dates and valuing the maturity date is to be taken as the value of the instrument.

Securities with Put option

The securities with put option shall be valued at the higher of the value as obtained by valuing the security to final maturity and valuing the security to put option. In case there are multiple put options, the highest value obtained by valuing the various put dates and valuing the maturity date is to be taken as the value of the instruments.

Securities with both Put and Call option on the same day

Only securities with put/call options on the same day and having the same put and call option price, shall be deemed to mature on such put/call date and shall be valued accordingly. In all other cases, the cash flow of each put/call option shall be evaluated and the security shall be valued on the following basis:

1. Identify a "Put Trigger Date", a date on which "price to put option" is the highest when compared with price to other put options and maturity price.
2. Identify a "Call Trigger Date", a date on which "price to call option" is the lowest when compared with price to other call options and maturity price.
3. In case no Put Trigger Date or Call Trigger Date ("Trigger Date") is available, then valuation would be done to maturity price. In case one Trigger Date is available, then

valuation would be done as to the said Trigger Date. In case both Trigger Dates are available, then valuation would be done to the earliest date.

Valuation of Government Securities

Irrespective of the residual maturity, Government Securities (including T- bills) shall be valued on the basis of security level prices obtained from valuation agencies.

4.1.4 Debt securities – NPA provisioning

A debt asset will be classified as non-performing, if the interest and/or principal amount have not been received or remained outstanding for one quarter from the day such income / instalment has fallen due. The definition of NPA may be applied after a quarter past due date of the interest, e.g. if the due date for interest is 30th June 2021, it will be classified as NPA from 1st October 2021.

After the expiry of the 1st quarter from the date the income has fallen due, there will be no further interest accrual on the asset i.e. if the due date for interest falls on 30.06.2021 and if the interest is not received, accrual will continue till 30.09.2021 after which there will be no further accrual of income. In short, taking the above example, from the beginning of the 2nd quarter there will be no further accrual on income. On classification of the asset as NPA from a quarter past due date of interest, all interest accrued and recognized in the books of accounts of the Fund till the date, should be provided for. For e.g. if interest income falls due on 30.06.2021, accrual will continue till 30.09.2021 even if the income as on 30.06.2021 has not been received. Further, no accrual will be done from 01.10.2021 onwards. Full provision will also be made for interest accrued and outstanding as on 30.06.2021.

Both secured and unsecured investments once they are recognized as NPAs call for provisioning in the same manner and where these are related to close ended scheme the phasing would be such that to ensure full provisioning prior to the closure of the scheme or the scheduled phasing whichever is earlier.

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

- 10% of the book value of the asset should be provided for after 6 months past due date of interest i.e. 3 months from the date of classification of the asset as NPA.
- 20% 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.
- Another 20% of the book value of the assets should 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.

- Another 25% of the book value of the assets should 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% of the book value of the asset should 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.

Book value for the purpose of provisioning for NPAs shall be taken as a value determined as per the prescribed valuation method.

This can be explained by an illustration:

Let us consider that interest income is due on a half yearly basis and the due date falls on 30.06.2021 and the interest is not received till 1st quarter after due date i.e. 30.09.2021. This provisioning will be done in following phased manner:

10% provision	01.01.2022	6 months past due date of interest i.e. 3 months from the date of classification of asset as NPA (01.10.2021)
20% provision	01.04.2022	
20% provision	01.07.2022	
25% provision	01.10.2022	
25% provision	01.01.2023	

Thus, 1 ½ years past the due date of income or 1 ¼ year from the date of classification of the 'asset' as an NPA, the 'asset' will be fully provided for. If any instalment is fallen due, during the period of interest default, the amount of provision should be instalment amount or above provision amount, whichever is higher.

The interest provisions can be written back in full, if a company has fully cleared all the arrears of interest. However, for the asset to be reclassified as performing asset, all the interest arrears must have been paid and then the debt must be serviced regularly for next two quarters. In case the company has fully cleared all the arrears of interest, the interest not credited on accrual basis would be credited at the time of receipt.

1. The provision made for the principal amount can be written back in the following manner :-
 - a. 100% of the asset provided for in the books will be written back at the end of the 2nd quarter where the provision of principal was made due to the interest defaults only.
 - b. 50% of the asset provided for in the books will be written back at the end of the 2nd quarter and 25% after every subsequent quarter where both instalments and interest were in default earlier.

An asset is reclassified as 'standard asset' or 'performing asset' only when both overdue interest and overdue instalments are paid in full and the debt is regularly serviced for a subsequent period of 6 months, i.e. two quarters.

Investments in Deep Discount Bonds can be classified as NPAs, if any two of the following conditions are satisfied:

- If the rating of the Bond comes down to grade 'BB' or below.
- If the company is defaulting in their commitments in respect of other assets, if available.
- Full Net worth erosion.

Provision should be made as per the norms set at (D) above as soon as the asset is classified as NPA. Full provision can be made if the rating comes down to grade 'D'

4.1.5 Valuation of Gold

The gold held by a gold exchange-traded fund scheme shall be valued at the AM fixing price of London Bullion Market Association (LBMA) in US dollars per troy ounce for gold having a fineness of 995.0 parts per thousand, subject to the conditions mentioned in valuation guidelines issued by SEBI in SEBI (MF Regulations), 1996. The valuation must also account for the exchange rate (US Dollars to Indian Rupees) as well as levies applicable.

If on any day the LBMA AM fixing (morning fixing) or FBIL (Financial Benchmark India Pvt Ltd) reference rate is not available due to holiday, then the immediately previous day's prices are applied for the purpose of calculating the value of gold.

Valuation of Foreign securities including ADR and GDR

(i) Traded Securities

For the purpose of valuation of traded foreign securities, the latest available closing prices of the stock exchange on which the security is listed would be considered. In case a security is listed on more than one stock exchanges, the AMC, may, at its discretion choose an appropriate stock

exchange for the said purpose. At the same time, the reasons for such selection shall be recorded in writing and approved by the valuation committee.

Since such stock exchanges may be located in different time zones, the following prices would be considered:

- If the security is listed on a stock exchange in a time zone ahead of India's, than the same day's closing price would be used
- If the security is listed in a time zone behind India's, the previous day's closing price would be used for valuation.

When a security is not traded on a particular valuation day on the selected stock exchange, the last traded price on the other stock exchange or the last available price on the selected stock exchange would be used for valuation, provided such price is not more than 30 days old on the valuation day.

On the valuation date, all assets and liabilities in foreign currency shall be valued in Indian Rupees at the FBIL reference rate as at the close of banking hours on the relevant business day in India.

If the security is listed in the currency for which the FBIL (Financial benchmarks India Pvt Ltd) reference rate is not available, the exchange rates available from Reuters may be used. In case the direct exchange rates are not available on Reuters, then a cross-currency rate with USD would be considered and converted as per the INR/USD FBIL reference rate.

(ii) Non-Traded Securities

Non traded foreign security shall be valued by AMC at fair value after considering relevant factors on case-to-case basis. Non-traded ADR/ GDR shall be valued after considering prices/issue terms of the underlying security. Valuation committee shall decide the appropriate discount for illiquidity.

4.1.6 Valuation of Derivative contracts

All the exchange-traded derivatives would have to be valued on a mark-to-market basis as per the last traded price on any of the principal stock exchanges.

Valuation of mutual fund units

If the units of the mutual fund are traded on the stock exchange, the valuation would be as per the last traded price on the principal exchange. However, in cases where the units are unlisted or non-traded, the valuation would be at NAV.

4.1.7 Valuation of units of InvITs and REITs

The units of InvIT and REIT will be valued at the closing price at the principal stock exchange. If units are not traded on the principal stock exchange on a particular valuation day, the closing price on any other stock exchange where units are traded will be used. If units are not traded on any stock exchange on a particular valuation day, then the closing price at which it traded on the principal stock exchange or any other stock exchange, as the case may be, on the earliest previous day will be used provided such date is not more than 30 days prior to the valuation date.

Where units of InvIT and REIT are not traded on any stock exchange for a continuous period of 30 days then the valuation for such units of InvIT and REIT will be determined based on the procedure determined by the Valuation Committee of the AMC.

Part B: Accounting

4.2 Computation of Net Assets of Mutual Fund Scheme and NAV

4.2.1 Net Assets of Scheme

Let us understand the concept with a simple example.

Investors have bought 20 crore units of a mutual fund scheme at Rs. 10 each. The scheme has thus mobilized 20 crore units X Rs. 10 per unit i.e., Rs 200 crore.

An amount of Rs. 140 crores, invested in equities, has appreciated by 10 percent.

The balance amount of Rs 60 crore, mobilized from investors, was placed in bank deposits.

Interest and dividend received by the scheme is Rs8crore, scheme expenses paid is Rs 4 crore, while a further expense of Rs1crore is payable.

If the above details are to be captured in a listing of assets and liabilities of the scheme, it would read as follows:

Particulars	Amount (Rs. crore)	Particulars	Amount (Rs. crore)
<u>Liabilities</u>		<u>Assets</u>	
Unit Capital (20 crore units of Rs 10 each)	200	Market value of Investments (Rs 140 crore + 10 percent)	154
Profits {Rs 8 crore (interest and dividend received) minus Rs 4 crore (expenses paid) minus Rs 1 crore (expenses payable)}	3	Bank Deposits {Rs 60 crore (original) plus Rs 8 crore (interest and dividend received) minus Rs 4 crore (expenses paid)}	64
Capital Appreciation on Investments held (10 percent of Rs 140 crore)	14		
Unit-holders' Funds in the Scheme	217		
Expenses payable	1		
Scheme Liabilities	218	Scheme Assets	218

The unit-holders funds in the scheme are commonly referred to as “net assets”. The assets of the scheme are the investments held by it. This along with the accrued income which includes dividend or interest due on securities held in the portfolio but not yet received, and receivables, such as the amount due on shares sold, constitute the total assets. The scheme may have some short-term liabilities and accrued expenses. The current liabilities include payables for securities bought and borrowings for a period not exceeding six months to meet liquidity needs.

As is evident from the table:

- Net assets include the amount originally invested, the profits booked in the scheme, as well as the appreciation in the investment portfolio.
- Net assets increase when the market prices of securities held in the portfolio increase, even if the investments have not been sold and profits realized.
- A scheme cannot show better profits by delaying payments. While calculating profits, all the expenses that relate to a period need to be considered, irrespective of whether or not the expense has been paid. In accounting jargon, this is called the accrual principle.
- Similarly, any income that relates to the period will boost profits, irrespective of whether or not it has been actually received in the bank account. This again is in line with the accrual principle.

4.2.2 Net Asset Value (NAV)

In the market, when people talk of NAV, they refer to the value of each unit of the scheme. This is equivalent to:

Unit-holders' Funds in the Scheme (Net Assets) ÷ No. of outstanding Units

In the above example, it can be calculated as:

Rs 217 crore ÷ 20 crore

i.e., Rs 10.85 per unit.

An alternate formula for calculating NAV is:

(Total Assets minus Liabilities other than to Unitholders) ÷ No. of outstanding Units

i.e. (Rs 218 crore – Rs 1 crore) ÷ 20 crore

i.e., Rs 10.85 per unit.

From the above, it follows that:

- Higher the interest, dividend and capital gains earned by the scheme, higher would be the NAV.
- Higher the appreciation in the investment portfolio, higher would be the NAV.
- Lower the expenses, higher would be the NAV.

The summation of these three parameters gave us the *profitability metric* as being equal to:

- (A) + Interest income
- (B) + Dividend income
- (C) + Realized capital gains
- (D) + Valuation gains
- (E) – Realized capital losses
- (F) – Valuation losses
- (G) – Scheme expenses

Example 1: Calculate the NAV given the following information:

- Value of stocks: Rs. 150 crore
- Value of bonds: Rs. 67 crore
- Value of money market instruments: Rs. 2.36 crore
- Dividend accrued but not received: Rs. 1.09 crore
- Interest accrued but not received: Rs. 2.68 crore
- Fees payable: Rs. 0.36 crore
- No. of outstanding units: 1.90 crore

NAV = (Value of stocks + Value of bonds + Value of money market instruments + Dividend accrued but not received + Interest accrued but not received – Fees payable) / No. of outstanding units

$$\text{NAV} = (150 + 67 + 2.36 + 1.09 + 2.68 - 0.36) / 1.90 = 222.77 / 1.90 = \text{Rs. } 117.25$$

Example 2: Calculate the NAV given the following information:

- Value of stocks: Rs. 230 crore
- Value of money market instruments: Rs. 5 crore
- Dividend accrued but not received: Rs. 2.39 crore
- Amount payable on purchase of shares: Rs. 7.5 crore
- Amount receivable on sale of shares: Rs. 2.34 crore
- Fees payable: Rs. 0.41 crore
- No. of outstanding units: 2.65 crore

NAV = (Current value of investments held + Income accrued + Current assets – Current liabilities – Accrued expenses) / No. of outstanding units

Income accrued is the dividend declared but not received. Expenses accrued include fees payable. The NAV is calculated as:

$$\text{NAV} = (230 + 5 + 2.39 + 2.34 - 7.5 - 0.41) / 2.65 = 231.82 / 2.65 = \text{Rs. } 87.48$$

4.2.3 Total Expenses in Mutual Fund Scheme

Types of Expenses

All types of expenses incurred by the Asset Management Company have to be identified and appropriated for all mutual fund schemes.

Investment and Advisory Fees are charged to the scheme by the AMC. The details of such fees are fully disclosed in the offer document.

Recurring Expenses

In addition to the investment and advisory fee, the AMC may charge the mutual fund scheme with recurring expenses including:

- marketing and selling expenses including agents' commission, if any
- brokerage and transaction cost
- registrar services for transfer of units sold or redeemed
- fees and expenses of trustees
- audit fees
- custodian fees
- costs related to investor communication
- costs of fund transfer from location to location
- costs of providing account statements and dividend/redemption cheques and warrants
- insurance premium paid by the fund
- winding up costs for terminating a fund or a scheme
- costs of statutory advertisements
- in case of a gold exchange-traded fund scheme, recurring expenses incurred towards storage and handling of gold
- in case of a capital-oriented scheme, rating fees
- in case of a real estate mutual fund scheme, insurance premia and costs of maintenance of the real estate assets (excluding costs of development of such assets) over and above the expenses specified in Regulation 52 of SEBI (Mutual Fund) Regulations, 1996 to the extent disclosed in the offer document

- listing fees, in case of schemes listed on a recognised stock exchange
- in case of schemes investing in exchange-traded commodity derivatives, recurring expenses incurred towards storage and handling of the underlying goods, due to the physical settlement of such contracts.

Any expense other than the investment advisory fee and recurring expenses shall be borne by the asset management company or trustee or sponsors.

In case of a scheme other than an index fund scheme or an exchange-traded fund, where, as per the scheme information document, the scheme will invest a minimum of sixty-five per cent of its net assets in equity and equity-related instruments, the scheme will be considered as an equity-oriented scheme for the purpose of limits of total expense ratio as specified in the SEBI Mutual Fund Regulations, 1996.

The total expense ratio of the scheme excluding issue or redemption expenses, whether initially borne by the mutual fund or by the asset management company, but including the investment management and advisory fee shall be subject to the following limits:—

(a) in case of fund of funds scheme

(i) investing in liquid schemes, index fund scheme and exchange-traded funds, the total expense ratio of the scheme including a weighted average of the total expense ratio levied by the underlying scheme(s) shall not exceed 1.00 per cent of the daily net assets of the scheme.

(ii) investing a minimum of sixty-five per cent of assets under management in equity-oriented schemes as per scheme information document, the total expense ratio of the scheme including a weighted average of the total expense ratio levied by the underlying scheme(s) shall not exceed 2.25 percent of the daily net assets of the scheme.

(iii) investing in schemes other than as specified above, the total expense ratio of the scheme including the weighted average of the total expense ratio levied by the underlying scheme(s) shall not exceed 2 per cent of the daily net assets of the scheme.

Provided that the total expense ratio to be charged over and above the weighted average of the total expense ratio of the underlying scheme shall not exceed two times the weighted average of the total expense ratio levied by the underlying scheme(s), subject to the overall ceilings as stated above.

(b) in case of an index fund scheme or exchange-traded fund, the total expense ratio of the scheme including the investment and advisory fees shall not exceed 1.00 per cent of the daily net assets.

(c) in case of open-ended schemes other than as specified for fund-of-fund and index fund schemes, the total expense ratio of the scheme shall not exceed the following limits:

Assets under Management Slab (Rs. Crore)	Total Expense Ratio limits for Equity oriented schemes (in percent)	Total Expense Ratio limits for other than equity oriented schemes (in percent)
On the first Rs. 500 crore of the daily net assets	2.25	2.00
On the next Rs 250 crore of the daily net assets	2.00	1.75
On the next Rs 1,250 crore of the daily net assets	1.75	1.50
On the next Rs 3,000 crore of the daily net assets	1.60	1.35
On the next Rs 5,000 crore of the daily net assets	1.50	1.25
On the next Rs.40,000 crores of the daily net assets	Total expense ratio reduction of 0.05 percent for every increase of Rs.5,000 crores of daily net assets or part thereof.	
On the balance of assets	1.05	0.80

(d) in case of close ended and interval schemes,

(i) the total expense ratio of the equity-oriented scheme(s) shall not exceed 1.25 per cent of the daily net assets of the scheme.

(ii) the total expense ratio of close-ended and interval scheme(s) other than schemes specified in clause d (i) above shall not exceed 1.00 per cent of the daily net assets of the scheme.

In addition to the above-mentioned limits, the following expenses may be charged to the scheme:

- i. **Brokerage and transaction cost** incurred for the purpose of execution of trade and is included in the cost of investment to the extent of 0.12 percent for cash market transactions and 0.05 percent for derivatives transactions.
- ii. If the new inflows from beyond the top 30 cities are at least
 - (a) 30 percent of gross new inflows in the scheme or
 - (b) 15 percent of the average assets under management (year to date) of the scheme, whichever is higher, funds can charge the additional expense of up to 0.30 percent of daily net assets of the scheme.¹⁸

In case inflows from beyond the top 30 cities is less than the higher of (a) or (b) above, the additional total expense on daily net assets of the scheme shall be charged as follows:

Daily net assets X 30 basis points X New inflows from beyond top 30 cities

365* X Higher of (a) or (b) above

* 366, where applicable

The additional TER on account of inflows from beyond the top 30 cities so charged shall be credited back to the scheme in case the said inflows are redeemed within a period of 1 year from the date of investment. The additional expenses incurred towards different heads i.e. (a) investment and advisory fee and (b) recurring expenses must be utilised for distribution expenses incurred for bringing inflows from such cities.

¹⁸Top 30 cities based on Association of Mutual Funds in India (AMFI) data on 'AUM by Geography – Consolidated Data for Mutual Fund Industry' as at the end of the previous financial year.

- iii. Mutual funds are also allowed to charge any additional expenses, incurred under the various heads of permitted recurring expenses and investment and advisory fees, not exceeding 0.05 percent of daily net assets of the scheme. However, in the schemes wherein exit load is not levied / not applicable, the above mentioned additional expenses shall not be charged to the schemes.

Expenditure in excess of the said prescribed total expense ratio limit has to be borne by the AMC.

AMCs need to prominently disclose on a daily basis, the TER (scheme-wise, date-wise) of all schemes under a separate head – “Total Expense Ratio of Mutual Fund Schemes” on their website and on the website of AMFI in downloadable spreadsheet format.¹⁹

4.3 Income Distribution and Capital Withdrawal (ICDW – erstwhile Dividend) & Distributable Reserves

As seen earlier, in the calculation of net assets, investments are taken at their market value. This is done, to ensure that sale and re-purchase transactions are effected at the true worth of the unit, including the gains on the investment portfolio.

Similarly, it was seen that income and expense are accounted on the basis of the accrual principle. Therefore, even though they may not have been received or paid, they are accrued as income or expense, if they relate to a period until the accounting date.

Unlike accrued income (which is receivable - it is only a question of time) and accrued expense (which is payable - it is only a question of time), valuation gains in the scheme's portfolio may never get translated into real gains - it is NOT just a question of time. The securities need to be sold, for the scheme to be sure about the capital gains i.e. the capital gains need to be *realized*.

Since the investments in the portfolio are not yet sold, the gains in them are on paper - they are not *realised*. They will be realized when those investments are sold.

SEBI guidelines stipulate that the IDCW can be paid out of *distributable reserves*. In the calculation of distributable reserves:

- All the profits earned (based on the accrual of income and expenses as detailed above) are treated as available for distribution.
- Valuation gains are ignored. But valuation losses need to be adjusted against the profits.

¹⁹For more details, SEBI Circular No. SEBI/HO/IMD/DF2/CIR/P/2018/18 dated February 05, 2018 can be referred.

- That portion of the sale price on new units, which is attributable to valuation gains, is not available as a distributable reserve.

This conservative approach to calculating distributable reserves ensures that dividend is paid out of real and realized profits, after providing for all possible losses.

The trustees shall decide the quantum of IDCW and the record date. The record date is the date used as a cut-off to determine the eligibility to receive the distribution by investors based on the register of unitholders. The NAV will be adjusted at the end of the record date to reflect the payout. Within one day of the trustees' decision, the AMC shall issue a public communication giving the details of the distribution including the record date. The record date shall be five calendar days from the issue of the notice by the AMC. The public notice should clearly state that the NAV will decline pursuant to the pay-out and any statutory levy, if applicable.

The need for notice is not necessary for schemes/plans such as liquid schemes or other debt schemes with distribution frequency ranging from daily to monthly. The SID should have requisite disclosures in this regard. Listed schemes shall follow the requirements stipulated in the listing agreement for the purpose of declaring and distributing dividends (ICDW, in case of mutual funds).

There is no assurance or guarantee to unitholders as to the rate or quantum of such income and/or capital distribution that it will be paid regularly.

Chapter 4: Sample Questions

1. Which of these is true with respect to Mutual fund schemes
 - a. Collectively pooled investment vehicle
 - b. Investor is the beneficial owner of the fund in proportion to units owned
 - c. Investors can buy or sell units of mutual fund schemes
 - d. **All of these**

2. Identify the most appropriate with reference to valuation of investments in mutual fund schemes
 - a. Principle of fair valuation i.e. realizable value of securities/assets applicable
 - b. Valuation to be done in good faith as well as true and fair manner
 - c. Policies and procedures approved by Board of AMC
 - d. **All of these**

3. Mark-to-market valuation entails
 - a. **Valuing each security in the portfolio at its current market value**
 - b. Valuing each security in the portfolio at its potential market value in future
 - c. Valuing each security in the portfolio at its historical value
 - d. None of these

4. Net-asset Value (NAV) reflects
 - a. True worth of each unit of the scheme
 - b. Value calculated transparently and based on freely shared information
 - c. **Both (a.) and (b.)**
 - d. Neither (a.) nor (b.)

UNIT 5: TAXATION

Learning Objectives:

After studying this chapter, you should understand about:

- Impact of various tax provisions on mutual funds and investors in mutual fund schemes
 - Dividend Distribution Tax
 - Taxability of dividends and capital gains
 - Securities Transactions Tax

5.1 Mutual funds and taxation

Investors must consider the effect of taxes on their investment returns. It is not how much you earn, but how much you keep after taxes that counts.

Mutual funds are set up as trusts under Indian Trusts Act, 1882 and thus the income earned by the fund is exempt from income tax. However, the income earned by the investor in mutual fund schemes are subject to tax, as may be applicable. The applicability and quantum of tax would vary depending upon type of investors and different categories of mutual fund schemes.

Income from investment in mutual fund units

Before we start the discussion on tax, it is important to understand the income that is being taxed. Since a mutual fund is a pass-through investment vehicle, one has to take a look at the income recognition at two levels, viz. (1) what the mutual fund earns from the various investments made in securities, and (2) what a mutual fund investor earns from the investments in various mutual fund schemes.

Income earned by mutual funds:

The schemes of the mutual funds invest in marketable securities like shares and debentures. These securities generate income in the form of dividend or interest. Apart from this, when the fund buys and sells the shares and debentures in the securities market, there could be capital gains or losses. These, viz., interest, dividend and capital gains form the income of the mutual fund. As per the prevailing tax laws in India, a mutual fund's income is exempt from income tax, since mutual funds are constituted as trusts in India for the benefits of the unitholders. Section 10(23)(D) of the Income Tax Act exempts all the income earned by the mutual funds from any tax.

Income earned by the investor from investment in mutual fund units:

We have already seen that the investor can choose from two options within the scheme, viz. IDCW (earlier known as the dividend option)²⁰ and growth. The one who has opted for IDCW may get income in form of distribution, whereas the investor in the growth plan would not get any such intermittent income whatsoever, irrespective of the profits earned by the fund.

The investor in growth plan would earn capital gains (or losses) whenever one sells the units of the scheme. On the other hand, the investor in the IDCW plan may get income distribution cum capital withdrawal, as and when declared by the fund, as well as capital gains (or losses) when one sells the units.

Both these may have different tax treatment in comparison to the income that one earns through salary, or professional fees, etc. The tax structure could vary based on type of investors, as well as for different categories of funds.

Let us take a look at the applicable tax rates in case of capital gains and dividends. The tax rates would vary as under:

- **The type of income:** The capital gains are taxed differently in comparison to the income distribution cum capital withdrawal. At the same time, within capital gains, short term capital gains attract different tax rates in comparison to long term capital gains.
- **The type of mutual fund schemes:** Income from equity-oriented mutual fund schemes is taxed at different rates in comparison to the non-equity-oriented schemes. The Income Tax Act defines two categories of mutual funds, viz., equity-oriented funds and non-equity-oriented funds. The schemes holding more than 65% of the AUM in equity shares listed on recognised stock exchanges in India are classified as equity-oriented mutual fund schemes. All the other schemes are classified as non-equity-oriented schemes. This would also include fund-of-funds investing in other equity mutual fund schemes. It is important to note here that though the scheme is eventually investing in equity assets, it is classified as a non-equity-oriented scheme for the purpose of income tax.
- **The type of investor:** Resident Indian investors, NRIs, non-individual investors – in all these cases, the tax treatment may be different.

²⁰ As per SEBI circular no. SEBI/HO/IMD/DF3/CIR/P/2020/194 dated October 5, 2020 the Dividend Option in mutual funds would be known as Income Distribution cum Capital Withdrawal (IDCW) option with effect from April 1, 2021.

All assesses other than individuals and HUF are considered non-individual investors. The below table gives a broad outline of how residential status would be considered*:

	Resident Indian	Non-Resident Indian
Individuals	Stayed in India for 182 days or more during the relevant previous year	Stayed in India for less than 182 days during the relevant previous year
HUF	An HUF is said to be resident in India in any previous year in every case except where during the year the control and management of its affairs are situated wholly outside India. If the principal decision makers take even a single decision in India, the HUF would be considered as a resident in India.	An HUF is considered as a non-resident in India if, during the previous year, the control and management of its affairs are situated wholly outside India

* This is a very broad description of the residential status. For further details, please refer to NISM Series-XX: Taxation in Securities Markets Certification Examination Workbook

5.1.1 Capital gains

When a unitholder sells the units of the scheme, the price could be different from the price at which the units were bought. The difference between the purchase price of the units and the selling price of the units would be treated as capital gain (or loss). If the selling price were higher than the purchase price, there is an incidence of capital gain, whereas if the selling price is lower than the purchase price, the result would be a capital loss. The capital gains are subject to tax. Capital gains tax is classified depending on the period (time frame) of holding and the type of funds invested in.

The second thing to remember is that capital gains are classified into two categories: short term capital gains and long-term capital gains. Long-term is defined as holding period of 3 years or more in case of non-equity-oriented funds, whereas the same is 1 year or more in case of equity-oriented funds. Capital gains booked before completion of this period would be treated as short term capital gains.

The table below summarises the taxes applicable as per the prevailing tax laws:

	Equity-oriented funds	Non-equity-oriented funds

Short term capital gains	15%	Marginal tax rate, as applicable for the investor
Long term capital gains	10%	20% with indexation benefits

(Note: Except for short term capital tax on non-equity-oriented funds, the tax rates are uniform across all categories of investors.)

Equity mutual funds were exempt from long term capital gains tax earlier. In the 2018 Union Budget, this was changed. Starting April 2018, long term capital gains became taxable at the rate of 10%. However, there were two important provisions that must be discussed here:

1. **Exemption upto Rs. 1 lakh:** In case of long-term capital gains arising out of equity shares and equity-oriented mutual funds, the tax is applicable only on the capital gains above Rs. 1 lakh. The first Rs. 1 lakh worth of long-term capital gain from this category is tax-exempt.
2. **Grandfathering of capital gains:** Since the capital gains were non-taxable till the announcement of the budget, a reintroduction of the tax would mean that even the gains earned till then would also become taxable. This is equivalent to introducing tax with retrospective effect. In order to avoid such a situation, the finance minister introduced a clause, which came to be known as the “grandfathering of the capital gains”. This meant that the capital gains earned till the date of the budget speech would not be taxable, which means that for all the equity mutual funds that one has invested in, the valuation as on 31st January 2018 becomes the base point. Gains would be calculated for the purpose of tax by taking the higher of the purchase price or the NAV on 31st January 2018.

Another important aspect of tax on capital gains is the provision related to tax deduction at source, applicable in case of NRIs. The TDS rates are as under:

	Equity-oriented funds	Non-equity-oriented funds
Short term capital gains	15%	30%
Long term capital gains	10%	20% after providing for indexation benefits

In each of the cases, there could be surcharge applicable at various rates, depending on the kind of income, the type of investor and the applicable slab of income. The surcharge rates are as under:

Surcharge on tax

Source of income	Range of total income				
	Up to Rs. 50 lakhs	More than Rs 50 lakhs but up to Rs. 1 crore	More than Rs 1 crore but up to Rs. 2 crore	More than Rs 2 crore but up to Rs. 5 crore	More than Rs 5 crore
Short term capital gains	Nil	10%	15%	15%	15%
Long term capital gains	Nil	10%	15%	15%	15%
Dividend income	Nil	10%	15%	15%	15%

Health and education cess

The amount of income tax and the applicable surcharge, shall be further increased by health and education cess calculated at the rate of 4% of such income tax and surcharge.

5.1.2 Income Distribution cum Capital Withdrawal

Dividend²¹ income from mutual funds used to be tax-free in the hands of the investor. There was no tax payable at all, irrespective of how much dividend one earned. However, the dividend

²¹ As per SEBI circular no. SEBI/HO/IMD/DF3/CIR/P/2020/194 dated October 5, 2020 the Dividend Payout option in mutual funds would be known as Income Distribution cum Capital Withdrawal (IDCW) option with effect from April 1, 2021. In this chapter, we have replaced the word dividends with IDCW, while referring to the same from mutual fund schemes. At the same time, the Income Tax Act still uses the term dividends, so in the discussion about the tax, we may need to continue using the terms “dividend” or “dividends”, as applicable.

would be paid to the investor after the deduction of dividend distribution tax from the scheme itself. To that extent, although the dividend was tax-free, the NAV would reduce to the extent of the dividend as well as the dividend distribution tax. Thus, this tax has an impact on the investor's after-tax returns.

The table below summarises the dividend distribution tax:

	Resident individual / HUF / NRIs	Domestic companies
Equity-oriented schemes	10% tax + 12% surcharge + 4% cess = 11.648%	10% tax + 12% surcharge + 4% cess = 11.648%
Non-equity-oriented schemes	25% tax + 12% surcharge + 4% cess = 29.12%	30% tax + 12% surcharge + 4% cess = 34.944%

There are some very important differences between the dividend distribution tax and capital gains tax:

1. The dividend distribution tax is not considered a tax in the hands of the investor, and hence it is not available as a set-off against any other tax liability, whereas the capital gains tax can be reduced through a set-off against capital losses that one may have, subject to certain conditions.
2. The dividend distribution tax is collected from the surplus even before the same is distributed, and hence for the investors who choose to reinvest the dividend back in the scheme can do so after the tax is deducted. On the other hand, the growth option works out to be a more tax-efficient option. Since the fund is tax-exempt, and the capital gains are realised only when booked; one can allow the gains to run without worrying about the tax on the same. This concept is known as deferment of taxes and allows one the benefit of compounding before tax.

The Finance Act, 2020 abolished income distribution tax and instead introduced taxing of income from mutual fund units in the hands of the unit holders. The income in the form of IDCW would be added to the income of the assessee and taxed at the applicable rate.

This means the investors in the highest tax bracket are likely to find the IDCW option less tax-efficient, especially in comparison to the long-term capital gains tax. In the equity-oriented funds, as defined under the Income Tax Act, even the short-term capital gain is lower than the highest tax rate on income.

Understanding the benefit of indexation

As you can see in the table under the section on capital gains, the rate of tax on long term capital gains from non-equity-oriented funds is 20% with indexation. We will discuss the concept of indexation here.

Indexation means that the cost of acquisition or the cost of purchase is adjusted upwards to reflect the impact of inflation. The Central Board of Direct Taxes (CBDT) every year announces a number, known as the Cost Inflation Index (CII). There is one index number for each financial year. Let us see how it works through an example:

Let us say an investor invested a sum of Rs. 1,00,000 in a debt fund in the year 2015, and sold the same after 3 years. He got Rs. 1,25,000 as the redemption proceeds. This was an investment return of roughly 7.72%, as the capital gain is Rs. 25,000 on an investment of Rs. 1,00,000 in 3 years.

Though the actual gain is Rs. 25,000; tax is not payable on the entire gain, due to the benefit of indexation.

For the purpose of calculating taxability, the capital gain would be adjusted for indexation. This is done by adjusting the purchase price in the following manner:

Indexed cost of acquisition = Actual cost of acquisition X CII in the year of sale / CII in the year of purchase

In our example, indexed cost of acquisition = Rs. 1,00,000 X 280 / 254 = Rs. 1,10,236.22²²

The indexed capital gain would be Rs. 14,763.78 (Rs. 1,25,000.00 – Rs. 1,10,236.22)

The rate of tax on the indexed capital gains is 20%, and thus the tax liability would be Rs. 2,952.76. As can be seen, this is a reasonably low rate of tax on the capital gain, and that too is payable only when the units are sold and the gains are booked.

(Note: The above example is only for illustration purposes).

²² The cost inflation index values were 254 and 280 respectively for the years 2015-16 (the year of purchase in our example), and 2018-19 (the year of sale). (Source: <https://www.incometaxindia.gov.in/Pages/utilities/Cost-Inflation-Index.aspx>)

Applicability of capital gains tax in case of systematic transactions

An investor can enter into multiple transactions on a systematic basis through single instruction or standing instruction to the asset management company or the registrar and transfer agency. The popular among these are:

- Systematic Investment Plan (SIP)
- Systematic Withdrawal Plan (SWP)
- Systematic Transfer Plan (STP)
- Dividend Transfer Plan (DTP)

In each of the cases, though the instruction is common, each transaction is treated as a separate one. Each time a transaction happens, either fresh units are allotted to the investor or existing units are cancelled – for an investor, it is purchase or sell of units in these cases. For the purpose of capital gains calculation, each transaction must be considered separately and the date of allotment of the units must be taken based on the allotment date for those respective units and not the date of the instruction or the date of the first transaction.

Setting off Gains and Losses under Income Tax Act

The Income Tax Act provides for taxation under various heads of income viz. salaries, income from house property, profits & gains of business or profession, capital gains, and income from other sources. In the normal course, one would expect that a loss in one head of income can be adjusted (“set off”) against gains in another head of income, since a person is liable to pay tax on the total income for the year. However, there are limitations to such a set-off. A few key provisions here are:

- Capital loss, short term or long term, cannot be set off against any other head of income (e.g., salaries).
- Short term capital loss is to be set off against short term capital gain or long-term capital gain.
- Long term capital loss can only be set off against long term capital gain.

Several other factors go into taxation or tax exemption.

Limitations on Set-off in case of Mutual Fund Dividends

- When a dividend is paid, the NAV (ex-dividend NAV) goes down.
- This dividend is exempt from tax in the hands of investors.

- Capital loss may be available for set-off against Capital gains.

A potential tax avoidance approach, called *dividend stripping*, works as follows:

- Investors would buy units, based on advance information that a dividend would be paid.
- They would receive the dividend as a tax-exempt income.
- After receiving the dividend, they would sell the units. Since the ex-dividend NAV would be lower, they would book a capital loss (with the intention of setting it off against some other capital gain).

In order to plug this loophole, it is provided that:

- if, an investor buys units within 3 months prior to the record date for a dividend, and
- sells those units within 9 months after the record date, any capital loss from the transaction would not be allowed to be set off against other capital gains of the investor, up to the value of the dividend income exempted.

Suppose the record date is April 1, 2014, for dividend of Rs 1 per unit for a scheme. Assume an investor buys units at Rs 15 within 3 months prior (i.e., January to March 2014) and sells those units at Rs 12 within 9 months after the record date (i.e., April to December 2014).

In the normal course, capital loss (short term, because it is held for less than 1 year) of Rs 15 minus Rs 12 i.e., Rs 3 per unit would be available for set-off against other capital gain (long term or short term) of the investor. Further, the dividend of Rs 1 would be tax-exempt in the hands of the investor.

On account of the limitations on set-off, the capital loss available for setting off against other capital gain would be restricted to Rs 3 minus Rs 1 i.e., Rs 2 per unit.

In the above case, if the unit-holder wanted the entire capital loss to be available for set-off, then either the units should have been bought before Jan 1, 2014, or they should be sold after December 31, 2014. Any intelligent investor knows that it would be better to adopt an investment strategy based on market scenario, and bear the relevant tax, instead of allowing tax optimization to drive the investment strategy.

Limitations on Set-off in case of Bonus Units

Suppose an investor buys units of a scheme at Rs. 30. Thereafter, the scheme declares a 1:1 bonus issue i.e., the investor receives 1 new unit, for every unit that was bought earlier. Logically, the NAV of the scheme will halve, and it is likely that the units would now have a value of Rs. 15. At

this stage, if the investor sells the original unit at Rs. 15, a loss of Rs 15 is incurred [Rs 30 (original purchase price for the Units) minus Rs 15 (currently realised)].

However, such capital loss is not available for setting off against capital gains, if the original units were bought within a period of 3 months prior to the record date for the bonus issue and sold off within a period of 9 months after the record date.

In such cases, the capital loss will be treated as the cost of the acquisition of the bonus units.

5.1.3 Securities Transaction Tax (STT)

When an investor sells units of an equity fund in the stock exchange, or offers them for re-purchase to the fund, he will have to incur Securities Transaction Tax (STT) i.e., STT is applicable only on redemption/ switch to other schemes/ sale of units of equity oriented mutual funds whether sold on stock exchange or otherwise.

STT is not applicable on purchase of units of an equity scheme. It is also not applicable to transactions in debt securities or debt mutual fund schemes.

STT applicability for Investors in Equity Oriented Mutual funds

Transaction	Rates (in percent)	Payable by:
Purchase of units of equity oriented mutual fund	NIL	Purchaser
Sale of units of equity oriented mutual fund (delivery based)	0.001	Seller
Sale of units of equity oriented mutual funds (non-delivery based)	0.025	Seller
Sale of units of an equity-oriented fund to the mutual fund	0.001	Seller

STT is not applicable on transactions in *non-equity-oriented* mutual fund units.

Tax benefit under Section 80C of the Income Tax Act

Certain mutual fund schemes, known as Equity Linked Savings Schemes (ELSS) are eligible for deduction under Section 80C of the Income tax Act. As the name suggests, this is an equity-linked scheme, and hence the scheme invests in equity shares. The benefit is available upto Rs. 1.50 lacs

per year per taxpayer in case of individuals and HUFs. The scheme has a lock-in period of three years from the date of investment.

Let us now understand some nuances of this.

First of all, this is one of the eligible investments under Section 80C, where the limit is to be shared across the eligible avenues. This means if someone has exhausted the limit under the said section through some other avenue, any investment in ELSS would not get any additional tax exemption, but the investment would still be locked-in for a minimum period of three years.

Second, if one is investing in this scheme through SIP, each investment would be locked-in from the date of the respective investment. The lock-in for the entire amount would not get over on completion of 3 years from the date of the first SIP instalment.

Third, if you opt for dividend reinvestment plan, each time a dividend is reinvested, the same would also attract a 3-year lock-in. Most AMCs have done away with this option in case of ELSS. They only allow growth option or dividend payout.

Fourth, this is an equity investment, and hence one should consider one's risk profile before investing in this scheme. If one cannot handle the risk of equity, it would be advisable to save taxes through some other means. However, if your customer's risk profile permits, this may be a good vehicle for long term investments.

Tax Deducted at Source (TDS)

There is no TDS on capital gains to resident investors. However, for certain cases of non-resident investments, with-holding tax is applicable. The income tax regulations prescribe different rates of withholding tax, depending on the nature of the investor (Indian / Foreign and Individual / Institutional), nature of investment (equity / debt) and nature of the income (dividend / capital gain).

Further, the Government of India has entered into Double Taxation Avoidance Agreements (DTAA) with several countries. These agreements too, specify rates for Withholding Tax.

The withholding tax applicable for non-resident investors is the lower of the rate specified in the income tax regulations or the tax specified in the DTAA of the country where the investor is resident. The investor, however, will need to provide sufficient information and documents to satisfy the mutual fund that he is entitled to such concessional rate as is specified in the DTAA.

Surcharge and cess

In the Income Tax Act, there is a provision for charging surcharge and cess on top of the income tax, be it in the form of income from occupation, or capital gains, interests, dividends, rent, etc. Different rates of surcharge and cess may be applicable in different cases,

For individuals, HUFs and NRIs, the surcharge to be levied at:

- 37% on base tax where specified income exceeds Rs. 5 crore;
- 25% where specified income exceeds Rs. 2 crore but does not exceed Rs. 5 crore;
- 15% where total income exceeds Rs. 1 crore but does not exceed Rs. 2 crore; and
- 10% where total income exceeds Rs. 50 lakhs but does not exceed Rs. 1 crore. Specified income – Total income excluding income by way of dividend or income under the provisions of section 111A and 112A of the Income-tax Act, 1961 ('the Act'). Further, Health and Education Cess to be levied at the rate of 4% on aggregate of base tax and surcharge.

For companies, surcharge at 7% on base tax is applicable where the total income of domestic corporate unit holders exceeds Rs 1 crore but does not exceed 10 crores and at 12% where total income exceeds 10 crores. However, surcharge at a flat rate of 10 percent to be levied on base tax for the companies opting for lower rate of tax of 22%/15%. Further, "Health and Education Cess" to be levied at the rate of 4% on aggregate of base tax and surcharge.

Applicability of GST

Goods and Services Tax (GST) became applicable in the year 2016. Let us look at the applicability of the same on various fees payable to the constituents of mutual funds.

AMC(s) can charge GST, as per applicable Taxation Laws, to the schemes within the limits prescribed under SEBI (Mutual Fund) Regulations.

- GST on fees paid on investment management and advisory fees shall be charged to the scheme in addition to the overall limits specified as per the Total Expense Ratio (TER) provisions.
- GST on all the fees other than investment and advisory fees shall be charged to the scheme within the maximum limit of TER.

- GST on exit load, if any, shall be deducted from the exit load and the net amount shall be credited to the scheme.
- GST on brokerage and transaction cost paid for execution of trade, if any, shall be within the limit of TER.
- The commission payable to the distributors of mutual funds may be subject to GST, as applicable in case of the ARN holder. Such tax cannot be charged to the scheme.

STAMP DUTY:

Pursuant to Notification No. S.O. 1226(E) and G.S.R. 226(E) dated March 30, 2020 issued by Department of Revenue, Ministry of Finance, Government of India, read with Part I of Chapter IV of Notification dated February 21, 2019 issued by Legislative Department, Ministry of Law and Justice, Government of India on the Finance Act, 2019, stamp duty @ 0.005% of the transaction value would be levied on applicable mutual fund transactions, with effect from July 1, 2020. Accordingly, pursuant to levy of stamp duty, the number of units allotted on purchase transactions (including dividend reinvestment) to the unitholders would be reduced to that extent.

Comparison among fund categories

While scheme performance must be compared with a relevant benchmark or the peer group, a mutual fund distributor should also understand the nuances across various fund categories. This would help ensure the suitability of the respective scheme category with the investor's needs and situation. let us look at the comparison between some of the scheme categories:

Corporate debt funds vs Credit risk funds

While Corporate Bond Funds predominantly invest in AA+ and above rated corporate bonds, the Credit Risk Funds invest at least 65% of total assets in AA (excludes AA+ rated corporate bonds) and below rated corporate bonds. Thus, the corporate debt funds have a higher safety in terms of the credit risk, whereas the credit risk funds carry a higher credit risk. At the same time, this higher credit risk could result in higher YTM returns to an investor.

Liquid funds vs arbitrage funds

Both these categories are often used for parking of short-term money by retail investors, and often for the purpose of doing STPs into equity mutual funds. However, the two differ dramatically in terms of their construction and the markets they invest in.

The liquid funds invest in debt and money markets whereas the arbitrage funds invest predominantly in equity markets, trying to take the advantage of arbitrage opportunities between the cash market and derivatives markets.

This means that the arbitrage funds, though they generate returns similar to a liquid fund, would be treated as equity-oriented funds for the purpose of calculation of tax on the income – both IDCW and capital gains. Many investors find this highly attractive as the post-tax returns improve in the case of arbitrage funds. The arbitrage fund investors are not exposed to the credit risk, unlike a liquid fund investor. At the same time, arbitrage funds may not be suitable if the investment horizon is very short.

Liquid funds vs ultra-short term debt funds

At one point in time, the liquid funds had a higher tax incidence in comparison to debt funds. This is when the ultra-short-term debt funds gained popularity among the retail investors since these funds were almost as safe as liquid funds, but the tax efficiency of the returns was higher. However, the tax laws have changed subsequently and both the debt and liquid funds are treated on par. Thus, the ultra-short-term debt funds lost the edge they enjoyed in this respect.

That does not mean the two categories have no difference. The two are reclassified as per the SEBI circular in terms of maturity or duration. The difference is subtle and it changes the relative risk profiles of both categories. While no paper in a liquid fund can have a residual maturity of longer than 91 days, the Macaulay Duration for the Ultra Short-Term Funds should be between 90 days and 180 days.

The average duration being between 90 and 180 days would mean that some papers may have a much longer maturity period, if some have very low maturity, in case of liquid the outer limit has been prescribed for each individual paper's maturity. And that means the Ultra Short Term Bond funds carry higher duration risk in comparison to the liquid funds.

Equity savings funds vs conservative hybrid funds

Both these categories take lower exposure to equity and higher to fixed income or equivalent. The objective in both cases is to offer stability through the debt securities (or equivalent) and attempt to generate higher return through exposure to equity.

The difference between the two is in the portfolio construction, whereas the latter invests predominantly in fixed income securities as the stable portfolio, the equity savings funds invest in a combination of fixed income securities and arbitrage. The use of arbitrage to generate fixed

income equivalent returns allows the equity savings funds to be classified as equity-oriented funds as per the Income Tax Act. That makes the returns more tax-efficient.

Hybrid funds vs balanced advantage funds

Balanced Advantage Funds have come to the fore in the last few years. As we have seen earlier, these funds invest in a combination of equity and fixed income securities, while some also use arbitrage to increase or decrease the scheme's equity exposure. Thus, the Balanced Advantage Funds are also hybrid funds, which is a broader category.

Value funds vs dividend yield funds

High dividend yield is often considered an indicator of lower valuation. That means, buying high dividend stocks could be one of the approaches within the value investing style. However, value investors may look at many other parameters and indicators to find value. To that extent, value funds would have a wider universe to choose from in comparison to dividend yield funds.

Value funds vs contra funds

Contrarian approach is another one within the broader value framework. It is believed that stocks become cheap when a large number of investors ignore or avoid the same. Often, such stocks start trading below their fair value, exactly what a typical value investor would be looking for.

However, all value funds may not be contra funds and to that extent, one must understand the nuances between the schemes. Having said that, as per the SEBI circular on scheme categorization, an AMC can have either a value fund or contra funds, but not both.

Sector funds vs thematic funds

A sector fund invests within a sector or an industry, whereas a thematic fund could be more diversified. Let us understand this through an example. While a banking sector fund or a pharma sector fund would classify as Sector Funds; a PSU fund with a broader mandate to invest in say all companies owned by central or state governments, irrespective of the industry would be known as a Thematic Fund.

Due to a broader mandate, Thematic Funds are generally more diversified across industries in comparison to the sector Funds. Such diversification reduces the overall risk of the portfolio. However, if one has a specific view on a sector, one may use the sector funds for taking exposure through funds investing in the specific sector.

Multi cap funds vs large-and-mid cap funds

Multi cap funds invest at least 25% each in large-cap, mid-cap and small-cap stocks. Whereas the Large-and-Mid-Cap Funds, as the name of the category suggests, invest only in large-cap and mid-cap stocks, to the extent of at least 35% each. This means the latter may have no exposure to the small-cap stocks. However, the regulation does not prevent the Large-and-Mid Cap Funds to invest in small-cap stocks. Since the scheme must invest at least 35% in both large-cap stocks and mid-cap stocks, that may still leave roughly 30% of the portfolio to invest outside of these two categories, including cash and cash equivalents, that would be required to manage liquidity in the portfolio. So, out of the balance amount left, it is possible that some schemes may take exposure to some small-cap stocks at some points. Having said that, this would be more of an exception than the rule.

This differential can be seen in two ways:

1. The Large-and-Mid-Cap Funds stay away from the high-risk small-cap stocks, or
2. The multi-Cap Funds are more diversified

Depending on which view one takes, one may decide the allocation to the respective category.

Mid-cap funds vs mid-and-small cap funds;

The difference between the above two categories lie in the allocation to small-cap stocks, which is mandatory in the latter (the Mid-and-Small Cap Funds), whereas the former (the Mid Cap Funds) may allocate some money in these stocks. Someone, who wants to take exposure in Mid Cap stocks may be better off using the Mid Cap Fund, but one who wants to allocate to both these market cap categories should choose Mid-and-Small Cap Funds.

Small-cap funds vs mid-and-small cap funds;

It would not be wrong to suggest that the Small Cap Funds would be riskier than the Mid-and-Small Cap Funds, for two reasons:

1. The Small-Cap Funds are less diversified than Mid-and-Small Cap Funds, and
2. The exposure to the riskier Small Cap stocks would be higher.

Flexi cap funds vs focused funds

Funds from both these categories can invest across market capitalization. However, in the case of the Focused Fund, the AMC would be required to disclose this fact in the fundamental attributes of the scheme. The chief difference between the two schemes would be in the number of stocks that the Focused Funds can invest in. As per the SEBI circular, the Focused Funds can invest in up to 30 stocks at any point in time. There is no such restriction in the case of Flexi Cap Funds. That makes the Flexi Cap Funds safer due to wider diversification.

Flexi cap funds vs multi-cap funds

Originally, when SEBI issued the circular regarding recategorization of the mutual fund schemes, there was no provision for the Flexi Cap category.

The characteristics of the multi-Cap category were modified through a circular in 2020, and at that time need was felt to introduce a new category known as the Flexi Cap Fund. Since the characteristics of the erstwhile Multi-Cap Fund category and those of the new Flexi Cap Fund category are similar, there is a scope of confusion.

However, the easy way to remember is that in the Flexi Cap category, the fund manager has the flexibility to move allocation across the market cap, whereas in multi-Cap category, there is a specified minimum allocation (at least 25% of the AUM) in each of the three market cap categories.

Chapter 5: Sample Questions

1. According to the Income Tax Act, which of these are the two categories for the purpose of taxation
 - a. Equity oriented schemes
 - b. Non-equity oriented schemes
 - c. Debt oriented schemes
 - d. **Both (a.) and (b.)**

2. Tax rate applicable currently for short-term capital gains in equity oriented schemes is
 - a. 10%
 - b. **15%**
 - c. 20%
 - d. Tax-free

3. Mark-to-market valuation entails
 - a. **Valuing each security in the portfolio at its current market value**
 - b. Valuing each security in the portfolio at its potential market value in future
 - c. Valuing each security in the portfolio at its historical value
 - d. None of these

4. Tax rate applicable currently for long-term capital gains in non-equity oriented schemes is
 - a. 10%
 - b. 15%
 - c. **20% with indexation benefits**
 - d. Tax-free

UNIT 6: INVESTOR SERVICES

Learning Objectives:

After studying this chapter, you should understand about:

- Transaction Life Cycle
- Brief concepts related to the investor services
- Adoption of technology (online transactions, etc.) for enhancing customer experience
- Awareness against Cyber Security attacks - Do's & Don't

6.1 Mutual fund transaction life cycle

The mutual fund transactions can be divided into two parts:

1. Commercial transactions, and
2. Non-commercial transactions

The former include purchase, redemption, switch, dividend reinvestment, systematic transactions like SIP, STP, SWP, DTP and trigger. The first-ever transaction in a mutual fund scheme starts with a purchase by an investor during an NFO (New Fund Offer).

While the former has an implication in terms of applicability of NAV, and hence the time-stamping is critical. However, since the latter only involves service-related matters, date-stamping is sufficient. Also, in the case of the commercial transaction, the transfer of funds is involved. This does not mean that the non-commercial transactions do not have significance in monetary terms. Some of these transactions must be carried out by keeping the safety of the investors' money in mind as the fraudsters may make use of the non-commercial transactions to defraud investors. Due to this, the asset management companies take enough precautions in carrying out these transactions. This would mean there could be extra documentation requirements or longer turnaround times. Some transactions may not be allowed in certain cases, too.

We will look at some of the non-commercial transactions in more details below:

6.2 Brief concepts

6.2.1 Nomination Facility

Most investors lack clarity about what would happen to their unit-holding, in the unfortunate event of their demise. This clarity can be achieved by executing a Nomination Form, where the nominee's name is specified. The nomination made in a folio applies to all the investments held under the folio. Nomination can be made in favour of a maximum of three nominees. Where there are multiple nominees, the unitholder(s) must define the percentage holding for each nominee making a total of 100 percent. If the percentages are not clearly indicated, then the nomination will be made equally among the nominees.

In case of a folio held in the name of a single individual, the nomination is required unless the holder specifically confirms their intent not to nominate at the time of making the application. A folio held by a single holder should have a nomination made in the application. Some mutual funds may require the applicant to provide a separate declaration of the intention not to nominate. Others may have a provision that not providing the nomination details may be considered as consent to proceed with the application without a nomination. In the case of joint holding, every unit-holder will have to sign the nomination form.

Only individual investors can make a nomination. Investments by minors cannot have a nomination. Non-individual Unitholder(s)/investors including society, trust (other than a religious or charitable trust), body corporate, company, AOP, BOI, bank, FPI, partnership firm, Karta of Hindu Undivided Family, holder of Power of Attorney cannot nominate. A Power of Attorney holder cannot make a nomination.

Nominees

The nominee can be an individual, including minors and NRIs, central and state governments and local authorities. If the nominee is a minor, then a guardian too can be specified. Nomination can also be made in favour of the Central Government, State Government, local authority, any person designated by virtue of his office or religious or charitable trust. A nomination cannot be made in favour of a trust (except a religious or charitable trust), society, body corporate, partnership, Karta of a HUF or a Power of Attorney holder.

Change in Nomination

A nomination can be changed or cancelled at any time. The change or cancellation has to be made by all the unitholders who made the original nomination, irrespective of the mode of

holding. When a new nomination is registered with the AMC, the earlier nomination made, if any, stands automatically superseded. The death of a nominee will cancel the nomination made if it is a single nominee. If there are multiple nominees, in the event of the death of one or more nominees the transmission of units will be made in favour of the remaining nominee(s).

Nomination in case of Demat holdings of mutual fund

For units held in dematerialized mode, the nominee made for the Demat account will apply. Such nominations will be governed by the bye-laws of the depository.

Rights and obligations

The Asset Management Company provides an option to the unitholder(s) to nominate in whom the Units shall vest in the event of the death of the unitholder(s) subject to the satisfactory completion of certain necessary formalities as may be required. It is important to understand here that through this facility the Asset Management Company is not attempting to grant any rights (other than those granted by applicable laws) to the nominee(s). A nomination in respect of the units does not create any title or beneficial interest in the property after the death of the unitholder. The nominee(s) shall receive the units only as an agent/ trustee for the legal heirs or legatees of the deceased unitholder as the case may be. In other words, the nominee(s) have the right to receive the proceeds but not the right to own.

Transmission of Units in favour of the nominee(s) shall be a valid discharge by the AMC/Mutual Fund of its liability towards the estate of the deceased Unitholder(s) and his/her/their successors/legal heirs. It is however clarified that the Mutual Fund or the Asset Management Company will not be bound to transmit the units in favour of the nominee if it becomes aware of any dispute in relation to the nominee's entitlement to the units.

The Mutual Fund, the Asset Management Company and the Trust shall be entitled to be indemnified absolutely for any loss, expenses, costs and charges that any of them may suffer or incur, in the event any claim, demand, liabilities, proceedings or actions are filed or initiated against any of them in respect of or in connection with the nomination.

Every new nomination for a folio will supersede all the existing nomination.

In case of multiple nominees, on the death of one or more nominee, the transmission of units shall be made in favour of the remaining nominee(s).

Cancellation of nomination

Cancellation of nomination can be made only by those Unitholder(s) who hold Units on their own behalf either singly or jointly and who had made the original nomination.

For Units held in Electronic (Demat) Mode

For units of the Scheme(s) held in electronic (Demat) form with the Depository, the nomination details provided by the Unitholder to the Depository will be applicable to the Units of the Scheme. Such nomination including any variation, cancellation or substitution of Nominee(s) shall be governed by the rules and bye-laws of the Depository.

6.2.2 Pledge/Lien of Units

Banks, NBFCs and other financiers often lend money against the pledge of Units by the Unit-holder. This is effected through a *Pledge Form* executed by the unit-holder (*pledger*). The form has a provision for specifying the party in whose favour the units are pledged (*pledgee*). The units that are offered as security for a loan should have completed the lock-in period if any. All the unit-holders, irrespective of the mode of holding, of the folio, must sign the form requesting the marking of the lien in favour of the lender. The form should clearly state the name of the unit-holder(s) as it appears in the folio, identify the scheme, plan and option and the number of units on which the lien should be marked. A non-individual entity must enclose a board resolution and/or other authorization for the person pledging the units.

Right of the pledgor

Once units are pledged, the Unit-holder/s cannot sell or switch out the pledged units, until the pledgee gives a written no-objection to release the pledge.

As long as the units are pledged/ lien marked, the lender (the pledgor) will have complete authority to redeem/ transact in respect of such units. If by enforcing the pledge/lien, the lender seeks to transfer the units in its own name or in the name of any other entity, the same can be done subject to certain processes and documents requirements.

The minimum redemption requirement for a scheme will not apply in these cases.

Units of close-ended schemes

In case the units of the close-ended scheme are under pledge/lien, then at the time of maturity of the scheme, if the units are still under pledge/lien, in the absence of any instructions from the pledgor or the pledgee, the proceeds may be paid to the unitholder.

Distribution of income

The distribution of income on units under lien may be paid to the unit-holder or the lender depending upon the agreement.

For Units held in Electronic (Demat) Mode

For units of the scheme(s) held in electronic (Demat) form, the rules/bye-laws of depository applicable for lien/pledge will be applicable to the units of the scheme(s). The unitholder and the lender must have a beneficial account with the depository.

6.2.3 Transfer and Transmission of Units

The units of the Schemes are not transferable unless the Units are held in electronic form (Demat). In case of Schemes that are not listed on a recognized stock exchange, as the Mutual Fund will be repurchasing (subject to completion of lock-in Period) and issuing units on an ongoing basis, the transfer facility is redundant. Since any addition/deletion of name(s) from a folio is deemed as transfer of Units (except in case of HDFC Children's Gift Fund wherein the Unitholder after attaining majority is entitled to introduce upto two additional persons as joint holders), additions/deletions of names are not allowed in any folio(s) of any Scheme offered by the Mutual Fund.

However, if a transferee becomes the holder of the Units by operation of law, upon the enforcement of a pledge, or by virtue of a Gift by the Unitholder, the AMC shall, subject to the production of such evidence and documents, which, in its opinion is sufficient, proceed to effect the transfer, if the intended transferee is eligible to hold the Units. An individual becoming entitled to Units in consequence of death or insolvency of the sole Unitholder or survivors of joint holders, upon producing evidence to the satisfaction of the Mutual Fund/AMC, shall be registered as Unitholder.

On the death of the single or all the Unitholder(s), Units can be transmitted in favour of the registered nominee or the legal heirs, as the case may be, after completion of necessary formalities to the satisfaction of the AMC/Trustee. All restrictions and limitations specified herein

including those relating to the lock-in period and lien/pledge will be binding also on the legal heirs, successors, pledges of the Unitholder(s).

Units held in Electronic (Demat) Mode

For units of the Scheme(s) held in electronic (Demat) form, the Units will be transferable (except for units of HDFC Long Term Advantage Fund and HDFC TaxSaver held under lock-in shall not be transferable until completion of lock-in period) and will be subject to transmission in terms of the rules and bye-laws of the Depository and in accordance with the provisions of SEBI (Depositories and Participants) Regulations, 1996, as may be amended from time to time. The instructions for transfer/ transmission of units will have to be lodged with the DP in the requisite form along with the requisite documents as may be required from time to time and transfer/transmission will be effected in accordance with such rules/regulations as may be in force governing the transfer of securities in dematerialized form.

6.2.4 Change of status

There are many cases where the status of the investor undergoes change, e.g., when a minor turns major or when a Non-Resident Indian (NRI) turns a Resident India (RI). Let us look at some special cases below:

NRI-to-RI

If a person returns to India and forgoes the NRI status, he needs to carry out certain procedures with respect to his investments and bank accounts.

Bank Account: Once an NRI becomes a RI, he cannot operate his NRO/NRE/FCNR (B) accounts. He needs to inform the bank about the change of status to resident Indian and needs to open a Resident Rupee Account. Account opening documents such as address proof, identity proof, photographs need to be submitted. A Resident Foreign Currency (RFC) account may be opened by a returning Indian to transfer balances from NRE /FCNR (B) accounts. This account can hold foreign currency and continue to receive funds in foreign currency from investments abroad.

Demat Account: Just like a bank account, the returning NRI needs to inform change of status to the designated authorised dealer branch through which the investor had made investments in the Portfolio Investment Scheme, as well as the DP with whom he has opened a Demat account. A new Demat account with 'Resident' status needs to be opened. All the balances held in the NRI Demat account shall be transferred to the new 'Resident' Demat account. After transfer, the NRI Demat account will get closed.

Mutual Fund Investments: The NRI needs to inform the relevant AMCs about the change of status, change of address and bank details with respect to mutual fund investments. KYC change form needs to be sent to the KYC registration agency for change of status, address and bank details. An acknowledgement shall be issued by the KYC registration agency on submission of the request and will carry out the necessary changes in its records. Once the investor is flagged as an NRI, TDS will be deducted at source on gains made on sale/redemption of mutual fund investments by NRIs as applicable.

RI to NRI

When a Resident Indian investor becomes NRI (Non-Resident Indian), some formalities need to be completed.

Bank account: The first thing to be done is to intimate the bank and change the status with the bank where the investor holds an account. The Resident Indian account would need to be converted to NRO account.

Demat account: Just like the bank account, the Depository Participant (DP) also needs to be informed about the change of status. KYC needs to be updated to change the status. At this stage, an overseas address would be required to be submitted.

Mutual fund investments: The investor needs to inform the relevant AMCs about the change of status, change of address and bank details with respect to mutual fund investments. KYC change form needs to be sent to the KYC registration agency for change of status, address and bank details. An acknowledgement shall be issued by the KYC registration agency on submission of the request and will carry out the necessary changes in its records. An overseas address proof would have to be furnished in this case.

Change of Status from Minor to Major:

Prior to the minor Unitholder attaining the age of majority, the AMC/ Mutual Fund will send a notice to the minor Unitholder at the registered correspondence address advising such minor Unitholder to submit, on attaining the age of majority, an application form along with prescribed documents to change the status of the folio/s from 'minor' to 'major'. Upon attainment of the majority by the minor Unitholder, the folio/s should be regularized forthwith. The AMC may specify such procedures for regularisation of the Folio/s, as it may deem appropriate from time to time. Till the receipt of such intimation/information from the minor turned major Unitholder, the existing contract as signed by the parent/legal guardian of the minor Unitholder will continue. However, from the date of attainment of majority, Folio/s of the minor Unitholder will be frozen

for operation by the representing guardian and all transactions will be suspended. No transactions will be permitted in the Folio(s) till the regularization of the Folio/s in a manner prescribed by the AMC / Mutual Fund.

The AMC/ Mutual Fund will register standing instructions like SIP/ STP/SWAP etc. for a folio held by a minor Unitholder from the parent/ legal guardian only till the date when the minor Unitholder attains the age of majority, even though the instructions may be for a period beyond that date.

However, in respect of SIPs registered prior to April 1, 2011, the AMC/Mutual Fund shall continue to process such SIPs as registered beyond the date of the minor Unitholder attaining the age of majority till instructions from the major Unitholder to terminate the ongoing SIP is received by the AMC/Mutual Fund along with the prescribed documents for change of folio status from minor to major, if not submitted earlier.

Change of Guardian in case of minor:

In case of change of natural parent/legal guardian of a minor unitholder, the new parent/legal guardian must submit the documents prescribed by the AMC/Mutual Fund, including the following:

1. No Objection Certificate (NoC) or consent letter from an existing parent or court order appointing a new legal guardian for the benefit of the minor unitholder.
2. KYC acknowledgement letter of new parent/legal guardian.

Change of Karta of HUF

If the case of a HUF, the property of the HUF is managed by the Karta and the HUF does not come to an end in the event of death of the Karta. In such a case, the members of the HUF will need to appoint a new Karta, or the HUF has to be dissolved. In either case, certain documents have to be submitted. First of all, the death certificate and the modified HUF deed or the settlement / partition deed would be required.

In case a new karta is appointed, the karta's KYC and FATCA compliance has to be completed. An indemnity bond may also be required from the other coparceners of the HUF.

Change of Power of Attorney

An investor is allowed to operate the account through a power of attorney (PoA). The power of attorney must be registered with the AMC, and the PoA holder must be KYC compliant.

At any stage, if the investor wants to change the Power of Attorney, the same can be done through an application and submission of the new Power of Attorney deed. Needless to say, the new PoA holder must be KYC complaint.

6.3 Technology adoption

In the last couple of decades, information technology has made major inroads in the financial services domain. The two important things that move in financial services are (1) money and (2) information, and the digital technologies provide a fast, efficient, accurate and economical carrier for the same.

Transacting digitally

Digital transactions enable business growth for the mutual funds as well as distributors and investment advisors as these remove the geographical barriers, allow servicing of a very large number of transactions for a large number of customers and that too at low costs, high speed and high accuracy. Before the advent of digital technology, transactions used to happen through paper mode, which was prone to many errors and customer services issues. Those errors and the time and cost to correct the errors also got eliminated.

The transactions are possible in many ways, chief among which are (1) websites, (2) mobile phones, and (3) stock exchanges.

Both the premier stock exchanges of India, BSE Ltd (BSE) and the National Stock Exchange of India (NSE) facilitate mutual fund transactions on their specially created transaction platforms. The BSE platform is known as BSE StarMF, whereas the NSE platform is known as NSE MF-II. Another such neutral transaction platform is MF Utility, which is launched together by the various asset management companies coming together.

Apart from these three mutual fund transaction platforms, almost every asset management company offers transaction facility through their websites and/or through mobile apps. Some AMCs also allow certain transactions and queries through WhatsApp.

The registrar and transfer agencies, vis., CAMS and KFinTech facilitate transactions for schemes of the AMCs where they are the RTAs.

Some mutual fund distributors and SEBI registered investment advisors have set up similar facilities for digital transactions.

Going forward, these transactions are likely to only grow, going by the digital adoption in our day-to-day lives. Even the Government of India is also encouraging such transactions.

Customer service online

Most asset management companies have invested heavily in technology to provide enhanced customer experience, not just in transaction facilities, but also in handling customer queries. Some of the AMCs have got advanced technologies like chatbots, while many already had call centres for the same purpose.

Technology adoption with Cyber Security Safeguards

RTA inter-operable Platform for enhancing investors' experience in Mutual Fund transactions/ service requests

On July 26, 2021, SEBI issued a circular²³ regarding the setting up of an RTA inter-operable platform for enhancing investors' experience in mutual fund transactions / service requests.

The opening paragraph of the circular read thus:

“In order to make it more convenient to the existing and future investors to transact and avail services while invested in Mutual Funds ...”

RTAs are required to implement standardized practices, system interoperability amongst themselves to jointly develop a common industry wide platform that will deliver an integrated, harmonized, elevated experience to the investors across the industry. AMCs and Depositories would need to facilitate the RTAs for development of the proposed platform.

The aforesaid platform shall enable a user-friendly interface for investors for execution of mutual fund transactions viz. purchase, redemption, switch etc., initiation and tracking of service requests viz. change of email id / contact number / bank account details etc., initiation and tracking of queries and complaints, access investment related reports viz. mutual fund holdings (both in demat and standard Statement of Account), transactions reports (including historic transactions), capital gains/loss report, details of unclaimed dividend/redemption etc. Through

²³ https://www.sebi.gov.in/legal/circulars/jul-2021/circular-on-rta-inter-operable-platform-for-enhancing-investors-experience-in-mutual-fund-transactions-service-requests_51395.html

this platform, investors will be able to access these services for all Mutual Funds in an integrated manner.

Over time, the platform may also provide services to the distributors, registered investment advisors, AMCs, Stock Exchange platforms and digital platforms for transacting in mutual funds to further augment ease of investing and servicing of investors

The Platform should be scalable with robust cyber security protocols and shall adopt the Cyber Security and Cyber Resilience framework specified by SEBI from time to time to Market Infrastructure Institutions such as Stock Exchanges, Depositories and Clearing Corporations and “Qualified RTAs” (QRTAs).

The RTAs are jointly and severally responsible for compliance with all the applicable regulations including system audit and cyber security audit. Further, RTAs shall ensure that the platform complies with the guidelines for Business Continuity Plan (BCP) and Disaster Recovery (DR) specified by SEBI from time to time to “MIIs”.

Under this initiative, no KYC is separately required. An investor has to enter the PAN number and mobile number to register and create a password. The platform MF Central has already been launched (www.mfcentral.com), which would offer various facilities in a phased manner.

In the first phase of the implementation, investors would be able to avail of the following non-financial services on the platform:

- View consolidated portfolio across all mutual fund houses and RTAs
- View holdings across asset class, fund house, and schemes along with scheme returns
- Change e-mail ID, mobile number and update address
- Add or modify nominee details
- Change of IDCW option, e.g. payout or reinvestment
- Correction of erroneous data captured in folio
- Change of bank account details
- Update bank IFSC
- Status modification from minor to major
- Update form 15G/H
- FATCA/CRS declaration
- Generate and track various complaints and service requests (as listed above).
- Get a consolidated view of pending service requests and complaints lodged across AMCs in one place

- Check unclaimed payouts, viz., dividends and unclaimed redemptions

Later, the investors will also be able to change their tax status (resident or non-resident), check capital gains statement, as well as place the transmission request for transfer of units to the nominee/legal heir of a deceased mutual fund investor. The platform also intends to allow transaction facility to the investors, MF distributors, RIAs, and others, subsequently

Chapter 6: Sample Questions

1. Who of the following can be made nominees?
 - a. Individuals
 - b. Minors
 - c. Local Authorities, State and Central Governments
 - d. **All of these**

2. RTA inter-operable platform for Mutual Fund transactions will enable investors
 - a. Manage investments in an efficient manner all at one place
 - b. Transact on a platform with robust cyber security protocols
 - c. Transact with one-time KYC registration
 - d. **All of these**

3. In the first phased of RTA inter-operable platform implementation investors can
 - a. Add or modify nominee details
 - b. Change bank a/c details
 - c. **Both (a.) and (b.)**
 - d. None of these

4. Which of the following applies in case of nominations?
 - a. Maximum 3 nominees can be assigned
 - b. Percentage holding to be defined in case of multiple nominees totalling to 100%
 - c. In case percentage holding is not defined, equal nomination will apply
 - d. **All of these**

UNIT 7: SCHEME EVALUATION

Learning Objectives:

After studying this chapter, you should understand about:

- Risk in fund investing: Standard deviation and Beta
- Benchmarks and their role in scheme evaluation
- Analysing fund manager performance
- Advantages and limitations of using qualitative and quantitative methods for performance evaluation
- Scheme documents and the factsheets

A significantly large number of investors give undue weightage to the historic returns while evaluating various mutual fund schemes. Even within that, higher weight is assigned to the recent past, a bias popularly known as “recency bias”. However, in order to understand the scheme performance, it is important to take a look at the reasons behind the performance – good or bad.

Performance analysis of mutual fund schemes involves looking at multiple factors – some qualitative and some quantitative. We need to analyse the risks and the returns, and the scheme performance must be compared with a relevant benchmark or the peer group.

7.1 Understanding investment risks

The word risk means different things to different people. Some of the standard definitions are as under:

Definition of risk

- Hazard, peril, danger, jeopardy.....these synonyms for risk have to do with the “chance of bad consequences,” the definition of risk given by Oxford Dictionary
- The likelihood of losing money in an investment
- Volatility associated with the return on an investment

The investment professionals and other intermediaries are interested in the third definition in the context of a diversified portfolio.

Let us consider two investment avenues delivering the following monthly returns:

Monthly return		
Month	Investment A	Investment B
1	3.00%	8.00%
2	22.00%	5.00%
3	12.00%	10.50%
4	-10.00%	9.00%
5	5.00%	10.50%
6	-3.00%	-1.00%
7	25.00%	-2.00%
8	10.00%	7.00%
9	-4.00%	9.00%
10	-15.00%	-1.00%
11	-3.00%	10.00%
12	30.00%	7.00%
Average	6.00%	6.00%

As can be seen, the simple average of the monthly returns is exactly the same in both cases. However, as we dig deeper, we see that the two schemes are behaving quite differently. Let us look at some parameters:

	Investment A	Investment B
Average	6.00%	6.00%
Range	45.00%	12.50%
Standard Deviation	14.19%	4.70%
No. of -ve return periods	5	3

While the Arithmetic averages are similar, the range (the gap between the highest and the lowest returns) is widely different in both cases. Similarly, the standard deviation is also vastly different. Both the range and the standard deviation could be taken as measures of risk. However, between the two the latter is more widely used and is also more reliable for carrying out various analysis.

Standard deviation measures the volatility of investment returns. Volatility can be broken down into two components:

1. Market risk, and
2. Price risk

The latter is associated with the price fluctuation of a single security, whereas the former is the risk of market wide volatility of prices/returns.

Market risk is a function of various factors, including but not restricted to, sentiment and/or liquidity. Market risk is systemic risk, which cannot be reduced through diversification since it applies to the market as a whole.

Price risk, on the other hand, is specific to security and hence it can be reduced through diversification across different securities.

Volatility can be measured in the form of standard deviation or beta.

Standard deviation is a statistical term. It denotes the degree to which short term returns deviate from the long-term average. Lower the standard deviation, the higher the consistency. In case of investment portfolios, including mutual funds, normally the standard deviation is measured for monthly returns for a minimum of 3 years. (Although, there is no such rule).

With respect to the equity mutual funds, a higher standard deviation means the fund's NAV is highly volatile and hence more risky. A stable fund exhibits a lower standard deviation. The square of standard deviation is known as variance.

While standard deviation gives an estimation of the movement on both sides, i.e. it measures the volatility on both the upside and downside, many investors may be interested only in looking at the downside. That is where another measure is used: Downside deviation. This measure gives a better idea of how much an investment can lose, since it ignores the volatility on the upside. Two investments with the same standard deviation may have different downside deviations.

Both standard deviation and downside deviation have no meaning in isolation. Both should be used for the purpose of comparing the risks of two or more alternatives.

However, care must be taken to ensure one compares the funds with a similar risk profile. Otherwise, a simple comparison of only the standard deviation (or downside deviation) of monthly returns would show debt funds as far less volatile compared to equity funds.

Different asset categories exhibit different levels of volatility, which means some assets exhibit higher variability compared to some other assets. While standard deviation measures variability with respect to its own historical average, one may consider another factor that compares the variability of returns with respect to the broader market.

This measure is known as Beta. While standard deviation would be an absolute number, the beta would have to be seen with reference to the market risk. The beta for the benchmark is considered to be 1. If a fund's beta is less than 1, it is less risky compared to the market, a riskier portfolio would have a beta of more than 1. It is important to note here that the risk referred to is the risk of volatility of returns. For example, if AB Large Cap Fund has beta of 0.9 and CD Large Cap Fund exhibits Beta of 1.1, one can say that the former is less volatile in comparison to both the benchmark as well as CD Large Cap Fund. On the other hand, if KLM Flexi Cap Fund's beta is 1.1 and MNP Flexi Cap fund's beta is 1.2, one can conclude that MNP Flexicap fund is more volatile than both KLM Flexi Cap fund as well as the benchmark. At the same time, even KLM Flexi Cap fund exhibits higher volatility than the benchmark, though it is less volatile than MNP Flexi Cap Fund. As one can see, we have only presented comparison within the same category. That is a fair apple-to-apple comparison.

Both standard deviation and beta measure the volatility of a portfolio. While these two are used to measure the risk of actively managed funds, there is another parameter that measures the risk in an index fund.

As we all know, an index fund is expected to mirror the benchmark index, which means the portfolio of an index would have exactly the same stocks that make the benchmark index and that too in exactly the same proportion as their respective weight in the index.

This means that ideally, an index fund performance should also mirror that of the index. Reality is a bit different. One of the biggest differences is the expense charged to the fund. There are certain other factors due to which the performance of the index fund differs slightly from that of the index. This is measured by Tracking Error.

Tracking Error indicates how closely the fund tracks the underlying index. Lower the error, better the tracking. While choosing an index fund, this is the most important factor that one should look at.

7.2 Benchmarks

Mutual fund schemes invest in the market for the benefit of Unit-holders. How well did a scheme perform? An approach to assess the performance is to pre-define a comparable—a benchmark—against which the scheme can be compared.

- A credible benchmark should meet the following requirements: It should be in sync with (a) the investment objective of the scheme (i.e., the securities or variables that go into the calculation of the benchmark should be representative of the kind of portfolio implicit in the scheme's investment objective); (b) asset allocation pattern; and (c) investment strategy of the scheme.
- The benchmark should be calculated by an independent agency in a transparent manner and published regularly. Most benchmarks are constructed by stock exchanges, credit rating agencies, securities research houses or financial publications.

Choice of a benchmark is simplest for an index fund. The investment objective is clear on the index that the scheme would track. That index would then be the benchmark for the scheme.

For other schemes, the choice of a benchmark is subjective. The benchmark for a scheme is decided by the AMC in consultation with the trustees. The Scheme Information Document has to mention the benchmark. Further, along with the past performance of the scheme, the performance of the benchmark during the same period has to be mentioned.

At a later date, the fund may choose to change the benchmark. This could be for various reasons. For instance, the investment objective of the scheme may change, or the construction of the index may change, or a better index may become available in the market. AMCs can change the benchmark in consultation with the trustees. Further, the change needs to be justified and documented. Mutual fund schemes are required to disclose the name(s) of benchmark index/indices with which the scheme performance is compared.

Price Return Index or Total Return Index

Earlier, the Mutual Fund schemes were benchmarked to the Price Return variant of an Index (PRI). PRI only captures capital gains of the index constituents. With effect from February 1, 2018, the mutual fund schemes are benchmarked to the Total Return variant of an Index (TRI). The

Total Return variant of an index takes into account all dividends/interest payments that are generated from the basket of constituents that make up the index in addition to the capital gains.

Such a change was required to ensure that the performance comparison is fair. The scheme performance would be calculated after adding the dividends that the scheme has earned from the investments. Even in the case of the dividend option, the scheme performance is calculated using the dividend reinvestment method. In such a case, if the scheme performance is compared with that of PRI, it would give a slight advantage to the scheme. The shift to TRI has been another one in the direction of increasing transparency of mutual funds.

In other words, this would make it appear that fewer schemes are able to beat their benchmark indices. While the reality has not changed, the presentation of the same has changed. The gap between the returns between PRI and TRI is the amount of dividend. Historically, in the Indian markets, the dividend yields at the index levels have ranged between 1.5% to 2.5%, most of the times.

Basis of choosing an appropriate performance benchmark

The selection of the benchmark for performance comparison must also be done keeping these in mind. With an objective to enable the investors to compare the performance of a scheme vis-à-vis an appropriate benchmark, SEBI has mandated:

- Selection of a benchmark for the scheme of a mutual fund to be in alignment with the investment objective, asset allocation pattern and investment strategy of the scheme.
- The performance of the schemes of a mutual fund to be benchmarked to the Total Return variant of the Index chosen as a benchmark.
- Mutual funds should use a composite CAGR figure of the performance of the PRI benchmark (till the date from which TRI is available) and the TRI (subsequently) to compare the performance of their scheme in case TRI is not available for that particular period.

Thus, the scheme's benchmark must be chosen based on the Scheme's investment objective, the Investment strategy of the scheme, and the scheme's asset allocation pattern. All the three can be seen in the Scheme Information Document.

Benchmarks for equity schemes

The following aspects of the investment objective (scheme type, choice of investment universe, portfolio concentration, underlying exposure) drive the choice of benchmark in equity schemes.

Scheme Type

A sector fund would invest in only the concerned sector; while there are some funds that invest in all sectors. Therefore, funds investing in different sectors need to have a diversified index as

a benchmark index, like S&P BSE Sensex or Nifty 50 or S&P BSE 200 or S&P BSE 500 or Nifty 100 or Nifty 500 as a benchmark; sectoral/thematic funds select sectoral/ thematic indices such as S&P BSE Bankex, S&P BSE FMCG Index, Nifty Infrastructure Index and Nifty Energy Index.

Choice of Investment Universe

Some equity funds investing in different sectors invest in large companies; while there are others that focus on mid-cap stocks or small-cap stocks. S&P BSE Sensex and Nifty 50 indices are calculated based on 30 (in the case of Sensex) / 50 (in the case of Nifty) large companies. Thus, these indices are appropriate benchmarks for those equity funds that invest in large companies. For mid-cap funds, mid-cap indices such as Nifty Midcap 50 or S&P BSE Midcap are considered as better benchmarks.

Choice of Portfolio Concentration

Some equity funds investing in different sectors prefer to have fewer stocks in their portfolio. For such schemes, appropriate benchmarks are narrow indices such as S&P BSE Sensex and Nifty 50, which have fewer stocks. Schemes that propose to invest in more number companies will prefer broader indices like S&P BSE 100 / Nifty 100 (based on 100 stocks), S&P BSE 200 / Nifty 200 (based on 200 stocks) and S&P BSE 500 / Nifty 500 (based on 500 stocks).

Benchmarks for Debt Schemes

As per the SEBI guidelines, the benchmark for debt (and balanced schemes) should be developed by research and rating agencies recommended by AMFI. CRISIL, ICICI Securities and NSE have developed various such indices.

NSE's MIBOR (Mumbai Inter-Bank Offered Rate) is based on the short-term money market. NSE similarly has indices for the Government Securities Market. These are available for different variations such as Nifty composite G-sec index, Nifty 4-8 Year G-sec index, Nifty 10-year benchmark G-sec index etc. BSE also has certain indices for Government securities such as the S&P BSE India Sovereign Bond Index, S&P BSE India Government Bill Index etc.

ICICI Securities' Sovereign Bond Index (I-Bex) is based on government securities. It consists of an umbrella index covering the entire market, and sub-indices catering to three contiguous maturity buckets. The three sub-indices are—Si-Bex (1 to 3 years), Mi-Bex (3 to 7 years) and Li-Bex (more than 7 years). The following aspects such as scheme type, choice of investment universe drive the choice of benchmark in debt schemes.

Scheme Type

Liquid schemes invest in securities of upto 91 days maturity. Therefore, a short-term money market benchmark such as NSE's MIBOR or CRISIL Liquid Fund Index is suitable.

Non-liquid schemes can use one of the other indices mentioned above, depending on the nature of their portfolio.

Choice of Investment Universe

Gilt funds invest only in Government securities. Therefore, indices based on Government Securities are appropriate. Debt funds that invest in a wide range of Government and Non-Government securities need to choose benchmarks that are calculated based on a diverse mix of debt securities.

Benchmarks for Other Schemes

Hybrid Funds

Hybrid funds invest in a mix of debt and equity. Therefore, the benchmark for a hybrid fund is a blend of an equity and debt index.

For instance, a hybrid scheme with asset allocation of about 65 percent in equity and balance in debt, can use a synthetic index that is calculated as 65 percent of S&P BSE Sensex and 35 percent of I-Bex.

Gold ETF

Gold price would be the benchmark for such funds.

Real Estate Funds

A few real estate services companies have developed real estate indices. These have shorter histories and are yet to earn the wider acceptance that the equity indices enjoy.

International Funds

The benchmark would depend on where the scheme proposes to invest. Thus, a scheme seeking to invest in China might have the Hang Seng Index (Chinese index) as the benchmark. S&P 500 may be appropriate for a scheme that would invest largely in the US market. A scheme that seeks to invest across a number of countries, can structure a synthetic index that would be a blend of the indices relevant to the countries where it proposes to invest.

Standard benchmarks

For the sake of standardization, schemes need to disclose return in INR and by way of CAGR for the following benchmarks apart from the scheme benchmarks:

Scheme Type	Benchmark
Equity scheme	Sensex or Nifty
Long term debt scheme	10 year dated Gov security
Short-term debt fund	1-year T-Bill

This was proposed in order to bring standardization to the process of benchmarking as well as comparing the scheme performance with easily available indices.

7.3 Analysing fund manager performance

While we looked at the risk measures in case of mutual fund schemes, it is important to remember that a professional fund manager would take risks only to enhance potential returns. Given that, it is important to check whether the risk taken was worth it. Did the portfolio generate better returns, commensurate with the risk?

This is where analysts measure the risk-adjusted performance of the funds.

There are two very important ratios that help us understand the reward for taking the risks. In both these cases, the risk considered is the volatility.

The first ratio is known as the Sharpe ratio, named after Economist and academician William Sharpe. The logic behind this measure is simple. Any investor can earn risk-free return – without taking any risk. However, because one has taken the risk, was the return higher than the risk-free return? If yes, how much? How much was this excess return compared with the amount of risk taken?

Let us assume that the risk-free rate is R_f and that the portfolio earned a return of R_p . The excess return earned by the portfolio over the risk-free rate would be $(R_p - R_f)$

Sharpe ratio measures how much was the excess return for each unit of risk taken. The risk, in this case, is represented by the standard deviation of the returns of the portfolio. Thus,

$$\text{Sharpe ratio} = (R_p - R_f) / \text{SD}$$

Higher the ratio better is the risk-adjusted performance of the portfolio. In other terms, a higher Sharpe ratio indicated that the investor was rewarded handsomely for the risk taken in the portfolio.

Let us compare two different mutual fund schemes:

	Portfolio return R_p	Standard deviation (SD)
Fund A	13.45%	17.21%
Fund B	15.27%	18.43%

If the risk-free rate of return for the period was 5.5%, let us calculate the Sharpe ratio for both the schemes.

$$\text{Sharpe ratio for Fund A} = \text{Sharpe}_A = (13.45 - 5.5) / 17.21 = 0.462$$

$$\text{Sharpe ratio for Fund B} = \text{Sharpe}_B = (15.27 - 5.5) / 18.43 = 0.530$$

As can be seen above, Fund B has a better Sharpe ratio, which indicates that it has delivered better risk-adjusted performance in comparison to Fund A.

Now someone investing in an equity portfolio knows that one is exposed to higher risk. Equity, as an asset category, is risky.

However, it is important to check whether the portfolio is riskier than the benchmark. That is where we looked at another measure of volatility, beta.

A portfolio's risk-adjusted performance can also be measured by replacing the standard deviation in the Sharpe ratio with beta. This measure is known as the Treynor ratio, named after economist Jack Treynor.

$$\text{Treynor ratio} = (R_p - R_f) / \text{Beta}$$

Here too, higher the ratio better is the risk-adjusted performance or higher the reward for taking the risk.

Let us compare two different mutual fund schemes:

	Portfolio return R_p	Beta (β)
Fund C	15.23%	1.02
Fund D	13.72%	0.99

If the risk-free rate of return for the period was 5.5%, let us calculate the Treynor ratio for both the schemes.

$$\text{Treynor ratio for Fund C} = \text{Treynor}_C = (15.23 - 5.5) / 1.02 = 9.539$$

$$\text{Treynor ratio for Fund D} = \text{Treynor}_D = (13.72 - 5.5) / 0.99 = 8.303$$

As can be seen above, Fund C has a better Sharpe ratio, which indicates that it has delivered better risk-adjusted performance in comparison to Fund D.

A pertinent question at this stage would be: Between Sharpe ratio and Treynor ratio, which is appropriate? Well, both are appropriate, but in different situations.

- If the portfolio represents the entire investment of an individual, then total volatility matters. As we saw earlier, standard deviation captures total volatility – systemic as well as unsystematic. In such a case, the Sharpe ratio is appropriate, which can be compared to that of the market
- If the portfolio being analyzed is just one of a whole portfolios, then systematic risk (as measured by Beta) matters. Thus, use the Treynor ratio would be more appropriate here.

In the Sharpe ratio, if we replace standard deviation with downside deviation, we get Sortino ratio.

$$\text{Sortino ratio} = (R_p - R_f) / \text{Downside deviation}$$

This is also interpreted as the excess return (over the risk-free rate) for every unit of downside risk.

While Sharpe ratio is quite useful for relative assessment of two portfolios, it has certain limitations:

- By itself, the number is difficult to interpret.

- Hence, the same must be compared with reference to another portfolio
- Even such a comparison does not tell much, if the difference between the Sharpe ratios of two portfolios is small

That meant that a modification was required, which was originally proposed by Graham and Harvey. However, later this was popularized by Leah Modigliani and her Nobel Laureate grandfather Franco Modigliani. The ratio got its name from the Modiglianis and is known as the M^2 (M-squared, or Modigliani squared) ratio.

The proposed modification compares the portfolio performance by adjusting the active portfolio to match the volatility with that of the market index.

Imagine an actively managed portfolio P with return r_P and standard deviation σ_P . The market portfolio M has return r_M and standard deviation σ_M .

In order to match the volatility of both the portfolio P and market M, we create an adjusted portfolio by adding T-bills to the active portfolio P such that the volatility of the adjusted portfolio P^* is the same as the market portfolio M. Since the active portfolio is adjusted such that the volatility equals that of the market portfolio, $\sigma^* = \sigma_M$ (where σ^* is the standard deviation of the adjusted portfolio).

- The Sharpe ratio of the market portfolio: $\text{Sharpe}_M = (r_M - r_F) / \sigma_M$
- The Sharpe ratio of the adjusted portfolio: $\text{Sharpe}^* = (r^* - r_F) / \sigma^* = \text{Sharpe}^* = (r^* - r_F) / \sigma_M$

The difference between the two Sharpe ratios would be

$$\begin{aligned}
 & \text{Sharpe}^* - \text{Sharpe}_M \\
 &= (r^* - r_F) / \sigma_M - (r_M - r_F) / \sigma_M \\
 &= ((r^* - r_F) - (r_M - r_F)) / \sigma_M \\
 &= (r^* - r_M) / \sigma_M
 \end{aligned}$$

The M^2 measure for the portfolio P would be $r^* - r_M$

If the standard deviation of active portfolio P is more than the market, the investment is divided between active portfolio P and the T-bill such that the standard deviation of the adjusted portfolio is equal to that of the market. However, if the standard deviation of portfolio P is less than the market, we borrow money and invest more than 100% in portfolio P.

Fama's Net Selectivity Measure

This is an absolute measure of performance. Also known as the Fama's Index, it gives the excess return obtained by the manager that cannot have been obtained investing in the market portfolio. It compares the extra return obtained by the portfolio manager with a specific risk and the extra return that could have been obtained with the same amount of systematic risk.

In many discussions, we have heard of the "alpha" generated by the fund manager. However, in many such discussions, the alpha represents simple outperformance – how much excess return has a portfolio generated over and above the benchmark. However, the alpha must be seen in line with the risks taken by the portfolio manager.

One way of looking at this would be to predict the portfolio return from CAPM, given the portfolio's beta and the market return. If this predicted return is lower than the actual return generated by the portfolio, the fund manager has generated alpha for a given amount of risk and vice versa.

The Jensen's Alpha is the average fund's return above the predicted return from the CAPM, given the portfolio's Beta and average market return.

$$\alpha_p = R_p - \{R_f + \beta_p \times [R_m - R_f]\}$$

Another measure of an active fund manager's performance is to see whether the active management actually works. In other terms, a portfolio manager would deviate from the benchmark only if one had some special information that is not already priced in the market prices of specific securities. The deviation from the benchmark also means that the fund manager is taking an unsystematic (or diversifiable) risk in order to generate outperformance. The measure, in this case, is known as Information Ratio and can be calculated by dividing the portfolio's alpha by the unsystematic risk (as measured by portfolio's variance and denoted by σ_p) in the portfolio.

$$\text{Information ratio} = \alpha_p / \sigma_p$$

7.4 Advantages and limitations of using qualitative and quantitative methods for performance evaluation

In the above discussion, we saw many quantitative parameters to evaluate the performance of a scheme or in other words, the performance of a portfolio manager. A large number of academicians and analysts prefer these quantitative parameters since

- (1) the results are objective, removing subjectivity and biases
- (2) the increased computing power allows them to perform many of these calculations seamlessly, accurately and fast
- (3) the numbers make for easy comparison and evaluation

After all, as the management, Guru Peter Drucker said, “You cannot manage what you cannot measure.” There is merit in using the quantitative parameters.

However, many are not comfortable to rely only on the quantitative measures, since all the measures we discussed in this chapter are entirely based on past data. As the mutual fund advertisements say, “Past performance may or may not be sustained in future.”

There are also a few other limitations of the quantitative methods:

(1) Data may be pertaining to a short period

Let us take an example. Some agencies use monthly returns of equity funds for a three-year period to calculate the Sharpe ratio. It is often observed that an equity mutual fund scheme may deliver a negative return for such a period or the returns could be lower than the risk-free rate. In such a case, the Sharpe ratio would be negative. Does it mean that the fund manager did a very poor job of managing the money? Not really, if the whole market has also gone down during the same period.

(2) Different agencies may be using different assumptions for the same factors

In the calculation of various risk-adjusted return parameters, one needs to assume a risk-free rate of return. Different agencies may use different numbers for this rate since there is no industry-wide standardization.

It is in such a case that a combination of quantitative and qualitative factors may be used.

7.5 Reading the scheme documents and the fact sheets for scheme evaluation

The Scheme Information Document (SID) and the fund fact sheet are two very useful documents to gather information regarding scheme evaluation. Some of the key parameters that one can easily access from these two documents are:

A. Scheme category as per the new categorization

We have discussed this point earlier, too. The scheme categorization as per the SEBI circular clearly defines some of the characteristics of the mutual fund schemes. It is always advised to compare schemes within the category and not across the categories.

B. Investment objective, investment style and investment universe

The SID clearly highlights the investment objective, investment style and investment universe of the scheme. Even after the scheme categorization being standardized, different schemes within the same category may have minor differences that one should be aware of.

C. Asset allocation of the scheme

This is another thing that has got standardized to some extent under the new scheme categorization. Having said that, this becomes important within the hybrid category.

D. Risk factors

Each SID contains general risk factors and schemes specific risk factors. While a lot of discussion under these heads may appear similar across the schemes, a detailed reading of these risk factors helps a mutual fund distributor to clearly understand the risks that the scheme is exposed to and hence help ensure the suitability of the schemes to the investor's situation.

E. Style box

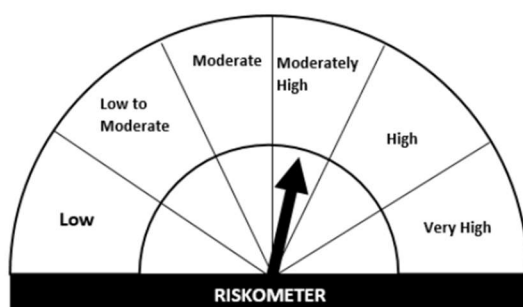
Research has shown that over long periods of time, small-cap stocks tend to outperform mid-cap stocks and mid-cap stocks tend to outperform their large-cap counterparts. Similarly, value stocks tend to outperform growth stocks over the years. Given this background, some mutual funds show a style box, which is a 3X3 matrix categorizing the individual schemes on these two counts – size (market cap), and style (growth, value or a blend of both).

Style	Growth	Blend	Value
Size			
Large-cap			
Mid-cap			
Small-cap			

This can give a reasonably clear idea about the investment universe and the style of investing.

F. Risk-o-meter

Risk-o-meter is a pictorial meter that categorizes risk in the schemes at one of the six levels of risk, as can be seen below:



Calculating the risk level

The earlier version of the risk-o-meter was a good first step in the direction of risk communication, which has been enhanced further. The method of calculating the risk level has been further tightened so that the element of subjectivity is removed to a great extent. It also ensures uniformity across schemes and asset management companies. At the same time, the risk-o-meter methodology communicates very well the risks that matter in the evaluation of mutual fund schemes.

The SEBI circular gives a detailed process of how risks levels need to be assigned at each security level. After that, the weighted average of all the individual security risk levels must be calculated (the weights are as per the allocation to each security within the scheme). The calculation methodology has been detailed for each security separately, e.g., debt, equity, international securities, derivatives, mutual fund units, cash, etc. The risks to be considered for debt securities are credit, interest rate and liquidity; for equity, these are market capitalisation (size), volatility, and impact cost (liquidity).

On the basis of the calculation, the risk value arrived upon shall be mapped to the risk level mentioned in the table below:

Risk Value	Risk Level as per Risk-o-meter
≤ 1	Low Risk
>1 to ≤ 2	Low to Moderate Risk
>2 to ≤ 3	Moderate Risk
>3 to ≤ 4	Moderately High Risk

>4 to ≤ 5	High Risk
>5	Very High Risk

Earlier Risk-o-meter were assigned only at the time of scheme launched and now they shall be evaluated on a monthly basis.

SEBI issued a circular no. on June 7, 2021 SEBI/HO/IMD/IMD-II DOF3/P/CIR/2021/573, with a subject line: “Potential Risk Class Matrix for debt schemes based on Interest Rate Risk and Credit Risk”.

This circular introduced a very useful concept called Potential Risk Class Matrix for debt funds consisting of parameters based on maximum permissible interest rate risk and maximum permissible credit risk.

As per the SEBI circular, for the purpose of nomenclature, the 3 x 3 matrix shall have the following syntax for each matrix cell:

Max credit risk of the scheme →	Class A (CRV≥12)	Class B (CRV≥10)	Class C (CRV<10)
Max interest rate of the scheme ↓			
Class I (MD≤1 year)	Relatively Low Interest Rate Risk and Relatively Low Credit Risk	Relatively Low interest rate risk and moderate Credit Risk	Relatively Low interest rate risk and Relatively High Credit Risk
Class II (MD≤3 years)	Moderate interest rate risk and Relatively Low Credit Risk	Moderate interest rate risk and moderate Credit Risk	Moderate interest rate risk and Relatively High Credit Risk
Class III (Any Macaulay Duration)	Relatively High interest rate risk and Relatively Low Credit Risk	Relatively High interest rate risk and moderate Credit Risk	Relatively High interest rate risk and Relatively High Credit Risk

CRV = Credit Risk Value, as defined by SEBI in the said circular

MD = Average Modified Duration of the portfolio

For example, if an open ended Short Duration Fund wants to invest in securities such that its Weighted Average Macaulay Duration is less than or equal to 3 years and its Weighted Average Credit Risk Value is 10 or more, it would be classified as a scheme with 'Moderate Interest Rate Risk and Moderate Credit Risk'. The position of the scheme in the matrix shall be displayed by the AMCs as under:

Max credit risk of the scheme →	Class A (CRV $\geq$ 12)	Class B (CRV $\geq$ 10)	Class C (CRV $<$ 10)
Max interest rate of the scheme ↓			
Class I (MD $\leq$ 1 year)			
Class II (MD $\leq$ 3 years)		B-II	
Class III (Any Macaulay Duration)			

The maximum interest rate risk which the aforesaid scheme can take would be in terms of the Weighted Average Macaulay Duration of the scheme and the same shall be $\leq$ 3 years. The maximum Weighted Average Credit Risk which the aforesaid scheme can take would have Credit Risk Value of 10 or more. Both the maximum interest rate risk and maximum credit risk would be reflected in the above matrix. By virtue of its placement in this position, the scheme would have the flexibility to take interest rate risk and credit risk below the maximum risk as stated above in Table 2.

The type of the scheme shall be modified to include the above cell selection. For the above example, it shall be as under:

An open ended short term debt scheme investing in instruments with Macaulay duration between 1 year and 3 years. A moderate interest rate risk and moderate credit risk.

- G. Historical return – lump sum investment as well as SIP; Risk measures and risk-adjusted return measures

All mutual fund fact sheets contain the scheme performance data for lump sum investments as well as SIPs. Similarly, many also contain some of the risk measures and the risk-adjusted return measures that we discussed earlier in the chapter.

Chapter 7: Sample Questions

1. Which of these is true with reference to 'Price Risk'?
 - a. Price risk is specific to a security
 - b. Can be reduced through diversification across multiple securities
 - c. Neither (a.) not (b.)
 - d. **Both (a.) and (b.)**

2. Volatility can be measure in the form of
 - a. Standard deviation
 - b. Beta
 - c. **Both (a.) and (b.)**
 - d. None of these

3. Mutual Fund Benchmarks
 - a. Should be calculated by an independent agency
 - b. In a transparent manner
 - c. Published regularly
 - d. **All of these**

4. A credible mutual fund benchmark should have
 - a. Similar investment objectives
 - b. Asset allocation patterns
 - c. Investment strategy of the scheme
 - d. **All of these**

UNIT 8: LEGAL AND REGULATORY ENVIRONMENT OF MUTUAL FUNDS

Learning Objectives:

After studying this chapter, you should understand about:

- Investment norms for mutual funds
- Regulations pertaining to borrowings by mutual funds
- Regulatory framework for REMF and Infrastructure Debt Funds
- Mutual fund's fundamental attributes and the implications of changes to these fundamental attributes

8.1 Regulations pertaining to investment norms

Mutual fund is a managed investment vehicle. It is a pass-through vehicle—in that the risks and the returns are passed on to the unitholders. The investors have no control, over the investment management of the mutual fund. It is in this context that SEBI has laid down regulations pertaining to investment universe, restrictions and portfolio diversification for investment by mutual fund schemes. Such regulations intend to control the risks taken by the mutual fund managers.

The SEBI Regulations provide for various limits to the kind of investments that are possible in mutual fund schemes. In few cases, there are also aggregate limits for all schemes of a mutual fund. The regulator's objective behind setting these limits is to ensure mitigation of risks in the scheme and protecting the investor's interests. The restrictions specified apply at the time of making the investment. Some of the important restrictions specified are:

General Restrictions

- The Mutual Fund will buy and sell securities on a delivery basis. Securities purchased will be transferred in the name of the Mutual Fund on account of the respective scheme.
- The Mutual Fund shall not advance any loans.
- The scheme will not invest in the unlisted or privately placed securities of any associate or group company of the sponsor. Investment in the listed securities of the group companies of the sponsor will be limited to 25 percent of the net assets.
- The scheme may invest in other schemes of the same Mutual Fund or other Mutual Funds. This will be limited to not more than 5 percent of the net asset value of the

scheme. No fees will be charged on such investments. This does not apply to the Fund of Funds.

- The Mutual Fund under all its schemes shall not own more than 10 percent of a company's paid-up capital bearing voting rights. Provided no sponsor of a mutual fund, its associate or group company including the Asset Management Company of the fund, through the schemes of the mutual fund or otherwise, individually or collectively, directly or indirectly, have 10% or more of the shareholding or voting rights in the asset management company or the trustee company of any other mutual fund.
- Each mutual fund scheme shall invest within the limits specified by the SEBI circular on mutual fund scheme categorization and reclassification.

Restrictions pertaining to investment in Debt Securities:

- A mutual fund scheme shall not invest more than 10% of its NAV in debt instruments comprising money market instruments and non-money market instruments issued by a single issuer which are rated not below investment grade by a credit rating agency authorised to carry out such activity under the Act. Such investment limit may be extended to 12% of the NAV of the scheme with the prior approval of the Board of Trustees and Board of Directors of the asset management company provided that:
 - that such limit shall not be applicable for investments in Government Securities, treasury bills and collateralized borrowing and lending obligations.
 - investments within such limit can be made in mortgaged-backed securitised debt which are rated not below investment grade by a credit rating agency registered with SEBI.
 - the schemes already in existence shall with an appropriate time and in the manner, as may be specified by the SEBI, conform to such limits.
- A mutual fund scheme shall not invest in unlisted debt instruments including commercial papers, except Government Securities and other money market instruments provided:
 - the Mutual Fund Schemes may invest in unlisted non-convertible debentures up to a maximum of 10% of the debt portfolio of the scheme subject to such conditions as may be specified by SEBI from time to time.

- Parking of funds in Short-term deposits with all scheduled commercial banks shall be limited to 15 percent of the net assets of the scheme. This can be raised to 20 percent with the approval of the trustees. No management fee will be charged for such investments by the scheme. The Scheme cannot invest in the short-term deposits of a bank that has invested in the scheme. The Trustees/Asset Management Companies (AMCs) shall ensure that no funds of a scheme are parked in short term deposits of a bank that has invested in that scheme. Trustees/AMCs shall also ensure that the bank in which a scheme has short term deposits do not invest in the said scheme until the scheme has short term deposits with such bank.

Restrictions pertaining to investment in Equity:

- All investments by a mutual fund scheme in equity shares and equity-related instruments shall only be made provided such securities are listed or to be listed.
- The ELSS notification requires that at least 80 percent of the ELSS funds should be invested in equity and equity-linked securities.
- The Scheme shall not invest more than 10 percent of its NAV in the equity shares and equity-related instruments of a company. The limit is not applicable for investments in index/sector/industry-specific schemes.

Restrictions pertaining to investment in overseas securities:

There is an aggregate limit of US \$ 7 billion for overseas investments by the entire mutual fund industry. At the same time, for each mutual fund also, there is an overall investment limit of US \$ 1 billion across all schemes. Apart from the above, there is an additional limit of US \$ 1 billion for the entire industry and US \$ 50 million per mutual fund to invest in Exchange Traded Funds (ETFs) that invest in securities.

Permissible investments:

- 1) ADRs / GDRs issued by Indian or Foreign companies
- 2) Equity of overseas companies listed on recognized stock exchanges overseas
- 3) Initial and Follow on Public Offerings for listing on recognized stock exchanges overseas
- 4) Foreign debt securities (short term or long term) with rating not below investment grade by accredited/registered credit rating agencies, in the countries with fully convertible currencies
- 5) Money market instruments rated not below investment grade
- 6) Repos in form of investment, where the counterparty is rated not below investment grade. Repo transactions by these mutual funds would not be allowed for the purpose of borrowing

- 7) Government securities, where the country is rated not below investment grade
- 8) Derivatives traded on recognized stock exchanges overseas, for the purpose of hedging or portfolio rebalancing only, with the underlying as securities
- 9) Short term deposits with banks overseas where the issuer is rated not below investment grade
- 10) Units/securities issued by overseas mutual funds or unit trusts registered with the overseas regulator and investing in
 - a) Aforesaid securities
 - b) Real Estate Investment Trusts listed on recognized Stock Exchanges overseas or
 - c) Unlisted overseas securities, not exceeding 10% of their net assets

A dedicated fund manager would be appointed for making the above overseas investments.

Restrictions pertaining to exposure to derivatives:

Mutual funds are allowed to take exposure to derivatives for the purpose of hedging or portfolio rebalancing. No leverage is allowed through derivatives.

Exposure Limits

The cumulative gross exposure through equity, debt and derivative positions (including commodity derivatives) should not exceed 100% of the net assets of the scheme. Mutual Funds shall not write options or purchase instruments with embedded written options except for the covered call strategy. The total exposure related to option premium paid must not exceed 20% of the net assets of the scheme.

Any derivative instrument used to hedge has the same underlying security as the existing position being hedged.

Mutual Funds may enter into plain vanilla interest rate swaps for hedging purposes. The counterparty in such transactions has to be an entity recognized as a market maker by RBI. Further, the value of the notional principal in such cases must not exceed the value of respective existing assets being hedged by the scheme. Exposure to a single counterparty in such transactions should not exceed 10% of the net assets of the scheme.

Writing of Covered Call Options by Mutual Fund Schemes:

Mutual funds have been permitted to write call options under a covered call strategy as prescribed below:

Mutual Fund schemes (except Index Funds and ETFs) may write call options only under a covered call strategy for constituent stocks of NIFTY 50 and BSE SENSEX subject to the following:

- a. The total notional value (taking into account strike price as well as premium value) of call options written by a scheme shall not exceed 15% of the total market value of equity shares held in that scheme.
- b. The total number of shares underlying the call options written shall not exceed 30% of the unencumbered shares of a particular company held in the scheme. The unencumbered shares in a scheme shall mean shares that are not part of Securities Lending and Borrowing Mechanism (SLBM), margin or any other kind of encumbrances.
- c. At all points of time, the Mutual Fund scheme shall comply with the above provisions. In case of any passive breach of the requirement in paragraph(a), the respective scheme shall have 7 trading days to rebalance the portfolio. During the rebalancing period, no additional call options can be written in the said scheme.

In no case, a scheme shall write a call option without holding the underlying equity shares. A call option can be written only on shares that are not hedged using other derivative contracts.

For schemes intending to use a covered call strategy, the risks and benefit of the same must be disclosed in the Scheme Information Document.

Hedging of Interest Rate Risk

To reduce interest rate risk in a debt portfolio, mutual funds may hedge the portfolio or part of the portfolio (including one or more securities) on a weighted average modified duration basis by using Interest Rate Futures (IRFs). The maximum extent of short position that may be taken in IRFs to hedge interest rate risk of the portfolio or part of the portfolio is as per the formula given below:

$$\frac{(\text{Portfolio Modified Duration} * \text{Market Value of the Portfolio})}{(\text{Futures Modified Duration} * \text{Futures Price} / \text{PAR})}$$

In case the IRF used for hedging the interest rate risk has different underlying security(s) than the existing position being hedged, it would result in imperfect hedging.

The basic characteristics of the scheme should not be affected by hedging the portfolio or part of the portfolio (including one or more securities) based on the weighted average modified duration.

Explanation: In the case of a long-term bond fund, after hedging the portfolio based on the modified duration of the portfolio, the net modified duration should not be less than the minimum modified duration of the portfolio as required to consider the fund as a long-term bond fund.

The interest rate hedging of the portfolio should be in the interest of the investors.

The risks associated with imperfect hedging shall be disclosed and explained by suitable numerical examples in the offer documents and also needs to be communicated to the investors through public notice or any other form of correspondence.

Restrictions pertaining to investment in REITs and InvITs:

- No mutual fund under all its schemes shall own more than 10% of units issued by a single issuer of REIT and InvIT; and
 - A mutual fund scheme shall not invest – (i) more than 10% of its NAV in the units of REIT and InvIT, and (ii) more than 5% of its NAV in the units of REIT and InvIT issued by a single issuer. The limits mentioned above are not applicable for investments in the case of index funds or sector or industry-specific scheme pertaining to REIT and InvITs.

Risk of concentration in Index funds and ETFs

SEBI issued a circular entitled “Portfolio Construction Norms for Equity Exchange Traded Funds (ETFs) and Index Funds”²⁴. It is an interesting circular as it highlights the importance of diversification.

The circular starts with the following lines:

“In order to address the risk related to portfolio concentration in ETFs and Index Funds, it has been decided ...”

As one can see, the objective of the circular makes it clear that SEBI is uncomfortable with portfolio concentration, and rightly so.

Actively managed mutual funds have to strictly follow diversification, and there are guidelines in place for the same for years. However, index funds were exempted from that rule since these funds would only replicate a benchmark index. In such a case, the fund’s risk profile also mirrored that of the index. Many would consider an index fund to be a conservative one since there is no active management and hence the only risk one takes is the one related to the market. While this may be correct, theoretically, it ignores the risks related to portfolio concentration.

While any actively managed mutual fund can invest up to 10% of the AUM in a single stock, there may be some indices with higher levels of concentration. This would be especially true in case indices tracking individual sectors.

²⁴ SEBI circular no. SEBI/HO/IMD/DF3/CIR/P/2019/011 dated 10th January 2019

While the SEBI circular does not restrict the launch of any index, it only restricts the launch of index funds and ETFs. That means that there is no restriction on launching indices, since some private investors may want certain indices, or there may be some other reason for launching such indices. However, the regulator seems to be of an opinion that mutual funds are for small investors, and their interests must be protected. Due to such a belief, they have restricted the launch of mutual funds on indices that may have a high concentration in individual stocks, or sectors.

The regulations also apply to sector indices, not just the diversified ones. Even when one is taking the sector risk, the stock concentration risk must be low. Some index funds may face closure simply because the underlying indices have a huge concentration.

While we have only discussed one criterion, the weight of the single largest stock, there are total four criteria listed in the circular. Only if the index qualifies all four, there could be an index fund or ETF on that index. These four criteria are as under:

1. The index shall have a minimum of 10 stocks as its constituents
2. For a sectoral/thematic index, no single stock shall have more than 35% weight in the index. For other than sectoral/thematic indices, no single stock shall have more than 25% weight in the index.
3. The weightage of the top three constituents of the index, cumulatively shall not be more than 65% of the index.
4. The individual constituent of the index shall have a trading frequency greater than or equal to 80% and an average impact cost of 1% or less over the previous six months.

8.2 Regulations pertaining to borrowings by mutual funds

Mutual funds are pass-through investment vehicles, and hence, it is not allowed for mutual funds to borrow to make investments. However, the funds are allowed to borrow in certain cases with some restrictions. The mutual funds are allowed to borrow to meet temporary liquidity needs for the purpose of repurchase, the redemption of units or payment of dividend (IDCW) to the unitholders. The mutual fund shall not borrow for any other purpose. At the same time, mutual funds cannot borrow to meet the redemption requirements under the Instant Access Facility (IAF).

The mutual fund shall not borrow more than 20% of the net asset of the scheme and the duration of such borrowing shall not exceed a period of six months.

The cost of borrowings shall be adjusted against the portfolio yield of the scheme (in case of debt funds) and borrowing costs in excess of portfolio yield, if any, shall be borne by the AMC.

The mutual funds shall borrow through repo transactions only if the tenor of the transaction does not exceed a period of six months.

8.3 Regulatory framework for Real Estate Mutual Funds (REMF) and Infrastructure Debt Funds (IDF)

Real Estate Mutual Funds

In order to give diversification across asset categories, SEBI introduced regulations allowing mutual funds to launch schemes investing in real estate – a very popular asset category. The amendments to the mutual fund regulations were made through a Gazette Notification²⁵ issued in April 2008.

This notification amended the SEBI Mutual Fund Regulations to allow mutual funds to invest in real estate. As per the amendment, “real estate mutual fund scheme” means a mutual fund scheme that invests directly or indirectly in real estate assets or other permissible assets in accordance with these regulations.

According to the regulation, “real estate asset” means an identifiable immovable property-

1. which is located within India in such city as may be specified by the Board from time to time or in a special economic zone within the meaning of clause (za) of section 2 of the Special Economic Zones Act, 2005 (28 of 2005);
2. on which construction is complete and which is usable;
3. which is evidenced by valid title documents;
4. which is legally transferable;
5. which is free from all encumbrances;
6. which is not the subject matter of any litigation;

but does not include-

1. a project under construction; or
2. vacant land; or
3. deserted property; or
4. land specified for agricultural use; or
5. a property which is reserved or attached by any Government or other authority or pursuant to orders of a court of law or the acquisition of which is otherwise prohibited under any law for the time being in force.

²⁵ Gazette notification no. LAD-NRO/GN/2008/03/123042 dated April 16, 2008

Where can the money be invested?

The fund shall invest at least seventy-five per cent of the net assets of the scheme in-

1. real estate assets;
2. mortgage-backed securities (but not directly in mortgages);
3. equity shares or debentures of companies engaged in dealing in real estate assets or in undertaking real estate development projects, whether listed on a recognized stock exchange in India or not;

The balance (up to 25 per cent of the net assets) may be invested in other securities.

Investment restrictions

The mutual fund scheme would need to be diversified across various projects. The management of the real estate mutual fund should also be free of any conflict of interest, so long as possible. In order to achieve these objectives, there are few investment restrictions:

- no real estate mutual fund scheme would be allowed to invest more than 30 per cent of the net assets in a single city unless specified otherwise in the offer document,
- under all its schemes, no real estate mutual fund would be allowed to invest more than 15 percent of the net assets in a single real estate asset of any single real estate project,
- no real estate mutual fund, under all its schemes, would be allowed to invest more than 25 percent of the total issued capital of any unlisted company
- no mutual fund shall invest more than 15 percent of the net assets of any of its real estate mutual fund schemes in the equity shares or debentures of any unlisted company
- no real estate mutual fund scheme shall invest in:
 - any unlisted security of the sponsor or it's associate or group company;
 - any listed security issued by way of preferential allotment by the sponsor or it's associate or group company;
 - any listed security of the sponsor or it's associate or group company, in excess of twenty-five percent of the net assets of the scheme
- no real estate scheme shall transfer real estate assets amongst its schemes
- no mutual fund shall invest in any real estate asset which was owned by the sponsor or the asset management company or any of its associates during the period of last five years or in which the sponsor or the asset management company or any of its associates hold tenancy or lease rights.

Valuation of real estate assets

One big contention with respect to real estate assets is a fair valuation. Unlike securities that trade on various markets, real estate assets lack standardization and liquidity. In the absence of

a market price, one has to resort to subjective valuation. In such a case, the regulations play an important role in ensuring fairness to all the participants.

According to the REMF regulations,

- 1) The real estate assets held by a real estate mutual fund scheme shall be valued –
 - (a) at cost price on the date of acquisition; and
 - (b) at a fair price on every ninetieth day from the day of its purchase in accordance with the norms specified in Schedule IXB.
- 2) The asset management company, its directors, the trustees and the real estate valuer shall ensure that the valuation of assets held by a real estate mutual fund scheme is done in good faith, in accordance with the norms specified in Schedule IX B and that the accounts of the scheme are prepared in accordance with accounting principles specified in Schedule XI.
- 3) The net asset value of every real estate mutual fund scheme shall be calculated and declared at the close of each business day on the basis of the most current valuation of the real estate assets held by the scheme and accrued income thereon if any.

Each REMF can be only a close-ended scheme with a minimum issue size of Rs. 250 crores.

Infrastructure Debt Funds

As discussed earlier, in order to attract long term investment in infrastructure projects, a new category of mutual funds was allowed to be launched – Infrastructure Debt Funds. These funds are investment vehicles that can be sponsored by commercial banks and NBFCs in India in which domestic/offshore institutional investors, especially insurance and pension funds can invest through units and bonds issued by the IDFs. Infrastructure Debt Funds (IDFs), can be set up either as a Trust or as a Company. A trust-based IDF would normally be a Mutual Fund (MF), regulated by SEBI, while a company based IDF would normally be an NBFC regulated by the Reserve Bank.

According to SEBI Mutual Fund Regulations, IDF means a close-ended mutual fund scheme that invests primarily (minimum 90% of scheme assets) in the debt securities or securitized debt instrument of infrastructure companies or infrastructure capital companies or infrastructure projects or special purpose vehicles which are created for the purpose of facilitating or promoting investment in infrastructure, and other permissible assets in accordance with Securities and Exchange Board of India (Mutual Funds) Regulations, 1996 or bank loans in respect of completed and revenue-generating projects of infrastructure companies or projects or special purpose vehicles. IDF-MFs can be sponsored by banks and NBFCs. Only banks and Infrastructure Finance companies can sponsor IDF-NBFCs.

8.4 Fundamental Attributes and the implications of changes to the fundamental attributes

The fundamental attributes of a mutual fund scheme determine the basic guiding principles of the schemes. In other terms, these attributes help an investor understand what to expect from the scheme.

Within the SID, there is an important section on fundamental attributes of a scheme with the following parameters:

(i) Type of a scheme

- Open-ended/Close-ended/Interval scheme
- Sectoral Fund/Equity Fund/Balance Fund/Income Fund/Index Fund/Any other type of Fund

(ii) Investment Objective

- Main Objective - Growth/Income/Both.
- Investment pattern - The tentative Equity/Debt/Money Market portfolio break-up with minimum and maximum asset allocation, while retaining the option to alter the asset allocation for a short-term period on defensive considerations.

(iii) Terms of Issue

- Liquidity provisions such as listing, repurchase, redemption.
- Aggregate fees and expenses charged to the scheme.
- Any safety net or guarantee provided.

According to 18(15A) of SEBI (Mutual Funds) Regulations, 1996, the Trustees are required to ensure that no change in the fundamental attributes of the Scheme(s) or the trust or fee and expenses payable or any other change which would modify the scheme shall be carried out unless:

- A written communication about the proposed change is sent to each Unit-holder and an advertisement is given in one English daily newspaper having nationwide circulation as well as in a newspaper published in the language of the region where the Head Office of the mutual fund is situated; and
- The Unitholders are given an option for a period of 30 days to exit at the prevailing Net Asset Value without any exit load.

In case of change in the fundamental attributes, the SID has to be updated immediately after the lapse of the time period given to existing investors to exit the scheme.

Chapter 8: Sample Questions

1. AMCs are required to comply with
 - a. Mutual funds share buy and sell securities on a delivery basis
 - b. Mutual Funds shall advance loans
 - c. Investments in listed securities of group companies of sponsor will be limited to 25 percent of net assets
 - d. **Both (a.) and (c.)**

2. Which of the statements is true with reference to investments unlisted debt instruments by mutual fund
 - a. Mutual funds shall not invest in unlisted debt instruments
 - b. Investments in unlisted non-convertible debentures allowed only up to maximum of 10% of debt portfolio
 - c. **Both (a.) and (b.)**
 - d. None of these

3. Overseas investment limit for a mutual fund across all schemes is
 - a. **USD 1 billion**
 - b. INR 1 billion
 - c. Euro 2 billion
 - d. USD 2 billion

4. Mutual funds cannot invest overseas with the following instruments
 - a. ADRs / GDRs issued by Indian or Foreign companies
 - b. Equity of overseas companies listed on recognized stock exchanges overseas
 - c. **Money market instruments rated below investment grade**
 - d. Initial and Follow on Public Offerings for listing on recognized stock exchanges overseas

UNIT 9: ETHICS AND INVESTOR PROTECTION

Learning Objectives:

After studying this chapter, you should understand about:

- Prevention of mis-selling of mutual funds
- Safeguards provided by the structure of mutual funds
- SEBI Measures for investor protection
- Investor grievance redressal mechanism

The mutual fund industry is a very highly regulated industry. There are many structural safeguards built into the regulations that aim to protect investor interests. At the same time, since different mutual fund schemes serve different investment objectives, it is important to ensure alignment of the same with the investor's objectives. In such a case, the mutual fund distributor must ensure the suitability of the schemes with the investor's needs and situation.

9.1 Prevention of mis-selling of mutual fund units

The SEBI circular on the categorisation of mutual fund schemes specifies different categories of mutual funds.

The risk levels in different categories of mutual fund schemes would be different. In 2013, SEBI had introduced product labelling of mutual funds to address the issue of mis-selling and to provide investors with an easy understanding of the kind of product/scheme they are investing in and its suitability to them. This product labelling was subsequently replaced by a risk-o-meter.

Ensuring suitability is also a part of the SEBI (Prohibition of Fraudulent and Unfair Trade Practices relating to securities market) (Amendment) Regulations, 2012. This regulation includes mis-selling in units of a mutual fund scheme within its ambit. Mis-selling in units of mutual fund schemes is defined as any of the below:

1. Making a false or misleading statement, or
2. Concealing or omitting material facts of the scheme, or
3. Concealing the associated risk factors of the scheme, or
4. Not taking reasonable care to ensure the suitability of the scheme to the buyer.

If a mutual fund distributor does not take care of the above, one would be considered to be involved in mis-selling activities.

9.2 Safeguards provided by the structure of mutual funds

In the mid-to-late 1990s, when the awareness about mutual funds was still very low and penetration even lower, and when some NBFCs defaulted on their debentures or fixed deposits, one question kept cropping up periodically: “Can the same thing happen with mutual funds? Can the fund manager run away with my money?” While the question has almost disappeared from popular conversations, the answer needs to be understood well.

Unlike most other products, mutual fund is a pass-through vehicle, in which all the investment risks are passed on to the investor – the owner of the fund. This is not the case when one invests in say a fixed deposit issued by a company. A depositor in such deposits is promised a certain return on investment. What the company does with the money thus collected determines the return the company earns – in most cases, the company raises money through this route for their investment in the business or their working capital requirements. The company is supposed to pay the investor only the promised return – nothing more, nothing less. If the company is unable to earn more than what it has promised the depositors, there is a risk that the promise may not be honoured. This is known as credit risk for depositors. This risk does not exist in the case of a mutual fund, since the ownership of the fund is with the fund’s investors.

There is also a structural safeguard provided by the SEBI Mutual Fund Regulations. SEBI has stipulated the legal structure under which mutual funds in India need to be constituted. The structure has inherent checks and balances to protect the interests of the investors. First of all, there are three different entities involved – the mutual fund, the asset management company and the trustees.

Mutual Fund

A mutual fund is constituted in the form of a trust and the instrument of trust is in the form of a deed, duly registered under the provisions of the Indian Registration Act, 1908 (16 of 1908), executed by the sponsor in favour of the trustees named in such an instrument. Mutual funds are constituted as Trusts and they are governed by the Indian Trusts Act, 1882.

The investors, who invest in various schemes of the mutual fund are the beneficiaries with respect to the trust.

Trustees

The operations of the mutual fund trust are governed by a Trust Deed, which is executed between the sponsors and the trustees. SEBI has laid down various clauses that need to be part of the

Trust Deed. The Trust acts through its trustees. Therefore, the role of protecting the interests of the beneficiaries (investors) is that of the Trustees. The first trustees are named in the Trust Deed, which also prescribes the procedure for a change in Trustees.

The Trustees act as the first level regulators. The Trustees have the power to appoint, remove or change the AMC, according to the SEBI regulations.

Asset Management Company (AMC)

Day to day operations of a mutual fund is handled by the AMC. The sponsor or, the trustees if so authorized by the trust deed, shall appoint the AMC with the approval of SEBI.

The AMC's role is that of the manager of the fund and for that purpose they charge investment management fees, which is part of the total expense ratio as allowed under the regulations.

Role of an independent custodian

Although the AMC manages the schemes, custody of the assets of the scheme (securities, gold, gold-related instruments & real estate assets) is with a Custodian, who is appointed by the Trustees. The custodian also settles the trades that the AMC has entered in the securities markets or otherwise as in the case of Gold.

These structural arrangements as per the regulations make mutual funds safer for the investors.

9.3 Measures taken by SEBI for investor protection

The preamble to the SEBI Act reads as under:

“... to protect the interests of the investors in securities and to promote the development of, and to regulate the securities market and for matters connected therewith or incidental thereto”.

These objective of investor protection, as well as development and regulation of the securities markets, are at the core of the various SEBI regulations. Let us look at some of the regulatory measures from the perspective of investor protection:

- Regulatory measure # 1: Categorization and rationalization of open-ended mutual fund schemes

These provisions are applicable to open-ended funds, under which various scheme categories are defined. Only one scheme per category is allowed, except in case of

index funds/ETFs, sector funds and funds-of-funds. Through the circular, SEBI even defined the market cap categories like large-cap, mid-cap and small-cap.

- Advantages to the investors

The standardization in the categories of mutual fund schemes brought uniformity in the characteristics of similar types of schemes and removed the scope for duplication. This reduces confusion remarkably and makes the comparison between schemes within a category a lot easier. It would be fair to say that within a category, one would not be comparing apples with oranges.

- Regulatory measure # 2: Segregated portfolios

- Main provisions

In case of a credit event, the AMC may create a segregated portfolio in debt funds. A credit event is defined as one where (1) there is an actual default or (2) the credit rating of a paper is downgraded below investment grade. The segregated portfolio must be created within 24 hours of the credit event and with the specific approval of the trustees.

This is optional and at the discretion of the AMC. Having said that, such a move would be allowed only if there is a provision in the Scheme Information Document (SID). In most cases, such a provision has been introduced and it is mandatory for new schemes to have such a provision.

While the AMC has the discretion whether to create a segregated portfolio or not, a written-down policy is a must with the AMC.

No AMC fees can be charged by the AMC on such a segregated portfolio.

- Benefits to investors

Such a provision allowing the creation of a segregated portfolio provides protection to the long term investors against potential losses caused by illiquidity issues after a credit event. At the same time, short-term opportunistic investors cannot take undue benefit in case of higher markdown

- Regulatory measure # 3: Benchmarking scheme's performance

- Main provisions

The investment returns generated by a scheme must be compared to an appropriate benchmark in line with the scheme's investment objective, asset allocation and investment strategy of the scheme. The comparison must be done with a Total Return Index (TRI) only.

- Benefits to investors

Appropriate benchmark selection, and benchmarking against TRI gives a fair picture of a scheme's relative performance, making the scheme evaluation better.

- Regulatory measure # 4: Valuation of securities

- Main provisions

SEBI has detailed regulations with respect to uniform valuation and accounting process across all securities and other investment options. These norms need to be standardised especially in the case of unlisted and non-traded securities or investment options.

The income realisation norms are also standardised.

- Benefits to investors

The valuation of units becomes standardized and fairer, which means that all investors – be it incoming, outgoing or long term investors get fair treatment.

- Regulatory measure # 5: Investment restrictions

- Main provisions

True to label: Scheme recategorization related regulation puts strict limits on the investment universe in case of each of the different mutual fund scheme categories.

Diversification: The regulations have defined strict exposure limits for various mutual fund scheme in various companies, as well as promoter groups. Even

in the case of index funds, mutual funds are not allowed to launch schemes tracking indices that do not meet certain diversification norms as specified.

Liquidity: Exposure to illiquid securities must be limited. Any exposure beyond the specified limits must be valued at zero.

Derivatives: A mutual fund scheme can use derivatives only for the purpose of hedging or portfolio rebalancing.

- Benefits to investors

Mutual fund scheme recategorization ensures the scheme remain true to label, giving the investors and the intermediaries a fair idea of what to expect from the schemes within the category.

Diversification is considered to be the only free lunch in the field of investing. It is a proven strategy to reduce the risk in any investment portfolio. Imposing limits on exposure ensures the schemes are properly diversified

Open-ended mutual fund schemes need liquidity to ensure investors get access to their money without stress.

Mutual funds are not allowed to take the risks related to leverage and hence restricting the use of derivatives to hedging or portfolio rebalancing keeps the schemes safe.

- Regulatory measure # 6: Restriction on redemptions

- Main provisions

Restriction on redemptions may be imposed only when there are circumstances leading to a systemic crisis or event that severely constricts market liquidity or the efficient functioning of the market. Such restriction may be imposed for a specified period of time not exceeding 10 working days in any 90 days

At the same time, no redemption requests up to Rs. 2 lakhs shall be subject to such restriction. For redemptions above Rs. 2 lakhs, the first Rs. 2 lakhs would be redeemed. The restriction would apply to the balance amount

- Benefits to investors

Small investors can continue to redeem their money even when the restriction is applied to larger investors. At the same time, large investors cannot pull money out at the cost of the smaller ones. Also restricting the provision only to systemic events ensures that the AMCs can never make misuse of this.

- Regulatory measure # 7: Swing pricing²⁶

- Main provisions

Swing pricing framework made applicable for scenarios related to net outflows from the schemes. The framework shall be a hybrid framework with:

- (i) a partial swing during normal times and
- (ii) a mandatory full swing during market dislocation times for high risk open ended debt schemes

The SEBI circular also prescribes the minimum swing factor.

Swing pricing mechanism allows the fund to impose costs stemming from redemptions on redeeming investors by adjusting the fund's NAV (net asset value) downward when net redemptions exceed a threshold.

- Benefit to investors

The introduction of swing pricing ensures that the existing investors are protected when there is a run on the scheme for factors beyond control. Given the illiquid nature of debt markets, especially during stressed times (be it for a particular scheme or across markets); when there are large net outflows, the NAV may suffer on account of the selling of illiquid securities to fund the redemptions.

²⁶ https://www.sebi.gov.in/legal/circulars/sep-2021/circular-on-swing-pricing-framework-for-mutual-fund-schemes_52997.html

- Regulatory measure # 8: Instant Access Facility

- Main provisions

Liquid mutual funds are allowed to offer Instant Access Facility (IAF) to investors (only resident individuals) up to Rs. 50,000 or 90% of the value of the balance in the folio, whichever is lower. The limit is applicable per day per scheme per investor.

- Benefit to investors

The investors can get their bank account credited on the same day of redemption

- Regulatory measure # 9: E-wallet

- Main provisions

MFs are now allowed to accept subscription through e-wallets. The limit per investor per MF is Rs. 50,000 per year. This is a combined limit for e-wallets and cash. No cashbacks are allowed against such purchases. Money loaded to the wallet must be through cash, debit cards, or net banking. It cannot be through credit cards or cashbacks

- Benefits to investors

This is a step towards promoting digitization, while at the same time keeping the other regulation in mind that no incentives can be offered for investing in mutual fund schemes. Small investors can easily invest in and benefit from mutual funds

- Regulatory measure # 10: Alignment of interests

- Main provisions

The Asset Management Company is required to invest not less than Rs. 50 lakhs or 1% of the amount raised in the new Fund offer (NFO), whichever is less.

A minimum of 20% of the salary/ perks/ bonus/ non-cash compensation (gross annual CTC) net of income tax and any statutory contributions (i.e. PF and NPS)

of the Key Employees of the AMCs shall be paid in the form of units of Mutual Fund schemes in which they have a role/ oversight. The compensation paid in the form of units, proportionately over 12 months and would be subject to lock-in for 3 years or the tenure of the scheme, whichever is earlier

— Benefits to investors

This provisions ensures alignment of the interests of the asset management company as well as key employees with the unitholders, a concept popularly known as “skin in the game”. It is believed that this should prevent the asset management company taking undue risks, recklessly.

The concept of “skin in the game” came to prominence in the last few years, especially after the global financial crisis, when it was believed that the upside gained due to reckless risk-taking rewarded the portfolio managers. However, they did not lose anything, except a drop in their performance-linked income, when the investors lost due to the same risks.

Apart from the above, SEBI also has powers²⁷ to suspend launching of any scheme of any mutual fund as well as to forfeit the amount invested by the AMC in case of violation of any of the provisions of the Securities and Exchange Board of India Act, 1992 or Securities and Exchange Board of India (Mutual Funds) Regulations, 1996.

Risk management in debt and liquid funds for enhanced investor protection

In the last few years, the debt markets have witnessed some extreme events, starting with the step taken by Reserve Bank of India in raising the overnight rates by 2% in 2013 to credit defaults and occasional disappearance of liquidity. In an unusual move few debt funds were wound up in April 2020. Securities and Exchange Board of India (SEBI) stepped in regularly to bring regulatory reforms to enhance investor protection. Some of these measures have been discussed above, e.g. creation of segregated portfolios, provision for restriction on redemptions, swing pricing, enhanced risk-o-meter with potential risk class matrix and the compulsory investment by AMC and key employees in the schemes being managed.

Some of these are product related, whereas some are related to disclosures and some related to the conduct of the people managing the investors’ money. SEBI also specified norms regarding holding of liquid assets in open ended debt schemes & stress testing of open ended debt schemes

²⁷ https://www.sebi.gov.in/legal/regulations/aug-2021/securities-and-exchange-board-of-india-mutual-funds-second-amendment-regulations-2021_51695.html

vide circular SEBI/HO/IMD/DF3/CIR/P/2020/229 dated November 6, 2020. The combination of these changes would ensure fair treatment to all investors as well as protect the investors' interests.

9.4 Investor Grievance Redress Mechanism

In the event of any issue with the AMC or mutual fund scheme, the investor can first approach the investor service centre. If the issue is not redressed, even after taking it up at senior levels in the AMC, then the investor can write to SEBI with the complaint details.²⁸

SEBI Complaint Redress System (SCORES)

SEBI Complaint Redress System (SCORES) is a web-based centralized grievance redress system of SEBI. SCORES enables investors to lodge, follow up on their complaints and track the status of redressal of such complaints online on the website (<http://scores.gov.in>). This system enables the market intermediaries and listed companies to receive complaints from investors, redress such complaints and report redressal. All the activities starting from lodging of a complaint till its closure by SEBI is online and works in an automated environment. An investor, who is not familiar with SCORES or does not have access to SCORES, can lodge complaints in physical form at any of the offices of SEBI. Such complaints are scanned and then uploaded in SCORES for processing.

Entities against which complaints are handled by SEBI include:

- Listed companies/registrar & transfer agents
- Brokers/stock exchanges
- Depository participants/depository
- Mutual funds
- Portfolio Managers
- Other entities (KYC Collective investment scheme, Merchant banker, Credit rating, Foreign portfolio investor etc.)

²⁸ In this context, it should be noted that the principle of *caveat emptor* (let the buyer beware) applies to mutual fund investments. So, the unit-holder cannot seek legal protection on the grounds of not being aware, especially when it comes to the provisions of law, and matters fairly and transparently stated in the scheme related documents. Unit-holders have a right to proceed against the AMC or trustees in certain cases. However, a proposed investor i.e. someone who has not invested in the scheme does not have the same rights.

Chapter 9: Sample Questions

1. Definition of mis-selling of Mutual Funds includes:
 - a. Making a false or misleading statement
 - b. Concealing or omitting material facts of the scheme
 - c. Only (a.)
 - d. **Both (a.) and (b.)**

2. Mutual fund is constituted as a
 - a. Limited Liability Partnership
 - b. **Trust**
 - c. Sole Proprietorship
 - d. HUF

3. The roles and responsibilities of AMC include
 - a. Invest and generate returns on the funds raised by the schemes
 - b. Ensure compliance with all the rules and regulations of SEBI
 - c. **Both (a.) and (b.)**
 - d. None of these

4. Complaints can be filed against which of these entities in SEBI Complaint Redress System (SCORES)
 - a. Brokers/stock exchanges
 - b. Commercial Banks
 - c. Both (a.) and (b.)
 - d. **Only (a.)**

UNIT 10: CASE STUDIES

Learning Objectives:

After studying this chapter, you should understand about:

- Evaluation/Comparison of mutual fund schemes
- Interpretation of risk measures from extract of factsheet data
- Indexation calculation based case
- Comparison of schemes on risk adjusted returns
- Comparison of debt funds on the basis of portfolio composition
- SIP in ELSS and lock-in provisions
- Dividend Reinvestment in ELSS and lock-in provisions
- Mutual funds and wealth creation
- MFs for an investor seeking regular income

Having understood many facets of mutual funds, let us now take a look at some of the practical aspects through some cases.

10.1 Evaluation/Comparison of mutual fund schemes

Sandhir Singh, a mutual fund distributor, wanted to build a system for the performance evaluation of mutual fund schemes. How should he go about it?

First of all, let us understand that SEBI has issued an advertisement code of conduct, which prescribes how the scheme performance can be disclosed – what time horizons, whether annualized or absolute, against an appropriate benchmark, etc.

At the outset, a mutual fund is a relative return product, in that the scheme performance depends on the market in which the scheme invests. Hence, the performance of the scheme cannot be evaluated in isolation. It must be done compared to a benchmark or the peer group.

Depending on the investment universe and the asset allocation of the scheme, the period of evaluation must also be carefully chosen, e.g. while a liquid fund may be evaluated for short periods, the performance of an equity fund must be evaluated over a long period. While evaluating the scheme performance, one may look at a lump sum investment as well as SIP.

Investment returns are only one side of the coin, and the schemes must also be evaluated in terms of the risk parameters, like standard deviation or beta in case of equity funds. Debt and liquid funds may be evaluated in terms of the duration risk and credit risk.

One may consider checking the risk-adjusted return, too.

Note: Past performance may or may not be sustained in future. This line in the mutual fund advertisements is mentioned for a reason. The data pertaining to the past is useful to evaluate how the scheme has performed historically, but that may not have any predictive power.

10.2 Indexation calculation based case

Ajay invested Rs. 1,00,000 in a debt mutual fund D on January 1 2018, and redeemed the same on January 2, 2021.

Brijesh invested a similar amount in a cumulative interest fixed deposit with a bank on the same day. The term of the deposit is 3 years and 1 day.

That means, both the investors invested the same amount for the same time period, but at two different places. How would their investments fare on a post-tax basis in this case?

Let us first look at the investment done by Brijesh.

Brijesh	Fixed deposit	
Investment date	01-Jan-18	
Maturity date	02-Jan-21	
Amount invested	₹ 1,00,000.00	--- A
Assumed return (% p.a.)	6.0%	--- B
Maturity amount assuming zero tax	₹ 1,19,101.60	--- $C = A * (1 + B)^3$
Tax slab assumed	30.60%	---D
Post tax interest (% p.a.)	4.164%	--- $E = B * (1 - D)$
Maturity amount after tax	₹ 1,13,019.39	--- $F = A * (1 + E)^3$
Interest income	₹ 13,019.39	--- $G = F - A$

Since the interest income is taxed every year, the post-tax interest is adjusted for the tax slab (assumed as the highest tax rate) of the investor and then the maturity amount is calculated.

As compared to that, let us see how Ajay's investment in the debt fund would have fared. To keep the comparison simple, we are assuming the debt fund returns to be exactly the same as the interest on the fixed deposit.

Ajay	Debt mutual fund	
Investment date	01-Jan-18	
Redemption date	02-Jan-21	
Amount invested	₹ 1,00,000.00	--- A
Assumed return (% p.a.)	6.0%	--- B
Amount receivable on redemption (assumed)	₹ 1,19,101.60	--- C = A * (1 + B) ^ 3
	Cost inflation index	
Year		
2017-18	272	--- D
2020-21	301	--- E
Investment amount adjusted for indexation	₹ 1,10,661.76	--- F = A * (E / D)
Indexed capital gain	₹ 8,439.84	--- G = C - F
Tax on capital gains @ 20%	₹ 1,687.97	--- H = G * 20%
Net amount received post-tax	₹ 1,17,413.63	--- I = C - H

In case of debt funds, there are two important points to note:

1. The tax would be applicable only at the time of redemption and not before that, and
2. The capital gains would be classified as long term if the holding period is longer than 3 years and in such a case, the gains would be taxed after adjusting for indexation.

As can be seen from the above table, the investment amount of Rs. 1,00,000 is adjusted for the change in cost inflation index. The inflation-indexed investment amount works out to Rs. 1,10,661.76. And hence, the indexed-capital gain, in this case, works out to Rs. 8,439.84 (Rs. 1,19,101.60 – Rs. 1,10,661.76). The tax on the indexed capital gains @20% would be Rs. 1,687.97. Hence the post-tax amount in hand would be Rs. 1,17,413.63.

This means while the fixed deposit investor received Rs. 1,13,019.39 post-tax; the debt fund investor received Rs. 1,17,413.63. This is a clear gain of Rs. 4,394.25 for the debt fund investor.

A few things to be kept in mind:

While there is a benefit for the debt fund investor as explained above, we have assumed the same rate of return for both cases. This is an assumption. While the fixed deposit returns are assured right from the beginning, the debt fund returns are uncertain. Hence, while the investor gains through the tax difference, one is taking a risk of uncertain returns.

10.3 Comparison of schemes on risk-adjusted returns

Anurag wanted to invest in an equity mutual fund. Someone had suggested a few mutual fund schemes, but Anurag was not sure which one to invest in. He looked at the following performance data to evaluate the schemes:

Investment returns	1 year	3 years	5 years
Scheme A	52.04%	13.44%	13.91%
Scheme B	53.59%	14.33%	13.08%
Scheme C	70.87%	11.75%	14.85%

Anurag argued that while there is a large difference in 1-year returns of the three schemes, the long term returns are quite similar. On the other hand, the risk numbers looked very different, as can be seen from the table below:

Risk parameters	Standard deviation	Beta
Scheme A	21.11%	0.95
Scheme B	19.21%	0.78
Scheme C	34.30%	1.09

Should he select a high return scheme or a high-risk scheme?

First of all, investments in mutual funds are subject to market risk. And this is a standard line that is mandatory in all mutual fund communications.

Now, let us understand that the schemes may have different investment objectives and they may adopt different investment strategies and styles, e.g. there could be a large-cap scheme or a small-cap scheme; there could be a well-diversified scheme or a focused scheme or a sector scheme. The schemes cannot be evaluated without looking at these parameters.

Having said that, in the above case, while the investment returns would get impacted due to the different investment universe and scheme benchmarks, the beta is calculated with respect to the

relevant benchmark that may be different for different schemes. For example, a large-cap scheme may be benchmarked against a large-cap index, whereas a small-cap scheme cannot be benchmarked against that.

This makes the comparison of beta irrelevant given the limited data we have. The standard deviation is calculated without comparison with the benchmark. However, that does not mean that it automatically becomes a better indicator of the risk involved.

Having said that, one may take a look at the risk-adjusted returns, which can be calculated using the Sharpe ratio, Treynor ratio, Jensen's Alpha, etc. Most fund fact sheets publish the Sharpe ratio. Let us take a look at the Sharpe ratio for the three schemes under discussion here:

Risk-adjusted returns	Sharpe ratio
Scheme A	0.55
Scheme B	0.62
Scheme C	0.42

The Sharpe ratio, as we saw in Unit 8, calculates the excess return over the risk-free rate for a unit of standard deviation. The excess return per unit of risk, thus calculated, is the reward for the risk taken. In that case, the higher the Sharpe ratio, the better has been the scheme's performance. From the above table, one can say that for the period under review, scheme B delivered the highest excess return for every unit of standard deviation, or rewarded the investor the most for the risk taken.

Points to note: Different agencies and institutions may use different variables for the purpose of calculating the above numbers. Sometimes the period for which the data is taken also could be different. In such cases, the comparison may render irrelevant. So long as possible, one should take the risk parameters or risk-adjusted returns only from a common source.

10.4 Comparison of debt funds based on portfolio composition

Shridhar was looking for investing in a safer option and hence he wanted to evaluate various mutual fund schemes. When he looked at the performance track record of two schemes from the same fund house, he was confused. The schemes' investment returns are detailed in the table below:

	1 year	3 years	5 years
Scheme A	5.81% p.a.	7.35% p.a.	7.16% p.a.
Scheme B	7.96% p.a.	9.42% p.a.	8.56% p.a.

Shridhar wanted to understand why the difference in the performance of these two schemes was so large, even when both are debt funds. He approached Naveen, a mutual fund distributor, to get an answer to his question. Naveen was an experienced campaigner. He decided to explore the fund fact sheet to clear the doubts that Shridhar expressed.

First of all, let us look at the type and investment objectives of both the schemes.

Scheme A:

Type: Low Duration Fund

Investment objective: to provide income that is consistent with a portfolio through investments in a basket of debt and money market instruments of short maturities with a view to provide reasonable returns.

Scheme B:

Type: Corporate Bond Fund

Investment objective: to generate optimal returns with high liquidity through active management of the portfolio by investing in High-Quality Debt and Money Market Instruments.

In other words, scheme A, a low duration fund would invest in debt instruments in such a manner that the average Macaulay duration would be kept low – between 6 months to 12 months. In comparison, scheme B, a corporate bond fund would invest predominantly in AA+ and above rated corporate bonds. It is important to note here that scheme A would take very low duration risk, whereas scheme B would take very low credit risk.

How does the scheme compare to both these risks?

Duration risk

Scheme	Modified duration
Scheme A	0.74 years
Scheme B	2.07 years

The scheme B has a longer duration compared to scheme A, which means that in a falling interest rate scenario, it should benefit. (Having said that the modified duration shown above is for a recent portfolio, which would have an impact in the future. The difference in historical returns between the two schemes cannot be explained by this number. For that, we need to look at the modified duration in the past.)

Credit risk

Scheme	Scheme's allocation					
	Sovereign	AAA	AA	Below AA	Unrated	Cash & current assets
Scheme A	17.17%	58.66%	10.43%	0.87%	0.03%	12.91%
Scheme B	22.70%	67.03%	4.59%	0.23%	0.003%	5.46%

Both the schemes have maintained allocation to high credit-rated or sovereign securities, which means they have maintained a high credit quality or avoided taking credit risk. Scheme A, which is meant for a lower investment horizon, has also kept more in cash & current assets compared to scheme B.

(Note: The fact sheet details, i.e. modified duration and credit rating profile are as of June 2021.)

One can understand the contributors to investment returns by looking at the portfolio composition.

10.5 SIP in ELSS and lock-in provisions

Salonee wanted to save tax. She also had a goal of creating wealth over the long term. When she shared these needs with mutual fund distributor Deepak, he asks her to invest in the Equity Linked Savings Scheme (ELSS), an equity-oriented mutual fund that is eligible for tax saving under Section 80C of the Income Tax Act.

Since Salonee is an employee working in an organization and drawing a monthly salary, Deepak suggested that she invests some amount every month, so that the purchases are spread out throughout the year. This approach offers two advantages:

1. There is no burden of tax-saving or a liquidity crunch towards the end of the year
2. The monthly purchase or a Systematic Investment Plan (SIP) ensures that the principle of Rupee Cost Averaging works in favour of the investor.

Since this is an investment in ELSS, there is a mandatory lock-in period of 3 years. Deepak had told about this lock-in to Salonee.

The SIP was started on 1st April 2017. During the economic recession in 2020, like many other salaried employees, Salonee lost her job and also need to liquidate some of her investments. She approached Deepak and requested her to liquidate all her investments from the ELSS. However, she was shocked that she could withdraw only a portion of the money in the scheme and not the entire amount.

The confusion was in the understanding of the investor. She understood that the 3-year lock-in is applicable from the date of starting of the SIP. So, in her case, she thought that the lock-in period was over on 2nd April 2020.

The reality is that in the case of ELSS, each investment is locked in for a period of 3 years from the date of allotment of the respective units. That means, the units allotted against the investment of April 1 2017, would finish the lock-in on April 2 2020; whereas the subsequent units would still be under lock-in.

Salonee approached Deepak in mid-September 2020. At that time, the units allotted against purchases made in April 2017 to September 2017 would be free from lock-in. Rest all would be under lock-in, and hence would not be available for redemption.

10.6 Mutual funds and wealth creation

Priya wanted to create wealth over the long term through an investment portfolio. She approached Mahesh, a mutual fund distributor seeking help. After listening to Priya and understanding her need, he suggested she starts investing regularly in a diversified equity mutual fund. However, Priya was not sure if she wanted to take the risk of investing in equity markets. She raised her concern, to which Mahesh responded with a detailed explanation, as under.

The meaning of wealth

We hear many discussions about someone who is wealthy. Very often, people measure one's wealth through a certain number. How many Rupees, Pounds, or Dollars make someone wealthy? Or do someone's possessions like property, gold, cars, or private jets make one wealthy? Well, while there may be many definitions of wealth, one that appeals in the context of personal finance is as under:

Being wealthy is to be able to live life on one's own terms. This means having enough money to buy the necessities of life and not having to worry about the basic requirements.

Thus, acquiring wealth is one part – remaining wealthy is equally important. Since the prices of essentials keep going up, the most important thing is to ensure that your wealth grows. One's wealth may be considered as growing only if the purchasing power increases – one's wealth should be able to purchase more tomorrow than what it can today. In order to achieve this, the wealth must grow at a rate higher than the rate at which costs are rising. There is a term in economics to indicate the rise in costs – inflation.

Thus, to stay wealthy, the wealth must grow at least in line with the inflation; and to grow wealthier, it should increase at a rate higher than inflation.

The question then is: how does one ensure that one's wealth increase at such high rates? Well, the surplus wealth must be invested somewhere. The objective of investing could be one of the following:

1. Safety of capital at all times
2. Easy liquidity whenever needed
3. Growth of capital over the period – higher than inflation

Growing one's wealth is exactly the same as the 3rd objective in the list above. So, we would focus only on that one. However, let us clarify here that the moment one seeks the third objective out of the above; one might have to sacrifice the first two.

Which investment has the ability to beat inflation?

There are many investment options out there. Which among these has the potential to generate returns higher than inflation? If we look at the three investment objectives discussed earlier, it should be clear that the investment option that can beat inflation would neither offer safety of capital nor would it provide easy liquidity at all times.

Out of the various investment options, one of the financial investments, equity has the power to deliver inflation-beating returns.

Historical numbers support this argument. In the last 37 years, equity has grown roughly 330 times – almost 17% per annum compounded growth (as measured by the growth in Sensex from 1979 to 2017). The average inflation during this period has been around 7% to 8% per year. One may argue that this happened as a fluke and may not be repeated.

Stocks have the potential to beat inflation – why?

Let us understand the economics behind why stocks could beat inflation hands down during this period.

An investor in equity becomes part-owner of the business, whose stock one has bought. Ownership entitles one to take part in the fortunes of the business – whether the business does well or not.

Now, what is the relationship between equity returns and inflation? Inflation is the rise in the prices of items of consumption. The price rise is normally not absorbed by companies but passed on to the consumers. For example, when steel prices go up, car manufacturing companies are likely to pass on this increase to car buyers. This protects the profit margins of the company, which in turn protects the interests of the firm's owner. *(While this may not hold true in each individual case, it can be stated as a general rule in the case of a diversified portfolio of companies).*

The owners of the business get protection against inflation since the same is passed on to the consumers. Incidentally, inflation is also called “consumer price inflation”, clearly indicating who bears the brunt of it.

At the same time, it is important to always remember that equity is a risky asset.

Risks involved in owning stocks

There are primarily two risks involved in investing in equity:

1. What if the company shuts down due to various factors?
2. What if one has bought at a high price or what if the prices are very low when one needs to sell?

The first of the above two may arise due to various factors – some within the control of the company's management, while some others may be outside of their control. Since a shareholder is a part-owner in the business, one's fortunes are connected with those of the company. Hence, in the event of the closure of the business, the owner may lose the entire capital. Even if the business does not close down but makes losses, the owner must bear the same. This is why equity is also called "risk capital".

The biggest safeguard against such a risk is to carefully select the companies to invest in. This process of careful selection requires one to analyse the business and the financials of a company in great detail.

At the same time, even the most careful and detailed analysis can go wrong, given the dynamic nature of businesses and markets. As they say in the army, "Even the best-laid plans may go wrong."

One needs to take the next step to reduce the negative impact of such a risk. This is probably the simplest and most effective of the strategies in the world of investing – Diversification. If the investments are diversified across companies, industries and geographies, the risk drastically reduces.

A word of caution here: diversification would be most effective if it is done only after careful selection of companies to invest in. Diversification across junk does not help.

An easy and cost-effective way to achieve both these objectives:

As we mentioned earlier, two critical steps are involved here:

1. Careful selection of companies
2. Diversification

Also, as discussed, the second step may render ineffective if the first is not taken. However, not many have these skills, knowledge and abilities. Even those who have the knowledge, skills and abilities may not have enough time to devote to this activity. Hence most investors may be better off taking professional help.

Enter mutual funds. This is a fantastic innovation in the area of investing. A mutual fund offers both the above to an investor – careful selection of companies, through a professional fund management team and a diversified portfolio.

Mutual funds are also highly regulated and low-cost products.

As can be seen, equity mutual funds are a great way to take care of identifying good companies to invest in and build a diversified portfolio. However, what if someone buys the stocks at very high prices or that the prices dip when one needs money back? How does one protect oneself against this risk of price fluctuations?

The risk of price fluctuations

It is common knowledge that stock prices fluctuate – often for reasons beyond one's comprehension. Even good companies turn out to be poor investments if the price paid is too high.

Price fluctuations happen in both directions – the prices go up as well as down. This point is critical to understand: the fluctuations are bidirectional, not unidirectional. This creates opportunities for some to buy low and sell high. At the same time, many end up doing exactly the opposite.

Looking at the past price patterns, it is often very tempting to try to take advantage of these fluctuations – can one consistently buy low and sell high?

The question is: how do you know whether the price is high or low? How does one know whether the low prices cannot go lower or the high prices cannot go higher?

Because human psychology is such that error of omission does not hurt as much as the error of commission, which means you bought a stock considering that it is cheap, and after that, it goes down further, the regret is more significant and you are likely to take a wrong decision later. And that wrong decision happens to be selling at even a lower price. The same happens when the prices are going up. When you think the price is high enough and you sell, and then the price keeps going up further, there is a sense of deep regret and once again in that regret, you tend to lose patience and that loss of patience leads one to make mistakes.

Two things can be done to protect the portfolio:

1. Detailed analysis to buy stocks at the right price, and
2. Diversification

Once again, an individual can do the first by oneself or by taking professional help. However, the diversification that we are referring to here is not across companies or industries. It is across time periods.

The price fluctuations are seen in the short term; but over long periods of time, the prices move in line with the fortunes of the company – the business.

In such a case, if you have bought good companies – that have staying power, you can benefit out of diversifying across time periods. In such a case, you can ignore the short term price fluctuations and focus on long term wealth creation.

Invest regularly

Diversification across time is the simplest thing that anyone can do. Invest on a regular basis. When one invests regularly, one turns the price fluctuations to one's advantage. When the prices are low, you end up buying more and you buy less when the prices are high.

Doing so is difficult in the case of individual stocks. The way out is to do so with a readymade mutual fund portfolio, where you can buy fractional units. To that extent, small amounts can be invested to average out the prices – a concept known as Rupee Cost Averaging and the strategy is known as Systematic Investment Plan or SIP. Keep doing so regularly and your average cost comes down. With that lower cost of buying and the growth potential of equity over time, you can reap handsome rewards.

In a nutshell ...

The steps involved in creating wealth can be summarized as under:

- Select good mutual fund schemes
 - Ensure you have selected diversified equity funds
- Invest a fixed amount regularly and for a long period
- Ignore short term price fluctuations
- Enjoy the rewards in the end ...

10.7 MFs for an investor seeking regular income

The income from a job, profession, or business takes care of the living expenses for the majority of us. However, there are many situations in life when the regular expenses exceed the regular income in form of salary, professional fees, or business income.

This can happen under many circumstances:

1. The most obvious is when someone retires from work. So long as one was working, it generated some income. In most cases, this income is more than the regular monthly

household expenses. In retirement, one would need regular income from investments to meet these household expenses.

2. Another situation could be a sabbatical taken by someone – a temporary break from work. It could be for any reason, ranging from one taking off from work to study further, or someone just taking a break from work, or someone taking a break to pursue some hobby
3. One could also lose a job due to an economic downturn, or some company-specific factors, and getting a new job takes some time

When these situations arise, one needs a regular cash flow from investments. In such a scenario, it would be a good idea to explore one particular convenience offered by mutual funds – Systematic Withdrawal Plan (SWP), which allows one to customize the withdrawals in line with one's needs.

Regular withdrawal from mutual funds

Since we are discussing the need for regular cash flow from investments, we present to you an option under mutual funds: ***SWP or Systematic Withdrawal Plan***.

When an investor has a lump sum to invest and needs regular income, one can invest the lump sum in a mutual fund scheme and give a standing instruction to the fund house for withdrawal of a fixed amount at a fixed period. The mutual fund then redeems a certain number of units based on what the fund's NAV is and pays the redemption amount to the investor.

For the purpose of calculating tax liability, the amount withdrawn is a combination of principal and earnings thereon. Between the two, only the earning is subject to taxation and hence if the withdrawal is closer to the expected rate of return (marginally lower than prevailing interest rates), the tax liability works out very low. Thus, SWP is a very tax-efficient mechanism of getting regular income from one's debt fund portfolio.

Let us look at an example. An investor invests a sum of Rs. 10 lacs in a debt mutual fund scheme. Looking at the fund fact sheet or the prevailing interest rates in the economy, one gets to know that the expected future returns could be around 6% p.a. (The rate of 6% p.a. is assumed for the sake of keeping the calculations simple), which is equivalent to 0.5% per month. (0.5% of Rs. 10 lacs would be Rs. 5,000). A withdrawal of less than Rs. 5,000 per month should be considered as a safe rate of withdrawal in such a case if the objective is not to draw from the principal amount. In the table below, we have highlighted how the system would work. The NAVs have been chosen randomly for illustration.

Opening balance:

- Amount: Rs. 10 lacs
- Units: 1,00,000
- Starting NAV: Rs. 10
- Account started in June-2020

Month	Withdrawal	NAV	Units Redeemed	Unit Balance	Capital Gains	Closing Balance
Jun-20		₹ 10.00		100000.000		
Jul-20	₹ 5,000.00	₹ 10.05	497.512	99502.488	₹ 23.39	₹ 10,00,000.00
Aug-20	₹ 5,000.00	₹ 10.10	495.037	99007.450	₹ 48.52	₹ 10,00,000.00
Sep-20	₹ 5,000.00	₹ 10.15	492.574	98514.876	₹ 74.13	₹ 10,00,000.00
Oct-20	₹ 5,000.00	₹ 10.20	490.124	98024.752	₹ 98.76	₹ 10,00,000.00
Nov-20	₹ 5,000.00	₹ 10.25	487.685	97537.067	₹ 121.95	₹ 10,00,000.00
Dec-20	₹ 5,000.00	₹ 10.30	485.259	97051.808	₹ 145.40	₹ 10,00,000.00
Jan-21	₹ 5,000.00	₹ 10.36	482.845	96568.963	₹ 169.43	₹ 10,00,000.00
Feb-21	₹ 5,000.00	₹ 10.41	480.443	96088.520	₹ 192.65	₹ 10,00,000.00
Mar-21	₹ 5,000.00	₹ 10.46	478.052	95610.468	₹ 215.54	₹ 10,00,000.00

Apr-21	₹ 5,000.00	₹ 10.51	475.674	95134.794	₹ 239.23	₹ 10,00,000.00
May-21	₹ 5,000.00	₹ 10.56	473.307	94661.487	₹ 261.79	₹ 10,00,000.00
Jun-21	₹ 5,000.00	₹ 10.62	470.953	94190.534	₹ 283.02	₹ 10,00,000.00

(Note: NAVs are randomly generated for illustration only. This should not be construed as an actual fund's performance.)

Closing balance:

- Amount: Rs. 10,00,000.00
- Units: 94,190.534
- Last NAV: Rs. 10.62
- As on June-2021
- Total withdrawal: Rs. 5,000 per month = Rs. 60,000 for the year
- Capital gains booked: Rs. 1,873.81

As can be seen, since the rate of withdrawal is in line with the appreciation, the unit balance remains intact. However, estimating the future returns may not be easy for all. One may take the help of an investment advisor for the same. We have also assumed the monthly appreciation to be constant, which is not realistic. One must keep provision for the fluctuation in the NAV, depending on the type of scheme chosen.

Flexibility:

Whereas the above example assumes constant withdrawal, equal to monthly appreciation, there are no restrictions from the mutual fund company. This means the withdrawal can be decided based on the need of the investor. Care must be taken to remember that if one withdraws more than the appreciation, one would be taking money out of the capital.

Growth in corpus

Let us say that a debt mutual fund scheme is expected to gain at the rate of 6% per year for the next few years. If an investor sets SWP from this scheme at the annual withdrawal rate of 4% of the original investment, the investor is quite likely to see the corpus growing at the end of the withdrawal period.

Withdrawing more money than the investment returns

One can also withdraw more money than the investment returns, or the rate at which the investment grows. Let us say, one needs to withdraw a certain amount for a limited period, say a year or two, and that one has specifically invested for that purpose. In such a case, even if the entire amount is exhausted during the period of withdrawal, or only a small amount is left at the end of the withdrawal, one would be ok.

Thus, one can set SWP for a specific need to get cash flow for a certain period.

No restriction on the withdrawal period

Unlike most interest-bearing products, SWP is a facility for the convenience of an investor. We discussed earlier that an interest-bearing instrument is often designed to keep the issuer's needs central. The SWP can be designed by the investor, keeping the investor's needs primary. If an investor wants to keep the withdrawal period as a perpetuity, one can do so, as long as there is a balance in the account.

One can stop the SWP

SWP is a facility and not a contractual obligation on part of the investor. That means, at any point in time, the investor is free to stop the SWP. Often in real life, the investor gets some unexpected cash flow, or something that was expected but got delayed. In all such and similar cases, the investor is free to stop the SWP.

Deferred withdrawal

One need not start withdrawing immediately after investing. Mutual funds offer a facility to defer the withdrawal. This is a great facility since one can accumulate funds in an investment account for a while (during the period when one has regular savings), and then start withdrawing when one needs cash flow.

Withdrawal of lumpsum while the SWP is on

We discussed the liquidity need earlier. Let us say, someone has set an SWP from a mutual fund folio, and there is a need to withdraw a lump sum amount from the same account. Even that is allowed, and the SWP would not stop.

Ensuring that you do not run out of capital

This is possible only when one does not withdraw a single Rupee more than what the fund has earned. Well, mutual funds offer a facility called SWP for gains only. This means, depending on the monthly increase in the corpus, the amount would be withdrawn. Since only the gains are withdrawn, the capital value would not drop on account of withdrawal.

Tax efficiency of SWP

While the interest income is taxable in the hands of an investor at the marginal rate of income tax, in the case of SWP, only part of the withdrawal is taxable in the initial period. In the table, we saw earlier, while on an investment of Rs. 10 lacs, the investor withdrew a sum of Rs. 60,000 in a year, the taxable amount was only restricted to the capital gains booked. This was only Rs. 1,873.81. Even at the highest rate of tax (assuming surcharge and cess to be NIL), the investor is liable to pay a tax of Rs. 562.14 (30% of Rs. 1,873.81). If one had earned the same amount as interest income, the tax payable would be Rs. 18,000.

This rate would be applicable since the withdrawal is started immediately from the next month. However, for all the withdrawals from the 37th month onwards, i.e. after the investment has completed 3 years, the capital gains would be taxed at the rate of 20% after adjusting the capital gains for indexation.

The tax efficiency of SWP must be understood in the right manner. It is not avoiding taxes, but deferring the same. As can be seen from the table earlier, while the withdrawal was Rs. 60,000 in the year; the capital gain was only Rs. 1,873.81. The balance amount was withdrawal of capital. It is this accounting practice due to which the tax is lower. When the entire amount is withdrawn, the residual capital gains would be taxed. In other words, had the investor withdrawn the entire capital at the end of the year, the entire Rs. 60,000 would become taxable. Since the withdrawal is spread over a period, a large part of capital gains is deferred. Thus, SWP allows the capital to grow more since there is no (or low) tax payment. Since long term capital gains are taxed at a different rate compared to short term gains, one can also structure the withdrawal such that the taxes are deferred for a long period of time.

In a nutshell, one can structure SWP in such a manner that various needs of investors can be fulfilled, be it liquidity, or adjustment in the amount of withdrawal, or increasing the withdrawal every year, or tax efficiency, etc. Thus, the Systematic Withdrawal Plan (SWP) is ideal for an investor with a lump sum to invest and who seeks regular income from their investments.

One caveat:

SWP from equity or balanced funds may offer a different kind of risk. Let us understand.

The mutual funds that have the potential to generate high returns are the equity or balanced funds, and these funds carry the risk of NAV fluctuation in the short term.

NAV fluctuation might be a good idea for someone investing regularly – the SIP investor. We all know one of the major benefits of SIP – Rupee Cost Averaging, which helps the investor buy more units when the NAV is down and buy fewer units when the NAV is up. However, what is good for an SIP investor is bad for someone opting for SWP from investments. As we know, SIP is a plan to invest regularly; SWP is a plan to withdraw regularly.

Someone withdrawing a fixed sum of money every month has an exactly opposite cash flow from the investments. In this case, the concept of Rupee Cost Averaging works against the investor as one withdraws fewer units when the NAV is high and more units when it is low. In case of a steep fall in equity markets, the corpus would start depleting faster than one realizes if the downturn prolongs.

Dividend Reinvestment in ELSS and lock-in provisions

Mr. Bhandari was very upset. He called up the call centre of the asset management company. He had filed for a redemption from his mutual fund scheme for all units, but he did not get the full payment, as some units were under lock-in. This was an equity linked savings scheme (ELSS) and the investment was done more than five years back. Mr. Bhandari was aware of the 3-year lock-in provision, and hence he expected all the units to be redeemed. What could the problem be?

The person at the call centre checked the folio details and found that the investment was in Income Distribution and Capital Withdrawal (IDCW, earlier known as dividend) reinvestment plan in the Equity-Linked Savings Scheme (ELSS). In such a case, each unit allotted on account of reinvestment of IDCW is considered a fresh purchase and hence subject to lock-in for another 3 years from the date of allotment. It is due to this technical detail that Mr. Bhandari got part of the folio redeemed, whereas the rest of the units, which were under lock-in, were not redeemed.

It would help Mr. Bhandari to change the plan from reinvestment of IDCW to payout of the same, in which case, there would be no reinvestment in future. That means, when the current units complete the lock-in, the entire folio could be closed through redemption.

Mutual Fund Scheme-wise data released through Factsheets

Mutual funds provide scheme-wise information by releasing factsheets containing details such as fund objectives, AUM, Scheme Benchmark, Fund Manager, etc. across schemes of different

categories. In addition, factsheets also contain fund performance across time horizon 1-year, 5-year etc., top portfolio holdings, sector allocation (%), risk-o-meter (visual representation of scheme's risk), risk measures such as standard deviation, beta and Sharpe Ratio etc. which will enable investor to choose the most suitable scheme based on his/her investment objective, risk-return appetite etc. Mutual Fund Distributors (MFDs) can suggest the most suitable fund to the investor based on the objectives and the expected risk-reward. Note that each investor has a unique expectation and objectives hence MFD can make appropriate use by comparing schemes using the factsheet data.

Chapter 10: Sample Questions

1. Mutual fund schemes are
 - a. Guaranteed return schemes
 - b. Fixed return schemes
 - c. **Relative return products based on the risk-adjusted performance of the underlying investments**
 - d. Insurance products

2. Debt funds are evaluated in terms of
 - a. Duration Risk
 - b. Credit Risk
 - c. Only (b.)
 - d. **Both (a.) and (b.)**

3. Two critical factors to achieve investment objectives are
 - a. Careful selection of companies that are expected to grow in future
 - b. Diversification – within and across asset classes
 - c. **Both (a.) and (b.)**
 - d. None of these

4. Investments through Systematic Investment Plan (SIP) are based on concept
 - a. **Rupee cost averaging**
 - b. Buy low Sell high
 - c. Leveraged buyouts
 - d. Amortization

Annexure A: Tax Rates for Assessment Year 2021-22

1. Individual or HUF

1.1. Normal tax rates as applicable in case of Individual/ HUF

Net income range	Resident Super Senior Citizen	Resident Senior Citizen	Any other Individual/HUF
Up to Rs. 2,50,000	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>
Rs. 2,50,001- Rs. 3,00,000	<i>Nil</i>	<i>Nil</i>	5%
Rs. 3,00,001- Rs. 5,00,000	<i>Nil</i>	5%	5%
Rs. 5,00,001- Rs. 10,00,000	20%	20%	20%
Above Rs. 10,00,000	30%	30%	30%

1.2. Alternative tax rates applicable to Individual/HUF under section 115BAC

Net Income Range	Assessment Year 2021-22
Upto Rs. 2,50,000	-
Rs. 2,50,001 to Rs. 5,00,000	5%
Rs. 5,00,001 to Rs. 7,50,000	10%
Rs. 7,50,001 to Rs. 10,00,000	15%
Rs. 10,00,001 to Rs. 12,50,000	20%
Rs. 12,50,001 to Rs. 15,00,000	25%
Above Rs. 15,00,000	30%

1.3. AMT

An individual is liable to pay Alternative Minimum Tax where tax payable by him, on his total income computed as per normal provisions of the Act, is less than 18.5% of 'adjusted total income'. In such a case the 'adjusted total income' is taken as income of such individual and he shall be liable to pay tax at the rate of 18.5% *plus* surcharge and cess (*please refer Annexure E for relevant rates*) of such 'adjusted total income'. The tax rate shall be 9% if the assessee is located in an International Financial Services Centre (IFSC) and derives income solely in convertible foreign exchange.

If he opts to compute his income tax liability as per the provisions of section 115BAC, he will not be required to pay AMT.

1.4. Rebate under Section 87A

In case of a resident individual, a rebate of up to Rs. 12,500 is allowed under Section 87A from the amount of tax if the total income of such individual does not exceed Rs. 500,000. However, no rebate shall be allowed from tax on long-term capital gain covered under section 112A.

1.5. Surcharge on tax whether computed as per the normal tax rates or new tax regime under section 115BAC

Nature of Income	Range of Total Income				
	Up to Rs. 50 lakh	More than Rs. 50 lakh but up to Rs. 1 crore	More than Rs. 1 crore but up to Rs. 2 crore	More than Rs. 2 crore but up to Rs. 5 crore	More than Rs. 5 crore
Short-term capital gain covered under Section 111A	<i>Nil</i>	10%	15%	15%	15%
Long-term capital gain covered under Section 112A	<i>Nil</i>	10%	15%	15%	15%
Dividend income	<i>Nil</i>	10%	15%	15%	15%
Unexplained income chargeable to tax under Section 115BBE	25%	25%	25%	25%	25%
Any other income*	<i>Nil</i>	10%	15%	25%	37%

1.6. Health and education cess

The amount of income tax and the applicable surcharge, shall be further increased by health and education cess calculated at the rate of 4% of such income tax and surcharge.

2. AOP/BOI/ Artificial Judiciary person

2.1. Tax rate

Net income range	Tax rate
Up to Rs. 2,50,000	<i>Nil</i>
Rs. 2,50,001- Rs. 5,00,000	5%
Rs. 5,00,001- Rs. 10,00,000	20%
Above Rs. 10,00,000	30%

2.2. AMT

An individual is liable to pay Alternative Minimum Tax where tax payable by him, on his total income computed as per normal provisions of the Act, is less than 18.5% of 'adjusted total income'. In such a case the 'adjusted total income' is taken as income of such individual and he shall be liable to pay tax at the rate of 18.5% of such 'adjusted total income'. The tax rate shall be 9% if the assessee is located in an International Financial Services Centre (IFSC) and derives income solely in convertible foreign exchange.

2.3. Surcharge

Nature of Income	Range of Total Income				
	Up to Rs. 50 lakh	More than Rs. 50 lakh but up to Rs. 1 crore	More than Rs. 1 crore but up to Rs. 2 crore	More than Rs. 2 crore but up to Rs. 5 crore	More than Rs. 5 crore
Short-term capital gain covered under Section 111A	<i>Nil</i>	10%	15%	15%	15%
Long-term capital gain covered under Section 112A	<i>Nil</i>	10%	15%	15%	15%
Dividend income	<i>Nil</i>	10%	15%	15%	15%

Unexplained income chargeable to tax under Section 115BBE	25%	25%	25%	25%	25%
Any other income*	Nil	10%	15%	25%	37%
* Note: The surcharge on dividends earned by non-corporate Foreign Portfolio Investors shall be capped at 15%.					

2.4. Health and education cess

The amount of income tax and the applicable surcharge, shall be further increased by health and education cess calculated at the rate of 4% of such income tax and surcharge.

3. Firm/ LLP

3.1. Tax rate

A firm including an LLP shall be charged income tax at the rate of 30% on normal taxable income.

3.2. AMT

An individual is liable to pay Alternative Minimum Tax where tax payable by him, on his total income computed as per normal provisions of the Act, is less than 18.5% of 'adjusted total income'. In such a case the 'adjusted total income' is taken as income of such individual and he shall be liable to pay tax at the rate of 18.5% of such 'adjusted total income'. The tax rate shall be 9% if the assessee is located in an International Financial Services Centre (IFSC) and derives income solely in convertible foreign exchange.

3.3. Surcharge

Income range	Rate of surcharge
Up to Rs. 1crore	Nil
Exceeding Rs. 1 crore	12%

3.4. Health and education cess

The amount of income tax and the applicable surcharge, shall be further increased by health and education cess calculated at the rate of 4% of such income tax and surcharge.

4. Companies

4.1. Tax rates

Section	Conditions	Tax Rates
Domestic companies		
Section 115BA	1. The company is set up and registered on or after 01-03-2016; 2. It is engaged in manufacture or production of any article or thing; and 3. It does not claim specified exemption, incentive or deduction.	25%
Section 115BAB	1. The co. is set up and registered on or after 01-10-2019; 2. It is engaged in manufacture or production of any article or thing; 3. It is engaged in business of generation of electricity 4. It commences manufacturing on or after 01-10-2019 but on or before 31-03-2023; and 5. It does not claim specified exemption, incentive or deduction.	15%
Section 115BAA	1. If co. does not claim specified exemption, incentive or deduction.	22%
First Schedule to Finance Act	If total turnover or gross receipts during the financial year 2019-20 does not exceed Rs. 400 crore	25%
First Schedule to Finance Act	Any other domestic company	30%
Foreign companies		
First schedule to Finance Act	Any foreign company	40%

4.2. MAT

A domestic company is liable to pay Minimum Alternative Tax where tax payable by it, on total income computed as per normal provisions of the Act, is less than 15% of 'book profit'. In such a case the 'book profit' is taken as the income of the company and it shall be liable to pay tax at the rate of 15% of such 'book profit'. The tax rate shall be 9% if the assessee is located in an International Financial Services Centre (IFSC) and derives income solely in convertible foreign exchange.

However, if the company opts for a concessional tax regime either under section 115BAA or 115BAB, it will not be required to pay MAT. Additionally, the provisions of MAT do not apply in case of foreign companies if it does not have a permanent establishment (PE) in India or opts for presumptive taxation scheme of Section 44B, Section 44BB, Section 44BBA or Section 44BBB.

Surcharge

Company	Range of Total Income[†]		
	Rs. 1 crore or less	Above Rs. 1 crore but up to Rs. 10 crore	Above Rs. 10 crore
Domestic Company opting for section 115BA	<i>Nil</i>	7%	12%
Domestic Company opting for section 115BAA	10%	10%	10%
Domestic Company opting for section 115BAB	10%	10%	10%
Any other domestic company	<i>Nil</i>	7%	12%
Foreign company	<i>Nil</i>	2%	5%

4.3. Health and education cess

The amount of income tax and the applicable surcharge, shall be further increased by health and education cess calculated at the rate of 4% of such income tax and surcharge.

5. Co-operative societies or co-operative banks

5.1. Normal tax rates

Income range	Tax rates
Up to Rs. 10,000	10%
Rs. 10,001- Rs. 20,000	20%
Above Rs. 20,000	30%

5.2. Tax rates for co-operative societies opting for section 115BAD

Section	Particulars	Tax rates
Section 115BAD	Income of the co-operative societies opting for this scheme shall be computed without providing various exemptions, deductions etc.	22%

5.3. AMT

A co-op. society is liable to pay Alternative Minimum Tax where tax payable by it, on total income computed as per normal provisions of the Act, is less than 18.5% of 'adjusted total income'. In such a case the 'adjusted total income' is taken as the income of the co-op. society and it shall be liable to pay tax at the rate of 18.5% of such 'adjusted total income'.

However, if the co-operative society opts to compute its income in accordance with section 115BAD, AMT provisions will not be applicable in its case.

5.4. Surcharge

<i>Tax is computed as per normal tax rates</i>	
<i>Income Range</i>	<i>Rate of surcharge</i>
Income up to Rs. 1 crore	Nil
Income exceeding Rs. 1 crore	12%
<i>Tax computed under section 115BAD</i>	
Any income	10%

5.5. Health and education cess

The amount of income tax and the applicable surcharge, shall be further increased by health and education cess calculated at the rate of 4% of such income tax and surcharge.

6. Special tax rates

Income-tax Act prescribes the following special tax rates in respect of certain income: -

6.1. In case of capital gains

Section	Assessee	Particulars	Tax Rate
Section 111A	Any Person	Short-term capital gains arising from transfer of equity shares or units of equity-oriented mutual fund or units of business trust if the transfer of such capital asset is chargeable to Securities Transaction Tax (STT)	15%
Section 112	Any person	Long-term capital gains arising from transfer of listed securities (other than a unit) or zero-coupon bonds without giving effect to benefit of indexation.	10%
	Non-resident or foreign co.	Long-term capital gains arising from the transfer of unlisted shares or shares of closely held companies without giving effect to benefit of indexation and currency translation.	10%
	Any Person	Any other long-term capital gains	20%
Section 112A	Any Person	Long-term capital gains, in excess of Rs. 1 lakhs, arising from transfer of equity shares, units of equity-oriented mutual fund or units of business trust if the transfer of such capital asset is chargeable to Securities Transaction Tax (STT)	10%
Section 115AB	Overseas financial organization or offshore funds	Long-term capital gain arising from transfer of units of specified Mutual Funds or UTI purchased in foreign currency	10%
Section 115AC	Non-resident	Long-term capital gains arising from transfer of Bonds or GDRs of an Indian Company or Public sector company (PSU) purchased in foreign currency	10%
Section 115ACA	Resident Individual	Long-term capital gains arising from transfer of GDRs issued by an Indian company, engaged in specified knowledge-based industry or service, to its employees if such GDRs are purchased in foreign currency and capital gain is computed without taking benefit of foreign exchange fluctuation and indexation.	10%
Section 115AD	Foreign Institutional Investors or	Short-term capital gains arising from transfer of equity shares or units of equity-oriented mutual fund or units of business trust as covered under Section 111A	15%

	specified fund (Refer chapter 11)	Short-term capital gains arising from transfer of any other securities	30%
		Long-term capital gains in excess of Rs. 1 lakh arising from transfer of equity shares or units of equity-oriented mutual fund or units of business trust as covered under Section 112A	10%
		Long-term capital gains arising from transfer of other securities provided capital gain is computed without taking benefit of foreign exchange fluctuation and indexation.	10%
Section 115E	Non-resident Indian	Long-term capital gains arising from transfer of specified asset purchased in foreign currency	10%

6.2. In case of interest income

Section	Assessee	Particulars	Tax Rate
Section 115A	Non-resident or Foreign Co.	Interest received from Government or an Indian concern on monies borrowed or debt incurred by such Government or Indian concern in foreign currency	20%
	Non-resident or Foreign Co.	Interest received from notified Infrastructure Debt Fund as referred to in Section 10(47)	5%
	Non-resident or Foreign Co.	Interest received from an Indian Co. or business trust as specified in Section 194LC, i.e., interest in respect of monies borrowed by them in foreign currency or long-term infrastructure bonds or rupee-denominated bonds.	4% if interest is payable in respect of long-term bond or rupee-denominated bonds listed on a recognised stock exchange in IFSC otherwise 5%
	Non-resident or Foreign Co.	Interest on rupee-denominated bonds of an Indian Co. or Government Securities or municipal debt securities as referred to in Section 194LD	5%
	Non-resident or Foreign Co.	Interest income distributed by business trust to its unitholders as referred to in Section 194LBA.	5%

Section 115AC	Non-resident	Interest on bonds of an Indian Company or Public Sector Company (PSU) purchased in foreign currency	10%
Section 115AD	Foreign Institutional Investor	Interest on rupee-denominated bonds of an Indian Company or Government Securities or municipal debt securities	5%
Section 115AD	Foreign Institutional Investor	Other Interest from securities (other than income from units of specified mutual fund or units of UTI purchased in foreign currency)	20%
Section 115AD	Specified fund (Refer chapter 11)	Interest income from securities (other than income from units of specified mutual fund or units of UTI purchased in foreign currency)	10%

6.3. In case of dividend income

Section	Assessee	Particulars	Tax Rate
Section 115A	Non-resident or foreign co.	Dividend income	20%
Section 115AC	Non-resident	Dividend on GDRs of an Indian Company or Public Sector Company (PSU) purchased in foreign currency	10%
Section 115ACA	Resident Individual	Dividend on GDRs issued by an Indian company, engaged in specified knowledge-based industry or service, to its employees if such GDRs are purchased in foreign currency	10%
Section 115AD	Foreign Institutional investor	Dividend income from securities (other than dividend from units of specified mutual fund or units of UTI purchased in foreign currency)	20%
Section 115AD	Specified fund (Refer chapter 11)	Dividend income from securities (other than dividend from units of specified mutual fund or units of UTI purchased in foreign currency)	10%
Section 115AB	Overseas financial organization or offshore funds	Dividend income from units of specified Mutual Funds or of UTI purchased in foreign currency	10%

Section 115BBD	Indian Company	Income by way of dividend declared, distributed or paid by a specified foreign company. The benefits shall be allowed only if an Indian company holds 26% or more in nominal value of equity share capital of such a foreign company.	15%
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6.4. In case of other income from securities

Section	Assessee	Particulars	Tax Rate
Section 115A	Non-resident or Foreign Co.	Income received in respect of units of specified Mutual Funds or UTI purchased in foreign currency	20%
Section 115AB	Overseas financial organization or offshore funds	Income from units of specified Mutual Funds or of UTI purchased in foreign currency	10%
Section 115AD	Foreign Institutional investor	Income from securities (other than income from units of specified mutual fund or units of UTI purchased in foreign currency)	20%
Section 115AD	Specified fund (Refer chapter 11)	Income from securities (other than income from units of specified mutual fund or units of UTI purchased in foreign currency)	10%
Section 115E	Non-resident Indian	Income from the specified asset purchased in foreign currency	20%

6.5. In case of other incomes

Section	Assessee	Particulars	Tax Rate
Section 115A	Non-resident or Foreign Co.	Income by way of royalty or fees for technical services received from India concern or Government in pursuance of an approved agreement made after 31-3-1976. However, the benefit shall not be available if royalty or fees for technical services is connected with the assessee's Permanent Establishment (PE) in India.	10%
Section 115B	Assessee engaged in life insurance business	Profit and gains of life insurance business	12.5%

Section 115BB	Any person	Income by way of winnings from lotteries, crossword puzzles, races including horse races, card games and other games of any sort or gambling or betting of any form or nature whatsoever.	30%
Section 115BBA	Non-resident sportsman (foreign citizen)	Income of a sportsman: a) from participation in any game in India; b) advertisement; or c) from contribution of articles relating to any game or sport in India in newspapers, magazines or journals	20%
	Non-resident sport association	Any amount guaranteed to be paid or payable to a non-resident sports association concerning any game or sport played in India	20%
	Non-resident entertainer (foreign citizen)	Income of an entertainer from performance in India	20%
Section 115BBE	Any person	Undisclosed income as referred to in Sections 68, 69, 69A, 69B, 69C and 69D	60%
Section 115BBF	Resident person	Income by way of royalty in respect of a patent developed and registered in India	10%
Section 115BBG	Any person	Any income by way of transfer of carbon credits	10%

6.6. In case of trusts or investment funds

Section	Assessee	Particulars	Tax Rate
Section 115BBC	Any person	Anonymous donation	30%
Section 115TD	Charitable and religious trust	Accreted income of trusts or institutions that voluntarily wind up its activities or merge with any other non-charitable institution or convert into a non-charitable organization.	Maximum Marginal Rate (42.744%)

Section 115UB	Investment fund	Business income of Category-I or Category-II Alternative Investment Fund, where such fund is a domestic company or firm	30%
		Business income of Category-I or Category-II Alternative Investment Fund, where such fund is a foreign company	40%
		Business income of Category-I or Category-II Alternative Investment Fund, where such fund is any other person	Maximum Marginal Rate (42.744%)
Section 161	Trust	Profits and gains of a business in the case of trust except where such trust is declared by any person by will exclusively for the benefit of any relative dependent on him for support and maintenance, and such trust is the only trust so declared by him.	Maximum Marginal Rate (42.744%)
Section 164	Private discretionary trust	Income of trust where shares of the beneficiary are indeterminate.	Maximum Marginal Rate (42.744%)
Section 164A	Oral trust	Income of an oral trust	Maximum Marginal Rate (42.744%)
Section 167B	AOP or BOI	Income of AOP or BOI if shares of members are unknown	Maximum Marginal Rate (42.744%)
		Income of AOP or BOI if shares of members are unknown and total income of any member is chargeable to tax at a rate higher than the maximum marginal rate	Higher rate
		Income of AOP or BOI if shares of members are determinate and total income of any member	Normal slab Rates

		does not exceed the maximum amount not chargeable to tax	
		Income of AOP or BOI if shares of members are determinate and total income of any member exceeds the maximum amount not chargeable to tax	Maximum Marginal Rate (42.744%)
		Income of AOP or BOI if shares of members are determinate and total income of any member is chargeable to tax at a rate higher than the maximum marginal rate	Higher rate on income attributable to such member Maximum Marginal Rate (42.744%) on the remaining income

Annexure B: Deductions under Income-tax Act

Sr. No.	Section	Eligible investment or incomes	Who can claim?	Maximum deduction
1.	Section 80C	Payment for life insurances, education expenses, contribution to provident fund, repayment of housing loan, contribution to certain small saving schemes, contribution to pension funds, or fixed deposits.	Individual or HUF	Rs. 150,000
2.	Section 80CCC	Amount deposited or paid to annuity pension plan of LIC or other insurers	Individual	Rs. 150,000
3.	Section 80CCD(1)	Contribution to National Pension Scheme (NPS) or Atal Pension Yojana	Individual	10% of Salary in case of an employee otherwise 20% of gross total income
It should be noted that the aggregate amount of deduction under Section 80C, Section 80CCC and Section 80CCD(1) cannot exceed Rs. 150,000.				
4.	Section 80CCD(1B)	Additional contribution to NPS or Atal Pension Yojana	Individual	Rs. 50,000
5.	Section 80CCD(2)	Employer's contribution to NPS	Individual	14% of salary in case of Central Government's employee otherwise 10% of salary
6.	Section 80D	Amount paid for health insurance policy, preventive health check-up, contribution to CGHS and expenditure on medical treatment	Individual or HUF	Rs. 75,000 [where individual (incl his family) is less

				than 60 years of age and his parents are senior citizen) ▪ Rs. 1,00,000 [where both individual (incl. his any member of family) and his parents are senior citizens]
7.	Section 80DD	Incurs medical expenditure, or pays an insurance premium for the benefit, of a family member suffering from disability.	Resident Individual or HUF	▪ Rs. 75,000 (in case of disability) ▪ Rs. 125,000 (in case of severe disability)
8.	Section 80DDB	Amount incurred for medical treatment of prescribed disease or ailment.	Resident Individual or HUF	Rs. 40,000 (Rs. 100,000 in case of senior citizen)
9.	Section 80E	Interest paid on education loan taken for the higher education	Individual	Interest paid during the year
10.	Section 80EE	Interest payable on loan taken for acquisition of residential property. The loan should be sanctioned between 01-04-2016 and 31-03-2017.	Individual	Rs. 50,000
11.	Section 80EEA	Interest payable on loan taken for acquisition of residential property. The loan should be sanctioned between 01-04-2019 and 31-03-2022 ²⁹ .	Individual	Rs. 150,000

²⁹ The Finance Act, 2021 has extended the outer date from 31-03-2021 to 31-03-2022

12.	Section 80EEB	Interest payable on loan taken for acquiring an electric vehicle	Individual	Rs. 150,000
13.	Section 80G	Donation to specified institution or funds	Any assessee	50% to 100% of donation made
14.	Section 80GG	Payment of rent for residential house property	Individual	Least of the following: ▪ Rent paid in excess of 10% of total income; ▪ Rs. 5,000 per month; or ▪ 25% of total income
15.	Section 80GGA	Donation for scientific research or rural development	Any assessee not having income from business or profession	100% of donation made
16.	Section 80GGB	Donation to a political party or an electoral trust	Indian company	100% of donation made
17.	Section 80GGC	Donation to a political party or an electoral trust	Any person, other than local authority or AJP funded by Govt.	100% of donation made
18.	Section 80-IA	Profits and gains derived from the following eligible businesses: (a) Developing, operating or maintaining Infrastructure Facility;	Any assessee	100% of profits

				(for 10 years out of 20 years ³⁰)
		(b) Telecommunication Services;		100% of profits in first 5 years and 30% in next 5 years (for 10 years out of 15 years)
		(c) Developing, operating or maintaining an Industrial Park or SEZ;		100% of profits (for 10 years out of 15 years)
		(d) Generating or distributing power; or		100% of profits (for 10 years out of 15 years)
		(e) Reconstruction or revival of power generating plant.		100% of profits (for 10 years out of 15 years)
19.	Section 80-IAB	Profits and gains derived from any business of developing a Special Economic Zone (SEZ)	Any assessee	100% of profit (for 10 years out of 15 years)
20.	Section 80-IAC	Profits and gains derived by an eligible start-up	Company or an LLP	100% of profit and gains (for 3 years out of 10 years)
21.	Section 80-IB	Profits and gains derived from the following eligible businesses:	Any assessee	

³⁰ Deduction shall be allowed for 10 years out of 15 years if infrastructure facility is a port, airport, inland waterway, inland port or navigational channel in the sea.

		(a) Industrial undertaking in backward area;		100% of profits in first 5 years and 25%/30% in next 5 years (for 10/12 years out of 15 years)
		(b) Undertaking engaged in production or refining of mineral oil or natural gas;		100% of profits (for 7 years)
		(c) Housing project; and		100% of profits from a housing project
		(d) Processing, Preservation and Packaging of specified food products.		100% of profits in first 5 years and 25%/30% in next 5 years
22.	Section 80-IBA	Profits derived from the business of developing and building housing projects	Any assessee	100% of profits from a housing project
23.	Section 80-IC	Profits derived from the business of manufacturing or production of articles in certain special category States	Any assessee	100% of profits in first 5 years and 25%/30% in next 5 years
24.	Section 80-IE	Profit derived from specified services and manufacturing activity in the States of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura (North-Eastern States)	Any assessee	100% of profits for 10 years
25.	Section 80JJA	Income from collection and processing of bio-degradable waste	Any assessee	100% of profits for 5 years
26.	Section 80JJAA	Incurring cost on additional employees	Any assessee	30% of additional employee cost(for 3 years)

27.	Section 80LA	Income from offshore banking unit in SEZ or unit of an IFSC	Banks having an offshore banking unit in SEZ or a unit of IFSC	▪ 100% of profits in case of unit of IFSC (for 10 years out of 15 years) ▪ 100% of profits for 5 years and 50% in next 5 years in case of offshore banking unit in SEZ
28.	Section 80M	Income by way of dividend received from a domestic company, a foreign company or a business trust	Domestic company	100% of dividend further distributed
29.	Section 80P	Interest income, dividend income and profits derived from business	Co-operative society	100% of specified income
30.	Section 80PA	Profit derived from processing or marketing of agricultural produce.	Producer Company	100% of profits
31.	Section 80QQB	Royalty or copyright fees in respect of books	Resident Individual	Rs. 300,000
32.	Section 80RRB	Royalty in respect of patents	Resident Individual	Rs. 300,000
33.	Section 80TTA	Interest earned on deposits in saving bank account	Individual or HUF	Rs. 10,000
34.	Section 80TTB	Interest income earned from any bank deposits including fixed deposit	Resident Senior Citizen	Rs. 50,000
35.	Section 80U	A person suffering from a disability or severe disability	Resident Individual	▪ Rs. 75,000 (in case of disability) ▪ Rs. 125,000 (in case of severe disability)

Annexure C: Exemptions under Income-tax Act

(A) Income exempts under the head 'Salary'

<i>Section</i>	<i>Nature of Income</i>
Section 10(5)	Leave Travel Concession
Section 10(6)(ii)	Remuneration of specified diplomats and their staff
Section 10(6)(vi)	Remuneration of an employee of a foreign enterprise for services rendered by him during his stay in India
Section 10(6)(viii)	Remuneration of a foreign employee on a foreign ship
Section 10(6)(xi)	Remuneration of a foreign trainee
Section 10(7)	Allowance/perquisites to Government employee for rendering service outside India
Section 10(8)	Income of foreign government employee under co-operative technical assistance programme
Section 10(10)	Gratuity
Section 10(10A)	Pension
Section 10(10AA)	Leave Salary
Section 10(10B)	Retrenchment Compensation
Section 10(10C)	Voluntary Retirement Compensation
Section 10(10CC)	Tax on non-monetary perquisites paid by the employer
Section 10(12)	Amount received from recognized Provident Fund subject to prescribed limit
Section 10(13)	Payment from an approved superannuation fund
Section 10(13A)	House Rent Allowance
Section 10(14)	Office Duty Allowances and Personal Allowances

Section 10(18)	Pension to gallantry award winner
Section 10(19)	Family pension received by the family members of armed forces

(B) Income exempt under the head ‘Capital Gains’

<i>Section</i>	<i>Nature of Income</i>
Section 10(4E)	Any income from transfer of certain non-deliverable forward contracts by a non-resident ³¹
Section 10(10D)	Any sum received under a life insurance policy except certain excessive and high premium ULIPs.
Section 10(23FF)	Capital gains from transfer of shares of a company resident in India on account of relocation of offshore funds ³²
Section 10(33)	Capital gains on transfer of unit of Unit Scheme – 1964
Section 10(37)	Capital gains on compulsory acquisition of urban agricultural land
Section 10(37A)	Capital gain on transfer of specified capital assets under land pooling scheme of the Andhra Pradesh Government.

(C) Income exempt under the head ‘Income from other sources’

<i>Section</i>	<i>Nature of Income</i>
Section 10(4)(i)	Interest on notified securities and bonds
Section 10(4)(ii)	Interest on NRE account
Section 10(4C)	Interest on Rupee Denominated Bonds
Section 10(10BB)	Compensation for Bhopal Gas Leak Disaster
Section 10(10BC)	Compensation on account of any disaster
Section 10(11)	Amount received from public provident fund subject to prescribed limit

³¹ Inserted by the Finance Act, 2021 with effect from Assessment year 2022-23

³² Inserted by the Finance Act, 2021 with effect from Assessment year 2022-23

Section 10(11A)	Amount received from Sukanya Samriddhi Account
Section 10(12A)	Payment from the National Pension Scheme
Section 10(12B)	Partial withdrawal from NPS
Section 10(15)	Interest on specified securities as prescribed

(D) Income exempt under the head ‘Profit and Gains from business and profession’

<i>Section</i>	<i>Nature of Income</i>
Section 10(2A)	Partner’s share in the profit of the firm
Section 10(4F)	Royalty or interest income received by a non-resident from lease of aircraft ³³
Section 10(6A)	Tax paid on behalf of foreign company on the royalty and fees for technical services
Section 10(6B)	Tax paid on behalf of foreign company or non-resident in respect of income not being salary, royalty or fees for technical services
Section 10(6BB)	Tax paid on behalf of foreign Government or foreign enterprise deriving income by way of lease of aircraft or aircraft engine
Section 10(6C)	Technical fees received by a notified foreign company
Section 10(6D)	Royalty/Fees received by non-resident from National Technical Research Organisation
Section 10(8A)/(8B)/(9)	Remuneration in connection with technical assistance programme
Section 10(15A)	Lease rent of an aircraft
Section 10(30)	Subsidy from the Tea Board
Section 10(40)	Grants received by specified subsidiary company
Section 10(48)	Income on account of import of crude oil etc.

³³ Inserted by the Finance Act, 2021 with effect from Assessment year 2022-2023

Section 10(48A)	Income on account of storage and sale of crude oil
Section 10(48B)	Income on account of sale of leftover stock of crude oil
Section 10(48C)	Income on account of replenishment of crude oil
Section 10(50)	Income which is subject to equalisation levy

(E) Income exempt of certain specified assesseees

<i>Section</i>	<i>Nature of Income</i>
Section 10(2)	Amount received by member of HUF
Section 10(4D)	Certain Income arising to Specified fund (refer <i>para 11.6-5a</i>) to the extent units held by non-resident (not being the permanent establishment of a non-resident in India) or the investment division of offshore banking unit, as the case may be ³⁴
Section 10(20)	Income of local authority
Section 10(21)	Income of research association
Section 10(22B)	Income of a news agency
Section 10(23A)	Income of a professional association
Section 10(23AA)	Income received on behalf of Regimental Fund
Section 10(23AAA)	Income of a fund established for welfare of employees
Section 10(23AAB)	Income of pension fund
Section 10(23B)	Income from Khadi or village industry
Section 10(23BB)	Income of Khadi and Village Industries Boards
Section 10(23BBA)	Incomes of statutory bodies for the administration of public charitable trust

³⁴ Amended by the Finance Act, 2021, with effect from assessment year 2022-2023

Section 10(23BBB)	Income of European Economic Community
Section 10(23BBC)	Income of SAARC fund
Section 10(23BBE)	Income of IRDAI
Section 10(23BBG)	Income of Central Electricity Regulatory Commission
Section 10(23BBH)	Income of the Prasar Bharati
Section 10(23D)	Income of mutual fund
Section 10(23DA)	Income of a securitisation trust
Section 10(23EA)/ 10(23EC)/ 10(23ED)	Income of Investor Protection Fund set up by stock exchange
Section 10(23EE)	Income of Core Settlement Guarantee Fund
Section 10(23FB)	Income of a venture capital fund or a venture capital company from investment in a venture capital undertaking
Section 10(23FBA)	Income of an investment fund
Section 10(23FC)]	Income of a Business Trust
Section 10(23FCA)	Certain income of a business trust, being a real estate investment trust
Section 10(23FE)	Certain income of wholly-owned subsidiary of Abu Dhabi Investment authority or Sovereign wealth fund or pension fund
Section 10(24)	Income of a registered trade union
Section 10(25)	Income of employee welfare funds
Section 10(25A)	Income of the Employees' State Insurance Fund
Section 10(26)	Income of a member of a Scheduled Tribe
Section 10(26AAA)	Income of a Sikkimese individual
Section 10(26AAB)	Income of an Agricultural Produce Marketing Committee/Board
Section 10(26B)	Income of certain corporation established for promoting the interest of members of Scheduled Caste

Section 10(26BB)	Income of a corporation established for promoting the interest of minority caste
Section 10(26BBB)	Income of a corporation established for ex-servicemen
Section 10(27)	Income of a co-operative society formed for promoting the interests of the members of Scheduled Castes or Scheduled Tribes
Section 10(29A)	Income of coffee board, rubber board, etc.
Section 10(32)	Income of a minor child up to a certain limit and conditions
Section 10(39)	Income from an international sporting event
Section 10(42)	Income of certain non-profit body or authority
Section 10(44)	Income of New Pension System Trust
Section 10(46)	Exemption of specified income of notified body/ authority/trust/board/commission
Section 10(47)	Any income of a notified infrastructure debt
Section 10(48D) ³⁵	Any income accruing or arising to an institution established for financing the infrastructure and development
Section 10(48E) ³⁶	Any income accruing or arising to a developmental financing institution, licensed by the RBI

(F) Income exempt of certain funds, trust and institutions

<i>Section</i>	<i>Persons covered</i>
Section 10(23C)(i)	PM National Relief Fund and PM CARES Fund
Section 10(23C)(ii)	PM Fund for promotion of Folk Art
Section 10(23C)(iii)	PM Aid to Students Fund

³⁵ Inserted by the Finance Act, 2021 with effect from assessment year 2022-2023

³⁶ Inserted by the Finance Act, 2021 with effect from assessment year 2022-2023

Section 10(23C)(iia)	National Foundation for Communal Harmony
Section 10(23C)(iiaa)	Swachh Bharat Kosh
Section 10(23C)(iiaaa)	Clear Ganga Fund
Section 10(23C)(iiiaaaa)	CM Relief Fund or Lieutenant Governor Relief Fund
Section 10(23C)(iiiab)	University or educational institution wholly or substantially financed by the government
Section 10(23C)(iiiad)	University or educational institution whose annual receipts do not exceed Rs. 5 crore ³⁷
Section 10(23C)(vi)	University or educational institution approved by the Principal Commissioner or Commissioner
Section 10(23C)(iiiac)	Hospital or other specified institution wholly or substantially financed by the government
Section 10(23C)(iiiae)	Hospital or other specified institution whose annual receipts do not exceed Rs. 5 crore ³⁸
Section 10(23C)(via)	Hospital or other specified institution approved by the Principal Commissioner or Commissioner
Section 10(23C)(iv)	Charitable Institution approved by the Principal Commissioner or Commissioner
Section 10(23C)(v)	Trust for Public religious and charitable institution approved by the Principal Commissioner or Commissioner

³⁷ The Finance Act, 2021 extended limit for annual receipts from Rs. 1 crore to Rs. 5 crore

³⁸ The Finance Act, 2021 extended limit for annual receipts from Rs. 1 crore to Rs. 5 crore

(G) Income exempt in the nature of distributed Income

<i>Section</i>	<i>Nature of Income</i>
Section 10(23FBB)	Income referred to in section 115UB of a unit holder of an investment fund
Section 10(23FBC)	Income received by a unit holder of Category III AIF
Section 10(23FD)	Certain distributed Income of a Unit Holder from the Business Trust
Section 10(34A)	Income of a shareholder on account of buy back of shares by the company
Section 10(35A)	Income of an investor received from a securitisation trust

After the abolition of dividend distribution tax, no exemption is available under Section 10(34) and Section 10(35) for the dividend distributed by a company or a mutual fund, as the case may be.

(H) Others

<i>Section</i>	<i>Nature of Income</i>
Section 10(1)	Agriculture Income
Section 10(16)	Educational scholarship
Section 10(17)	Daily allowance to a Member of Parliament or State Legislature
Section 10(17A)	Awards and Rewards
Section 10(19A)	Annual value of one palace
Section 10(43)	Loan in the case of reverse mortgage

Annexure D: Summarized Tax Table – Product-wise

(A) Equity Products

Product	Period of holding to qualify for long-term capital asset (in months)	Tax on short-term capital gain			Tax on long-term capital gain ^[Note 1]			Tax on dividend income		
		In case of resident	In case of non-resident	In case of FPIs or Specified fund ^[Note 6]	In case of resident	In case of non-resident	In case of FPIs or Specified fund ^[Note 6]	In case of resident ^[Note 7]	In case of non-resident ^[Note 8]	In case of FPIs or Specified fund ^[Note 6]
Listed equity shares (STT Paid)	12	15%	15%	15%	10% ^[Note 2]	10% ^[Note 2]	10% ^[Note 2]	Normal tax rate	20%	20%
Listed equity shares (STT not paid)	12	Normal tax rate	Normal tax rate	30%	20% with indexation or 10% without indexation	20% with indexation or 10% without indexation	10%	Normal tax rate	20%	20%
Unlisted shares	24	Normal tax rate	Normal tax rate	30%	20% with indexation	10% without indexation and forex fluctuation	10%	Normal tax rate	20%	20%

Listed Preference shares	12	Normal tax rate	Normal tax rate	30%	20% with indexation or 10% without indexation	20% with indexation or 10% without indexation	10%	Normal tax rate	20%	20%
Unlisted Preference shares	24	Normal tax rate	Normal tax rate	30%	20% with indexation	10% without indexation and forex fluctuation	10%	Normal tax rate	20%	20%
GDRs [Note 3]	36	Normal tax rate	Normal tax rate	30%	10% under section 115ACA and 20% with indexation in other cases	10% under section 115AC and 20% with indexation in other cases	10%	10% in section 115ACA and Normal tax rate in other cases	10% in section 115AC and 20% in other cases	10% in section 115AC and 20% in other cases
Share warrants [Note 4]	-	Normal tax rate	Normal tax rate	30%	-	-	-	-	-	-
Equity Oriented Mutual Funds	12	15%	15%	15%	10% [Note 2]	10% [Note 2]	10% [Note 2]	Normal tax rate	20%	20%

(if STT Paid)										
Equity Oriented Mutual Funds (if STT not Paid)	12	Normal tax rate	Normal tax rate	30%	20% with indexation	20% with Indexation	10%	Normal tax rate	20%	20%
Derivatives ^[Note 5]	-	-	-	30%	-	-	-	-	-	-

Note 1: Where the long-term capital gain is charged to tax at the rate of 20%, the benefit of indexation shall be allowed at the time of computing capital gain to the assessee. Further, a non-resident assessee, who has acquired shares or debentures in foreign currency, shall be allowed to compute capital gain in foreign currency in case of transfer of shares or debentures of an Indian company. However, if the long-term capital gain is charged to tax at the rate of 10% then no benefit of indexation and foreign currency fluctuation shall be allowed while computing capital gain.

Note 2: Tax on long-term capital gain arising from transfer of equity shares, units of an equity-oriented mutual fund, high premium ULIPs or units of REITs/ InVITs, chargeable to STT, shall not be levied if the aggregate amount of long-term capital gain earned during the year from transfer of said capital assets does not exceed Rs. 1,00,000.

Note 3: Tax rate in case of conversion of GDR into other security would be same as applicable at the time of transfer of GDRs.

Note 4: Tenure of share warrants shall not exceed 18 months from the date of their allotment in the IPO or Right Issue or FPO, as the case may be. Thus, short-term capital gain shall arise in every situation on the transfer of share warrants or conversion thereof into shares.

Note 5: Income from derivatives is considered as business income in case of every person other than FPIs and tax is charged as applicable tax rates. Transfer of derivatives would not lead to arise of long-term capital gains as the maximum holding period of derivatives is 3 months. However, in case of FPIs, the resultant gains from derivatives shall always be short-term capital gains.

Note 6: Specified funds mean Category III Alternative Investment Fund located in IFSC, entire units of which are held by non-residents (other than units held by sponsors or managers) or investment division of banking unit granted a certificate of registration as Category – I FPI as located in IFSC.

Note 7: A resident shareholder is allowed deduction of interest expenditure incurred to earn dividend income to the extent of 20% of total dividend income. No further deduction shall be allowed for any other expenses including commission or remuneration paid to a banker or any other person earn such dividend.

Note 8: A non-resident person or foreign company or FPI, as the case may be, shall not be allowed to deduct any expenditure from dividend income. Further, deduction under Chapter-VIA (i.e., section 80C to 80U) shall not be allowed from such income.

Note 9: The benefit of indexation will not be allowable in case a non-resident has purchased shares in, or debentures of an Indian company **in foreign currency**. In this case the rate of tax on such

(B) Debt Products

Product	Period of holding to qualify for long-term capital asset (in months)	Tax on short-term capital gain			Tax on long-term capital gain			Tax on interest/dividend income		
		In case of resident	In case of non-resident	In case of FPIs	In case of resident	In case of non-resident	In case of FPIs	In case of resident	In case of non-resident	In case of FPIs ^l
Sovereign Gold Bond (Listed) ^[Note 1]	12	Normal tax rate	Normal tax rate	-	20% with indexation or 10% without indexation	20% with indexation or 10% without indexation	-	Normal tax rate	Normal tax rate	-
Capital Indexed Bond (Listed)	12	Normal tax rate	Normal tax rate	30%	20% with indexation or 10% without indexation	20% with indexation or 10% without indexation	10% without indexation	Normal tax rate	Normal tax rate	20%
Capital Indexed Bond (Unlisted)	36	Normal tax rate	Normal tax rate	30%	20% with indexation	10% without indexation	10% without indexation	Normal tax rate	Normal tax rate	20%

Zero-coupon Bond	12	Normal tax rate	Normal tax rate	30%	10% without indexation	10% without indexation	10% without indexation	-	-	-
Rupee-denominated Bond or Masala Bond (Listed)	12	Normal tax rate	Normal tax rate	30%	10% without indexation	10% without indexation	10% without indexation	Normal tax rate	4%if bonds are listed on stock exchange located in IFSC otherwise 5%	4%if bonds are listed on stock exchange located in IFSC otherwise 5%
Rupee-denominated Bond or Masala Bond (Unlisted)	36	Normal tax rate	Normal tax rate	30%	20% without indexation	10% without indexation	10% without indexation	Normal tax rate	5%	5%
Foreign Currency Bond (Listed)	12	Normal tax rate	Normal tax rate	30%	10% without indexation	10% without indexation	10% without indexation	Normal tax rate	4%if bonds are listed on stock exchange located in IFSC otherwise 5%	4%if bonds are listed on stock exchange located in IFSC otherwise 5%
Foreign Currency Bond (Unlisted)	36	Normal tax rate	Normal tax rate	30%	20% without indexation	10% without indexation	10% without indexation	Normal tax rate	5%	5%
Foreign Currency Convertible Bond (FCCB) (Listed)	12	Normal tax rate	Normal tax rate	30%	10% without indexation	10% without indexation	10% without indexation	Normal tax rate	10%	10%
Foreign Currency Convertible Bond (FCCB) (Unlisted)	36	Normal tax rate	Normal tax rate	30%	20% without indexation	10% without indexation	10% without indexation	Normal tax rate	10%	10%
Any other Bond (Listed)	12	Normal tax rate	Normal tax rate	30%	10% without indexation	10% without indexation	10% without indexation	Normal tax rate	20%	20%

Any other Bond (Unlisted)	36	Normal tax rate	Normal tax rate	30%	20% without indexation	10% without indexation	10% without indexation	Normal tax rate	20%	20%
Treasury Bills (T-Bills)	-	Normal tax rate	Normal tax rate	30%	-	-	-	-	-	-
Dated Government Securities (Dated G-Secs) (Listed)	12	Normal tax rate	Normal tax rate	30%	10% without indexation	10% without indexation	10% without indexation	Normal tax rate	20%	5%
Dated Government Securities (Dated G-Secs) (Unlisted)	36	Normal tax rate	Normal tax rate	30%	20% without indexation	10% without indexation	10% without indexation	Normal tax rate	20%	5%
Municipal Debt Securities	12	Normal tax rate	Normal tax rate	30%	10% without indexation	10% without indexation	10% without indexation	Normal tax rate	20%	5%
Commercial Papers	-	Normal tax rate	Normal tax rate	30%	-	-	-	-	-	-
Debentures (Listed)	12	Normal tax rate	Normal tax rate	30%	10% without indexation	10% without indexation	10% without indexation	Normal tax rate	20%	20%
Debentures (Unlisted)	36	Normal tax rate	Normal tax rate	30%	20% without indexation	10% without indexation	10% without indexation	Normal tax rate	20%	20%
Debt-oriented Mutual Funds ^[Note 2]	36	Normal tax rate	Normal tax rate	Normal tax rate	20% with indexation	20% with indexation if listed otherwise 10% without indexation	10% without indexation	Normal tax rate	20%	20%

Note 1: Capital gain arising to an Individual on redemption of Sovereign Gold Bond shall not be chargeable to tax under section 47 of the Income-tax Act.

Note 2: A resident shareholder is allowed deduction of interest expenditure incurred to earn dividend income from debt-oriented mutual funds to the extent of 20% of total dividend income. No further deduction shall be allowed for any other expenses including commission or remuneration paid to a banker or any other person for the purpose of realising such dividend. However, a non-resident person or foreign company or FPI, as the case may be, shall not be allowed to deduct any expenditure from dividend income. Further, deduction under Chapter-VIA (i.e., section 80C to 80U) shall not be allowed from such income.

(C) Other Products

1. Shares issued under Employee Stock Option Scheme (ESOPs)

Point of Taxation	Nature of Income	Computation of Income	Tax Rate	
			Resident	Non-resident
At the time of allotment of shares	Perquisite	FMV of shares at the time of exercising of option <i>minus</i> amount recovered from the employee	Normal Tax Rate	Normal Tax Rate
At the time of sale of shares	Short-term capital gain	Sale Consideration <i>minus</i> Cost of Acquisition ^[Note 2]	15% in case shares are chargeable to STT otherwise normal tax rate	15% in case shares are chargeable to STT otherwise normal tax rate
	Long-term capital gain	Sale Consideration <i>minus</i> Cost of Acquisition ^[Note 2]	10% without indexation in case shares are chargeable to STT ^[Note 1] otherwise 20% with Indexation	10% without indexation ^[Note 1 and 2]

Note 1: In case shares are chargeable to STT, no tax shall be levied if the aggregate amount of long-term capital gain doesn't exceed Rs. 1,00,000. If the amount of capital gain exceeds Rs. 1,00,000 then tax shall be levied at the rate of 10% on the amount of capital gain in excess of Rs. 1,00,000.

Note 2: Cost of acquisition of shares allotted under ESOP shall be the FMV of shares at the time of exercising of option by the assessee.

2. National Pension System (NPS)

National pension system (NPS)	Taxability
Contribution to NPS	
a) Employees' contribution to NPS	The deduction is allowed under section 80CCD up to 10% of salary <i>plus</i> additional deduction is allowed up to Rs. 50,000.
b) Employers' contribution to NPS	The deduction is allowed up to 14% of salary in case of Central Government employees. In case of any other employer, the limit is 10% of salary.
c) Any other person not being an employee	Up to 20% of the gross total income of such person <i>plus</i> an additional deduction of Rs. 50,000 is allowed.
Accumulation	Tax-free
Lump-sum withdrawal	
a) Partial withdrawal	Exempt only in case of employees to the extent of 25% of employee's contribution to NPS.
b) Final withdrawal at the time of closure of account or opting out of the scheme (employee as well as non—employee)	Exempt up to 60% of the total corpus available in the NPS account of the subscriber.
c) Amount received by the nominee on the death of subscriber	Fully exempt
Pension Income	
Pension received out of NPS or annuity plan of LIC or any other insurer	Fully Taxable

3. Real Estate Investment Trust (REITs) or Infrastructure Investment Trusts (InVITs)

Nature of Income	Taxability in the hands of		
	REIT	InVIT	Unitholders
Interest from SPV	Exempt [Section 10(23FC)(a)]	Exempt [Section 10(23FC)(a)]	Taxable under the head Income from other sources at the following rates ▪ Resident unit-holder: Applicable tax rate ▪ Non-resident unit-holder: 5% or DTAA rate, whichever is beneficial
Other Interest Income	Taxable at Maximum Marginal Rate [Section 115UA]	Taxable at Maximum Marginal Rate [Section 115UA]	Exempt [Section 10(23FD)]
Dividend from SPV (SPV has exercised option under Section 115BAA)	Exempt [Section 10(23FC)(b)]	Exempt [Section 10(23FC)(b)]	Taxable under the head Income from other sources at the following rates ▪ Resident unit-holder: Applicable tax rate ▪ Non-resident unit-holder: 20% or DTAA rate, whichever is beneficial
Dividend from SPV (SPV has not exercised option under	Exempt [Section 10(23FC)(b)]	Exempt [Section 10(23FC)(b)]	Exempt [Section 10(23FD)]

Section 115BAA)			
Other Dividend Income	Taxable at Maximum Marginal Rate [Section 115UA]	Taxable at Maximum Marginal Rate [Section 115UA]	Exempt [Section 10(23FD)]
Rental income earned from property owned by a trust	Exempt [Section 10(23FCA)]	Taxable at Maximum Marginal Rate under the head Income from House Properties	Taxable (if received from REIT) under the head Income from House Properties at applicable tax rate
Other Rental Income	Taxable at Maximum Marginal Rate [Section 115UA]	Taxable at Maximum Marginal Rate [Section 115UA]	Exempt [Section 10(23FD)]
Capital Gains	Taxable at Maximum Marginal Rate (Except those taxable under section 111A, 112 and 112A) under the head Capital Gains ³⁹	Taxable at Maximum Marginal Rate (Except those taxable under section 111A, 112 and 112A) under the head Capital Gains ³⁹	Exempt [Section 10(23FD)]
Other Income	Taxable at Maximum Marginal Rate	Taxable at Maximum Marginal Rate	Exempt [Section 10(23FD)]

³⁹ Section 115UA of the Income-tax Act provides that subject to section 111A and 112, the total income of a business trust shall be chargeable to tax at the maximum marginal rate. Section 111A provides for a concessional tax rate of 15% in respect of short-term capital gain arising from the transfer of listed equity shares and equity-oriented mutual funds. Whereas, section 112 provides for a concessional tax rate of 20% in case of long-term capital gain. The Finance Act, 2018, inserted a new Section 112A in the Income-tax Act which provides for the taxability of income arising from the transfer of a long-term capital asset, being a listed equity share or a unit of an equity-oriented fund or a unit of a business trust at the rate of 10% on the amount of capital gain in excess of Rs. 1,00,000. However, no consequential amendment was made under section 112A. Thus, as per general rule of interpretation, capital gain covered under section 112A shall be charged to tax at the rate of 10% and not at MMR.

<i>Tax on capital gain arising to unit holder from transfer of units of REITs/InvITs</i>	
<i>Nature of capital gain</i>	<i>Unit-holder</i>
Short-term capital gain	a) Units chargeable to STT: 15% b) Units not chargeable to STT: <i>Applicable tax rate</i>
Long-term capital gain	a) Units chargeable to STT: 10% (beyond Rs. 1 Lakh) b) Units not chargeable to STT: 20% with indexation benefit in case of resident and 10% without indexation benefit in case of non-resident

4. Category I and Category II Alternative Investment Fund (AIFs)

<i>Category of AIF</i>	<i>Nature of Income</i>	<i>Tax implication in hands of AIF</i>	<i>Tax implication in hands of unit-holders</i>
Category I and Category II AIF	Business Income	(a) Taxable as per applicable tax rate if AIF is a Company or a Firm (b) Taxable at a maximum marginal rate of 42.744% if AIF is registered as any other body corporate [Section 115UB]	Exempt [Section 10(23FBB)]
	Other than business income	Exempt [Section 10(23FBA)]	Taxable as per applicable tax rate [Section 115UB]
Specified Category III AIF	Income from securities other than units referred under	Taxable, unless exempt under Section 10(4D), as per the following tax rates: (a) Interest or Dividend: 10%; (b) Short-term capital gain: 15% or 30%; (c) Long-term capital gain: 10% [Section 115AD]	Exempt [Section 10(23FBC)]

	section 115AB		
	Other Income	Taxable as per applicable tax rate	Exempt [Section 10(23FBC)]
Other Category III AIF	Any Income	Taxable as per applicable tax rate	Taxable as per applicable tax rate

About NISM

National Institute of Securities Markets (NISM) is an educational institution established by the Securities and Exchange Board of India (SEBI), the securities market regulator, in 2006. The Institute was established in pursuant to the Union Finance Minister's proposal, in his 2005-06 Budget Speech, to set up an institution 'for teaching and training intermediaries in the securities markets and promoting research'.

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This workbook has been developed to assist candidates in preparing for the National Institute of Securities Markets (NISM) Mutual Fund Distributors (Level 2) Certification Examination. NISM-Series-V-C: Mutual Fund Distributors (Level 2) Certification Examination seeks to enhance knowledge of associated persons, i.e., distributors, agents or any persons employed or engaged or to be employed or engaged in the sale and/or distribution of mutual fund products, in order to enable a better understanding of features of advanced mutual fund products, fund valuation, fund performance measurements, investor service and related regulations.

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