Financial Institutions and Markets
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Lecture – 29
Mutual Funds - II

In the previous class, we discussed about the structure of the Mutual Fund and there are different concepts which are related to mutual fund and as well as the relevance or the significance of the mutual fund investment of a particular financial system. Now, today, in this class, we will be discussing about the different type of schemes, what the mutual funds provide. And as well as we can discuss certain things that how the mutual fund is performance is measured and also that what are the basic difference or the similarity between mutual fund and the hedge fund.

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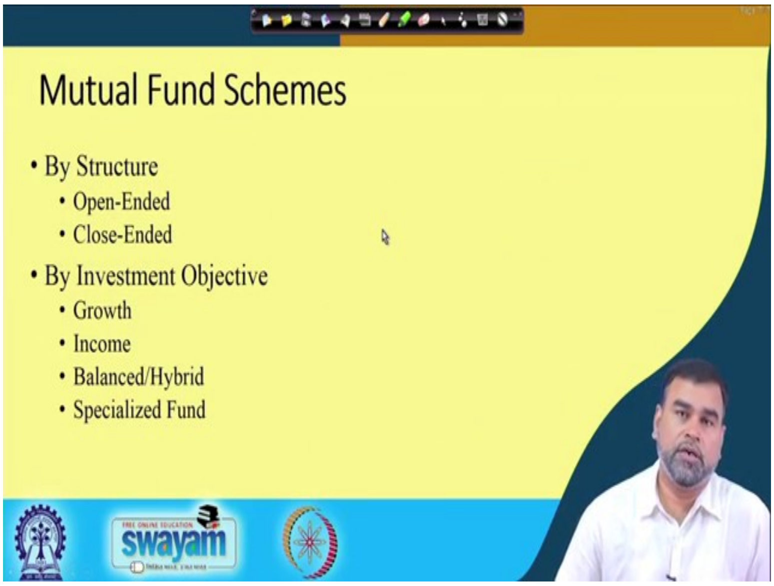

If you see that whenever you talk about in the previous class again and again we are discussing about the mutual fund schemes. So, let me explain that what do you mean by the mutual fund schemes. Already, you know mutual fund is nothing but a portfolio, which is comprised of different kind of financial alternatives, which are available in the financial system. It includes equity; it includes debt and other kind of resources, whatever we have. But if you categorize the mutual fund schemes, the mutual fund schemes can be categorized by different ways. One is it can be categorized by their structure or also it can be categorized by the investment objectives.

So, either of these way, the mutual fund schemes can be categorized. So, whenever you are categorizing on the basis of the structure, you have two types of funds; one is open-ended fund and second one is the close-ended fund. And whenever you are going by categorizing them on the basis of their investment objectives, we have a growth fund, we have an income fund, we have a balanced fund, and we have a specialized fund. So, this is the way the mutual fund schemes are categorized. Let us explain one by one, what do you mean by the open-ended fund, what do you mean by the close-ended fund, growth fund, income fund, etcetera.

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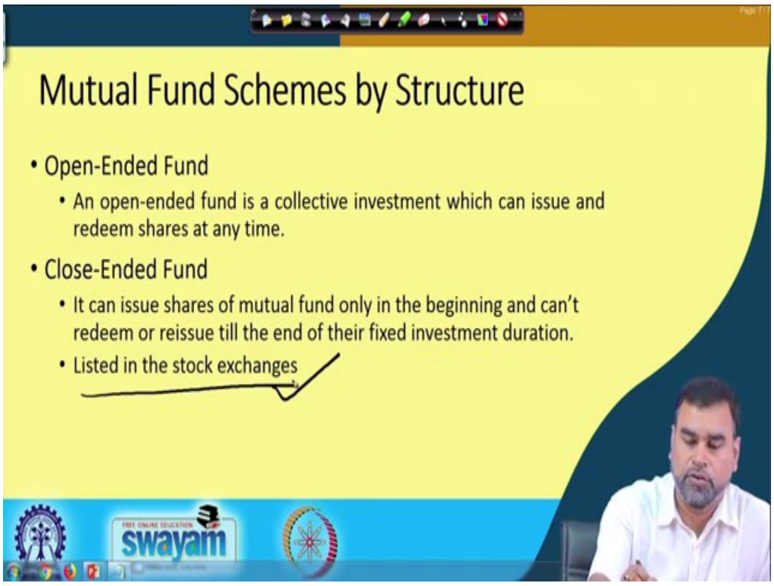

So, then if you see what do you mean by the open-ended fund. Open-ended fund is basically a collective investment, which can issue and redeem shares at any point of time. There is no such maturity period of that particular fund. This fund can be issued or can be redeemed at any point of time that means, it is totally open-ended. There is no such kind of specific period before that this fund cannot be matured, the fund cannot be sold fund cannot be bought etcetera. So, this is totally free anytime the fund can be sold, anytime the fund can be bought and that is basically we call it the open-ended fund.

But whenever we are talking about the close-ended fund, the close-ended funds can issue the shares only in the beginning and cannot be redeemed or reissued till end of their fixed investment duration. That means, there is a fixed maturity period it is basically issued from the beginning and redeemed in the end whenever the particular maturity period is over. And that is basically, we call it the close-ended funds in between the particular funds cannot be bought or cannot be redeemed at any point of time in the market.

And another thing you keep in the mind that the close-ended funds are listed in the stock exchange. So, this particular close-ended funds are traded in the market, but the open-ended funds are not traded in the market. In the stock exchange, these are listed and these are traded like the shares and all these things in the market. Where open-ended market are basically not regularly traded in the market or they are not listed in the stock exchange that is the basic difference between open-ended fund and the close-ended fund.

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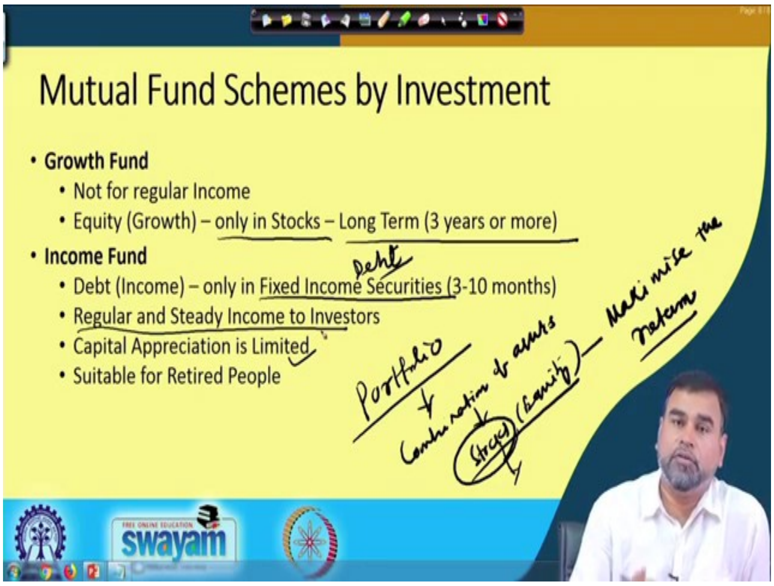

Then we have the other funds which are designed or may be categorized by investment objectives. Whenever we talk about the growth fund the growth funds are basically made out of the stocks, because already we know that the mutual fund is basically a portfolio. So, already you know what do you mean by the portfolio? This is basically your combination of the assets. If it is a growth fund then all those asset is basically stocks or the equities. This is basically equity that means, only different type of equities are there, but there is no other assets, which are involved in that growth fund. It is mostly comprised of the stocks, why the basic objective of the growth fund is to maximize the return.

The basic objective of the growth fund is maximize the return that is why the composition is mostly based upon the equity by that they are exposed to more risk even if they are exposed to more risk, there is a probability of high return. The expected return from this kind of funds are relatively higher than the other type of funds. So, that is why the composition is mostly from the risky assets and stock is one of the risky asset among them. That is why it is only in stocks and mostly it is invested for a long period of time 3 years or more that is what basically we call it the growth fund.

But whenever you talk about the income fund income fund is mostly comprised with the debt or the fixed income securities. Fixed income security means this is basically your debt. So, the instruments which are a part of the income fund these are basically mostly the debt instruments and their maturity period is relatively less than 3 to 10 months. And who are basically trying to invest in these kind of securities, who wants to always receive a steady and regular flow of income. Whenever anybody invest in the income fund, they get a regular and steady income, but the possibility of capital appreciation is relatively less limited, because it is not comprised of an equity.

So, because of that possibility of capital appreciation is relatively less, but the regular flow of income will be there, there is an assurance that definitely there is a positive income flow the particular person will be getting over the period of time. So, that is why steady income will be there, but capital appreciation probability is relatively less. And it is suitable for the retired people, who needs regular flow of income or the person who is less risky or highly risk averse towards the investments in the market. The risk averse investors refer to invest in the income fund, but relatively risky investor always prefer to invest in the growth fund, so that is the basic difference between the growth fund and the income fund.

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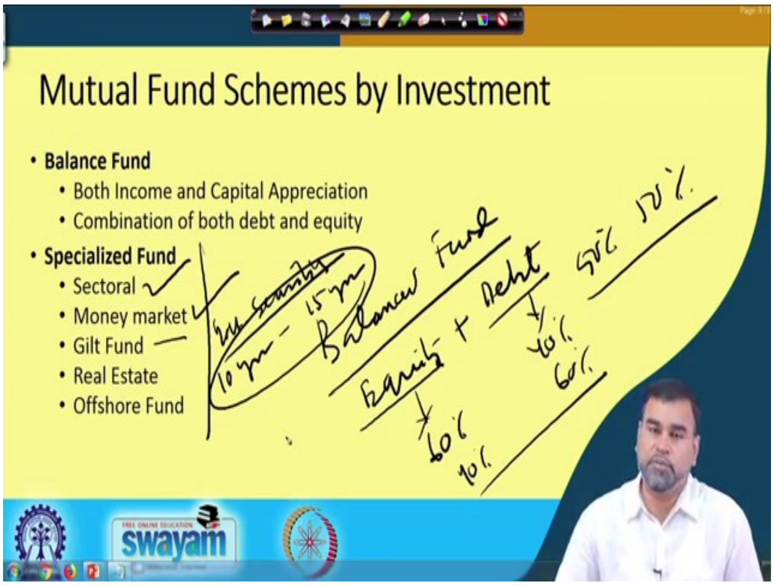

Then another type of funds which are also categorized by investment that is balanced fund. There are certain places or certain investors are available in the market they want both, they want capital appreciation, they want also some steady flow of income. So, in that context, what happens, we have a balanced fund. So, the balanced fund whenever you talk about, the balanced fund is comprised of both equity plus debt that means here they are getting income from the debt component and they are getting capital appreciation from the equity component. So, it can be 60 percent 40 percent or 40 percent 60 percent or it can be also 50 percent, 50 percent.

So, if the investor is little bit more biased towards the capital appreciation, then they can prefer 60 percent of the equity 40 percent of the debt. If the investor is more bias towards the income generation, they can go for 60 percent of the debt and 40 percent of the equity of their unbiased about both return component and the capital appreciation component and/or income component, then they can go for the investment both 50 percent and 50 percent. So that is basically the way the balanced fund is defined which comprised of both debt and equity whenever anybody invest in the equity market mutual fund market.

Then we have some specialized funds. And what are those specialized funds? The specialized fund means the funds can be a sectoral fund. What do you mean by the sectoral fund? The particular investor can choose those assets which are coming from a particular industry or a particular sector, it maybe banking sector, it may be IT sector, it may be manufacturing sector. The particular stocks or bonds which they have chosen mostly they are concentrated or they are basically always based upon a particular sector, so that is why the composition or the portfolio has been made on the basis of those companies, which are operating in that particular specific sector, so that is call the sectoral fund.

Then we have another fund called the money market fund. The money market fund in the sense we are referring to the funds like treasury bills. The particular fund a particular mutual fund is comprised of instruments like the instrument, which coming from the call money market and a mostly the treasury bills and all these things. Mostly, it is the money market means the treasury bills which are short term in nature, because money market deals with those securities which are short term in nature. So, these are the money market instrument which can be used there.

Gilt fund; the gilt fund means it is the government securities, government securities mostly the long term securities it maybe 10 years to 15 years maturity. So, all those bonds which are comprised of these kind of a funds these are coming or issued from the government. And India on behalf of the government it issued by the reserve bank of India that already you know. And the gilt fund is designed by all kind of long term securities, which have been issued by the government. So, gilt means government in this particular context, so that is call the gilt fund that is specialized fund we have in the mutual fund market.

There are some funds which are designed on the basis of the real estate stocks or the particular bonds, which are issued by the real estate company little bit more risky, but still there are some kind of specialized funds which are basically based upon that. Offshore fund means the companies which are basically operating in the foreign countries and they are also issuing those kind of instruments and these particular funds are designed on the basis of instruments issued by them.

So, these are defined as the specialized fund, this specialized fund can be an equity fund or the growth fund, it can be income fund. But why it is called specialized? Because, it has certain specific character, which is not available with the common portfolios or common mutual funds, which are available in the financial system. So, it can be specific to the industries, specific to the markets, specific to types of securities. So, once we are talking about those kind of thing, then what basically we can do that is why it is call the specialized and is follow certain kind of specific characteristics by that particular fund can be categorized as the specialized funds. So, this is the way the different type of mutual fund schemes are defined in the financial system.

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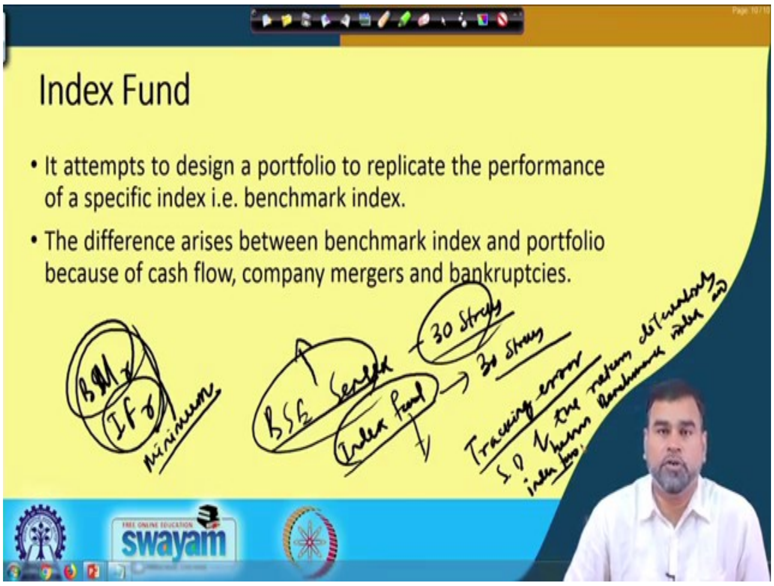

And we have another type of fund, which is called index fund. And what do you mean by the index fund? The index fund basically attempt to design a portfolio to replicate the performance of a specific index. For example, I will give you example in this case. For example, BSE sensex; BSE Sensex has 30 stocks. Because we are not allowed to invest in BSE sensex directly.

So, what basically somebody can do? Somebody can make an index fund, index fund of all those 30 stocks which are considered for construction of the BSE sensex. So, the allocation of the fund should be made on all those 30 companies, which are a part of the BSE sensex and as well as the weights also can be given in the same way, whatever way the weights are given to calculate that BSE sensex index.

But maybe there are some deviations, the deviation arises, because of the cash flow the company mergers and bankruptcy. There is some unusual situation may arise, some adjustment may take place because of that, some differences may arise, but that differences is basically what we call it they return from the benchmark index. Their benchmark index is basically, we call it BSE sensex. And we have our index fund which comprised of all those 30 stocks, which are a part of the sensex.

And there is a difference let your benchmark return is BM r and your index fund return is IF r, then always, what we want to do? We want to see that the return differences or fluctuations of return differences between, these two should be minimum, this should be the objective of the investor. So, how you calculate that we take the difference between the return of your fund, return from the benchmark return and we are trying to minimize the tracking error.

Now, what do you mean by the tracking error? The tracking is nothing but it is the standard deviation of the return differentials between the benchmark index and your index fund. So, the basic objective of the investor is to minimize the fluctuations of the return differentials between your index whatever you have constructed and as well as the benchmark index return what this particular market index is giving or the benchmark index is giving, so that is another type of fund, we can construct on our own.

There are different method through, which this particular construction is possible, but the basic logic is the index fund can be calculated by taking the same stocks in that particular portfolio and trying to see that how it is performing against the benchmark index what already it is constructed or formed in the market. So, that is basically another fund, which can be available in the financial system.

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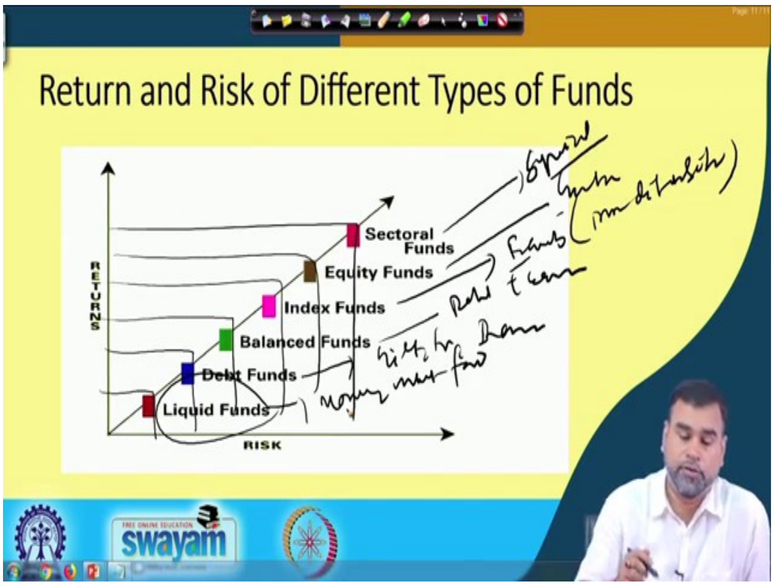

So, if you see the risk return relationship between the different types of funds, on the basis of the risk profile the liquid funds. The liquid funds means, we are basically referring to liquid funds are the money market fund. The money market fund and debt funds are basically maybe your gilt fund and your income fund. Balanced fund already, you know it is debt plus equity. Index fund, it can be comprised of equity only or but relatively more diversify.

And equity funds which is nothing but the growth fund. Sectoral fund, which is a specialized fund which is specific to industry and that is more risky. So, that is why if you go by the risk return profile. So, this is the way basically it is design. The more the risk more the return in that concept this is the hierarchical order of the different funds we can observe in the market.

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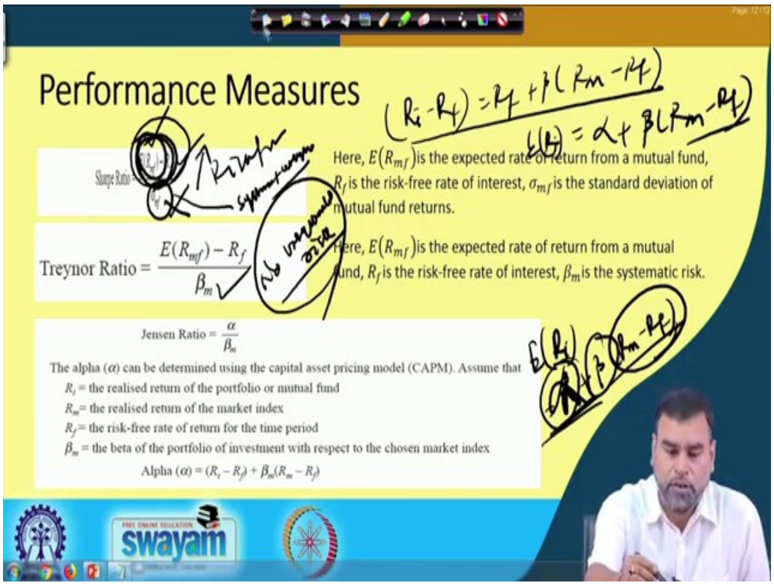

Then we have to see that how the performance of the mutual funds are measured. As you know that mutual fund scheme is also a portfolio. Then what you do, we use the same performance measures whatever way we measure the performance of the portfolios. We have different measures, but here there are three popular measures which are used to measure the performance of the portfolio and including the mutual fund performance. One is your Sharpe ratio, then you have the Treynor ratio, then you have the Jensen's alpha or the Jensen's ratio.

What it basically means how to define that what is the Sharpe ratio? The Sharpe ratio is basically defined as the excess return to the total risk and expected return you know it is nothing but the expected return from a mutual fund that is expected R mf. The expected return the mutual fund can be calculated using any kind of CAPM or any other model. And what is your expected return, what you are getting from this? Already, you know that already we have explained it

$E(R_i)=\alpha+\beta¿$

So, this is your market risk premium, this is market risk. This is the intercept or the risk free rate which is nothing but the excess return which is alpha.

So, once you get your excess return from this, then what you can do you can calculate it, because this is based upon the CAPM model. In the CAPM model already if you little bit expand it, it is nothing but

$(R_i-R_f)=R_f+\beta¿$

So, this is the way it is defined or you can directly write.

$E(R_i)=\alpha+\beta¿$

So, this is the way your expected return from that particular mutual fund can be calculated. Then finally, you can take a difference between if the R_f is basically the risk free rate the excess return divided by the total risk. The total risk means it is the standard deviation of that particular return, it is includes both systematic and toss on systematic. So, that is the standard deviation what you can calculate from that return series. So, that is the way what it measures that for one unit standard deviation increase, how much excess return you are going to get from that particular mutual fund investments that is basically defined as the Sharpe ratio.

So, what it measures, if it is this particular ratio is high, then the performance is also high that means you are getting that particular thing, this particular denominator, numerator basically is higher, because of that for extra unit of the risk you are able to get more extra premium from that particular investment. Here one question was wherever Sharpe has taken this standard deviation which is nothing but the total risk, because whenever we are constituting the portfolio in the construction of the portfolio the basic principle is we are trying to minimize the unsystematic risk that is why we are diversifying the portfolio.

So, because of that the Treynor measure assumes there is no unsystematic risk that means the idiosyncratic risk is basically 0. If the idiosyncratic risk is 0 that only thing, we have to concerned about that is a market risk that is basically nothing but the beta, so that is why the Treynor ratio is nothing but excess return to beta ratio. For extra unit of market risk how much extra return what we are extra premium, what you are going to get from the market or from that particular portfolio that is basically measured as the Treynor ratio.

And here the Treynor ratio assumes that with a proper diversification, we are able to minimize the unsystematic risk from that particular portfolio, because through diversification we are able to minimize that. Then we have the Jensen's ratio; the Jensen's ratio already, you know that I have given you this equation here.

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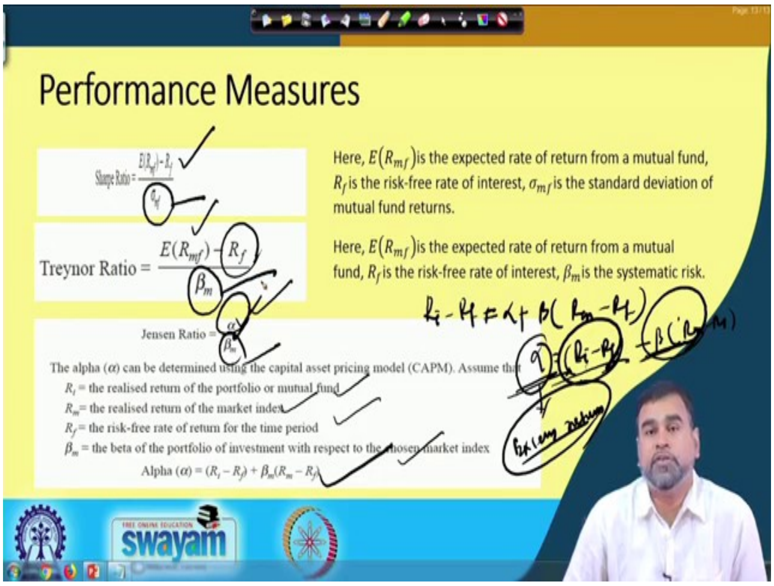

If you see this equation, what this equation again I am writing that

$$(R_i - R_f) = \alpha + \beta ¿$$

So, then

$$\alpha = (R_i - R_f) - \beta ¿$$

this is the equation. So, here alpha is nothing but basically the excess return. This is actual, this is expected. The actual minus expected this is giving you the excess. So, how much excess return basically you are getting $(R_i - R_f)$ is equal to actual premium, extra premium what you are getting this is basically giving, you the expected premium then if you take the difference between them that basically give you the excess.

So, what is the Jensen ratio is basically talking about with respect to standard one unit of market risk how much extra return you are going to get. So, that is why the R_i is the realized return, R_m is the realize return from the market, R_f is the risk free rate β is the β of the portfolio, then previously people are considering that Jensen's alpha this is popularly known as the Jensen's alpha.

So, Jensen's alpha more the alpha the portfolio performs better. But if you are going for Jensen's ratio, there is basically the excess return or alpha to beta. So, here whenever you are increasing your beta by one unit how much alpha unit basically is going to be affected, so that is the way the Jensen ratio trying to measure the performance of that particular portfolio, whatever you have constructed in using that particular assets in that particular mutual fund.

So, these are very popular measure. One is your here it is standard deviation total risk, here it is market risk, here again market risk, but here your alpha is basically measured in this way. So, this is the return from the mutual fund minus your risk free rate of return divide by beta, it is return from the mutual fund minus risk free rate of return divide by the sigma. And here it is the excess return divided by the beta. So, this is the way, these are the three measure, there are other measures also like Fama generate selectivity and other thing, but these are the three major popular measures which are used to measure the performance of the mutual fund in the market.

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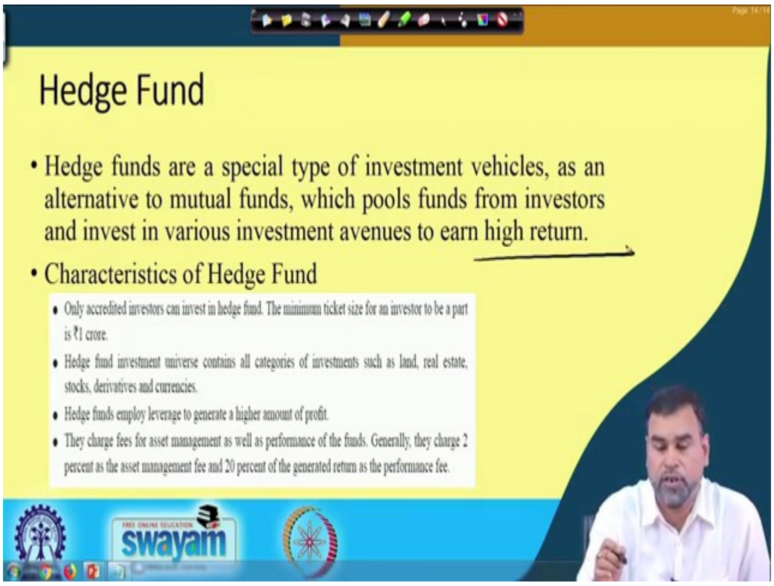

So, then we can move into the discussion on another concept this is hedge fund, which is quite popular in the US context although this is not that way very relevant for the Indian context, but the hedge funds are quite popular in the US markets. More or less there are some synonymous property to have with respect to the mutual funds, but those synonymous property is not exactly equal to the mutual fund. There are some differences we can observe the relationships between the mutual fund the hedge fund.

Then what is the hedge fund first of all. The hedge fund is again a special type of investment vehicle as an alternative to the mutual fund, which pools the fund from the investor and invest in various investment avenues to earn high return. Note down here, one point here it is high return. This hedge funds are basically not designed for the common investors. The mutual funds are designed for the common investors, but the hedge funds are not designed for the or not made for the common investors, because the mutual hedge investment in the hedge fund is relatively more risky, but the return from that particular hedge fund it comparatively much more higher than they return from the mutual fund, so that is why the basic objective of the hedge fund is basically to earn the high return.

Then what are those characteristics? The characteristics if you see the minimum size for an investor to be a part of the hedge fund is 1 crore rupees only accredited, in accredited this well-defined investors, which are already accredited themselves to the regulatory bodies they can invest in the hedge funds, not everybody common investors can participate in the hedge fund investments. Hedge fund investments basically are contain all categories of investments such as lands, real estate, stocks, derivatives, currencies everything, but mutual funds may not have.

The mutual fund basically comprised of debt, mostly the debt instruments and equity instruments, but the derivatives instruments and the other kind of a real estate then the, the sophisticated or the exotic securities like CBO, CDOs and all kinds of instruments, which are a part of the hedge fund, but this is not a part of the mutual fund. So, mutual fund employee the leverage to generate high amount of the that is why the basic objective of the mutual hedge fund is to maximize the returns or to generate high amount of the profit from that particular investment alternatives, which is not the focus for the mutual fund.

Mutual fund is a collective funds which is always there to get certain kind of return, but not in that way is a risky whenever we participate in the mutual fund investment, but hedge fund investments are highly risky. They charge fees for asset management as well as performance of the funds generally they charge 2 percent of the asset management fee, and 20 percent of the generated return as a performance fee. But in case of mutual fund, it is very less it is 1.825 percent and it varies, but that is basically the fund manager’s fee.

The performance fee is not related to the mutual fund, but the performance management fees, there in the mutual fund, but in case of the hedge fund the performance fees involved. So, in general, the hedge fund is not for the common man, the hedge fund is basically for the high net worth individuals, where there is a possibility of generating high return and as well as the expenses or the cost also relatively high and risk is also relatively very high. It is a very popular instrument, if you talk about US market.

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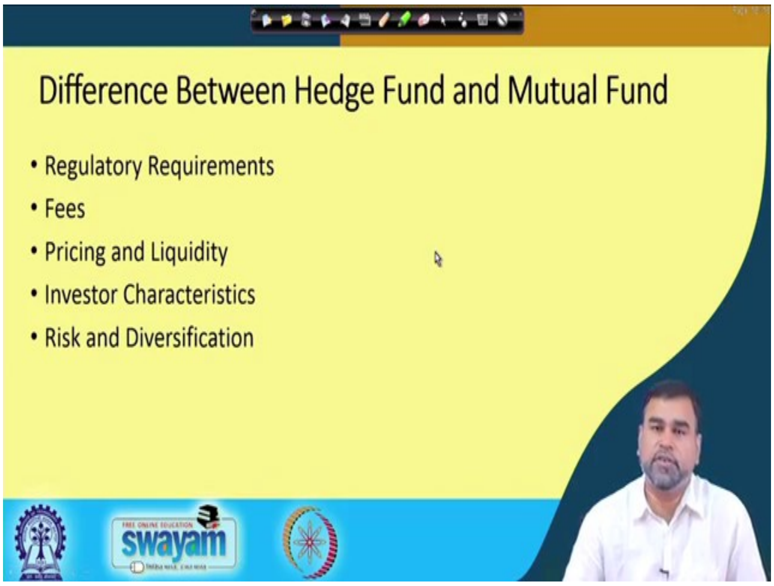

Then if you see the differences, then what are the differences the regulatory requirements, the hedge funds are not that way regulated by the regulatory bodies, but the mutual funds are highly regulated the norms are well designed that is why it is more safer to invest in the mutual funds, but hedge funds are not. The fees are quite high just now we have seen 20 percent the performance fee what the hedge fund managers are charging, but this is not the case for the mutual fund.

Pricing and liquidity hedge funds are less liquid, because all kind of exotic instruments are involved in that particular portfolio, but that is not the case for the mutual fund. Investor characteristics; the investors who are investing in hedge funds are riskier investments or we can say the risk seekers, but the investors who are basically investing in mutual funds, they are not that way very risky investments, mostly the investors in the mutual fund are risk averse investors.

And risk and diversification, if you see the hedge funds are well diversified, but the question here is diversification as made on the different kind of instruments, which are highly exotic and the probability of losing in the market also relatively high. So, because of that the risk is high that is why they want to diversify that, but sometimes the diversification does not work in the way the diversification works in the mutual funds.

So, in general the hedge funds provide high return and they are also exposed to more risk. Mutual funds relatively less return, but they are expose to less risk. And the mutual funds is applicable or may be open to all type of investors in the market, but the hedge funds are only applicable to the high net worth individuals. So, these are the basic differences between the hedge fund and the mutual funds what we have seen which works in the financial system.

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Please go through these particular references for this particular session.

Thank you.