

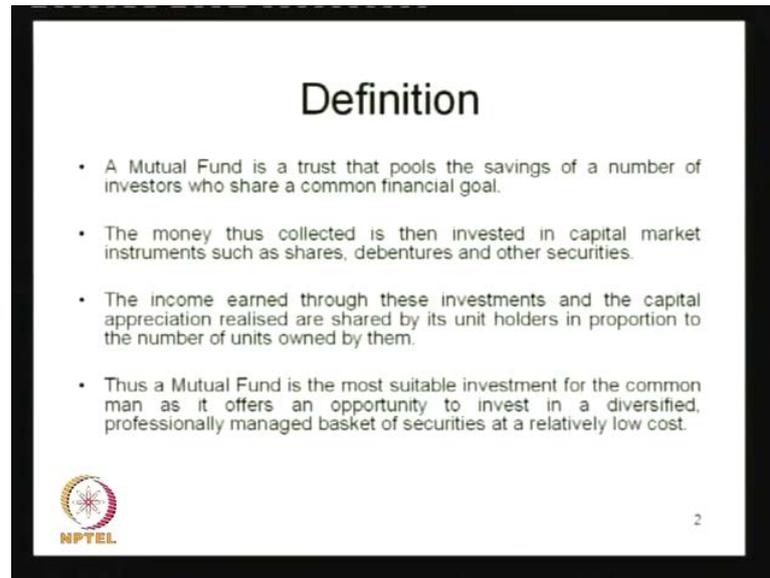
Security Analysis and Portfolio Management
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Lecture No. # 06
Mutual Funds

Hello, in this lesson we are going to discuss about a concept of collective investment that is called mutual funds. If we are a investor and if we have let us say rupee 1 lakh in cash and you like to invest in as many securities instead of investing in one security, because if you invest in one security in that case we will not able to get the opportunities from different securities that is available. So to take care of that particular problem, we like to spread this amount of 1 lakh rupees among as many shares or bonds or debentures or as many finance instrument that we can have hands on.

So in that case what happens our 1 lakh rupees gets divided among as many securities and we will be having small small number of shares of different companies or different entities. So in that case more more transactions will be taking place, because you like to buy one and sell one in that case more over transaction can take place. So the transaction cost can be very high in such case. So to if it is not one lakh, if it is let us say we have got 1 crore rupees of cash with us, in that case it becomes little easier for us to invest in as many securities. So this particular problem of the desirable investor to invest in as many securities, is taken care by the concept called Mutual Funds. What happens in mutual fund, so many people like all the investors, different investors they put money and those money gets collected and that are put in different securities.

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The slide is titled "Definition" and contains four bullet points. In the bottom left corner, there is a circular logo with a red and white design and the text "NPTEL" below it. In the bottom right corner, there is a small number "2".

Definition

- A Mutual Fund is a trust that pools the savings of a number of investors who share a common financial goal.
- The money thus collected is then invested in capital market instruments such as shares, debentures and other securities.
- The income earned through these investments and the capital appreciation realised are shared by its unit holders in proportion to the number of units owned by them.
- Thus a Mutual Fund is the most suitable investment for the common man as it offers an opportunity to invest in a diversified, professionally managed basket of securities at a relatively low cost.

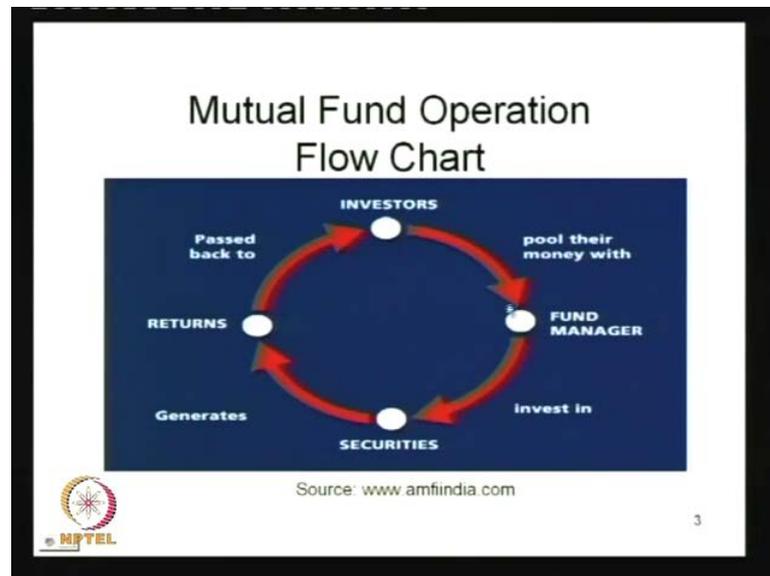
So coming to that definition in the Mutual Fund, Mutual Fund is a trust that pools the savings of a number of investors who share a common financial goal. So one in fact the investor that they are investing in this particular scheme, should have a common investment goal like somebody like to have only the income or somebody like to have a growth in the fund for that matter. So same type of investors as with same type desire they pull money give it to someone and it gets managed and somebody manages for them and they get the return or whatever at the end of the particular period.

So the money is collected typically from the all the investors and that they get invested in different capital market instruments like: it can be shares, it can be debentures, it can be other securities, it can be short term securities, it can be long term securities, it can be money market, it can be capital market whatever the form of financial securities they can be pooled and invested there. The income whatever that investor earns from this investments and the whatever change that has taken place in the capital appreciation for they are realized and transfer to the investor at the **at the** end of the particular period.

So, what happens in this case, the mutual fund becomes a very suitable investment for a common investors; who did not have the access to the techniques the managerial skills of managing different financial assets. So, he depends upon someone who manages the money on his behalf and like him several other investors can put money and accordingly, the money can be invest in different securities and the returns can be generated. So

typically what happens in this case, a diversification benefit is received by the investor by putting the money into mutual funds.

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Coming to the next one if you look at this particular chart, in this chart we have the investors who give money and that gets go to something somebody you called a fund manager. So their pool their money with the fund manager and this money goes to the different securities: it could be bonds, it could be shares, preference share as many long term instruments, short term instruments whatever then these securities in the firm they get, they generate certain return in the form of dividend on the shares, interest on the bonds and debentures and these returns are ultimately passed back to the investors. So there is a flow of funds like the from the investor to fund manager they go to market and from the market you gets a return and like that it goes on, so this is a typical mutual fund operation chart.

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Role of Mutual Funds in Financial Market and Economic Growth

- Channelisation of Household Savings
- Augmenting Resource Mobilization in the Primary Market
- Substantiating Small Investors' Investment Avenues
- Providing Liquidity Facility (entry and exit options) to Investors
- Contributing to Growth in GDP

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Then, but why this particular mutual fund concept is important, because in mutual fund helps in channelizing the investments and helps in channelizing household savings from one the household to the productive segment. So, what happens it also helps in resource mobilization in the primary market, so there mutual fund also gives a source where you can put the money and this money can go to corporates; who can ultimately invest in productive assets. So and in this way the small investors investment avenues also gets increased and not only that you in the mutual fund scheme we also have something called an entry and exit. So it is not that you put the money in some instrument and then forget about it or if you like to exit from that particular investment you cannot exit after that so but, mutual fund whether is right structure the market operation itself, it gives an entry option as well as exit option that means somebody can enter the mutual fund scheme after some (O) issued earlier initially and somebody can also exit from the scheme where he has already invested in. So in that case the liquidity is always there as far as, so the liquidity of the market also gets enhanced with the available mutual fund scheme then it also in way way by that money gets invested in the corporate sector or governments sector for that matter ultimately these this contributes to growth in the GDP a particular country.

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Next, we will look at, who are the typical players in a mutual fund industry, one is that called asset management company. asset management company is the company where whom you give the money and there they only manage the money and they convert the money into certain securities and they manage that which particular share to be sold, which particular to purchase, during the particular period of time all these things are taken by them. Then you have intermediaries like you have got brokers and these brokers the transfer agents who will be, because the investor cannot directly approach the mutual fund company assets, in that case is approach to the broker then there can be banker also intermediary is there then there can be transfer agents where you can transfer your mutual fund schemes, who will be has facilitating actually transfer of mutual fund schemes from one investor to another investor.

Then, you also have obviously the investors at large, who are investing in the mutual fund scheme then you have major player called Securities Exchange Board of India or SEBI in the government of India. As a in the Indian set of we have a SEBI with regulate of the capital market which also have regulates the mutual fund operations. So what how the asset management company should act, how they are going to manage, what are this fees they can charge, what are the different rules the intermediaries should follow, all those things are regulated by the SEBI, so that investors have some trust in the market.

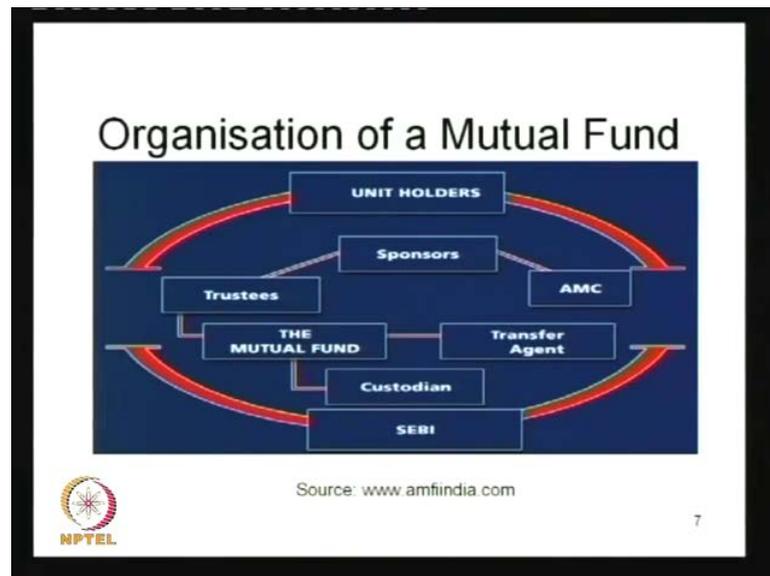
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Then going to that typical structure in mutual funds india we have three four parties there one is a sponsor, second one the asset management company then you have board of trustees then you have a custodian then you have safe who is take care of safe custody, trade settlement and transfer agents. So sponsor is something who announces this scheme like let us say State Bank of India in Indian Context. It will announce a Mutual Fund Company, Asset Management Company, so they are the sponsor of the AMC and the AMC actually gets the money from the investors, pools the money from the investor and invest there.

Then, there is also Asset Management Company that is we have then we also have something called Board of Trustees. A trustees responsibilities is to see that it is as a mandatory by a SEBI as the regulator of the market. A trustees responsibility to see that the rules and regulations are followed in true spirit and it is typically to protect the investors interest. Then, we have the custodian, custodian have the physical if the physical format the custodian we are going to hold it and custodian also going to have the settlement to trade that means somebody like to buy or sell and that is they are going to facilitate this particular thing then custodian also overcast transfer agents from one party to another party the schemes get transferred as, at the same time the shares what is there in the mutual fund kitty or the instrument that is there in mutual fund kitty, if they are sold or they are purchase, those transfer also taken care by the custodian of the particular mutual fund scheme.

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So if you look at the chart here we have an unit holder on the top then you have another called some are called SEBI, this another player then there is a AMC, so unit holder gives money to AMC and AMC is actually sponsored by a particular company and then the sponsor also has got certain trustees or trustee and AMC are there then there is a mutual fund scheme then you have transfer agent then you have custodian and overall you have this SEBI to regulate the market. So these are the typical organize a mutual fund in any set up for that matter.

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Then, what is that they are in the mutual fund that one should divided the attractive points as per the mutual funds schemes are concern, one is that you have got something called professional management. So in this case ,since the money gets accumulated pooled and the money is given to the particular mutual fund scheme, so mutual fund scheme because the size of the fund itself it can have a professional management team who can apply different analytical skills, quantitative skills and find out who is particular investment choose from among and which particular invest should be sold; all this professional requirements can be taken care, all this sophistication can be taken care by having a professional management. Since this scheme, is the **the** money pool is very huge and this case the mutual fund AMC can afford to have professional management team which can give the suggestions and advise for that how to and manage the fund also how to go about this, so that the investors at the end of the day gets the maximum rate of return possible.

Then since the money is going to be very high, the pool is going to be very huge assets, so in that case there is an ability of the investment management **company** the AMC to diversify into as many stocks, as many instruments, which is not possible as a single investment so the single investor have got a small amount of money which cannot be diversified as many things but, in the case of mutual fund if anyone invest only rupees 5000 in the particular scheme he or she gets the benefit of as many shares or as many instrument the particular AMC has invested, as per that particular scheme is concerned, which is not possible for individual investor to do that so this diversification benefit can be there from a small investor point of view though he does not invest in different shares but, he still gets the diversification benefit of investing different shares.

Then you also do you also becomes convenient to administer because of the large pool of money is involved then mutual fund schemes, because this manage by professional people and there is a diversified pool so return potential is going to be much little better compare to managing on your own, because that could be lot of risk involved and which is taken care by the mutual fund scheme, by way of diversification. Then since this is a huge amount of money is they pooled as such, in that case the cost of managing fund proportionately becomes lesser compare to be a small amount of fund is managed by the particular person, because whatever buy or selling transaction somebody does as an individual investor who builds his own portfolio in this transaction cost like buying and

selling of the shares that he or she has in portfolio can be much higher compare to the portfolio size in that case of proportionality, which could be reduce in case of a large pool of funds, in case of mutual fund scheme.

Then we also have the benefit of liquidity, liquidity means the like any other instrument, this instrument if the mutual fund schemes can also be sold or can be purchase from the market. So may be from the secondary market or may be from the **the** fund itself, AMC itself the particular scheme can be purchased later or the scheme can be sold to them, so there is liquidifies this the investor need not get stock with the particular investment and there is a avenue that he or she if you wants can exit from the option, whenever he or she feels like then there is also transparency, because this particular market is regulated by a security agent exchanges board of SEBI. So they ensure there is a rules are regulations are followed under the same time what happens, there is a mechanism where the mutual fund AMC are supposed to disclose the financial asset they have invested in as per the particular scheme is concerned periodically, possibly could be monthly or quarterly or in their website itself there will comes to disclosed, how this money has been put.

So that the investor knows that where his money has been put so there is a transparency involved and investor also can ask for certain information as per the law from the AMC that how this money has been put so this also there then you have a flexibility in the terms of you can exit anytime, you can enter anytime, you can go for different schemes as such and you the AMC itself has a flexibility of putting money and n **and n** number of securities.

Then this best thing that is there in case of mutual fund market is the choice of scheme there are until number of schemes, where the investor can put looking at his objective: he like to have a long term prospect, he like to growth prospect, he will like to have regular income, he like to like have something like a pension whatever that may be all the types of schemes are there as far as mutual fund schemes. So there is choice of schemes are there depending on the investment objective of the particular investor you can go for any scheme that is available in the market then certain mutual fund schemes also give some tax benefit, if one invest in that particular scheme then investment is taken as a tax relief is also there as depending on the particular countries income tax policy.

Then as we have discussed, there is a regulatory **regulatory** agency called a SEBI which regulates in market and is that is way the mutual fund is something like more regulator like any unorganized investment market, this in organize investment market, which well regulated by the particular regulated in particular country and in India it is the SEBI for that matter.

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Then, but there are certain problems also as far as mutual fund schemes are concerned, mutual fund scheme will not guarantee that we will be giving this much return. So there is no guarantee as such but, it has to be something based on historical procurements of the company then you may say that of the scheme as such the investor can expect this much return is possible from this particular scheme. But, in mutual fund AMC is not going to give any guarantee for that matter at the same time there also be fees and commissions are also involved; so fees and commission means when you enter the market and you purchase this particular scheme, you may have to a pay a fee like entry fee or you know exit you may pay exit fee for that matter. So those things are there commissions also go into there as far as you would deal through certain brokers or intermediaries commission can be there.

In any case the commission is going to be there also in case of investments, made by the investor directly into stocks say as some bonds for that matter. There you also you are going to pay the in commission to the broker also, this will not a bigger limitation of

mutual fund scheme which is also there in any other investment where you have to deal through transfer agents or brokers for that matter. Then there can be taxes on the return from the mutual funds that can be there at the same time the mutual fund scheme can be subject to the management risk of the AMC, how this AMC managing the particular fund that is going to take care of the risk as such. So the management is not well worst in managing the fund then investors be at the risk of that particular problem then certain management go for over diversification, they go for over dilution in that case so, because the excess diversification of different schemes is does not benefit the particular fund or particular investment for that matter. So in **in** because there is a lot of things available in the market, so they may go for over diversification which may not actually yield a proper return for the scheme, for that matter. Next we move to certain terms in the mutual fund market, the terms are like this we have word something called a Net Asset Value. so what is net asset value as the schemes as we discussed earlier the mutual fund scheme is going to get the money from different investors and put in different securities.

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Value of the assets
(Liabilities)

$$\frac{\text{Value of the assets} - \text{Liabilities}}{\# \text{ of units of mutual fund}} = \text{NAV p.u.}$$

$$= \frac{\text{Rs. } 53 \text{ cr} - \text{Rs. } 3 \text{ cr}}{10 \text{ cr units}} = \frac{\text{Rs. } 50}{10} = \underline{\underline{\text{Rs. } 5 \text{ p.u.}}}$$

Rs. 5 ↑ ↓
 Chose NAV → Return on that scheme
 5 → 6 20% return

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So, the value of the securities is there which is nothing but, the total value of the assets that is called the financial assets where the mutual fund scheme has put the money and at the same time this particular scheme may have certain liability that may be due **may be** to the as a commission to be the to transferor to the custodian or something like that there could be some liability. So, this is the pool of assets, this is the liability of this particular scheme at a particular point of time, so you take the value of the assets and take out the

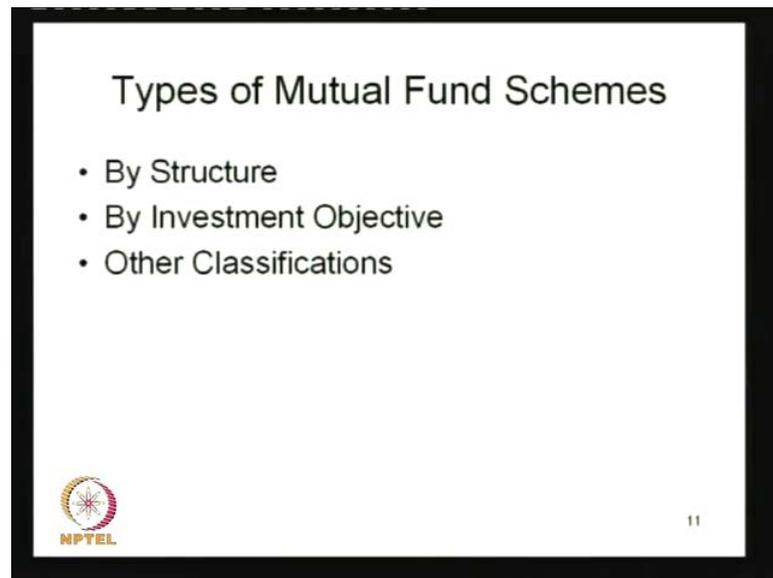
liabilities that is due to be paid by the scheme and divided by number of units of the particular mutual fund that gives you the NAV that is Net Asset Value per unit.

There is a very common term which is used by the mutual fund as such where you get, so that means if the value of asset is let us say 53 crore rupees **53 crore** and the liability at a particular point of is time is rupees 3 crore and divide by let us say there are **there are** 10 crore units of this particular mutual fund. Then it becomes 50 by 10 that **is rupees 5 per units** NAV is rupees 5 per unit, so what happens if is somebody has invested in a fund for the NAV is at present rupees 5 here so like that rupees 5 to go up to certain value but, ultimately he also can also come down.

So the change in the NAV from one point to another point is essential return on that particular scheme. So if the NAV goes up from 5 to it becomes 6 then there is a 20 percent return on that particular mutual fund scheme. So this is the way where NAV is calculated and you can also compare the NAV of one scheme the 1 year with one time period with another time period as such then we have something called repurchase price what happens if the mutual funds there is an option where the fund itself can repurchase means purchase the scheme, purchase the unit from the investor in during the period of time that is called whatever rate it purchases that is called repurchase price.

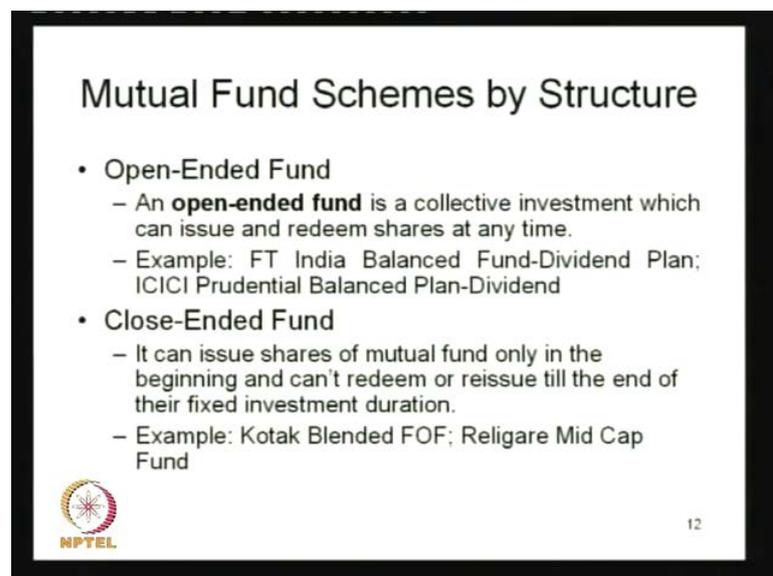
Similarly, when the life of the fund gets adjusted that means the redemption times come let us say is a 5 year scheme for the at the end of 5th year if this fund is will be giving the cash and takes back the units that is called redemption **of the redemption** price of the particular scheme, then when you the purchase or sales take place so when you enter the market enter the mutual fund scheme, so in that case when the mutual fund scheme, sale scheme to the investor and that time investors may be require to pay load that is a entry fee as such say that is also known as Front-end Load and similarly, when the mutual fund investors exit from particular scheme in that case the mutual fund company is going to give the cash and you are there going to take back the units as such in that case the mutual fund agency may ask for a certain load that is called the a entry load assets. So repurchase can be they are this sales load can be there **there** is a Front-end Load there is a repurchase can be there is a Back-end Load can be there.

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Then coming to the next thing that you have that is called types of Mutual Fund Schemes. The mutual fund schemes can be classified in different ways that is: one is by structure, then one is next is by investment objective, next is by the other classification could be there.

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One is a structure we mean that there could be something like Open-Ended Fund and then there is a Close-Ended Fund. Open-Ended Fund what happens here anytime you can issue the mutual fund company the AMC can invest, can issue new units, can also sell

the units at any point of time during the particular period assets and there is no redemption period that is given assets that means when the investor buys the particular units he or she can sell it to the mutual fund back that whenever he wants. Similarly, if somebody has not invest earlier we will like or even if we invest earlier you like to go for more units to be purchase he or she can also enter the market through that you can buy the units again from the mutual fund company or the AMC for that matter, so that is called Open-Ended there is you can enter anytime, you can exist anytime that you feel.

So, there is certain examples like FT India balanced fund who is a dividend plan ICICI proof balanced fund plan is there which is also an example of Open-Ended Fund. In a Close-Ended Fund what happens the mutual fund agency issues the schemes, this is the units and there is no further issue of the units at subsequent point of time. So, in this case the mutual fund if you like to exit from that in that case if there is a market where you can sale your units or you can buy the units from the secondary market, so once it is issued it is closed and at a particular point of time may be 5 years, may be 6 years, may be 2 year , 3 year for that matter at the end of the particular time period, the mutual fund is going to give back the money and get the units back.

So, this money what the mutual fund gives or when you in a Open-Ended Fund when you enter the fund or an exit from the fund that will essential relative to the consider that we discussed earlier called the Net Asset Value. So if the net asset value has gone up obviously in that case we are going to get more from the mutual fund company we has come down you are going to get less this NAV per unit is going to dictate how much we are going to get back from the mutual fund subject to any entry load or exit load that is there for a particular scheme or not. So there is certain examples so you have Kotak Blended fund **fund** of fund the religare and mid cap fund and all the mutual fund company that we have in India or any country we will have certain Open-Ended Fund or certain Close-Ended Fund there.

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Mutual Fund Schemes by investment

- **Growth Fund**
 - Not for regular Income
 - Equity (Growth) – only in Stocks – Long Term (3 years or more)
 - Example: Bharti AXA Equity Fund Eco Plan- Growth
- **Income Fund**
 - Debt (Income) – only in Fixed Income Securities (3-10 months)
 - Regular and Steady Income to Investors
 - Capital Appreciation is Limited
 - Suitable for Retired People
 - Example: Birla Income Plus-D, Chola Freedom Income-D, HDFC Income etc.

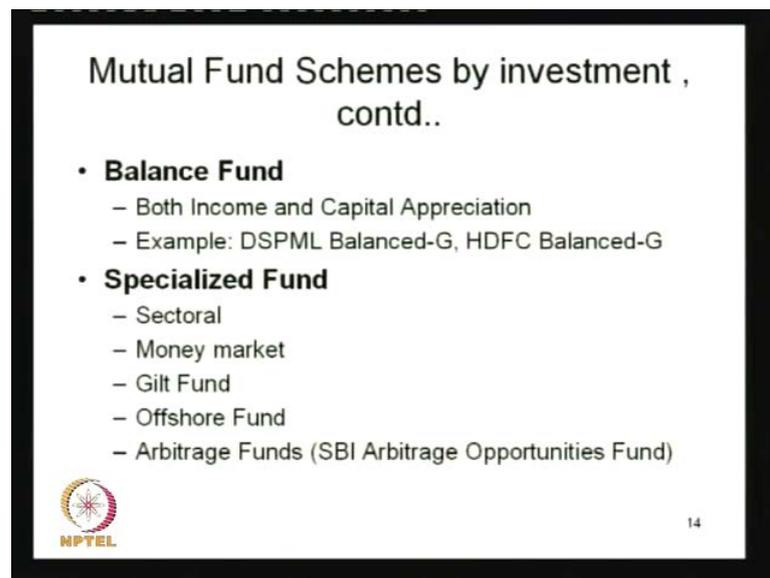
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Then, another way of classification of mutual fund is the **is the** growth or income, so what happens in growth fund you will always invest in a scheme and you will not like to have any immediate, any regular return from the investment asset. So you will like to have that particular mutual fund appreciate over a period of time. So you will like to participate the growth of that so in this case no intermediate income, so there is no regular income that is there for the investor. So whatever income is there at the end of the you either exist or may be the redemption takes place then you get the NAV back. So in **in** terms of NAV the money comes back, So in that is a return that is going to be there for the mutual fund, so the what happens in this type of fund typically they invest in equity type of instruments, because equity something which gives the growth. So, there will be typically investing in stocks or shares.

Coming to the next one that we have is called Income Fund. Income Fund means the investors expect certain regular amount of income periodically. So, there could be somebody who will be like a pensioner for that matter, so in a pensioner may be invest requiring a regular return of amount, because he will need that particular money price bread and butter. So in that case he will not like to invest in a growth fund where growth fund means it is like since in money is getting invested equity shares, so there is a fluctuation used fluctuate in equity share value in that case the value of the mutual fund scheme also can go up or come down depending on the shares they have been invested.

So the mutual fund, the pensioner would not like to there at particular risk he will rather like to have a regular source of income from the mutual fund, so they will he can go for something like income fund, income payments there is a going to be a regular amount of return over a period of time, so no is a periodic return unlike in open sorry unlike in a growth fund if it is not there the regular return is not there or as income fund there is a regular return. So what happens in this income fund they are typical invest in fixed income securities and so that what happens you have a regular and steady income to investors then in this case also the capital appreciation is going to limited because this type of instruments are not growing to going to grow like any equity share for that matter, what is suitable for retired people or a like we discuss all the mutual fund schemes will have certain schemes that is like income fund then we have a mix of these two things some people will like to have some growth at the same time, they will like to have something like a regular income.

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**Mutual Fund Schemes by investment ,
contd..**

- **Balance Fund**
 - Both Income and Capital Appreciation
 - Example: DSPML Balanced-G, HDFC Balanced-G
- **Specialized Fund**
 - Sectoral
 - Money market
 - Gilt Fund
 - Offshore Fund
 - Arbitrage Funds (SBI Arbitrage Opportunities Fund)

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So mix or the hybrid scheme is is called a Balanced Fund. So in this case you have both income as well as a capital appreciation so for example, you have DSPML Balanced-G as a balanced growth as well as there is a HDFC balanced growth fund then we have got certain other schemes like specialized fund that is the beauty of mutual fund companies, if they like to port money only in a particular type of securities or a particular sectors security that can be there, there may be some investors who like to invest only in power sector companies they will like to a portfolio like that. So, in that case, instead of they

investing like that, there may be mutual fund company who will be investing all the money only in the power sector company. So, they can float a fund called or scheme called power sector fund or they like to float a fund like IT sector fund or a former sector fund or (()) care fund or small care fund for that matter. So they can be there so this sectoral fund or specific type of funds can be there by the mutual fund. So the sectoral fund can be there then another scheme could be that you have got a Money Market scheme. Money Market scheme means the investment that is made by the that is the mutual fund agency is only in the money market it will short term securities. Short term securities means like your commercial paper then you have got the treasury bill, so where you have got this money put, so you have got a short term security I just called money market.

Then, another fund can be like Gilt Fund. Gilt Fund fund means the mutual fund a company AMC invest all the resources in the government securities. Gilt stands for the government and quasi government securities so there they are put there can be specific fund like Offshore Fund, Offshore Fund means all the investments are made in companies which are outside the particular country then you have this another special fund like Arbitrage funds what happens if there are two exchangers and there one particular in a share is listed in that in a particular both the exchangers or both the market, so there may be a difference in the prices, so he like to have the arbitrage of the difference in the price. So there will be certain mutual fund schemes will be cashing on the arbitrage opportunities that is existing in the market and getting the best benefit available for the investors, so like in SBI Arbitrage Opportunities Fund of the is one of the example.

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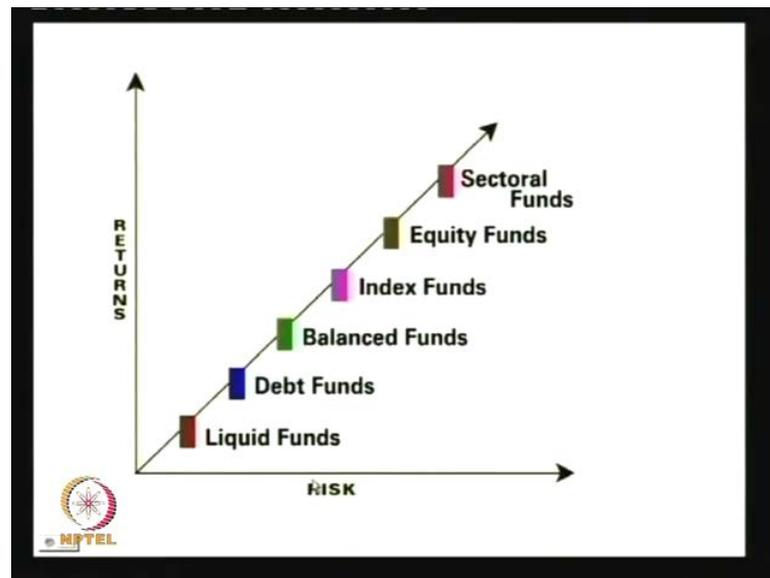
Specialized Funds

- Sectoral Fund
 - Prudential-ICICI Technology Fund
- Money market Fund
 - Invested in Treasury Bills, Certificate of Deposits etc.
 - Ex: Reliance Liquid Plan, BOB Liquid Fund, UTI Money Market Fund
- Gilt Fund
 - Invested Long-term Govt. Securities
- Real Estate Fund
- Offshore Fund
 - Invested in International Market
 - Ex: Magnum Fund.
- Tax Savings Funds
 - GIC Tax Saver, UTI Master Equity Plan, Franklin India Taxshield, HDFC Long Term Advantage Fund, HDFC Tax saver, Magnum Taxgain, Prudential ICICI Tax Plan, etc.

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Some other specialized fund that example that talked about sectoral fund example Prudential-ICICI Technology Fund. In money market we have a Reliance Liquid Plan, Bank of Baroda or mutual fund they have a Liquid Fund, UTI Money Market Fund is also there. In a gilt fund that is a government securities then you have a real estate fund also where these (()) like a sectoral fund where the money gets invested in the Real Estate company then one has Offshore Fund like a Magnum Fund is a Offshore Fund. Then we also have some some scheme like Tax Savings Funds so in this case what happens investment made in this particular fund is eligible for tax relief, so you have a GIC TaxSaver, UTI Master Equity Plan, HDFC TaxSaver like as many schemes are there where you can have a the investor can have some tax relief.

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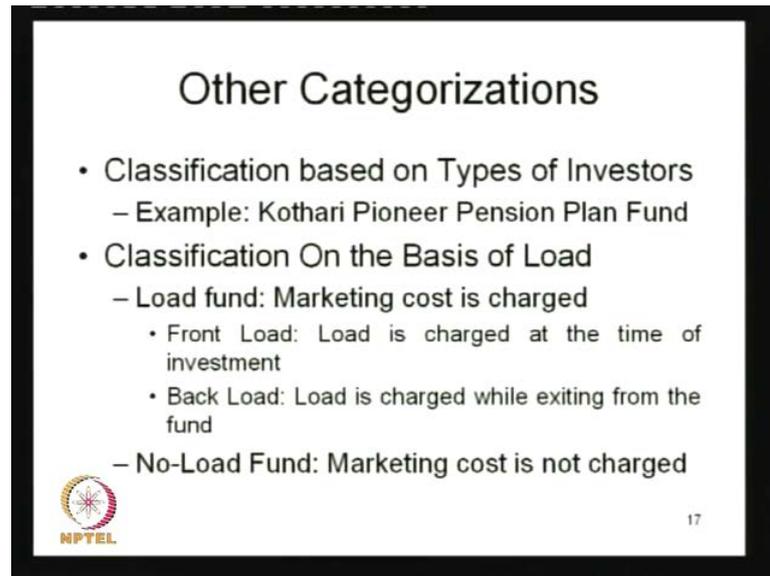


So, if you look at plot this particular types of funds in a risk return profile, so the liquid funds are supposed to be least risk where the liquid funds means you have got a very high liquid there means you are going to put in short term securities and (()) short term government securities, short term commercial paper for that matter.

So, their return is going to much lower at the same the risk is also going to be lower then we have got the next one is called Debt Funds, where the money gets invested into long term bonds where is the some income is also little higher income is there compare to the liquid funds. Then one can go to something called Balanced Fund where the person who has invested the investment company invest in equity as well as debt instruments that is called the Balanced Fund. Then we have called Equity Fund but, before that we have something called Index Funds in index fund what happens instead of the company the mutual fund company investing in different shares and bonds and financial assets on their own they actually replicate a particular index like we have CNX Nifty or BSE Sensex, So they only put the money only in those 30 schemes or BSE Sensex or the 50 sorry 30 shares of the BSE Sensex or the 50 shares of the Nifty for that matter. So they are actually replicate in index, so diversification is taken care by the index by investing in different types of shares as part of index then we have what so index funds is diversification is already there by the index itself, so it is going to little less riskier than an Equity Fund which is entirely constructed by the mutual fund company and in equity fund, the mutual fund scheme is the AMC is free to subject whatever they have declared

in the initial fund offering they can put into any sector for that matter whereas, next one that you have the highest risk but, you can also possibly give the highest return is sectoral funds where let us say, we say talk about like Technology Sector Fund or Former Sector Fund or RND Fund for that matter or Power Sector Fund, so there is sectoral fund is the highest risk and the highest return potential that we have.

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Other Categorizations

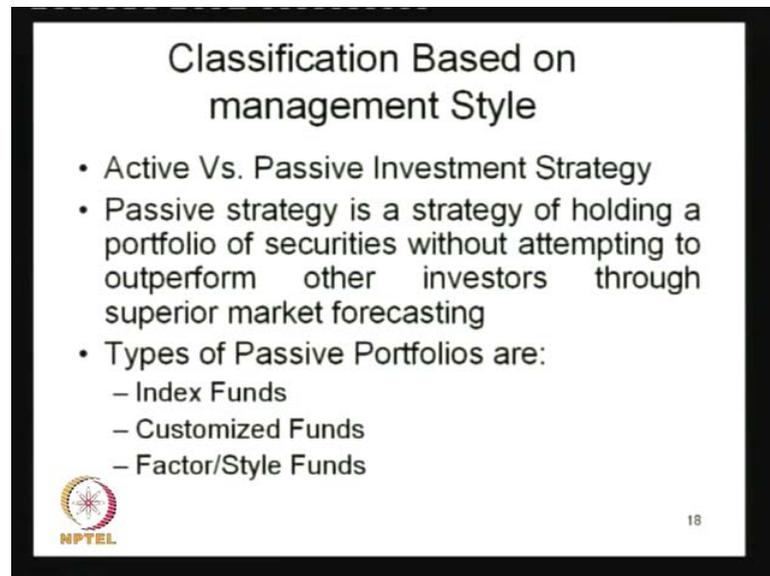
- Classification based on Types of Investors
 - Example: Kothari Pioneer Pension Plan Fund
- Classification On the Basis of Load
 - Load fund: Marketing cost is charged
 - Front Load: Load is charged at the time of investment
 - Back Load: Load is charged while exiting from the fund
 - No-Load Fund: Marketing cost is not charged

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Now, you move onto other categorization of the mutual fund it is as we discussed earlier certain people will like to have certain regular income, so in that case we have got schemes like for example, Kothari Pioneer they have got a Kothari Pioneer Pension Plan Fund, so what happens in this case as a regular return something is going to be there for the investors, so is like it is targeted for investor like a pension pensioners as a retired citizens for that matter. Then the a mutual funds also can be classified into basis of load, load means as we discuss earlier, when we buy the schemes from the company by the units from the particular AMC then that case the AMC may charge something like entry load. Similarly, when you **the when you** sell the in schemes back, sell the units back to the AMC or the mutual fund then the company may ask something for exit load but, there may be certain companies AMC where which will not have any load or they may have only entry load, they may have only exit load or they may not have any load. So, based on that the investments can be the mutual funds also can be classified so that means the load fund can be there and there can be also no-load fund where there is no

marketing cost is actually charged by the AMC to the investor there is entry load and there is an exit load.

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The slide is titled "Classification Based on management Style". It contains the following text:

- Active Vs. Passive Investment Strategy
- Passive strategy is a strategy of holding a portfolio of securities without attempting to outperform other investors through superior market forecasting
- Types of Passive Portfolios are:
 - Index Funds
 - Customized Funds
 - Factor/Style Funds

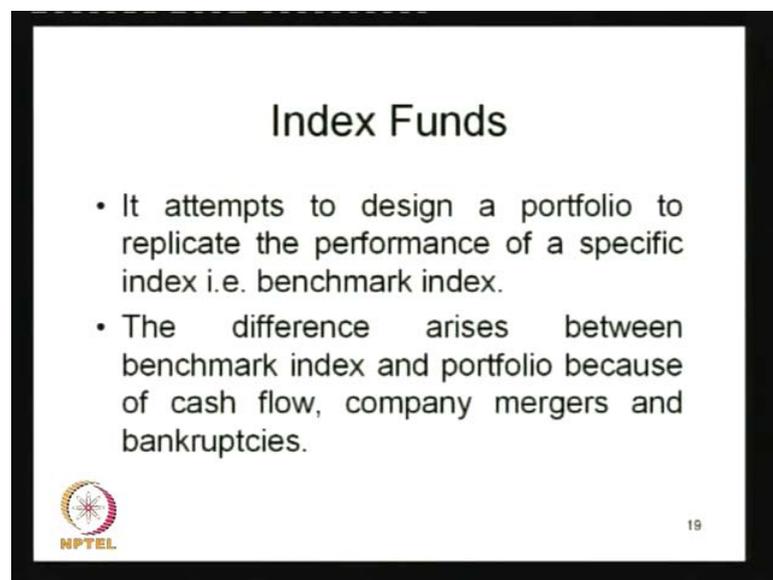
In the bottom left corner, there is a logo for NPTEL (National Programme on Technology Enhanced Learning) featuring a stylized sun or starburst. In the bottom right corner, the number "18" is displayed.

Then, another way of classifying the mutual fund is style, management style. So, one way as you discuss in previous slides the mutual fund company have the option to invest on its own in different scheme, so the mutual fund can say that we are floating a growth fund in that case the this attractive option for the investor they all **all all** investors subscribes into particular fund then it is a growth fund means obviously the mutual fund company or AMC is going to invest in the equity shares of the different companies. So depending on their manager skill and their what about the style that they are functioning with and they can choose any share in the particular market, so there is no restriction for them so that is called active management **they will be** and they will be the turning portfolio as frequently as possible they are not depend on anything, so that they feel that somebody is undervalued then they will buy and this somebody however if they have holding that particular instrument they are going to sale so there is very active portfolio management.

Another thing is a Passive Portfolio Management. In the Passive Portfolio Management a passive investment strategy what happens they do not in that case they have a strategy of holding a portfolio of securities without attempting to outperform other investors through superior market forecasting. In a active investment strategy they will always like to

outperform the market, so they may have a benchmark inherent that who will always like to give the more return then what the market can give in terms of index let us say Sensex or Nifty for that matter. So in that case you have an active they will always like to outsmart the market whereas, in passive one they may like to replicate the market as show the index as such,so types of passive portfolio can be index funds or you have got a customize funds or you have got a factor or style funds for that funds, index funds means we have got if you go to the subsequent slide we have the index fund what happens we will have a portfolio which replicate the particular benchmark index it could be SNP 500 it could be BSE Sensex for that matter.

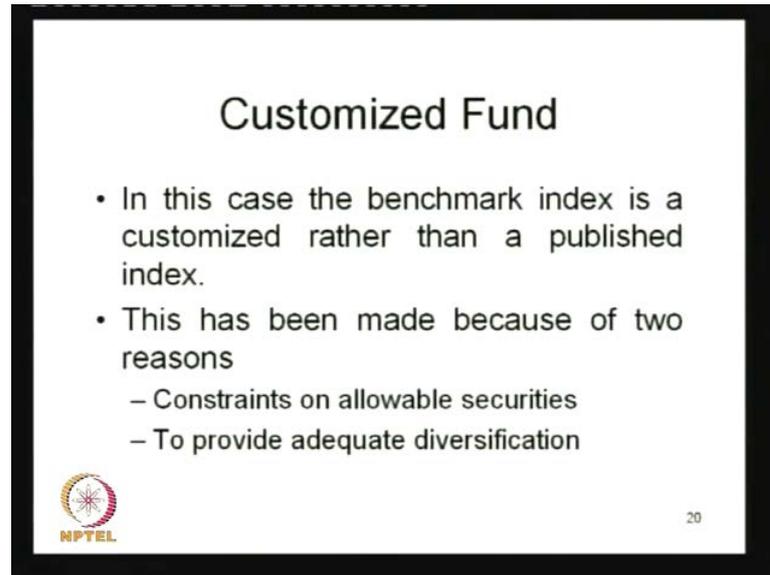
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The slide is titled "Index Funds" and contains two bullet points. The first bullet point states: "It attempts to design a portfolio to replicate the performance of a specific index i.e. benchmark index." The second bullet point states: "The difference arises between benchmark index and portfolio because of cash flow, company mergers and bankruptcies." In the bottom left corner, there is a circular logo with a starburst pattern and the text "NPTEL" below it. In the bottom right corner, the number "19" is displayed.

And whatever there is there can be written difference also, because in the mean time the certain company in the particular index that is comprised they might have been merge or they might have been sold off, height off for that matter. So if that is particular change has taken place, so it may not be possible directly replicate that so there could be possible to that you may get lesser return then the what index is actually giving but, it is likely replicate that whatever the index is going to give.

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Customized Fund

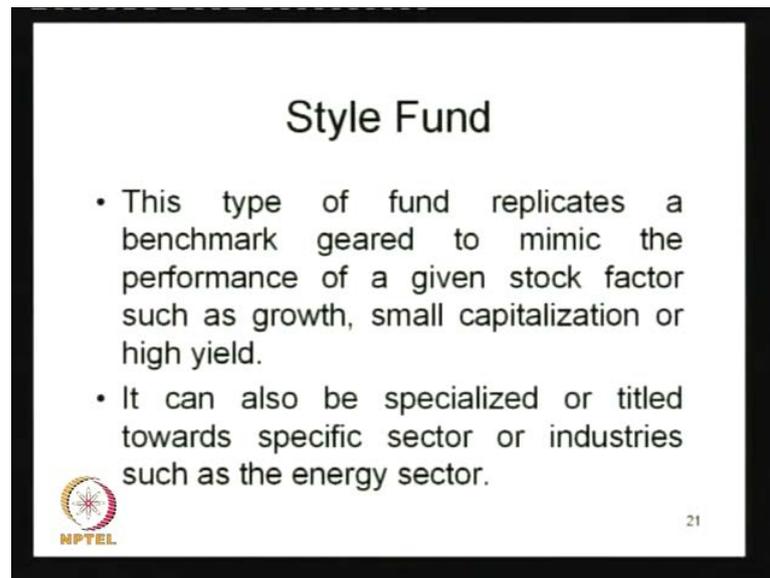
- In this case the benchmark index is a customized rather than a published index.
- This has been made because of two reasons
 - Constraints on allowable securities
 - To provide adequate diversification

 NPTEL 20

Then next in that you have what a customized fund in that case a index fund what happens we used to there is a BSE 30 Sensex based a index fund the mutual fund company is going to invest in all the 30 schemes. Whereas in a customize fund out of 30 some of the shares will be chosen and so there is a managerial skill in ability that is gets reflected here and instead of investing all 30 scheme they will be investing some out of this 30 but, not going beyond this 30 schemes that is called a customize fund and so that you can have an adequate diversification because a there if there any index comprise a 50 or 60 shares so if you put in money in 50,60 shares your diversification benefit because over diversification the benefit may not be there.

So to control that particular point we will the they will be investing in among the securities just 50 or 60 shares of that particular index but, not all but, may be 20 or 30 for that matter.

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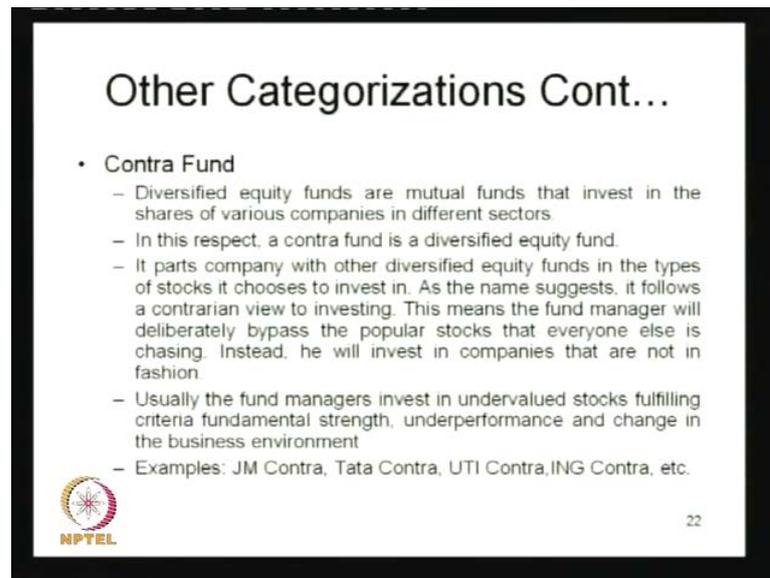
Style Fund

- This type of fund replicates a benchmark geared to mimic the performance of a given stock factor such as growth, small capitalization or high yield.
- It can also be specialized or titled towards specific sector or industries such as the energy sector.

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Then we have at a style fund in that case what happens this type fund actually replicates a benchmark and it will like to have mimic the particular sector it could be a growth sector, it could be a small capitalist sector or it could be high yield fund for that matter and this particular also can be specialized or titled towards a specific sector or industries so sectoral fund can be taken as something like a style fund or in a sectoral index is there, so **in** investment the mutual fund can invest in a particular sectoral index based company. So this looks like a style fund means a particular style is in follow one scheme can be there something called a small cap, so they will be identifying only small cap, small market capitalization based companies they will be investing in that because the fund manager may feel that this particular scheme is going to this particular shares in small market capitalization companies they are going to give more return they might have more return potential they will always go for that. Somebody may some other fund management, fund managers may feel that no mid cap which is neither large, neither small they can give more. So they can invest only in mid cap or capital mid cap companies or some other in fund managers may feel that they can only invest in large market capital shares, large **cap[ital]** shares that is also another type of style fund that is available with all the types of mutual funds companies or AMC that we have in our country or any country for that matter.

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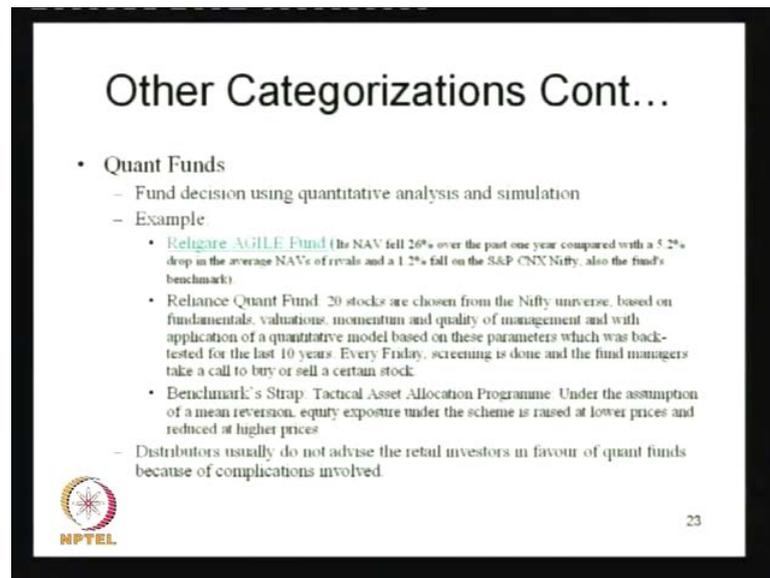
Other Categorizations Cont...

- **Contra Fund**
 - Diversified equity funds are mutual funds that invest in the shares of various companies in different sectors.
 - In this respect, a contra fund is a diversified equity fund.
 - It parts company with other diversified equity funds in the types of stocks it chooses to invest in. As the name suggests, it follows a contrarian view to investing. This means the fund manager will deliberately bypass the popular stocks that everyone else is chasing. Instead, he will invest in companies that are not in fashion.
 - Usually the fund managers invest in undervalued stocks fulfilling criteria fundamental strength, underperformance and change in the business environment.
 - Examples: JM Contra, Tata Contra, UTI Contra, ING Contra, etc.

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Then we have got other classification of mutual fund is something called Contra Fund. In a Contra Fund what happens very simple that the fund manager does not go how the market moves it does not go along with that and what the typically different people largely what the investors feel or the market feels they will be feeling something other way round. So market may not be recognize a particular share which has got lot of growth potential that the fund manager may feel market does not recognize that so which is not bought or sold actively but, this fund manager feels that this particular stock has a very high growth potential so and similarly, so in that case the fund manager going to put money in that particular type of **scheme**. So he will be searching in the market, scanning the market and looking for such particular investment opportunity like shares or other investment opportunities where the market is not paying any attention to such things whereas, this fund manager searches for that and looks for such things and puts money there. So, there typically behaving contrived to the market what behaves so there may be also another case may be feeling that market may say that it is going to be downward that means market may say that is performance is going to be lower for this particular share but, they may still go for because they feel that particular share may actually move upward so they are typically contrary in style to the general market condition. So, like you have a scheme like JM as you got scheme called JM Contra, in TATA mutual fund has got TATA Contra, UTI has UTI Contra, ING has got ING Contra. so these are the thing that is they has examples of Contra Fund.

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Other Categorizations Cont...

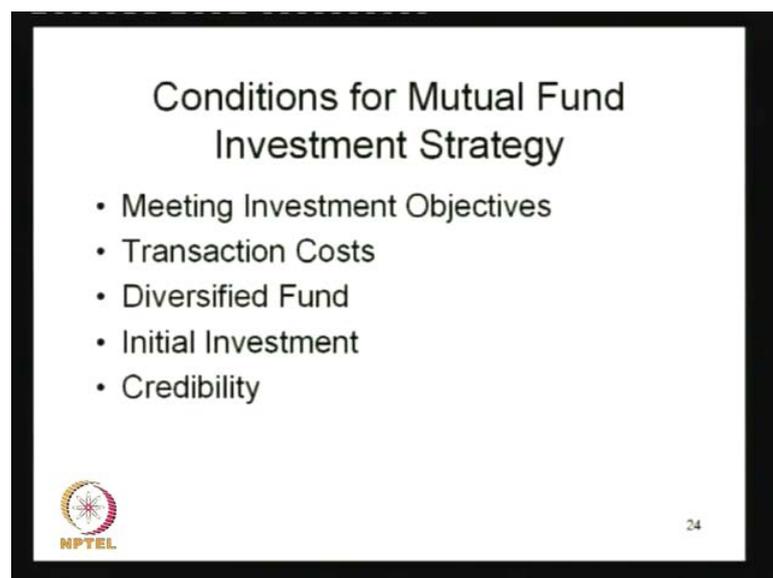
- **Quant Funds**
 - Fund decision using quantitative analysis and simulation
 - Example
 - **Religare AGILE Fund** (Its NAV fell 26% over the past one year compared with a 5.2% drop in the average NAVs of rivals and a 1.2% fall on the S&P CNXNifty, also the fund's benchmark)
 - **Reliance Quant Fund** 20 stocks are chosen from the Nifty universe, based on fundamentals, valuations, momentum and quality of management and with application of a quantitative model based on these parameters which was back-tested for the last 10 years. Every Friday, screening is done and the fund managers take a call to buy or sell a certain stock.
 - **Benchmark's Strap Tactical Asset Allocation Programme** Under the assumption of a mean reversion, equity exposure under the scheme is raised at lower prices and reduced at higher prices
 - Distributors usually do not advise the retail investors in favour of quant funds because of complications involved

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Then, we have got another very beautiful consider that has come **is called contra sorry** is called Quant Funds. This funds are based on something called a quantitative analysis and simulations here the there is no question of sectoral allocation, so there no question of style fund or something like that what they do here they have a typical mathematical program and in that they find out they put that where the they can get the best out of best return. So there is a called a using the quantitative analysis and simulation they will like to have a particular number of shares they may ultimately find that instead of putting money into 30 different shares or 50 different shares they may be find that if they are investing only in 5 because they founded with the help of simulation and quantitative analysis or something like they can have optimization program in built which will tell that if the fund manager invest only such A,B,C,D,E 5 different shares. Then return can **be the** maximize the risk, can also be the lowest. So the decision is based on a **a** sophisticated mathematical programming or a statistical programming or a simulation for that matter instead of basing it on the fundamentals of the company a technical think that is of the company or the share for that matter. So you have got religare agile fund then we have got reliance quant fund, in reliance **fund** quant fund we have got that there only though the they taken from Nifty but, they take only 20 **(())** that is from the Nifty which are that 50 as such that means this 20 stock they are putting today it can change from day to day because the optimization program or the simulation that they have done may say that you can drop one of this 20 and go for another out of this 30 left from the index. So

they will not be fix that only this 20 they are depending on the return statistics of the different shares they can also choose they can change from one to another so it is not that 20 scheme 20 shares where they have put the money is going to fixed it can change from a time to time but, they will be always keeping all the things between the 50 of Nifty has so that is the in fact that will be specified in the objective of the mutual fund. When the mutual fund goes with these or AMC comes with a particular offer in that they have to specify how are they going to put the money are they going to put in a particular sector are they going to put money as per this quadratic programming or quantitative programming are they going to put a money as for index they are going to index fund for that matter if this index in **in** which index they are going to have benchmark or replicate for that matter all those things have to be specified, if in case **in also** they can also specify the growth scheme or a income scheme or a balance scheme those have to be specified on the mutual fund comes with the particular offer initial fund offering takes place all these things have to be disclosed by the mutual fund company. Then, you have in this case but, for some reason the distributors do not advise retail investors for the quant funds because there could be lot of complications involved in that so they may not advise typically we find that the retail investors and advise to put money but, large investors can have the risk of investing this particular schemes like quant funds.

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**Conditions for Mutual Fund
Investment Strategy**

- Meeting Investment Objectives
- Transaction Costs
- Diversified Fund
- Initial Investment
- Credibility

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Then coming to the mutual fund investment if you are an mutual fund investor what is that you are going to look for when you invest or when you like to choose a particular

scheme say in that case you have to look at further this particular mutual fund scheme is meeting our investment objective or not, so if you like to have let say somebody who is in the age of 35,40 and who has a child who will graduate at the (()) another 10 years at that time some money can be required. So accordingly in that case you can go for something like growth scheme where you will get that money at the end of 10 th year and you get something so if you have a scheme which meets his object to that you like to get some amount at the end of 10 th year and you do not want to get anything periodically in between then you can accordingly choose so you have to find out whether this particular scheme that you are investing is meeting your objective or not or you may be a pensioner who are somebody who will like to have a regular amount of income in that case you can go for something like a pension type schemes, so you have to see whether this particular mutual fund where you are investing is meeting your investment objective or not. So if its meets the object then you choose as many schemes then you again find out whether which scheme we are going to go for then you have to see there is a transaction cost if there is a entry load or exit load obviously if the everything else is constant then we will not like to go for that scheme whether there is a entry load or exit load ,so that case another thing which one one may look at then one may also look at how diversified is this particular fund because at the end of the day when we are putting money into mutual fund we are taking the advantage of diversification which we cannot do on our own so if the fund is not going to be well diversified there is no benefit of going for that because the risk is not going to be controlled in that because diversification leads to reduction in the total risk or portfolio risk for that matter.

Then one can also may look at and then also look at something like initial investment some funds may have restriction that you have to put some 1 lakh rupees initially or 5000 thousand rupees initially obviously in that case if you do not can afford that much amount, so those schemes are hold out for us and in that case you will look at which particular scheme is asking for that amount which you can afford to invest at in the initial stage, so that can be also another consideration to look at whether you will go for a particular scheme or not. Then, obviously we will have to credibility fund which is started just now we will obviously have the credibility problem because these they are yet to prove in the market or there may be as many AMC available then as many schemes are also available all AMC may not be doing well equally as such some of they may be doing well some of they may be very bad also.

So there are (()) agencies which publishes reports about the performance the mutual fund and then now also rating also possible as a mutual fund schemes are concerned, so one can look at also credibility of the particular mutual fund in fact one can also look at the credibility of the fund manager when the mutual fund schemes are advertised a fund manager's name and the team is also announced in there is certain instances where certain high network individuals in which only in those funds which are managed by a particular person, so they do not go for any style, any sector, any index based fund, any company based fund they rather go for that fund where the AMC is mister the the fund manager is mister x or mister y. So they will go only for that because they feel that whatever fund has been managed by mister x as done always better in the market or they might have outsmarted the out perform of the market in a long term assets they may go for that. So the credibility also can be there depending upon the manager who is managing the particular fund one can easily find out from the companies AMC's website and the other literature that is there given by the AMC's about different schemes who are the fund manager of this particular, who are the manager of the particular scheme for that matter. So these are the 5 different things where which can one can look at while investing in the mutual fund.

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Then, one thing is what the mutual fund investment does and then AMC can do one has to be careful about that is that the mutual fund investor the AMC may not have any strategy assets. Then, other thing is the investor himself has not have a strategy where

though put money, so then you can also end of putting money in very high risk and non diversified fund, because you may be sued by the market and some people may or may be go by hard sentiment, they may say that this particular scheme is doing very well so you can as well go for that. So you may put more money in a high risk and non diversified fund similarly, one can also because there are several fund, there were several schemes available in the market you may go for same type of fund, may be same power sector fund of HDFC mutual fund, at the same time the same power sector fund of let us say ICICI pru mutual fund. So in fact what is happening you are replicating the same thing and you are having duplication of the fund categories you instead of in that instead of that one can go for a power sector fund, one can take sector fund but, not two different power sector funds have two different AMC for that matter. So this duplication can be there which should be avoided as a mutual fund investing strategy.

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Mutual Funds Performance Evaluation

- Total Return
 - $TR = (\text{Dividend} + \text{Change in NAV}) / \text{NAV at Beginning of the Period}$
- Expense Ratio: Ratio of total recurring expenses to average net assets
 - Small funds have higher expense ratios
 - Smaller average account size funds have larger expense ratio
 - Stock funds have larger expense ratio
 - Offshore funds have higher expense ratio
- Portfolio Turnover Rate
 - Amount of Buying and selling done by management
 - Lesser of assets purchased or sold / fund's net assets
- Size of the Fund
- Cash flow
- Analyzing fund management (Comparison to Benchmark)

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Then, how do we look at the mutual fund performance, so there are as usual we have the returns and risk calculation also in case of mutual fund. So the first thing that we have any mutual fund performance evaluation the total return as far as totally in return is concerned what happens in this case any mutual fund scheme can have a periodic return which may not be a compulsory may not be a guaranteed one but, can always be there then another that you have got the **the** value that is happening into the NAV. The NAV is going to change upwards or downwards.

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The image shows a whiteboard with handwritten mathematical formulas. At the top right, there is a small logo for '© CET I.I.T. KGP'. The formulas are as follows:

$$\begin{aligned} NAV_t &= \text{Rs. } 18 \\ NAV_{t+1} &= \text{Rs. } 21 \\ \text{Dividend} &= 2 \\ \text{Return} &= \frac{2 + (\text{Change in NAV})}{NAV_t} = \frac{2 + [21 - 18]}{18} \\ &= \frac{5}{18} \end{aligned}$$

At the bottom left of the whiteboard, there is a logo for 'NPTEL'.

So, if one has put in a mutual fund scheme at a particular point of time for the was NAV let us say rupees 18 and that is in a particular time period and this NAV has gone off at the end of one year that is it has become rupees 21 and during this particular period the mutual fund scheme might have given a dividend of 2 rupees. So in that case the return that the mutual fund is offered is dividend of 2 rupees plus the change in NAV, so that on divided by the NAV that is in the beginning of the periods, so that means 2 plus 21 minus 18 divided by initial investment 18, so that is 5 by 18 this is the rate of return that has come from investing in this particular scheme so you **you** can find the percentage and find a how much percent returns so this is the way return on a mutual fund scheme calculation so depending on different schemes you may have different returns and you can compare and say which particular **investment** mutual fund scheme has offered more return or less return.

Then, another that we have of a performance is the expense ratio what happens in that case we have something called ratio total recurring expense to average net assets. Average Net Assets is that that is the opening Net Assets. Net Assets means the assets minus the liabilities as per a particular scheme is concern and we have opening, we have got a closing, so average of both these things gives in this, gives average net assets and how much expense actually incurred by this particular mutual fund scheme, because at the end of the day whatever expenses related to particular mutual funds scheme that is born by the mutual fund scheme itself. So there is a fund management fee, there is a

transaction fee, there is an issue of diluted expenses all these expenses are taken care of from the fund available with the mutual fund company for that particular scheme, so higher the expense to the asset value, the net asset value for the total scheme is going to be problematic for us, so typically what happens small funds will have this ratio to be higher as large funds, because economies of scale and economies of scope they will have this ratio to be lower so similarly, stock based funds or equity based funds are going to have a larger expense ratio offshore funds are because there is a transaction cost involved in transfer of funds from one country to another country buying there and investing there in the other country for a transaction cost can be there. So, those funds are also like to have higher expense ratio, so one has to look at a particular scheme where this particular ratio is actually lower than one has can also look at how much of buying and selling is done by the management as per as this particular scheme is concerned. So it should be adequate purchase and sale it should not be that only they have buying only very less amount of security and holding on to long period they should have a churning but, churning should not be as frequently as possible.

So that is also another thing we have to look at then one can also go for something like size of the fund, size of the fund is typically the bigger is the size of the fund, because economy scale, economy scope, economies of scope and scale the return is going to be more, because expense itself is going to be expenses likely to be lower in such cases.

Then we can look at how do the cash flow in terms of dividend that is coming here, then one can also look at how this particular fund has been managed compared to a benchmark so one can compare the performances of this particular mutual fund scheme with a benchmark like an index, if index has been doing well compare to this particular mutual fund scheme over a long period time that means the mutual fund scheme has not done very well assets for the investor right so in that case one can look at with the compare of the benchmark and find out which is better which is not the best one for that matter then we also have certain other things that facilitate investment decision making.

We have mutual fund rating that is in India it is possible we have got a credit rating agencies like care which has got a fund rating quality option now, so they do something called credit scoring so they do that based on the historical data and how what are these securities this particular investment scheme has put in what are the investments they have put looking at that they may they are giving a rating quality they also look at

something like a management, who are the manager, who are the AMC, who are the sponsor, what is the credential of the sponsor, all those things they consider and find out what is the management quality then what is the typical accounting system MIA system that they are in vogue in this particular scheme or not so all those things will do and what is the type of monitoring mechanism, surveillance mechanisms there is their they do they also typically periodically withdraw this particular rating and they give a symbol like care triple Af, care triple Bf, there is a typical care Cf. f stands for the fund which is relates to mutual fund rating.

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Mutual Fund Rating in India, contd..

- CRISIL
 - Credit Quality Ratings: For bond funds
 - Capital Protection-Oriented Funds (CPFs) Ratings
 - Fund Governance and Process Quality Rating (or Fund House Rating)

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Then one also has something like a mutual fund rating in India as with crisil which does something credit quality ratings the for bond funds where which particular bonds are investment they have actually would be money, then also of the capital protection oriented funds, they also have something like fund governance and process quality rating.

So they rate this fund house the AMC is being rated instead of being the scheme being rated, so these are the things that we have discuss in a mutual fund we discussed about the what is the concept of mutual fund, we discussed different types of mutual fund, we talked about what **what** why should be invest in this put money in mutual fund, we talked about different style fund, different index fund, different types of schemes available as a portfolio of options available for the investor. We also talked about here different terms

that is associated to with a mutual fund NAV, purchase price, exit load, entry load we also now talked about the ratings that is available now in Indian context, like ratings by say care or writing by Crisil which are the premier credit rating agencies of this country. thank you.