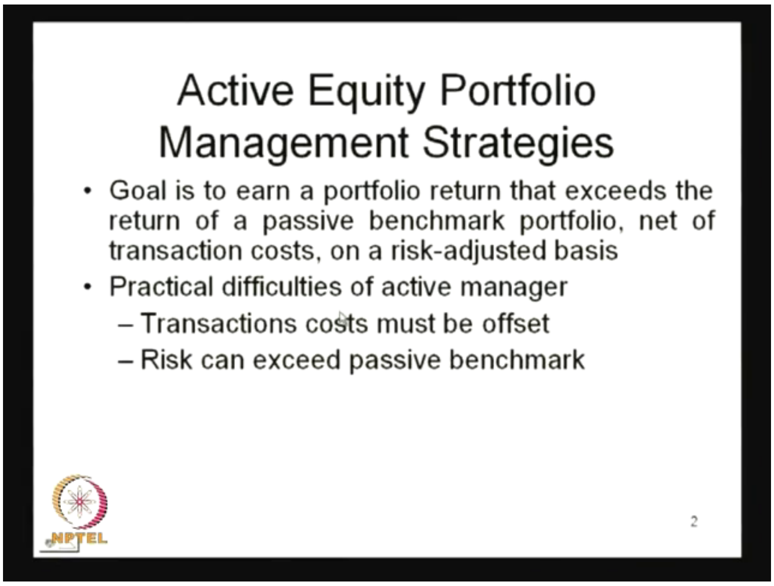
Security Analysis and Portfolio Management
Prof. J. Mahakud
Department of Humanities and Social Sciences
Indian Institute of Technology, Kharagpur

Module No. # 01
Lecture No. # 30
Equity Portfolio Management Strategies - II

Good morning, so in the previous class we started the discussion on the equity portfolio management, and here what we discussed is that, there are two aspects or there are two types of strategy always we discussed, and out of them we have discussed about the passive portfolio strategy, and today, we will be discussing about the active portfolio strategy.

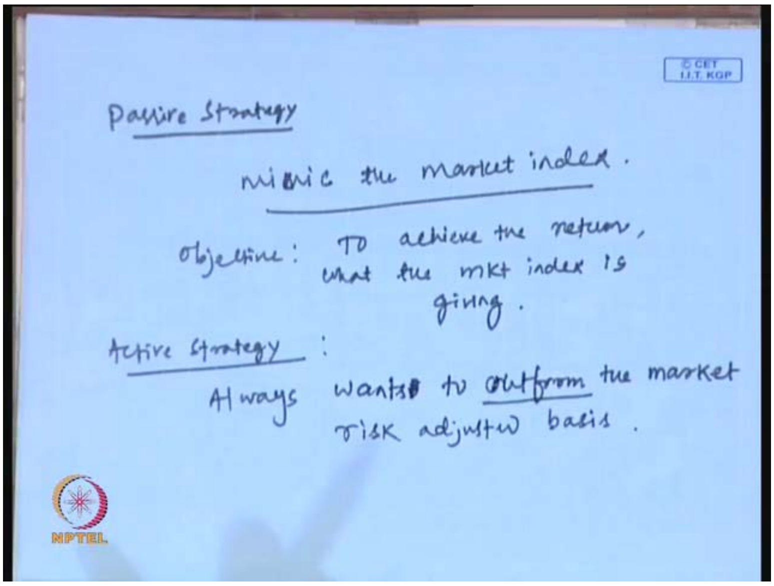
(Refer Slide Time: 00:47)



And before going to discuss exactly what is that active portfolio strategy is, let us see that what basically the objective of this active portfolio strategy. The basic objective of the active portfolio strategy is to earn a portfolio return that exceeds the return of a passiveness benchmark portfolio, rate of transaction cost on a risk-adjusted basis.

If you remember that in the previous class we discussed about the passive portfolio strategy and what was the basic objective of the passive portfolio strategy. This was basically what this investor or the fund manager was trying to do. They were always trying to mimic - they are always trying to mimic - the market index, and if they are trying to mimic the market index their basic objective is to get, to achieve the return what the market index is giving.

(Refer Slide Time: 01:37)



But here one question always comes to our mind how the active strategy - active strategy - is different from the passive strategy. If this is your basic objective of the passive strategy and this is the basic objective of the active strategy and what this active strategy does, he or the investor always wants to outperform the market. Whatever return we get from this market, always if any investor is following any active strategy, he always want to outperform the market on a risk adjusted basis; that means, whatever return he is going to get from this investment, that should be more than the market return, and the extra return what he will be getting from there, that should be adjusted from the extra risk what he is going to take in the market.

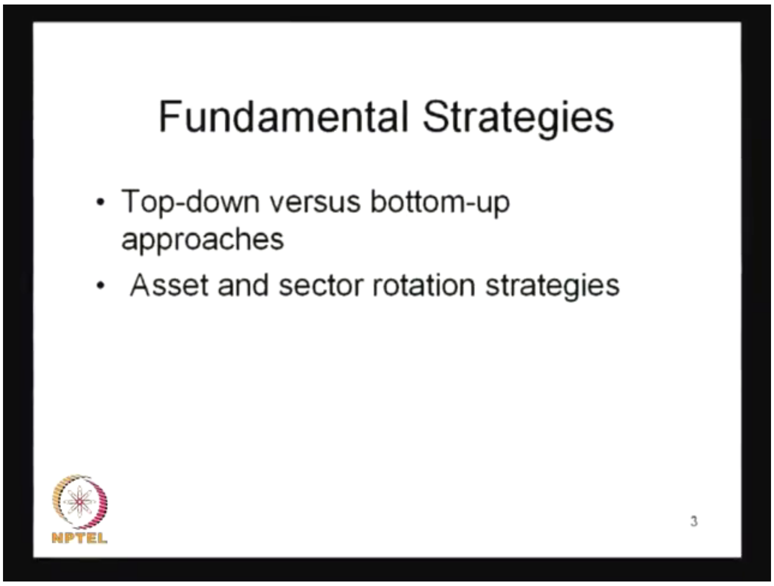
So, therefore, what we have seen here that the active strategy is a little bit more dynamic in nature, or always the investor has to take the different positions in the market to achieve that particular target in a particular time.

But the difficulties what basically the manager or the active manager always faces, what is the practical difficulties they face? The transaction cost must be offset or the risk can exceed the passive benchmark. Already I told you in this aspect what basically this two things is talking about. For example, if the basic goal is to outperform the market always and you this is your basic objective and that is why you always by hook or crook, you want to get that particular extra return what your market is giving. If your market is giving some return and always you want to get more return what your market is giving. So irrespective of the transaction cost, you do not think about the transaction, and go and change your position frequently in the market to get that return.

So, in that case, sometimes, what the manager faces or what the investor faces or the problem what they face basically sometimes, because of that attitude, because of that single objective what sometimes happens that, even if they get some more return, the return will be totally offset to this transaction cost; that means, the extra transaction cost what they are going to bear from the market because of the changing position of the investor then, the extra return cannot be the - real extra return - what he can earn from the market.

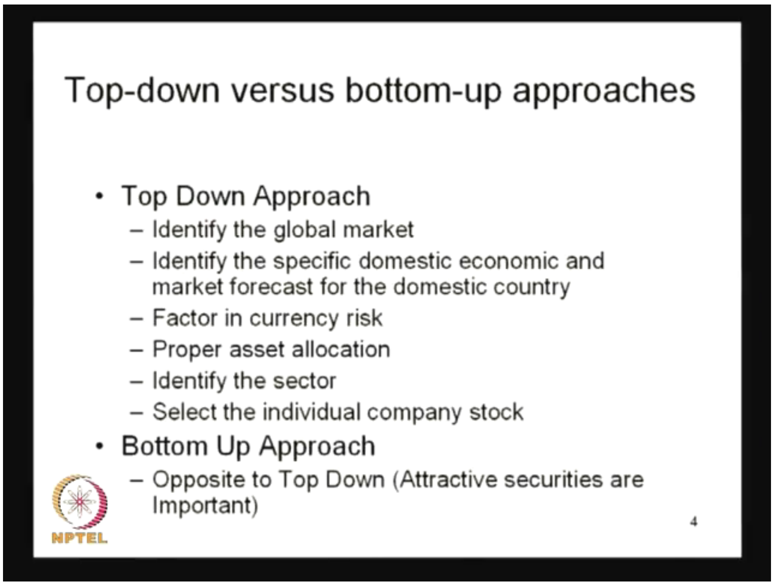
And as well as once frequently he will change the position sometimes the risk level of the investor may also go up. And there are two things what we can observe here, in one way the transaction cost is increasing, other way the risk factor is increasing, so by that even if the investor is getting more return from that particular investment strategy, then the particular extra return what he is going to get that is not the actual return what or actual real return what he is going to get from the market which is above the market index or the market return. So, therefore, this is the problem always the investor faces or the active investor faces whenever they change their position frequently in a market to get that particular return or they go by the single objectives.

(Refer Slide Time: 05:57)



So, in this context if you go by this different type of strategies what this investor follows, we have basic strategies or the fundamental strategies what the investor from the beginning follows, one is your top down versus bottom up approach, and second one is your asset and sector rotation strategy, these are the two basic fundamental strategy always the investor follows.

(Refer Slide Time: 06:23)



What basically the top down versus bottom up approaches are, if you go back we have discussed in your security analysis part, there are E I C analysis or there is technical analysis etcetera, what basically this E I C analysis is talking about? This E I C means, first of all you should study the economy, then you study the industry, then finally, you should come down to the company, then after aggregating or analyzing the three parts economic analysis, and industry analysis, and the company analysis, the investor can choose where he should invest and where he should not. So, that is the foundation part of the active management strategy or this is the way the active management strategy starts.

So, here if you see what is the top down approach, when there is a bottom up approach, but basically if you go by the top down approach what is the different steps the particular investor follows, first of all investor feels that identify the global market. First of all you see that how this particular whole world or whole global market is performing or behaving in that particular time, then identify the specific domestic economy and market forecast of the domestic country; that means, then after that identifying or analyzing the behavior of the global market, you identify the situation of the domestic country or the particular country, where you want to invest and also you try to analyze or forecast some of the variables which is specific to that particular country, where the investor is trying to invest.

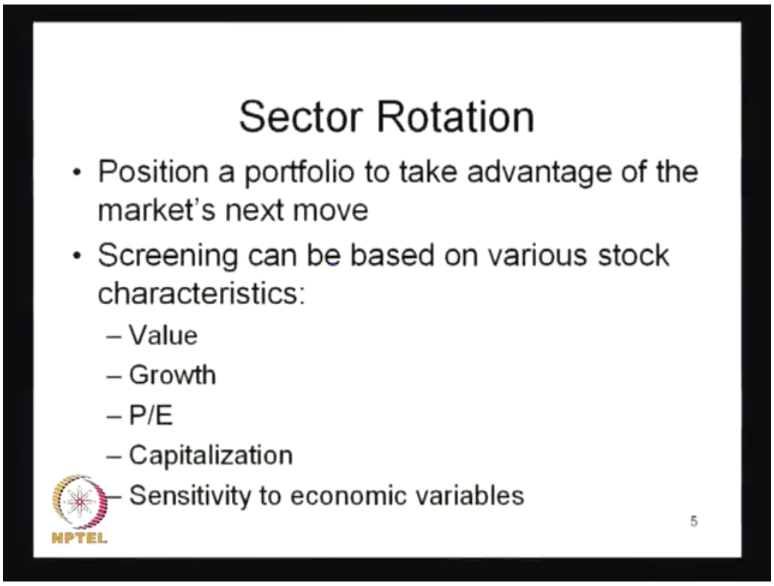
Then, factor in currency risk, basically, there are various type of risk, the particular country faces and out of them one is your currency risk what the investor face, so that is what you have to study that one, then after that once you have identified those risk, if you are investing this particular global economy in a different markets and then how generally your asset allocation can be done in the various markets that you can identify, then after identifying this then you go down or you narrow down your approach and identify in which sector you are going to invest, particularly in that particular time period which sector is performing, which sector has the market potential, or the growth opportunity of which sector will be more.

So, once you have identified the sector, then it will be easy for the investor or easy for the fund manager to identify that potentiality of this particular sector in the particular market in that particular time. So, in this context what you are trying to do, we are trying to narrow down your approach, first you started with this global economy, then once we started the global economy we come down to this particular country where or particular economy where we were trying to invest. Then after identifying this particular country, then we have identified some of the sectors in that particular country, and how those particular sectors are performing, then after identifying these things we are coming down that within this particular sector which particular company is performing better.

So, in the company analysis you must have read those things, these are different financial ratios or these are different kind of other indicators whatever we have, which helps us to decide, which is the particular company, which has the potential to be performed in the future.

Like that if you talk about the bottom up approach, in the bottom up approach what generally the investors do, first they start with the company and that means, in the market, in general opinion or from the general knowledge or from the general situation of the economy, he identify those attractive securities which could have the potential in the market to perform. So, if he can identify those particular securities which are very much attractive for the investor and which has basically shown some characteristics from which we can conclude that this particular stock is going to perform in the future. And it has lot of potentiality in the market and from there what generally, basically, they do, they identify those stocks from there, and after identifying those stocks from there, then you decide this particular sector and then go to the particular economy. Little bit it is unconvincing or we can say that most of the people may not follow that bottom up approach, but the E I C or the top down approach is quite popular or frequently used by the analyst whenever they use this fundamental part or fundamental analysis for selection of the stocks.

(Refer Slide Time: 11:14)



So, this is the basic step or the fundamental step of the market, then the second part is basically we have the sector rotation; sector rotation means, let me before discussing these things what basically the sector rotation is, sector rotation is the position of a portfolio to take advantage of the markets next move. And the spinning can be based on various stock characteristics that are value stocks, growth stocks, price earning on the basis of the price earnings ratio on the basis of the capitalization, basically the market capitalization.

What it basically means, it basically means that the investor always decides this different stocks on the basis of certain characteristics; that means, for example, you are investing in a particular sector on the basis of certain characteristics on the basis of the certain nature, but what has happening what is happening in this particular time, may be you have seen that there is lot of potential in other sector, and the analyst is advising you that these are particular sector now has the potential but the next period this particular sector can perform. So, in that particular situation what happens that there is a rotation policy is happening between the different sectors by the investor.

That means, if he feels that there is lot of potential in another sector which will perform better in the future, then what they will do, they will shift from one sector to another sector in that particular time. And how generally they screen those particular stocks, we will be discussing this things extensively, but here they decide there are certain characteristics, these are either the stocks you are investing in a value stocks, you can invest in the growth stock, you can switch from value stock to growth stock or you are investing in a small capitalization stocks, may be you are switching to a large capitalization stocks. So, these are the different ways this rotation policy works or the sector rotation works in the strategy.

And another also they can identify which sector is more sensitivity or they are more sensible towards the economic variables, this a very good point basically, always have very good strategy always the investor wants to use what basically that particular strategy is, that particular strategy is, for example, whenever this inflation rate goes up or the industrial production rate goes up or the growth rate of the GBD has gone up, so in that case what basically happens, that all the stocks or all the companies may not be affected uniformly across these particular stocks and across this particular companies.

If all the stocks of companies or not affected uniformly by the economic variables then what basically the investors were trying to find out that how or which particular stock or which particular sector is less sensible towards the economic factors. If the sensitivity towards the economic factors will be less, then the fluctuation of that particular stock may be less or we can say that the risk exposure towards that particular stock because of the macroeconomic variables will be less.

So, in that case what the investor feels that we should choose those stocks which are less sensitive towards the market fluctuation or less sensitive towards the change in the different other economic variables. If you can identify those things, then it will be easy for the investor or easy for the fund managers to identify which are the stocks we should decide or we should invest in a particular time period.

(Refer Slide Time: 15:04)

Then, we have the other strategy, basically it is based on the technical aspects, the investor use the technical analysis of different kind of charts and diagrams to conclude that which are the stocks we should take in the technical analysis part we have read this. So, in this case what this basically the technical strategy talks about? The technical strategy talks about the contrarian investment strategy, price momentum strategy and earnings momentum strategy, what does it mean.

We talk about the contrarian investment strategy; you know what do mean by the contrarian investment strategy? Contrarian investment strategy is basically, if the different analyst or different managers is feeling that a particular stock price is going to up, then the people or the analyst who believes in contrarian strategy they predict, they conclude this, No the particular stock price will go down, what does it mean? It means that they take a different strand, they take a different approach in the market to decide their investment strategy, even if all analyst and all the people who are investing in the market in that particular time or the people who are analyzing this particular stock they think in one direction and the particular person who believes in contrarian strategy he feels now this particular stock is not going to increase or the stock price is not going to increase, it is going to decrease.

And most of the cases the contrarian strategy works in the market because of the expectations, and because of the different direction of the expectations or the speculations in the market by the different people, in the different aspects, this contrarian strategy most of the time works in the market that if other people invest in the particular stock, assuming that the stock price will go up the other investor may feel that no the stock price will not go up the stock price will go down, so this is the way the contrarian strategy works in the market.

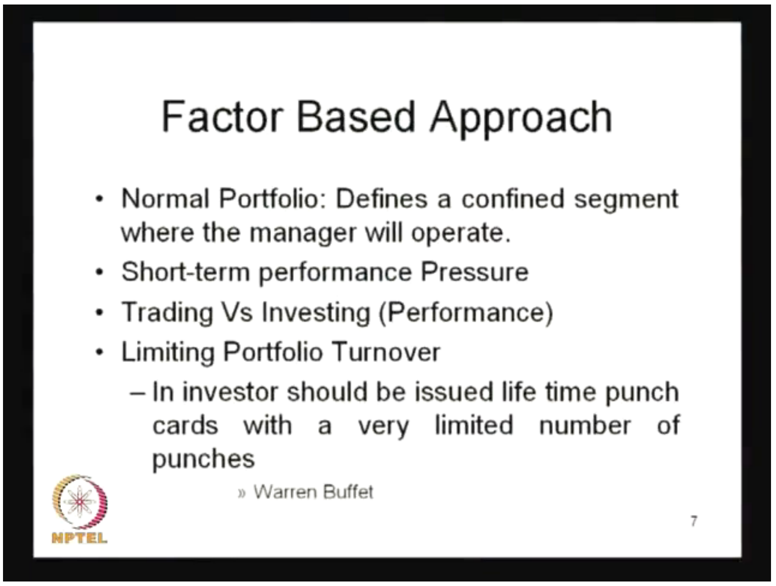
So, what here we are observing that most of the analyst, most of the investor who works or practically in the market who takes the different position in the market sometimes they believe in this strategy, and this strategy comes under the active strategy. Then, another strategy is price momentum strategy, what does it mean, the price momentum strategy is basically talks about, the decision of the investor is based on the fluctuation of the stock prices. All the decisions what the investor is trying to take that decision is totally depends on the fluctuation of the historical price of the stock, and if the historical price of the stock is saying that the trend is going up, then the investor believes that the price will go up upto a certain level then it will go down further.

Like that what here we are trying to say that all the investment philosophy or all the investment strategy what the investor is trying to use in that particular time, that based on the historical price of that stock which is the main philosophy of the technical analyst. Already in the previous classes we discussed about extensively that how the technical analysis or technical aspects is using the different indicators or different approaches to conclude whether this particular stock is going to increase or the price is going to be increasing or the price is going to be decreasing or when we should sale or when we should buy.

So, that is the different investment strategy what this technical analyst always follow, the same analysis is coming under basically the active strategy whenever we talk about a general sense. Then, another part is your earnings momentum strategy, what basically the earnings momentum strategy is, the earnings momentum strategy basically talks about or it basically based on the earnings of the investor, how that particular investor is going to earn or earnings per share, what particular stock, how this particular stock is performing or how this particular stock is giving the return to the investor that basically should be the investment strategy by the investor as compared to only the price level.

There are some investor very much skeptical about only using this price is one of the only variables which can affect my decision process, they basically talk about that how this earnings from this particular stock will affect my investment decision process in a market in a particular time, therefore, instead of using this price momentum strategy, they can use the earnings momentum strategy of that particular company or particular stock in a particular time.

(Refer Slide Time: 20:12)



Then, there are other approaches what this is generally coming under the active portfolio strategy, one strategy basically always we use or one type of strategy always used in the market that is the factor based approach. What do you mean by this factor based approach? Whenever we talk about a normal portfolio what basically it talks about, it defines a confined segment where the manager will operate; that means, you see, whenever we talk about… you invest in the market or any investor who wants to perform in the market they take the position in the market to maximize their return.

What happens in a particular time that basically if you observe that the investor although diversify their portfolio, but they basically target to a certain kind of sector or certain kind of companies to maximize their return, specifically they always try to identify those stocks, basically, we can say that one particular company or a one particular investor always decides a particular segment or particular area or particular sector or particular type of the companies which are the characteristics are more or less same to make their investment decision. But, why they do it, and how they do it, if you ask yourself, first of all you answer your question why basically the manager always wants a particular segment to invest in the market, or for the investment reason why they decide that particular sector, particular segment in a particular time.

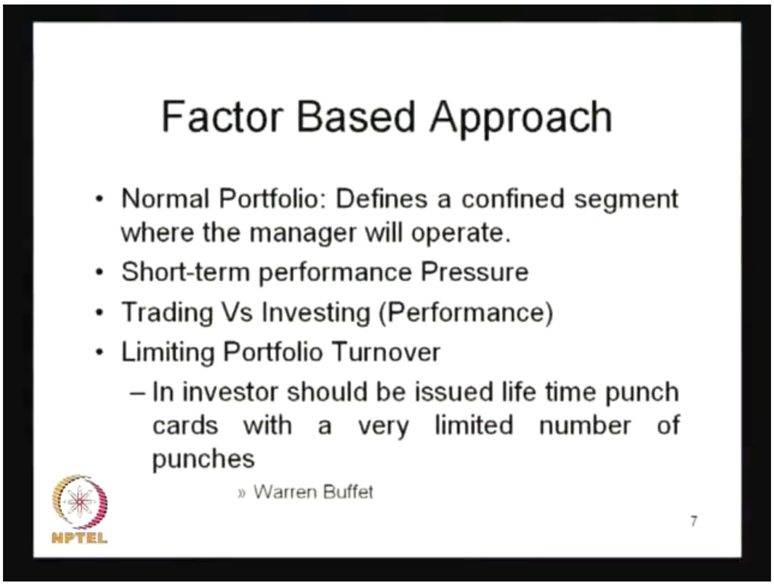
The basic point is, there is always a short term pressure, short term pressure on the fund manager to perform, for example, you are acting as a fund manager on behalf of somebody, then what happens in that particular time, this always your client or the particular person who is relying on you that you can maximize his return, he always wants that my fund manager or my manager or my consultant should perform better in the particular market in a particular time.

So, every company or every manager or the consultant always have a certain pressure to perform if that particular performance is not there, then sometimes they lose in the market they lose their customers, they lose the demand for that particular stock in the different period of time. Therefore, what happens that most of the managers feels the pressure in the beginning to perform in the market at a short period, therefore, what happens, sometimes they get this performance, sometimes they may not.

Therefore, what we say there is a two type of identification from the theoretical prospective we can make, one is your trading versus the investing; that means, there is trader and there is a investor particularly, what basically the trading versus investing means, we can say that trading is a part of investment, but basically what happens that if you want to perform in the short run always, then you have to trade every day, you have to take the active position every day, that way may be you can maximize your return or sometime you may also, sometimes you may lose in the market because your transaction cost will be more.

Therefore, the performance what we talk about; in terms of the performance, if you talk about in the short run, then always sometimes we go for the trading, but if we talk about the investing, then it is basically a long term process through which we are going to maximize our return. So that means, generally, already the notion you might have known or the general idea is, if somebody wants to take the position in the market for a long period of time particularly in the equity market for a long period of time, then more or less he can earn some return, some return can be gained by him or she can maximize or he can maximize the return at that particular time. But, if somebody wants to outperform in the market in a very short period, it may not be possible in the equity market, what basically always the person who believes in the short run performance wants to use it.

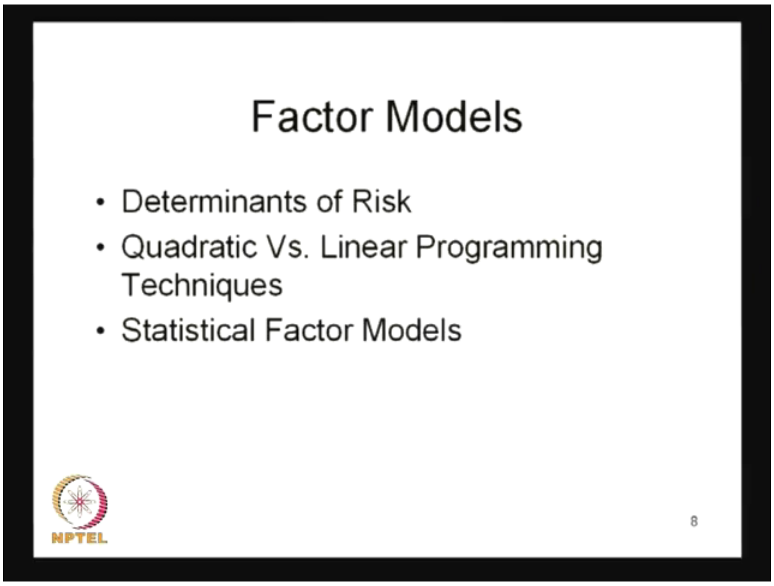
(Refer Slide Time: 20:12)



That is why what generally one of the suggestions or basically one of the strategy what this greatest investor Warren buffet used to use, he said that an investor should be issued life time punch cards with a very limited number of punches, what it basically means, he calls it the limiting the portfolio turnover. He is very much concerned about the transaction cost what we are going to face whenever we do investment in the market.

So, if you want to invest in this particular market in a particular time and you want to reduce your transaction cost, then what according to Warren buffet we can say that the investor should not change the position frequently by which the transaction cost will be more and the risk adjusted return or the cost adjusted return what the investor is going to get that will go down. So, in this context what this we can say, you limit your portfolio turnover do not change the position frequently to maximize your return.

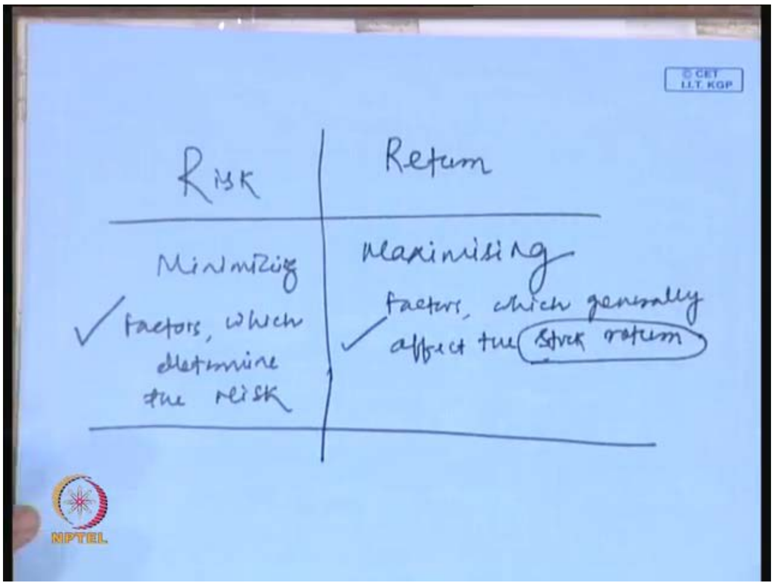
(Refer Slide Time: 25:46)



So, in this context if you identify those particular factors what we should look upon, what particular factor we should look upon to identify or we should always see before the investing or which are this particular factors we should always analyze for deciding where we should invest and where we should not invest; that means, those factors have the greater role for the determination of stock return in the market at a particular time period.

So, in these particular factors if you identify, those factors whenever we include in our market, so these are these models are defined as the factor models. So, here if you, already we know that the main factor which basically always we talk about, we always use in the market to maximize our return that is there were two aspects, one is your risk then another is your return.

(Refer Slide Time: 26:50



So, what the investor trying to do either he go for minimizing the risk or the maximizing the return, but here, one thing if you observe, you have to identify the factors which determine the risk or which can be used as the risk proxies. So, if you can identify those things by which you can try to minimize this or you want to identify the factors which generally affect the stock return.

So, in this context what we can say, the factors which are basically proxies for the risk or the factors which are basically proxies for the return that basically we have to identify. Then as you know already in the portfolio management process I already explained to you that we have certain methods, we have certain models through which we can construct our portfolio either to minimize the risk or to maximize the return.

So, therefore, we identify the determinants of the risk which could have the impact on the stock return and you go for formulating the quadratic and linear programming techniques for the allocation of the funds in the different assets and also you can use some statistical factor models to identify the risk and return aspects and the factors which affect the return of the stock and the factors which affect the risk of the stock therefore, we can make the tradeoff between these two to maximize our return.

(Refer Slide Time: 28:50)

So, we have there are various factors which affect your risk level of the investor or the risk level of the market. So, therefore, in this context we have categorized those aspects into the various types one is your macroeconomic factor model, here the in the macroeconomic factor model what we have seen we have seen that there are various risk levels which is affecting the stock return, one is your investors confidence what we call it the confidence risk, your interest rate risk, basically, which is basically the time horizon risk, inflation risk, business cycle risk, and this market timing risk.

If you talk about one by one, the confidence risk basically, according to the market situation the investor's confidence varies from time to time, sometimes the investor is so confident that he can maximize the return in a larger extent, but sometimes the investor's losses his confidence level, if he once lost the confidence level it is very difficult to gain in the market at a particular time, therefore, there are certain indicators we have to identify which basically used as the investor's confidence level. Now-a-days what importance we are also giving to calculate this investor sentiment or the consumer confidence in a particular market, so first of all you have to identify that one.

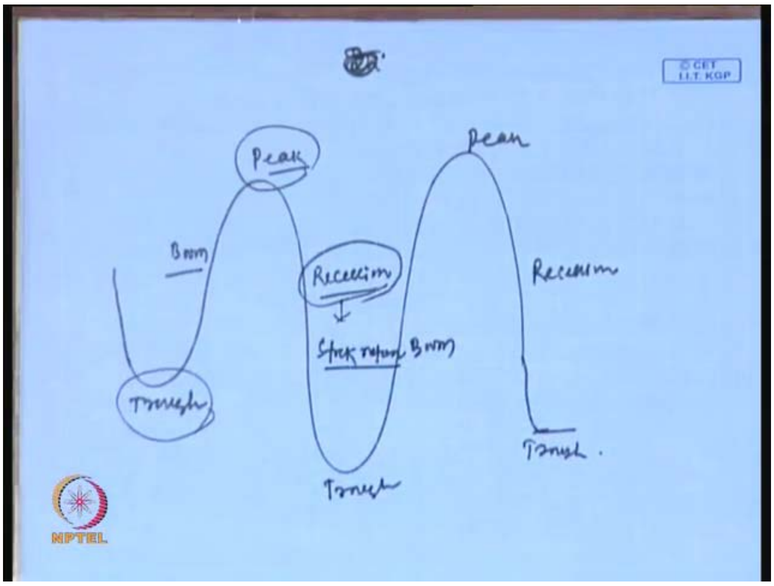
Second one, you have to see the interest rate risk, you see that interest rate risk is a factor which affects all the investment aspects of this particular country; that means, it affects the equity, it affects the bond and the price of the equity, price of the bond, everything is affected by the interest rate fluctuations. And how the interest rate will behave that prediction is little bit difficult, or it is very, it is the most riskiest strategy to predict the inflation or predict this interest rate in the market.

So, if your prediction of interest rate is the most difficult task for the analyst, and therefore, what we can say that the interest rate risk is one of the biggest risks what this investor always face to minimize the risk or to maximize the return, so therefore, always the investor try to consider those things.

And inflation risk, because the inflation risk can be anything, it can be because of the demand factors, it can be because of the supply factors, so identifying the demand and supply factor, because the demand factor related to the consumer and supply factor may be related to the producer or may be the other factors in the economy. So, the analyst always also identify those things because if the because of the demand factors the particular economy is in the risk or the inflation price stability we do not have or the price is very much unstable, then what happens, it is very difficult to create that particular demand in the market. So, lot of policy measures we will have to take into account to incorporate or to increase this demand for the different goods and services at a particular time.

So, therefore, it is very difficult to identify how, why, this inflation is occurring, if we can really identify those factors which can or which is affecting or which are affecting this inflation rate or the price stability of a country, then it will be easy for the investor to use that particular model or use that particular factors for analysis of the stock returns.

(Refer Slide Time: 32:35)



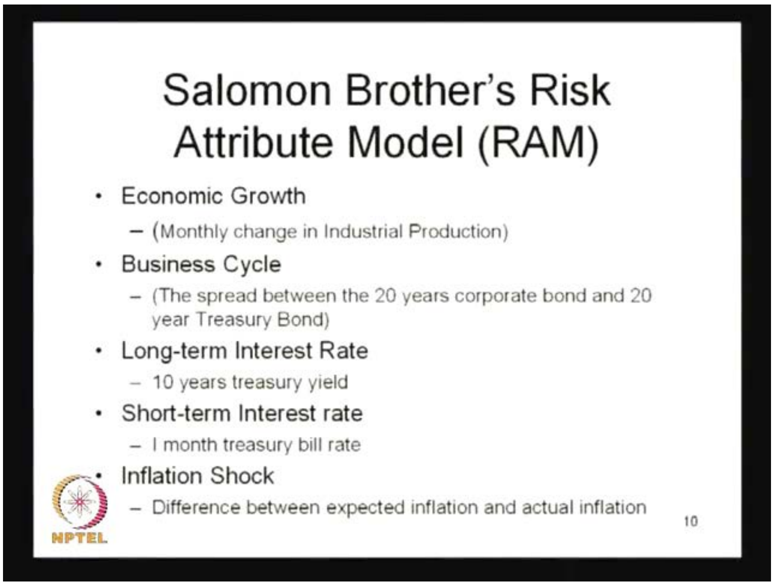
Then, another one is business cycle, already we know that there is a phase always we use in the market and always we cannot do anything in terms of that because, these phases are basically going like this. So, if you talk about the different phases, already I told you, this is basically your trough, this is your boom, this is your peak and then this is your recession. So, no investor can control this, it is basically the cycle always what this economy faces, this is your again boom, this is your peak and again, it will come to this is your recession and this will come to again the trough.

So, what here I am trying to say, if that business cycle risk is prevailing in the market and we are already in the recession, we cannot control this because this determined by some of external factors, and if those determination of the recession or determination of the peak and determination of the trough is difficult, and if once a recession is starts it continues for certain period of time, then it is very difficult to control this. In that particular context what you can see that we should find out how that particular recession is going to affect the stock return. So, in this context, the business cycle risk plays the significant role for determination of the stock return in a particular time period.

Then, you have the market timing risk, what do you mean by the concept of the market timing, what basically the investors or the managers always do, whenever they found that the stock price is quite high, in this context what they do, they issue the share price and whenever they found that the stock price is quite low, they are trying to repurchase it, so that particular aspect is going to affect the whole dynamics of the determination of the stock return or the determination of the investment strategy.

But again, also what we can say it is quite difficult to say that whatever price availability is there in the market for a particular stock, whether that is one of the highest price levels or still the price will go up and after what point the price will go down. So, in this context what we can say, timing the market will be little bit difficult by the investor, but still they were trying sometimes by the general appetite of the investor’s attitude what they do, they try to time, but sometimes it is very difficult to time the market risk, because most of the markets in the world and with specific to India are not efficient, and whenever your market is not efficient then, what about information the manager has in terms of the market price of the stock in that particular time, how far it will be reliable that aspect or that analysis or doing that analysis will be difficult by the investor.

(Refer Slide Time: 35:28)



There are other another studies what they have done on the basis of the risk, one of the study, the salomon brother’s have made in the certain period, what they have done? They have talked about, there are certain factors which affect the stock return, or the active investor always see those factors before deciding whether this should invest in the stock or not, one is your economic growth what proxy they have used that is the monthly change in the industrial production. Because sometime we also use this monthly change in or basically the change in the GDP or Gross Domestic Product because, because of lack of monthly data passed across GDP, we can use the proxy for monthly change in the industrial production.

Then, we have the business cycle, already what I told you now, the business cycle is basically measured as the spread between the 20 years corporate bond and 20 years treasury bond; that means, if the spread will be more, then we can say that there is a recession, sorry, there is a boom this spread will be less, maybe we say that there is recession.

Then, the long-term interest rate what basically already told you that interest rate is a most important factor which affect the stock return, that is why there is a linkage between the money market and the capital market and the stock market in a particular time period. And they have taken this proxy of 10 years treasury yield which can be used as a long-term interest rate for the market, then they have taken the short term interest rate which is used by the one month treasury bill rate and because they found that they according to them this short-term interest rate has a short-term impact or short-term dynamics and the long term interest rate has a long-term dynamics.

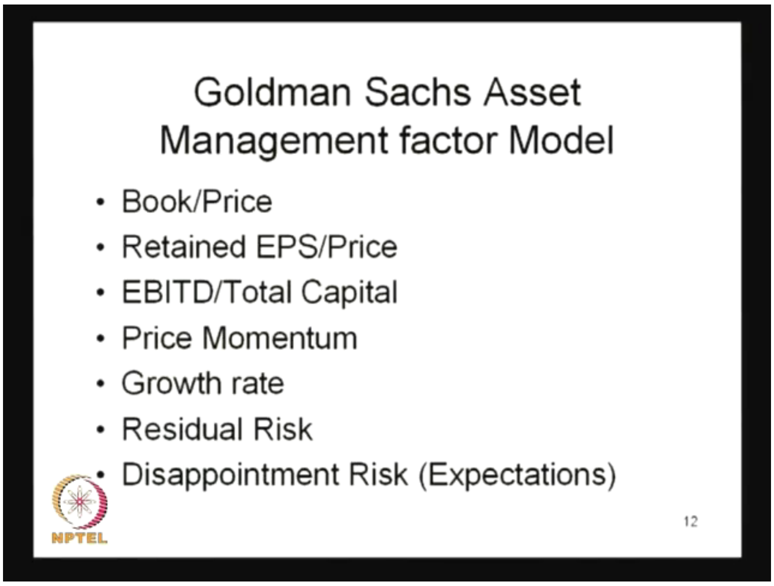
And then they have inflation shock, inflation shock is basically what they have measured that is the difference between the expected inflation and the actual inflation. And after considering all these they found that these are the factors which play the significant role and for the determination of the stock return.

(Refer Slide Time: 37:34)

Risk Factor	Estimated Factor Sensitivity	Estimated market Price of Risk (%)
Confidence Risk	0.75	2.61
Time Horizon Risk	0.79	-0.69
Inflation Risk	-0.48	-4.32
Business Cycle Risk	4.65	1.59
Market Timing Risk	1.63	3.74

If you see these things what they found that the sensitivity, they found this 0.75 and the estimated market price of the risk is 2.61, time horizon risk is 0.79 which is your investment - I mean - investor's time horizon, and the estimated market price is minus 0.69, inflation risks 0.48 estimated market prices minus 4.32 business cycle risk is 4.65, estimated market prices is 1.59 and market timing risk is 1.63 and estimated market price of the risk is 3.74.

(Refer Slide Time: 38:21)



Then, another study has have been carried out by Goldman sacs asset management factor model what we call it, that mean the Goldman sacs has made this study what they name it the Asset Management Factor Model for determination of the stock return or to formulate their active strategy for the company, what they said that the most important factors which can affect the stock return and the investor always should decide or to make their investment strategy on the basis of this factors, these are the book value to market value or book to book price to market price of this particular stock.

Then, your return earnings per share to price of this particular stock then earnings before interest stocks and the, basically divided by the total capital; that means, what is the profit whatever you have and what is the total capital you have, then you have the price momentum; that means, the price fluctuation of this particular stock, and the growth rate of the company which can be measured as either growth rate of the sales or growth rate of the assets or you can also use the market capitalization rate, or growth rate of a market capitalization.

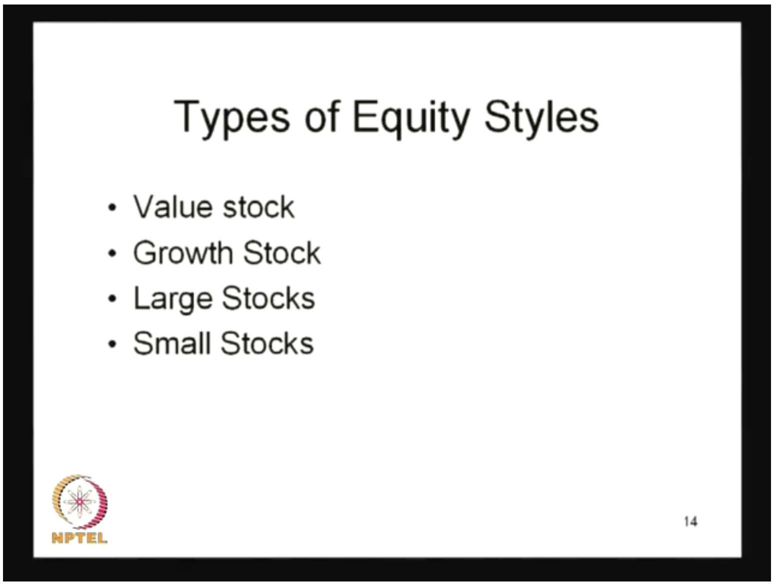
Then, you have the residual risk, residual risk in the sense particular risk which is or the factors what we have not incorporated, that is, error what we have to also measure which could have the impact on the stock return. Then, the disappointment risk basically the expectations, how far your expectations has been realized in the market, if your expectations has not been realized, then it will be difficult to conclude that or to say that how your market is going to perform in the future, so these are the factors what the Goldman sach has taken.

(Refer Slide Time: 40:11)

Then, we have developed certain another way of making your active portfolios management strategy, that is, your equity style management, what do you mean by the style management; that means, the investor always decides certain characteristics, certain criteria on which the portfolio can be based, and this particular style of investment, this particular criteria which is generally decided by the investor to make the portfolio that is why we call it the equity style management, because this particular portfolio is based on certain styles or certain characteristics of that particular asset in that particular time period.

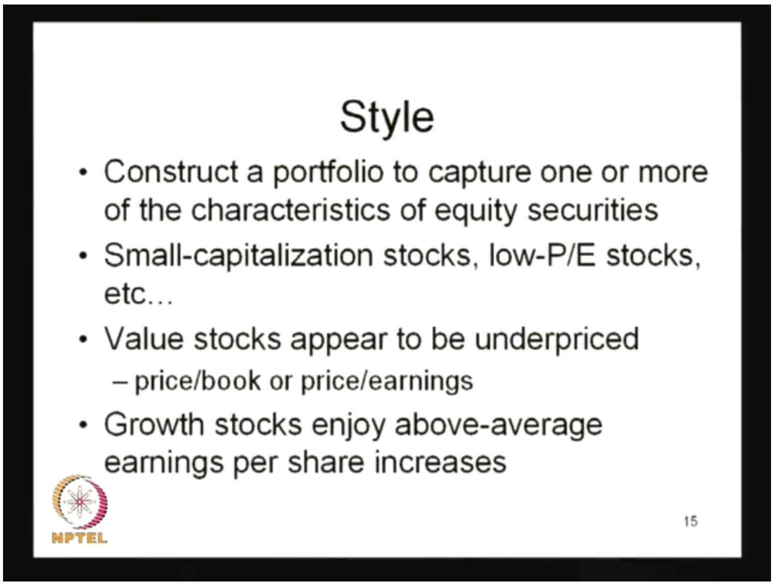
Therefore, we have different kind of concepts which related to this, there are different types of equity styles there are style classification systems, we have a style switching, we have the market anomalies, we have the size effect, we have the high price earning effect, you have the January effect which is more possible in case of USA, then finally, your book value to market value. So, these are the different ways through which the style can be classified.

(Refer Slide Time: 41:26)



So, largely if you talk about the different types of styles, the styles basically has made between the value stocks, growth stocks, large stocks and small stocks, how basically those value stocks, growth stocks are defined. If you observe this thing, then what basically this style analysis says that construct a portfolio to capture one or more of the characteristics of the equity securities already what I told you that is basically the style.

(Refer Slide Time: 41:40)

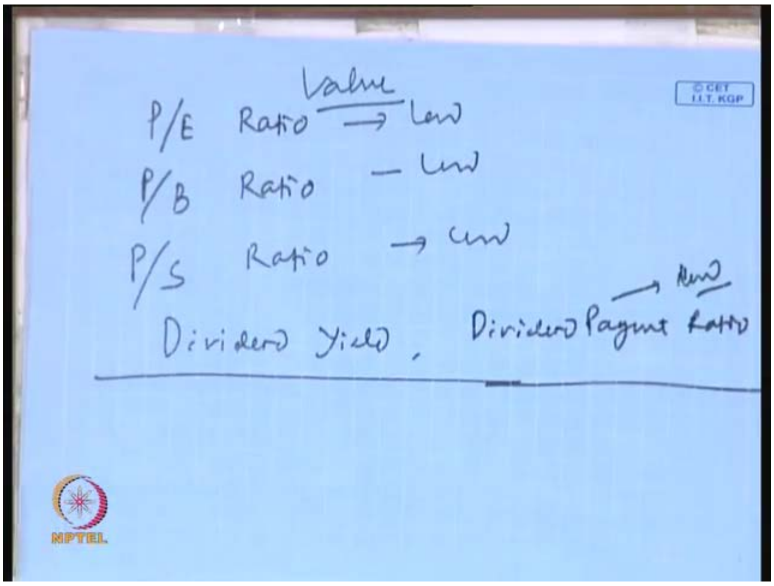


Either, you can form your stocks on the basis of, the small capitalization stocks which basically we consider the small stocks, you can make all the stocks as a large stocks based on your market capitalization; that means, style is your market capitalization or the size of this particular company.

If you are, if it is a small size the portfolio is based on only the small size stocks, then here, we are using this small capitalizations stock which has a style. So, like that your low price earning ratio stocks or high price earning ratio stocks, so here your price earning ratio is the variable or the characteristics on which you can or you are making your portfolio that is, fore you are following certain styles, you are following certain characteristics through which you are constructing the portfolio in a particular time period.

And how generally we can define this value stocks and growth stocks, and the value stocks appear to be the underpriced most of the times and the value stocks can be defined. There are four parameters what basically your four indicators for generally we will use that is your price earning ratio, then price to book ratio or market value to the book value or you can also use price to sales ratio and sometimes also we use the dividend yield or we can say, also you can use also dividend payout ratio.

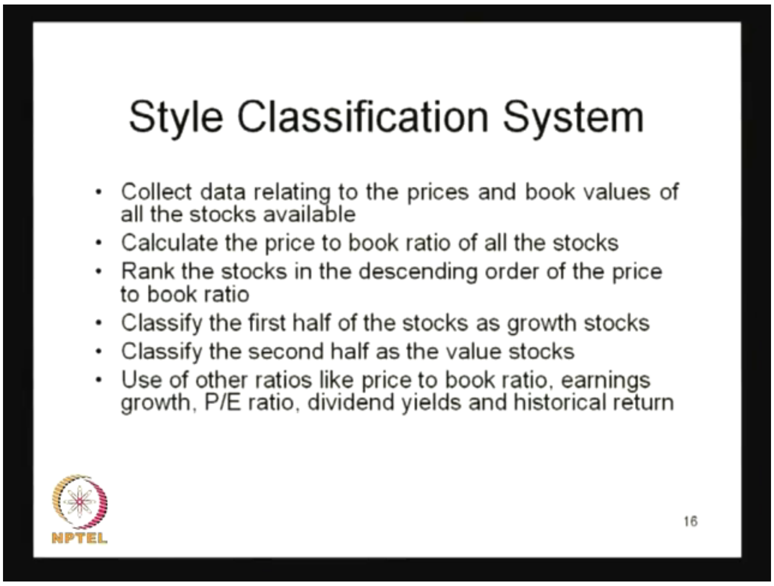
(Refer Slide Time: 43:08)



So, what we can say, these are the different ways; that means, the value stocks has low P by E ratio, low market to book ratio, low price to sales ratio and may not pay also, they also pay the low dividends. So, what, here we can see that once you can categorize which are the value stocks and are the growth stocks will be basically the value stock which are the value stocks and which are the growth stocks, then it will be easy for the investor, it will be easy for the fund manager to make this style fund on the basis of that certain category. If you once this particular style is identified and which the portfolio is made or the portfolio is constructed, then what will happen that on that basis they will predict that how this particular portfolio is going to perform in the future.

But general opinion what we have seen that the value stocks appeared to be underpriced and the growth stocks enjoy above average earnings per share increases. So, already this is your, these are higher we defined it which are the growth stocks and what observation we have made, most of the time the value stocks are underpriced that is why the people always go for calculating or investing in this particular stocks to maximize their returns.

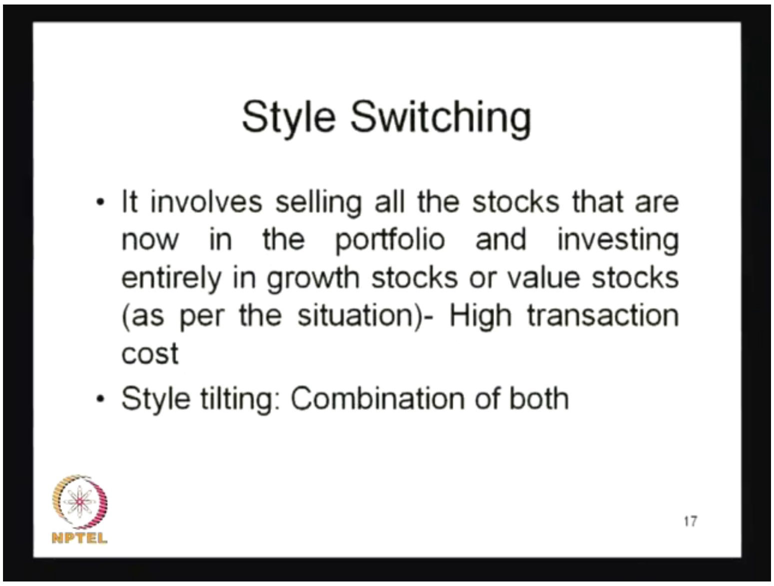
(Refer Slide Time: 44:46)



Then, we have a different style classification system, what basically we do, how we can decide this which are the value stocks, which are the growth stocks, what we do the collect data relating to how we can say there is a low price earning ratio or low price to book ratio, for this we have developed this system. The system is basically collect the data relating to the prices and book values of all stocks which are available to you, then calculate the price to book ratio of all the stocks, then rank the stocks in the descending order of the price to book ratio, classify the first half of the stocks as the growth stocks, and classify the second half of the stocks as value stocks. This is the way generally, this is the easiest way to classify between the value and growth. Because already we know that the low price to book or low market to book ratio is basically the value stocks, and high market to book ratio basically consider as the growth stocks. Then, use of other variables like your price to book ratio, price earnings ratio, price to then your dividend yield, and historical return, etcetera, and use the same steps to identify which care the value stocks and which are the growth stocks.

In the same way the size of the company also can be classified, and as well as also you can classify that how this particular small size companies to be identified from your total sample of the companies whatever you have.

(Refer Slide Time: 46:22)

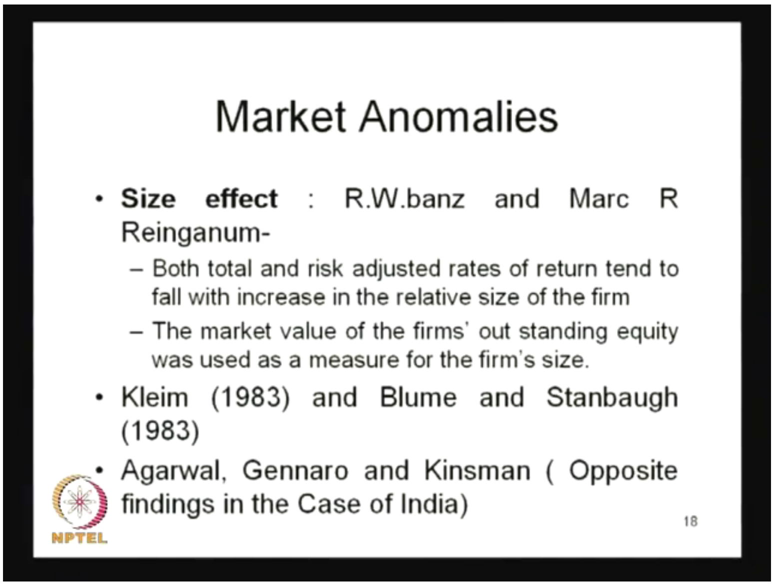


Sometimes also we have observed that this style switching happens; that means, it involves selling all the stocks that are now in the portfolio and investing entirely in growth stocks or value stocks, you see that sometimes we observe that we have invested in a particular type of portfolio which is based on some certain style may be, we are investing in a particular stock or particular portfolio, where all the stocks are the value stocks, but once what basically happens that we found that because of so and so reasons this particular stocks are not going to perform, let the growth stocks are going to perform.

In that particular time what happens? The investors switches from one portfolio to another portfolio, but remember whenever this switching takes place the investor always incurs the huge amount of the transaction cost, because at a particular time he has to change lot of assets, the composition of the assets is totally changed, if the composition of the assets is totally changed then what will happen he has to bear lot of transaction cost for that. So, the investor should take a cautious move before taking the decision of switching from one stock to or one style of portfolio to another style of the portfolio.

And sometimes what happens there is a concept what we use in the active portfolio that is called the style tilting. What basically this style tilting is, the style tilting basically talks about one investor can take the position in both types of stocks, may be half of the money he can invest on the growth stocks and half of the money he can invest in the value stocks, if he is not sure that which stock is which type of stock is going to performing the better. So, that kind of strategy also is possible in our case or in the active portfolio management strategy by which the investor can maximize their returns.

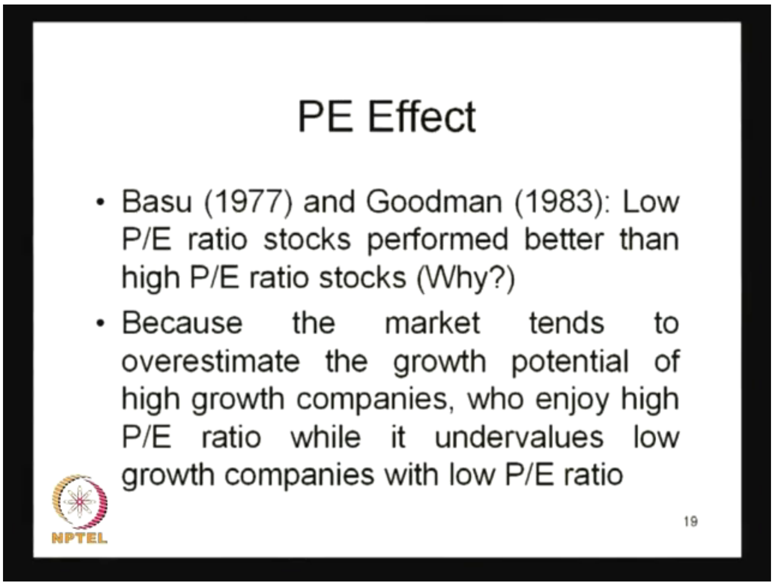
(Refer Slide Time: 48:26)



In this context we have lot of market anomalies what the other people have identified, if you go through this things you will come to know apart from this there are other factors also which play the significant role for determination or for formulating this active strategy in the market. The first factor is basically the size effect which is identified by Bans and Reinganum, what they have found that both total and risk adjusted rates of return tend to fall with increase in the relative size of the firm, the market value of the firms outstanding equity was used as a measure for the firm size.

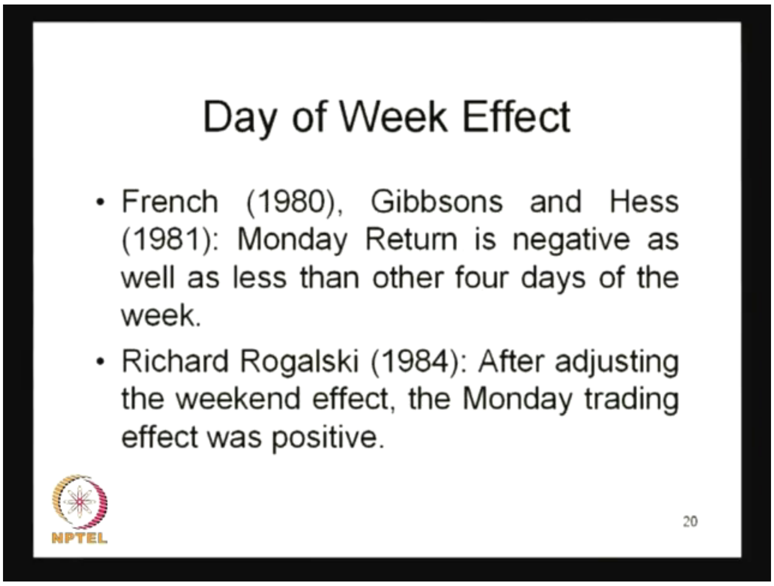
That means, what it basically tries to explain that the small size stocks performs better in the market, and as soon as the price of the stock or the size of the stock goes up, the return goes down, the same study also done by Claim and Blume, and also in the context of India we found a opposite findings which is done by Agarwal and Kinsman, they found that the large size stocks performs better in India than the small size, may be because of more asymmetric information problem.

(Refer Slide Time: 49:39)



Then, another way also it is identified that is the PE effect, which your Basu and Goodman says that the low price earnings ratio stocks performs better than the high price earnings ratio, why? Already we have given this answer that, they have lot of growth opportunity the particular stocks, which have high price earnings ratio they have already experienced the high return from the market or the potentiality of this particular stock already has been realized. Because the market tends to overestimate the growth potential of the high growth companies that enjoy high price earnings ratio while it undervalues low growth companies with low price earnings ratio, we already know these things.

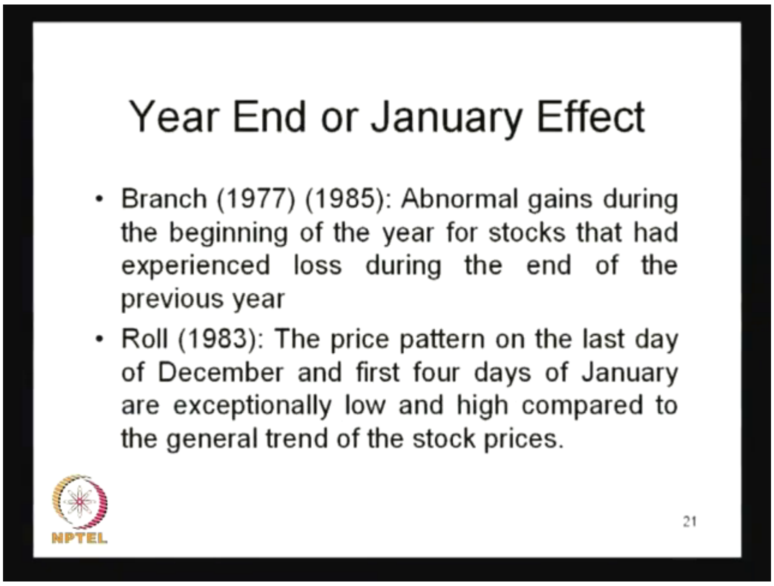
(Refer Slide Time: 50:22)



Then, another factor also day of week effect which is identified by French Gibbons which they found the Monday return is negative as well as less than other four days of the week. It is basically, what happens that we found that whenever in the Friday we stop the closing, and after this two days whenever the Monday is starts we compare the return with the Friday, basically this particular you find this particular adjustment.

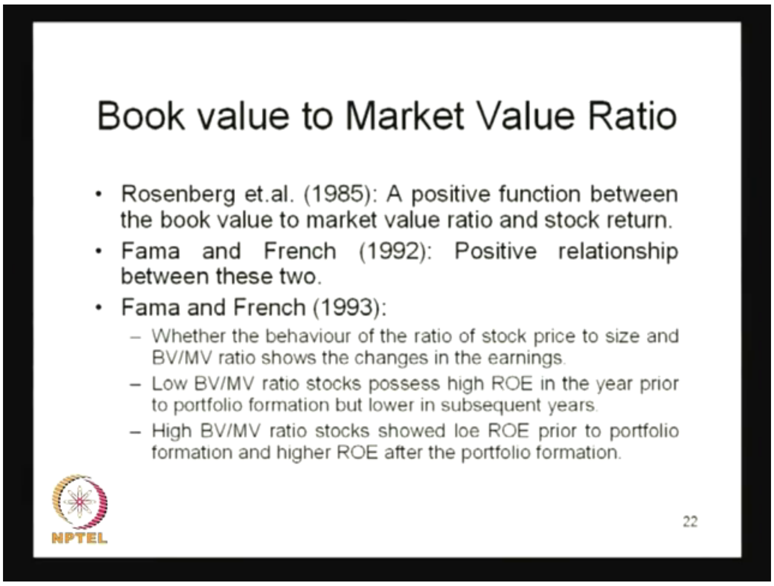
But after that the Rogalski has found that after adjusting the weekend effect, the Monday trading effect was positive; that means, instead of comparing with Friday closing price, why do not you compare it Monday in the particular day whenever it starts the trading, and if two days if you adjust this risk or the transaction cost fact, then we will find that the return is not negative basically, the return is positive.

(Refer Slide Time: 51:16)



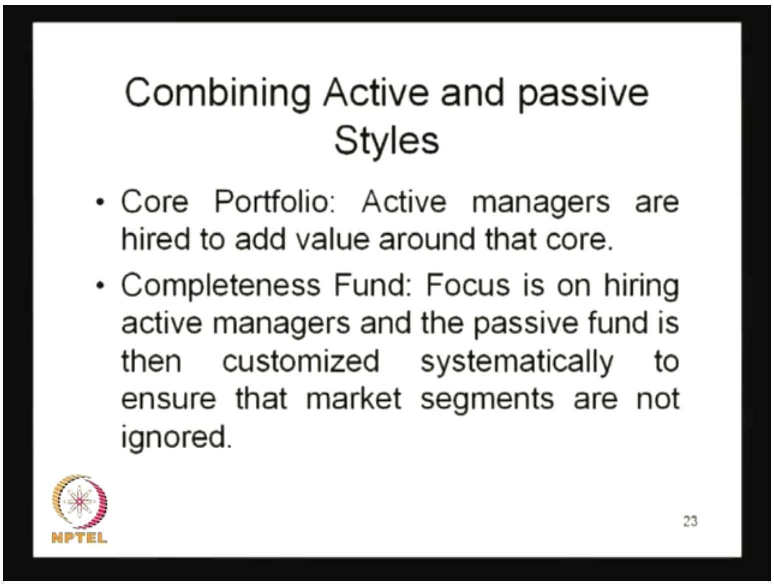
And here the year end effect or the January effect what we observe in the US context and this happens basically to save the tax by the investor or by the people what basically they do, they sell the stocks at the end of December, and in the January whenever they start buying those stocks, the price of the stock goes up. So, what basically it happens the abnormal gains during the beginning of the years for stocks that had experienced loss during the end of the previous year. And roll has found that the price pattern on the last day of December and first four days of January are exceptionally low and high compared to the general trends of the stock prices. This always observes in the market because of the tax aspects which is not observed in India in that way.

(Refer Slide Time: 51:58)



And book value to the market value is one of the factors which affect your stock return that everybody is accepting, because it basically talks about the growth opportunity. So, what the Rosenberg said, positive function between the book value to the market value ratio and stock return, and positive relationship again Fama and French; Fama and French said that whether the behavior of the ratio of stock price to size and market to book to market ratio shows the changes in the earnings, low book value to the market value ratio stocks possess the high return on equity in the prior to portfolio formation, but in the subsequent, but also, but lower in the subsequent years. High book value to the market value ratio stocks, lower showed the low ROE, sorry, it is - l o w - low ROE prior to the portfolio formation and higher ROE after the portfolio formation.

(Refer Slide Time: 52:55)



So, this is basically the different findings what the other people have got, and sometimes also what we have seen, we can also combine both the strategy to minimize our risk aspects and so that is why we call it, there is a combining active and passive styles, so that is we call it as the core flow strategy, always we use in the market. So, in the core flow strategy, what we can say there are some of the funds of some investor can be used by or invested by this active strategy and some of the funds can be invested by the passive strategy.

May be you can invest 60 percent of the fund by passive strategy if you are little bit risk lovers in nature, then 40 percent in the equity strategy little bit you can you have some risk appetite by which you can maximize your return. So, that part is also used in the market, so what we call it the core portfolio, here is active managers are hired to add value around that core and completeness fund is the focus is on hiring active managers and the passive fund is then customized systematically to ensure that market segments are not ignored.

That means, in the core flow strategy what we do, we always have the core portfolio and there is a peripheral portfolio. If you are more risk lovers in nature the core will be passive and the peripheral will be active, and like that if you are little bit less risk lovers then your core will be on the basis of active and the other one is the peripheral will be the passive.

So, this is the way the portfolio management or equity portfolio management strategy works, and this is the way the active and passive portfolio strategy used in the market for maximizing the return. So, in the coming class we will be talking about the bond portfolio, thank you.