Financial Institutions and Markets
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Lecture – 49
Stock Market – IV

So, in the previous class we discussed about the primary market and how the equities and all these things that issued in the primary market; what is the book building process; what is the reverse book building process and in this context what are those different instruments available in the primary market; how the primary market works; what is the importance of the primary market and all these things.

So, in this session we will be discussing certain things related to the secondary equity market and what exactly the secondary equity market is and how the market functions and as well as what are those different issues and all these things related to the equity market.

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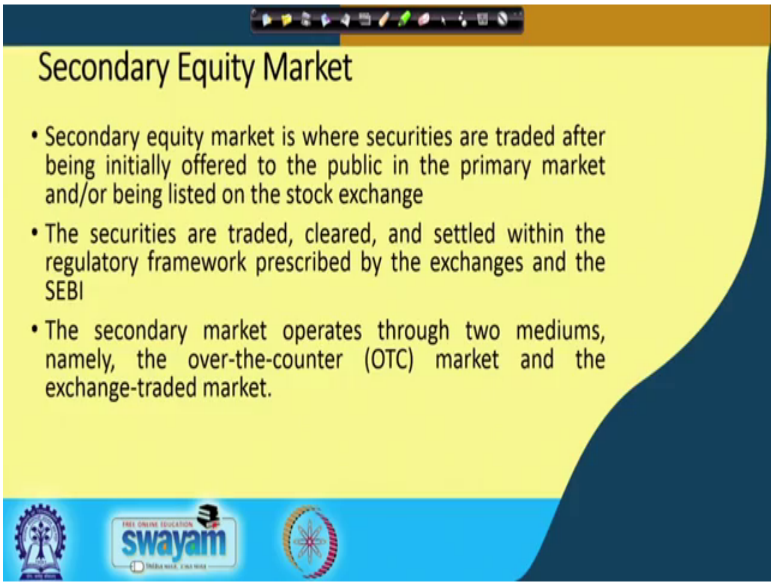

Already, what we have discussed the secondary equity market is the market where the securities are traded after being initially offer to the public in the primary market or they are already being listed on the stock exchange. That part already we have discussed whenever we discussed about the difference between the primary market and the secondary market. So, that means, any securities which are raised from the public through the IPO market or the primary market those markets those particular securities are listed in the stock exchange and once they are listed in the stock exchange those securities are basically traded by the different type of investors existing in the system or existing in the financial market.

So, here, that means, already we have discussed. So, these are the issues these are the securities which does not add any kind of new addition to the system, but these are the securities which are basically creates this value addition to the system only depending upon the demand and supply of that particular security. So, that is why these securities are traded, they are cleared and settled within this regulatory framework prescribed by the exchanges; that means, stock exchanges what we are referring and this Securities and Exchange Board of India which is the regulator of the stock exchanges.

So, this is the basic notion of the secondary equity market or whatever we have. So, there are two ways the secondary equity market works one is your through the over the counter market or the OTC market and the other one is the exchange traded market. So, mostly the equity market is dominated by the exchange traded market across the globe including India.

So, mostly we will discuss certain integrity is certain issues which are related to the exchange traded market not with the OTC market. So, our focus will be more on the process which always take place or the process what we use for the trading of this particular share in terms of the secondary equity market with respect to the exchange traded market that actually it can keep in the mind.

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So, let us see that already what basically I told you that the secondary equity market works with the two there are two ways the securities that traded one is OTC another one is exchange traded and but mostly the equities are traded through the exchange traded market. So, here if you talk about India; that means, one it is exchange traded means the trading is taking place through the stock exchanges.

So, there are different many stock exchanges which exist in India. Currently, if you see there are 20 stock exchanges exist in India, but you may not have our about the other stock exchanges ah, but we are much more concerned about to major stock exchanges that is your BSE and NSE Bombay Stock Exchange and the National Stock Exchange of India.

But, there are so the other stock exchanges are basically the regional stock exchanges. This two you have stock exchanges in Kolkata, you have stock exchanges in Bhuvaneswar, you have stock exchanges in Delhi and what kind of places we have the stock exchanges, but those are the regional stock exchanges not most studying takes place in those stock exchanges, but they are there they also exist in the system.

So, if you see that in India the BSE which is the oldest stock exchange ah. We can say that it is the Asia's fast stock exchange which was established in 1875 and from there onwards previously it was not exchange traded market, this was exchange traded stock.

It was not basically doing the trading through the exchanges, through the online trading; it was basically mostly doing through the all the trading was that time was taking place in the floors. So, people used to go to the trading floor and the trading takes place through that. But, now it is again a online trading system the screen base trading system we have we can take the positions in the equity market sitting at home using our computers and other things.

BSE is the popular stocking index whatever equity index we have that is S and P BSE SENSEX. BSE SENSEX is the year mark we can say that it is the year mark for the market performance. Everybody uses that how the market works on the basis of the fluctuations of the BSE SENSEX or the return what the BSE SENSEX provides that is why it is the India's most widely traded stock market benchmark index. So, that is the one of the it is considered as the most used market benchmark index which is existing in the context of Indian equity market.

If you talk about the NSE in terms of trading in the stock exchange the revolution was started by the NSE. The basic objective of NSE was to make this particular system more transparent and bring more people to the equity market and the trading will be related with the transaction cost in terms of trading will be cheaper and that was the different objective of the NSE.

So, that is why NSE was started in November, 1992 after the liberalization process and it was a from the beginning they were using the screen based trading system and they were trying to fulfill the overall all the segments they are trying to basically cater the demand of the equity markets largely in terms of all the segments; whether it is in terms of equity, in terms of debt, in terms of derivatives. So, in terms of derivatives they have the largest share around 99 percent of the turnover or the trading takes place in terms of derivatives is NSE.

So, that is why the NSE has made a revolution. Establishment of NSE has created certain kind of larger as created a significance in terms of equity market because those market became quite popular in a short span of time. Those index became popular with a within a short span of time and this BSE SENSEX even if it is a year mark the NSE Nifty is also which is a popular index provided by NSE that also has its own significance and it is most of the people argue that it is a better benchmark than the BSE because it has more number of stocks and it tries to capture those stocks which are reasonably more or highly liquid.

All kinds of issues are there, but still these are the major stock exchanges which exist in India and all the trading takes place through these two types of stock exchange whatever we have.

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So, then let us see that already I discussed with you these are two major stock indices whatever we have one is BSE SENSEX another one is NSE Nifty, but let us discuss something that how this particular indices are created, how these indices are constructed. Maybe these are the representative of a particular sample.

Let BSE there are more than 5000 companies are listed close to 6000 and NSE we have 2000 plus companies are listed, but out of the 2000 NSE has prepared index of 50 companies and out of close to 6000 companies BSE has made an index which out only for the 30 stocks. Now, how these 30 stocks? Why there are 30 stocks and why 50 stocks? Those questions always come to the mind.

So, here basically what I was trying to discuss with you that how exactly this indices are created and why this indices are created, what is the basic job of the indices. So, if you talk about the stock market indices; the stock market indices basically always try to by looking at the performance of the indices you can judge the performance of the investor.

You can compare that how much they return the market is giving and how much return this investor is getting, whenever they are investing in the individual stocks.

Also you can get how much market basically has give and they can predict that market. It is mostly used for the prediction of the market whether in the future in the expect return from the market will be more or the market is going to be better or the market is going to be down. All kind of implications we can draw whenever we are looking at the performance of the indices.

Then, whenever we construct any index then what are the things we have to see because already I told you see there are 300 stocks out of 5000 odd companies and there are 50 stocks out of 2000 odd companies, why and how? So, then first of all whenever we are constructing any index out of a total population. First of all the index are the sample what you are selecting that should be the representative of the total population. Your sample should be the total representative of the total population that is number 1.

And for every index we should always consider a base year and do you remember what do you mean by base year? And the base year always we compare that value with respect to that base year and you remember the base year should be normal year. Normal year mean there should not be any kind of crisis in that particular period, there should not be any natural calamity which has happened in that particular period, there should not be any kind of financial market crisis on any bubble or anything which have not occurred in that particular lot; that means, the period is reasonably a normal year that actually you have to keep in the mind.

Then, there are different ways the weights are given. What are those working criteria? The criteria you can give once you have chosen the stocks and you know the what is the base year, what you can do? You can give the weights on the basis of you can give equal weights to all the stocks, you can give the weights on the basis of the price of the stock. You can give the weight on the basis of the market value of the stock; market value of the stock in the sense the market capitalization, total number of stocks outstanding multiplied by the price of the stock that way you can give or a free float market capitalization.

Free float market capitalization means how much market capitalization or how much stocks are relatively more liquid within that stocks which are outstanding in that.

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So, if you see what do you mean by the free float market capitalization? It takes into consideration only those shares issued by the company that are readily available for the trading in the market. That means, only the liquid stocks are considered for the calculation of the market capitalization and on that basis the weights are given.

And basically it in excludes the promoters holding, the government holding, other strategic holding if the company has, other locked in shares if there are some specific locked in issues are involved in that stock and those stocks are not come in to the market in the normal course of the trading. So, only those stocks which are available to everybody, related to the retail investors and we can participate everybody can participate for buying and selling of that security.

And these are readily available for the trading in the market only those stocks are considered as the free float stocks and whenever we are calculating the market capitalization we should consider those stocks not the other stocks which are basically not that to a liquid in the market.

So, that is why the market capitalization of each company in a free float index is reduced to the extent of its readily available shares in the market that actually is the basic notion of the market free float market capitalization in the context of indexed construction.

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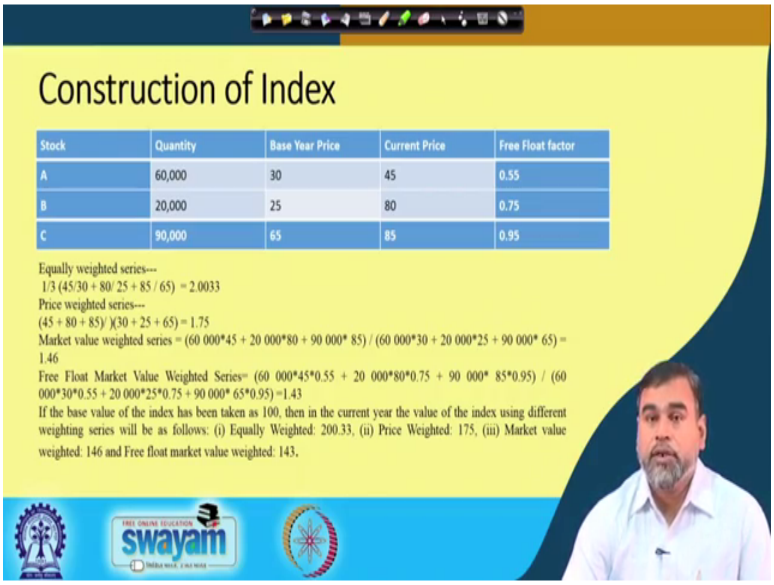

If you see the example here we have let in your this is a hypothetical example. Let we have the three stocks in your index and quantity of the stocks are given let 60000, 20000, 90000. A is 60, B is 20, C is 90 and we have the base year which is given price base year price 30, 25, 65. Then we have the current year price that is 45, 80, 85. Then these are the free float factor which has given 55 percent, 75 percent and 95 percent. If you are giving the equal weights to all the stocks then what is the multiplier you can find out then equal weighted means it is 1 by 3 and into the 45 by 30 plus 80 by 25 plus 85 by 65 then you are getting 2.0033.

If you are giving the weights on the basis of the price then all the price 45, 80, 85 you can add up all divided by 30 plus 25 plus 65. You can getting a factor which is multiplied that is 1.75. If it is a market value weighted series then you can multiply 60000 multiplied by 45 plus 20000 multiplied by 80 plus 90000 multiplied by 85 then what you can do divided by you can again were assuming that quantity remains same 60000 multiplied by 30 plus 20000 multiplied by 25 plus 90000 multiplied by 65 then you can get 1.46.

If you go for a free float market capitalization and what you can do you can 60000 multiplied by 45 multiplied by 0.55 plus 20000 multiplied by 80 multiplied by 0.75 and so on. Then you can find out a factor called 1.43. But, what is the significance of these values; that means, if your base value of the index has been taken as 100 in the current year then the value of the index using the different weighting criteria can be if you are going for equal weighted 100 multiplied by this it will be 200.33.

If you are going by a price weighted says is the value will be 175; if you go for a market value weighted say it is it will be 146; if you are going for a free float market value weighted say it is it will be 143. So, this is the way the value of the index is calculated with respect to the base value.

So, here you are calculating the multiplier then the base value data is available with you can multiply with respect to that then the value of the particular index in that particular year can be calculated. So, depending upon the weights the value can be changed that actually we can keep in the mind.

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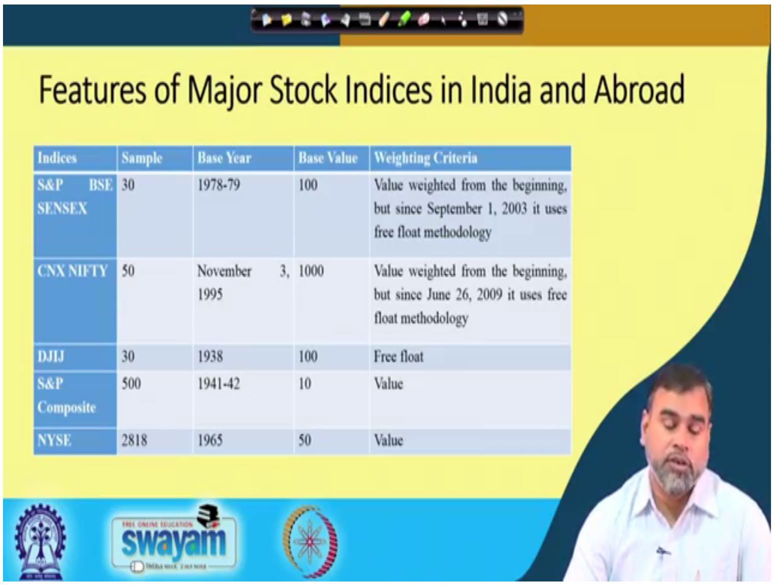

So, here I have given some information about the major stock indices which are available in India and abroad and what a kind of weighting criteria they are using what is the base year and what is the base value they are using. If you see the S and P our SENSEX we have sample size is 30, our base year is 78 – 79, the base value was 100; that means, now the index value at 25000 60 26000. So, now, it has become from 100 to 26000.

So, in 78 – 79 the value was 100 and from the beginning it was valuated series; that means, on the basis of the market capitalization the weights were given, but from September, 2003 it uses the free float methodology; that means, the free float market capitalization is considered for the for giving the weights to that particular stocks. CNX Nifty; now, the 50 stocks November 1995 is the base year base value was thousand. Again, it was a value weighted series only since 2009 it uses the free float methodology. Then DJIJ is a 30 stocks. 1938 is the base year, base value is 100 then that is they are using the free float series. S and P composite, 500 is the sample, then we have the 41 – 42 is the base year there are only 10 stocks and the this value weighted series. Then the NASDAQ stock NYSE the Newyork stock exchange we have the sample size is 2818, base year is 1965, there are 50 companies and it is a value weighted series.

So, these are the different examples. Then they have so many number of index indices available you can check that what kind of weights they are using and what are those base year and the base value they are considering.

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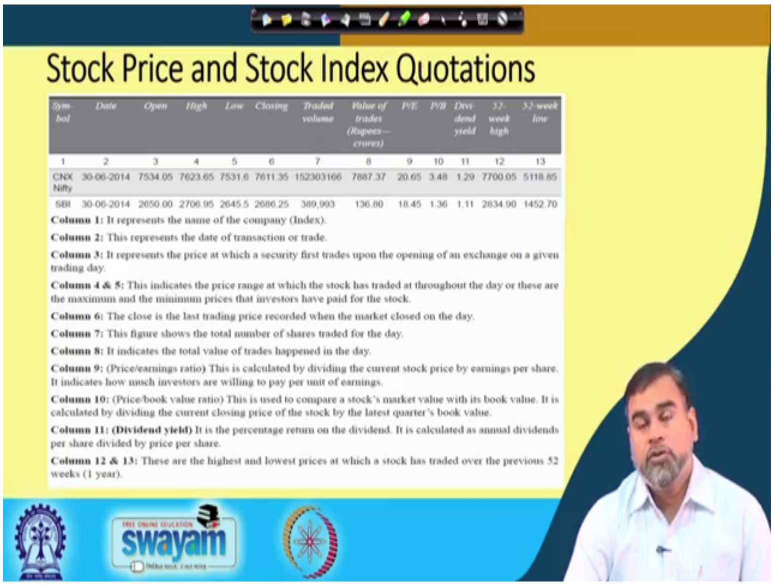

So, then another issue related to this thing if the how can read the stock index quotations, but you must have reading those things from the newspaper, from different magazines, financial magazines and all these things then how basically these quotations are interpreted.

So, if you see generally the first is basically talks about the symbol which was given to this company or the index later the CNX Nifty or SBI this is the data for 30th June, 2014. The at what price this market has opened, at what price at up to how much the market the price has gone up in a particular day, the highest price in a particular day.

How much was the low and what price the market was closed, what were the trading volume and what is the value of the trading volume means how many shares are traded on that day in the market, what is the value of the trades, how many stocks are traded, what is the value in terms of the cross, what is the price earnings ratio, price of on earning per share, what is the price to book ratio just now we have discussed about that? What is the dividend yield, dividend for yield basically the company is giving how much is the price in a year – 52 weeks means it is a year, what is the highest price and what is the lowest price in a particular year.

So, this is the data either you can get it for the index or you can get it for a particular stock. You can compare that where you are basic where you stand. So, this is the way basically and this is the way the interpretation is always made for that it represents the name of the company or the index column 1 column 2 represent the transactions or the trade on a particular day date of the transactions. Then column 3, it is the price at which security first trades upon the opening of the stock exchange on a given trading day. 4 and 5 basically indicates the price range at which stock has traded or throughout the day.

So, these are the maximum and minimum prices that investors have paid for the stock. Column 6 which gives about the whenever the trading closes what is the price recorded on that day and column 7 if you see this is the volume of total number of shares traded for the day; column 8 indicates the; that means, value of the trades which is basically total value of the trades happened on that day; that means, this multiplied by the average price.

Price earnings ratio, this is basically current stock price upon the earnings per share; that means, it indicates how much the investors are willing to pay per unit of the earnings that already told you. If you want to get 1 rupee earnings on a particular or a particular stock then how much rupee you want to invest that basically is represented as P by E.

Then, you have the price to book already I told you that lower the price to book better the growth opportunity. The dividend yield mean is a percentage return on the dividend the annual dividend per share divided by the price per share that gives you the dividend yield. Then these are the highest and lowest price for a particular year. This is the way you can find out you can compare these things with respect to the different other stocks which are available.

Then accordingly what will happen you can decide whether you want to invest in that particular stock or not and how your stock is performing against this market whatever market we have.

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Then, if you see there are different type of investors which exist in the market. We can define them in the basis of their positioning. So, if you see that whenever you talk about the types of investor we are talking about, some groups are called are the investor, some groups are called the traders. And whenever you talk about investors investor generally participate in the market for a longer period of time. They do not change their position. So, frequently and they stay in the market for a reasonable period of time and they hold the stocks where they can maximize their return.

But, whenever to talk about the traders the trader's objective was basically to create some opportunity in the market and wherever there is opportunity they can take their positions and the change the position so frequently. So, it involved the trading basically involves the frequent buying and selling and their objective is generating returns more than the returns received from buy and hold strategy or they what they market is giving; that means, they are expecting that they want to get more return what the market is giving or the passive investors what they are basically getting.

So, for traders profits are generated through buying at a lower price and selling at higher price which is short period of time. So, their positioning in the market is very short term in nature. So, there are traders can be categorized in the various ways mostly we can define there are four types of traders what we find in the market. One is position trader; position traders basically it change their position either from held from months to years.

There is swing traders positions are held from days to weeks, they change their position within a week. Day trader the positions are held throughout the day and no overnight position. They leave the market within a day then we have a scalp trader's where basically the positions are taken seconds to minutes. Every second every minute they can change their positions, either they can buy or sell and there is no overnight position; for 1 day even they do not stay in the market. So, they want to create the look for the arbitrage opportunity if there is an arbitrary opportunity and there is a chance of getting high return, they get that return and always leave the market.

So, these are basically the scalp traders always will find they are very highly short term traders and this they shown they change the market so frequently. So, these are the different type of traders what we can get it from the market.

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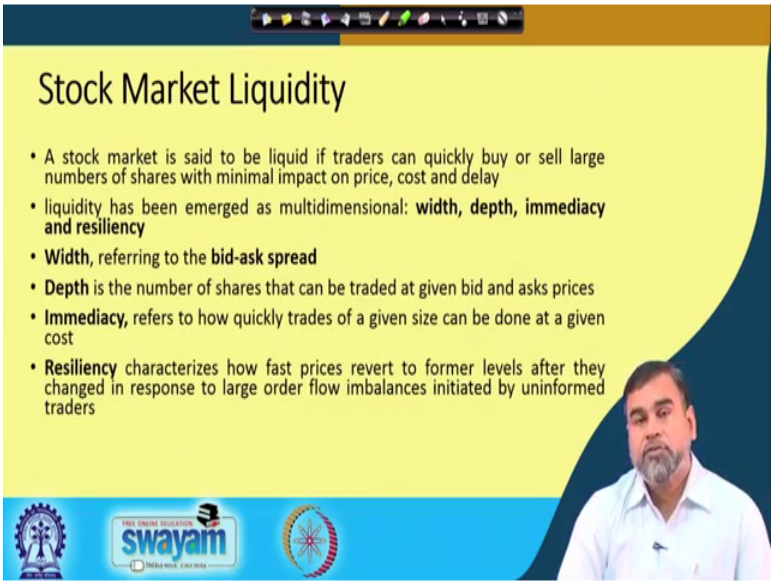

Then, we have the another concept is related to market we are you should concerned about that is the liquidity because the market should be liquid in the sense that it is easy to trade and the transaction cost in the market should be low and because of that we can always take the position in a better way to maximize the return.

So, when what at what context or what time we can say that the stock market is liquid? The stock market will be liquid whenever the traders can quickly buy or sell the large number of shares with a minimal impact on the price; that means, they are changing their positions. The trading is a taking place, but the impact on the price is relatively less and the cost of the trading also in the market is also relatively less. In that context we can say the market is liquid.

So, liquidity of the market is very basically multi-dimensional. There are different dimensions of liquidity we can measure liquidity in terms of width, in terms of depth, in terms of the immediacy in terms of resiliency. So, what do mean by width? Width means the bid ask spread already again and again we are telling a bid ask spread is lower market is more liquid bid ask spread is higher than the market is less liquid. Depth is what? It is the number of shares that can be traded at a given bid and ask prices which are available in the market.

Immediacy means how fast or how quickly the traders or the given size of a given size can be done at a given cost. How quickly the trading is take place that is basically immediacy without any kind of delay. Resiliency means how fast the prices revert to former levels after they changed in response to large order flow imbalances initiated by the uninformed traders. There are certain on informed traders which exist in the market and because of their positioning and those positioning are basically irrational. Those irrational positioning may disturb the market and that deviate the price from the equilibrium.

What resiliency if the market is really liquid the market is more resilient then what will happen the it will take less number of time a less time to get back to the original position, even if there are some disturbances which have occurred because of the irrational trade off which exist in the market or on informed trade off which exist in the market.

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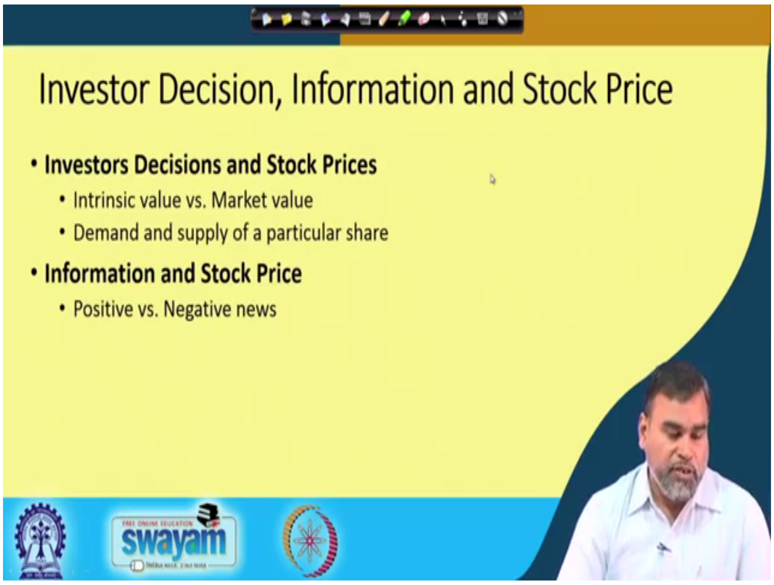

So, that is why investors always the decide their stock for investment by comparing the market value in the intrinsic value. If the market value is more than the intrinsic value they do not invest and if the intrinsic value is more than the market value, they always prefer because they feel that the price is undervalued in the system.

The intrinsic value is more than the market value; that means, price is under value. If the intrinsic value is less than the market value, then we can say that the price is over value. And always the decisions they the price of that particular stock depends upon the demand and supply. So, for some of the stocks the demand is high for some of stocks the demand is low. So, if the stocks demand is more the price of the stock will increase and the supply is more than demand is less the price will decline.

But, one thing basically remember so, all those prices always the changes with respect to the positive and negative news in the market. So, any news whether it is a political news or any news related to the policies any change in the Reserve Banks govern Reserve Banks monetary policy or any change in the fiscal policy, taxation policy or anything related to the reform measures which are taken by government or any regulatory body which have lot of impact on the market fluctuations.

So, that is why they are one thing remember that the impact of negative news on the market fluctuations is always more than the impact of the positive news. The relative impact is always more whenever the news is adverse or news is a negative than the any kind of positive news which come to the market. All the fluctuation will be there the price will increase for the positive news, but the relative increase relatively always more whenever the news is negative.

Relative change of the ah; that means, if the there is a negative news the price it maybe fluctuate by 20 percent, but if there is a positive news the market will change by maybe 10 percent or 12 percent. So, the impact of negative news always more than the impact of the positive news.

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Then, another stream of thing which is emerging nowadays that is called the impact of sentiment on the stock prices. So, in this context we have different models which have developed on the basis of the behavior which is called a behavioral asset pricing and we have the role of different cognitive biases like your what we call it overconfidence heuristics, representative biasness, mental accounting and all these things those are how they are affecting the pricing this pricing decisions and as well as investment decision in the market and end of the day price of the stock gets affected.

And there is another concept called limited arbitraries; that means, in the market always we have some kind of limits towards arbitraries because the traditional theories believe that in the market there are two groups; one is informed, another one is uninformed. There are some investors which are noise traders, they trade on the noise and there are some investors which are highly informed trades. So, even if noise traders creates the problem creates the arbitrage opportunity so, the inform traders take the reverse positions. So, the market will come back to the equilibrium.

So, but generally the behavioral finance theories say that is not true because of the cognitive biases and other kind of issues which are involved related to irrationality of the investors or irrational behavior of the investors the market never comes to the equilibrium and always the price basically always driven by certain kind of fundamental cognitive issues or biases whatever we have or the psychological biases we have. So, that school of thought is emerging nowadays and that as well also we have to understand that how the biases of the investors or the behavioral issues of the investors is affecting the price of the stocks, that is basically another issue.

These are the different issues and next class we will be discussing about the market microstructure of this secondary equity market and for this session you can go through this reference.

Thank you.